

An aerial photograph of a city street grid, overlaid with a semi-transparent red filter. The streets form a dense, rectangular pattern. In the lower portion of the image, a multi-lane highway with several overpasses and ramps is visible, cutting through the grid. The overall tone is urban and strategic.

Shaping the Heart

A Commercial Strategy for 22nd Street Station Area

March 2020

Acknowledgments

This strategy was produced for the City of New Westminster as part of the Planning Studio Course at UBC's School of Community and Regional Planning (SCARP). This project has been conducted in partnership with City of New Westminster staff and under the mentorship of SCARP faculty. SCARP's planning studio (PLAN 526) is an intensive, seven-month, professionally oriented course in which graduate students partner with municipalities, community organizations or businesses to work on real planning projects.

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Executive Summary

Planning commerce, community and connections for a climate-friendly future

The future of 22nd Street Station Area looks nothing like the present.

Vibrant commercial spaces, pedestrianized streets and apartment towers will define the area currently established as a SkyTrain pass-through surrounded by single detached homes. While preparing for a high density mixed use community, it is critical to understand commercial use.

The 22nd Street Station Area Commercial Strategy provides research, analysis and recommendations for commercial opportunities around 22nd Street Station in New Westminster and will inform the future area Master Plan. This strategy is intended for the City of New Westminster but is relevant to future and current residents, transit riders, business owners, developers and local organizations in the area.

The strategy is the result of a multi-phased, seven-month approach.

From September 2019 to March 2020, this project underwent three phases. Phase 1 focused on information gathering. The project team conducted a literature and precedence review, key informant interviews, a thorough site analysis and market study. With this research, the team facilitated design workshops in Phase 2 to connect the findings to the site context, resulting in multiple design scenarios. Phase 3 prioritized refining the design scenarios and market analysis to provide specific recommendations.

The recommendations prioritize bold action to address the climate crisis.

Following the City's newly endorsed "bold planning approach" for the 22nd Street Station Area in response to the climate emergency, the final policy and design recommendations focus on how the community may build towards a greener future. Key values that framed the recommendations include sustainable partnerships, flexible form, green mobility, and active public realm. These values provided a foundation for the proposed strategy, that is aimed at fostering a supported commercial environment and lasting community heart.

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1. Intro- duction

Project Context

The New Westminster Official Community Plan (OCP), adopted in 2017, identified the need for a Master Plan for the area surrounding the 22nd Street SkyTrain Station. This area is a Frequent Transit Development Area (FTDA) that is expected to see higher-density development in the next several years. The City of New Westminster (the City) staff have engaged in many processes to guide the development of the Master Plan, including the development of a detailed transportation study, and a proposed land use map used to guide

this project. The Master Plan will detail how the area will transform from a largely single detached dwelling neighbourhood to a higher density mixed use area. The purpose of this Commercial Area Strategy is to inform the forthcoming Master Plan. This project will provide recommendations for commercial opportunities near 22nd Street Station that will help foster a sense of community and connect new residents with existing residents.

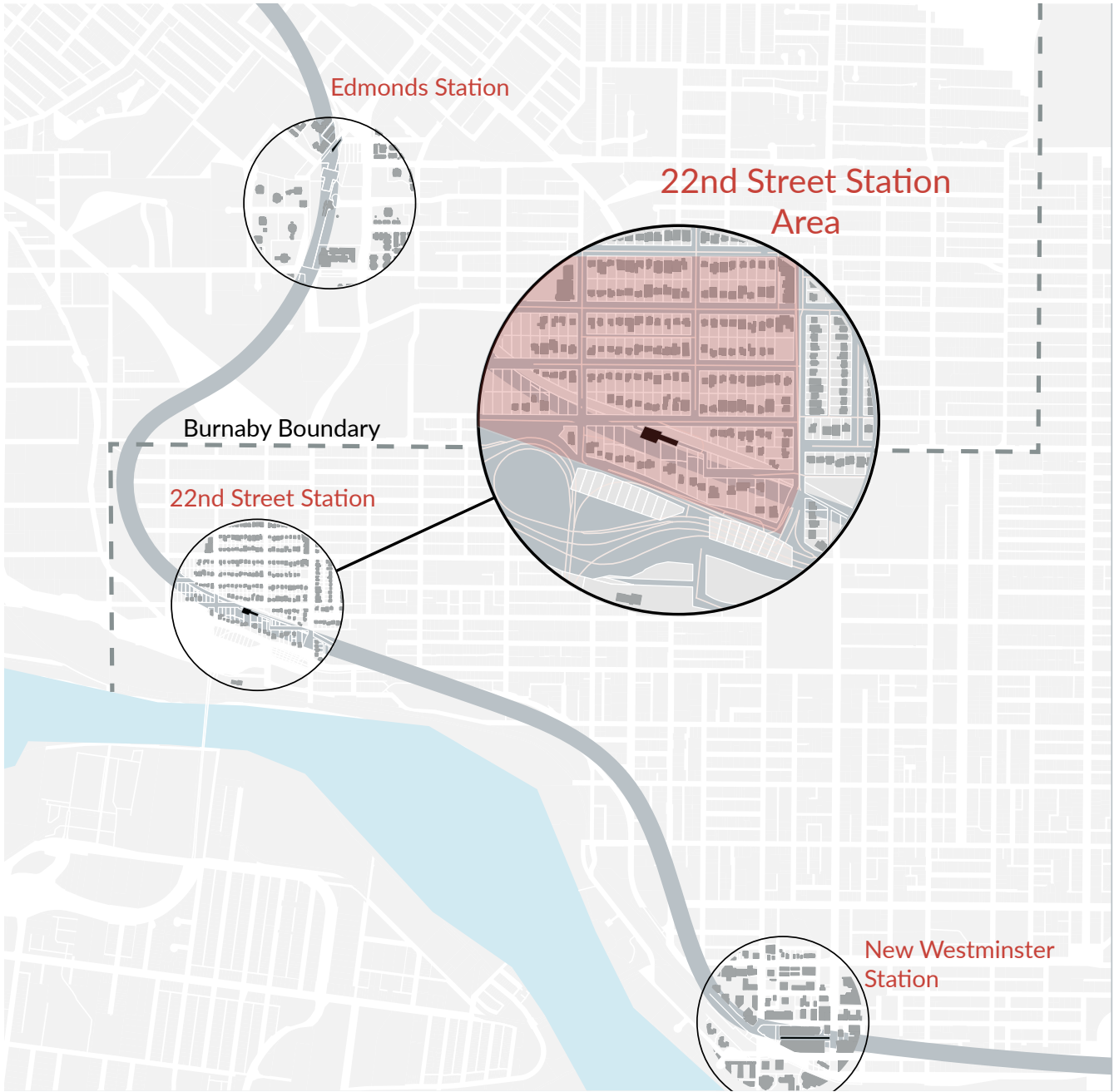
This project will provide recommendations for commercial opportunities near 22nd Street Station that will help foster a sense of community and connect residents.

Meet Sprout Planning

Sprout Planning is a Vancouver-based planning and design team with a breadth of experience relating to local economic development, public health, transportation planning, urban design, community engagement, and sustainability. Our team is comprised of four graduate students from UBC's School of Community and Regional Planning. We are creative yet detail-oriented, holding our projects to a high standard in all aspects, from research and project management to collaboration and communication design. We strive for an iterative and engaged process that applies equity and environmental lenses to all the work we do.



Context Map



Project Objectives

What would viable commercial space look like at 22nd Street Station Area?

Guided by this overarching question, this Commercial Area Strategy will inform the 22nd Street Station Master Plan.

Through a holistic approach, this project will deliver a comprehensive document that aims to:

- 1. Determine the supportable commercial space for the area, the type of commercial establishments and the customer base it would support
- 2. Identify best practices when creating a commercial area through case studies and a literature review
- 3. Identify policies and tools that the City may use to facilitate the creation of a viable commercial hub around 22nd Street Station
- 4. Identify businesses' preferences when leasing or purchasing a space
- 5. Outline the type and the location for possible anchor tenants
- 6. Determine locations for commercial spaces that are attractive to businesses and that activate the public realm

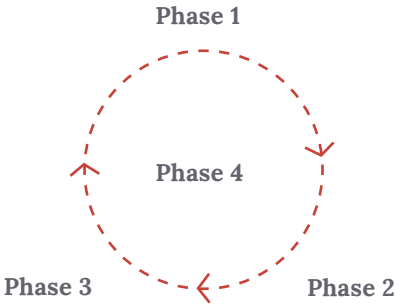
This project specifies the provision of commercial space in the area, including: supportable commercial floor space; types of establishments and policies to facilitate them; best practices; location and design features; and consideration of the needs and wants of potential business operators in the area.

These findings will help inform the unique identity of the area while also considering a climate crisis, and applying an intentional inclusion and accessibility lens throughout the delivery of the project.

Project Process

A mixture of literature review, precedence research, key informant interviews, and market modelling informed the findings of this report. To identify best practices and precedents, the team reviewed a combination of academic and grey-literature. The key informant interviews were conducted with a variety of industry experts and provided a local context to literature-identified best practice, and helped refine the market model. Key informants were primarily selected based on recommendations from the project partner. All findings underwent critical analysis with respect to their relevance to the site area, New Westminster's context, and their fit with the final design proposal.

This project was divided into four phases. The team used an iterative approach, continuously adapting steps in phases one to three.



Phase 1. Information Gathering <i>October to December 2019</i>	Policy Review	Site Analysis	SWOT Analysis	Interviews (x11)
	Literature & Case Review	Commercial Market Study	Identify Preliminary Scenarios	Interim Report
Phase 2. Scenario Development & Feedback <i>January to February 2020</i>	Refine Market Study	Scenario Design Workshops	Key Informant Feedback & Interviews (x7)	Refine Scenarios
Phase 3. Draft Report & Recommendations <i>February to March 2020</i>	Final Scenario	Draft Strategy	Refine Strategy	
Phase 4. Final Report & Presentation <i>March 2020</i>	Final Report	Final Presentation		

Policy Direction

The following City plans and policies guided the direction of the 22nd Street Area Commercial Strategy.

22nd Street Station Area Bold Vision and Climate Emergency

In November 2019, the City publicly identified its “Seven Bold Steps” to combat climate change in response to its declaration of a Climate Emergency in 2019 (1). As the Seven Bold Steps were released during the development of this project, the project team applied a climate-friendly lens, with emphasis on a car-light community and quality people-centred public realm.

Seven Bold Steps (1):

- Carbon Free Corporation
- Car Light Community
- Carbon Free Homes and Buildings
- Pollution Free Vehicles
- Carbon Free Energy
- Robust Urban Forest
- Quality People-Centred Public Realm

In late February 2020, the City endorsed a new planning approach for the 22nd Street Station area that responds to the Climate Emergency using the Seven Bold Steps (2). The objective of this new approach is to “create a Bold Vision for a Climate Friendly Future” (2).

Council has identified the need to use a climate lens on all future large projects in the City.

Official Community Plan (OCP)

The City adopted its Official Community Plan (OCP) in 2016. The OCP envisions New Westminster as a “healthy, inclusive and thriving community where people feel connected with each other,” highlighting its natural environment, public spaces, neighbourhoods, and accessibility as part of its strengths (3).

The plan identifies seven values that stress the City’s identity as a future-thinking community that considers the impact to its residents at a social and

physical level (3). These seven planning values include: housing choice, **neighbourhood hearts**, strengthened connections, supporting innovation, heritage, community health and resilience.

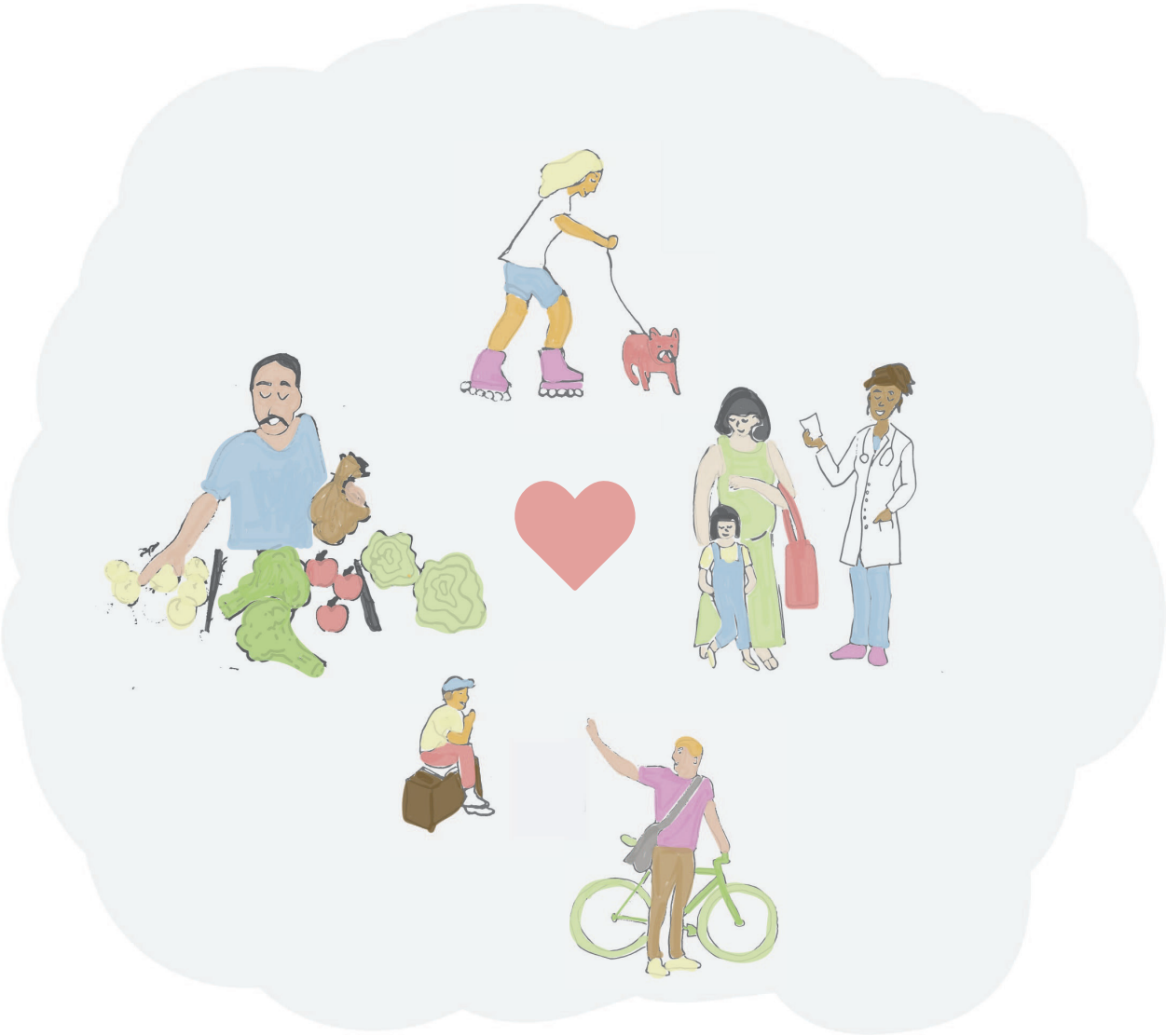
Neighbourhood Hearts

Ensuring each neighbourhood in New Westminster has a heart — a central place where people gather to shop, play, access services and meet their neighbours. Neighbourhood hearts can be community facilities, Great Streets or places like the River Market. (3)

Economic Development Plan

The City’s Economic Development Plan (EDP) guides the activities of the Economic Development Office to ensure that its actions align with the City’s other plans and policies (4). Its development helps ensure that the City’s economy is diverse and adaptive to the changing business needs in Metro Vancouver. The EDP has four main goals (4):

1. Establish New Westminster’s reputation as an ideal location for both start-ups and established businesses to thrive and grow.
2. Drive New Westminster’s commitment to delivery of a positive business experience at city hall.
3. Secure diversity in the local economic base through recruitment, retention and expansion activities.
4. Support livability initiatives that make New Westminster a great place to live, work and invest.



The City strives to ensure each **neighbourhood** in New Westminster has a **heart** — a central place where people gather to shop, play, access services and meet their neighbours.

2. Our Under- standing

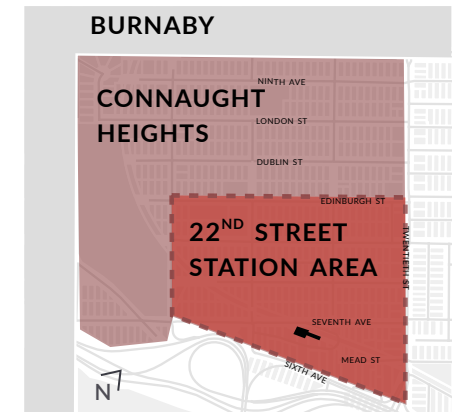
Understanding the Site

22nd Street Station Area

The 22nd Street Station Area (the Site Area), as labeled to the right, includes 33 acres of land and is located in the Connaught Heights neighbourhood.

This area has multiple site characteristics that contribute to its unique character as a potential redevelopment area.

The Site Area comprises almost entirely of single-detached dwellings. The proposed land use designations, as included in the OCP (see below), intends to change the area into a higher density residential and mixed-use neighbourhood.

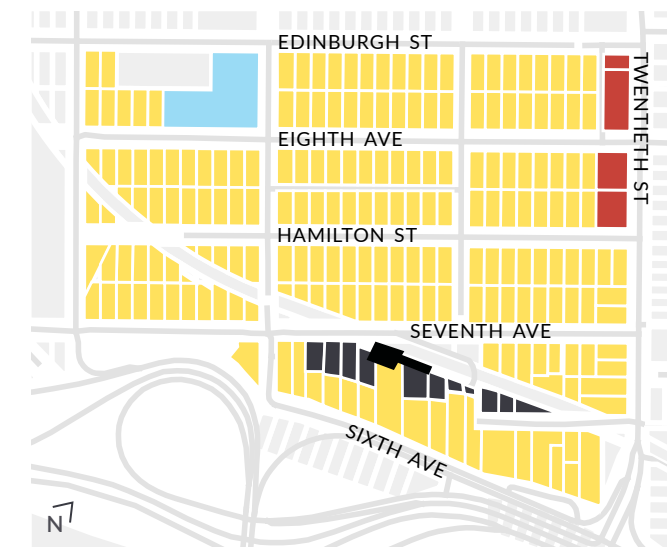


Site Area

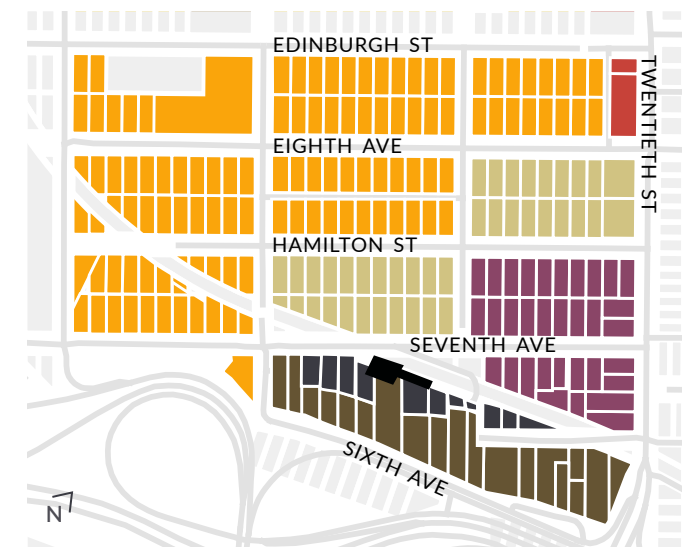
This section provides a **site analysis** from a commercial development perspective.

It aims to identify the **strengths, weaknesses and external factors** that define 22nd Street Station Area.

Existing Land Use for 22nd Street Station Area



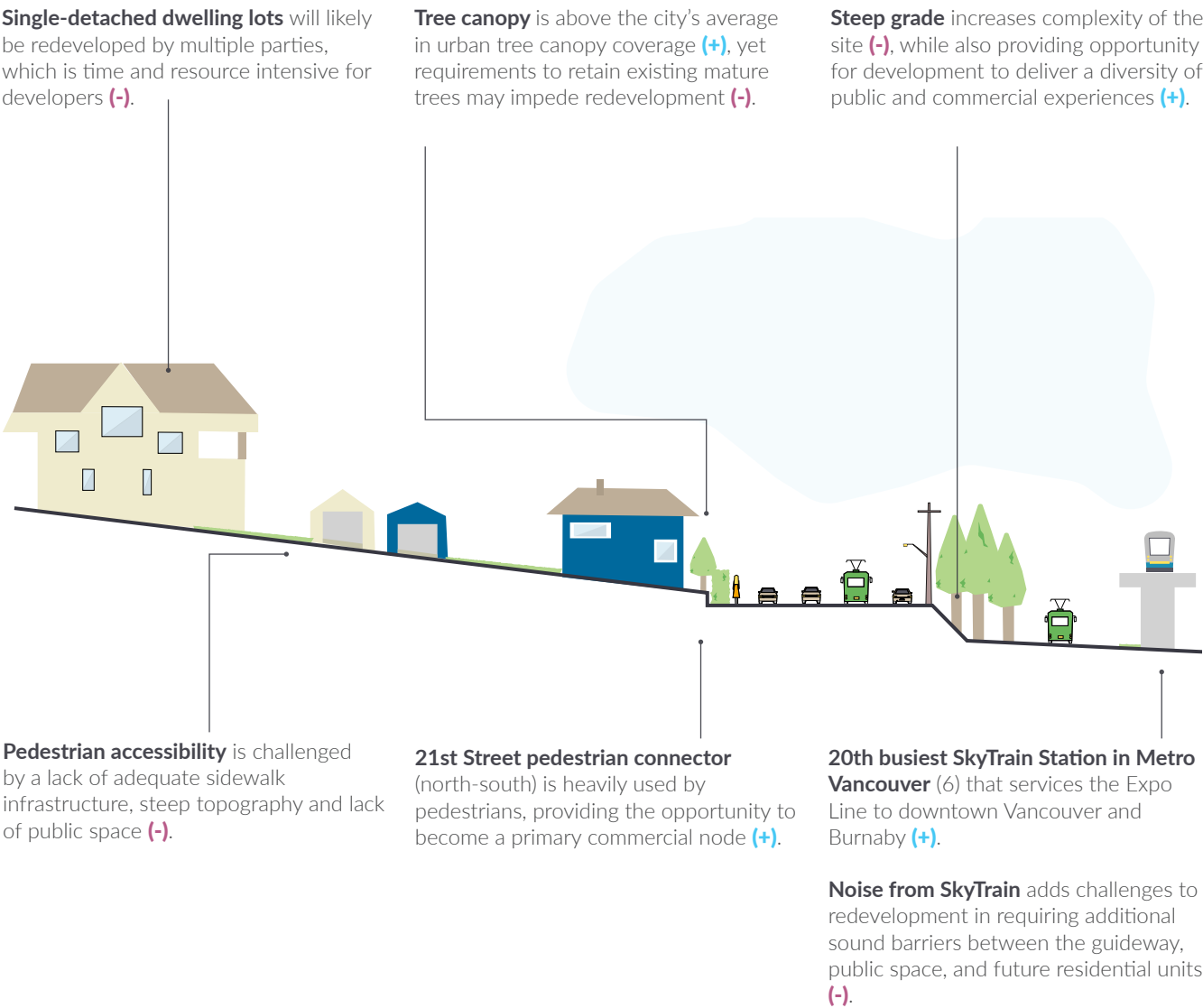
Proposed Land Use for 22nd Street Station Area



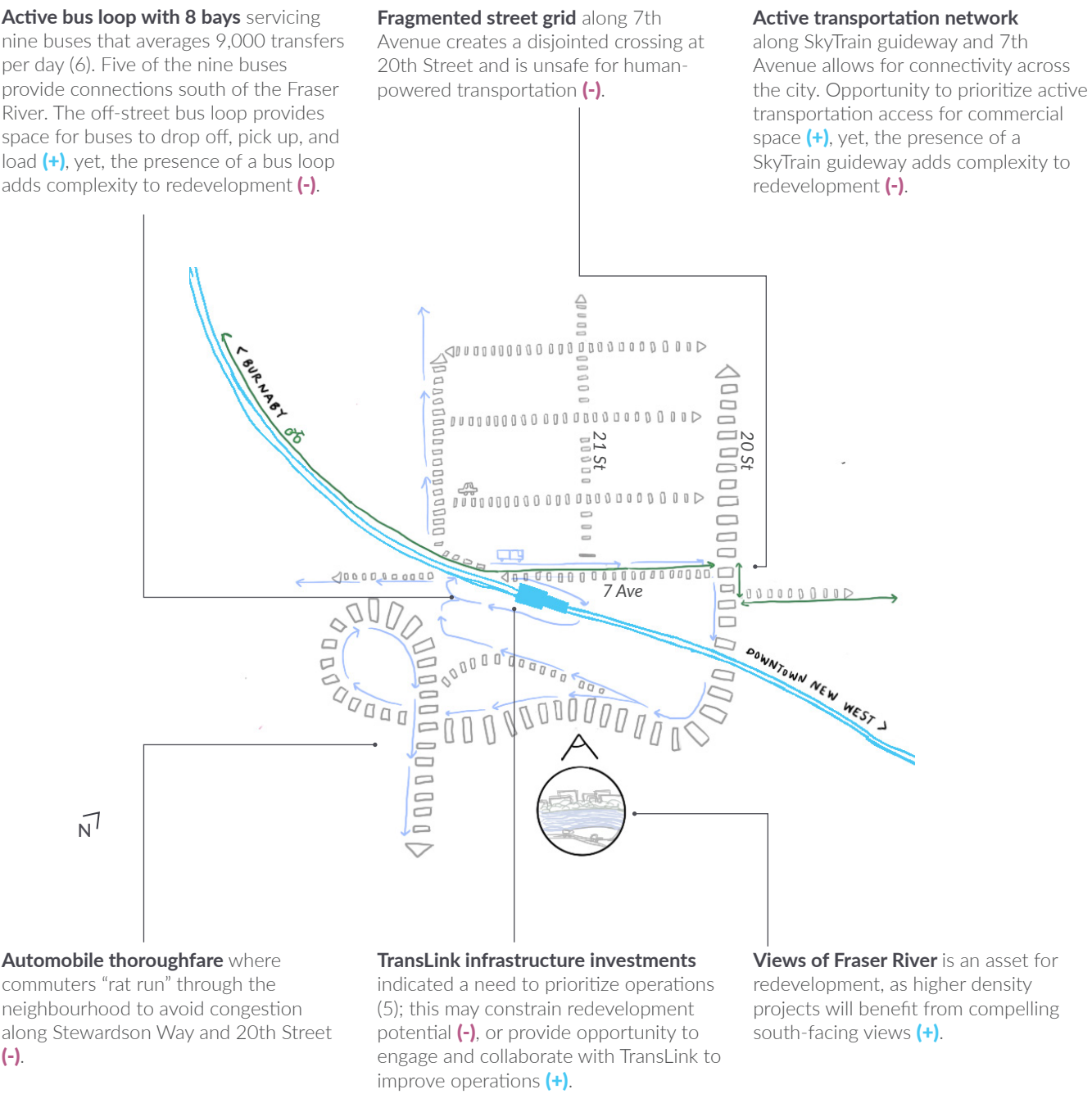
■ (RD) residential - detached and semi-detached housing
■ institutional
■ (U) utilities & transportation infrastructure
■ (C) commercial

■ (RT) residential-infill townhouse
■ (RM) residential-multiple unit buildings
■ (RH) residential-high rise
■ (MH) mixed use-high rise
■ (U) utilities & transportation infrastructure
■ (C) commercial

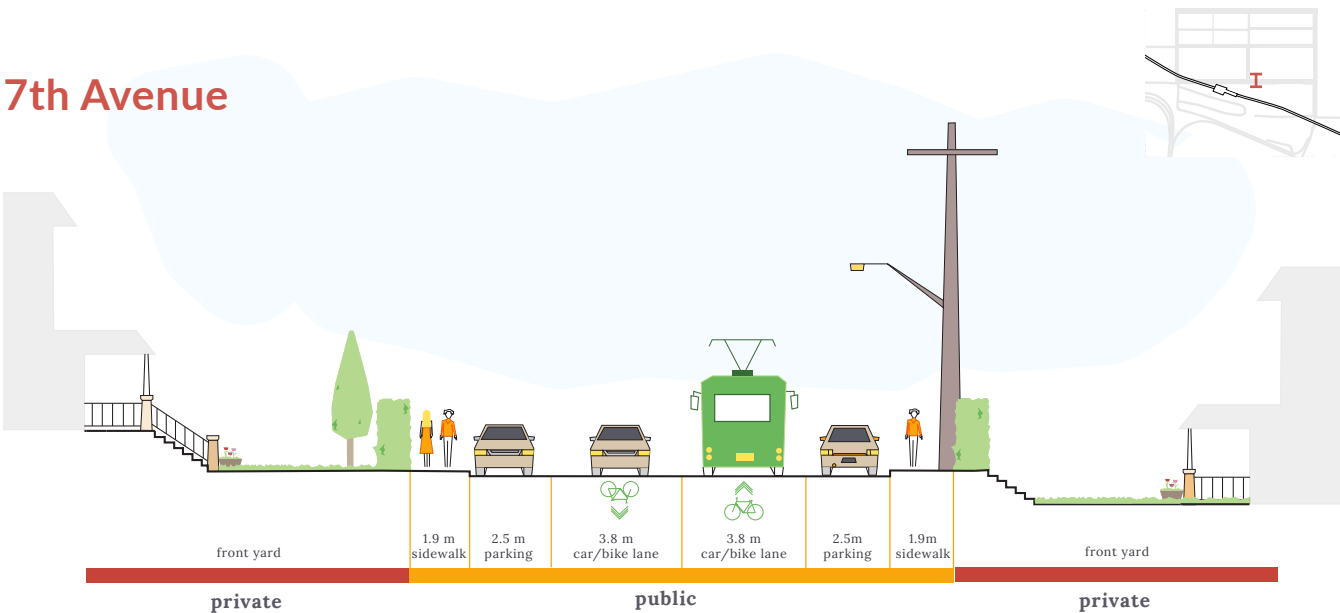
Site Characteristics



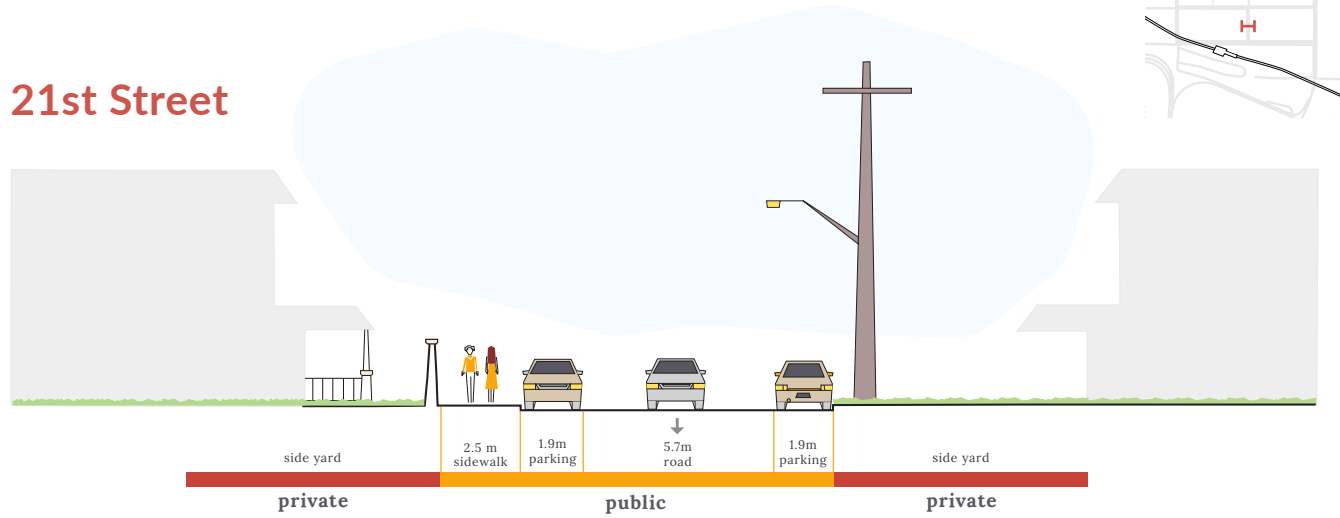
From a commercial redevelopment perspective, the Site Area has strengths (+) and weaknesses (-).



7th Avenue



21st Street



External Factors

Further to the site characteristics described previously, the following non-site specific externalities require consideration as the Site Area is redeveloped:

Climate emergency.

Concerns around inaction on greenhouse gas reduction and climate change have resulted in cities around the world declaring climate emergencies, in hopes of stressing the urgent need to address these concerns. The City's declaration and identified actions (1) provide a unique set of circumstances to address climate mitigation and adaptation.

Shifting economies.

Over the last decade, reliance on e-commerce has increased and consumer behaviour and lifestyles have shifted, changing the success of traditional economic models (8–11). This has resulted in changes to businesses' spatial requirements as well as the emergence of new business models such as the sharing, circular, and experience economies.

- **Sharing economy.** An economic system designed around the sharing of possessions and services (12).
- **Circular economy.** An economic system that focuses on maintaining the value of raw materials, products, and components, with the intention of designing out waste and pollution (13,14).
- **Experience economy.** An economic system focused on creating memories for its customers, whereby services set the stage for the experience and goods serve as the props (15).

Equity.

The City has identified a need to address equity to ensure that "all residents can access, participate in, and benefit from City facilities, infrastructure, programs, and services" (16). These needs are varied and broad, with different groups' and individuals' needs sometimes conflicting with one another. In addition, the Metro Vancouver housing crisis places a challenge to providing more affordable homes in existing, established, single-detached neighbourhoods.

Reconciliation.

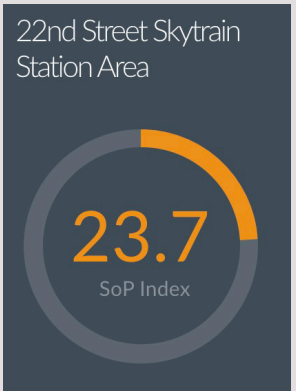
The City sits on unceded territory belonging to the Qayqayt First Nation. Council's 2019-2022 Strategic Plan identifies reconciliation as a priority as it works towards improving its relationships with Indigenous communities (16).

State of Place

State of Place (SoP) is a forecasting modeling tool composed of ten urban design dimensions that most impact the pedestrian experience (7). These design dimensions are based on the current state of 200+ built environment features, reflected in the SoP index score (7).

For the existing Site Area, features of personal safety, form and connectivity were ranked the highest.

Existing features that ranked lowest (or non-existent) were dimensions of proximity (diversity of land use mix), park and public spaces, recreational facilities and pedestrian and bike amenities. The data helped identify priority areas for design and policy recommendations.





7th Avenue and Skytrain



Single detached home on 7th Avenue



Traffic along 20th Street



21st Street cul-de-sac

Understanding the Market

This **commercial market study** estimates the total supportable commercial floorspace.

It analyzes the commercial supply and demand.

Commercial Market Study

Overview

The objective of the commercial market study is to estimate the total supportable retail and service commercial floorspace for the Site Area. The following analyses examine the supply and demand of existing and upcoming commercial space in the surrounding area. The study determined that the area could support 72,622 square feet of commercial space (retail and commercial services) at build out, with 50% dedicated to retail and 50% to commercial services, as the area is expected for neighbourhood convenience. Office space was not considered as it was not an advisable use, as per industry experts and project partners, given the Site Area’s projected density.



Key Definitions

Shopping Centre Classifications (17)

- Community Format**
Open-air or enclosed retail that accommodate the daily needs of nearby residents as well as regional consumers. Typical anchors are usually more than one large format tenant, most likely a supermarket along with another big box retailer.
- Neighbourhood Format***
Open-air retail catered to the daily needs of local residents but offering a broader range of goods and services than a convenience format. It is typically seen in a straight line strip or high street arrangement and anchored by a supermarket or drugstore with a variety of locally serving convenience retailers.
- Convenience Format***
Open-air retail with a mix of a few tenants offering goods and food and personal services. Located within a confined trade area, convenience centres are typically anchorless.

* Types of shopping formats the Site Area can support

Commercial Retail

- Commercial** land is typically defined as any income-producing property, generally including office and retail use. Retail stores are businesses that provide or distribute goods and/or services for the use and consumption of the purchaser (18). Two common distinctions of retailers are those that sell goods and those that sell services.
- Retail Goods**
Businesses that provide and sell either standardized products (supermarket), customized products (tailors, bakeries) or temporal products (shops where customer rents item for a particular amount of time). Retail goods are generally tangible, physical products for purchase (19).
- Retail Services**
Businesses that provide either standardized or customized services that may be experiential (museums, theatres, community centres), transportive (package delivery, taxis) or remedial (barbershops, nail salon, bike repair shop). Typically services are intangible, nonphysical transactions (19).

Data Sources

This study relies on data from the City of New Westminster, Statistics Canada, Simply Analytics, and the International Council of Shopping Centres (ICSC). Industry experts confirmed the chosen methodology, framework, and data sources. Should market conditions or the proposed density of the master plan area change significantly, the study’s conclusions should be re-examined.

Supply Analysis

Summary

- Within five kilometers of the site, over 620,000 square feet of retail floorspace exists.
- The two largest nearby shopping centres — Queensborough Landing and Big Bend Crossing — are car-oriented community shopping centres.
- The third largest nearby neighbourhood shopping centre, located along 12th Street, is a smaller and older shopping street, with various antique and vintage shops.



- Within the next five years, Burnaby’s Southgate City project will add an additional 300,000 square feet of retail floorspace to the area. This pedestrian friendly mixed-use project may capture some of the Site Area’s potential market share, attracting some Connaught Heights residents to shop and use services in Southgate City.
- The Site Area is intended to be a mixed-use neighbourhood shopping centre that caters to the daily needs of local consumers according to Census tract 9330201.

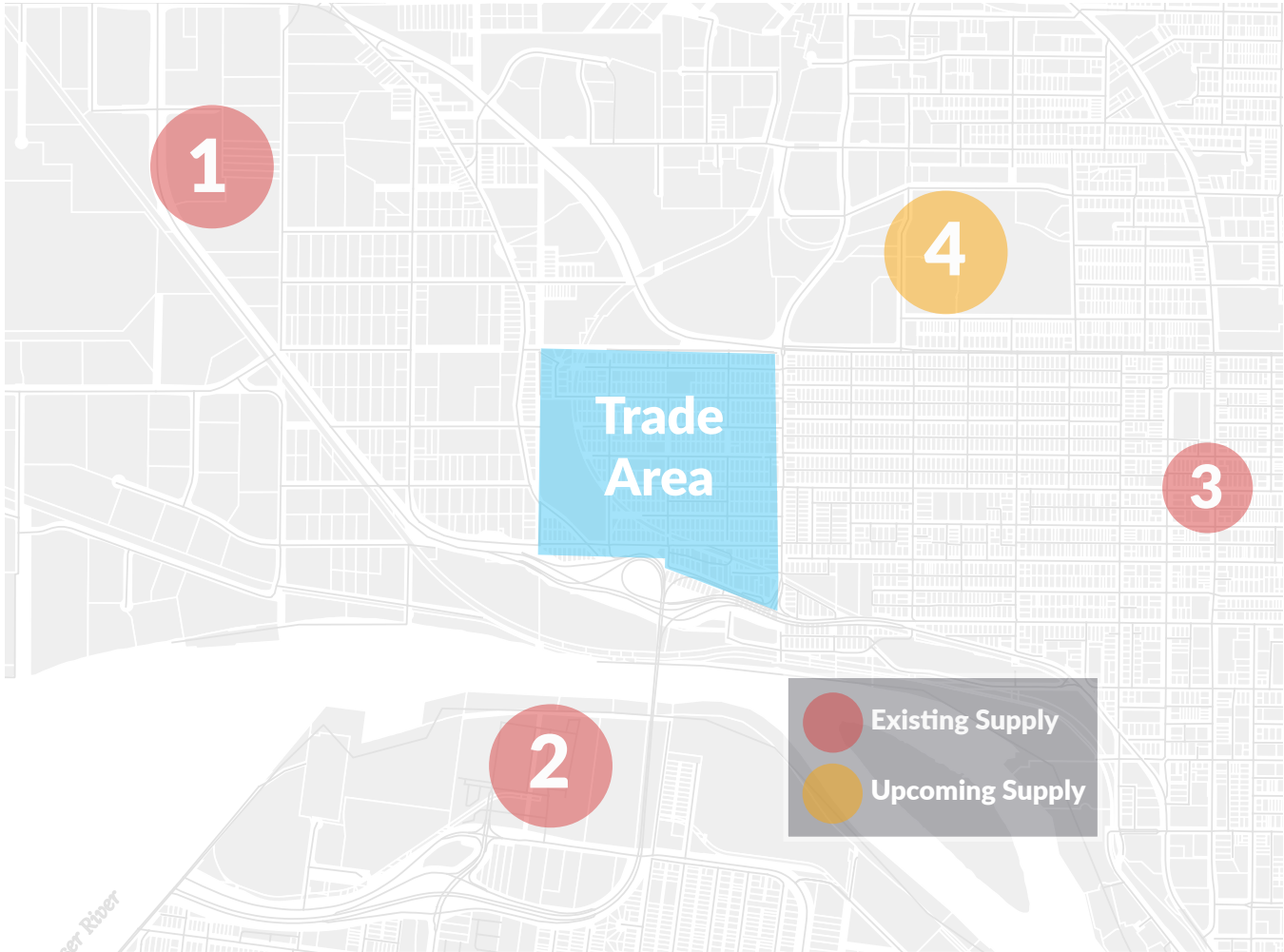
Existing Retail Supply

Name	Format	Select Tenants	Gross Leasable Area (SF)
1. Big Bend Crossing	Community Shopping Area	Save On Foods, Canadian Tire, London Drugs, Boston Pizza, Michael's, PetSmart, Staples, Starbucks, Winners/Home Sense	181,889
2. Queensborough Landing	Community Shopping Area	Queensborough Dental Centre, Queensborough Liquor Store, Walmart Super Centre, Starbucks, Orchid Medical Clinic, Insure BC, Canada Post, Bell	434,992
3. 12th Street Retail Corridor	Neighbourhood Shopping Area	Renaissance Books, Fringe Fashion, Dominos Pizza, New West Centre Dental Clinic, Tip Top Dry Cleaners, Amelia Restaurant	Range

Upcoming Retail Supply

Name	Format	Select Tenants	Gross Leasable Area (SF)
4. Southgate City*	Mixed-use	Large grocery store (35,000-50,000 sq ft); drug store, bank, restaurant(s), office space, community centre	300,000

*The commercial space in Southgate City is expected to be built out by 2025 (approximately).



Existing and upcoming commercial supply near 22nd Street Station.

Conclusion

- Although there is commercial space on 20th Street, the residents in the area generally need to drive or take transit to meet daily needs.
- The commercial offerings in the area should allow local consumers to meet their daily needs by walking, cycling or taking public transit.
- The supportable retail floorspace within the area (see Demand Analysis) is affected by retail demand, which is affected by upcoming and existing retail supply, current and projected population, passing vehicle and pedestrian traffic, and transit use.

The commercial offerings in the area should allow **local consumers** to meet their **daily needs** by **walking, cycling** or taking public **transit**.



See Appendix B for descriptions of relevant shopping centre classifications

Demand Analysis



Summary

- The commercial demand model calculates the supportable commercial square footage, based on the projected population of the Site Area at complete build-out.
- The model has multiple assumptions, which are mentioned in the following pages.
- Based on feedback from industry experts and a high level analysis, the area is not expected to include office space. For this reason, the demand analysis focuses on retail and commercial services.

Commercial Demand Model

1. How much retail floorspace (by retail type) can be supported?

Trade Area Population 6,502	x	Retail Sales \$2,534 per capita per year	/	Productivity Rate \$700/sf per year	x	Market Share 70%	=	Supportable sf per Retail Type 16,476 sf
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* Supermarkets and other grocery store calculations

2. How much total retail floorspace can be supported?

Supportable sf per Retail Type (1) 16,476 sf	+	Supportable sf per Retail Type (2) 7,359 sf	+	Supportable sf per Retail Type (...) ...	=	Total Supportable Retail 36,311 sf
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See Appendix B for detailed calculations.

3. How much total service floorspace can be supported?

Total Supportable Retail 36,311 sf	=	Total Supportable Services 36,311 sf
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4. How much total commercial floorspace can be supported?

Total Supportable Retail 36,311 sf	+	Total Supportable Services 36,311 sf	=	Total Supportable Commercial 72,622 sf
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Population Projections

The population projections are based on estimates from the City's build-out scenario, when the site reaches its full population potential. The population figures below provide key inputs into the demand modelling.

Assumptions:

- Based on numbers provided by the City, future mixed-use and high-rise sites are assumed to reach a maximum density of 4 FSR (20)
- Full build-out of the area will be complete in 2030, 14 years from 2016 Census
- The population of Connaught Height will increase by 371% (from 1,752 to 6,502) (20)

Trade Area

The trade area is based on an analysis of surrounding retail supply and surrounding physical barriers that affect accessibility (including adjacent land uses, steep topography, and the road network). Trade areas do not tend to change drastically over time, but expenditures in the area may increase if a development gains enough attraction to become a regional centre.

Assumption:

- The primary trade area boundary equates to the neighbourhood Census tract boundary (Census Tract 9330201).

Residential Trade Area Population		
	Today	2030
Population	1,752	6,502

Transit

Transit ridership is projected to grow to 49,500 transfers by 2030. It is difficult to forecast supportable commercial space by transit ridership because rider behaviour is varied. However, transit ridership does not tend to increase the total demand for commercial space. Rather, a high population of transit riders would allow for more viable and successful commercial spaces.

Assumption:

- Transit ridership contributes to the overall success of the supportable commercial square footage without resulting in additional demand for commercial space

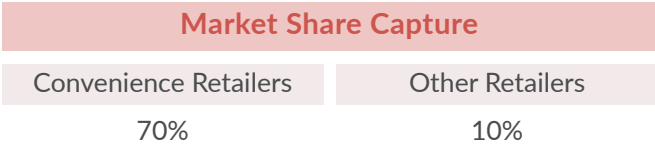
High transit ridership would allow for more viable and successful commercial spaces.

Productivity Rates and Market Share

Productivity rate: Spending in dollars per square foot for commercial viability based on retail type. Productivity rates were obtained from ICSC reports.

Market share: Portion of a market controlled by a particular company or product. The market share illustrates that although there is an increase in population, new residents are unlikely to meet all commercial needs within the neighbourhood centre. The market share percentages used to determine the total supportable square foot are divided by retail type. Convenience retail encompasses a larger portion of the market share than other retailers because they are capturing the area’s residents everyday needs.

- Assumption:**
- Convenience retailers (corner store, grocery store, pharmacy, etc) capture 70% of market share, and other retailers capture 10%



Commercial Retail Unit Typology

The following three categories are typical commercial retail unit (CRU) sizes:

- Small (800 to 1,500 SF)
- Medium (1,500 to 4,000 SF)
- Large (15,000 SF and up)

The CRU numbers above were provided by key informants from the development community. Oftentimes, CRUs between 4,000 to 8,000 square feet are challenging to lease.



Office Space

Office space was not accounted for in the supportable commercial space model because the City partners and industry experts expressed the lack of demand for office space for the Site Area. Should this change, further considerations would need be accounted for to accomodate for the increased demand for commercial space.

Supportable Retail Square Footage by Retail Type

Using total retail sales from Statistics Canada and productivity rates from ICSC reports, the project team determined the supportable square footage by retail type.

Supportable Retail

The Supportable Retail analysis provides a comparison between the supportable square footage per retail type to existing stores of similar use.

- Assumption:**
- Supportable retail types are similar in size to other retailers in Metro Vancouver

- This analysis identified that supportable retail types include, but are not limited to:
- Grocery store or multiple food stores (typically medium or large CRU size)
 - Pharmacy (typically medium CRU)
 - Health store (typically medium CRU)
 - Specialty food store (typically small to medium CRU)
 - Liquor store (typically medium CRU)
 - Convenience store (typically small CRU)
 - Small retail store (typically small CRU)
 - Florist (typically small CRU)

Supportable Services

It is difficult to forecast supportable service types (e.g. restaurants, coffee shops, banks, doctor and dental offices), but neighbourhood centres typically have nearly equal square footage of retail and commercial services. An industry expert suggested equating supportable retail floorspace to commercial services floorspace.

- Assumption:**
- The area is a neighbourhood shopping centre; therefore, total commercial floorspace will be divided equally between retail and services

- Based on a high level analysis of nearby neighbourhood centres, the Site Area may support the following services:
- Restaurant
 - Quick/fast-food service
 - Coffee shop
 - Neighbourhood centre or small community centre
 - Bank
 - Fitness centre
 - Insurance provider
 - Dry cleaners
 - Health care provided such as a doctor, dentist, chiropractor, physiotherapist, etc
 - Nail salon
 - Barbershop

Conclusion

- The Site Area could support a total of 72,622 square feet of commercial space:
 - 36,311 square feet of retail
 - 36,311 square feet of commercial services
- Based on this analysis, the Site Area could support a small grocery store and/or a small pharmacy. This is an important finding, as grocery stores and pharmacies are desired anchor tenants. Industry experts suggested that if the Site Area could not support one of these anchor types, it would not be a viable commercial area. Other supportable retail and service types (health store, barbershop, convenience store, liquor store, bank, coffee shop, restaurant etc.) can allow for a diverse and active tenant mix.
- This floorspace estimate was used to determine commercial space configuration in the area.

 See page 48 for recommended commercial space configuration

The Site Area could support **72,622 square feet of commercial space**, including 36,311 square feet of retail and 36,311 square feet of commercial services.

Understanding Best Practice

This section builds on our understanding of the site and market through **literature review, case study research and key informant interviews.**

Four themes emerged from these findings.

Key Findings

The public realm, transportation, and retail are intrinsically connected

What we read:

The design of a place is integral to peoples' experiences, influencing sense of safety, how people use and travel through a space, and levels of community engagement (21,22). Cohesive designs integrate considerations of neighbourhood scale (e.g. building height, massing, landscaping), user experience in the streetscape (e.g. transparent facades, places to meet and gather, accessibility needs for individuals with disabilities), and connection to the greater community (e.g. transportation corridors, street level integration with community) (21–24).

Environments that feature competitive retail environments enable cross-shopping, which activates the street, supporting the pedestrian network (11).

One must consider 24/7 usage of space, which not only includes increased visibility and sense of safety for active transportation users, but also promotes increased commercial opportunity with different business models (25). Many businesses seek long operating hours, but they must capture sufficient sales throughout the operating hours for this to be feasible (25). Successful business models consider the maintenance of environments that focus on the pedestrian experience and are sensitive to all forms of commercial space, such as public art (25–27).

There are two approaches for designing stores and public space — ample setbacks allow retailers to engage with the public realm through rack sales or patio space (28), while having no setbacks can smooth transitions between the street grid, public space, and commercial space (29,30). Larger retailers can skew public space because they often seek larger frontages to ensure maximum visibility — which results in

poorer access to natural light (11). Retail and hospitality uses are more likely to activate the public realm, especially when located on building corners (29,31). Narrow storefronts and entryways that align with pedestrian paths facilitate engagement with public space (28,30–33).

Buildings should interact with the street (11,29). Requiring developers to design a variety of buildings rather than one large building helps to break up spaces visually, supporting public space (31). Permeability should also be considered by ensuring that recessed doorways improve sightlines into the buildings (11,32).

As the City promotes bicycle and pedestrian movement as primary modes of transportation, buildings must accommodate appropriate end-of-trip facilities, which are recognized as essential motivators to improving mode shift away from cars (34,35). In its building code, the City of Vancouver requires showers and change rooms for commercial buildings (36). The City of Toronto determines the number of shower and change facilities required based on the number of bicycle parking spaces (37). At the City of Victoria in 2011, it was recommended that one shower for each gender be provided for every 30 bicycle parking spaces installed (38). The City of Burnaby requires end-of-trip facilities for commercial developments greater than 43,055 square feet, while the City of North Vancouver has a requirement for all new non-residential buildings (36). The Leadership in Energy and Environmental Design (LEED) Certifications require shower and changing facilities based on regular building occupants (36).

What we heard:

- Developers identified cleanliness, safety, public realm design, frontage, traffic, and the physical environment as key concerns for retail tenants
- City staff identified that retailers look for retail spaces near plazas, placement of commercial relative to sun and shadow, proper sizing of units, signage requirement for business, and the adaptability of the space
- City staff recognize the importance of filling all frontages and ensuring the space between buildings is activated and not left stagnant
- Consultants working in community development stated that retailers look for viability, ease of access, traffic counts, parking ratios, underserved neighbourhoods and growing demographics that will support business (both population numbers and income levels)
- City staff from other municipalities recommended encouraging innovation to make larger retailers appear smaller

Considerations:

- Aggressive movement toward car-free neighbourhoods may negatively impact neighbouring streets as drivers use and find alternative routes (39)

A strong anchor drives business traffic

What we read:

Anchor tenants are generally the largest occupier of space and primary generator of traffic to an area, which ensures commercially viability (40). Meeting residents' primary needs (e.g. grocery, banking) is critical to the success of a commercial node (41). These types of commercial spaces serve as anchors for smaller retailers that help meet residents' secondary and tertiary needs (41). Developments missing anchor tenants are often considered to be "very risky" for financial institutions, key retailers and most developers, making them integral considerations in the development of new commercial space (42).

While anchors are often stable market retailers (e.g. grocery store or pharmacy) (43), an anchor may also be a community space, such as a library or neighbourhood house, which can strengthen social capital by providing "sustained, recurrent interaction, particularly while doing things [people] enjoy" (44). Neighbourhoods that meet residents' daily needs, while also providing heterogeneous retail and larger businesses, are more stable (45). It is critical to provide "third places" that enhance street vibrance and provide opportunities to increase social connections between neighbours (41,44). These spaces are a function of their interdependency to strengthen resilience to fluctuating markets (26). Successful mixed-use developments support residents' lifestyles and economic activities with at least five different uses (33).

Neighbourhood centres are often anchored by supermarkets, but may also be anchored by large drugstores or discount stores (46,47). Neighbourhood centres often focus their trade area to around 5km and are between 30,000 and 100,000 square feet (46,47). Comparatively, retail mixed-use developments are at least 50,000 square feet in size and rely on retail for revenue generation (46). Anchors often prefer the most desirable location and can be given the most favourable tenancy agreements (47). To ensure sufficient commercial variation, a single use should not occupy more than two-thirds of a project's gross floor area (33). It is worth noting that density caps are challenging for the adaptability of space or changes in land use (33).

With additional emphasis on public space, the traditional anchor footprint size has decreased in size. However, pedestrian activity has increased, as well as encouraging pedestrians to linger in an area, which increases dwelltime sales (48). Additional changes in the nature of retail has shifted our understanding of "anchors" as they have worked to incorporate entertainment and experiences to ensure success (49-52). Sit-down restaurants serve as examples of this, and have helped ensure success in mixed-use developments (43).

What we heard:

- Local government interviewees and developers identified a key anchor tenant was integral for business traffic in the community

- Developers specified grocery as the most successful anchors, and service retail (e.g. pharmacy, gym, banks) as other successful anchors (as they attract further retailers and enable integration with other tenants).
- Developers noted that supermarkets require a large population base (between 15,000 to 20,000 minimum), but office space can be used to increase the population served
- Developers stated that a large supermarket is unlikely to establish around the Site Area due to the steep grade, parking constraints and population size
- Developers specified that without a strong anchor (e.g. grocery store), the retail potential decreases by 50%
- Developers identified that the Site Area could support a small grocery store with a minimum floor plate of 10,000 square feet
- To attract retail anchors before full build-out of residential units, some developers (such as Wesgroup for the Brewery District development) negotiate attractive subsidies to the anchor tenant

Considerations:

- Communities must support a mix of essential, discretionary, frequent, and infrequent needs for individuals of all income levels to ensure all residents can live life within their community (53,54)

With additional emphasis on public space, the traditional anchor footprint size has decreased in size.

Retail has many shapes and sizes

What we read:

Different retailers are attracted to different space configurations and sizes based on their daily operations and needs. Within the broader retail format categories (small, medium, and large) are different configurations and considerations for design and local economics that enable these formats to be successful (42). Some formats require a large embedded customer base for success — achieved either through local households or vehicular traffic (42). The success of each of these formats also requires a local context (e.g. other retailers within the same site) and regional context (e.g. where is the closest commercial opportunity of the same scale) (42,55). While larger formats have a higher dependence on vehicular traffic, some small-format retailers (e.g. corner stores) may also rely on vehicular traffic for success (42).

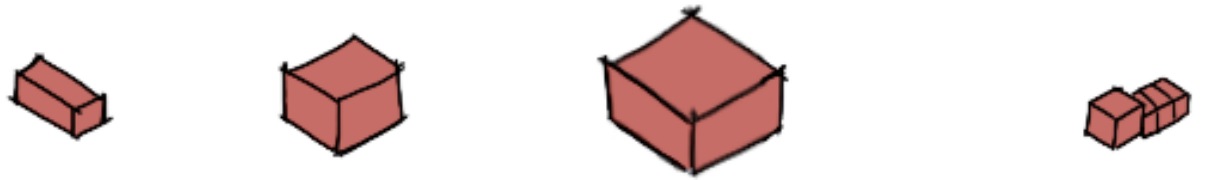
While it is difficult for the municipality to regulate the types of goods a store may sell, retail function can be impacted through building density and height, the size of retail, services allowed per lot, and the size of a single commercial unit (11,56). Many areas in the United States have set caps on unit sizes to prevent big box stores from moving in — these caps are generally between 25,000 and 75,000 square feet (57). Examples include the Brookside neighbourhood in Kansas City, which has a cap of 10,000 square feet (or 25,000 square feet for grocery stores), while San Francisco has a neighbourhood store cap of 4,000

to 6,000 square feet (57). Limiting store sizes has many benefits including increasing retailers' competition (which can promote cross-shopping and pedestrian traffic (42)), providing access to essentials for neighbourhood residents minimizing congestion and journey time, and may contribute to improved land, social and cultural development (56).

In addition to a store size cap, the municipality can consider floor plates that are appealing for the desired business types — for example, small businesses work best with square footages between 1,000 to 2,000 square feet. Store sizes greater than 2,000 square feet are challenging to use effectively (58). This ought to also consider the depth of a unit; most tenants work best with frontages of 18-20 feet for 1,000 square foot units and a 20 foot by 60 foot (or a 1:3 width to depth ratio) (11,59,60). These ratios and sizes, especially in rectangular form, are adaptable to a variety of uses and retail categories and help contribute to street animation (11,28,30,59,60). Shallow units also enable flexibility, facilitating the combining of units at a later date if needed (60).

What we heard:

- Consultants in community development identified a trending away from big box forms and towards smaller floor plans in retail
- City staff and community development consultants noted that adaptable and convertible spaces make development more conducive to small businesses
- Community development professionals stated that purpose-built spaces, such as big-box, carry great risk when they vacate and nothing else can fill the space
- City staff and developers identified that mom-and-pop stores tend to prefer to own units over leasing



Small, medium and large retail formats

Various retail configurations

The nature of retail is changing

What we read:

In recent years, the rising awareness in retail's impacts on climate change and increased use of e-commerce has dramatically changed the retail landscape (8,9). This awareness has brought forth the shared economy and a focus toward enhanced retail experience and service commerce rather than product sales and "personal ownership" business models (8-10). As the nature of retail changes, it is difficult to identify whether all types of retailers and shoppers will be impacted similarly (61). To reduce susceptibility of retail, some developers consider combined business models and new economic functions such as co-work or co-location places, however this requires changing physical requirements of retail space (21,62,63). This may also take form in increased focus on provision of service and emphasis on arts, culture, entertainment and experiential shopping or commerce such as local and small-scale manufacturing for artisans (8,26,27,64,65).

It is important to consider the changes to the floor plates needed to accommodate changing business models (11). This can be done by considering the materials used as well as promoting the use of high ceilings (29) or thinking about different ways that businesses may operate or be provided (e.g. support for shared office or retail spaces).

As there is increased awareness and a desire to move toward more sustainable business models, the City may consider that building codes are not always sufficient for the desired direction (66); this may mean that the City would need to provide additional incentives to help developers achieve the desired climate-focus (67).

What we heard:

- Developers noted that service business is seeing growth and is driven by population growth, whereas big-format retail is struggling due to e-commerce

- Developers stated that while retail is changing, the nature of service businesses remains unaffected by e-commerce because it is difficult to access services online
- While some food companies, like Save-On Foods, are now offering delivery services, there will continue to be the need for physical retail space

Considerations:

- Movement toward the shared-economy, with ride-hailing and immediacy of delivery, requires substantive curb-side management
- Shared market economies require considerable government intervention to ensure benefits are received across all sectors and population groups (10)
- Ground-floor space should be allocated to ensure it is meeting resident needs (e.g. childcare, shipping pick-up/drop-off) (8)
- Flexible spaces permit flexible use, enabling complete change of function between day and night (8)

Key findings on the street



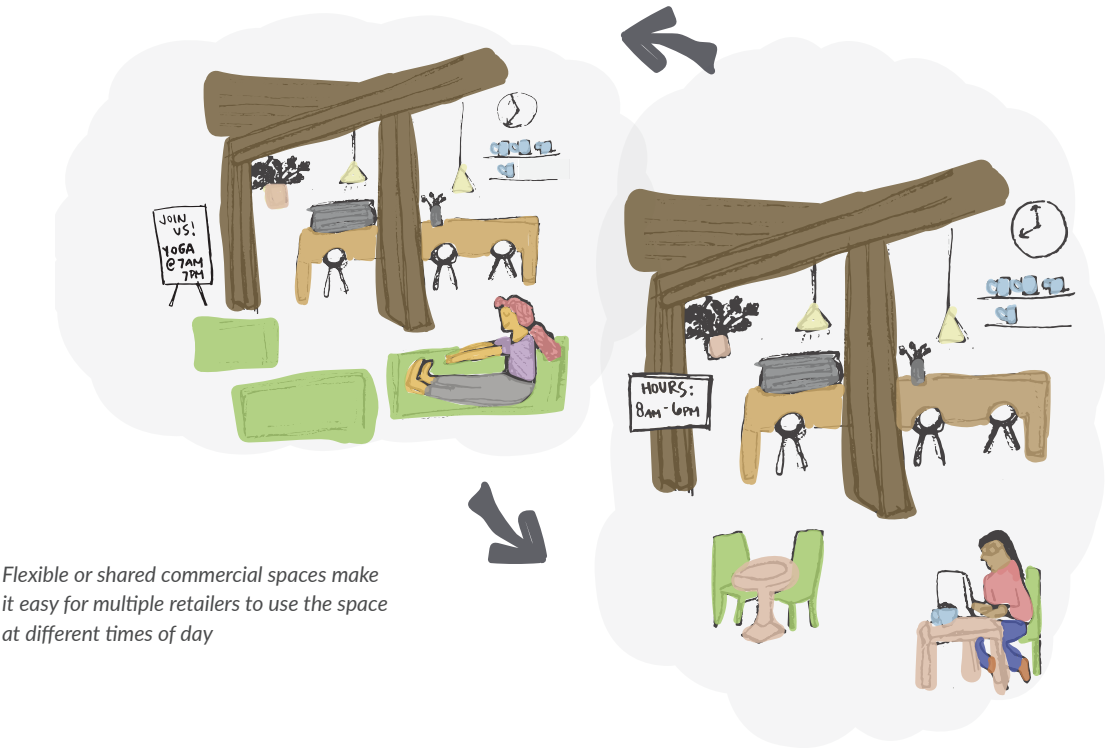
- 1 Variety of buildings to visually break up space
- 2 Recessed doorways with entries that align with pedestrian path
- 3 Protected bike lane to encourage mode shift



- 4 Grocery store as successful retail anchor
- 5 Accommodation of various retail sizes



- 6 Combination of multiple and diverse retail uses
- 7 Narrow storefronts to attract independent retailers



Flexible or shared commercial spaces make it easy for multiple retailers to use the space at different times of day

Understanding Design Opportunities

This section provides an overview of the **scenario design process**, the **values framework** that guided it, and **inspirations** that led to final recommendations.

The site analysis, market study and best practice review provide foundational information needed to determine potential placement and design of commercial space in the area.



Scenario Design Process

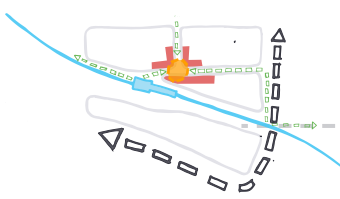
The project team prototyped multiple scenarios in three stages.

1. Prototype Preliminary Scenarios
2. Refine and Combine
3. Develop Final Design

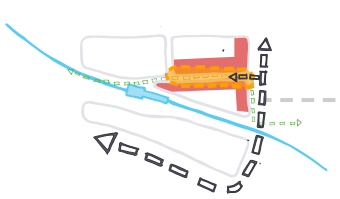
November 2019

Heart as a...

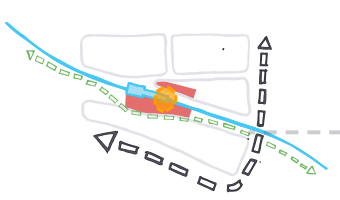
Community Node



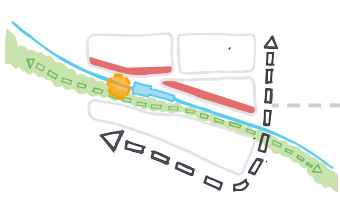
High Street



Mezzanine



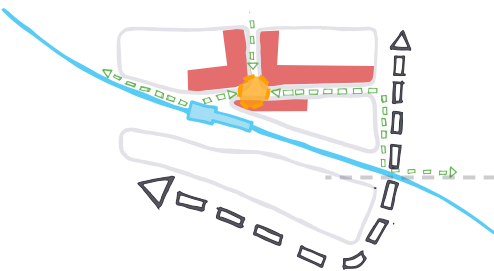
Greenway



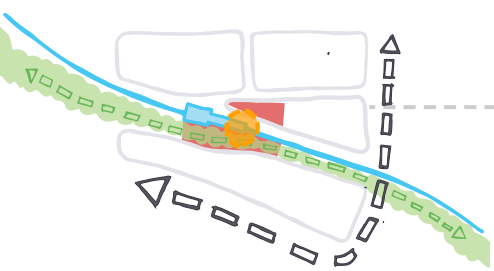
Using an iterative design thinking approach, the project team prototyped four preliminary scenarios. Each scenario is differentiated by the potential location of a community heart (defined by a commercial hub). The scenarios consider different transportation modalities, commercial arrangement, building form and public space design. They present different values, focusing on the neighbourhood, enhancing green space, enabling business as usual, or shifting away from car-dependence.

January 2020

Community High Street



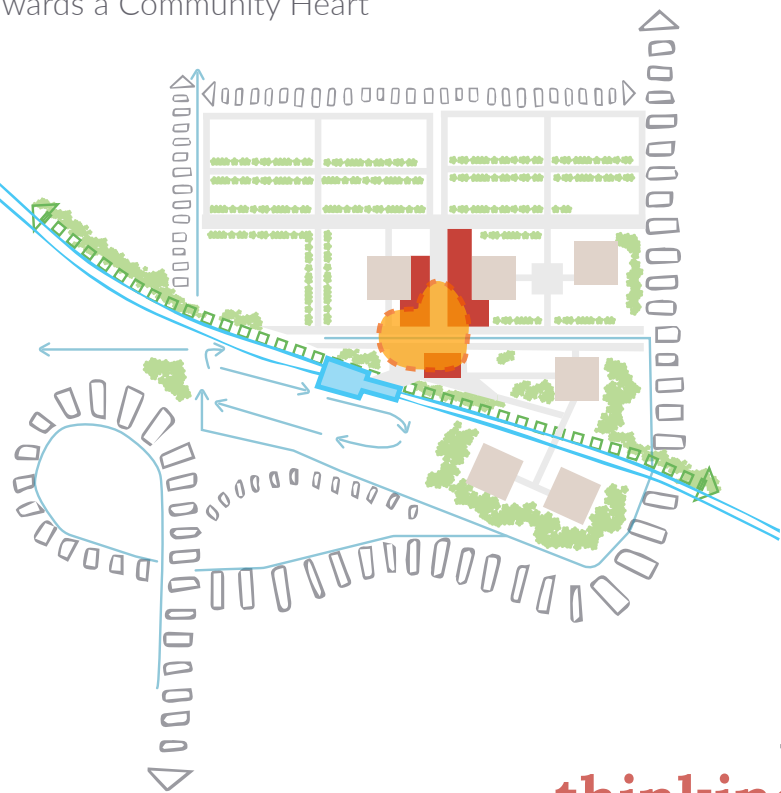
Mezzanine-Greenway



The project team engaged with City partners and used the key findings from additional research to refine the scenarios, ultimately resulting in two designs. The two scenarios focus on different users: local residents and transit users.

February - March 2020

Towards a Community Heart



As the design process continued, the project team developed a final scenario fully considering the practicalities of the site. The final scenario, further detailed in the Recommendations section, is a representation of key elements from the two refined designs and the defining best practices identified through the research.

See page 40 for final design recommendations

- traffic
- bike/ped
- station
- commercial
- heart

An iterative design thinking approach allowed for rapid prototyping of scenarios, leading to a final detailed design.

Scenario Key Features

1. Prototype Preliminary Scenarios

	Heart Location	Building Form	Greenway Connection	Commercial Frontage
Community Node	around the cul-de-sac at 21 St and 7 Ave	mid- to high-rise	re-route to 7 Ave, connect to Mead St	21 St and 7 Ave
High Street	7 Ave, between 20 and 21 St	mid-rise	re-route to 7 Ave, connect to Mead St	7 Ave and 20 St
Mezzanine	elevated mezzanine aligned with SkyTrain platform	high-rise podium towers	extend south of station to Mead St	ground floor commercial south of station
Greenway	along BC Parkway (7 Ave and 22 St)	mid- to high-rise	allow urban forest growth and extend south of station along Mead St	7 Ave, south facing

2. Refine and Combine

	Heart Location	Building Form	Greenway Connection	Commercial Frontage
Community High Street	around the cul-de-sac at 21 St and 7 Ave	mid- to high-rise	re-route to 7 Ave, connect to Mead St	fronting 7 Ave and 21 St, extended along 7 Ave to 20 St, primarily around the “heart”
Mezzanine-Greenway	elevated mezzanine aligned with SkyTrain platform, stepping down to greenway below	mid- to high-rise	allow urban forest growth and extend south of station along Mead St	multiple levels south of guideway -1 storey on mezzanine (connected to SkyTrain platform), ½ storey stepping down and 1 at grade. Also on 7 Ave, south facing.

3. Develop Final Design

	Heart Location	Building Form	Greenway Connection	Commercial Frontage
Towards a Community Heart	around the cul-de-sac at 21 St and 7 Ave	mid- to high-rise	re-route to 7 Ave, connect to Mead St	positioned along 21 St and 7 Ave, facing towards the “heart”, with additional commercial north of guideway -1 storey on public mezzanine (connected to SkyTrain platform), half storey above mezzanine and 1 storey at ground level.

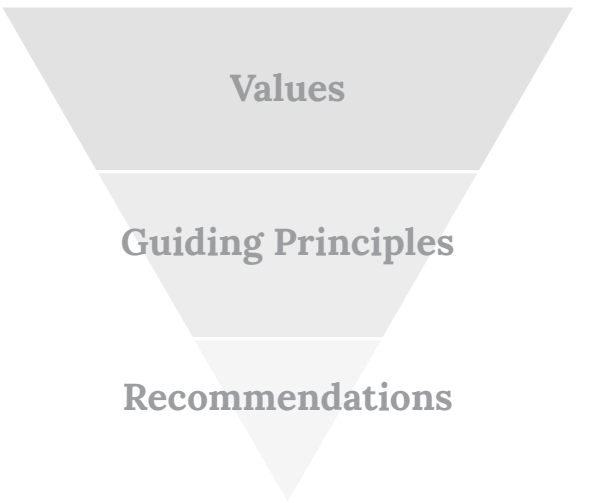
Values Framework

The project team developed a values framework to guide the development of design and policy recommendations.

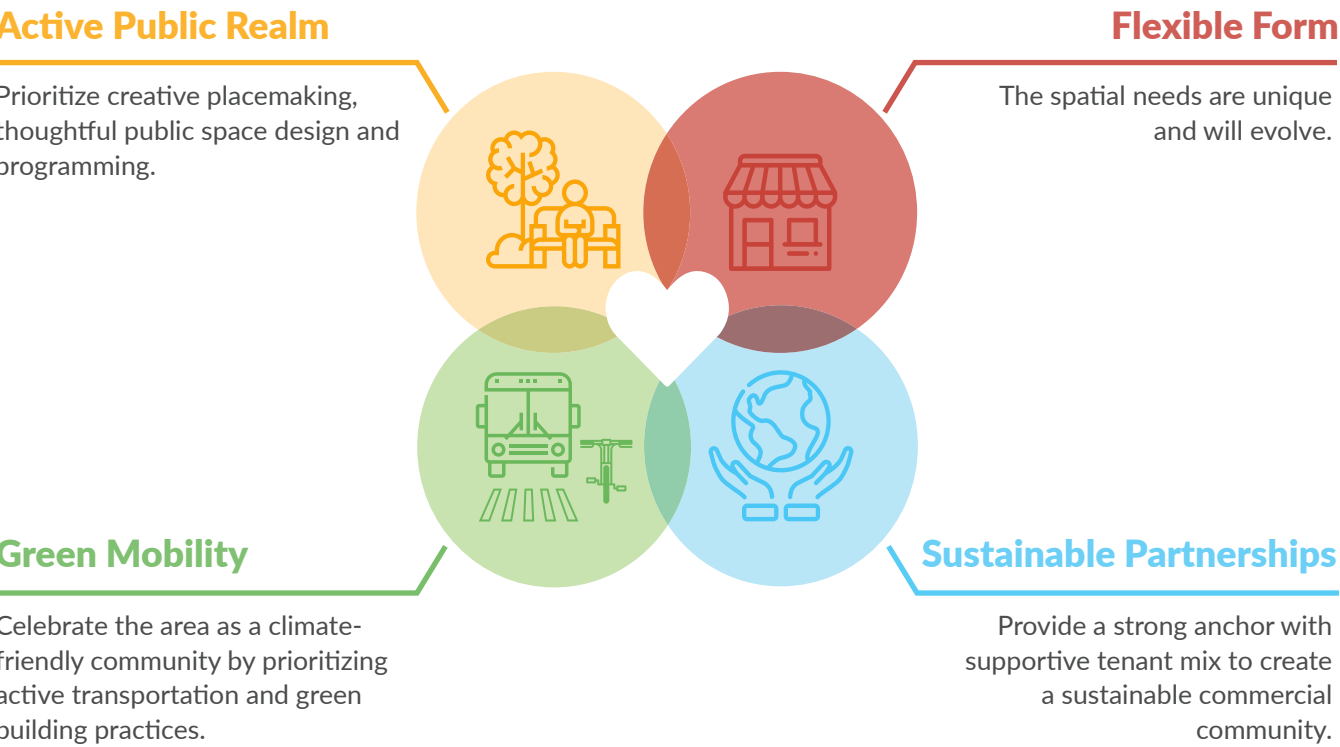
The research identified four main values. These values outline the elements that will ensure the viability of future commercial spaces and the success of new development.

Each value has a guiding principle, which guides how the values apply to the Site Area.

Policy and design recommendations, detailed in the next section, explain how the City can achieve the guiding principles.



Values and Guiding Principles



Inspirations



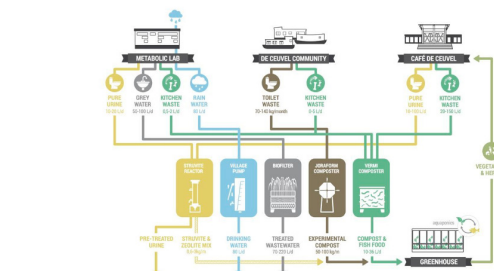
De Ceuvel by Space&Matter ⁽⁶⁸⁾

Location: Amsterdam

Description: Creative and sustainable development built with old houseboats on a former shipyard that will regenerate the contaminated site on the riverside.

Key Inspirational Features:

- Centre for sustainability, art, creativity, recycling and transformation with a variety of tenants, many of which helped build De Ceuvel
- Circular development explores innovative ways to close the loop. Invites the public to help to continue to make the development more sustainable



Source: [De Ceuvel](#)



The General Block by RNDSQL ⁽⁶⁹⁾

Location: Calgary, AB

Description: Small local shops at grade with offices on the second floor.

Key Inspirational Features:

- The tenants have close relationships that include sharing one roof, and bathrooms
- Intended to provide flexibility of built form for neighbourhoods in developed areas. The regulations and housing forms are designed to work with existing building, lot and block patterns in order to add housing choices and allow innovative infill redevelopment over time



Source: [RNDSQL](#)



McBurney Lane by Hapa Collaborative ⁽⁷⁰⁾

Location: City of Langley, BC

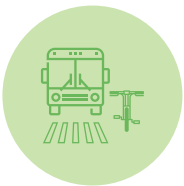
Description: Revitalization of McBurney Lane as a social space by creating connections, flexible spaces, permeable surfaces, and removing cars.

Key Inspirational Features:

- Arching benches, stairs and plated masses that frame new social spaces in the middle of the lane
- The flexible programmable space is hosts to various events throughout the year including live music, and weekly Pop up Play featuring games, puzzles, etc



Source: [Hapa Collaborative](#)



Culdesac Tempe by Culdesac ⁽⁷¹⁾

Location: Tempe, AZ

Description: Car-free mixed-use development with a light rail that connects the neighbourhood to the airport and Arizona State University.

Key Inspirational Features:

- Small parking lots are available for the guests of residents and some tenants but no other parking is provided
- Factored in the hot weather and designed connective courtyards to allow for ventilation and plenty of shade to provide comfort for those used to air-conditioned vehicles



Source: [Culdesac](#)

3.

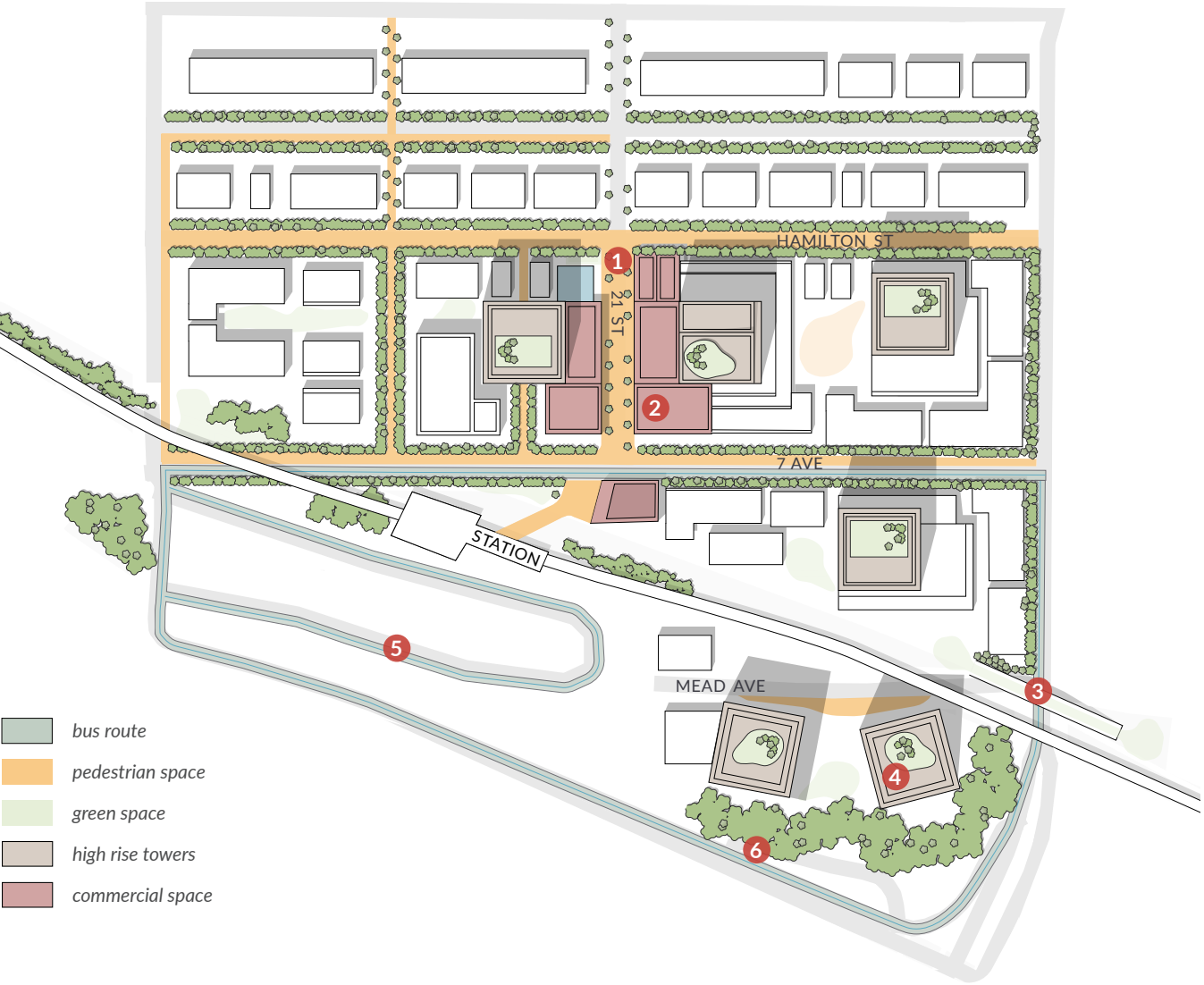
Recommendations

This section synthesizes key findings from the literature review, interviews, site analysis and market study.

Grounded in the values framework, this section provides **design and policy recommendations** to the City.

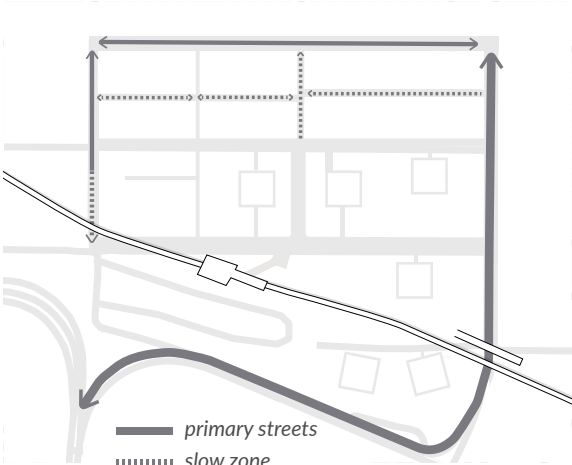
Design Recommendations

Towards a Community Heart

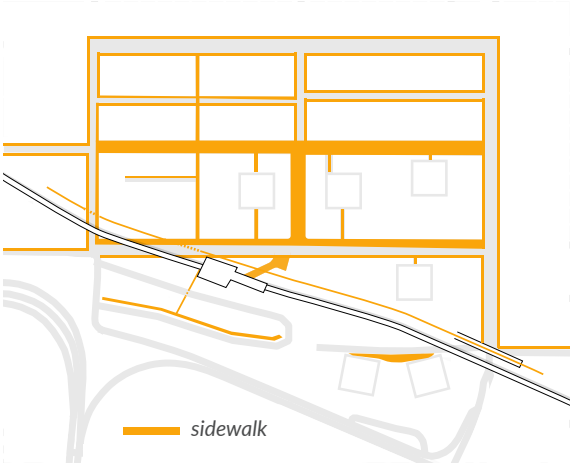


The final scenario imagines commercial placement that is concentrated along 21st Street, with both a commercial and community anchor. The scenario also imagines multi-storey commercial space that is connected to the station, creating a mezzanine of commercial and public space that capitalizes on the views of the Fraser River. The location of the commercial space is focused to serve local residents and transit riders.

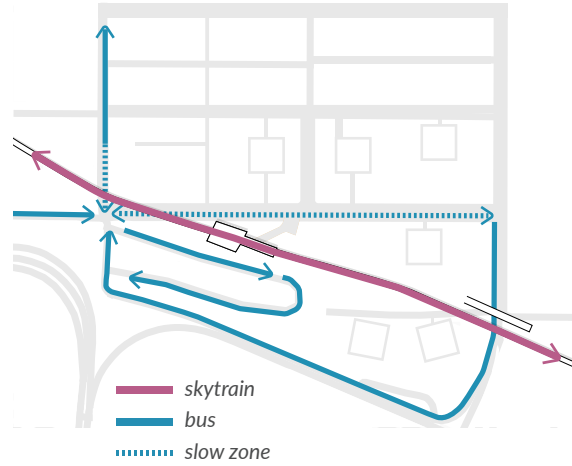
- 1 Pedestrian Connections** improved throughout the site, with Hamilton Street and 21st Street fully pedestrianized and 7th Avenue closed to cars
- 2 Commercial Space** clustered at 21st Street and 7th Avenue, with 72,622 square feet of commercial
- 3 Greenway Connection** improved at 20th Street with an overpass
- 4 Towers** with green rooves placed throughout the site, with mixed-use towers north of 7th Avenue
- 5 Bus Loop** rerouted directly south of existing loop
- 6 Tree Canopy** increased along greenway and throughout site



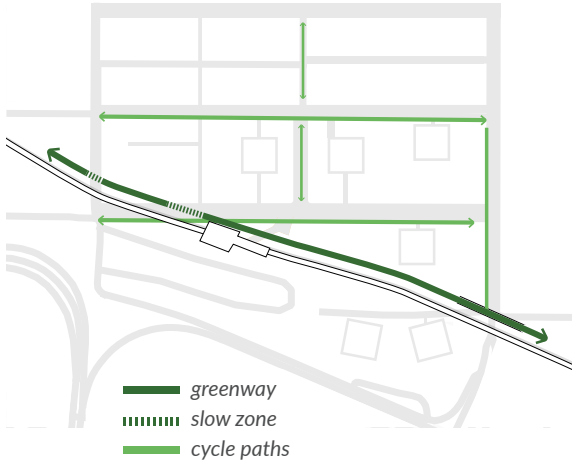
Vehicular



Pedestrian

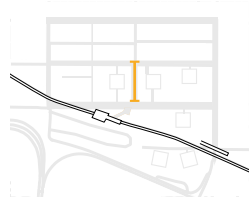


Transit



Cycling

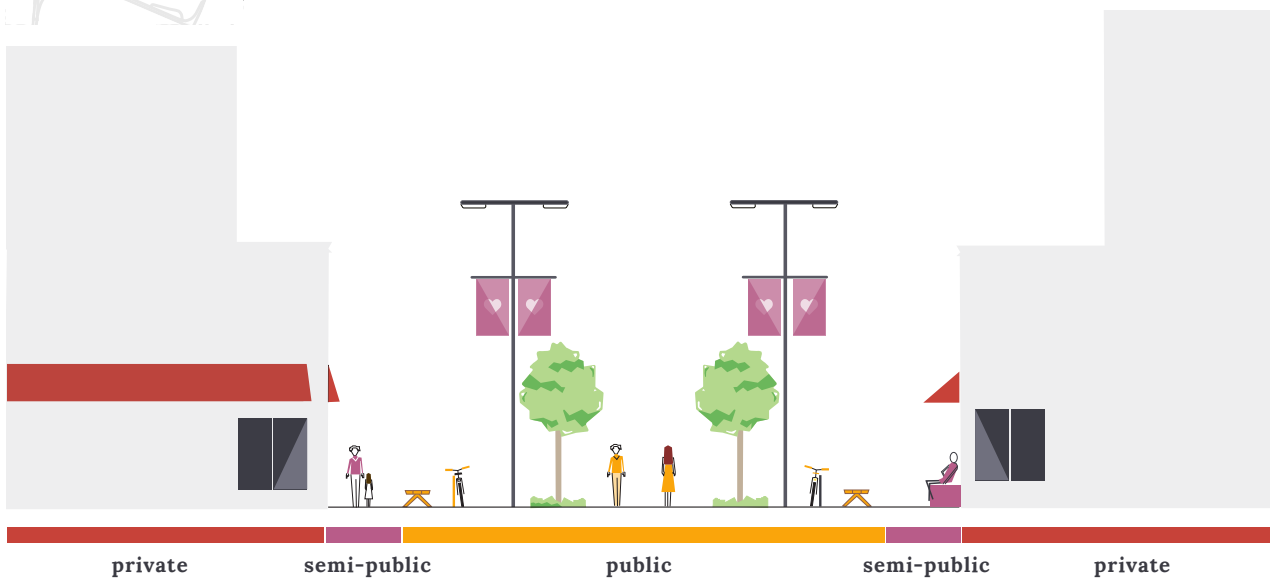
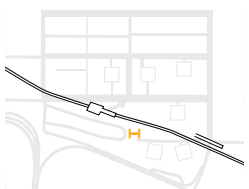
Prioritize human-powered transportation



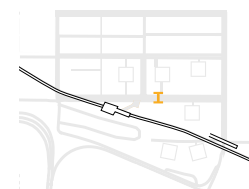
Public mezzanine extends
from SkyTrain platform



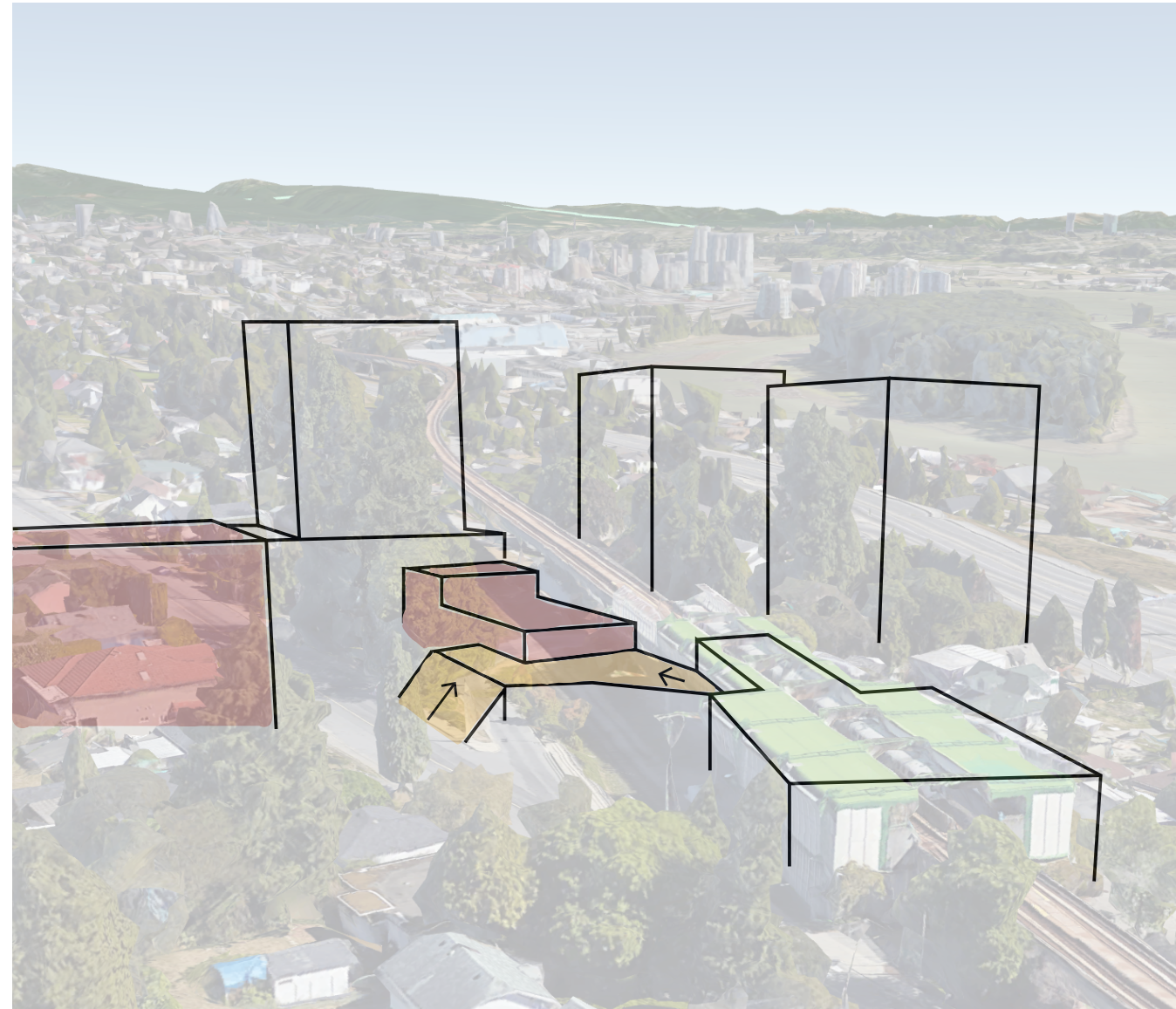
Vibrant retail experience
along 21st Street



Pedestrianize 21st Street



Reclaim 7th Avenue



Public mezzanine connecting SkyTrain platform and commercial node

Design Challenges and Considerations

Impact on existing TransLink infrastructure and service delivery

- SkyTrain station has one entrance facing away from the proposed commercial node
- Increased demand for public transit may result in increased space requirements from TransLink

Impact on existing street infrastructure

- Moving toward a “car-free community” solely along 7th Avenue may result in “rat-running” along community east-west streets such as 8th Avenue
- Current pick-up / drop-off location will be car-free - there may be a need to provide space for the Starlight Casino shuttle

Impact to equity and accessibility

- Emergency vehicles must have access to the site
- Some individuals will need access to vehicles (e.g. some individuals with disabilities)
- Appropriate commercial spaces will need to consider changes in resident income if affordable housing options are provided

Impact to developers and design

- Phased development may occur with the anchor location located on the north side of 7th Avenue; this side of 7th Avenue may develop more quickly as there are fewer land restrictions
- Development on the south side of 7th Avenue will require substantial negotiation and partnership with TransLink as the recommendations may impact bus circulation
- More complex designs may take longer to be built
- If there is a reduced demand for parking, developers may be able to provide additional requested for public realm investment and other initiatives such as affordable housing
- Waste management, commercial delivery, and other commercial-adjacent vehicles must have access to designated waste pick-up / drop-off

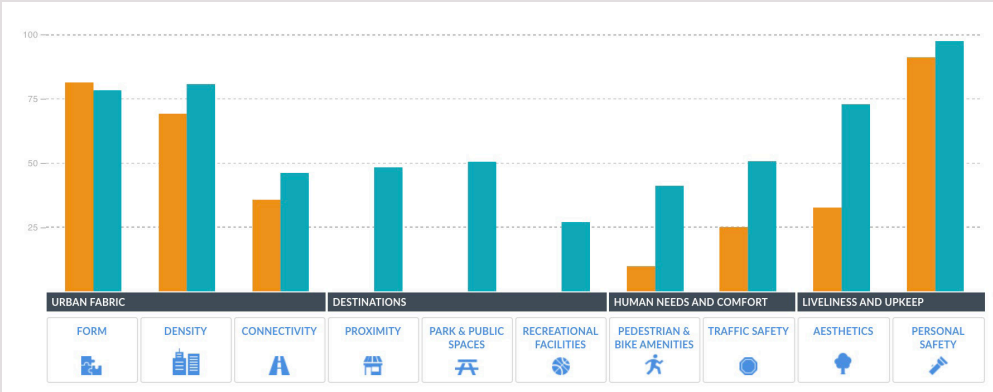
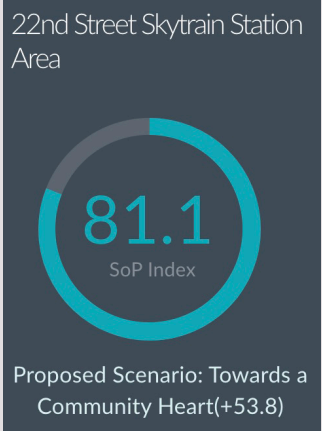
Areas for Further Exploration and Investigation

- Wind was not assessed in the design process
- Noise attenuation from the traffic located on 20th Street and Skytrain may be required in addition to the building’s massing to help contribute to enjoyable public spaces
- Curb-side management for new technology and programs (e.g. ride hailing, food delivery)

State of Place

By targeting the urban design elements related to proximity, parks and public spaces, recreational facilities and pedestrian and bike amenities, the recommended scenario obtains an increase of 53.8 in the State of Place index score.

All individual dimensions improved except for form, which is largely due to the addition of high-rise residential towers that are not considered “human scale”. This was addressed through setbacks and streetscape design.



Policy Recommendations Summary



Guiding Principle 1: Provide a strong anchor with supportive tenant mix to create a sustainable commercial community.

- 1.1 Explore ways to support a grocery store anchor in this location
- 1.2 Conduct engagement with local residents to identify community needs and ensure that the anchor (or secondary anchor) tenant helps meet those needs
- 1.3 Work and collaborate with the Chamber of Commerce to help validate the anchor type and the suggested retail mix
- 1.4 Position anchor space to support public activity and foot traffic
- 1.5 Encourage a tenant mix that activates the area throughout the day and evening
- 1.6 Identify potential sustainable clusters of complementary retail tenant types appropriate for the area
- 1.7 Curate commercial and community tenants around sustaining a circular economy
- 1.8 Phase new development to ensure commercial supply precedes demand



Guiding Principle 3: Prioritize creative placemaking, thoughtful public space design and programming.

- 3.1 Arrange structures to create plazas and pedestrian malls for vertical mixed-use projects
- 3.2 Encourage creative frontages for larger retailers so the street remains activated
- 3.3 Support retail and hospitality uses for street frontage units, especially corners
- 3.4 Create design guidelines that consider the interactions of commercial space with the public realm
- 3.5 Place retail on north-south oriented streets to ensure more equal sun exposure
- 3.6 Create wayfinding guidelines to lead transit users to the commercial node
- 3.7 Engage community organizations to help program the public spaces
- 3.8 Activate empty storefronts to enhance community placemaking
- 3.9 Experiment with street activation in the short-term.
- 3.10 Require noise attenuation through buffering that contributes positively to the creation of public space
- 3.11 Necessitate weather and season-proofing portions of the public realm



Guiding Principle 2: The spatial needs for tenants in the Site Area are unique and will evolve.

- 2.1 Adopt design guidelines that specify permissible unit sizes for retailers
- 2.2 Provide business licenses that permit shared office or retail space or co-location places
- 2.3 Negotiate flexible retail design that facilitates subdivision of larger floor plates or amalgamation of smaller floor plates
- 2.4 Enable flexibility of space by being specific about what is prohibited, but not what is permitted
- 2.5 Require ventilation to be installed in a specific number of units
- 2.6 Organize small business packages to help new business owners navigate the leasing system and business operations when starting out



Guiding Principle 4: Celebrate the area as a climate-friendly community by prioritizing active transportation and green building practices.

- 4.1 Consider creating a network of bicycle-pedestrian streets throughout the neighbourhood, with 7th Avenue also supporting bus movement
- 4.2 Consider accessibility to commercial space by providing parking for people with disabilities.
- 4.3 Consider a parking maximum
- 4.4 If parking is needed, create 'transformative' parking garages
- 4.5 Explore ways to supply at end-of-trip facilities (including showers and change rooms) that is accessible to all tenants of the building
- 4.6 Create mid-block connectivity to encourage walking.
- 4.7 Provide financial incentives to make climate sustainable and resilient buildings affordable



Guiding Principle 1. Provide a strong anchor with supportive tenant mix to create a sustainable commercial community.

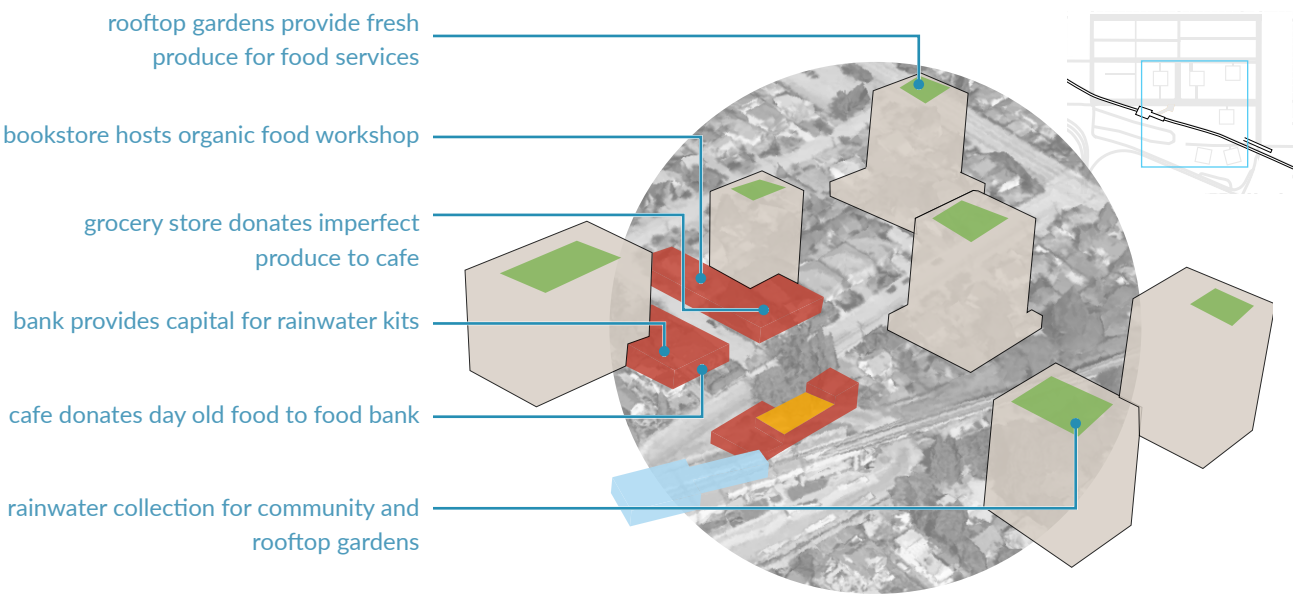
Anchor tenants are the predominant tenant of any commercial project, designed to help meet residents' primary needs, generate traffic to the area, and make the centre commercially viable (41,46). Anchors are not only critical to the success of a commercial node, but they also support businesses that meet residents' secondary and tertiary needs and ensure that customers are continually drawn to the area (41,72). Recently, online shopping and climate consciousness has resulted in changes to anchor tenants requirements, resulting in smaller store sizes and a stronger focus on entertainment and community space (24,27–31).

A mix of at least five different uses (ie. restaurants, clothing stores, gym, etc.) are suggested for successful mixed-use developments; this enables support of one's lifestyle and provides space for economic activity (33). Creating a tenant mix, therefore, requires consideration of the needs and support systems required for different business types (33).

A thoughtful tenant mix that is supported by a strong anchor helps develop a resilient local economy. To be successful, it must centre around (73):

- being citizen-focused
- maximizing the value of local assets
- being adaptable to the changing contexts
- contributing to cross-sector relationships.

The commercial market study determined that the Site Area can support a neighbourhood shopping centre. Anchor tenants — particularly retail and hospitality-related tenants — located on corner units increases visibility and access for the retailer and encourages a permeable interface with the public realm (29,31).



Potential ground-floor tenant mix of 22nd Street Station Commercial Node. Opportunity for the tenants to create a 'sustainable' cluster of businesses that support each other and helps reduce waste and the commercial carbon footprint.

Recommendations

1.1 Explore ways to support a grocery store anchor in this location

Grocery stores are quality anchors that help drive traffic to other nearby shops and services. The commercial market study (see page 16) supports a grocery store anchor with a floor plate of 7,000-16,000 square feet. The City can target these specific uses and ensure early occupancy of commercial space by encouraging landlords to provide leasing incentives for desired businesses such as temporarily subsidized rent or by working with commercial recruitment agencies (11).

1.2 Conduct engagement with local residents to identify community needs and ensure that the anchor (or secondary anchor) tenant helps meet those needs

Anchors that are supported by compatible stores and meet the vision for the neighbourhood can ensure that the commercial spaces will meet residents' needs and lifestyles (25). By understanding the needs and services most desired by Site Area residents, the City can better target retailers that will support the community vision. Secondary anchors may be community anchors such as libraries, recreational centres and neighbourhood houses, and may be achieved through amenity contributions from developers. These community anchors are equally as important as commercial anchors in giving physical form to the community heart.

1.3 Work and collaborate with the Chamber of Commerce to help validate the anchor type and the suggested retail mix

The Chamber of Commerce identified the need to have several supportive and complementary businesses located near the anchor to help overcome the City's role as a "through community." Sit-down restaurants and other "third places" enhance street vibrancy, provide opportunities to increase social connections between neighbours and provide a full experience during one's visit (41,43,44,65). These "third places" may be interdependent on one another, strengthening their resilience to fluctuating markets (26). The City may also explore supporting the creation of

a Business Improvement Association or Merchants' Association to help draw tenants that would best serve the neighbourhood (following engagement with area residents).

1.4 Position anchor space to support public activity and foot traffic

Anchor tenants are often associated with public spaces to provide visitors with a full experience in retail, helping increase foot traffic, incentivising visitors to stay longer and helping businesses capitalize on dwelltime sales (48). The market study supported commercial floor space that could be distributed across at least two storeys, providing the opportunity to place uses reliant on foot traffic on the bottom floors, and professional service-type businesses on the second floor. Locating the anchor space on the corner of a commercial corridor is also important to attract and drive foot traffic to adjacent retailers.

1.5 Encourage a tenant mix that activates the area throughout the day and evening

Many types of retailers may want to be open for long hours, but for this to be feasible, they must capture sufficient business (25). The 22nd SkyTrain will produce ridership through 1:00 am most days of the week, which can incentive particular retailers to capitalize on this prolonged foot traffic (ie. bars, cinemas, 24-hour restaurants etc.). The City can attract different amenity and tenant types to help activate public spaces throughout the day and evening, as well as provide opportunities to activate the rear of the building (25,29). This also highlights the need to ensure there are no blank building walls and that all spaces are in use (29,32).

1.6 Identify potential sustainable clusters of complementary retail tenant types appropriate for the area

The Chamber of Commerce identified that a "brand" or community identity for the area should be cultivated through its provided shops and services (e.g. through a clustering or grouping of store types/complementary stores). Clustering certain kinds of retail could also help enhance the appeal of the area and give individuals reason to stop at 22nd Street Station. Retail clusters may not all be of the same type of retail but could help

build a cohesive community brand such as "sustainable retail clusters" or "circular commercial clusters" that may require all businesses be B-Corp certified or zero-waste, etc.

1.7 Curate commercial and community tenants around sustaining a circular economy

With increased awareness of retail's impacts on climate change, a movement toward shared and circular economies are becoming more common (8–10,13). The circular economy is focused on the 3-R method: reduce the use of raw materials, reuse products and components as much as possible, and recycle raw materials where possible (13). These models may shift even more dramatically to regenerative and reciprocal models that emphasize the need to restore and contribute back to the natural environment (13).

1.8 Phase new development to ensure commercial supply precedes demand

The City may phase developments based on the incoming population and market circumstances (33) so that some retailers are well established before the influx of new residents. By encouraging a grocery store tenant as a retail anchor, commercial space can be supported by existing local residents prior to the occupancy of new residential units.

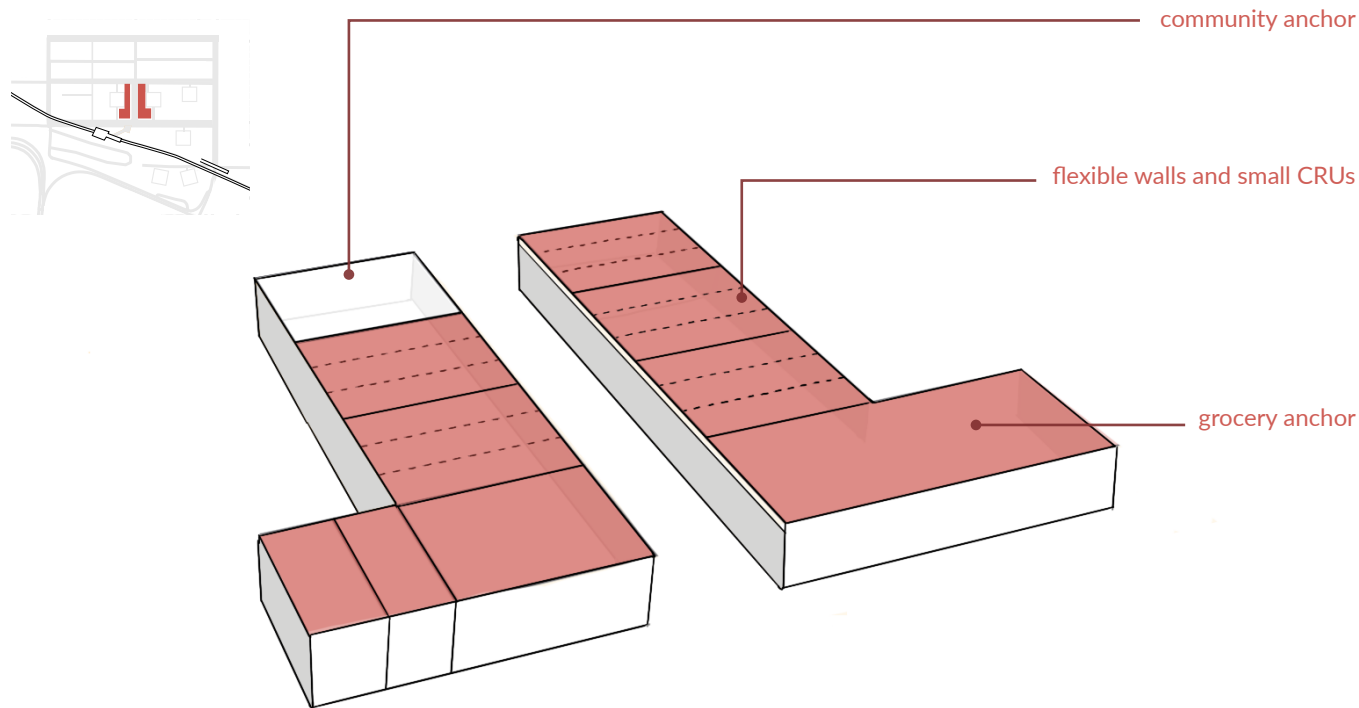


Guiding Principle 2. The spatial needs for tenants are unique and will evolve.

A number of factors place pressures on commercial services — from changes in household size (56), climate change, and the rise of e-commerce (8,9). These changing trends means commercial services must be responsive and adaptive to survive. Partnering or supporting different programs with specific retail recruiting organizations has proven effective in other cities (11).

Consumers have changed their habits as a result of changing values and availability of services, enabling a rise in the shared economy and a focus on retail experience and service commerce rather than product sales and “personal ownership” business models (8–10). This has resulted in a change in the physical requirements of space (21,62,63), and often smaller store sizes (56,58).

As 22nd Street Station has no existing commercial space, development may proactively respond to the changing demands in retail typology and use. Spaces can be designed to be adaptable, convertible, and flexible, reducing the risk associated with purpose-built spaces such as large-format retailers. Developers also noted the opportunity to adopt smaller floor plates to fit with the existing trend.



Potential ground-oriented commercial floor plan along 21st Street and 7 Avenue. Majority of units are small commercial retail units (CRUs), at 1200 square feet. The retail anchor in this plan is 7200 square feet, but could be expanded to be 10,000 to 20,000 square feet, depending on tenant needs. Overall, the area could support over 72,000 square feet of commercial space. Pictured above: ~30,000 square feet of ground oriented commercial.

Recommendations

2.1 Adopt design guidelines that specify permissible unit sizes for retailers

It is challenging for local governments to dictate the specific type of commercial service that would enter an area. Yet, there are ways to control the function and servicing of a space through building design features and commercial regulations (11). This includes specifying building height and density, size of retail and services allowed per lot, and the size of a single retail or service unit (11):

- Require 1:3 width to depth ratio for retail merchandise stores
- Shallow units are easier to manage for most tenants, and easier to combine if needed in the future (60).
- Require 1:1 storefront to depth ratio for corner units and provide ample setback
- Corner units may adopt a 1:1 depth ratio to enable tenants to use the outside space for additional sales or patio while connecting with the public realm (28,31).
- Limit the size of a single retail or service unit to a size appropriate for the neighbourhood (between 4,000 to 25,000 square feet)
- Small businesses require spaces of no greater than 2,000 square feet (58), with many seeking 18-20 foot frontages for 1,000 square foot units (60).

2.2 Provide business licenses that permit shared office or retail space or co-location places

To encourage occupancy and decrease the financial burden on a single lease holder, the shared-economy model can be applied to fixed real estate assets

by diversifying the uses per unit. The City can work with other agencies (e.g. Fraser Health, Fire Department, Metro Vancouver) to facilitate the installation of the equipment they need (e.g. ventilation, grease traps, water).

2.3 Negotiate flexible retail design that facilitates subdivision of larger floor plates or amalgamation of smaller floor plates

Adaptable and convertible spaces are key for small businesses as purpose built spaces carry much more risk. If the development requires a large format store anchor, it should be designed to be subdivided into different and smaller units in the future. Generous floor-to-ceiling heights can also create opportunities for future reuse. Design guidelines should consider the design challenges that exist around door placement when designing flexible spaces.

2.4 Enable flexibility of space by being specific about what is prohibited, but not what is permitted

The City can develop zoning bylaws to allow for a creative and diverse mix of commercial uses by detailing uses that should be prohibited, rather than listing the specific uses that would receive approval. This flexibility creates greater opportunity to approve unique, temporary or different uses of the commercial spaces.

2.5 Require ventilation to be installed in a specific number of units

Certain tenants, such as restaurants, need ventilated units. The City can require that future development include ventilation systems to attract restaurants

to select spaces and remove the time and cost burden for these tenants. Ventilation should be designed such that the exhaust faces away from the public realm.

2.6 Organize small business packages to help new business owners navigate the leasing system and business operations when starting out

The biggest barrier to small independent retailers occupying commercial space is navigating the permitting process. As identified in the City's EDP, the City can support local businesses by simplifying processes, and providing operators with an informational package containing definitions of lease terminology, timeline of process, etc (4).



Guiding Principle 3. Prioritize creative placemaking, thoughtful public space design and programming.

The success of a mixed-use space depends on how the commercial frontages and transportation infrastructure integrates with the public realm (28). Cohesive designs integrate considerations of scale of the neighbourhood (e.g. building height, massing, landscaping), user experience in the streetscape (e.g. transparent facades, places to meet and gather, accessibility needs for individuals with disabilities), and connection to the greater community (e.g. transportation corridors, street level integration with community) (21–24).

Designing places for people requires consideration of the city at eye level (21). Commercial spaces adjacent to public spaces must also be thought of from beyond the ground floor, considering how the second-floor services or middle and top of a building integrates with the public realm (11,29,30).

Commercial spaces can be developed in ways that support active streets (11,28,30–32).

Methods to do this include (11,28,30–32):

- providing ground-level retail
- providing competitive environments
- increasing window visibility using recessed doorways
- providing entryways that align with the pedestrian route, and providing windows to ensure that building interiors are visible from the street

The Site Area can benefit from cohesive placemaking strategies and a public realm that brings together both current and future residents. Located north of the Fraser River, there is opportunity to use elevated public space to capitalize on the view across the river.



21st Street

Recommendations

3.1 Arrange structures to create plazas and pedestrian malls for vertical mixed-use projects

Building placement and design can facilitate the development of public space; clustering of buildings and providing visual linkages between buildings can help break up the visual bulk and prevent the feeling of enclosure (31). The City can use strategies such as a density bonusing to increase the height and density of a project in exchange for additional public and green space.

3.2 Encourage creative frontages for larger retailers so the street remains activated

Large retailers often seek longer frontages, which challenges street and public space activation, and limits access to natural light (11). The City can explore innovative ways to make larger format storefronts appear smaller, such as placing flower displays and benches in front of the store.

3.3 Support retail and hospitality uses for street frontage units, especially corners

Corner units, in particular, benefit from retail and hospitality uses as they facilitate engagement with the public realm (29,30); by comparison, large retailers present a challenge to street activation due to their demands for long frontages which also limits access to natural light (11).

3.4 Create design guidelines that consider the interactions of commercial space with the public realm

Design characteristics can encourage additional interactions between the public realm and commercial spaces. A specific set of design guidelines for the Site Area will help the City achieve its desired quality by providing a guiding framework for developers with respect to the City's objectives, and reinforce the interactions between the commercial space and public realm (74). Guidelines may include:

- **Require narrow storefronts and transparent facades to activate the public realm**
Narrow storefronts, transparent facades, and activities visible

from the outside help activate the adjacent space and encourage interactions between the commercial and public spaces (29,30,32).

- **Place retail on north-south oriented streets to ensure more equal sun exposure**

To maximize the amount of sunlight on the public realm, the City should minimize south to south-west facing public or outdoor space and maximize north to north-east facing spaces (30). Solar shading on footpaths can also provide relief from intense sun exposure (30).

- **Create wayfinding guidelines to lead transit users to the commercial node**

Wayfinding can be a beneficial strategy in attracting transit riders into the neighbourhood commercial centre. The City can implement urban design guidelines for the area to promote cohesive branding, signage, and physical features that will enhance public realm activity.

- **Necessitate weather and season-proofing portions of the public realm**

As the climate changes, Metro Vancouver is expecting extended dry spells, more days of heavy rainfall, and an increasing number of heat days (75). To ensure the space can be used year-round, future urban design guidelines should include creative design interventions to allow the residents to enjoy public spaces during wet months and shade structures for summer months.

3.5 Engage community organizations to help program the public spaces

Through participatory planning and the co-design of public spaces, the City may better understand how to best program the spaces for year-round use. Examples of community programming include family movie screenings, farmers markets, retail open houses, etc. The Chamber of Commerce or the development of a new, localized Business Improvement Association (BIA) or merchant association could help support these types of programming.

3.6 Activate empty storefronts to enhance community placemaking

During the early phases of building leasing, the City can encourage the activation of empty retail spaces using public art programs and incentivising landlords to provide free event space for nonprofits and community organizations. These spaces can also be used for temporary pop-up shops or as an informational hub for community events and public engagement to inform residents on what type of stores are coming to their neighbourhood.

3.7 Experiment with street activation in the short-term

The City does not have to wait until the area is redeveloped to start building a community heart in the neighbourhood. Tactical urbanism techniques or DIY space activation can be a great way to kickstart creative use and a sense of ownership in the public realm. Examples include expanded painted sidewalks, chalked crosswalks, benches and chairs in gathering spaces.

3.8 Require noise attenuation through buffering that contributes positively to the creation of public space

The Site Area is located directly adjacent to the existing Expo SkyTrain line, which produces substantial noise that could impact the activation of public space. Natural or physical buffers such as increased tree canopy could help to prevent the noise impact on future public space.



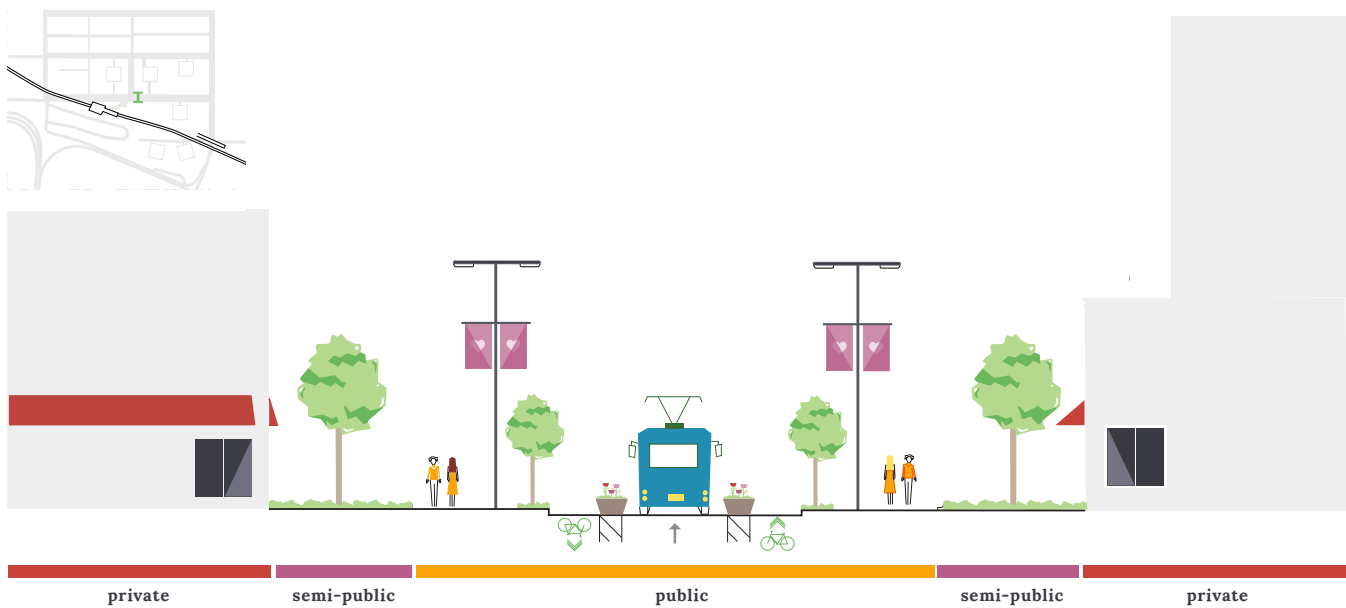
Guiding Principle 4. Celebrate the area as a climate-friendly community by prioritizing active transportation and green building practices.

As the City of New Westminster has declared a climate emergency, it is more important than ever to take bold steps on climate action. In designing the 22nd Street Station commercial area, active transportation and sustainable development should be central to the plan.

Through adoption of the BC Step Code, the City has required innovation from developers; this will need to continue especially when codes become outdated when technology evolves (11,76). While the BC Step Code works to improve energy-efficiency in building development, it can be costly for developers to subscribe to the higher level steps. By providing financial incentives, the City can provide a supportive environment for developers to consider developing a climate-focused community (67). This will require considering how the BC Step Code may support or work against the area’s design guidelines, for example providing simple facades and large floor plates (77).

Local developers have identified a desire to be innovative, especially in the face of a climate emergency, but noted that innovation is costly and challenging if also faced with restrictive policies. In Metro Vancouver, developers identified that many larger commercial tenants are trying to align their space with their priorities; for example, an environmentally or sustainably conscientious tenant will seek space in a green building to fit its brand (e.g. MEC).

Developers are keen to spend less money on parking, which provides them with more flexibility to provide other amenities to a development. Removing private vehicle traffic on 7th Avenue and Hamilton Road, prioritizes bicycle and pedestrian movement and works toward the City’s goal for 60% of all trips to be made by sustainable modes of transportation. Research supports a change to the parking structure, as parking minimums are associated with greater likelihood of driving, even in a well-served transit neighbourhood (78).



Street section of 7th Avenue

Recommendations

4.1 Consider creating a network of bicycle-pedestrian streets throughout the neighbourhood with 7th Avenue also supporting bus movement

The development of a car-free neighbourhood improves air quality, reduces noise, results in reduced heat impact, and allows for re-allocation of greenspace (79,80). Car-free streets encourage active mobility and are seen as improved child environments (80). A larger area designated as car-free may be associated with a stronger commitment to the City’s Seven Bold Moves to combat climate change. It is recommended, however, that the City consider removing vehicle traffic not only along 7th Avenue and Hamilton Road, but also 8th Avenue and Edinburgh Street at minimum to prevent the re-distribution of automobile congestion to adjacent roads. The City may consider expanding this area for a more aggressive car-free neighbourhood approach.

Additional mechanisms to support a car-free community may be considered as part of transportation demand management, such as various incentives to use alternative forms of transportation (e.g. developers providing residents or tenants with bus passes for a given length of time).

4.2 Consider accessibility to commercial space by providing parking for people with disabilities

In working to become a car-free community, the Site Area must also address challenges of accessibility. Parking access is essential for some people with disabilities and should be located in a convenient access point to the anchor and other destinations in the commercial centre (28). The City must also acknowledge that some residents may rely heavily on cars by no choice of their own, therefore provisions for their mobility must be considered (81).

4.3 Consider a parking maximum

While retailers often cite the importance of parking outside of their facility as being critical to their success, they often overestimate the number of people who arrive by car (82,83). Development parking requirements have historically

subsidized the use of personal vehicles and implicitly encourages car travel. By removing off-street parking requirements and setting a maximum number of parking spaces per unit, the City can work towards an entirely car-free community.

4.4 If parking is needed, create ‘transformative’ parking garages

Below grade parking is expensive and has a negative impact on groundwater. If any parking is required, above-grade parking that is screened or adaptable will become increasingly more important as neighbourhoods densify further and affordability remains a challenge.

4.5 Explore ways to supply at end-of-trip facilities (including showers and change rooms) that is accessible to all tenants of the building

End-of-trip facilities help support mode shift for individuals who desire to bike to work (34). The City can work with developers to provide shared showers and change facilities among commercial tenants, as well as develop different strategies through its bylaws to require end-of-trip facility installation.

4.6 Create mid-block connectivity to encourage walking

Mid-block crosswalks or corridors are an essential asset to supporting a walkable public realm, acting as shortcuts to avoid large blocks and provide pathways between buildings (84). This increases access to the neighbourhood and allows an alternative to walking on the street. The City can explore opportunities for mid-block connectivity through the master planning process. This might take the form of laneways, enabling activated experiences for those traveling by foot.

4.7 Provide financial incentives to make climate sustainable and resilient buildings affordable

As cost is a barrier to most developers that aim to develop in an environmentally conscious way, the City can incentivize sustainable development by:

- Excluding the ground level retail from the FSR and/or height restrictions
- Providing variable development cost charges
- Providing property tax exemptions

Conclusion

The findings and recommendations discussed in this report support the City’s creation of the 22nd Street Station Area Master Plan. This area provides a unique opportunity for the City to redefine “transit-oriented developments” across the Lower Mainland, prioritizing the neighbourhood and the City’s broader objectives around responding to the Climate Emergency and developing a community that is truly inclusive and accessible to all.

Staying true to the City’s current directions identified in its Seven Bold Steps, OCP, and EDP, this project identified the supportable commercial square footage as per the neighbourhood projections and current land use designation. The future neighbourhood may support modest retail and service spaces, anchored by a small grocery store; however, community identity can be embedded into the area through the interactions of the commercial spaces and the public realm.

While the City can adopt existing models from neighbouring municipalities, its recognition of today and tomorrow’s challenges enables it to be bold and push the envelope, modelling what it means to truly think differently about how neighbourhoods are built.

This area provides a unique opportunity for the City to redefine “transit-oriented developments” across the Lower Mainland♥

Appendices

Appendix A

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Appendix B

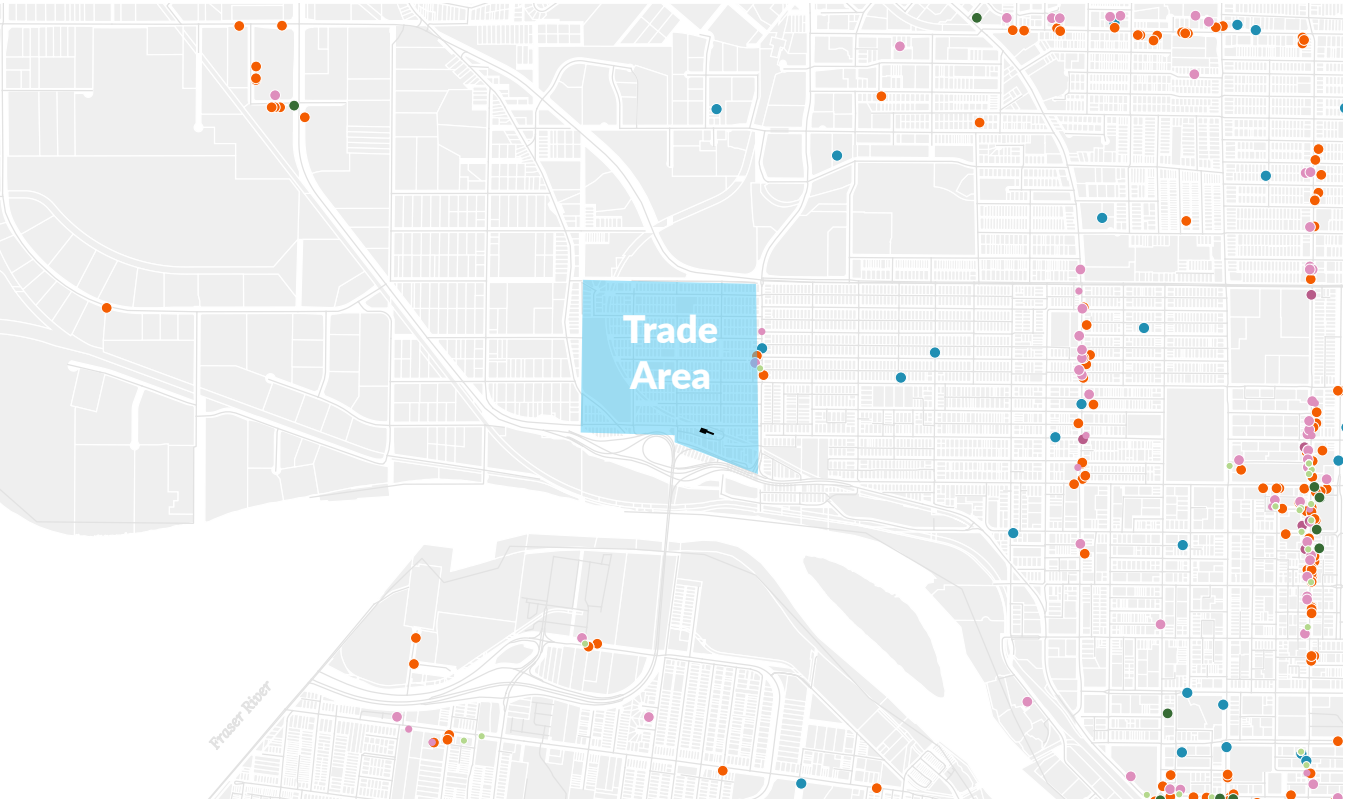
Market Analysis

Relevant Shopping Centre Classifications

Adapted from the International Council of Shopping Centres

Shopping centre type	Description	Typical GLA (sq. ft.)	Typical anchor types	Trade area size
Community Shopping Centre	Open-air and/or enclosed property that focuses on daily needs but with a wider range of soft goods and services than neighbourhood centres. Cluster of attached retail units that can be open-air and/or enclosed with significant off-street paved parking surrounding the building that can be generally accessed from two or more sides.	100,000 - 400,000	More than one large-format store, which could be a supermarket, super drugstore, discount department store or big-box retailer	<10 kms
Neighbourhood	Open-air property designed to address the daily needs of consumers in the immediate neighbourhood but with a broader offering than the convenience centre. Usually configured as a straight-line strip with adequate off-street parking at the front.	40,000 - 99,000	Generally anchored by a supermarket or drugstore	<5 kms
Convenience	Open-air property with a few tenants that offer a narrow mix of goods and personal services to a very limited trade area, including walk-in traffic. The configuration is typically linear, with an attached row of stores or service outlets owned and managed as a coherent retail unit and with on-site parking usually in front of the stores.	10,000-39,000	Convenience stores, such as a mini-mart.	N/A
Retail mixed-use	Multi-component structure developed as a single and coherent entity; its retail component is predominant, accounting for one of at least two significant revenue-producing uses. Its primary trade area can vary widely, depending on the project's composition.	50,000+ for the retail component and a minimum of 3 commercial retail units	Depends on the composition of the project.	N/A

Existing Supply



Existing supply of select services (child care, full-service restaurants, optical goods, dental care, beauty salons, barbershops, commercial banks) near 22nd Street Station.

Productivity Rates, Transit Ridership, Market Share and Expenditures

	Number	Units
Supermarket and other grocery productivity	\$ 700	per SF per year
Health and personal care stores productivity	\$ 650	per SF per year
Convenience store productivity	\$ 1,000	per SF per year
Specialty food stores productivity	\$ 550	per SF per year
Beer, wine and liquor stores productivity	\$ 1,480	per SF per year
Clothing and clothing accessories productivity	\$ 510	per SF per year
Furniture and home furnishings stores productivity	\$ 408	per SF per year
Electronics and appliance stores productivity	\$ 605	per SF per year
Building material & garden equipment & supplies dealers prod.	\$ 400	per SF per year
Sporting goods, hobby, book, and music stores prod.	\$ 500	per SF per year
General merchandise stores productivity	\$ 530	per SF per year
Miscellaneous store retailers (florist, second hand stores, etc) prod	\$ 400	per SF per year

Growth transit ridership	6.90%	per year
Year for build out (From 2016)	14	year

Market share for Convenience Retailers	70%
Market share for Other Retailers	10%

	2016	2030	Assumptions
Connaught Height population	1,752	6,502	* Assuming that the population will increase by 4,750 with current proposed density AND using Census tract 9330201
Transit ridership	19,450	49,500	* (6) Average skytrain boarding in 2018 (10,450) and (7) average bus boarding in 2018 (9,000) - assuming an annual (4) 6.9% increase in ridership --- Does not create a market demand but will contribute to the viability of the commercial spaces

Source: The productivity rates were provided by reports from the International Council for Shopping Centres (ICSC).

Supportable Retail Square Footage by Retail Type

Using total retail sales from Statistics Canada and productivity rates from ICSC reports, we determined the supportable square footage by retail type. The table belows shows that 36,311 square feet of retail is supportable around 22nd Street Station.

Expenditures	per capita retail sales per year (BC) *(5)	2030 total retail sales	Supportable SF
Supermarkets and other grocery stores	\$ 2,534	\$ 16,476,068	16,476
Health and personal care stores	\$ 1,051	\$ 6,833,602	7,359
Convenience stores	\$ 163	\$ 1,059,826	742
Specialty food stores	\$ 211	\$ 1,371,922	1,746
Beer, wine, and liquor stores	\$ 840	\$ 5,461,680	2,583
Clothing and clothing accessories stores	\$ 958	\$ 6,228,916	1,221
Furniture and home furnishings stores	\$ 531	\$ 3,452,562	846
Electronics and appliance stores	\$ 508	\$ 3,303,016	546
Building material & garden equipment & supplies dealers	\$ 879	\$ 5,715,258	1,429
Sporting goods, hobby, book, and music stores	\$ 390	\$ 2,535,780	507
General merchandise stores	\$ 1,756	\$ 11,417,512	2,154
Miscellaneous store retailers (florist, second hand stores, etc)	\$ 431	\$ 2,802,362	701
Total Supportable retail			36,311

Supportable Retail Analysis

Supportable retail types at 22nd Street Station	Square Footage	Supportable?	Precedence
Supermarkets and other grocery stores			36,311
Supermarket	20,500	No	Save-On Foods (Columbia St., New West)
Grocery Store	16,000	Yes	88 Supermarket (Elliot St. & E 49th Ave, Vancouver)
Market	7,000 to 10,000	Yes	Donal's Market (East Hastings and Commercial Drive, Vanc.)
Health and personal care stores			
Large Pharmacy	15,500	No	Shoppers Drug Mart (88 Ave, Langley)
Pharmacy	8,500	No	Shoppers Drug Mart (W 4th, Vancouver)
Medium pharmacy	3,100	Yes	Pharmasave (Columbia St., New West)
Medium health store	2,100	Yes	Body Energy Club (W 4th., Vancouver)
Small Barbershop	1,500	Yes	Vivid Nails (Commercial Dr, Vancouver)
Small nail salon	1,000	Yes	Vivid Nails (W 4th., Vancouver)
Convenience stores			
Medium convenience store	3,000	No	Noor Convenience (Broadway, Vancouver)
Small Convenience store	1,000	No	Mac's (Cornwall Ave, Vancouver)
Small Convenience store	430	Yes	Martway (Davie St Vancouver)
Specialty food stores			
Medium Specialty food store	5,000	No	Meinhardt (Granville St, Vancouver)
Small Specialty food store	1,500	Yes	Mediterranean Specialty Foods (Commercial Dr, Vancouver)
Beer, wine, and liquor stores			
Large Liquor Store	7,500	No	BC Liquor Store (Commercial Dr, Vancouver)
Medium Liquor Store	2,100	Yes	Kitsilano Wine Cellar (W 4th, Vancouver)
Small liquor store	1,500	Yes	Brewery Creek Cold Beer & Wine (Main St, Vancouver)
Clothing and clothing accessories stores			
Medium Retail store	3,500	No	Latest Scoop (W 4th, Vancouver)
Small Retail Store	1,500	Yes	JQ Clothing Ltd (Commercial Dr, Vancouver)
Furniture and home furnishings stores			
Furniture store	8,536	No	EQ3 (Vancouver)
Electronics and appliance stores			
Electronics	2,352	No	Lee's Electronics (Vancouver)
Building material & garden equipment & supplies dealers			
Building materials	2,092	No	Home Hardware (W4th, Vancouver)
Sporting goods, hobby, book, and music stores			
Book Store (Medium)	2,032	No	Renaissance Books (12th Street, New Westminster)
Sporting Goods (Small)	1,200	No	Liv Vancouver (W 4th, Vancouver)
General merchandise stores			
General Store	5,051	No	Welk's On Main (Main St, Vancouver)
Miscellaneous store retailers			
Medium floral store	1,600	No	Uptown Florist (12th Street, New Westminster)
Small floral store	550	Yes	Leis De buds (W 4th, Vancouver)

Supportable Services at 22nd	Square Footage	Assumptions/Notes
Commercial Services	36,311	Based on our conversation with Jim Smerdon from Colliers, we can assume that the total commercial services square footage will be about the same as the total retail square footage

TOTAL COMMERCIAL SF	Square Footage
Commercial Services	72,622

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