Bramalea GO Mobility Hub
Land Use Assessment Study

April 5th, 2019

Prepared for

BRAMPTON
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brampton.ca

Prepared by

INCREMENTI
CONSULTING LTD.

LETTER OF TRANSMITTAL

Incrementi Consulting Ltd.
200 University Avenue West
Waterloo, ON N2L 3G1

Mr. Alex Taranu, FRAIC, FCIP, OAA, RPP
Senior Advisor, Architectural Design
City of Brampton
Brampton, ON

Subject: Bramalea Go Mobility Hub: Land Use Assessment Study

Dear Mr. Taranu,

Incrementi Consulting is pleased to provide the City of Brampton with this Bramalea GO Mobility Hub Land Use Assessment Study. The project team has conducted a comprehensive research process and rigorous planning exercises to ultimately identify a final recommended development scenario for the Bramalea GO Station Area. We believe that our recommendations will allow for innovative redevelopment to take place, leveraging unique locational opportunities to introduce additional new employment uses to the industrial area. This transformation will allow the Bramalea GO Station Area to create a more liveable community and establish itself as Brampton's technology and innovation hub.

We thank you for this rewarding opportunity to collaborate with the City of Brampton over the last four months. If you have any questions or comments regarding this report, please do not hesitate to contact me at ngsorian@edu.uwaterloo.ca.

Sincerely,

Nhel Soriano
Project Manager
Incrementi Consulting

Acknowledgment Note

Our Client

Incrementi Consulting Ltd. would like to extend our sincere gratitude to our client, Alex Taranu, Senior Advisor of Architectural Design, City of Brampton, who gave us a valuable opportunity to conduct this challenging and rewarding land use assessment study. We appreciate the time taken out of his busy schedule to arrange presentations, on-site visits, and staying in touch through emails and phone calls.

Our Mentor

We would also like to thank our mentor, Bill Green, former Principal of GSP Group. He provided continuous support and advised our group over the course of this project, navigating our team in the right direction throughout. His assistance and expertise was greatly appreciated.

Our Professor

Lastly, we would like to thank Kevin Curtis, a professor at the University of Waterloo's School of Planning, for his ongoing professional mentorship and encouragement throughout the study and formation of this report.

EXECUTIVE SUMMARY

BRAMALEA GO MOBILITY HUB AREA

Introduction

The Bramalea GO Mobility Hub Land Use Assessment study was initiated by the City of BramptoninJanuary2019tostudytheopportunities and constraints related to employment-based redevelopment and intensification of the area. The focus of the study was to develop a land use vision that maximizes the area's potential based on its location, transportation connectivity and existing employment uses.

The study was made up of multiple components, including: extensive analysis of the Bramalea GO Mobility Hub lands and surrounding context; research and data collection to inform recommendations; creation of Vision, Goals, Objectives and Success Criteria; a Business case for redevelopment; drafting two alternative development visions for the area; a final recommended development scenario; and a work plan outlining recommended actions for implementation.

The Study Area in this study comprises of about 1.1 square kilometres, centred around the intersection of Bramalea Road and Steeles Avenue East in southeast Brampton. The Site is bound by Avondale Boulevard to the north, the Canadian Tire distribution centre to the east, the GO Rail line to the south and Spring Creek to the west. Land uses in the Site are primarily industrial; but also include residential, institutional and

Research

In order to inform the visions and planning recommendations for the Bramalea GO Mobility Hub Area, a comprehensive research exercise was undertaken.

Existing conditions for the site-specific, local and regional contexts were examined first. The current land uses identified significant features and landmarks in the Study Area, such as the Bramalea GO Station, as well as transportation infrastructure such as the rail lines and nearby bus routes. Site topography and geographic features were noted, along with significant ecological features, servicing and municipal financing considerations, and possible contamination concerns. The demographics of the Study Area neighbourhood and Brampton were described as well.

An extensive investigation was conducted into the various policies and plans applicable to the Study Area. These documents included the Toronto Pearson Airport Zoning Regulations, the Growth Plan for the Greater Golden Horseshoe, Metrolinx's 2041 Regional Transportation Plan, and a multitude of regional and local plans. Site zoning was examined and key planning issues were identified that would impact the development of the final vision.

Findings and Conclusions

The industrial real estate analysis determined low vacancy rates, low turnover and rising land prices on industrial land in Brampton. Meanwhile, the commercial real estate analysis found that there is a consistent lack of commercial real estate available in Brampton and the GTA, which limits development opportunities.

An analysis of the employment context in the Study Area and the City found a diverse base of employees and employment opportunities, many of which could be complemented by new employment typologies such as innovation, research and development, offices and live-work developments.

The mobility network analysis identified strong transit ridership trends in Brampton over the last four years, and multiple upcoming projects to strengthen the City's position as a sustainable, transit-supportive area. The Toronto Pearson International Airport (TPIA) was found to be a major feature with significant benefits for the City of Brampton and the Study Area, most notably job creation.

The City of Brampton, in joint partnership with Ryerson University, intends to build an innovative hub and cybersecurity centre in downtown Brampton. The introduction of these services close to the Study Area supports the vision an employment-based hub because of its close proximity to the Downtown and Bramalea GO Stations and opportunity for future partnerships.

Case Studies

The Waterloo Research and Technology Station Study Area, as well as the Brampton Go Mobility Hub are occupied by lower density office and industrial uses, which needs to be redeveloped to meet the demand of employment market conditions. The land use vision for Bramalea GO Mobility Hub should aim to provide flexibility, to allow the area to adapt to the constantly changing market.

Successful innovation hubs consist of adaptive reuse and new developments that encourage mixed uses , easy access to transit and a compact urban form. Just like Saint Elizabeths, the relocation of the current Canadian Tire Site allows for the redevelopment of to emphasize innovation in an area that is highly accessible by transit, is close to a future higher education facility, and is located along the Toronto-Waterloo Region Corridor.

Both the False Creek Flats area and the Bramalea GO Mobility Hub are employment zones located with strategic locations, and specialized industries. This example illustrates that successful innovation hubs are found adjacent to institutional uses, downtown areas, and are well connected to transit facilities and services.

Two site-specific case studies from the Region of Waterloo were examined. The Catalyst 137 campus in Waterloo, was built to support research and technology companies - becoming one of the largest Internet of Things (IoT) manufacturing spaces in North America. This hub provides tenants with a testing facility, marketspace, commercialization space and funding opportunities. This development can be translated into the Bramalea GO Mobility Hub, replacing the existing Canadian Tire building.

The Communitech Hub is a public-private innovation hub that is home to various startups and global enterprises. Similarly, development at the Bramalea GO Mobility Hub, specifically the Canadian Tire Site, should aim to achieve this outcome through resources and amenities that could strengthen Brampton's role as a major employment hub.

SWOT Analysis

Two SWOT analysis exercises were undertaken: one for the Study Area itself and one for the larger Brampton and regional context. They were conducted to synthesize findings and identify implications for the Mobility Hub's redevelopment and intensification.

Internal	**Strenghts** Location, connectivity, existing employment and existing infrastructure	**Weaknesses** Segregated land uses, mobility and land quality
	Opportunities Active transportation, land use, employment hub, open space	**Threats** Planning, environmental, economics and uncertainty for success
External	**Strenghts** Location, consistency with plans	**Weaknesses** Lack of land use diversity, competition to be the Region's Employment Centre, and issues collaborating with regional transit providers
	Opportunities Transit network, economic growth, and designated centre in 2040 vision	**Threats** Competing land uses, plan amendments required, and growth uncertainty

Vision

Stemming from the research, synthesis and SWOT analysis exercises, a vision was created for the Bramalea GO Mobility Hub Area. The vision aims:

> ***"To develop an innovative employment center around the Bramalea GO Station that introduces a range of new jobs, supports transit oriented development and live-work opportunities"***

This vision outlined four main goals, which were tied to the Sustainable City Framework in the City of Brampton 2006 Official Plan:

1. **Increase the number of jobs within the City of Brampton;**
2. **Encourage the use of public transportation mods operating in and out of the Bramalea GO Station;**
3. **Create a development that comply with Municipal, Regional and Provincial goals outlined for this site; and**
4. **Propose a development that integrates efficiently into the City of Brampton's existing built and social framework.**

Land Use Visions, Roles and Recommended Scenario

Two Land Use Vision Plans have been developed to conform to Brampton's Sustainable City Framework goals and objectives, specifically addressing complete communities, economic development, resilience, sustainability and healthy development. In addition, a business case was created to provide reasoning and justification behind these recommendations. Two major trends that fueled the visions are 1) a transitioning economy that is shifting away from traditional industrial and manufacturing, and 2) an increased demand for employment lands.

The two Land Use Visions for the Bramalea GO Mobility Hub area have been created based on a detailed review of the existing policy framework, real estate data, servicing, mobility network, growth and demographic trends, and case study research. Both plans are divided into seven land use categories including: Employment, Commercial Office Mixed-Use, Service Commercial/Retail, Bramalea Business Innovation Park, Institutional, Residential Mixed Use and Open Space. However, each vision has a different implementation timeline.

Plan A

A short term (five- to ten-year) plan that can be implemented almost immediately. The Plan is a more traditional employment approach. It mainly focuses on the redevelopment of eastern limits of the Study Area - more specifically the Canadian Tire Site and Bramalea Go Station Area.

Plan B

Features a longer term (20- to 25-year) plan that focuses on further activating the Bramalea Road streetscape; and the addition of commercial amenities. A series of green networks have been proposed to connect Victoria Park to adjacent businesses and the Spring Creek path network. Furthermore a multi-use pathway is proposed along Steeles Avenue East that is protected from heavy traffic and located behind the CN railway.

Recommended Scenario

The redeveloped Bramalea GO Mobility Hub area will play multiple roles in the regional context. The area will provide new and innovative employment opportunities for the residents of the Study Site, Brampton and the Region of Peel. The Site will also become a significant transit-supportive area, facilitating intracity and intercity connectivity within the Greater Toronto Hamilton Area. Through better alignment with provincial policies and strategic partnerships, this area will achieve greater local prosperity, resident well-being and increase job supply in Brampton.

The two proposed Land Use Visions were examined against multiple success criteria, which were based on the City of Brampton's Sustainable City Framework goals. These criteria included: increasing employment-based jobs, transportation supportiveness, walkability, compatibility with surrounding area, access to nature and amenity spaces, flexibility and high-quality urban design. Plan B scored higher than Plan A in nearly all of these success criteria. As such, Plan B is the final recommended scenario. Plan B repurposes the industrial lands to create a mobility tech-hub that promotes a diversity of employment types, such as retail, commercial, and industrial. These employment types can further support the tech-hub and Pearson airport initiatives. Plan B utilizes the current data related to the Site and suggests land use designations that offer enough flexibility to adapt to the changing state of the real estate market.

Work Plan

A work plan was developed to outline recommendations for implementing the recommended Land Use Vision, separated into three different themes: planning, implementation and incentives.

The planning recommendations suggested a Zoning By-Law Amendment and the creation of a new secondary plan where the Study Area is concerned. A new secondary plan is recommended for the area to focus on the unique transformation taking place. To incorporate the high-quality urban design priority, the creation of area-specific urban design guidelines is also recommended. New Sustainability Community Development Guidelines and a Bramalea GO Community Improvement Plan are also recommended, to describe in further detail the vision and intentions of redevelopment and transformation in the area.

The implementation recommendations focused mainly on establishing trust, communication and partnerships with the multiple stakeholders that may be impacted by the transformation of the Study Area. These stakeholders include the new owners of the Canadian Tire Site, existing businesses in the area, residents who live just north of the Study Area, Metrolinx, and members of the AEZ and EZ.

Finally, the use of incentives is recommended to facilitate redevelopment that matches what is envisioned for the Bramalea GO Mobility Hub Area. Some incentives include transportation-related incentives to reduce single-occupant vehicle use, such as a discounted transit pass.
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Conclusion

The Bramalea GO Mobility Hub Study Area is well situated to become a highly successful employment-based hub. The approach in this report is progressive and goes above and beyond typical employment area visions to create an identifiable employment hub that maximizes economic growth in the area to set an example of how employment areas should be planned in the future.

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

1.1 Purpose

The Bramalea GO Mobility Hub Area is located at the juncture of two major arterial roads, Bramalea Road and Steeles Avenue East, and is supported by cross-regional transit services and a variety of employment uses. Due to the changing nature of the employment real estate market, the Bramalea GO Mobility Hub Area is not meeting its full potential. Given its location, it has the capability to be an extremely successful and prosperous employment-based Mobility Hub.

The area necessitates a study to develop a land use vision that maximizes the area's potential based on its location, transportation connectivity, proximity to post-secondary institutions, Toronto Pearson International Airport, and existing employment uses. The following report will assess the opportunities and constraints for redevelopment in the area through the analysis of the existing policy framework, transportation network, servicing, employment growth and real estate market data, environmentally sensitive lands and case study research to create two potential land use visions for the area. The two potential visions will be developed based on their economic potential, feasibility, and applicability to the Bramalea GO Mobility Hub area. After a critical analysis of the success criteria, and an associated work plan created.

Bramalea GO station conceptual rendering[1].

MyBrampton City Branding[2].

1.2 Study Overview

The City of Brampton aims to intensify and expand the City's employment areas and create a better balance between residential and employment uses. To reflect these goals in the City of Brampton Official Plan, the City has engaged in a multitude of planning and land use studies for mobility hubs, employment nodes and other areas with identified development potential. The City of Brampton has appointed Incrementi Consulting to engage in a Mobility Hub Study of the Bramalea GO Station lands and surrounding area in order to inform and recommend courses for future redevelopment. The specified goals and deliverables of this study are described below:

1. **Perform an extensive analysis of the Bramalea GO Station lands and surrounding context.**

   Analyze current conditions as to find all constraints and opportunities for development in order to inform proposed development plans.

2. **Collect relevant market and research data to support and inform recommendations.**

   Collect and analyze Site Area studies, employment growth data, real-estate market data, and case studies.

3. **Create a Vision, Goals, Objectives, and Success Criteria.**

   Define what the proposed development plans hope to achieve, how they will accomplish these goals and indicators of their success following implementation.

4. **Develop a Business Case**

   Inform recommendations through an economic perspective by using information gathered through market and real estate research.

5. **Draft Two Alternative Development Visions for Redevelopment of the Study Area.**

   Create two development plans informed by the research collected. Include proposed land uses, densities/GFA, high-level development and transportation concepts, and processes for execution.

6. **Develop a final Recommended Scenario for the Study Area.**

   From the two plans proposed, insight is provided as to which vision Incrementi Consulting recommends to the City of Brampton.

7. **Prepare a Work Plan that identifies and explains steps for executing development to ensure that the final Recommended Scenario could be achieved.**

   Provide plans for implementing the recommended development vision. Consider existing planning regimes, use of incentives, new or enhanced partnerships, and transportation initiatives.

The Bramalea GO Mobility Hub Study was successfully completed on March 11th 2019, as per the study's planned timeline. The following sections of this report will review the components of the final deliverables of this study, including study conclusions, final recommendations, and plans for implementation.

1.3 Area and Location

The Bramalea GO Mobility Hubis situated in the southeastern quadrant of the City of Brampton. The Study Area is centred around two major arterial roads: Steeles Avenue East and Bramalea Road. It is approximately eight kilometers from Downtown Brampton, eight kilometers from Toronto Pearson Airport, and two kilometers north of the City of Mississauga. The Study Area is located along the Toronto-Waterloo Region Corridor which is slated to become a strong network of incubators, technology hubs and universities. The Toronto-Waterloo Region Corridor will connect Brampton to Toronto, Guelph, Waterloo, and Kitchener, bringing huge investment potential to the Bramalea GO Mobility Hub area.

The Study Area consists of 1,088,074 square metres of land. The boundary extends to Avondale Boulevard to the north, the Canadian Tire Site to the east, Spring Creek to the west, and the GO Rail Line to the south. The Study Area contains the Bramalea GO Station serviced by Metrolinx and the Canadian National Railway (CN). The Study Area is predominantly industrial with pockets of commercial uses and one higher density residential development at the northern boundary.

Figure 1. Study Are Boundary.

Approx. 8km from Downtown Brampton

Approx. 8km from Pearson Airport

Approx. 2km from City of Mississauga

2 BACKGROUND

2.1 Current Land Uses

The following section will analyze the land uses contained within the Study Area boundary, as defined in Section 1.3.

Bramalea GO Station

The Bramalea GO Station is located on the southwestern corner of the Steeles Avenue East and Bramalea Road intersection, at 1713 Steeles Avenue East. This high frequency station is identified as a Mobility Hub and is supported by GO Transit service, Brampton Transit, and Züm Regional Bus services. A GO Transit rail line runs along the southern boundary of the Site. The property predominantly consists of surface parking, with a small transit station on the property's southeastern border. On the southeastern boundary of the property is a stormwater management pond.

Metrolinx is currently conducting major improvements to the Bramalea GO Station to allow for better passenger service and the accommodation of the planned two-way all-day GO Train services. Improvements include the construction of a multi-storey parking structure at the western portion of the site, which will provide an additional 1,300 parking spaces, new retail space, new passenger pick-up and drop-off area, secure bicycle parking and safety improvements[3]. Metrolinx is working with the Region of Peel and the City of Brampton to develop a convenient transit hub that is serviced by all forms of transit and Züm and improved platforms[4]. The GO Station Rail Access Plan encouraged the creation of cycling and pedestrian networks connecting to Avondale Road and the intensification of employment uses in the around the GO Station.

Canadian Tire Site

The property to the northeast of the Bramalea GO Station contains the Canadian Tire Site at 2111 Steeles Avenue East. The property is approximately 33 hectares in size, and is occupied by a low-rise industrial building. On all peripheries of the building are loading docks for freight truck cargo. A small freight yard is located on the southwestern portion of the property. There is an additional two-storey structure on the southwestern corner of the property. A surface paved parking lot is located on the southern portion of the lot.

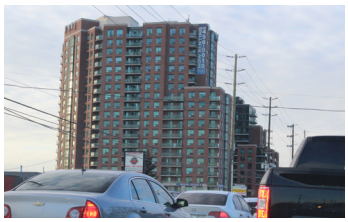
Bramalea GO station on south side of Study Area.

Stormwater management pond located east of Bramalea GO Station[5].

The Canadian Tire Distribution Centre from Steeles Avenue East.

Majority of Bramalea GO Station property is built parking lot.

View of Canadian Tire Bramalea Gas Station from Steeles Avenue[6].



Street view of the Medallion Rental Apartments from Bramalea Road looking North.

Low-Scale Industrial and Commercial Land Uses

North of the property, bordering Bramalea Road and internal to the community, are low-rise industrial and commercial uses. Occupants include small distribution centers, auto repair uses, and banks.

Mixed-Use Commercial Land Uses

To the north of the Study Area, at 68 Bramalea Road, is a high rise mixed-use residential development, known as the Medallion Rental Apartments. The two buildings are a maximum of 19 storeys in height and feature several stepbacks. Commercial uses are contained on the ground floor, and include food retailers and medical service providers.

Service/Retail Commercial

Service commercial and retail uses are located along Bramalea Road, north of Steeles Avenue on both the east and west sides of Bramalea Road.

Parks and Greenspaces

On the northwest corner of the Site, at 45 Avondale Boulevard, is Victoria Park, a site occupied by three soccer fields. This property is bound by residential uses to the north and small-scale industrial uses to the south, and is west of Bramalea Road.

Located at the northeast corner of the intersection at Bramalea and Steeles is Orenda Parkette. It is a small, self-sustaining, Municipal-owned green space with some trees and no other defining physical features.

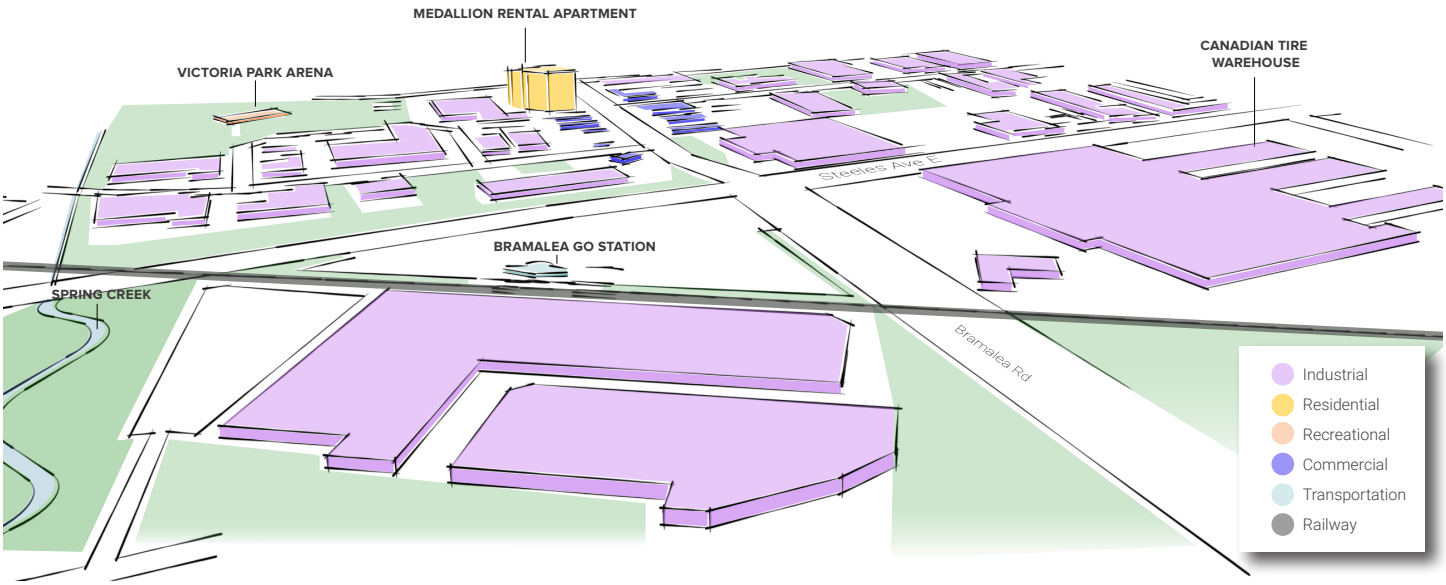


Figure 2. Land use diagram of the Study Area.

2.2 Transportation Infrastructure

The area is serviced by two arterial roadways, Steeles Avenue East and Bramalea Road. Several collector roadways service the interior of the community. The intersection of Steeles Avenue East and Bramalea Road is a major intersection serviced by eight lanes on each side. This intersection is the gateway into the Bramalea community for commuters travelling north on Bramalea Road. Access to Highway 407 ETR is located to the south of the Study Area, on Bramalea Road.

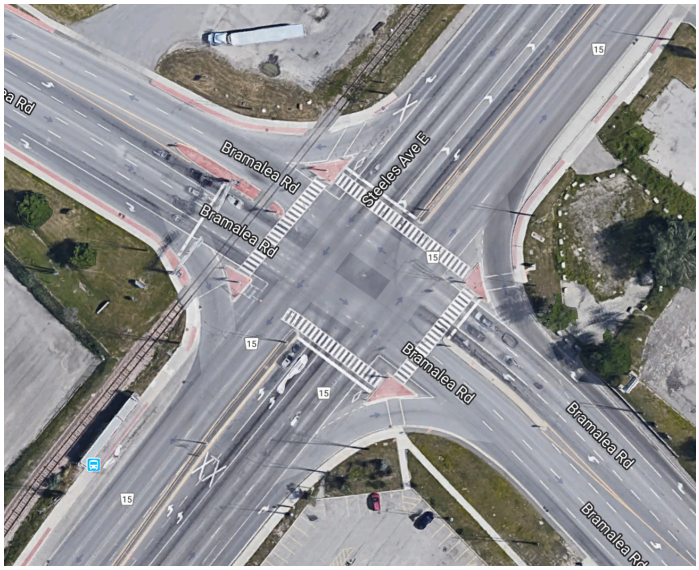
The CN Rail Line Spur runs along the northern side of Steeles Avenue East. The rail line separates the manufacturing and industrial land uses from Steeles Avenue East. The rail line unites with the GO transit line near the western boundary of the Study Area.

2.3 Topography

The topography of the Study Area is generally flat throughout (±5m), with a decline toward the south-east. The highest points of the Site are located at the northern (Dearbourne Boulevard) and southern (Steeles Avenue East and Bramalea Road) boundary. The largest change in grade exists at the south-east where the Site abruptly descends at approximately 15 metres from Highway 407 ETR to its lowest point-of-grade.

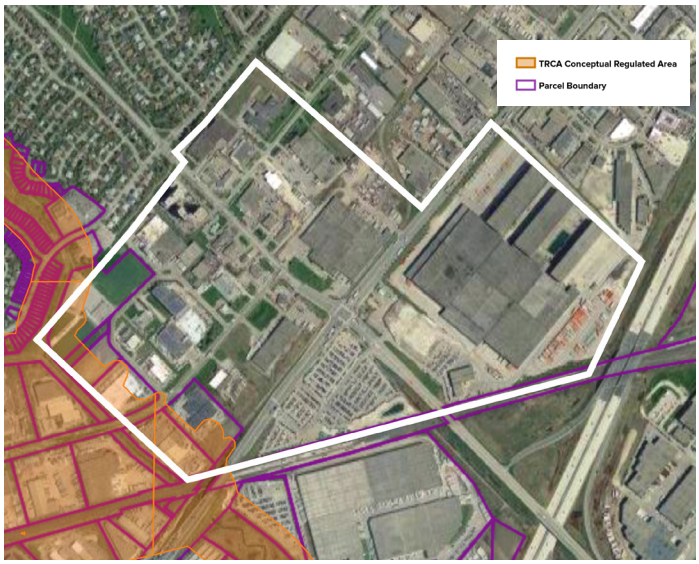
2.4 Ecological Site Condition

The Bramalea GO Mobility Hub is bound by a small water course connected to Spring Creek to the west. This channel runs from the residential communities to the north of the Study Area all the way south past the Bramalea GO Station. The associated floodplain is regulated by the Toronto Region Conservation Authority (TRCA) and slightly impedes upon the Site in this location[7]. Limited vegetation exists on the Site but is concentrated to the northwest along the floodplain area consisting of semi-mature trees and shrubbery. Semi-mature street trees are also found lining the Bramalea Road street corridor.



Aerial view of the intersection at Bramalea Road and Steeles Avenue East[8].


The CN Rail Line at the intersection of Bramalea Road and Steeles Avenue East[9].



Aerial view of Spring Creek which runs along the western border of the Study Area[10].

2.5 Servicing

Stormwater

There is a considerable length of storm sewer infrastructure throughout the City of Brampton that could possibly be impacted by intensification and future growth. Storm sewer systems vary from private on industrial and commercial sites, City storm sewers on local municipal, and Regional storm sewers on Regional roads. The Region of Peel 2018 Infrastructure Status and Outlook Report identifies no potential shortages to the expansion of water and wastewater services[11]. Future expansions were identified to G.E. Booth, several trunk sewers and pump stations to increase the capacity and improve the condition of wastewater services[12].

The City of Brampton Stormwater Management Master Plan mentions that redevelopment to a high density mixed use or residential, if not managed well, will increase the flow in the receiving storm sewer system by an average of 42 percent or above capacity. Developments in greenfield areas will require new stormwater infrastructure, which will be maintained and funded through new development fee charges; however, funding can change in the future. The study identifies the Brampton Urban Growth Centre and the Queen/Main Street intensification corridor as two areas where the Spring Creek regional storm flood plain is expected to affect planned development. Most of the flood plain runs through the downtown and is highlighted in a Special Policy Area, allowing for some redevelopment[13].

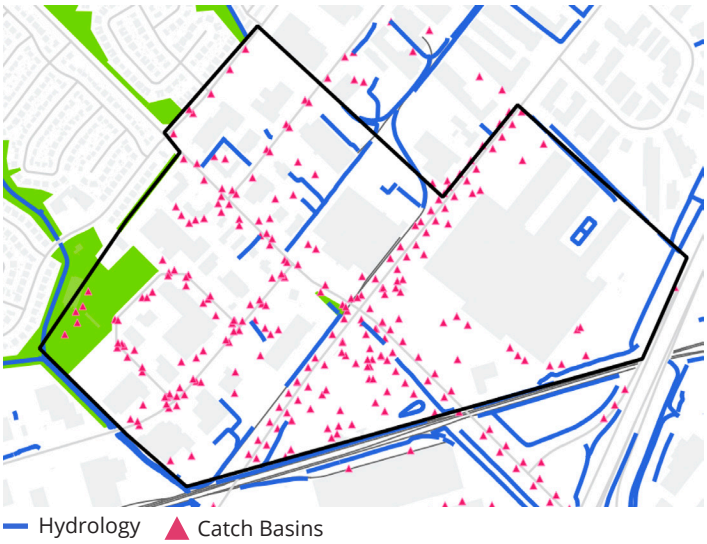


Figure 3: Diagram of the hydrology system and catch basin locations throughout the site.

Municipal Financing

Brampton's 2019 Budget Plan outlines a Regional net tax levy increase of 2.7 percent. This means that residents may end up paying 1.1 percent property tax increase from the Regional budget. Consequently, residential properties and small businesses will pay an annual property tax bill of $52 and $93, respectively. The Region has approved a 6.5 percent utility rate increase in order to sustain various services such as wastewater. On average, residents will see a $38 increase on their utility bills, while small businesses will see a $100 increase. According to the Region's 2019 Budgeting Report, the following changes are expected[14]:

- 68,000 more accessible transportation trips;
- 12,300 additional paramedic response calls;
- Implementation of the Butterfly Model, specifically to enhance quality of life for Long Term Care groups;
- Service to about 5,000 households for waste collection;
- Additional Peel Regional Police staffing to protect communities, including: 55 Officers, 10 Communicators, 5 Prison Escort Officers, and 14 Civilian Administrators[15].

2.6 Contamination

The Bramalea GO Station Area has a history of industrial uses in the vicinity with heavy truck presence over multiple decades. Two properties within the Study Area appear on Ontario's contaminated sites and historical landfills database: 131 East Drive (Recochem) and 394 Orenda Road (Targeo)[16]. As such, it is suspected that other sites in the area may have traces of contamination, in the form of either chemicals or compounds from industrial operations, or oil and gas from trucking activities. Specific sites, such as the land containing the Canadian Tire gas station at the corner of Bramalea and Steeles, may require rehabilitation to be suitable for redevelopment. This issue is especially significant in the case of sensitive land uses such as residential, educational institutions and recreational uses. Further assessment and analysis would likely be required to clarify uncertainty as to presence and amounts of contaminants on individual lots. It is possible that future incentives for brownfield redevelopment and/or contaminated land remediation will be offered with the implementation of the Brampton Environmental Master Plan's Actions and Objectives in the Sustainable Development category, which aim to "reduce barriers for infill development on contaminated brownfield sites"[17].

2.7 Brampton Population and Demographics

Brampton is the second fastest growing city in Canada[18], and the third-largest city in the GTHA after Toronto and Mississauga[19]. In 2016, the City had a population of 593,638, which is a 13.3 percent increase from 2011, when the population was 523,906[20]. It is estimated that the City of Brampton will continue to see high population growth due to the availability of developable land within the City limits[21]. The projected population for 2031 is 725,000 individuals[22].

The demographics of Brampton can be described as relatively young and diverse. The median age in the City is 34.7 years, the youngest in Canada[23]. About 407,125 (69 percent) of Brampton's population is aged 15-64, with the highest percentage being between 35-39 years of age. Compared to the Region of Peel and Ontario, Brampton has fewer individuals above 65 years of age (11 percent vs. 12.8 percent and 16.7 percent, respectively) and more individuals between 0 and 14 years of age (20 percent vs. 18.3 percent and 16.4 percent, respectively)[24].

The ethnic diversity of Brampton can be reflected in the number of languages and cultures existing in the city. As of 2016, a total of 115 languages were spoken by 209 different cultures[25]. In Brampton City, Brampton Centre, Peel Region and Ontario, the top origin of immigrants is India, and the most common mother tongue are Indo-Iranian languages, specifically Punjabi. The second most common mother tongues were Dravidian languages (Tamil) in Brampton City, Tagalog (Filipino) in Brampton Centre, Cantonese in Peel Region and Mandarin in Ontario[26]. The top three non-official languages spoken in Brampton are Punjabi, Urdu and Gujarati[27].

Population growth in Brampton is occurring primarily on the edges of existing built-up areas, including the Sandringham-Wellington, Credit Valley and Vales of Castlemore neighbourhoods and secondary planning area[28]. High-density development, intensification and subsequent population growth is concentrated along the Queen Street Corridor and parts of downtown Brampton[29].

2.8 Neighbourhood Population and Demographics

In the two census dissemination areas (CDAs) covering the Bramalea GO Mobility Hub, the population was 2,279 in 2016. Broken down by age, 73.2 percent of the population is aged between 15-64, with the largest age group being 25-29 years and a median age of 38[30]. In terms of ethnic origin, the largest percentage of the population have South Asian origins, Specifically East Indian (24.4 percent), followed by the British Isles (19.6 percent) and Southern Europe (15.9 percent)[31]. In terms of labour force, 72.9 percent of the two CDAs are in the labour force, and 94.1 percent of the labour force is employed[32]. The top three categories of occupation are as follows: 26.1 percent of residents work in sales and service occupations; 19.4 percent work in the trades, transport and equipment operation occupations; and 18.4 percent work in business, finance and administration occupations[33]. Furthermore, 13.7 percent work in retail trade; 12 percent work in transportation and warehousing, and 10.2 percent work in manufacturing[34].

The Region of Peel Neighbourhood Census Tract Index Score, which describe general feelings of well-being within the community, indicates "moderately low well-being" for two census tracts containing the Bramalea GO Mobility Hub. Reasoning that supports these low scores includes low access to grocery stores, low sense of community belonging, presence of lower-income households and nearly a third of households contributing more than 30 percent of the household income to shelter[35].

2.9 Policy Research

An analysis of policies pertaining to the Study Area was performed to inform the development proposal. Policies and goals from the municipal, regional, and provincial levels were collected and analyzed. Key policy findings identified and examined are summarized below:

2.9.1 Federal Policy - Government Canada

Airport Zoning Regulations and Toronto Pearson Master Plan

The Toronto Pearson International Airport (TPIA) Zoning Regulations (AZR), enforced by the Airport and Transport Canada, regulate development within and around Toronto Pearson Airport lands to ensure that surrounding developments do not interfere with airport and aircraft function. The Study Area is entirely located within the AZR outer surface; the lands east of Bramalea Road are located within the approach surface areas for TPIA's north-south runways. A height limit of 219.46 metres Above Sea Level (ASL) is placed on all developments within the outer surface[36] [37]; the approach surface is sloped and the exact height restrictions are difficult to ascertain without additional information.

The average grade elevation in the Study Area is approximately 187.0 metres ASL, which would allow for a maximum development height of about 32 metres, the equivalent of 10 storeys. The lands east of Bramalea Road are located within the 30 Noise Exposure Forecast (NEF) zone for Pearson's north-south runways[38]. Transport Canada states that 30+ NEF areas are unsuitable for sensitive land uses such as residential, daycare, educational and health facilities due to significant aircraft noise and vibration[39]. The portion of the Study Area south of Steeles will require a Greater Toronto Airports Authority (GTAA) crane assessment prior to construction to ensure ample clearance for aircraft operations[40].

2.9.2 Provincial Policy - Province of Ontario

The Growth Plan for the Greater Golden Horseshoe (2017)

The Growth Plan for the Greater Golden Horseshoe (GGH) manages growth and development throughout the region, and provides a framework to aid in achieving Ontario's goals for creating complete and prosperous communities. The plan identifies areas for growth and methods for achieving development, through an understanding of real world barriers and considerations[41].

On January 15, 2019, the Ministry of Municipal Affairs and Housing proposed the first amendment to the Growth Plan for the GGH. The amendment identifies the Bramalea GO Station Area as part of the Pearson Airport Hub provincially significant employment zone (AEZ), meaning that it is identified for potential further redevelopment and densification. The proposed amendment would allow employment area conversions to be approved prior to the next municipal comprehensive review, except for provincially significant employment areas that would still require provincial approval[42].

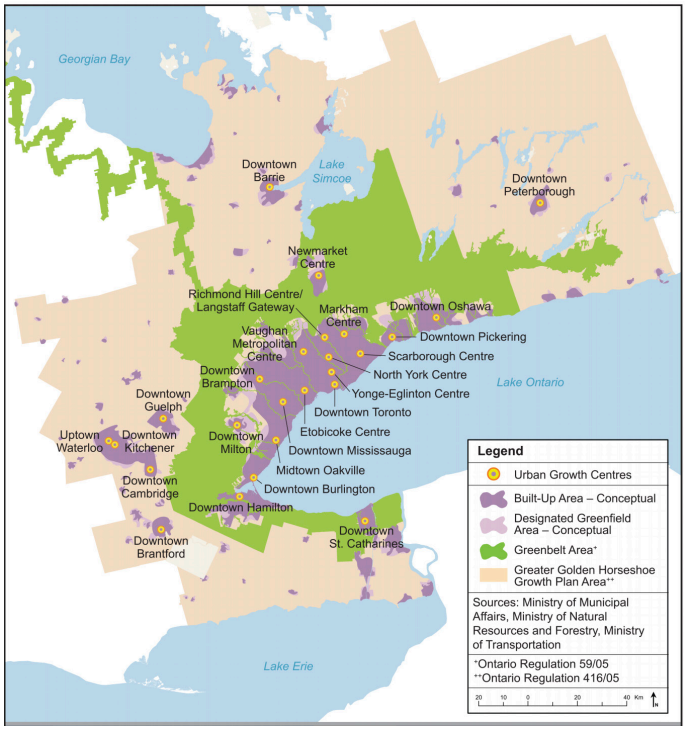


Figure 4. Urban Growth Centres throughout the GTA[43].

2041 Regional Transportation Plan

The 2041 Regional Transportation Plan oversees the development of the Greater Toronto and Hamilton Area (GTHA) transportation system. This plan identifies Steeles Avenue East and Bramalea Road as freight cluster connectors, or major transportation corridors for the movement of freight goods and truck traffic. Furthermore, a significant amount of the subject lands are identified as part of the primary freight cluster area[44].

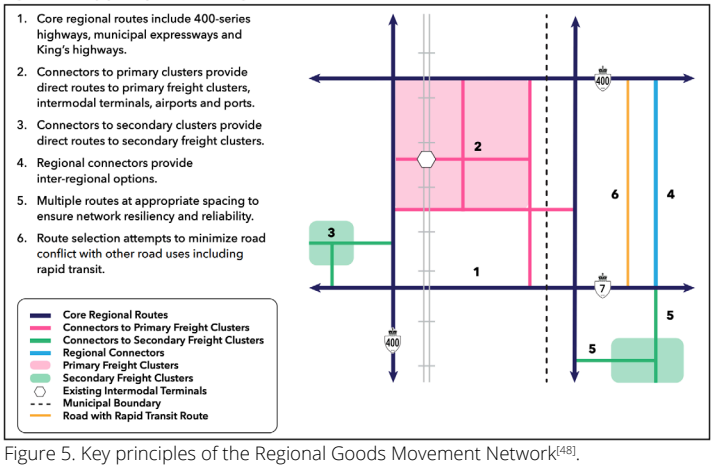


Figure 5. Key principles of the Regional Goods Movement Network[48].

2.9.3 Regional Policy - Region of Peel

Region of Peel Official Plan

The Peel Region Official Plan is a long-term planning document used to manage growth and development in the Region. As per this Plan, the Bramalea GO Mobility Hub is designated 'Urban System' with a small portion identified as a Special Policy Area under Schedule D: Regional Structure/ Parkway Belt West Plan Area[45].

Chapter 4 of the Plan sets an employment forecast for the City of Brampton, aiming to employ 314,000 new individuals by 2031. This Regional Policy aims to concentrate high density employment uses in locations such as mobility hubs and areas serviced by transit. Other sections of the Plan prioritize improving connections to the Toronto Pearson International Airport, and general increases in intercity and regional transit services[46].

2.9.4 Municipal Policy - City of Brampton

City of Brampton Official Plan (LOP)

The City of Brampton Official Plan is used to guide development through land use Designations, built form, transportation and environmental policies. As per Schedule A - General Land Use designations of this Plan, the study lands are designated for an array of employment uses including office, business corridor and industrial uses. Furthermore, Schedule 1 - City Concepts identifies the subject lands as a Gateway Mobility Hub and Employment Area. Mobility Hubs are to be developed with intensive mixed use and transit-supportive development. Furthermore, Steeles Avenue East and Bramalea Road are identified as major intensification corridors[47]. Intensification corridors will be developed with intensive, transit-supportive land uses.

Figure 6. Official Plan designation in the Study Area[49].

Brampton 2040 Vision

The Brampton 2040 Vision illustrates the goals and state the City of Brampton's goals to be achieved by 2040 in land use, community development, transportation growth, and market advancements. The Vision designates the subject lands as "BramGO", one of Brampton's six projected future town centres. BramGO will be a local-oriented work/live business magnet. Furthermore, greenway boulevards are planned for Steeles and Bramalea corridors, with emphasis on activating these corridors with an active streetscape network. The Vision has a large focus on job creation, especially for subject lands located in industrial and/or business corridors[50].

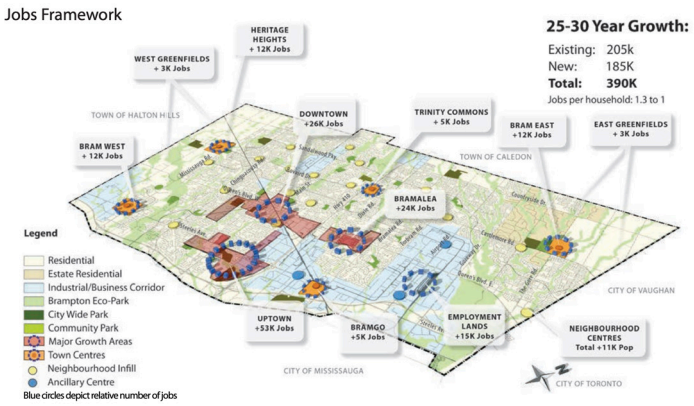


Figure 7. Bramalea GO area anticipates +5k jobs according to the Brampton 2040 Vision[54].

City of Brampton Transportation Master Plan

The City of Brampton's Transportation Master Plan guides all transportation planning in the city and the development of the intercity and regional transit network. As per this Plan, specific goals are expressed for area redevelopments, including redeveloping the City's road network, promoting an integrated active transportation network, and supporting and enhancing the City's goods movement network[51].

2.9.5 Area Secondary Plans

Secondary Plan 38: Bramalea Road South Gateway

This Secondary Plan applies to areas around the intersection of Steeles Avenue East and Bramalea Road, encompassed in the Study Area boundary. The lands along the Steeles Avenue East and Bramalea corridors are designated for higher density office and mixed uses. Industrial uses are proposed in the lands behind these two key corridors. The area is envisioned as a mixed-use centre that will function as an urban gateway[52].

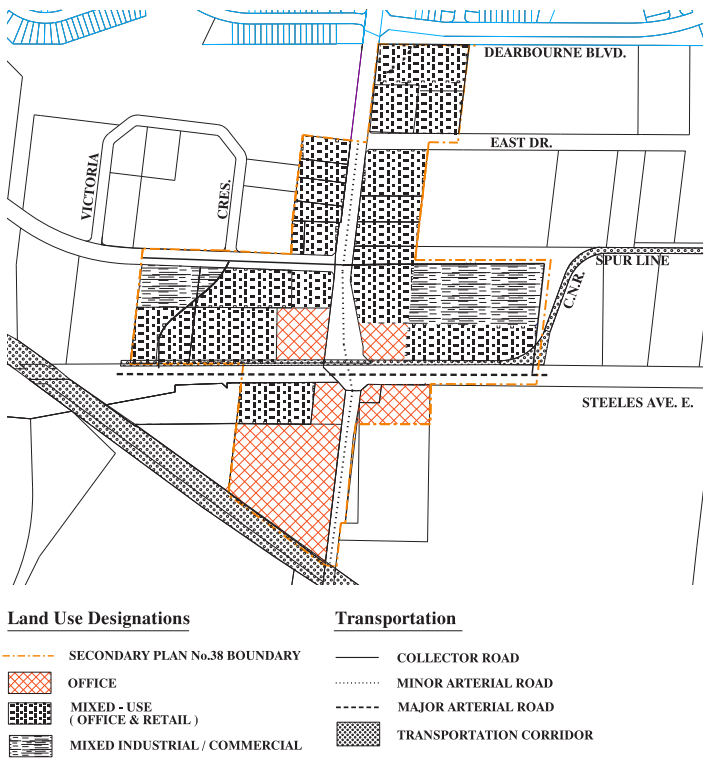


Figure 8. Schedule SP38 to the Bramalea Road South Gateway Redevelopment Area[55].

Secondary Plan 5: HWY 410 and Steeles Avenue

This Secondary Plan applies to sites just west of the study boundary at the intersection of Highway 410 and Steeles. This Secondary Plan proposes general employment around this Site[53]. This plan is currently under appeal and therefore not in full force and effect.

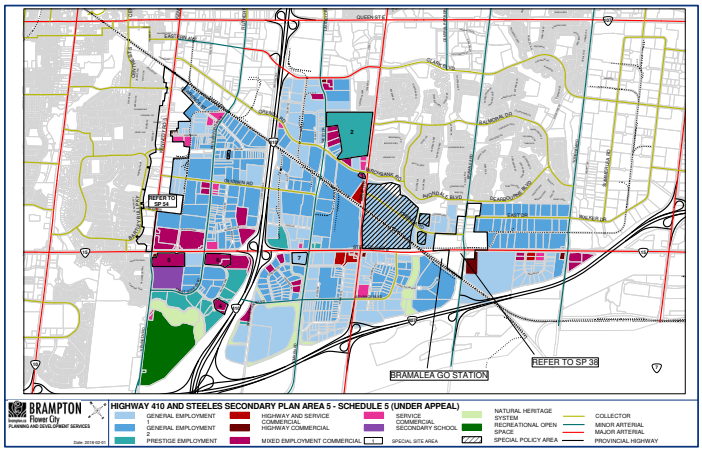


Figure 9. Secondary Plan 5: HWY 410 and Steeles[56].

2.10 Heritage Protection

There are two properties listed under the City of Brampton Municipal Register of Cultural Heritage Resources: 15 Bramalea Road and 69 Bramalea Road[57]. As such, if a new development is proposed, the applicant must give Brampton City Council a 60-day notice during which they may decide whether or not the property should be designated under Ontario Regulation 9/06.

Figure 10. Location of heritage buildings are highlighted in brown[61].

2.11 Site Zoning

City of Brampton Zoning By-Law 270-2004, regulates the use, height, size, location and setbacks on all properties within the City. The majority of properties within the Study Area are zoned Industrial One (M1), Industrial One A (M1A) and Industrial Two (M2)[58]. These zones primarily permit light industrial, manufacturing and warehousing uses and a range of ancillary uses. The GO Station lands are zoned Institutional Two (I2) and permit a range of public service and community uses. To the north of the Study Area, two properties are zoned Residential Apartment A-Section 578 (R4A-578) and permit apartment dwellings and ancillary commercial uses. The property at 24 Bramalea Road is zoned Highway Commercial Two-Section 219 (HC2-219) and 2021 Steeles Avenue East is zoned Highway Commercial One (HC1), which permit a range of uses including automobile servicing stations, gas bars and motor vehicle washing stations. The Canadian Tire Site is undergoing major development and is therefore being reconsidered by zoning. Spring Creek to the west is zoned Floodplain (F)[59]. Lands to the northwest of the Study Area are identified as mature neighbourhood and as such careful consideration must be taken to ensure the compatibility of new developments with the existing residential neighbourhood.

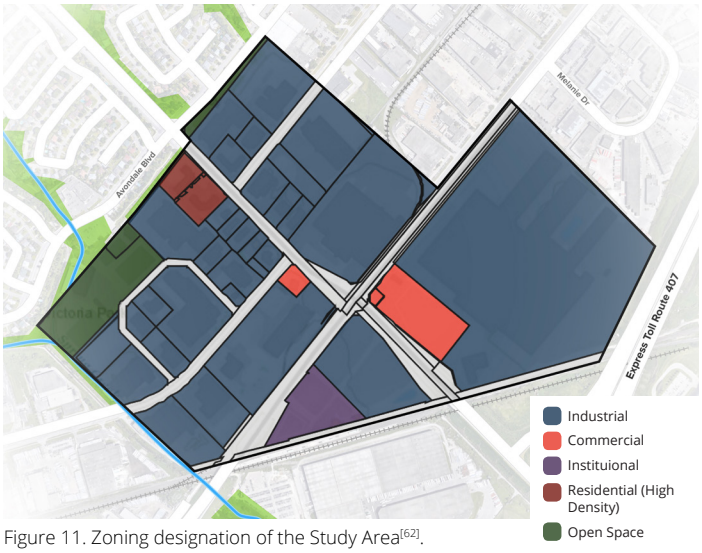


Figure 11. Zoning designation of the Study Area[62].

Interm Control By-law (ICBL) 224-201, approved by council on October 11, 2017, applies to the entire Study Area, save for the GO Station Site. The ICBL is currently under appeal at the Local Planning Appeals Tribunal and will lapse on October 11, 2019[60].

2.12 Key Planning Issues

1

Proposed Amendment No.1 to the Growth Plan to the Greater Golden Horseshoe

The proposed amendment designates the subject area as a Provincially Significant Employment Zone. These lands must be protected for employment uses and cannot be converted outside of a Municipal Comprehensive Review (MCR). If this study proposes to expand residential uses at the northwest corner of the site and include a retail land use designation, it will require a MCR.

2

Current Secondary Plan Framework

The Study Area is regulated by two secondary plans: Secondary Plan 5 - HWY 410 and Steeles and Secondary Plan 38 Bramalea Road South Gateway. Currently, Secondary Plan 5 - HWY 410 and Steeles is under appeal and therefore is not in full force and effect. The outcomes of this study will result in new land use designations that differ from the current secondary plan framework and as a result will require amendments. The proposed modifications to the land use designations in the appealed Secondary Plan will result in delays in the implementation of the proposed land use vision. One potential recommendation from this study will be the creation of a new secondary plan that encompasses the whole Study Area, to simplify the planning process as only one secondary plan has to be referred to instead of two. An Official Plan Amendment will therefore be required.

3

Current Zoning By-law Regulations

The majority of the Site is zoned Industrial One (M1), Industrial One A (M1A) and Industrial Two (M2). Permitted uses within these zones are primarily restricted to traditional industrial uses, places of worship, recreational uses and ancillary retail, office and commercial uses. As a result, any land uses outside of these permissions, including standalone office or commercial uses, will require a Zoning By-law Amendment.

Furthermore, the current industrial zoning regulations contain minimum lot width, lot depth and setback regulations that reflect outdated permissions for traditional manufacturing developments that do not support the current market development. Modifications to these regulations are required to reflect the new types of desired employment uses and lot sizes supported by the real estate market research.

4

Mature Neighbourhoods

Areas to the northwest of the study site are identified as Mature Neighbourhoods. Careful consideration must be taken when developing proposed land use plans to ensure that new development is compatible with the existing residential neighbourhood.

3 ANALYSIS

3.1 Industrial Real Estate

The following data was primarily sourced from a direct contact with CBRE. Currently, Brampton has its lowest vacancy rate (0.2 percent) for industrial land uses. The City of Brampton is favoured as an industrial real estate market because of its central location in the Greater Toronto Area (GTA) market, close proximity to the series 400 highways, and history as an industrial hub. The industrial real estate market is in high demand, but new development does not match the need[63].

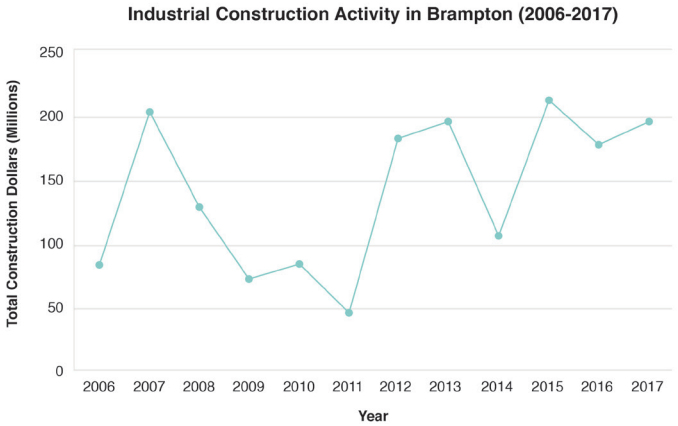


Figure 12. Comparison of the last three years (2015, 2016, 2017) of economic reports[69].

3.1.1 Investment in New Development

The investment in construction for industrial lands has stayed fairly consistent in the last three years (2015-2017). Much of the construction activity was due to new developments or additions in a four-kilometre radius of the Study Area. During 2015 to 2018, there were no new developments in the Study Area. The table shows a comparison of the last three years (2015, 2016, 2017)[64].

	2015	2016	2017
Total Construction Dollars	$210 million	$176 million	$194 million
Development (Sq ft added)	1.4 million sq ft	2.4 million sq ft	989,000 sq ft

Table 1. Comparison of the last three years (2015, 2016, 2017) of economic reports[66][67][68].

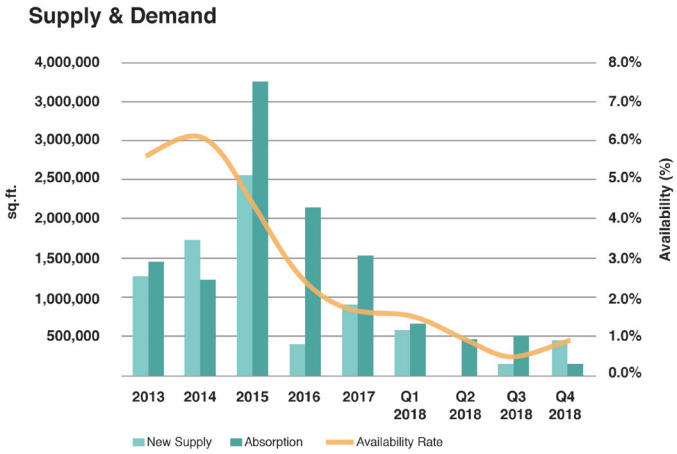


Figure 13. Supply and Demand of industrial lands in Brampton[70].

Although construction and square footage of total industrial buildings has increased with new developments, the supply has not been able to meet the demand, as the availability rate has decreased rapidly over the last five years[65].

3.1.2 Industrial Land Prices

In the past three years, the average industrial land sales (average price per acre) of the area has risen by 209 percent. The average Net Rental Rate has increased by about $1 per square foot [71]. The cost to own or rent industrial buildings has risen significantly over the years as well. The sale price has nearly doubled in the past four years and the net rent has risen by about $2 per square foot from 2013 to 2018[72].

	2015	2018
Industrial Land Sales: Average Price per Acre	$817, 236 / Acre	1.71 million / Acre
Average Net Rental Rate	$6.30 / sq. ft.	$7.30 / sq. ft.

Table 2. Industrial lands prices based on year and average price per an acre[74].

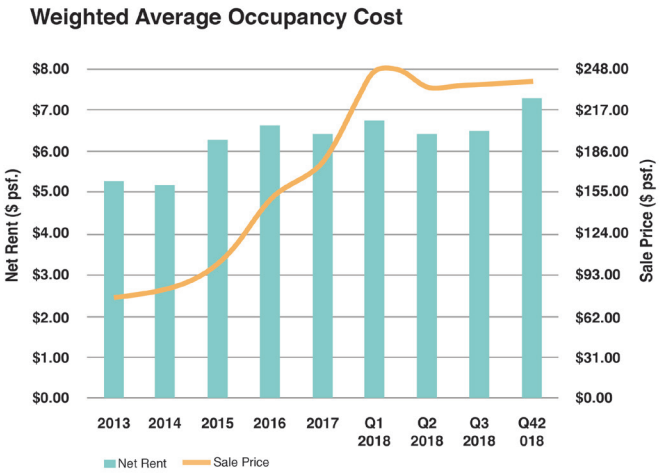


Figure 14. Weight Average Occupancy Cost in Brampton for industrial buildings[74].

3.1.3 Industrial Sales

The following table and maps show the industrial building sales in Brampton and Study Area for the years 2015, 2016, 2017, and 2018. This data confirms that people are staying in the Study Area there is a low turnover rate[75].

Year	Total Industrial Sales	Industrial Sales in Study Area
2015	20	1
2016	15	1
2017	21	2
2018	10	0

Table 3. Industrial building sales in Brampton and Study Area for the years 2015, 2016, 2017, and 2018[76].

Year	Address
2015	105 East Drive
2016	115 East Drive
2017	100 Alfred Kuehne Drive
2017	107 Alfred Kuehne Drive

Table 4. List of addresses sold in Study Area[77].

Industrial Land Trends

- High demand and low supply of industrial lands in GTA.
- Industrial companies are leaving major GTA cities, such as Brampton, for cheaper land.
- Industrial inventory space is going vertical (JLL Industrial Land Report, 2018)[78].

3.2 Commercial Real Estate Analysis

Investment in new development of commercial real estate was fairly consistent in 2015 and 2016 in the City of Brampton. As seen in the table below, in 2015 and 2016 total construction dollars and new development were similar. In 2017, these variables dropped by nearly half. This data is reflective in the amount of new commercial and retail development built in the respected years. In the Study Area, there are no large commercial or retail companies/businesses. The area is largely dominated by industrial land uses[79][80][81].

	2015	2016	2017
Total Construction Dollars	$83 million	$177 million	$65 million
Development (Sq ft added)	400,000 sq ft	410,000 sq ft	212,000 sq ft
New Commercial or Retail Developments	20	28	8

Table 5. Comparison of the last three years (2015, 2016, 2017) of economic reports[82][83][84].

3.2.1 Commercial Land Prices

The average commercial land sales (average price per acre) of the area have been consistent the last four years, typically around $1 million / acre[85].

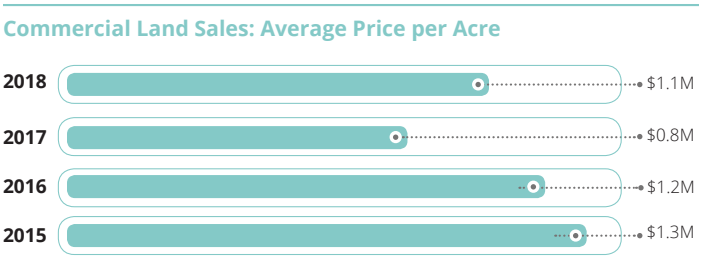


Figure 15. Commercial lands prices based on year[86].

The average rental rate (average price per square foot) has increased.

	2015	2016	2017	2018
Office: Average Net Rental Rate ($ / sq. ft.)	$20.76 per sq ft	$21.10 per sq ft	$21.77 per sq ft	$22.47 per sq ft
Retail: Average Net Rental Rate ($ / sq. ft.)	$24.34 per sq ft	$24.44 per sq ft	$25.56 per sq ft	$26.83 per sq ft

Table 6. Average price per a square foot for office and retail space[87].

3.2.2 Commercial Land Sales

The following table and maps show the commercial building sales in Brampton and Study Area for the last four years. There have been no commercial land sales in the Study Area[88].

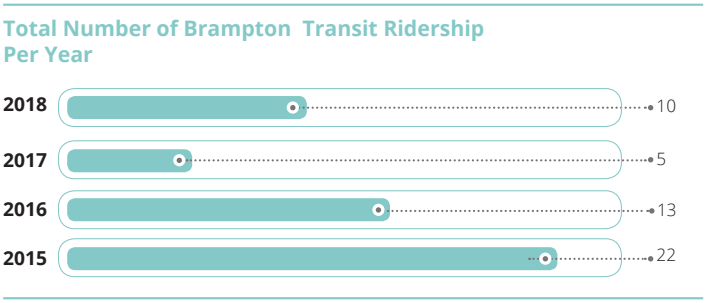


Figure 16. Industrial building sales in Brampton and Study Area for the years 2015, 2016, 2017, and 2018[89].

Retail	2017	2018	2019F	YoY
Total Retail Sales per Capita	$14,218	$14,230	$14,557	▲
Total Retail Sales Growth	9.1%	2.1%	4.2%	▲
Mall Sales Productivity (per sq.ft.)	$943	$964	$989	▲
New Supply (million sq.ft.)	0.87	1.07	1.22	▲

Table 7. Sales and new supply in retail for the GTA in the last three years[90].

Commercial Land Trends

- Shortage of almost all types of quality modern commercial property in the Greater Toronto Area (GTA).
- Rising development costs, material and labour costs, and delays on approvals are limiting developers from investing in commercial and retail[91].
- Commercial and retail nodes thrive when they incorporate innovative food tenants and fitness tenants[92].
- People prefer online shopping but want a place to visit too, so retail stores realize that they cannot be strictly online[93].
- Coworking is likely to continue to be a strong driver of the office market despite questions around the sector's long-term viability[94].
- The following table shows the sales and new supply in retail for the GTA in the last three years[95].

3.3 Analysis of Transportation and Employment Trends

3.3.1 Employment Trends: Brampton

According to the 2017 Brampton Employment Survey, Brampton has 160,023 jobs, broken down as 115,357 full-time, 34,114 part-time and 10,552 contract-based jobs[96]. In terms of labour force status, the City of Brampton has a labour force of 320,000[97] with approximately 60.3 percent of the entire city population being employed[98]; this figure is roughly consistent across Brampton Centre, Peel Region and Ontario as a whole[99]. Approximately 49 percent of Brampton's labour force has some form of post-secondary education[100].

The top five employment sectors in Brampton are manufacturing, retail, transportation and warehousing, healthcare and social assistance, and whole trade[101]. A notable trend from the Employment Survey is the growth in the transportation and warehousing sector, which grew by over 12 percent between 2015 to 2017 to 16,217 individuals employed[102]. The three largest employers in manufacturing are FCA Canada (3521 employees), Maple Lodge Farms (1700 employees) and Coca-Cola (1300 employees)[103]. Some notable multinational firms are headquartered in Brampton, such as Loblaws Companies Ltd., HBC and Brafasco[104]. Other notable companies such as Magna International, Coca-Cola and Roger Communications also have offices in the City[105].

3.3.2 Existing Businesses and Industry Snapshot

Within the Study Area, there is a total of 76 businesses, 3893 employers and 3,528,168 square metres (GFA) of business space[106]. At least 17 of these businesses export their products to other countries such as the United States, Mexico, South Korea, Singapore and France. The oldest business in the area is Chemetall Canada, which has been operating since 1952; the newest business during the writing of this report is KD Auto Repairs, which opened in 2018. The largest employer in terms of the number of employees and size of establishment in the area was the Canadian Tire distribution centre, which employed 900 employees, followed by Polar Pak with 700 employees and the Indigo Distribution and Support Centre with 410. The types of businesses in this area are diverse, ranging from accommodation and food services to manufacturing and wholesale trade[107].

3.3.3 Live-Work Trends

An examination of emerging lifestyle trends such as live-work was conducted as part of this study. Live-work is a flexible arrangement where a single building or unit contains both a residential space and a commercial or manufacturing space[108], where the resident is able to both live and work in the same area. These types of spaces work best for technology, arts and design-based jobs, with benefits such as flexible work hours[109]. The City of Brampton already has live-work units on the real estate market, such as Fieldgate Homes' Valleylands in West Brampton and CountryWide's Eldorado Village in the northeast corner of Brampton[110][111]. The Ontario Home Builders' Association (OHBA) reported large demand throughout Brampton for the Eldorado live-work units from young families and professionals[112]. This research suggests that live-work units may be a viable new proposed employment-residential typology for the Bramalea GO Station Area to encourage more active transportation and younger demographic to the area.

3.4 Mobility Network

Downtown Brampton is being revitalized to allow for new development to support future economic growth. The Downtown Mobility Hub aims to redefine the core of the city and offer a seamless connection to different transit options in close proximity to[113]

- The Ryerson/Sheridan University campuses;
- Centre for Innovation Hub;
- Future LRT extensions; and
- Queen Street corridor

According to the 2016 census, transit was the main mode of commuting for workforce (ages 15+), accounting for about 14 percent of Brampton census respondents - 38,925 out of 278,880 individuals[114].

3.4.1 Metrolinx Bramalea GO Transit Services

Bramalea GO is a primary station stop along the Kitchener Rail Corridor and is planned to be served by two-way all-day GO Train services arriving every 15 minutes by 2021[115]. It is the home station to 2,375 riders and that number is expected to grow to over 4,000 by 2031[116].

3.4.2 Transportation Master Plans

In May 2014, Brampton created its first Environmental Master Plan, Brampton Grow Green. The Implementation Action Plan aims to reduce automobile dependency, as well as enhance both regional and local transportation networks. With joint efforts from the Province, Metrolinx, Region of Peel and other municipalities, the plan intends to expand Travel Demand Management (TDM) measures, including the implementation of programs such as Smart Commute Brampton-Caledon. Through a corporate movement strategy, the plan promotes alternative travel options for City employees to commute on weekdays. The City's Transportation Master Plan focuses on expanding Brampton's Züm Bus Rapid Transit (BRT) network, and support transit ridership through the promotion of discounted Smart Commute Transit Pass Programs[117].

3.4.3 Ridership Statistics

The following table summarizes the total number of trips taken using Brampton Transit, and not based on individual persons over the past 4 years[118].

Total Number of Brampton Transit Ridership Per Year

2018	31,239,074
2017	27,391,889
2016	23,129,596
2015	21,178,343

Figure 17. Number of Ridership per Year in Brampton[119].

On a local scale, the average weekday Züm ridership in 2018, from the months of September to November, was about 116,000 and the weekly ridership was 671,000. As for the average monthly ridership, it was 2,603,256[120]. The graph below summarizes the ridership stats between 2015 and 2018. The counts for January 2019 show 2,429,041, which is the highest ridership on record for January and represents a change of +1.5 percent[121].

Brampton transit serviced over 27.3 million fares in 2017, with an 18.4 percent increase in ridership from the previous year alone. The transit network has expanded its fleets of buses from a total of 359 in 2014, to 422 in 2018 to accommodate (accommodate growth) travel demands.

A staff report to council prepared in 2015, highlighted that transit ridership had increased by 49 percent between 2009 and 2015. According to the 2016 census report, Brampton population was 593,638. Projected to reach 725,000 by 2031. However, with the expected influx of students coming into the region, the province of Ontario projects that by 2041 Brampton's population will grow to be 890,000[122]. According to the 2016 census report, Brampton population was 593,638, projected to reach 725,000 by 2031. The Bramalea GO Mobility Hub is well-served by multiple modes of transit, including the local bus network (routes 11, 11a, 15, 115), bus rapid transit Züm (routes 511, 511a and 511c) and the Metrolinx GO bus and trail network (routes 13, 15, 15a, 16, 40 and 92)[123].

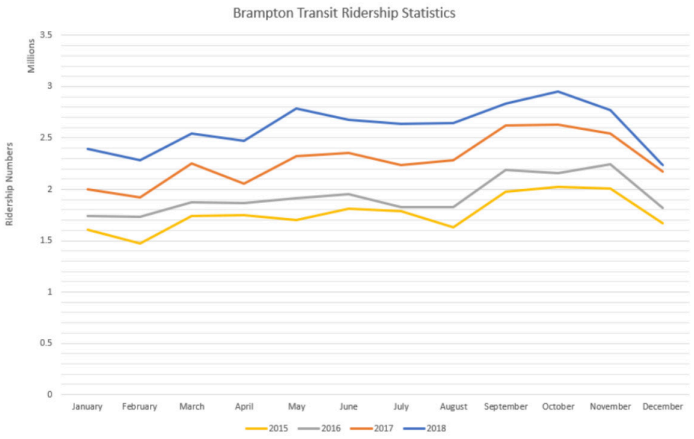


Figure 18. Brampton Transit Ridership Statistics[124].

3.4.4 Transit Network Expansion

Despite council's efforts on shifting away from voting for a fully funded, light rail transit line on Hurontario/Main street in 2015, Brampton Transit has continued to assess the possibility of future alternative LRT routes along Kennedy and McLaughlin Roads[125]. The Hurontario LRT is planned to serve 22 stops, making further connections to Milton's GO Transit Station and Lakeshore West rail lines, Mississauga Miway, Mississauga Transitway BRT and Brampton Züm – with and expected completion date in early 2022[126]. To further connect people and places within the region, the Queen Street Rapid Transit Project speaks to a number of policies in terms of addressing the complete streets approach. These policies have been highlighted in various documents such as: the Greater Horseshoe Growth Plan, Peel Region Official Plan, the City of Brampton Official Plan and Transportation Master Plan, the Brampton 2040 Vision, and the Brampton Complete Streets Study. This rail transit corridor aims to provide continuous travel with fewer transfers[127].

3.5 Airport

3.5.1 Existing and Future Conditions at TPIA

Brampton is located immediately northwest of the Toronto Pearson International Airport (TPIA). TPIA is known as the busiest Airport in Canada[128] and a vital piece of the GTA's transportation infrastructure system and economy. TPIA currently accesses 180 destinations around the globe, serving approximately 47 million passengers annually and accessing 70 percent of global economies, and is planned to move 85 million passengers annually and access over 80 percent of global economies by 2037[129].

3.5.2 TPIA Economic Benefits

TPIA is a significant economic gateway and anchor in the GTA because it helps drive population, income and employment growth in nearby urban areas[115]. TPIA's central location in the GGH and the Toronto-Waterloo Region Corridor – Canada's busiest transportation corridor – attracts innovation to the area and enables the movement of over $3 billion worth of goods annually[130].

The airport contributed $42 billion to Ontario's GDP (6.3 percent) in 2016 and aims to contribute 8.5 percent by 2037 due to continued expansion and development[131]. In 2016, TPIA facilitated around 19,600 jobs in Brampton alone: 11,300 direct jobs, 4,000 induced jobs, 200 Greater Toronto Airports Authority (GTAA)-related indirect jobs, 2,300 other indirect jobs, and 1,800 jobs through airport visitor spending[132]. One of the most significant employment features of the Airport is the Toronto Pearson Airport Economic Zone (AEZ) and associated Eco-business Zone (EZ). After downtown Toronto, the AEZ is the second-largest Canadian employment cluster[133]. The AEZ is a 15,000-hectare area surrounding the Airport, consisting of various commercial and industrial jobs employing over 300,000 people[134][135]; the number of jobs is forecasted to rise to 700,000 by 2037[136][137]. The EZ is a multi-stakeholder community that promotes sustainable development and operations within and around the AEZ, with goals such as reducing water use, waste production and greenhouse gas emissions[138]. These figures show that TPIA is poised to continue generating significant economic benefits for the City of Brampton.

3.5.3 TPIA's Future Regional Transit Centre

The most recent TPIA Master Plan indicates the future construction of a multi-modal transportation hub, referred to as the Regional Transit Centre (RTC) or colloquially Union Station West. The goal of the RTC is to strengthen connectivity between the Airport, AEZ and the GTHA and other cities in the GGH such as Waterloo[139][140]. Some notable features of the RTC include: improved integration with TTC, MiWay, Brampton Transit, Züm, UP Express, GO and Greyhound[141]; a possible Mississauga transitway extension; Toronto LRT extensions[142]; GO RER enhancements, including better access between Kitchener, Bramalea GO Station, TPIA and downtown Toronto; and potential High Speed Rail in the distant future[143][144]. In short, the new Mobility Hub promises better access to and from the Bramalea GO Station.

3.6 Ryerson Campus and Tech Hub

There has been a long-standing interest in a Ryerson University satellite campus in Brampton. Since funding from the Ontario Government has been cut, this project will not be approached until new sources of funding are allocated. The City of Brampton and Ryerson University are still committed to building an innovation hub and cybersecurity centre, which will be located in downtown Brampton. Currently, Ryerson already offers courses through the Chang School in Brampton, so this hub will grow with school[145] [146][147].

This new development supports the redevelopment of the study site into an employment-based Mobility Hub for the following reasons. First, it is in walking distance to the Downtown GO Station, and about a six kilometre train ride to the Bramalea GO station. Next, the proposed employment hub can support the Ryerson partnerships with local employers. Lastly, the hub acts as supporting infrastructure to the goals of the Ryerson and City of Brampton.

Location of Ryerson Campus[148]


Rendering of Ryerson Campus[149]

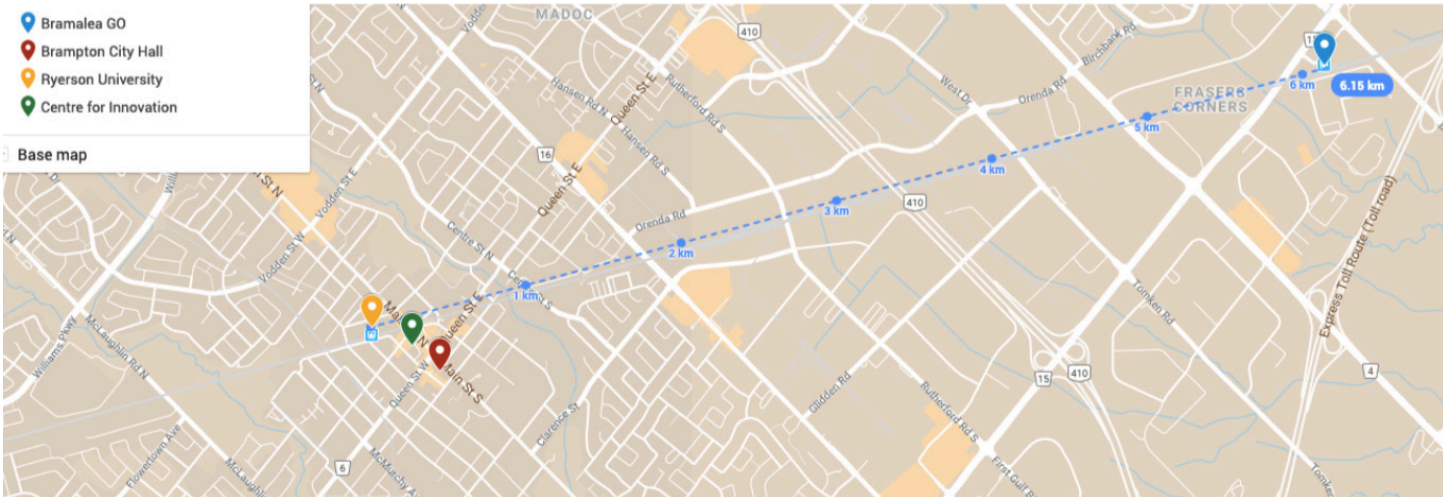


Figure 19. Map of Ryerson University in distance to Bramalea GO[150].

4 CASE STUDIES

4.1 Area Specific Case Studies

Waterloo Station Area Plans – Research and Technology Study Area

The construction of the future Light Rail Transit (LRT) system in Waterloo resulted in a need to create specific station area plans to maximize their use of the system. The Research and Technology Stop Study Area is located at the corner of Wes Graham Way and Laurel Trail, between Philip Street and the R & T Park Employment Areas. Lower density office and industrial building characterize current development in this area. However, this area is known for its emerging cluster of research and high tech developments and will serve as an important access point for the growing cluster of technology, research and knowledge based industries. It is home to the former BlackBerry campus and recognized as a major employment node and innovation centre. Planned redevelopment envisions the creation of a mixed-use office and innovation district that will serve as the key connection to the Philip Street Employment Corridor and Waterloo Technology Campus[151]. The study will leverage the area's supply of vacant and underutilized land to create a compact, transit oriented urban employment destination.

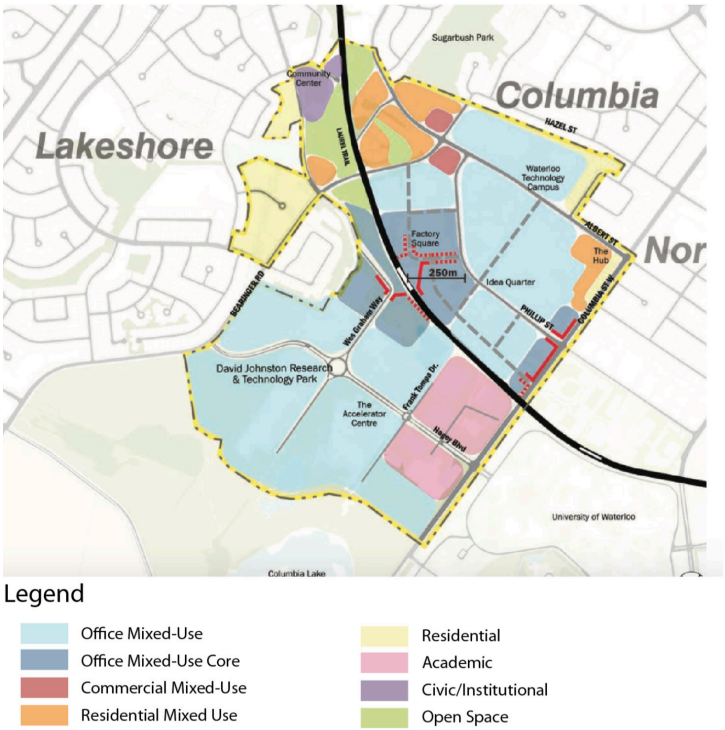


Figure 20. Land Use Framework[x].

The proposed land use vision envisions a vibrant urban employment hub centred on an activity node that is supported by a range of uses and amenities (Figure 13 & Table 14). The proposed vision illustrates the importance of ancillary uses in employment hubs to attract businesses, students and residents to the area throughout the day.

The plan also highlights the importance of increasing the connectivity of the area through a network of pathways that connect to businesses, neighbourhoods and open spaces. Furthermore the study highlights the need to consider the integration of residential uses into employment hub areas to further support employment and ancillary uses[152].

Land Use Designation	Vision
Office Mixed-Use	Predominantly Office Employment uses with a mix of supportive uses within these buildings including retail, restaurants and service commercial[153].
Office Mixed-Use Core	Lands along the higher order transit corridor and within 250 metres of the station that are envisioned for the highest intensity and mix of uses including commercial, office and consideration for residential[154].
Commercial Mixed-Use	Predominantly commercial areas with a mix of uses within building or on a block. Office with upper level residential will be encouraged[155].
Residential Mixed-Use	Medium to high density residential uses with commercial uses at grade[156].
Residential	Medium to low density residential uses[157].
Academic	University lands intended for university related uses[158].
Civic/ Institutional	Existing community facilities such as schools, recreational centres and community centres[159].
Open Space	Park or green corridors[160].

Table 8: Proposed Land Use Descriptions.

Lessons Learned

The Bramalea GO Mobility Hub and Waterloo Research and Technology Station Study Area are characterized by similar lower density office and industrial uses that need to be redeveloped to adapt to the changing employment market conditions. Similarly to the Research and Technology Station Study Area and its past BlackBerry site, the Bramalea GO Mobility Hub is facing uncertainty with how to develop the soon-to-be vacant Canadian Tire site. A land use vision for the Bramalea GO Mobility Hub area needs to focus on connectivity, supportive uses and providing enough flexibility to allow the area to successfully adapt with the changing market.

Key Findings

- Employment Hubs should provide additional amenities and services to support employees and the continued liveliness of the area throughout the day;
- Building heights should peak around the station area; and,
- High connectivity is a critical component essential to the development of successful employment hubs. Studies should include a plan for a network of active transportation pathways to businesses, neighbourhoods and open spaces and safe crossings.

DC Innovation Strategy for Saint Elizabeths

The DC Innovation Strategy for Saint Elizabeths is focused on the Saint Elizabeths East Campus in Washington DC. Due to the decision of the Department of Homeland Security to consolidate on the west campus, the government identified an opportunity to redevelop the east campus to strategically diversify the economy and promote innovation. The campus is situated at the center of a robust innovation economy and surrounded by uses that support innovation and business development, such as business incubation, education, training and research and development[161]. The Saint Elizabeths Master Plan anticipates three main types of uses within the innovation hub: community technology village, private sector and commercial uses, and production (Figure 14).

Successful innovation hubs include a combination of adaptive reuse and new buildings supported by a mix of uses, transit access and compact urban form. The Site is supported by transit, is linked to east of the river residents and entrepreneurs and in close proximity to national security industries. Together, these three components create an ideal environment for a future innovation district[162]. The DC Innovation Strategy for Saint Elizabeths will build upon these strength and include three central community functions: an Innovation Market Place, a Community Economic Empowerment Center and Talent Development (Table 15).

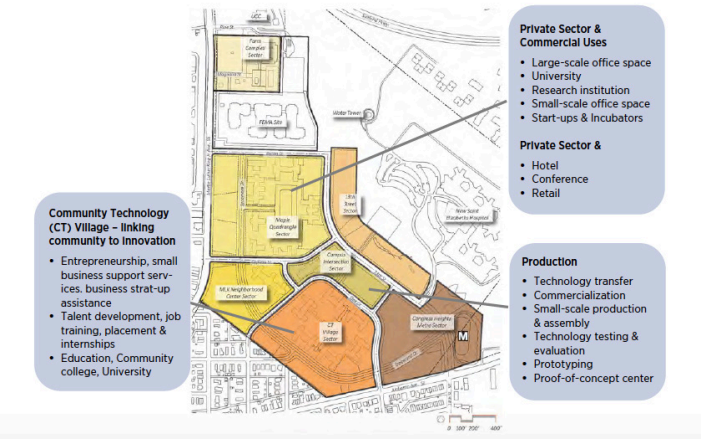


Figure 21. Saint Elizabeths Master Plan[166].

Community Functions	Description
Innovation Market Place	Develops and showcases new businesses and technologies in homeland security, intelligence and defense[163].
Community Economic Empowerment Center	Provides coordinated support for local businesses, job seekers and entrepreneurs linked to a range of support services[164].
Talent Development	Offers support and education from regional institution of higher education and workforce development[165].

Table 9. Three Central Community Functions.

Lessons Learned

Transit services, proximity to a higher education facility and a unique employment focus are required to create successful innovation hubs. Due to its proximity to the Downtown Area and the Future Ryerson Campus, and its access to inter regional transit, the Bramalea GO Mobility Hub has the necessary infrastructure required to create a successful innovation hub. Similarly, to Saint Elizabeths, the soon-to-be vacated Canadian Tire site presents the opportunity to redevelop the site to promote innovation in a location that is highly transit accessible, in close proximity to a future university campus and located within the Toronto-Waterloo Region Corridor.

Key Findings:

- Ideal innovation hub locations are supported by transit, contain a mix of uses and compact urban form;
- Innovation hubs need to focus on industries unique to their area and build off the unique strengths of the surrounding environments; and,
- Innovation hubs should offer business support services and talent development opportunities.

False Creek Flats Area Plan

The False Creek Flats Area in the City of Vancouver holds a significant position as an industrial area with over 450 acres of employment land that is located close to both the port and downtown area. It holds a significant economic position due to its location, its role as a home of 600 businesses and its rail and transit connections. As a result, the City began a study of the area to create a vision for the area that focuses on employment intensification, providing necessary industrial space and additional amenities to help it becoming a thriving employment hub. The area today is typically comprised of traditional inner city industrial warehousing, distribution and wholesaling. This land use typology results in lower connectivity, underutilization of transit services, a lack of amenities, open spaces and services for the existing employees and businesses[167].

The following land use directions were created to maximize development opportunities to create employment intensification:

1. Intensify employment opportunities by directing high intensity employment uses near transit and public amenity spaces;
2. Due to the shifting nature of employment uses, maximize flexibility to ensure building can evolve and adapt to accommodate change;
3. Encourage the vertical stacking of industrial and employment uses that move away from the 20th century trend to expand industrial uses horizontally;
4. Focus and enhance the unique nature of each site that is not available in other areas of the city;
5. Focus on activating uses at grade; and
6. Encourage working rooftops that allow business to test new products and grow food to expand economic functions[168].

The False Creek Flats Area Plan created four character sub-areas to maximize the economic function of the area: Health Hub, Creative Campus, Back-Of-House and Terminal Spine (Figure 20). Each of these areas has a specific vision and permitted uses (Table 14).

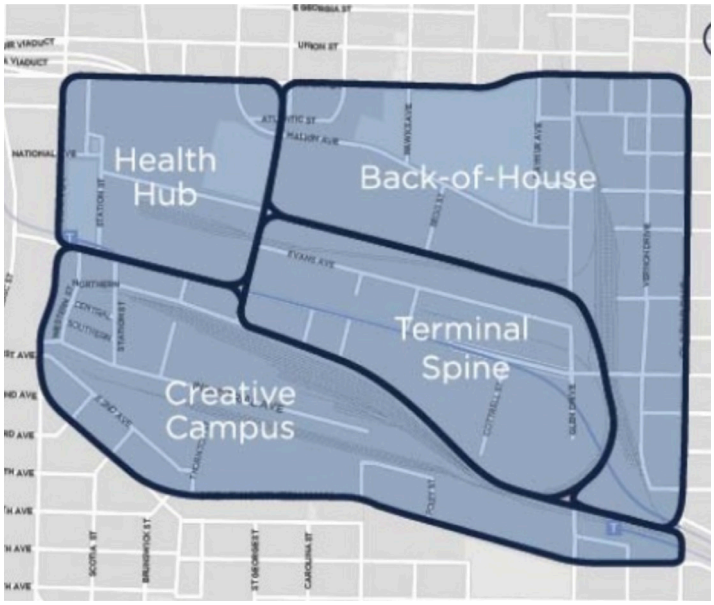


Figure 22. The Four Character Sub-Areas[169].

Character Sub Area	Vision
Health Hub	This area will focus on health science and medical office uses that appeal to a range of businesses and will accommodate substantial future innovation growth in the health care, life science, digital entertainment and product manufacturing. This area will accommodate higher heights and densities that intensifies and connects employment to transit, amenities and disaster resilient infrastructure[170].
Creative Campus	This area will accommodate primarily innovation economy uses including research and development, laboratories, digital or tech office, spaces for local food economy, residential and arts and culture facilities[171]. It will utilize existing and future transit improvement and institutions to leverage investment and growth in the area.
Terminal Spine	Envisioned as the centre of the plan that connects the higher density health hub and creative campus uses to the lower density industrial back of house. It will accommodate a diverse range of uses including traditional industrial, digital entertainment, creative product manufacturing and information and communication tech[172].
Industrial Back-Of-House	This area will protect existing industrial uses while ensuring land availability for future uses. It will include light industrial, service industries, cultural creative industries and food economy. It will not permit auto retail or mini storage uses[173].

Table 10. Four Character Sub-Areas Description

Lessons Learned

Employment District plans need to foster the unique identity of their area to maximize their competitiveness and offer services not available in other areas of the city. Both the False Creek Flats Area and the Bramalea GO Mobility Hub are existing employment hubs located in unique locations with specialized industries. Successful innovations hubs are located in close proximity to institutional uses, the downtown area and are well connected to transit. The Bramalea GO Mobility Hub area is located in close proximity to the future Ryerson campus and Pearson Employment Hub providing the opportunity for specialized aviation, training facilities and research and development industries. It is important that land use plans remain flexible and encourage the vertical expansion or use rather than horizontal expansion. Employment areas should be well connected, well serviced by amenities and services and adaptive.

Key Findings:

- Plans need to be flexible to account for the ever changing nature of the employment industry;
- Need to foster the unique characteristics of an area to maximize its economic potential;
- Need to activate uses and provide amenity hub areas for the employees and businesses; and,
- Connectivity is a crucial component of successful innovation hubs.

4.2 Site Specific Case Studies

Catalyst 137

The Catalyst137 campus in Waterloo was designed to be the largest Internet of Things (IoT) manufacturing space in North America, offering space and services to support research and technology companies. The campus is a total of 475,000 square feet in size with different size units and spaces to accommodate a variety of company types. They offer the following services to their tenants: a testing facility, makerspace, commercialization space and funding opportunitie[174]. A similar development could occur in the Bramalea GO Mobility Hub area by reusing the existing Canadian Tire building to provide an incubator space to service local industries and companies.

Communitech Hub

The Communitech Hub is private-public innovation hub that supports over 14,000 companies ranging from startups to global enterprises. Entrepreneurs with the vision to make Waterloo Region a global innovation centre founded the hub. The hub is 120,000 square feet in size and offers a range of services and amenities to its companies[175].

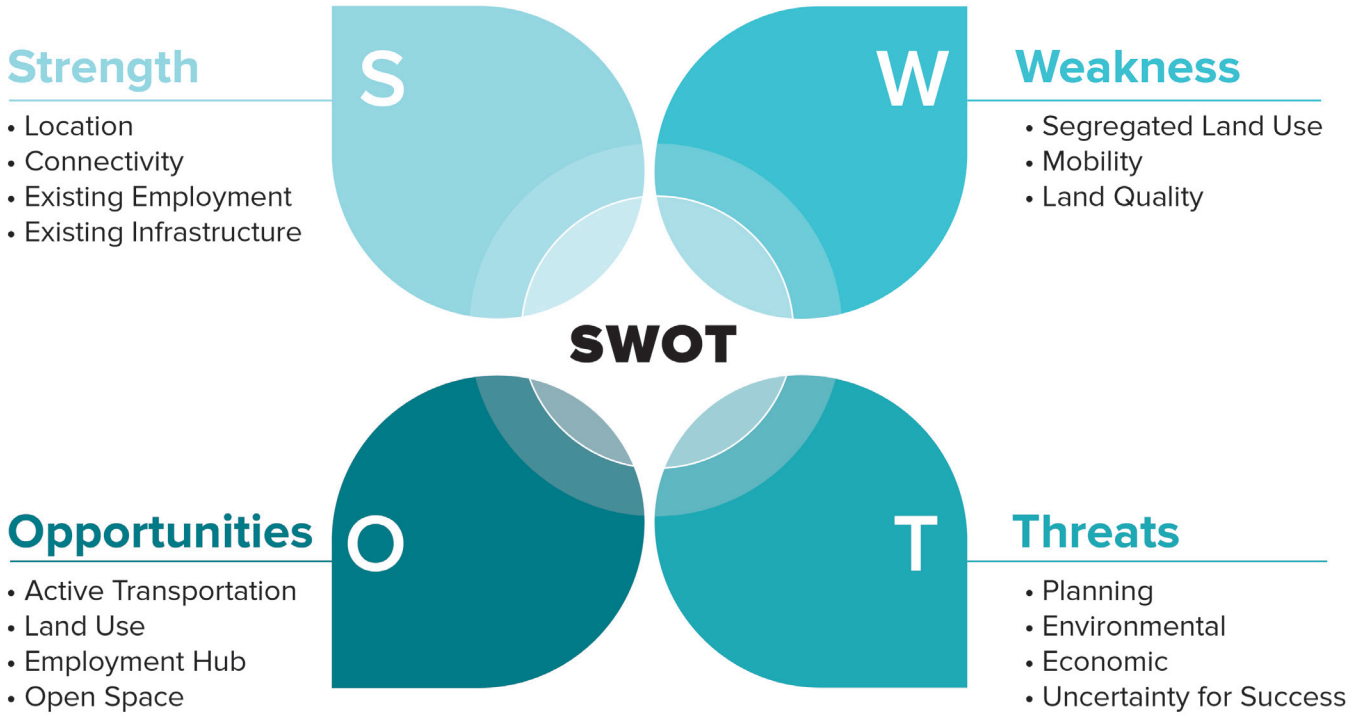
Communitech helps their companies thrive in three ways:

- Space: A common building and collective roof;
- Programs: To assist with accessing customers, capital and employees; and
- Ecosystem: Having the tools necessary to help companies grow from start-ups to global enterprise[176].

Development at the existing Canadian Tire Site should consider the use of a collective space for businesses that offers resources and amenities that attract employment to the area. These incubator hubs have proven successful in Waterloo Region and have the opportunity to strengthen Brampton's role as a major employment hub along the Toronto-Waterloo Region Corridor.

5 SWOT ANALYSIS

5.1 Internal



5.1.1 Strengths

Location

The Site is in a prime location, surrounding two main arterial roads: Steeles Avenue East and Bramalea Road. The Site has excellent access to transportation infrastructure, such as the access to Provincial Highway 407 ETR at the southern end of the Study Area.

Existing Employment

Bramalea Go Mobility Hub contains a high concentration of existing employment uses. Providing a strong base for future employment growth and intensification.

Connectivity

The Site is well served by existing transit services such as Züm and GO, which provide access to local, regional and provincial destinations. Metrolinx identified Bramalea GO as a Mobility Hub, with feasible connection opportunities to Kitchener, Toronto and other urban areas in the Greater Golden Horseshoe. In addition, the Site is supported by CN rail with stops along Bramalea Road.

Existing Infrastructure

Due to existing site conditions, servicing and utility connections are readily available and it is likely that the site will have the capacity to accommodate new developments that are part of the vision. As such, it is not likely that new infrastructure will need to be built in order to service the Site. Further studies will be required to verify infrastructure capacity and i requirements for new developments in the Study Area.

5.1.2 Weakness

Segregated Land Use

Land uses are overly segregated in the Site, with the heavy dominance of industrial uses. Land segregation is also impacted by the overall topography of the Study Area specifically at the south-east corner of the Study Area. The significant change in grade descended from provincial Highway 407 ETR at the south provide limitations to development opportunities at the Canadian Tire Site with regard to built form and accessibility from Bramalea Road. In addition, the CN freight rail route along the north edge of Steeles Avenue East creates a physical barrier to this frontage.

Land Quality

Based on current industrial use and high truck activity, it is likely that there is existing contamination on site, particularly at the existing gas station. The severity of contamination levels will remain unknown until an environmental assessment and an impact study are complete. The outcome may impact potential for development, specifically to sensitive land use such as commercial, office, recreational and residential.

Mobility

Mobility throughout the site is poor due to the autocentric nature of the Study Area. Pedestrian access and circulation is limited, particularly around the GO Station Area at Bramalea Road and Steeles Avenue East. Furthermore, the GO Station itself is hard to access for cyclists, pedestrians and automobile users. Furthermore the CN spur line along Steeles Avenue East impacts pedestrian mobility at the northeast corner of the Steeles Avenue East and Bramalea Road Intersection. This spur line may impact the ability to create an active streetscape along Steeles Avenue East. Mobility is also very constrained by the current dependance of large trucks as a freight corridor, proposing implications to truck mobility if this were to change.

5.1.3 Opportunities

Active Transportation

Metrolinx identification of the Bramalea GO Mobility Hub presents a large opportunity to increase transit ridership and community connectivity. There is also an opportunity to introduce further forms of active transportation infrastructure around the Site such as bike lanes on Bramalea Road and Steeles Avenue East. Increased active transportation could provide relaxed parking requirements to incentivise future development and will provide the pedestrian flows and circulation necessary to sustain retail and service businesses on the street level.

Land Use

There is strong potential for transit-friendly intensification around at the Bramalea GO Station corridor to facilitate the creation of a placemaking gateway. Existing high-rises to the north of the Site provide precedence for increased densities within the Study Area. There is also an opportunity to address current land use segregation through a higher density of mixed-use development, particularly around the Bramalea Road and Steeles Avenue East corridor. New uses will complement and strengthen the existing and future employment uses, increasing the desirability of the area. Additionally, existing industrial buildings can be used as a shell for new employment, as observed in the reviewed case studies.

Employment Hub

A large opportunity exists to strengthen the Study Area's role as an "Employment Hub" to better achieve live-work objectives of the 2040 Vision. The census dissemination area (CDA) show the largest age group living in the area is between the ages of 25-29 years, with median age of 38. This figure displays the potential to grow further as an employment area with support of a younger working-age demographic. Being in close proximity to the Pearson Airport, there is opportunity to harness economic benefit through complementary employment growth, especially with the expansion of the Airport Economic Zone.

Open Space

In support of Brampton's Environmental Master Plan (EMP), there is a large opportunity to improve upon the few existing green spaces on the Site. In particular, consideration should be made for the potential expansion of the existing parkette at the corner of Bramalea Road and Steeles Avenue East. There is also opportunity for the Study Area to implement EMP policies, which promote and incentivize sustainable development, stormwater management and transportation management to benefit the Site.

5.1.4 Threats

Planning

Through reassessment of the Study Area, a Zoning By-law Amendment will also be required to reflect the proposed land use and density changes. The intensification of the Site may limits its ability to meet the parking requirements of the Zoning By-law. Being impacted by the Pearson's Airport Zoning Regulation and the GTAA's Crane Assessment area, building height potential will be limited to approximately ten storeys for the Site with the potential requirement for additional approvals.

Economics

Considering the high demand for large industrial warehousing, a threat will be justifying the introduction of alternative land uses such as office-commercial into the Site. The Bramalea GO Mobility Hub area may also face economic implications through increasing land costs via intensified development. Although it results in higher land value, redevelopment may reduce the existing desirability of the Site as an employment hub due to land affordability. An intensification of new land uses is also projected to increase cost utility costs by approximately $38 a day, in order to sustain the capital-intensive water and wastewater services.

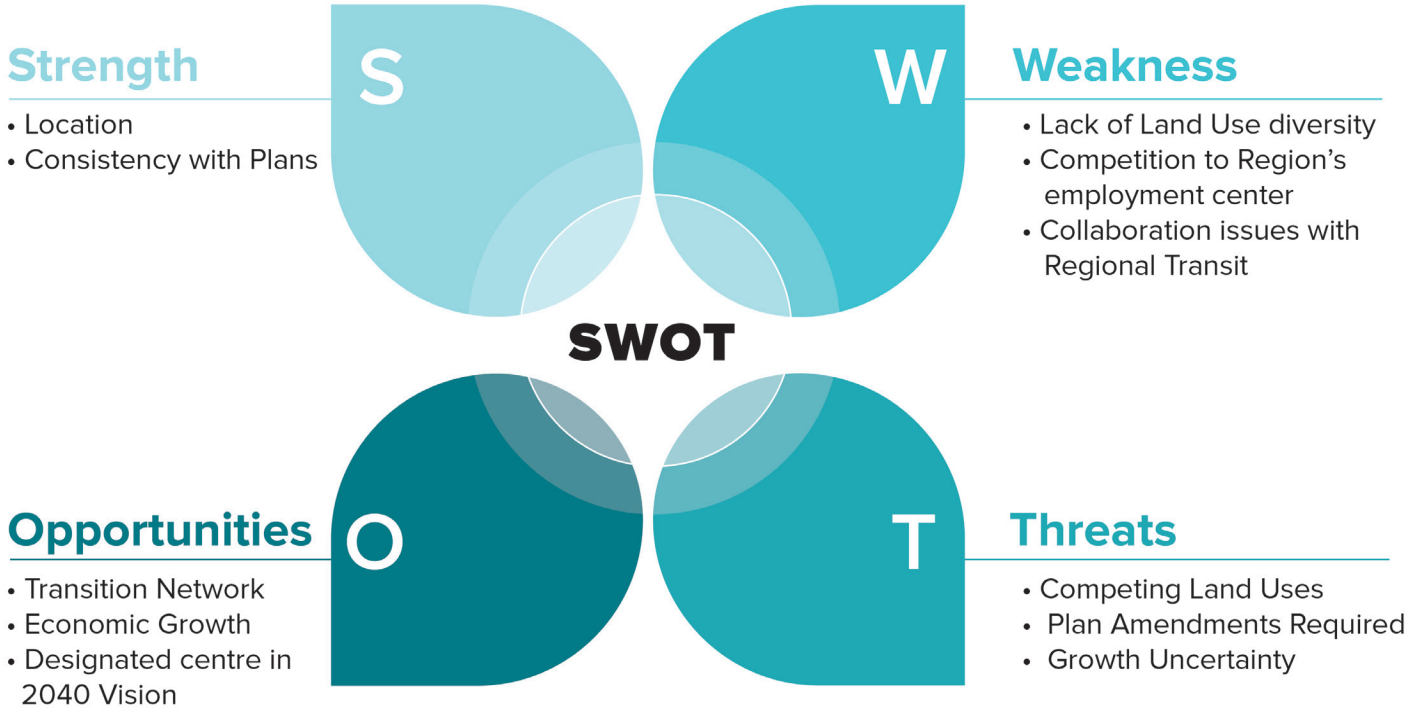
Environmental

The floodplain along the western edge proposes a threat to development along that corridor. The Site is also constrained environmentally from the topography at the south-west, limiting accessibility to potential land uses from Bramalea Road at this edge. In addition, stormwater management will need to be assessed to accommodate future development.

Uncertainty for Success

The introduction of a new development concept also introduces uncertainty about its success. There exists uncertainty about political support for the redevelopment of the Bramalea GO Station Area; because political context changes over the course of multiple elections, it is uncertain about whether future actors in the municipal and regional governments will fully support this new land use vision. Specifically related to the vacant Canadian Tire Site, there exists uncertainty about the new ownership of the property. It may be possible that the future owner will not support the change in land use envisioned for the area. Finally, there is uncertainty with regards to support by existing land owners, residents and employers already making use of this area. There may be resistance against the new land use vision, whether it is due to the perceived threat of displacement or the area's significant transformation.

5.2 External



5.2.1 Strengths

Location

Brampton's strategic location offers a number of advantages for the creation of a successful employment node. This is due to the fact that it can be found at two major arterial roads, known for their connectivity to other major employment areas in the GTA, such as Mississauga and Toronto. Additionally, it is found along the Toronto-Waterloo Region Corridor, which allows room for various economic opportunities. Through this, a gateway for visitors and residents is created for easy access to major developments, including the Ryerson University Campus and Innovation Centre, as well as the Downtown area. In addition, the City of Brampton's central location in the GTHA encourages transit operators to expand their networks and while connecting the city to the Toronto Pearson International Airport.

Consistency with Plans

The City of Brampton's planning documents and studies are consistent with provincial plans and conform to the Peel Region Official Plan. Currently no updates are required to ensure consistency and conformity to these plans. Thereby demonstrating a strong collaboration with both upper and lower tier governments.

5.2.2 Weakness

Lack of diversity in land uses

There has not been much development in terms of commercial uses across the City of Brampton, over the past three years. Industrial development outweighs commercial, and is the preferred development. With the CN rail in close proximity to the Toronto International Airport, it became the main centre of industrial development of Peel Region. However, The City of Brampton is still viewed as the "little brother" to the City of Mississauga when analyzing industrial centres.

Competition to Region's Employment Centre

Bramalea was originally planned as a suburban community, but now contains a strong industrial base. The City of Mississauga on the other hand, has grown to be an edge city and a more affluent community. This in turn forced the City of Brampton to be viewed as more of a commuter city by many. The City of Brampton continues to compete with surrounding municipalities to become a more successful employment area.

Issues collaborating with regional transit

For the most part, Metrolinx works on transit projects independently. The company is economically driven, therefore the idea of collaboration between the City of Brampton and Metrolinx becomes a challenge.

5.2.3 Opportunites

Transit Network

Efforts and plans have been made to directly link Bramalea Go Station to the Toronto Pearson International Airport, the Regional Transit Centre (RTC), and consequently the Greater Golden Horseshoe (GGH). Brampton GO Station will be further connected to the Brampton Gateway Terminal via the Light Rail Transit (LRT) on Hurontario/ Main Street. With the introduction of the rapid transit along Queen Street, key developments will be accessible through the use of one transit service operator, providing convenience for regular commuters.

Designated Centre in 2040 Vision

The Study Area is in close proximity to supporting land uses for an employment node, such as daycares, schools and community centres. These land uses serve as assets to employees and other individuals who visit the Site frequently.

Economic Growth

The location of Brampton in Pearson's Airport Economic Zone (AEZ)/Eco-Business Zone allows for numerous employment opportunities and spill-over economic benefits. With the high demand for employment lands throughout the GTA, there is always room for market expansion. Additionally, the expansion of the Ryerson University satellite campus into the region will draw the attention of a much younger working class/population.

5.2.4 Threats

Competing land uses

The Study Area contains a strong diversity of land uses which at times conflict with another. While diversity in land uses is important to draw developers to the City of Brampton, it can also pose as a threat to the existing prosperity of current uses.

Plan Amendments Required

In the case that more residential uses are proposed in the area, an MCR and Minister Approval might be required. Since the area is designated as a significant employment area, the process might be delayed till the Region's next MCR for re-designation. This is also the case with the new proposed Growth Plan Amendment.

Growth Uncertainty

The future plans of the Ryerson University campus in Brampton are uncertain. The University campus would bring major growth to the community because of the potential partnerships with local companies. This uncertainty creates market and demand uncertainty, so there is a fear of losing innovative investments.

6 OUR MISSION

Vision

"To develop an innovative employment center around the Bramalea GO Station that introduces a range of new jobs, supports transit oriented development and live-work opportunities"

6.1 Study Goals and Objectives

Proposed development plans were created in order to achieve the following Goals and Objectives:

GOAL 1

Increase the number of jobs in the CIty of Brampton, primarily those in the tertiary sector. Objectives:

- Support the economic shift away from the manufacturing sector by allocating lands for the occupancy of new industries in the Brampton context.
- Create complete communities and access to transportation networks that invite these industries.
- Collect market and real estate data to further inform the potential introduction of jobs in other sectors.

GOAL 2

Support the use of public transportation modes operating in and out of the Bramalea GO Station. Objectives:

- Recommend a transit-oriented development that improves connectivity around the Bramalea GO Station.

GOAL 3

Create a development that aligns with Municipal, Regional, and the Provincial goals expressed for site. Objectives:

- Review all relevant overarching policy to ensure that developments align with the goals expressed in upper tier plans.
- Continuously refer to these goals during the formation of development options.

GOAL 4

Recommend development that integrates efficiently into the City of Brampton's current built and social framework. Objectives:

- Host public engagement meetings to ensure all relevant stakeholders have opportunity to submit their input on proposed development plans.
- Assess not the Study Area Site but major land uses surrounding it.

6.2 City of Brampton Official Plan: Sustainable City Framework

The City of Brampton Official Plan defines goals and objectives for the municipality, which guide all city initiatives[177]. Sustainable development represents the foundation of the Official Plan to guide Brampton's growth in a way that balances the economic, environmental, cultural and social needs of the community[178]. To achieve this type of growth, the plan outlines the following goals and objectives:

1

Complete Communities

Complete communities that are compact, transit-oriented and pedestrian-friendly with a mix of uses and a variety of housing choices, employment and supporting services and facilities(s.3.1);

Fostering vibrant residential neighbourhoods that provide a variety of housing options for people at various stages of their life cycle (s.3.1); and,

An integrated land use and multi-modal transportation plan that provides a balanced transportation system giving priority to public transit and pedestrians (s.3.1).

2

Economic Development

A robust commercial and employment land use strategy that promotes economic stability, vitality, and diversity and caters to the changing needs of the market and the residents of Brampton(s.3.1).

3

Resilience

The City's long standing ecosystem approach to land use planning that recognizes the dynamic interrelationship of all elements of the biophysical community that are necessary to achieve a sustainable, healthy natural heritage system(s.3.1).

4

Sustainability

A culture of conservation that is expressed through the coordinated implementation of the City's land use development, natural heritage and environmental management, and recreational and cultural heritage policies(s.3.1);

The conservation, restoration and enhancement of the integrity of Brampton's air, water and land resources(s.3.1); and,

Priority to preserving and enhancing the City's rich cultural heritage and existing social fabric that is integral to the City's urban design and community revitalisation strategies including the Flower City Strategy(s.3.1).

5

Healthy Development

A Growth Management Program that ensures growth takes place in a coordinated and fiscally responsible manner(s.3.1); and,

The preparation and management of strategic documents that guide development and/or operational decisions, such as environmental master plans and sustainable development guidelines, to ensure that the City's land use planning and corporate management programs are sustainable (s.3.1).

6.3 Success Criteria

Success Criteria defines the quantitative and qualitative measurable responses that can be used to assess the success of the proposed development plan upon initiation:

Increasing the number employment based jobs

The best approach will offer the greatest variety and quantity of jobs in the Study Area. The majority of these jobs will be in the employment industry with a limited number in the service commercial and retail industries. Furthermore, success in this criteria must ensure that this growth is sustainable from a servicing point of view.

Transportation Supportiveness

The best approach will maintain or exceed the 15 percent public transportation rate by increasing of residents and jobs per net hectare. A successful plan will utilize Transit Oriented Development principles that achieve a compact urban form that makes accessing transit services easy and convenient.

Walkability

The best approach will increase facilitate the development of a compact urban form with an increased number of pedestrian networks. The best approach will promote active uses at grade and areas of pedestrian refuge to generate further pedestrian traffic.

Compatibility with surrounding area

The best approach will provide an appropriate transition to the adjacent lower density residential and industrial uses through the uses of stepbacks and gradual changes in height and density. A successful plan will ensure compatibility, which does not mean likeness, of building design and materials. Furthermore, success in this criteria must provide appropriate setbacks and noise mitigation measures to more sensitive land uses.

Access to nature and amenity spaces

The best approach will increase the number of connections to green spaces, services and amenities. A successful plan will ensure that amenity and walking space is located within a 500 metre radius of all residential, commercial and employment land uses.

Flexibility

The best approach will be able to adapt with the changing real estate and job market by permitting a range of appropriate uses in each land use designation. Furthermore, it will provide the opportunity to re-use pre-existing industrial buildings and allow the opportunity for a range of uses and businesses to be located within one development.

High Quality Urban Design

The best approach will provide the necessary heights and densities to support the creation of an identifiable gateway feature. A successful plan will propose a range of building types and design to create a stronger sense of place and more attractive urban form. Furthermore, it will provide a high quality open space design that allows for areas of pedestrian refuge.

6.4 Business Case

An extensive study of real estate patterns, employment shifts, and market trends, was conducted to inform the recommendations of this study from an economic perspective. Key considerations from this analysis are described below.

A Transforming Economy - Shifting Away from Industrial/Manufacturing

The Bramalea GO Mobility Hub is characterized by large industrial land uses, including production facilities, storage buildings, and distribution centers. As land values continue to rise throughout the GTA, and Brampton continues to densify as an urban center, there is a transition of employment away from the traditional industrial and manufacturing uses, mirrored by other cities in the province of Ontario. In fact, traditional manufacturing and industrial land uses are declining[179][180]. Between 2000-2011, Ontario experienced a decline in manufacturing jobs of approximately 5.5 percent, or 300,000, which can be attributed to factors such as automation, globalization and low productivity[181]. The industrial uses in Brampton are projected to migrate out of the City in the near future.

The Canadian Tire Site is one such example of a large distribution center that is migrating to another municipality due to the need of more space, cheaper land values, similar access to other parts of GTA, and reduced traffic congestion[182]. Brampton may have once been a good location for these uses, but through its increasing density and competing land uses, industrial uses are looking to relocate to more promising areas.The proposed plans in this study aim to prepare the City of Brampton to capitalize on this transition, using it as an opportunity to introduce new employment typologies. Integrating new jobs in other sectors will diversify and expand Brampton's job pool, leading to City development and economic prosperity.

Increasing Demand for Employment Lands

There is potential to introduce new and innovative employment opportunities to the City of Brampton. Brampton employment lands in general are highly sought after due to the Municipality's location within the Toronto-Waterloo Region Corridor and its close proximity to the other parts of the GTA. The GGH is experiencing a major economic transition, where traditional, routine work is being challenged by the rapid growth of "skilled, tech-related, and knowledge-intensive activities" with emerging employment spaces such as" mixed offices, labs, tech space, startups, universities and colleges", especially in denser urban areas[183]. By taking advantage of shifts in employment trends and emerging technology, the new Bramalea GO Mobility Hub can attract more employers and businesses.

7 THE PLAN

Incrementi Consulting prepared two land use visions for the Study Area based on a critical analysis of the existing policy framework, growth trends, real estate data, transportation network, servicing and case study research. These two land use visions have different proposed implementation timelines but are not necessarily exclusive of one another.

7.1 Land Use Vision Strategy

Plan A: Short Term

The Bramalea GO Mobility Hub area necessitates a land use plan that builds upon its location along a major innovation corridor and its existing and proposed transportation and transit network. Plan A is a more traditional employment area plan that has less risk and can be implemented in a shorter duration of time. This plan focuses on the redevelopment of eastern limits of the Study Area, primarily on the Canadian Tire Site and GO Station Area. These two sites will work together to foster the creation of an innovation business park with the necessary amenities and services to support businesses and employees. Plan A focuses on intensifying commercial and office uses along Bramalea Road to create a more active streetscape while retaining the existing industrial uses to the north and south. The Plan will protect these industrial uses while including additional permitted uses and additional densities to give the Plan the flexibility to adapt to the ever changing nature of the employment real estate market. Plan A has a proposed five to ten year timeline to implement, after which the Study Area would need to be revisited.

Plan A is divided into seven land use categories focused along the immediate corridors of Bramalea Road and Steeles Avenue East: Employment, Commercial Office Mixed-Use, Service Commercial/Retail, Bramalea Business Innovation Park, Institutional, Residential Mixed Use and Open Space.

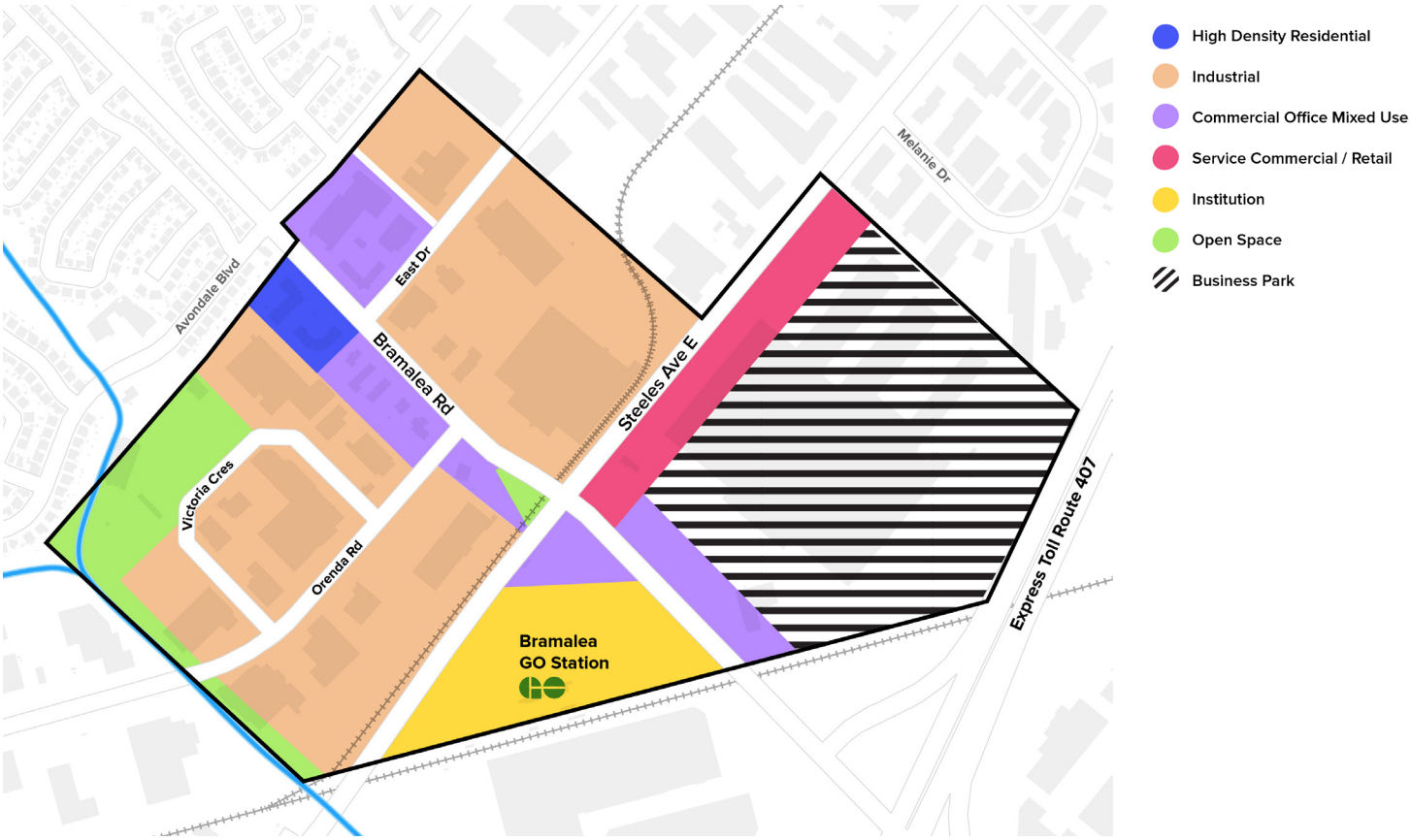


Figure 23: Plan A Land Use Configuration.

Employment

Plan A protects much of the existing industrial employment at the north, accommodating the large industrial-demand demonstrated in the real-estate data. The designation protects existing employment uses and transitions heavier industrial uses away from the Bramalea Road corridor. This will allow the corridor to be redeveloped with more transit-supportive uses. The Employment land use designation will permit a range of traditional employment uses such as manufacturing and warehousing while including additional permissions for stand alone office uses, research and development uses and incubators. This area will contain the lowest density permissions and permit a maximum height of four storeys.

Commercial Office Mixed Use

An integration of commercial office mixed uses will be focuses along Bramalea Road and the GO Station area. This will include a medium-density block that peaks at a maximum height of six to eight storeys at the corner of Bramalea Road and Steeles Avenue East.Furthermore, higher-density commercial office uses are proposed along Bramalea Road to the north and south to a maximum height of four to six storeys. This intensification will aid in forming a gateway feature at centre of the Bramalea GO Mobility Hub.

Bramalea Business Innovation Park

A Bramalea Business Innovation Park use is proposed on the existing and soon to be vacant Canadian Tire site. The proposed Bramalea Business Innovation Park land use designation would permit a range of office, research and technology, makerspace, incubator and commercial uses. This gives the Site the flexibility to adapt to the market changes while making it desirable to a range of business owners and start ups. The Site will increase the economic prosperity and business connectivity within the area for the following reasons. First, it will provide more jobs to the employment hub. Second, it will begin the transition out of primarily industrial land uses. Third, it will provide a linkage for potential partnerships with the Pearson Airport and Ryerson Technology Hub.

Service Commercial/Retail

Service commercial/retail is proposed along the edge of Steeles Avenue East, east of Bramalea Street, supplying complementary uses to the surrounding area. Retail will restricted to the ground level and to a maximum size of 500 square metres, to activate the street.

Institutional

To remain within the Bramalea GO Station, increased density permissions are proposed to a maximum of eight storeys.

Residential Mixed-Use

To remain at the north of the site, west of Bramalea Road.

Open Space

The Open Space designation will apply to the existing parkette on the corner on Bramalea Road and Steeles Avenue East and the Victoria Arena and Park, at the northwest corner of the Study Area.

STRENGTHS

- **Strengthens the existing conditions by intensifying corridors with complimentary mixed-use**
- **Provides a gateway feature at the Bramalea Street and Steeles Avenue East intersection**
- **Balances high industrial demand with transit-friendly development**
- **Easily achievable with quick turnover**

Plan B: Long Term

Plan B is a more innovative land use planning approach that builds upon the permissions of Plan A to further maximize its potential to become a highly successful employment and innovation hub. Similar to Plan A, Plan B focuses on further activating the Bramalea Road streetscape to generate more street traffic and add additional service commercial amenities at grade to service the surrounding area. The Plan proposes a series of green networks that connect the Victoria Park and Arena to adjacent businesses and the adjacent stream path network. Furthermore, the green network would extend along Steeles Avenue East behind the CN railway to offer a multi-use pathway that is protected from the heavily trafficked road to increase the area's walkability without impacting the significant freight corridor. This approach would have a proposed 20 to 25 year timeline that would not need to be re-evaluated in five to ten years.

Plan B is divided into seven land use categories covering the entirety of the Site: Employment, Commercial Office Mixed-Use, Service Commercial/ Retail, Bramalea Business Innovation Park, Institutional, Residential Mixed Use and Open Space.

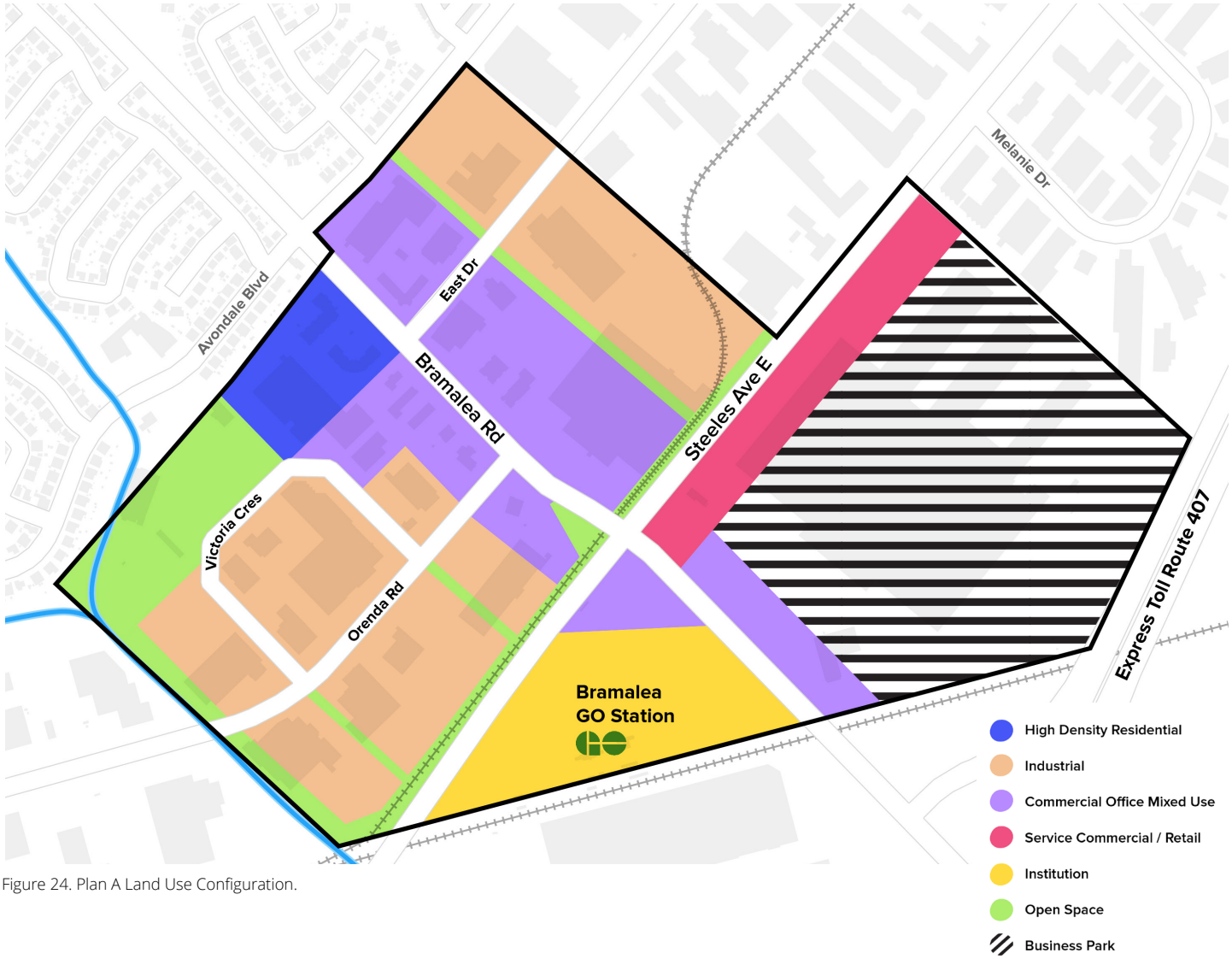


Figure 24. Plan A Land Use Configuration.

Employment

Plan B focuses on a mix of employment land uses that expand vertically instead of horizontally, to move away from traditional industrial land typology, to meet the current and future needs of the employment real estate market. The Employment land use designation will permit a range of traditional employment uses such as manufacturing and warehousing while including additional permissions for stand alone office uses, research and development uses and incubators. This area will permit a maximum height of four to six storeys. Along the peripheries of the Study Area heights will be permitted to a maximum of four storeys. Offering higher densities and a greater range of uses, this would be a more aggressive employment land use approach.

Commercial Office Mixed Use

Commercial uses will be implemented at grade, along Bramalea Road corridor, in order to create an active front with office uses above. Higher density commercial office mixed-uses at the intersection of Steeles Avenue East and Bramalea Road are proposed to a maximum height of ten storeys. Having a series of coffee shops, and/ or food courts within close proximity to the Bramalea GO Station, will greatly benefit the working class. It will also ensure that visitors can have daily meals, physical activity, and complete professional work at once without travelling beyond the premises.

Bramalea Business Innovation Park

Located at the southeast corner of the Study Area, a proposed tech hub, called the Bramalea Business Innovation Park, will replace the current Canadian Tire use. The proposed Bramalea Business Innovation Park land use designation will permit a range of office, incubator, research and development and commercial uses. This Site is intended to bring transformative change to the Bramalea GO Mobility Hub. It provides the opportunity for partnerships with Pearson Airport and Ryerson Technology Hub. Furthermore, it is flexible and can adapt to the changing nature of the real estate market.

Service Commercial/Retail

Much of the space has been devoted to adding services, and can be found adjacent to the Business Park, just south of Steeles Avenue East. Plan B calls for the development of multi-use buildings that provides easy access to fitness centres, social gathering areas, and cafeteria in a single urban space for all facility users. Retail will only be found at the ground floor (street oriented).

Institutional

Within the existing Bramalea GO Station.

Residential Mixed-Use

In the form of resource saving, the most suitable approach is to make the most of existing buildings and infrastructures. Plan B aims to expand on existing residential and mixed use developments on the north corner of the Site.

Open Space

The plan aims to create a balance between a compact city approach and an improved sparse city. In turn, more urban greenery (green corridor) is introduced at the north west corner of Steeles Avenue East to serve as a transitional barrier between the rail tracks and developments in the area. These green spaces will be accompanied by a well-designed path dedicated to cyclists and pedestrians to support a more natural transportation connection. By following a railroad corridor, rail-trail or multi-use path adds a mobility option to an established route between destinations that are proposed along the rail line. Refer to figure (X).

Figure 25. Cross Section of the Green Corridor proposed in Plan B.

STRENGTHS

- Aims to convert the Bramalea Go Station Study Area into a desirable area for innovation hubs and high tech companies;
- Combines a more dense core with polycentric urban developments that benefit the region by creating accessibility, and efficiency throughout the Study Area;
- Intends to create a more defined grid network to allow easy movement throughout the Site. This creates small blocks of land just north of Steeles Avenue East, which can make the transition between activities and land uses more harmonious; and
- Shapes a more sustainable city, through long term planning, as a response to the projected growth of Brampton's economy.

7.2 Role in Regional Context

The redeveloped Bramalea GO Mobility Hub area will play multiple roles in the regional context, both within Brampton and the GTA. The area will provide new and innovative employment opportunities for the residents of the Study Site, Brampton and the Region of Peel. The Bramalea GO Mobility Hub will introduce a new innovation employment use with service and knowledge sector employment opportunities. The hub will leverage its unique location near Pearson Airport to complement and further attract AEZ spillover and possibly ancillary aviation-oriented employment opportunities. The growing presence of technology and innovation employment will establish Brampton's presence along the Toronto-Waterloo Region Corridor, attracting more of the younger demographic to live, work and play in the City.

The Bramalea GO Mobility Hub will also become a significant transit-supportive area, facilitating intracity travel between Brampton's residential and employment centre nodes. The area will also facilitate and promote better intercity connectivity between Kitchener, Waterloo, Guelph, Milton, Mississauga, Hamilton, Toronto and other cities in the GTHA. Better alignment with Provincial policies such as those in the Growth Plan will allow this area to achieve greater local prosperity and resident well-being, while contributing to Brampton's goal of increasing the supply of jobs within City limits. Through the use of strategic partnerships and high quality planning, the Bramalea GO Mobility Hub will create a powerful precedent of sustainable redevelopment and revitalization.

7.3 Success Criteria and Recommendation of Preferred Scenario

The two plans have been analyzed and assessed based on success criteria. The success criteria were developed to reflect Brampton's Sustainable City Framework goals and objectives with respect to complete communities, economic development, resilience, sustainability, and healthy development. A letter grade is assigned to each plan based on the criteria being assessed. This methodology allows for a preferred scenario to be determined.

	PLAN A	PLAN B	GOAL
Increasing Employment Based Jobs	**A-**	**A+**	Economic development
Transportation Supportiveness	**B**	**A**	Economic Development
Walkability	**C**	**A+**	Complete Communities
Compatibility with Surrounding area	**A**	**A**	Complete Communities
Access to Nature and Amenity spaces	**B-**	**A+**	Sustainability
Flexibility	**A**	**A**	Resilience
High Quality Urban Design	**B**	**A**	Healthy Development

Table 11. Success Criteria and recommendation evaluation.

7.4 Success Criteria

Increasing the number employment based jobs

The best approach will offer the greatest variety and quantity of jobs in the Study Area. The majority of these jobs will be in the employment industry with a limited number in the service commercial and retail industries. Furthermore, success in this criteria must ensure that this growth is sustainable from a servicing point of view.

From this point of view, Plan B better achieves this success criteria. It offers increased employment density and range of job opportunities to support the creation of a highly successful employment hub. It proposes the vertical expansion of employment uses due to limited land availability that is supported by case study research and market analysis. While both plans propose the Bramalea Innovation Business Park hub, Plan B further supports it by providing additional services and amenities, as well as limited residential to increase its desirability to future businesses and employees.

Transportation Supportiveness

The best approach will maintain or exceed the 15 percent public transportation rate by increasing of residents and jobs per net hectare. A successful plan will utilize Transit Oriented Development principles that achieve a compact urban form that makes accessing transit services easy and convenient.

While both plans support the existing and proposed transportation network, the most successful plan in this criteria is Plan B because it offers increased densities and heights that further activate the street. The green corridor approach increasing the connectivity of the area and makes it easier for businesses to access transit services. Furthermore, Plan B provides an multi use path along the western side of Steeles Avenue East, that is protected from the road and increases active transportation opportunities in the area.

Walkability

The best approach will facilitate the development of a compact urban form with an increased number of pedestrian networks. The best approach will promote active uses at grade and areas of pedestrian refuge to generate further pedestrian traffic.

In this criteria, Plan B prevails as it proposes a green corridor approach and an increased number of amenities within walking distances to all residential, commercial and employment uses. Furthermore, it improves the existing active transportation network to ensure pedestrians feel safe and can easily access businesses and amenities. Plan A does not change the pedestrian network but proposes improvements along Bramalea Road that further activate the street to generate pedestrian traffic. In this regard, Plan B better achieves the walkability success criteria.

Compatibility with surrounding area

The best approach will provide an appropriate transition to the adjacent lower density residential and industrial uses through the uses of stepbacks and gradual changes in height and density. A successful plan will ensure compatibility, which does not mean likeness, of building design and materials. Furthermore, success in this criteria must provide appropriate setbacks and noise mitigation measures to more sensitive land uses.

In this regard both plans are tied. Plan A provides a lower heights and densities that maintain the low density nature of the surrounding residential and industrial areas. Plan B however proposes increased height at the major intersection of Steeles Avenue East and Bramalea Road that tapers down towards the Bramalea residential neighbourhood and adjacent industrial areas, therefore ensuring compatibility. Plan A offers a more traditional land use typology approach that is compatible surrounding industrial Area.

Plan B proposes a shift to a more innovative employment use approach but proposes uses that are compatible and further support the land uses in the surrounding area. In this regard, both plans are compatible with the surrounding areas.

Access to nature and amenity spaces

The best approach will increase the number of connections to green spaces, services and amenities. A successful plan will ensure that amenity and walking space is located within a 500-metre radius of all residential, commercial and employment land uses.

Due to the proposed green corridor approach, Plan B better achieves this success criteria. The green corridors ensure that recreational space, open space and amenities are within a walking distance to all businesses further reducing the need for an automobile. Furthermore, these corridors connect to the surrounding pathway system along the stream channel increasing connections to the surrounding green and recreational space. Plan A does not propose changes to the access to nature and amenity spaces but proposes improvements to the existing parkette and areas of pedestrian refuge along Bramalea Road. However Plan B builds upon these improvements to provide green corridor connections and better connectivity to the municipal pathway and natural heritage network.

Flexibility

The best approach will be able to adapt with the changing real estate and job market by permitting a range of appropriate uses in each land use designation. Furthermore, it will provide the opportunity to re-purpose pre existing industrial buildings and allow the opportunity for a range of uses and businesses to be located within one development.

It has been determined that there is no distinguishable difference between the flexibility of the two proposed plans.

Both plans are able to adapt with the changing real estate and job market by permitting a range of land uses. The only difference between the two plans is that Plan B will take longer to achieve than Plan A. Plan A leaves more of the industrial uses, and allows for the City to revisit the land uses in about 5-10 years, when the new land uses have been used. Whereas, Plan B will take longer to achieve because many of the land uses proposed are expected to reflect the real estate market, based of industrial uses leaving the area. Plan B offers a longer range plan in which the development and prosperity of the area will take longer to achieve. Both proposed plans utilize and re-purpose the pre-existing industrial buildings, while still promoting industry land uses, especially in the proposed business park.

High Quality Urban Design

The best approach will provide the necessary heights and densities to support the creation of an identifiable gateway feature. A successful plan will propose a range of building types and design to create a stronger sense of place and more attractive urban form. Furthermore, it will provide a high quality open space design that allows for areas of pedestrian refuge.

Plan B facilitates the achievement of the highest quality urban design. This approach has high densities and heights of buildings at the Bramalea and Steeles intersection, which support the creation of a gateway feature. In this plan, there are a range of building types such as commercial and retail with varying building types and heights along both roads. The mix of commercial and retail along Bramalea creates an attractive urban form to the area. The utilization of the parkette and surrounding walkways allow for high quality open space design.

7.5 Final Recommended Scenario

Plan B represents the preferred recommended scenario because it is the most successful land use vision in the success criteria comparison. This scenario is optimal because it is reflective of the industrial and commercial real estate trends and forecast presented in the report. Industrial uses are beginning to leave the GTA because of the high land prices. This plan repurposes these industrial lands to create a mobility tech-hub that promotes a diversity of employment types, such as retail, commercial, and industrial. These employment types can further support the tech-hub and Pearson airport initiatives. Joint collaboration with Ryerson, the Mobility Hub, and Pearson Airport can offer businesses and services focusing on research and developments in areas such as aviation and cybersecurity. Overall, this plan utilizes the current data related to the Site and suggests land use designations that offer enough flexibility to adapt to the changing state of the real estate market.

7.6 Work Plan

To implement the land use vision outlined in Plan B, the following policy and programs recommendations are offered as part of the work plan.

7.6.1 Planning Recommendations

Zoning By-law Amendment

A Zoning By-law Amendment is required to facilitate the changes in use and density in the land use vision. New proposed zones should create minimum and maximum heights and densities to ensure appropriate growth. Permitted uses within each zone should be flexible to give them the ability to adapt to the changing real estate and employment market and reduce the need for future Zoning By-law Amendments. It is recommended that certain zones contain a provision that requires a minimum of two uses within a development.

Official Plan Amendment: Creation of a New Secondary Plan

An amendment to the current Secondary Plan framework is required to facilitate the proposed land use designation change. As two secondary plans currently apply to the Study Area, it is recommend that a new Secondary Plan is created that encompasses the entire area. This would result in a more straightforward planning approach that reduces the complexity of the planning process as only one plan needs to be referred to. Therefore an Official Plan Amendment is required to introduce a new secondary plan.

Urban Design Guidelines

As stated previously, one of the study's success criteria was high quality urban design. To ensure that all development meets this criteria, it is recommended that area specific Urban Design Guidelines are created. These guidelines will focus on creating a unique sense of place that activates Bramalea Road and maximizes the unique character of the area. It is also recommended Crime Prevention Through Environmental Design (CPTED) principles are established through this guideline.

Sustainability Community Development Guidelines

New development in Brampton is required to use the Sustainability Assessment Tool to score its environmental sustainability and requires development to meet a minimum bronze score[168]. One recommendation from this study is to develop specific Sustainability Community Development Guidelines for the Bramalea GO Mobility Hub area and a specific minimum score that developments must achieve that is specific to these guidelines.

Bramalea GO Community Improvement Plan

Develop a Community Improvement Plan (CIP) for the Bramalea GO Mobility Hub area under Part IV Section 28 of the Planning Act. This plan would be created for the purpose of economic development and environmental remediation. A number of incentives are recommended through the implementation of the CIP such as a reduced development charges, brownfield remediation programs, combined planning approval processes and reduced parking provisions. The CIP may also include provisions to ensure sustainable growth, safety and any necessary clean up or mitigation measure. These provisions would incentivize developers to complete Contamination Studies, Environment Surveying, Environmental Impact Studies and Stormwater Management Studies.

7.6.2 Implementation Recommendations

Engage in public and private consultation

It is valuable to organize and engage in public and private consultation in order to understand the goals and intentions of the stakeholders associated with the Site. A specific private and public consultation is the development of the Canadian Tire Site. The future uses of the Site should be understood before decisions are made (such as rezoning) from the City of Bampton. Engagement with the public and private stakeholders is recommended.

Engage in Public Consultations

Further public consultation should include existing employers in the area and residents north of Study Area. The changes proposed in this plan will significantly impact their neighbourhood, transportation, and amenities.

Collaborations with other Stakeholders

There is opportunity to collaborate with a variety of stakeholders on the proposed plan. Some potential collaborations could include Metrolinx and the Region of Peel. The proposed land uses for the pre-existing parking lot would need to be a collaborative process with Metrolinx.

Since Metrolinx is implementing a parking garage, this new land use could occur at a beneficial time.

Next, there is opportunity to collaborate with the Region of Peel to expand public services and assist in funding for future infrastructure plans.

7.6.3 Future Program Recommendations

Community Improvement Plan

In the future, it is recommended to develop a Community Improvement Plan to respond to the economic and mobility needs of the area. In this plan, the Municipality is encouraged to implement transportation initiatives such as the following. First, promoting active transportation and mixed-modal transportation options for employees to commute to work. It is particularly important to identify linkages between properties for more direct walkable paths. The redevelopment of the Canadian Tire Site should not be a barrier to walkability. Second, it is recommended to perform and collect data to create a Traffic Report. This report will justify the increase in employment and density of the proposed land uses. It will be useful to compare past and present years to monitor the impact of the change in land uses. Last, it is suggested to provide a reduced transit pass (i.e. Brampton Transit) for employees working in the business park. This will encourage employees to use public transit, rather than drive, to decrease the amount of traffic in the area and promote the multimodal transportation hub.

Internal Business Plan

A future recommendation is to develop an internal business plan to guide the prosperity of the Mobility Hub and justify the expenditures. The plan should include policy direction for economic growth, strategies, programs, and projects to improve the economy. This would be implemented in conjunction with the Community Improvement Plan to stimulate business growth. The overall goal of the plan should be to build a strong and vibrant local economy. This plan will be helpful to oversee the real estate market and real estate trends.

8 CONCLUSION

The Bramalea GO Mobility Hub Study Area is well situated to become a highly successful employment-based hub. While employment land in this area is highly desirable with a low vacancy rate, the area necessitates a comprehensive planning vision with the flexibility to allow the area to adapt to the changing nature of the real estate market. Incrementi Consulting created a detailed analysis of the subject area to identify key opportunities and constraints in order to develop a land use vision that maximizes its unique strengths, transportation connections and location.

The recommended Plan B land use vision is a more progressive 20 to 25 year approach that builds off the area's unique industries to offer a plan to facilitate the development of a more compact urban form and range of land uses to support the existing and future employment uses. This vision increases its desirability to future businesses and employees and maximizes the area's economic potential. Furthermore, the vision is environmentally sustainable: careful consideration was taken to reduce the negative impacts of future development to the surrounding neighbourhoods, infrastructure and environment.

To implement this vision, a series of planning studies, consultations and incentives are recommended to further increase the Bramalea GO Mobility Hub's ability to become a highly successful and innovative employment hub. This approach is progressive and goes above and beyond typical employment area visions to create an identifiable employment hub that maximizes economic growth in the area to set an example of how employment areas should be planned in the future.

GLOSSARY

AEZ	Airport Economic Zone
ASL	Above Sea Level
AZR	Airport Zoning Regulations
CDA	Census Dissemination Area
CN	Canadian National (Railway)
CPTED	Crime Prevention Through Environmental Design
EMP	(Brampton) Environmental Master Plan
EZ	Eco-business Zone
GDP	Gross Domestic Product
GFA	Gross Floor Area
GGH	Greater Golden Horseshoe
GTA	Greater Toronto Area
GTAA	Greater Toronto Airports Authority
GTHA	Greater Toronto and Hamilton Area
HSR	High-speed Rail
LRT	Light Rail Transit
MCR	Ministry Comprehensive Review
MTSA	Major Transit Station Area
NEF	Noise Exposure Forecast
OHBA	Ontario Home Builders Association
RER	Regional Rail
RTC	(Toronto Pearson) Regional Transit Centre
SWOT	Strengths/Weaknesses/Opportunities/Threats (Analysis)
TPIA	Toronto Pearson International Airport
TTC	Toronto Transit Commission
UGB	Urban Growth Boundary

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TEAM ASSIGNMENT CHECKLIST

TEAM ASSIGNMENT CHECKLIST:

Please read the checklist below following the completion of your group assignment. Once you have verified these points, hand in this signed checklist with your group assignment.

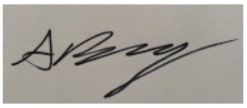
1. All team members have referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.
2. A proper bibliography has been included, which includes acknowledgement of all sources used to complete this assignment.
3. This is the first time that any member of the group has submitted this assignment or essay (either partially or entirely) for academic evaluation.
4. Each member of the group has read the full content of the submission and is assured that the content is free of violations of academic integrity. Group discussions regarding the importance of academic integrity have taken place.
5. Each student has identified his or her individual contribution to the work submitted such that if violations of academic integrity are identified, then the student primarily responsible for the violations may be identified. Note that in this case the remainder of the team will also be subject to disciplinary action, but the penalties for the extended team members may be less severe.

Course: PLAN 405

Assignment: Final Deliverable

Date: April 4th 2019

Name	Signature	Section Completed	Section Edited
Nhel Soriano		Study Overview, Current Land Uses, Policy Research, Business Case	Entirety of Proposal
Allison Bucking		Purpose/Problem Statement, Key Planning Issues, Case Studies, Land Use Vision, Goals, Success Criteria, Work Plan, Conclusion	Entirety of Proposal

Kate McNamara		Industrial Real Estate Analysis, Commercial Industrial Analysis, Ryerson Campus and Tech Hub, Success Criteria, Work Plan, Final Recommended Scenario	Entirety of Proposal
Sydney Bailey		Acknowledgements, Existing Conditions, Topography, Ecological Conditions, Internal SWOT, Land Use Vision Plan A	Entirety of Proposal
Natalia Godwinska		Letter of Transmittal, Executive Summary, Contamination, Neighbourhood Demographics, Growth Trend Analysis, Airport, Business Case, Role in Regional Context, References	Entirety of Proposal
Rawan Amin		Executive Summary, Servicing, Mobility Network, External SWOT, Land Use Vision Plan B	Entirety of Proposal
Anna Yu		Design of Final Deliverable, Title page, Table of Contents, List of Figures, Area and Location, Neighbourhood Demographics,	Entirety of Proposal