City of Prince Rupert

COMPLETE COMMUNITY ASSESSMENT

THE CITY OF PRINCE RUPERT

City of Prince Rupert
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Prince Rupert,
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Urban Systems
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All images provided by the City of Prince Rupert or Urban Systems unless noted otherwise.

TERRITORIAL ACKNOWLEDGMENT

We respectfully acknowledge that what is now known as Prince Rupert is the traditional, ancestral, unceded territory of the Sm'algyax speaking peoples. There are recommendations in this plan that can be undertaken by the City as part of the process of Indigenous reconciliation. This plan is by no means the answer to meaningful reconciliation, but it is intended to promote and support the continued dialogue to learn from and engage with Indigenous partners.

Contents

1.0 Executive Summary

In 2023, the City of Prince Rupert adopted a new transportation plan for the community. The plan is its first comprehensive transportation planning document created in more than three decades and presents a vision for how the transportation system can evolve in the years to come. Historically, the city has been in a constant state of change and has seen significant shifts that have altered the face of the community and the focus of the economy. Now, the City is emerging from a period of low economic growth and recuperation from the curtailment of some significant primary employers. New investment in port facilities and the attraction of new employers are changing the community landscape once again, and the City is primed to take advantage of the new growth. The key to taking advantage of this new wave of investment is ensuring that Prince Rupert is a great place to live and enticing new residents to make their homes in the community.

Since the community's last period of growth and wealth in the 1980s and 1990s, the services and amenities people seek in a community have shifted. People seek communities supported by a safe and accessible transportation network. In addition, new residents are seeking good access to recreation amenities and parks, good schools, and access to a variety of commercial services. Prince Rupert already has many of these things and has a head start in providing these services. However, the City's ability to invest in these amenities is hampered by its current infrastructure challenges, characterized by the Big Infrastructure Gap (BIG) project.

The City is focused on renewing critical water and other subsurface infrastructure. In recent years, the City has struggled with boil water advisories and the need to perform emergency road reconstruction due to catastrophic failures of the existing network. The Provincial and Federal governments recognizes the City's challenges and have provided over $140 million dollars in funding to support infrastructure replacement. This funding creates a unique opportunity to align infrastructure repair with transportation improvements outlined in the City's recent transportation plan.

The Prince Rupert Complete Community Assessment (CCA) builds on this context and highlights ways the current infrastructure replacement efforts can help achieve other City objectives for community completeness. The assessment starts from the lens of transportation and accessibility but also considers how community completeness can be enhanced through housing and access to daily needs and services.

A complete community is designed to meet the diverse needs of its residents, enhancing their quality of life through accessible services, amenities, and infrastructure that encourage social interaction, economic opportunities, and environmental sustainability. From a transportation lens, walkability is a key element that ties the elements of a complete community together. Walkability refers to the ease with which residents can walk to essential services and amenities and is a crucial factor in creating livable and healthy communities.

This assessment includes a great deal of spatial analysis from various City, provincial and other agency data sets, including the Integrated Cadastral Information Society, BC Assessment and others. Stakeholder interviews, site visits, in-field data collection, workshops, and a walkabout with key members of the accessibility community also supported the process.

Several key insights emerged from the analysis:

- Infrastructure upgrades are needed to support safer and more convenient pedestrian pathways.
- Improved transportation options can enhance connectivity within the community.
- Access to daily needs must be prioritized to ensure all residents can reach essential services easily.
- Housing developments should be planned to support a diverse and inclusive population.

Based on the insights, the report makes several key recommendations:

- Invest in infrastructure that supports walkability and accessibility.
- Develop a comprehensive transportation plan that includes public transit, cycling, and pedestrian pathways.
- Ensure daily needs facilities are evenly distributed and accessible to all community members.
- Promote housing policies that encourage diversity and affordability.

Each of these insights and recommendations is discussed in further detail in the body of this report. The Prince Rupert Complete Community Assessment presents a comprehensive analysis of creating complete communities focusing on walkability in Prince Rupert. Funded by the Union of British Columbia Municipalities (UBCM), the project seeks to enhance local infrastructure, transportation, daily needs accessibility, and housing through strategic planning and action.

2.0 Setting the Stage

2.1 PROJECT PURPOSE

The City of Prince Rupert (the City) is committed to creating a complete community supported by an active mobility network that connects residents to the amenities and services they need, as described in the City's OCP. The Complete Community Assessment: Enhancing Connections (CCA) enables the City to make informed decisions on prioritizing and investing in safe and accessible pedestrian infrastructure. The CCA analyzes the City through four key community lenses (Infrastructure, Transportation, Access to Daily Needs, and Housing) to measure community completeness and walkability levels. This comprehensive study builds on the recently adopted Connect Rupert (2022), the City's Transportation Master Plan and the Official Community Plan.

Over the past few years, the City has been grappling with persistent waterline failures, for which it called a state of emergency in Winter 2022. This ongoing issue requires much of the City's operating budget, reducing capital opportunities for other projects, such as enhancing walkability. The City's recent Infrastructure Replacement Strategy (2023) recommended and prioritized the replacement of significant portions of the City's road network. Replacing roadways presents an opportunity to rebuild them in a way that better enables people to walk for everyday activities. Enhancing walkability at scale requires significant investment in on- and off-street infrastructure, which can be done most cost-effectively when incorporated into broader roadway projects or when building new streets.

Anticipated population growth will further strain the City's current infrastructure maintenance deficit. The Redesign Rupert initiative, 2030 Vision, and the City's OCP imagined the City's population would grow by 12,000 residents from 2022 to 2030. Between 2016 and 2021, Statistics Canada recorded that the City grew by 0.7%, much lower than the OCP vision. However, to maintain and enhance current walkability levels across the city, any level of growth will require strategic action in enhancing pedestrian infrastructure and updating land use plans to enable higher-density mixed-use neighbourhoods.

The CCA intends to assess and analyze the components of a complete community and the specific factors, such as transportation, infrastructure, daily needs, and housing, that contribute to a walkable community. This enables the City to make data-driven decisions on implementing the pedestrian network for all ages and abilities envisioned in Connect Rupert.

2.1 UBCM COMPLETE COMMUNITIES PROGRAM

In 2023, the Union of BC Municipalities (UBCM) launched the Complete Communities program to support local governments and modern treaty First Nations in advancing identified community goals by creating more complete communities. In Fall 2023, the City was awarded a grant through the UBCM Complete Communities program to undertake an assessment to inform land-use decision-making, considering housing need, supply, and location; provide transportation options including increased walkability; and make connections to infrastructure investment and servicing decisions. The Complete Community Programs focuses on four key components of community completeness: transportation equity and infrastructure, access to daily needs, and housing.

WHAT IS A COMPLETE COMMUNITY?

A 'complete community' provides diverse housing to meet identified community needs, accommodate people at all stages of life and abilities, and provide a wider range of employment opportunities, amenities, and services within a walkable distance. Creating a more complete community can support a range of identified community goals and offer many interrelated benefits, including more housing and transportation options, increased walkability, accessibility, age-friendliness, and equity, greater efficiency with servicing and infrastructure, environmental sustainability, and preservation of the natural environment by reducing urban sprawl. This assessment focuses on four key aspects contributing to community completeness, as described on the following page.

INFRASTRUCTURE: Smart land use and compact infrastructure provision enable the creation of complete and sustainable communities. The infrastructure lens was used to provide a high-level assessment of the existing and future available infrastructure required to deliver services such as water, sanitary, and stormwater to the community.

TRANSPORTATION: Complete communities prioritize a people-first mobility system that supports walking, cycling, micromobility and transit.

Creating a more accessible, safe, and connected multi-modal transportation network provides people with various options to meet their daily needs. This can reduce reliance on motor vehicles, supporting mode shift and environmental goals.

ACCESS TO DAILY NEEDS: Complete communities support people where they live by providing greater proximity to daily needs. This means that local governments may want to ensure that their community or communities include a mix of land uses, including residential, so that it is easier for people to choose walking, cycling or transit to access those destinations.

HOUSING: Housing is an essential human need. A more complete community can better support the housing needs of everyone who chooses to live there through varied housing types and tenures for people of different incomes, family sizes, and ages and at all stages of life.

2.2 PROJECT PROCESS

PHASE 1 – PREPARE

Phase 1 involved the collection of data relating to community completeness. This included gathering data from several sources, including Statistics Canada, BC Assessment, ICBC, existing municipal data, Environics, and on-site surveying. The data gathered included transportation network and infrastructure, trail network connections, housing density, tenure and mix, tree canopy coverage, retail spending habits and the location of various public and private amenities. To further improve the City's data catalogue, the project also conducted in-field City-wide site analysis to determine the condition of existing pedestrian infrastructure, focusing on accessibility. Phase 1 also included a literature review to understand how to measure walkability across the City.

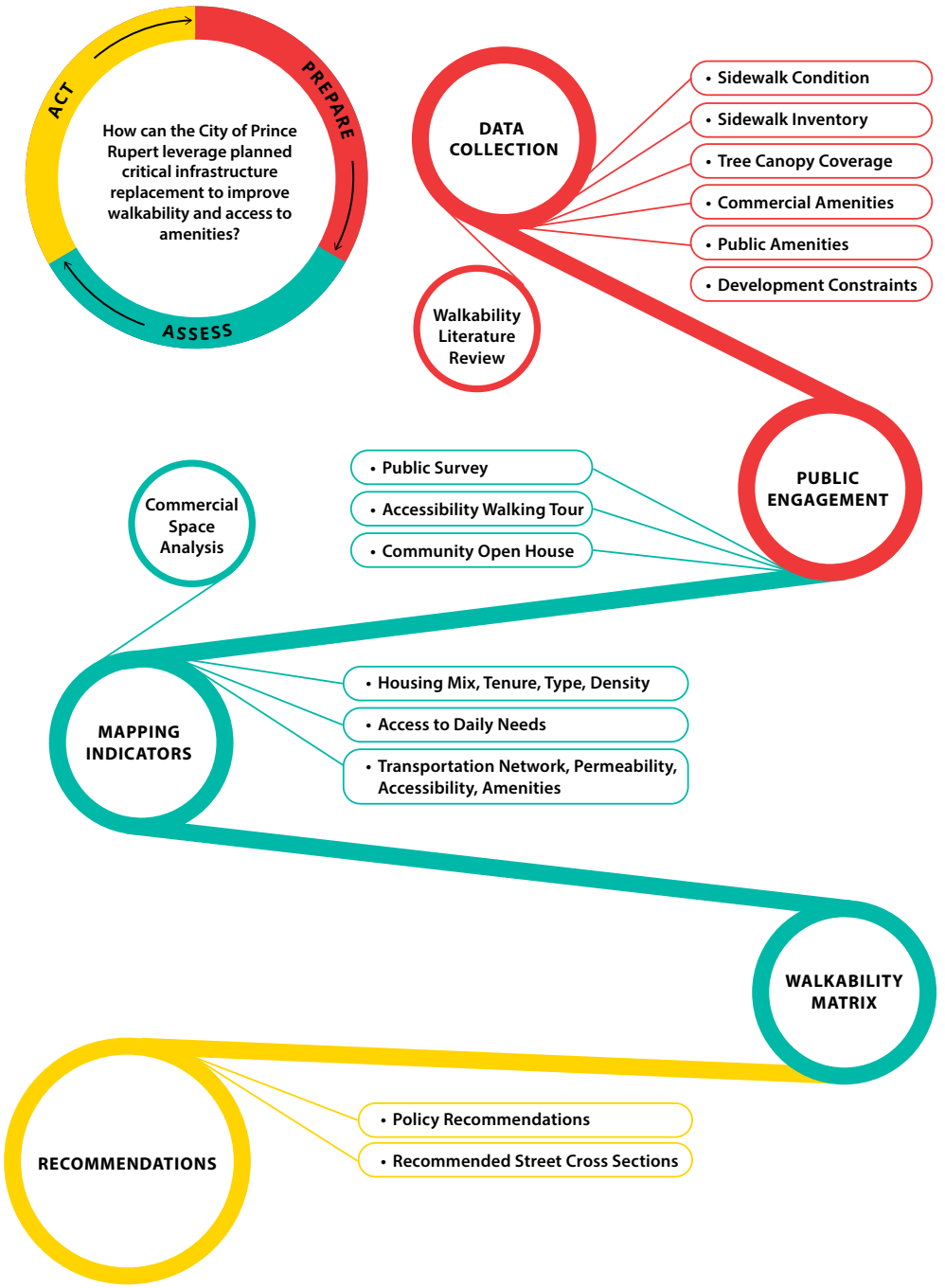
PHASE 2 – ASSESS

Phase 2 involved the analysis of each complete community lens and included several community and staff engagement events. This phase involved significant intersectional geospatial analysis to establish an understanding of the City's existing community completeness. Community engagement bolstered this understanding by examining where, why, and how often people walk, the existing barriers to walking, and how these experiences differ for people with physical and cognitive limitations.

The outcome of Phase 2 was the development of a Prince Rupert-specific walkability index that approximates relative walkability levels. The index is a synthesis of the relationship between key lenses. It is informed by feedback from the community through an open-house event and a community survey that included information from 15 and 28 people, respectively. A community walking tour co-led by the City's Accessibility Committee also provided valuable information on experiential differences for mobility and cognitive considerations. The results of Phase 1 and Phase 2 are summarized in Appendix A: Technical Report.

PHASE 3 – ACT

Phase 3 included refining the walkability index to develop targeted recommendations to enhance connections through pedestrian infrastructure, high-level design guidance for collector and local street designs, and other recommendations for the City as it works to enhance community completeness.



3.0 Community Context

Prince Rupert is the largest community on the northwest coast of British Columbia. Compared to other northern communities, it has a compact urban area and well-designed street grid structure, inherently increasing walkability potential. Infrastructure in the City has posed a challenge over recent years with the necessary replacement of many of the City's under-road infrastructure. The City's current population is approximately 30% smaller than its peak in the 1990s, meaning that infrastructure was planned and built for a significantly larger population and tax base. Based on employment and growth projections provided by the Port of Prince Rupert during the Redesign Rupert Process, a population of 22,000 was projected by 2030. However, recorded population growth has been much more moderate

(0.7% between 2016 and 2021). Current housing needs also do not reflect potential population growth spurred by new Provincial legislation on Small-Scale Multi-Unit Housing, which requires municipalities (Prince Rupert included) to permit at least four units on most single-family properties. As of Fall 2024, the City is updating its Housing Needs Assessment to better reflect these conditions.

Separate from the City's population projections, the local economy has seen significant investments in port and goods movement infrastructure, which is a strong signal that the City may be on the verge of a new period of growth and change. During this period, the City will need to make evidence-based and cost-effective investment decisions to enhance community resilience through infrastructure investment and renewal, including investments in accessible pedestrian infrastructure. This also includes planning housing and commercial land uses to create walkable neighbourhoods that enable residents to access employment and commercial and recreational opportunities by foot, mobility aid, or bicycle. Directing future growth, particularly that of multi-family developments, to areas that enhance community completeness and support a demographic that wishes to age in place and remain socially connected will be a key consideration.

Creating a complete community that provides an age-friendly pedestrian realm is crucial to the City's development as it is home to a significant youth and senior demographic. Nearly one-quarter (22.8%) of the population is under 19 years old, and 16.3% is over 65, a proportion that is projected to increase. These two unique demographics typically benefit from similar investments in safe, accessible, convenient, and connected pedestrian infrastructure. While youth, seniors, and those with limitations benefit the most from a walkable community, all other residents stand to benefit from a more complete community.

Despite the sidewalk network's gaps and condition issues, the City of Prince Rupert is already a highly walkable community. Approximately 10% of all residents already walk to school or work for their daily commute, which rivals the walking rates of much denser urban cities like Vancouver (12%) and North Vancouver (10%). Connect Rupert identified the lack, or poor condition, of sidewalks and pathways as the most significant barriers to walking and using a mobility aid.

Many residents and visitors in Prince Rupert will continue to drive to the City for various specific needs and lifestyles. This is particularly true for neighbouring communities that use Prince Rupert as a service centre, including Port Edward, Metlakatla, Lax Kw'alaams, Gitxaala, Dodge Cove, and other smaller North Coast Regional District communities. Each of these communities must make unique transportation choices to reach the City, many involving vehicles. Enhancing safety for people once they reach the City will benefit residents and visitors.

3.1 PLANNING FRAMEWORK

The CCA primarily builds on Connect Rupert (2022) and is closely linked to several other plans and policies at the local, regional, provincial, and federal levels. These documents set the overarching goals, visions, and objectives for the City's land use, transportation, and other key long-term planning considerations that the CCA seeks to align with and enhance.

The CCA is also informed by Provincial and Federal government policy, which has both established a vision to increase active transportation and take bold action on climate change. The federal government has set a target to cut GHG emissions by 40-45% below 2005 levels by 2030, while the Province's CleanBC plan includes targets to reduce GHGs to 40% below 2007 levels by 2030, 60% by 2040, and 80% by 2050. To support the implementation of active transportation infrastructure, the Province developed the B.C. Active Transportation Design Guide (BACTDG) to ensure consistent active transportation facility design across the province.

Much of the City's waterfront land falls under federal jurisdiction through the Prince Rupert Port Authority. The land is primarily reserved for transportation and industrial use. However, this makes the Prince Rupert Port Authority an important partner for delivering community projects that provide recreational and commercial opportunities near the waterfront.

Big Infrastructure Gap Project (Ongoing)

Prince Rupert 2030 Vision (2023)

Connect Rupert (2022)

Subdivision and Servicing Bylaw No. 3462 (2022)

Zoning Bylaw No. 3462 (2021)

Official Community Plan (2021)

Redesign Rupert Vision (2019)

Community Energy and Emissions Plan (2017)

4.0 Community Completeness — Existing Conditions

This section provides an overview of the existing conditions for each community lens: infrastructure, transportation, daily needs, and housing. The assessment and comparison of each community lens highlight unique strengths, opportunities, and challenges related to the built environment and existing policy framework.

INFRASTRUCTURE

ACCESS TO DAILY NEEDS

TRANSPORTATION

HOUSING

4.1 METHODOLOGY

STUDY AREA

The CCA focuses on the City's urban areas where residents are most likely to walk, illustrated through the spatial extent in Figure 1. The analysis is presented at two scales, largely dependent on the data source. Analysis relating to housing data is shown at the census dissemination scale. In contrast, more granular data relating to daily needs and transportation is shown using hexagons, each individually accounting for one hectare of land. Hexagons, rather than a grid, were used to reduce sampling bias associated with grid edge effects and their preferable ability to illustrate street corridors.

The study area was also designed to remove areas where people are unlikely to walk due to known constraints like steep slopes, certain environmentally sensitive areas and other lands with known constraints such as certain Crown lands and Reserve properties.

FIGURE 1 STUDY AREA MAP

STUDY AREA

- Commercial / Mixed use
- Park / Open Space / Forested Area
- School
- First Nation Reserve
- Study Area

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4.2 INFRASTRUCTURE LENS

WHY INFRASTRUCTURE MATTERS

Prince Rupert is currently managing a critical infrastructure emergency. The emergency is primarily centred on waterline failures but extends to essential roadway and pedestrian facilities and other infrastructure systems. Ensuring people of all ages and abilities can safely and comfortably walk and roll with a mobility aid is critical to creating an equitable and complete community. This is especially important for those with physical or cognitive limitations that restrict their ability to drive and those who choose not to drive either permanently or situationally.

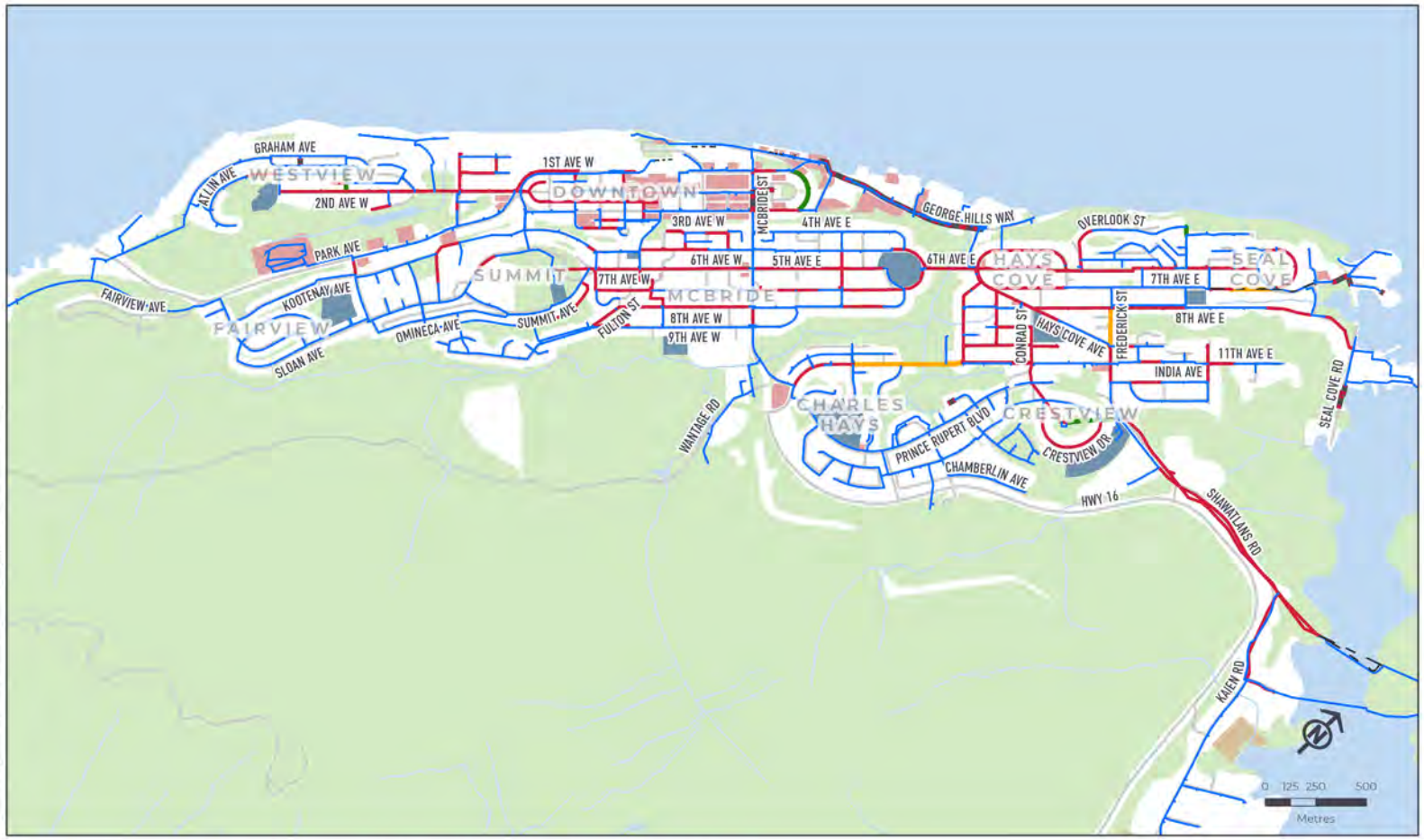
Without safe pedestrian infrastructure, moving about the City safely can be challenging, especially for youth and seniors. The CCA evaluates how the City can prioritize walkability enhancements through planned and future infrastructure projects.

Infrastructure also plays a key role in municipal finance. Prioritizing anticipated growth via land use planning in areas with existing infrastructure reduces the capital and developer-driven costs to build, maintain, and replace critical infrastructure such as water and sewer.

HOW IT WAS MEASURED

The ongoing Big Infrastructure Gap (BIG) Project – the City's plan to upgrade and replace the most critical and aged water and sewer infrastructure – is a significant consideration for this assessment. The BIG Project identifies 26 kilometres of at-risk water main, much of which is underneath roadways. The necessary replacement of these roadway sections provides an opportunity to enhance and refurbish the transportation network; as streets are dug up to repair subsurface systems, the road and sidewalk surfaces will be replaced. This will likely result in similar infrastructure being built back in most cases. However, there is potential to apply for additional funding for key areas to make further enhancements. The CCA identifies recommendations for where strategic investments in accessible pedestrian infrastructure are most needed.

FIGURE 2 INFRASTRUCTURE REPLACEMENT PRIORITY



WATER MAINS - TRIAGED AREAS: HIGH LIKELIHOOD OF FAILURE OR HIGH RISK OF FAILURE

Status

- Replacement Completed
- Additional Replacement
- High LOF or ROF Removed
- High LOF or ROF
- Exisitng
- Abandoned

- Commercial / Mixed Use
- Park / Open Space / Forested Area
- School
- First Nation Reserve

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TRANSPORTATION PLAN

4.3 TRANSPORTATION LENS

WHY TRANSPORTATION MATTERS

Transportation is essential to our everyday lives and directly impacts how safe, affordable, and equitable our communities are. The mobility choices our built environments enable affect individuals' physical, mental, and financial health and the broader community. It is important that the City approaches transportation through a people-first lens that prioritizes active transportation and sustainability to address broader social, environmental, and economic objectives.

HOW IT WAS MEASURED

The transportation network was measured through field collection and data assembly from different city departments to develop a robust and complete data set for Prince Rupert's transportation system. This dataset made it possible to assess the transportation system in several key ways.

PERMEABILITY

Permeability describes how easy it is for someone to use the existing street and pedestrian network to move around the City. A key component of permeability is the connectivity and density of the City's street and trail network, which include the density of intersections, the number of legs at intersections, and the presence of dead ends. The density and connectivity of the City streets establish the long-term transportation network, at which significant changes are often cost-prohibitive and take place over decades. Average block size is also a function of the overall street network and describes how far one would have to walk before reaching an opportunity to change direction. Smaller block sizes typically enable easier movement.

The CCA also analyzed the City's sidewalk and crosswalk network density. Infrastructure investment in new and upgraded sidewalks and crosswalks can be cost-effective measures to significantly enhance walkability.

ACCESSIBILITY

Accessibility describes how safe and comfortable the experience of using the City's pedestrian network is. In a highly accessible network, few to no barriers limit an individual's access to key destinations, irrespective of individual physical or cognitive limitations. In a less accessible network, only people without limitations, such as healthy young adults, can safely access their daily needs by walking. In a less accessible network, individuals with limitations may need to drive to access their daily needs,

which can create barriers to fully participating in society and maintaining good health. Creating an accessible pedestrian network supports those with limitations and, more broadly, equity-deserving groups at higher risk of discrimination and health complications.

Accessibility was measured through several infrastructure considerations. The CCA included a comprehensive site visit to evaluate the City's sidewalk network, including sidewalk condition and the presence of curb cuts, to create an accessibility score. The accessibility score also integrates community feedback heard through engagement. Other components of the accessibility analysis included ranking bus stop accessibility by amenities provided (shelter and benches) and the percent slope of roadways. The locations of roadway collisions, as reported by ICBC, were also incorporated.

TRANSPORTATION ASSESSMENT

SIDEWALK CONDITION

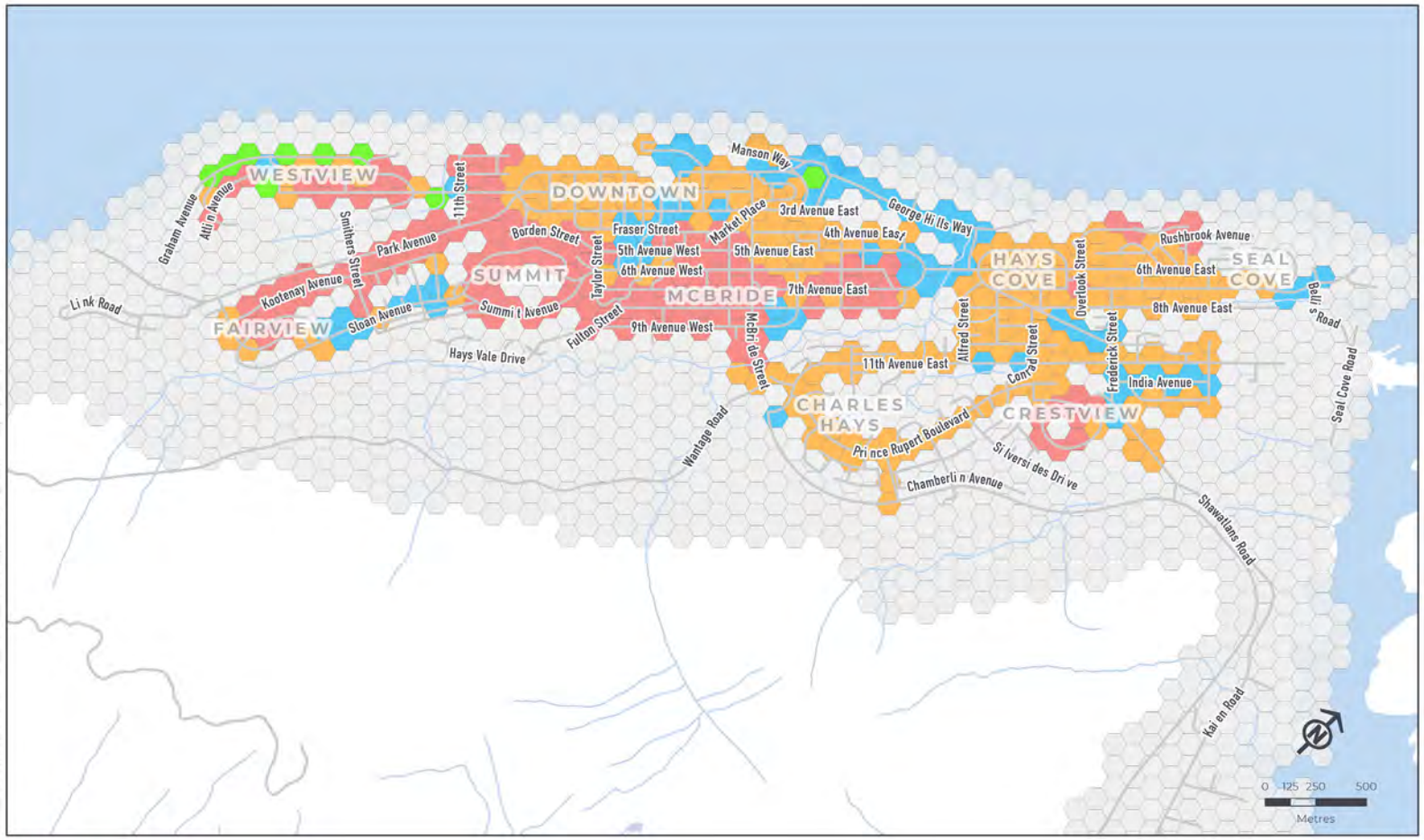
INTERPRETATION

Figure 3 Illustrates the condition of sidewalks across the City. In areas without sidewalks, the map is gray.

Most sidewalks across the City are either in poor or fair condition. The McBride, Summit, Fairview, and Westview neighbourhoods typically have the poorest sidewalk conditions.

Portions of the Downtown core and Hays Cove have areas with sidewalks in good condition; however, very few areas have sidewalks in excellent condition.

FIGURE 3 SIDEWALK CONDITION



SIDEWALK CONDITION

Sidewalk Condition

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor
- N/A

SIDEWALK DENSITY AND CROSSWALK DENSITY

INTERPRETATION

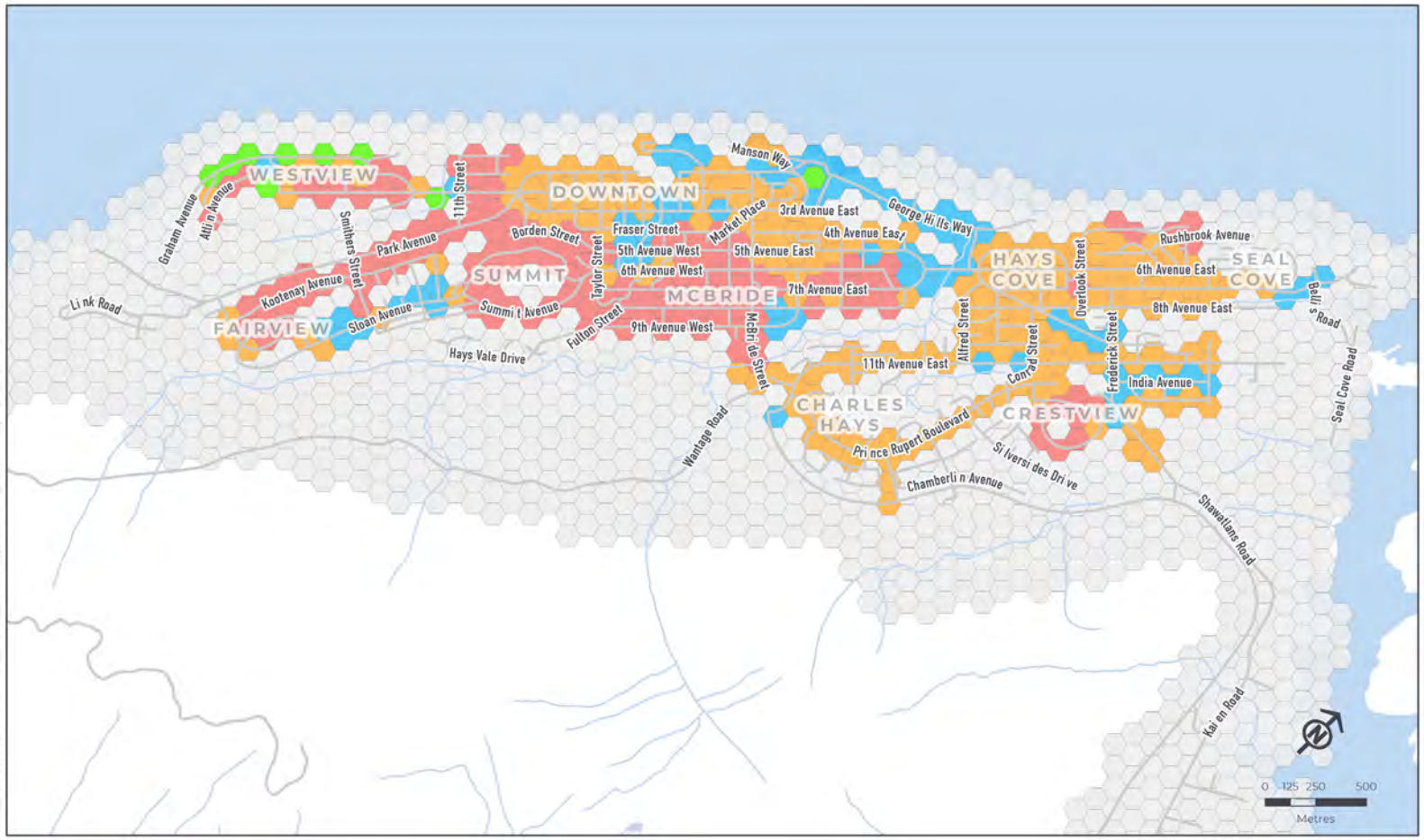
Figure 4 shows the City-wide density of sidewalks and crosswalks.

Areas with high sidewalk but low crosswalk densities indicate either low street connectivity or a lack of crosswalks at intersections and mid-block crossings.

Outside of the Downtown core, many intersections have a high density of connecting sidewalks and a low density of crosswalks. In these areas, especially along collector streets, there is likely an opportunity to build new crosswalks.

Areas with high crosswalk and low sidewalk densities indicate the presence of trails and pedestrian cut-throughs that do not connect to sidewalks.

FIGURE 4 SIDEWALK DENSITY AND CROSSWALK DENSITY



SIDEWALK CONDITION

Sidewalk Condition

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor
- N/A

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4.4 DAILY NEEDS LENS

WHY DAILY NEEDS MATTER

Living and working within walking distance of amenities like grocery stores, health services, parks, and others is integral to Prince Rupert's completeness and can contribute to residents' quality of life and well-being. Ideally, most residents are within walking distance of key amenities and services used frequently. By the co-location of residential, employment, amenity, and recreational spaces, walkability is enhanced through shorter distance trips and the concentration of infrastructure investment.

HOW IT WAS MEASURED

Several analyses were conducted to measure access to daily needs. The daily need lens also evaluated anticipated demand for commercial space to identify what amenities and services the city needs the most over the next 20 years. Daily needs data were collected through desktop analysis and BC Assessment data, which provided information on a property's actual use (commercial, residential, etc.).

Parks and outdoor spaces are typically considered an essential daily need and a component of overall community completeness. In addition to designated parks, local governments typically monitor and strive to increase tree canopy cover. In the case of Prince Rupert, the City has recent high-quality municipal LiDAR data on tree canopy cover. A high percentage of tree canopy provides many benefits, such as filtering air pollution, reducing heat in urban areas, protecting from wind, and creating more aesthetically vibrant communities. Many municipalities target a tree canopy cover of around 30%.

ACCESS TO DAILY NEEDS ANALYSIS

The access to daily needs analysis evaluated access to 12 different types of public and private amenities. The amenities and services can be broken down by whether or not they are typically public or private. The City may have more direct control over where investment in public amenities is located. For private amenities, municipalities typically influence development over the long term through the Official Community Plan and zoning bylaw. Table 1 details the categories of amenities that are included in the analysis.

TABLE 1 PUBLIC AND PRIVATE AMENITIES AND SERVICES (DAILY NEEDS)

Public	Private
• Parks	• Pharmacies
• Trails	• Food and Beverage
• Community Facility	• Convenience Store
• Schools	• Bank
• Childcare	
• Health Care	
• Post Office	

PUBLIC AMENITIES

INTERPRETATION

Figure 5 shows the locations of public amenities spread across the City, with a concentration in Downtown, which reduces in density as the distance from Downtown grows. There are pockets of daily needs near Seal Cove, the Civic Centre, and the Regional Hospital.

PRIVATE AMENITIES

INTERPRETATION

Figure 6 shows the locations of private amenities or local businesses that contribute to meeting residents' daily needs, such as access to food and entertainment.

Most privately owned businesses are located Downtown. However, a few restaurants and convenience stores are located outside of downtown. These existing locations of commercial uses outside of Downtown may represent opportunities for expanded commercial nodes.

ACCESS TO PARKS AND RECREATION

INTERPRETATION

Figure 7 illustrates the access to parks and recreation. The analysis includes the location of parks, trails, community facilities, and schools. Schools are included because of the important role they play as community facilities outside of school hours.

The findings indicate that the western portion of Downtown and the Mcbridge neighbourhood have the highest access to and clustering of parks and recreation amenities. Portions of the Fairview, Charles Hays, and Hays Cove also have higher access.

Westview, Seal Cove, and Crestview have limited access to parks and recreation. It is important that these neighbourhoods have safe and comfortable walking and cycling routes to where amenities are.

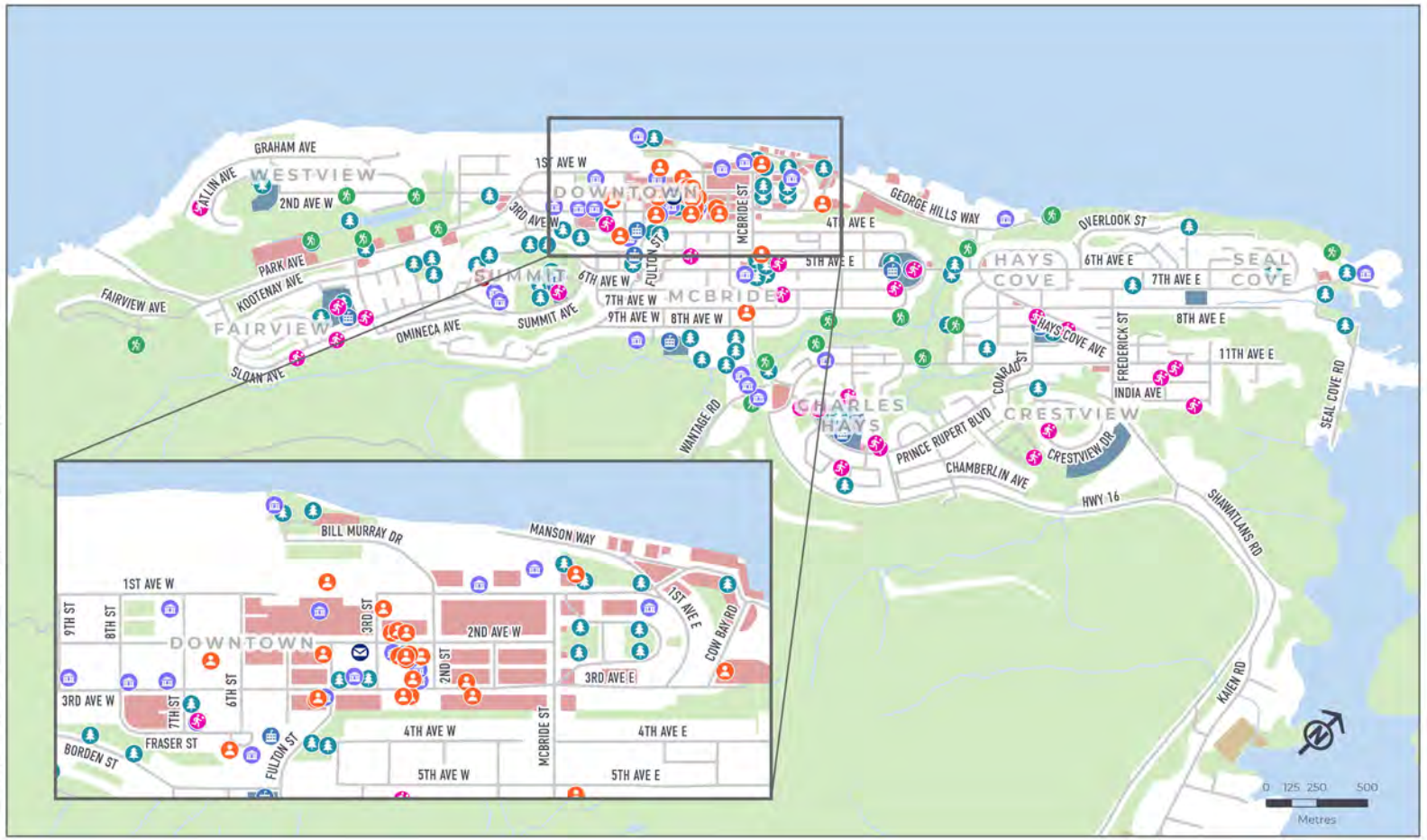
TREE CANOPY COVERAGE

INTERPRETATION

Figure 8 illustrates the tree canopy coverage across the City. A higher tree canopy coverage can help manage stormwater runoff, create a more attractive urban environment, and support heat dissipation.

A 30% canopy cover target is typical across a municipality. Across Prince Rupert, higher-density areas equate to lower tree canopy cover, particularly near Downtown and McBride. To increase canopy coverage, the City should plant more trees within municipal rights-of-way and explore requiring more trees via development.

FIGURE 5 LOCATION OF PUBLIC DAILY NEEDS

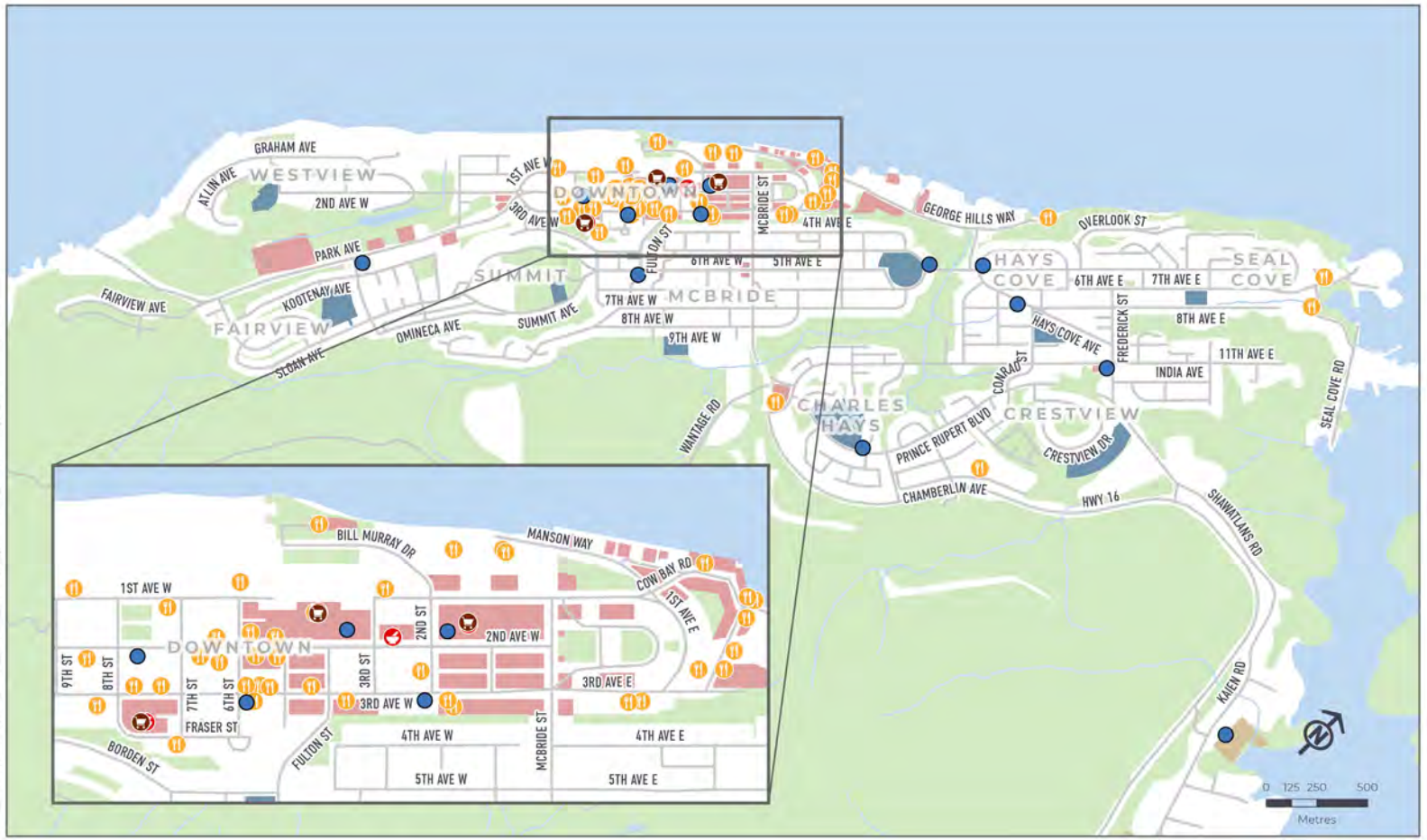


AMENITIES - PUBLIC

- Parks
- Trailhead
- Community Facility
- Schools
- Health Care
- Hospital
- Post Office
- Childcare
- Commercial / Mixed Use
- Park / Open Space / Forested Area
- School
- First Nation Reserve

THE CITY OF PRINCE RUPERT

FIGURE 6 LOCATION OF PRIVATE DAILY NEEDS



AMENITIES - PRIVATE

- Grocery Store
- Convenience Store
- Pharmacy
- Restaurant
- Commercial / Mixed Use
- Park / Open Space / Forested Area
- School
- First Nation Reserve

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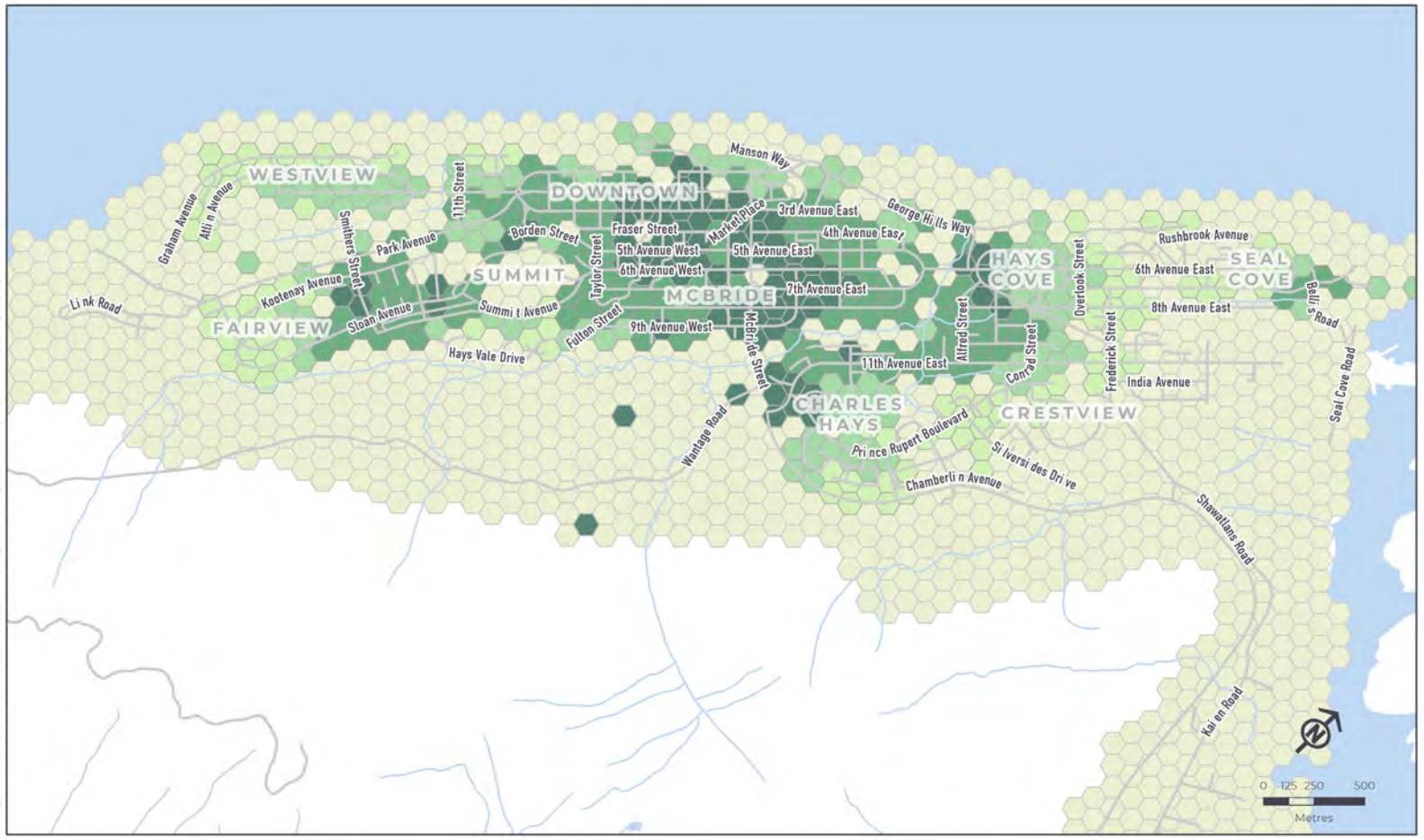
FIGURE 7 ACCESS TO PARKS AND RECREATION



ACCESS TO DAILY NEEDS - PARKS, TRAILS, COMMUNITY FACILITIES, AND SCHOOLS

- Highest Access
- High Access
- Moderate Access
- Low Access
- Lowest Access

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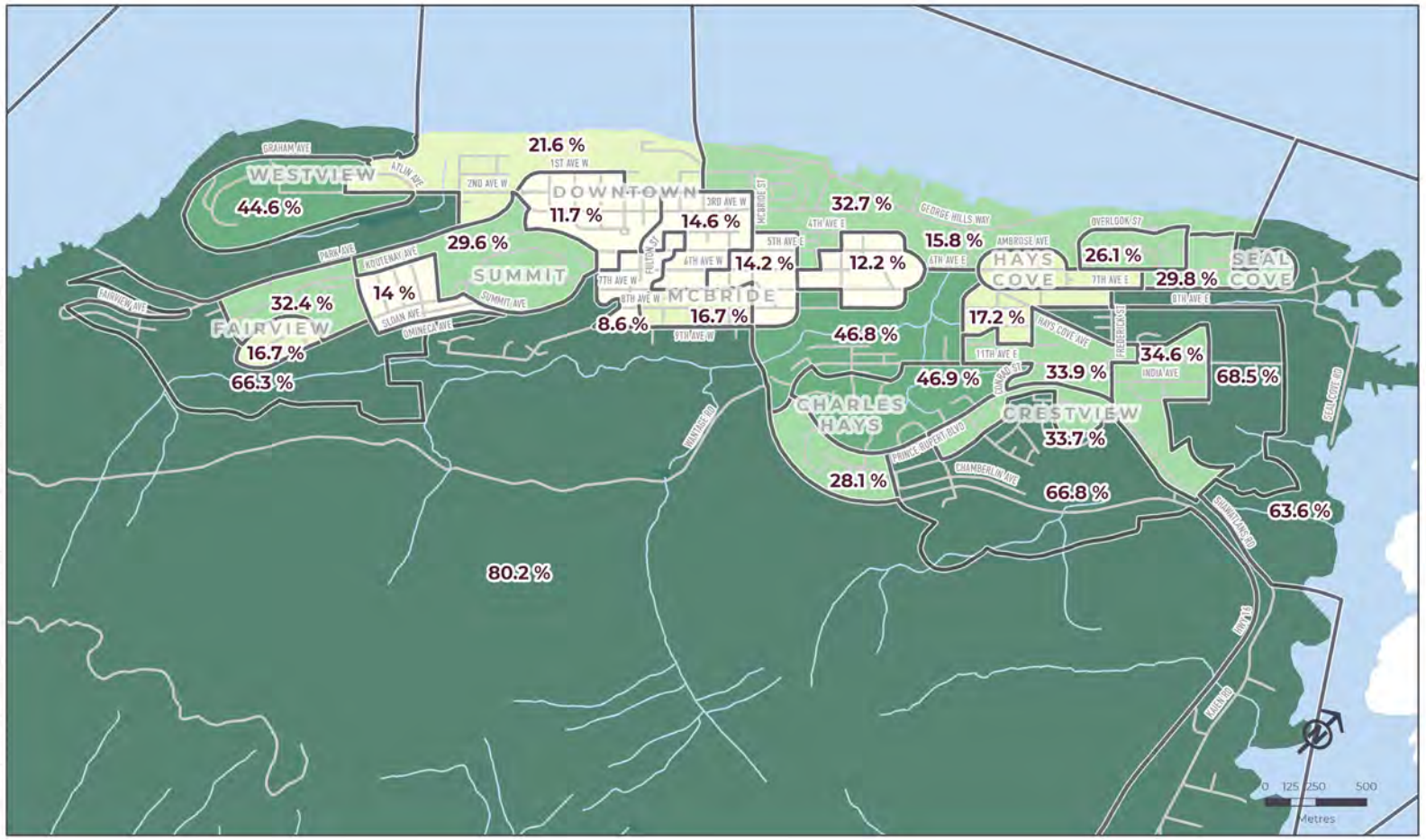
FIGURE 8 TREE CANOPY COVER



TREE CANOPY COVERAGE

- > 47 %
- 36 - 47 %
- 23 - 35 %
- 16 - 22 %
- < 15%

Dissemination Area Boundaries

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COMMERCIAL SPACE ANALYSIS

The City's existing commercial space and resident spending habits were analyzed to project anticipated capacities for increased retail space. The commercial space analysis provides key information about the future incremental demand for specific daily needs, which helps quantify the proportion of commercial land use required city-wide.

A realistic category-by-category forecast of net additional resident spending on commercial uses enables each category to approximate the market-supportable additional commercial floor areas. The resulting growth relative to 2024 in market-supportable floor area (sq. ft.) in the City of Prince Rupert is summarized in Table 3.

The results of the commercial demand analysis can then be used to provide market growth insights that relate directly to the current land use capacities. Highlights of this market-supportable floor area by category are described in Table 2.

Section 4.0 of the Technical Background Report in Appendix A provides a more detailed breakdown of the commercial space analysis.

TABLE 2 COMMERCIAL SPACE ANALYSIS FINDINGS

Category	Net Demand (sq. ft.)	Typical Store Size (sq. ft.)	Potential Demand for New Stores	Comment
Supermarkets and Other Grocery	4,900	5,000 – 35,000	0 – 1	Could take the form of a single neighbourhood grocery or the grocery portion of a larger department store (e.g., General Merchandise)
Liquor Stores	7,000	1,500 – 2,500	2 – 4	Small liquor stores.
General Merchandise Stores	24,100	2,500 – 25,000	1 – 9	Several smaller stores or one general merchant.
Health and Personal Care	8,800	2,200 – 4,400	2 – 4	Small- to medium-sized pharmacies.
Food and Beverage	18,600	1,500 – 5,000	3 – 7	A few full-service restaurants or several smaller quick-service establishments.

TABLE 3 NET NEW FLOOR AREA SUPPORTABLE, INCLUDING INFLOW

Retail Commercial Category	2024 – 2031	2024 – 2036	2024 – 2041	2024 – 2046
Furniture and Home Furnishing Stores	600 sq. ft.	1,000 sq. ft.	1,400 sq. ft.	1,700 sq. ft.
Electronics and Appliances	(100) sq. ft.	(300) sq. ft.	(400) sq. ft.	(600) sq. ft.
Building Materials, Garden Equipment, Supplies	3,800 sq. ft.	6,700 sq. ft.	9,800 sq. ft.	12,700 sq. ft.
Supermarkets and Other Grocery	1,600 sq. ft.	2,800 sq. ft.	4,000 sq. ft.	4,900 sq. ft.
Convenience Stores	100 sq. ft.	300 sq. ft.	400 sq. ft.	500 sq. ft.
Speciality Food Stores	200 sq. ft.	300 sq. ft.	500 sq. ft.	600 sq. ft.
Liquor Stores	2,100 sq. ft.	3,700 sq. ft.	5,400 sq. ft.	7,000 sq. ft.
Clothing Stores	1,300 sq. ft.	2,400 sq. ft.	3,500 sq. ft.	4,500 sq. ft.
Shoe Stores	100 sq. ft.	100 sq. ft.	200 sq. ft.	200 sq. ft.
Jewellery, Luggage, Leather Goods Stores	200 sq. ft.	300 sq. ft.	400 sq. ft.	500 sq. ft.
Sporting Goods, Hobby, Book and Music Stores	100 sq. ft.	200 sq. ft.	300 sq. ft.	400 sq. ft.
General Merchandise	7,200 sq. ft.	12,800 sq. ft.	18,700 sq. ft.	24,100 sq. ft.
Miscellaneous Stores, Retailers	2,800 sq. ft.	5,000 sq. ft.	7,300 sq. ft.	9,500 sq. ft.
Motor Vehicles Sales	10,500 sq. ft.	18,500 sq. ft.	27,200 sq. ft.	35,200 sq. ft.
Auto Parts, Accessories, Tires	1,400 sq. ft.	2,500 sq. ft.	3,700 sq. ft.	4,900 sq. ft.
Health and Personal Care	2,600 sq. ft.	4,600 sq. ft.	6,800 sq. ft.	8,800 sq. ft.
Gasoline	2,400 sq. ft.	4,100 sq. ft.	6,000 sq. ft.	7,700 sq. ft.
Food and Beverage	5,500 sq. ft.	9,800 sq. ft.	14,300 sq. ft.	18,600 sq. ft.
Total	**42,400 sq. ft.**	**74,800 sq. ft.**	**109,500 sq. ft.**	**141,200 sq. ft.**

Source: Urban Systems Retail Demand Analysis

4.5 HOUSING LENS

WHY HOUSING MATTERS

A diverse mix of housing types and tenures can enhance community completeness by accommodating people's needs across all stages of life and supporting aging in place. Concentrating housing near amenity nodes can enhance community vibrancy, support the local economy, and enhance people's ability to walk and cycle. The housing lens was used to provide a more comprehensive understanding of community completeness and identify opportunities to better support the needs of everyone through the delivery of varied housing types.

HOW IT WAS MEASURED

Data from the 2021 national census was used to help assess housing opportunities across the community. In addition, more detailed information from BC Assessment was reviewed, which included data such as housing types and number of units. The analysis presented in this section illustrates how the 2021 Census and attributes in the BC Assessment parcel fabric and building information report were used to understand the spatial relationship between housing and walkability, including density, tenure, and mix.

HOUSING DENSITY

INTERPRETATION

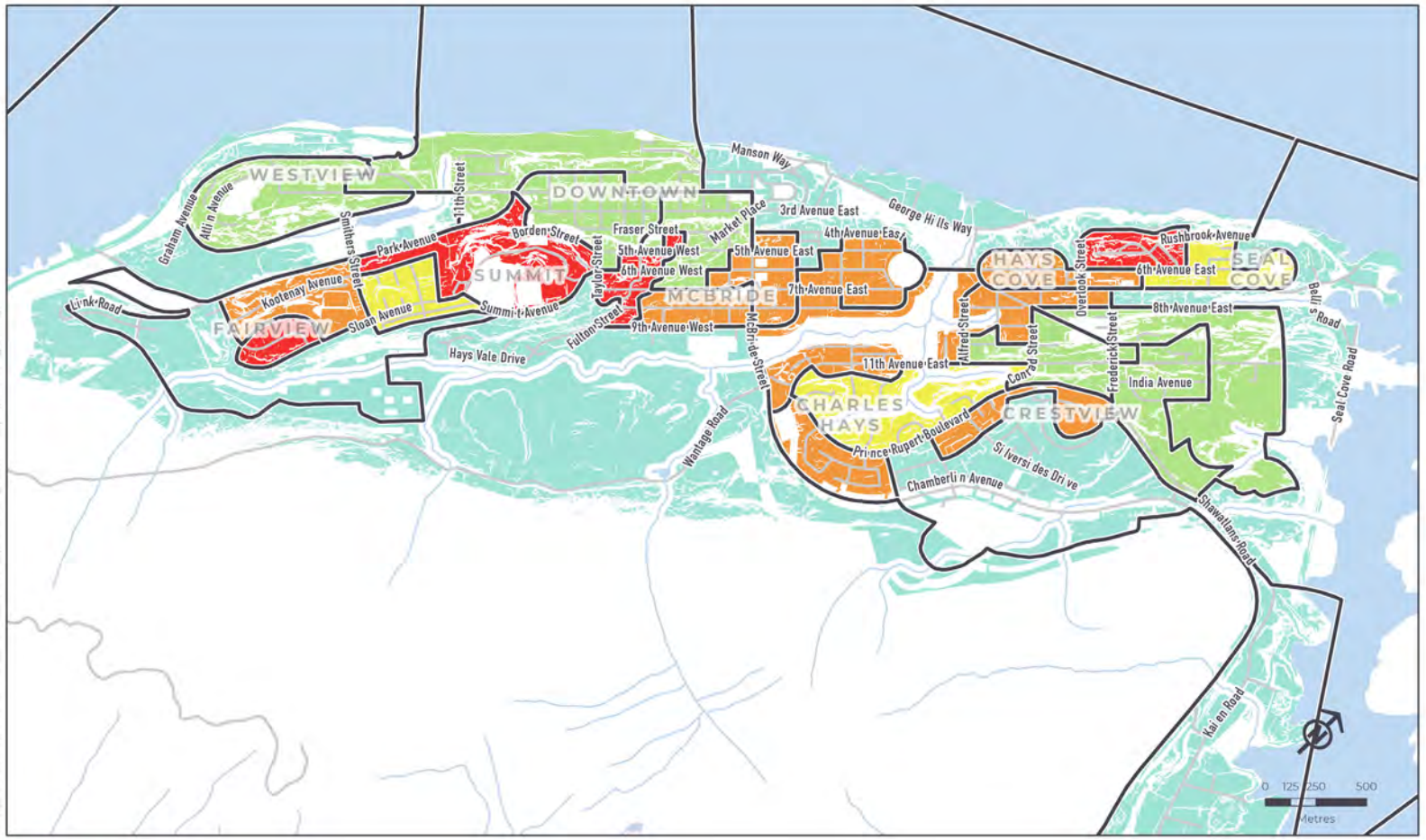
Figure 9 illustrates the highest density of housing units by census dissemination area across the city.

There is a very low housing density within and near Downtown.

The lower-density areas also include Crestview, Seal Cove, and Westview. The area around Charles Hays Secondary School clearly illustrates how transportation can influence housing density, as disconnected cul-de-sacs primarily characterize the surrounding area.

Overall, the city's highest-density areas are near the 6th Avenue corridor that cuts across the city.

FIGURE 9 HOUSING DENSITY SCORE



HOUSING DENSITY

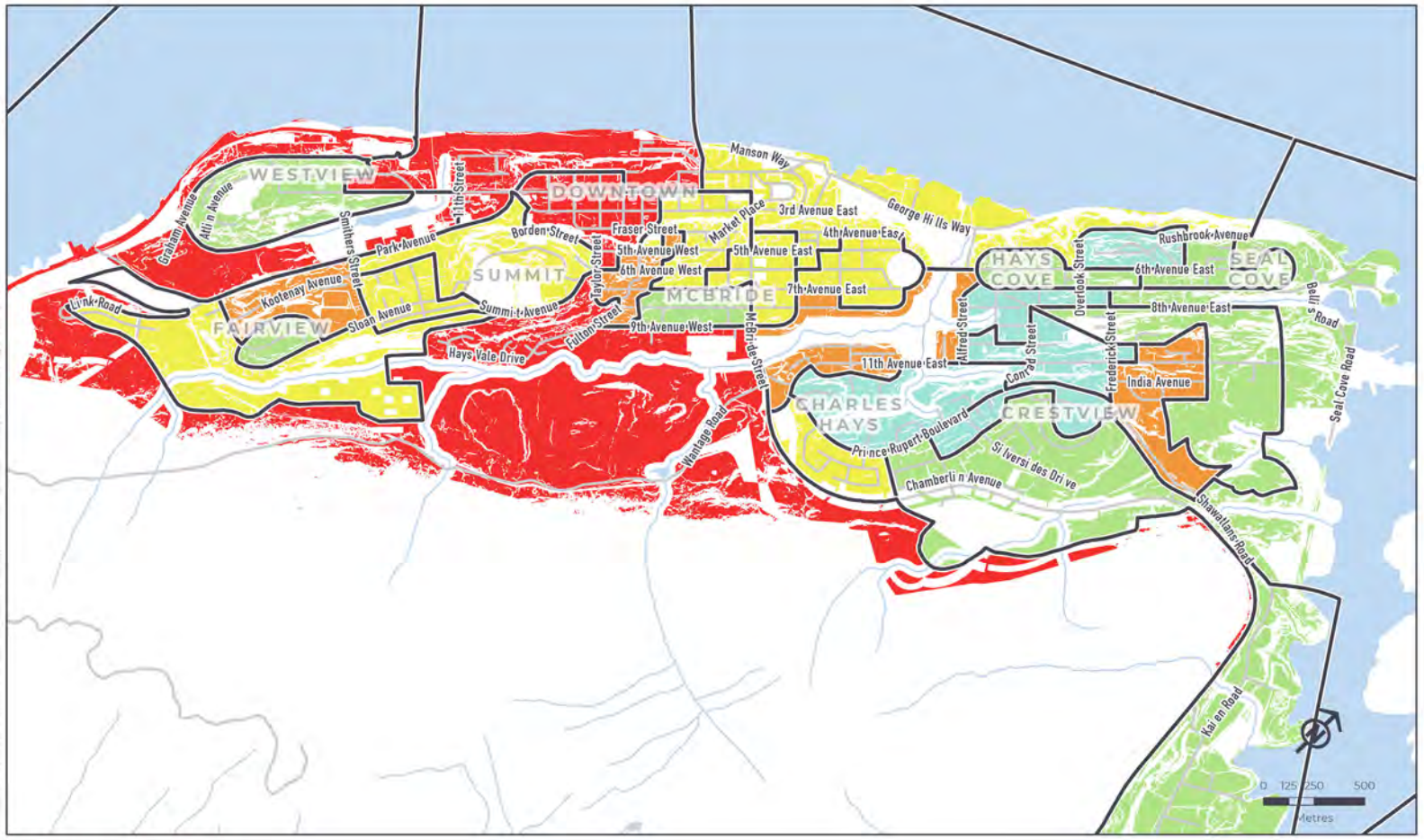
Housing Density (# of Housing Units / Acre

- 8 - 10
- 6 - 7
- 5 - 5
- 3 - 4
- 0 - 2

Dissemination Area Boundaries

THE CITY OF PRINCE RUPERT

FIGURE 10 HOUSING DIVERSITY SCORE



HOUSING DIVERSITY SCORE

Housing Mix Score

- 5
- 4
- 3
- 2
- 1

Dissemination Area Boundaries

THE CITY OF PRINCE RUPERT

HOUSING MIX SCORE

INTERPRETATION

Figure 10 shows the relative mix of housing across the City.

Housing mix describes the degree to which the area includes different types of housing (e.g., single-family homes, townhouses, and apartments). A greater mix of housing has the potential to accommodate people of all ages, abilities, and income levels.

The greatest mix of housing is in Downtown and certain portions of Fairview, Summit, McBride, and Crestview.

Hays Cove, Seal Cove, Charles Hays, and portions of Crestview have the lowest housing mix.

PROPORTION OF RENTAL UNITS VS PROPORTION OF MULTI-FAMILY UNITS

INTERPRETATION

Figure 11 shows the relationship between the proportion of multi-family units and the proportion of rental units.

Directly to the east of Downtown, in Cow Bay, and along the northeast waterfront, there are high proportions of rental units but low portions of multi-family developments. This indicates there may be an opportunity to develop more purpose-built rental projects in these areas.

It also illustrates that many multifamily areas are still predominantly privately owned.

The only area with a high proportion of multifamily and low rental is around Summit Avenue. These areas provide a good mix of housing and are relatively close to key amenities.

MUNICIPALLY OWNED OPPORTUNITY SITES

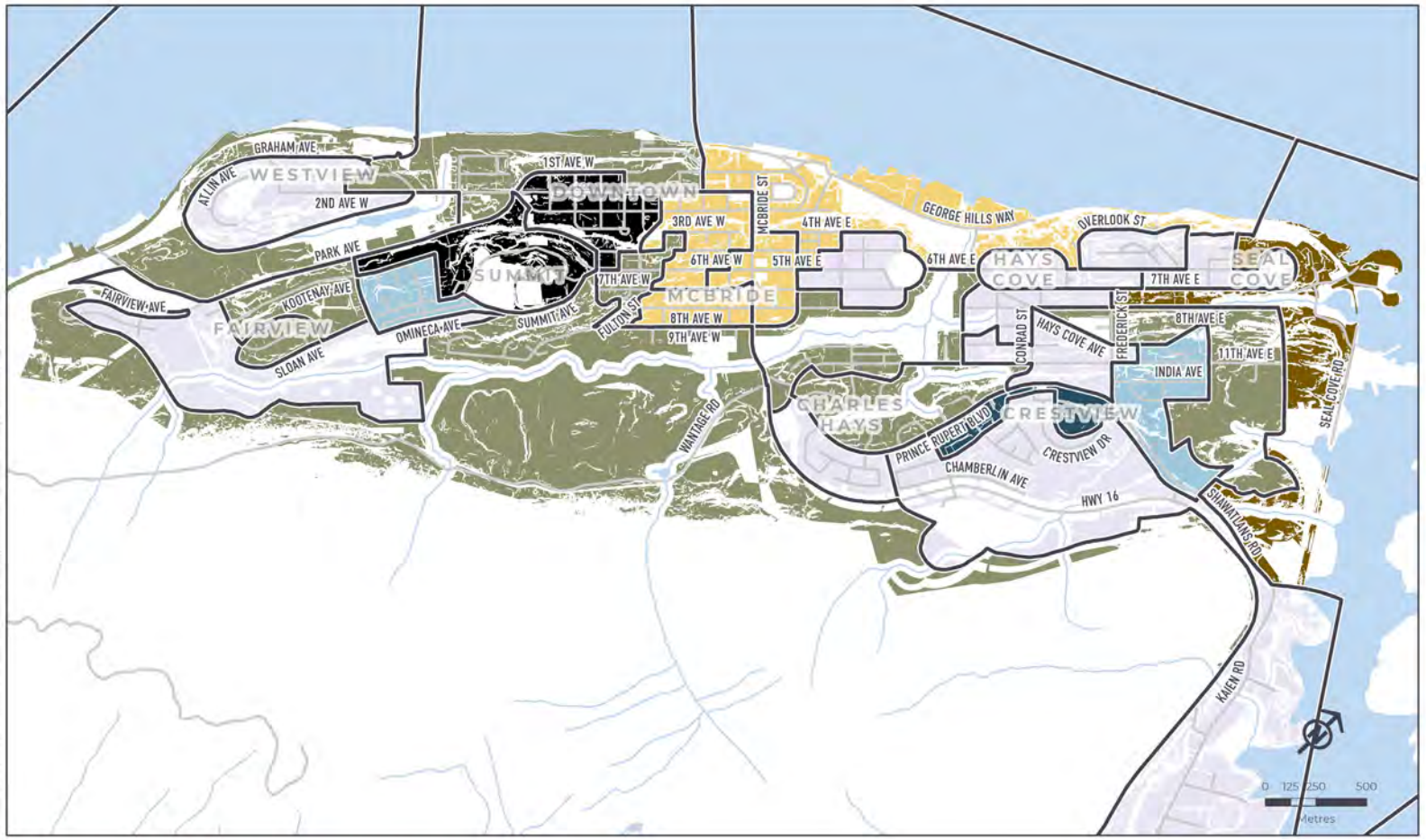
INTERPRETATION

Figure 12 shows municipally owned parcels around the City that are not parkland and have 30% less of their total area encumbered by geographic development constraints. These sites hold opportunities for housing and transportation network improvements. The nature of the opportunity will be site-dependent, as certain utilities or other city functions already occupy some of them.

Development constraints were defined as sites where more than 30% of the parcel is considered a steep slope, an environmentally sensitive area or a park.

These sites hold several different opportunities for the city. Their ability to be developed for housing is already known, as several lots are for sale on the City's website. However, these sites can also play an important role in improving transportation connectivity throughout the community. Additionally, new subdivisions of these lands should consider their potential role in improving connectivity and contain directions for including walkways and sidewalks when they are developed.

FIGURE 11 PROPORTION OF MULTI-FAMILY UNITS



PROPORTION OF RENTAL UNITS VS PROPORTION OF MULTI-FAMILY UNITS

Proportion of Rental Units

Proportion of Multi-Family Units

Dissemination Area Boundaries

High

Low

Low High

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FIGURE 12 MUNICIPALLY OWNED PROPERTIES WITH LOW CONSTRAINTS

MUNICIPALLY OWNED PROPERTIES WITH LOW CONSTRAINTS

- Municipally Owned Property
- School
- First Nation Reserve
- Commercial / Mixed use
- Parks
- Natural Area
- Study Area

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5.0 Community Completeness Summary

This section synthesizes the analysis presented in Section 4.0 in overall community completeness by lens. Assessing the existing conditions by lens and overall community completeness enables the City to gain insight into its built environment's strengths, opportunities, and challenges and subsequently take action to enhance connections between all four lenses.

The four lenses provide a snapshot of the current state of community completeness in Prince Rupert. This section synthesizes the components of each lens (Section 4.0) into composite scores to generalize each lens across the City. Cross-comparison analysis of lenses reveals further opportunities to enhance walkability, including housing density compared to access to daily needs.

The following composite scores and comparison figures are illustrated at right:

TABLE 4 COMPOSITE SCORES

Composite Score	Component
Permeability	• Street And Trail Connectivity • Street And Trail Density • Block Size • Sidewalk Density
Accessibility	• Steep Slopes • Sidewalk Condition • Sidewalk Curb Cuts • Bus Stop Amenities • ICBC Crash Data
Access to Daily Needs	• Access to Daily Needs • Commercial Land Use Density • Land Use Mix
Housing Density Versus Access to Daily Needs	• Housing Density Compared to Access to Daily Needs

PERMEABILITY COMPOSITE SCORE

INTERPRETATION

Permeability illustrates the degree of ease to which a person can walk across the City, irrespective of accessibility.

The composite score measures street and trail connectivity, street and trail density, block size, and sidewalk density.

Permeability is highest within Downtown and McBride and along select corridors on the City's northeast side.

Permeability is the lowest in Summit, Westview, Fairview, and Charles Hays.

Permeability is lowest where City-owned undeveloped parcels are orphaned between neighbourhoods. Some of these are topographical challenges, while others are reserved for other forms of development. Many of these lots could be re-evaluated to provide greater connectivity if and when used for other purposes.

ACCESSIBILITY COMPOSITE SCORE

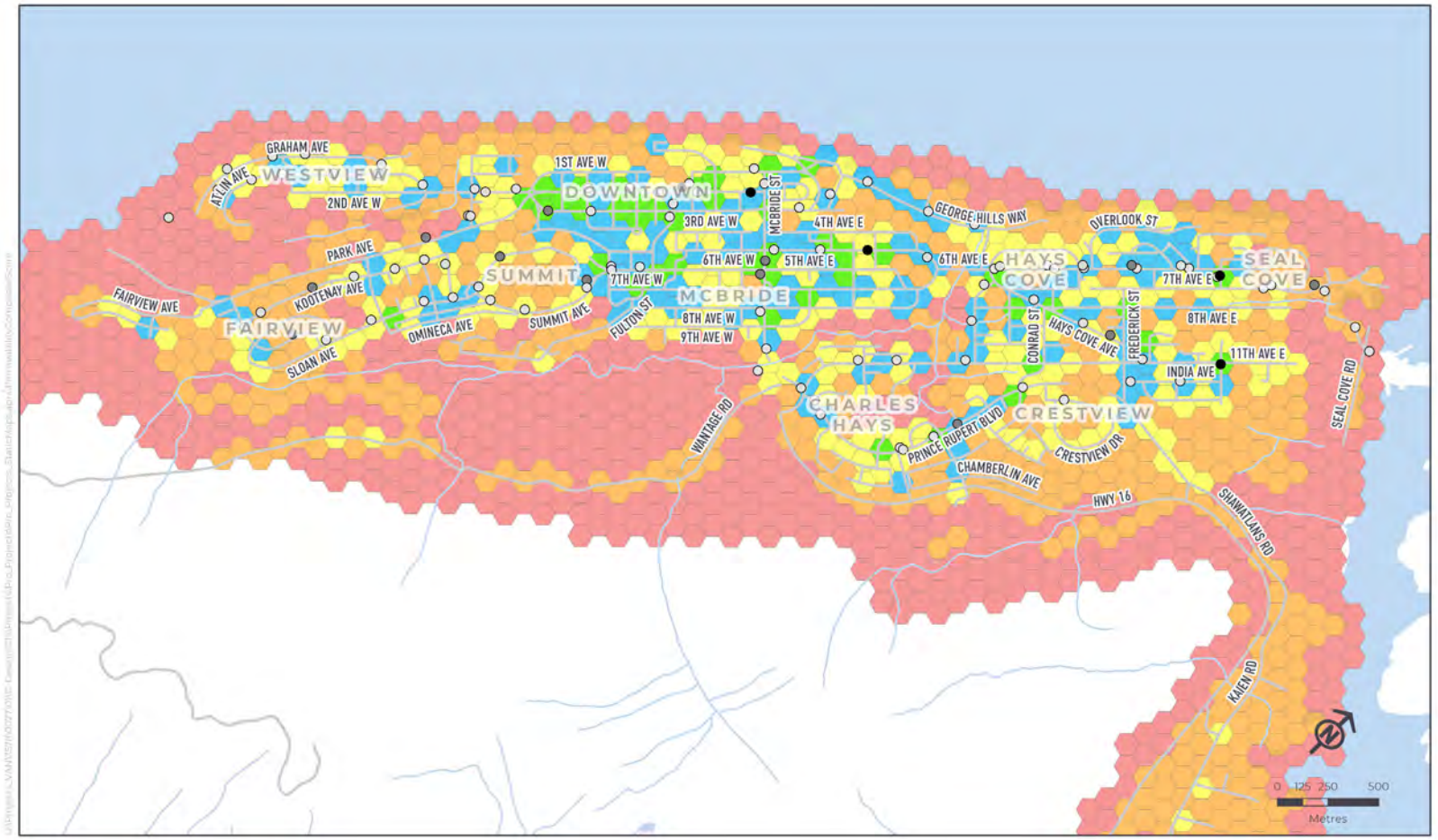
INTERPRETATION

The accessibility composite score measures the accessibility of pedestrian infrastructure across the City. The score includes consideration for sidewalk condition, curb cuts, steep slopes, bus stop amenities, and the locations of reported vehicle collisions.

Accessibility is highest in Downtown, Cow Bay, and along George Hills Way. Accessibility is also high along specific corridors such as portions of Sloan Avenue, Graham Avenue, 4th Avenue, and Prince Rupert Boulevard.

Accessibility is lowest near Seal Cove, Fairview, McBride, behind Charles Hays, Crestview, and Hays Cove. Again, undeveloped City-owned lots may play a role in enhancing the permeability and accessibility of the community.

FIGURE 13 PERMEABILITY COMPOSITE SCORE



PERMEABILITY COMPOSITE SCORE

- Shelter and Bench Present
- Only Shelter Present
- No Amenities Present

- Highest Permeability
- High Permeability
- Moderate Permeability
- Low Permeability
- Lowest Permeability

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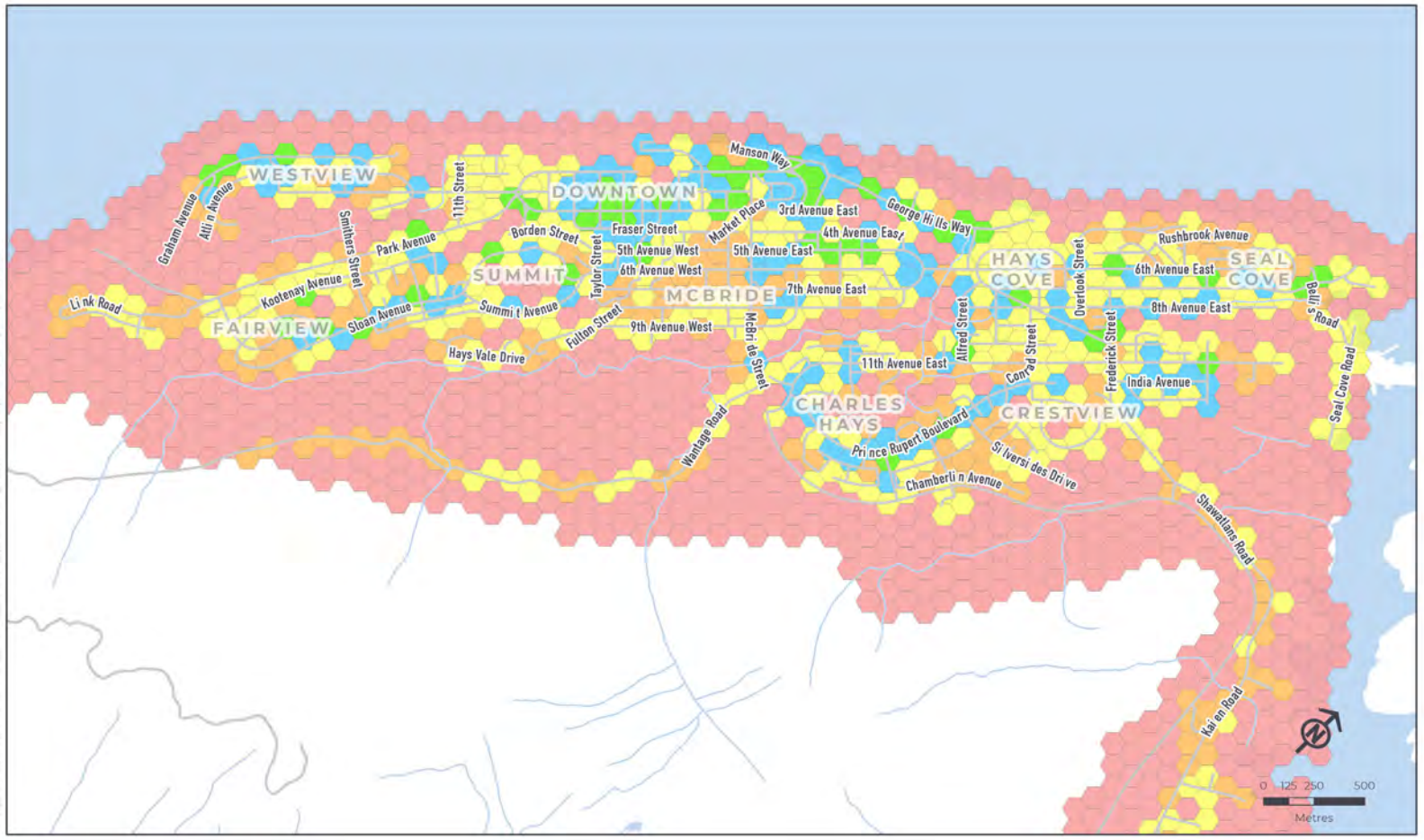
FIGURE 14 ACCESSIBILITY COMPOSITE SCORE



ACCESSIBILITY COMPOSITE SCORE

- Highest Accessibility
- High Accessibility
- Moderate Accessibility
- Low Accessibility
- Lowest Accessibility

THE CITY OF PRINCE RUPERT

ACCESS TO DAILY NEEDS COMPOSITE SCORE

INTERPRETATION

The daily needs composite score measures residents' access to amenities. The composite score includes considerations for the density of public and private amenities, the density of commercial land uses, and the land use mix.

Unsurprisingly, the analysis indicates the highest density of daily needs is located Downtown and gradually thins out as you move further away.

The analysis was conducted on a pedestrian network distance basis rather than through direct distance measurement to ensure the results reflect access via walking and rolling.

HOUSING DENSITY COMPARED WITH ACCESS TO DAILY NEEDS

INTERPRETATION

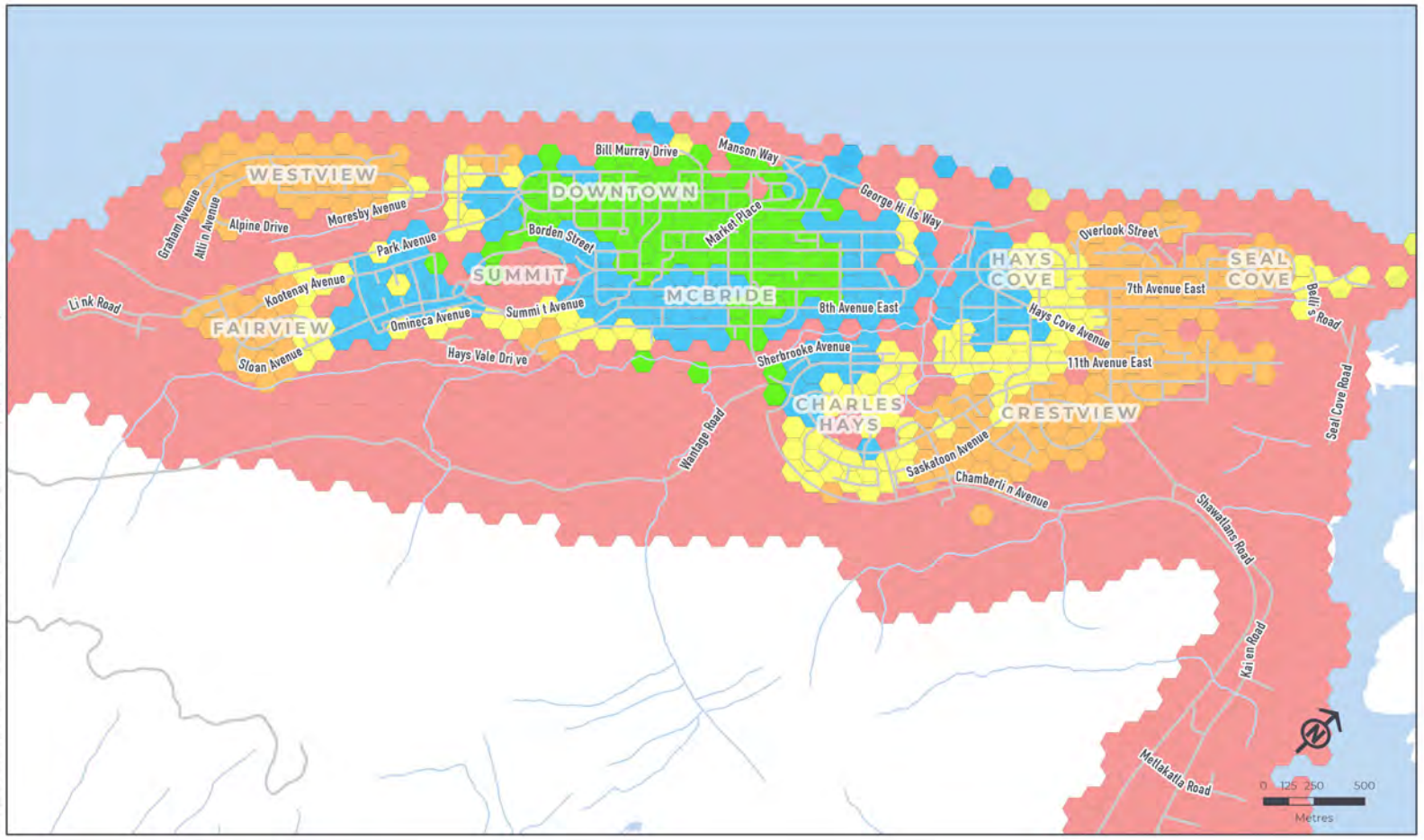
Figure 16 shows the relationship between housing and daily needs. High residential densities in an ideal complete community correlate closely to high access to daily needs.

Portions of Hays Cove and Seal Cove have high housing density but low access to daily needs, indicating poor walkability.

Downtown includes high access to daily needs but low housing density.

Where these factors are unbalanced, there is an opportunity to balance the mix of housing and daily needs densities to create more walkable neighbourhoods.

FIGURE 15 ACCESS TO DAILY NEEDS COMPOSITE SCORE



ACCESS TO DAILY NEEDS COMPOSITE SCORE

- Highest Access
- High Access
- Moderate Access
- Low Access
- Lowest Access

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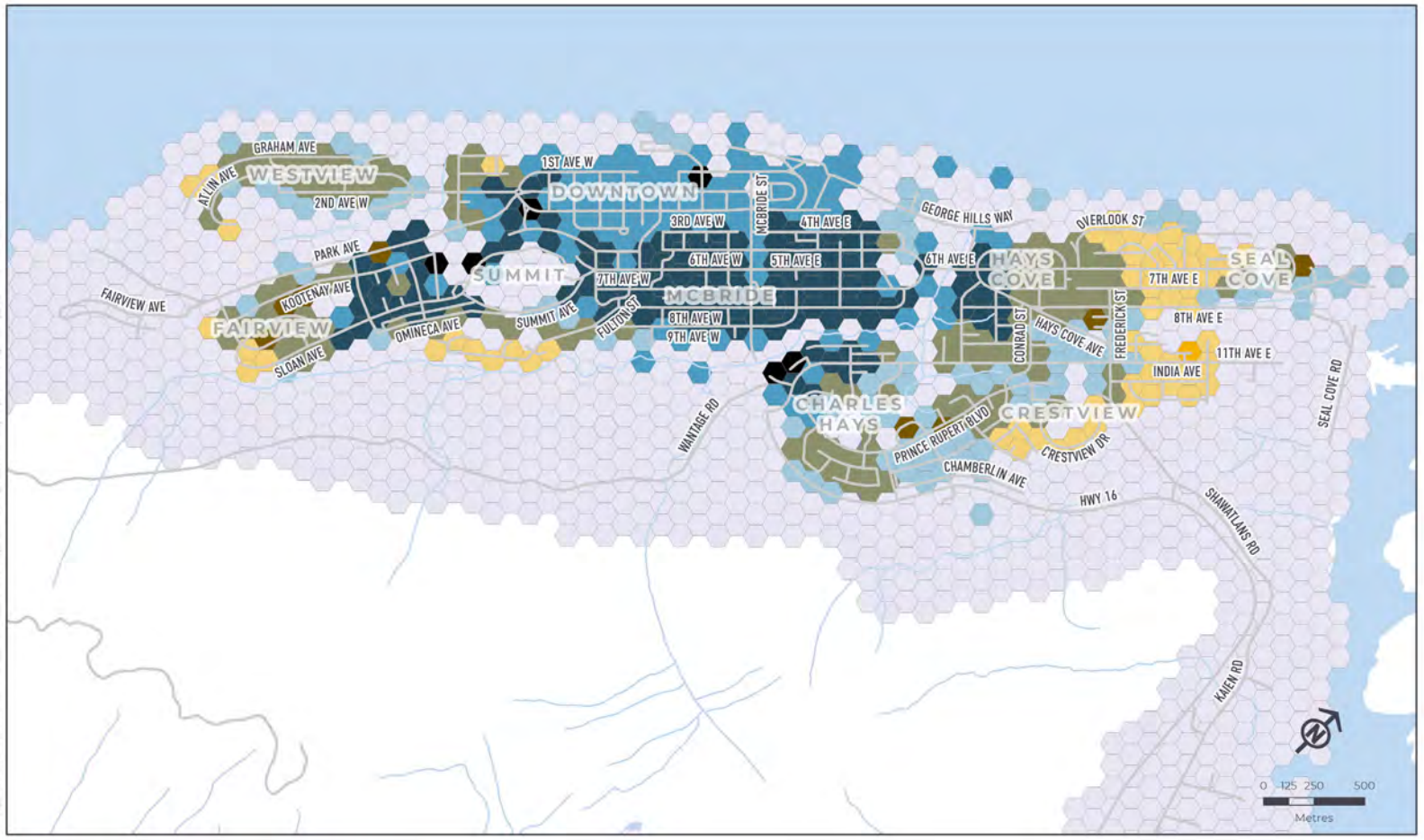
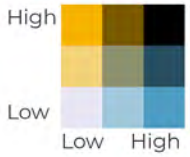
FIGURE 16 HOUSING DENSITY COMPARED WITH ACCESS TO DAILY NEEDS



HOUSING DENSITY VS ACCESS TO DAILY NEEDS

Housing Density

Access to Daily Needs



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6.0 Walkability Analysis

This section reviews the findings of the CCA through the synthesis of the preceding analysis to measure overall walkability levels across the City. A walkability index was developed as part of the CCA to provide a high-level snapshot of existing strengths and opportunities by area to enhance walkability. A walkability index measures indicators that relate to the relative quality of walking experience by area. While mode share data is available through the 2021 census by dissemination area, this data only speaks to residents' commuting habits at a certain point in time (e.g., during a trip to or from work or school). A walkability index showcases how walkable an area is for all types of trips. It includes consideration of detailed infrastructure components, current land uses and access to daily needs, and where housing is located.

Walkability indices are commonly developed at a larger geographic scale, such as a regional metropolitan area or on a national scale. Indices of this scale typically only include consideration for Land Use Mix, Street Connectivity, Commercial Density, and Housing Density due to cross-jurisdictional data reliability issues. The Complete Community Assessment has enabled the development of a walkability index that provides a far more accurate picture of walkability by using highly detailed information that is only feasible at a municipal scale.

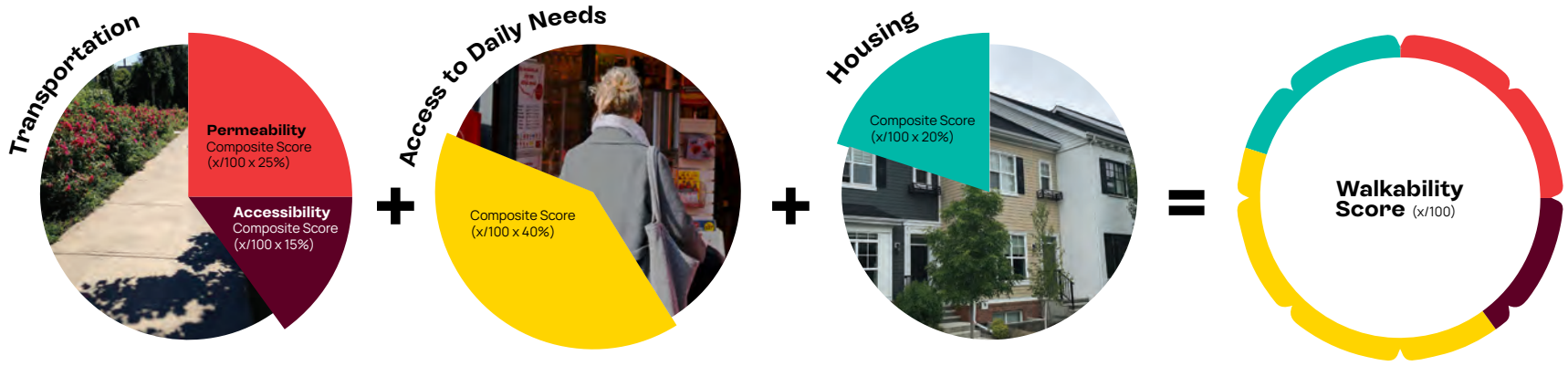
The CCA developed a weighted geospatial walkability model based on the complete community assessment lenses presented in Sections 4.0 and 5.0. The model incorporates specific components of each complete community lens (transportation, infrastructure, daily needs, and housing) as proxies for how walkable an area is. Figure 17: Walkability Model describes how the walkability index is weighted.

6.1 WALKABILITY METHODOLOGY

The model includes four key components, including Permeability (Figure 13), Accessibility (Figure 14), Access to Daily Needs (Figure 15), and Housing Density (Figure 16). While related to community completeness, walkability refers directly to how convenient, enjoyable, and accessible the relative walking experience is. For this reason, each complete community lens is weighted differently to prioritize a focus on the pedestrian experience based on best practices for measuring walkability (See Appendix A: Technical Report). The transportation-related components of permeability and accessibility are cumulatively weighed at 40%, equal to access to daily needs, while housing density is weighted at 20%.

Within each of the four components, each indicator is weighted equally. For the daily needs score indicator within the access to daily needs component, the distance to each amenity type is weighted differently based on community feedback, staff input, and best practice research: 50% of the score measures access to health care, grocery stores, community facilities, parks and trails, childcare, and schools; 33% of the score measures access to discretionary spending categories such as restaurants, cafes, and convenience stores; the remaining 17% measures access to amenities that typically are not needed daily or even weekly, including post offices, pharmacies, and banks.

FIGURE 17 WALKABILITY MODEL



6.2 WALKABILITY FINDING

Downtown and the McBride neighbourhoods are shown to be the most walkable. Hays Cove and certain portions of Summit, Charles Hays, and Crestview have high and moderate levels of walkability.

Fairview, Charles Hays, and Seal Cove have the lowest relative walkability score.

Investments to enhance walkability should be prioritized in an equitable manner to meet the needs of most people.

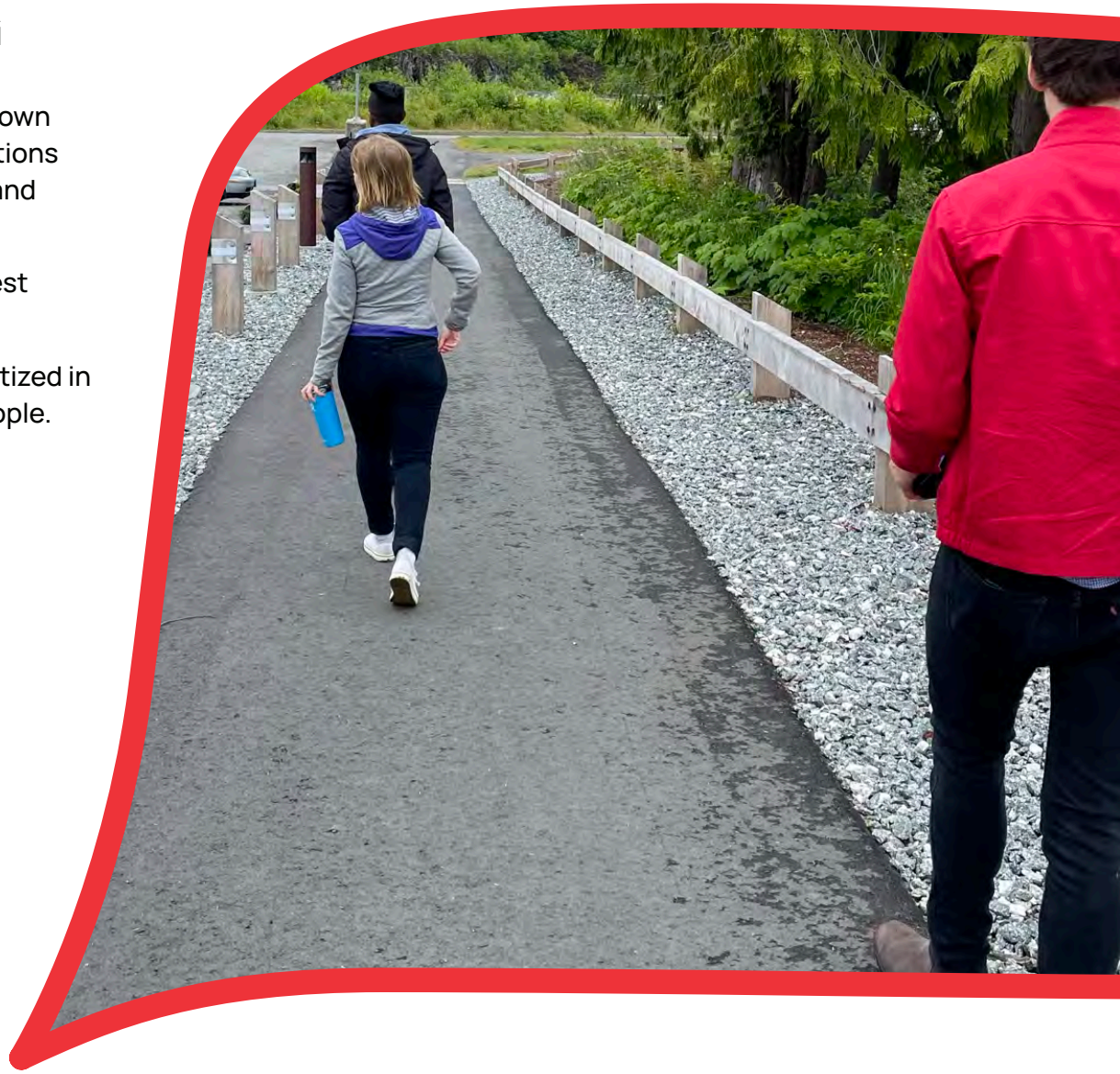
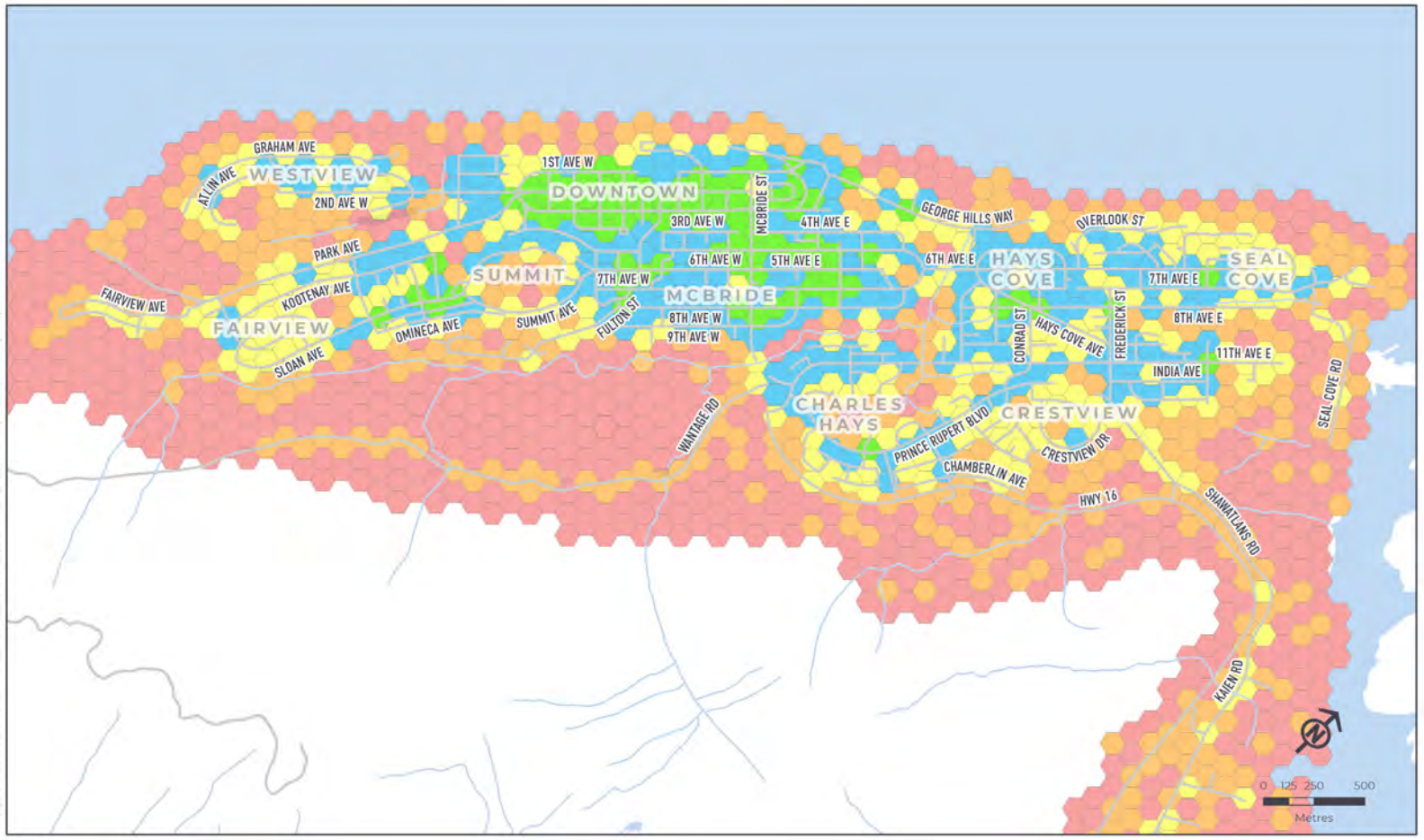


FIGURE 18 WALKABILITY INDEX ILLUSTRATES THE WALKABILITY LEVELS ACROSS THE CITY.



WALKABILITY COMPOSITE SCORE

- Highest Walkability
- High Walkability
- Moderate Walkability
- Low Walkability
- Lowest Walkability

THE CITY OF PRINCE RUPERT

7.0 Opportunities and Constraints for a More Complete Prince Rupert

The results from the Complete Communities Assessment highlight several key opportunities and constraints, which inform the recommendations and key action items outlined in Section 8. Below are the identified opportunities and constraints, organized by the complete community lens.

7.1 INFRASTRUCTURE

OPPORTUNITIES

Pursue Critical Infrastructure Replacement

Implement new road and sidewalk surfacing in areas designated for critical infrastructure replacement. This will address existing infrastructure deficits and enhance overall road quality and pedestrian accessibility in these key locations, contributing to improved safety and functionality.

Enhance Accessibility

Improve accessibility across the transportation network by adding more sidewalks to address barriers and ensure all amenities are easily accessible. This includes updating sidewalk infrastructure to meet accessibility standards and enhancing wayfinding to create an inclusive environment for all residents.

Implement New Street Designs

Implement the updated street cross-section design (see Section 8.2) to enhance the walkability, functionality and safety of the street network. This new design incorporates features such as improved sidewalks, green infrastructure, and parking and driving lanes, contributing to a more user-friendly network.

Seek Funding for Accessibility Improvements

Existing funding conditions related to the BIG project stipulate that road surfaces must be replaced "like-for-like," meaning that a version of the same condition will be returned once repairs are completed. In key areas, there is an opportunity to seek additional funding for improvements to enhance the street condition when it is replaced following subsurface repairs.

CONSTRAINTS

Existing Infrastructure Network

The current infrastructure network exceeds the needs of the existing population and places a financial burden on the municipality, making it challenging to maintain and upgrade these assets effectively. This mismatch between infrastructure capacity and budget constraints limits the ability to invest in necessary improvements and may impact overall service quality.

Competing Funding Priorities

Critical infrastructure failures divert attention and resources from other long-term planning and funding priorities. This immediate need for water and sewer infrastructure repairs makes it difficult to allocate funds for other long-term projects and strategic development, potentially impacting progress on broader community goals.

'Like-for-like'

Funding currently only permits the replacement of street and sidewalk surfaces to their original condition. This is a challenge in areas where the current street or sidewalk configuration needs to be improved to address walkability and accessibility concerns.

7.2 TRANSPORTATION

OPPORTUNITIES

Connect the Pedestrian Network

- Build sidewalks where crosswalks connect to two cut-throughs to improve pedestrian connectivity and safety. Currently, select locations have a high density of crosswalks but no apparent sidewalks.
- Improve sidewalk and street connectivity to the trail network to create seamless links between urban areas and natural spaces. Enhancing these connections will encourage active transportation, increase accessibility for residents, and promote the use of the trail network for recreational and commuting purposes.
- Increase the number of sidewalks and crosswalks in areas with amenities but low accessibility and pedestrian infrastructure. Enhancing pedestrian facilities in these locations will improve safety, support walkability, and ensure that residents can easily access key amenities such as shops, parks, and community services.
- Explore using City-owned properties to add pathway connections between neighbourhoods.

Improve Safety at Intersections

- Ensure curb cuts are smooth and aligned with the road, ensuring accessibility for all users, including those with mobility challenges.
- Repaint intersection markings with reflective paint to enhance visibility and ensure that lines and crosswalks are clear and easy to follow.
- Install additional signage to improve safety for all road users.
- Upgrade lighting at intersections to improve nighttime visibility and reduce the risk of accidents during low-light conditions.

Invest in Pedestrian Infrastructure

- Improve sidewalk conditions, especially in areas with high walkability, such as Downtown, to support pedestrian comfort, safety, and accessibility.
- Prioritize pedestrian infrastructure investments in areas with low accessibility but high walkability scores, ensuring underserved locations receive the necessary improvements.
- Ensure that infrastructure in priority corridors is replaced at a minimum like-for-like standard, maintaining or improving the quality of pedestrian facilities in highly walkable areas.

CONSTRAINTS

Topography

- Steep, hilly terrain in parts of Prince Rupert can make it challenging for residents, especially those with mobility challenges, to choose active transportation, such as walking or cycling, as their primary mode of travel.
- Prince Rupert's constrained location on Kaien Island, with one through access over the Trestle Bridge on Highway 16, presents vulnerability to the community. In the event of a disaster or earthquake, bridge damage could result in a loss of connectivity to the mainland, heavily impacting transportation and emergency response.
- Trestle bridges across the community pose a connectivity constraint and a safety hazard in the event of an earthquake.

Competing Investment Priorities

Municipal infrastructure investment primarily focuses on replacing essential services like water and sewer systems. This prioritization limits funding for other infrastructure improvements, such as transportation network improvements.

Low Connectivity in Existing Network

- The west side of Prince Rupert, where there is a low housing density, has low street connectivity and limits the development of a more integrated transportation network.
- Residential incursions on rights-of-way further hinder the expansion of streets and pathways, restricting opportunities to improve connectivity.
- Pathway closures have reduced access and walkability, making it difficult to navigate certain areas and weakening overall network connections.
- A high prevalence of roll-over curbs creates challenges for accessibility. Although they appear accessible, many are too steep and act as a barrier to those with mobility aids. In addition, they are mountable by vehicles, which leads to parking encroachment on sidewalks.

7.3 DAILY NEEDS

OPPORTUNITIES

Improve Access to Daily Needs

Plan for additional amenities that meet people's daily needs on the east side of the City, where Figure 15 indicates low access. This residential area lacks sufficient access to these critical resources, and by locating more amenities in this neighbourhood, residents will experience reduced travel time to meet essential needs and services.

Create New Micro-Neighbourhood Hubs

Establish new micro-neighbourhood centers within existing residential areas centred around neighbourhood grocery/convenience stores. This will create more availability for daily needs around existing convenience stores, particularly in areas with a higher housing density. This approach will enhance accessibility, reduce the need for longer travel times, and promote vibrant, self-sufficient micro-communities within Prince Rupert. Ensure the City's land use plans and policies allow for these changes.

Bolster the Tree Canopy

Increase the number of trees in road cross-sections to enhance the urban environment. This will improve air quality and provide shade and contribute to adding greenery to streetscapes, promoting biodiversity, and creating a more pleasant user experience.

CONSTRAINTS

Lack of Daily Needs Outside Downtown

Amenities outside the Downtown area are limited, affecting residents' access to essential services and daily needs. This lack of amenities may require residents to travel further distances to reach essential services, such as health care and community facilities.

Parks and Recreation Funding

Funding to upgrade parks and recreation is limited due to the prioritization of municipal funds for essential water and sewer infrastructure upgrades. This financial constraint restricts the ability to invest in and improve parks and recreational facilities, potentially affecting the quality and availability of these community resources.

Limited Space for Trees

The narrow widths of rights-of-way restrict the space available for planting and accommodating trees. This limitation may impact efforts to expand and bolster the tree canopy.

7.4 HOUSING

OPPORTUNITIES

Diversify and Add to Housing Stock

- Increase options for adding housing in the Downtown area to support a variety of residential needs.
- Expand housing development in areas with low-density housing but high walkability, such as the Downtown area, to utilize existing infrastructure and amenities while promoting more sustainable and accessible living.

Increase the Number of Rental Units

- Increase the overall supply of rental units, focusing on low-density areas to provide more affordable and accessible housing options for a diverse range of residents.
- Expand existing Multiple Family Residential (MFR) Zones to enable and incentivize multifamily rental tenure residential in more areas. This includes exploring the feasibility of up-zoning portions of the City's Small-Scale Residential Zones to MFR zones.
- Focus on expanding multi-family housing in areas where rental units are currently present but in low proportions to enhance housing availability and support a more balanced rental market.

Match Daily Needs to Existing Residential Areas

Increase housing density in areas with high access to daily needs to better align residential growth with the availability of essential services. This approach will enhance convenience for residents, reduce travel distances to amenities, and promote more sustainable communities in Prince Rupert.

Reduce Barriers to Housing Development

The City's Housing Acceleration Action Plan includes several specific actions for reducing barriers to housing development, including using City-owned land, pre-zoning, reducing parking requirements, developing incentives for new housing, and improving development approval processes.

CONSTRAINTS

High Supply of Single-Detached Housing

The high proportion of current single-detached housing with a lack of accessory dwellings limits housing diversity and flexibility. This situation may constrain options for accommodating different household sizes and income levels, reducing the ability to meet varied housing needs within the community.

Low Housing Density and Network Connectivity

The existing street network's low connectivity and low housing density present challenges in providing diverse housing options. This limited connectivity and density restrict the efficient use of land and infrastructure, making it challenging to develop a varied and accessible housing stock.

Cost of Development and Perceived Development Complexity

Development in Prince Rupert is expensive due to the need to remove overburden and deal with bedrock. The cost of the development approval process can also significantly impact a project's financial viability. The City's Housing Acceleration Action Plan highlights these challenges in more detail.

8.0 Recommendations and Implementation

This section translates the findings of the CCA into actionable recommendations that the City can take to enhance community completeness and overall walkability.

Several municipal policy and regulatory documents, including Connect Rupert, the Subdivision and Servicing Bylaw, the Official Community Plan, the Land Use Bylaw, and the Housing Acceleration Action Plan are highlighted. This section also provides a high-level overview of recommended accessibility considerations and updated street cross-sections for collector and local streets.

8.1 ACCESSIBILITY

Accessibility is a key component of walkability. Accessibility describes the extent to which the built environment supports walking or rolling with an assistive device, such as a wheelchair, walker, cane, crutches, etc. The accessibility of pedestrian infrastructure determines one's ability to safely and comfortably access daily needs in a given area. The level of accessibility within a given area either enables or restricts individuals with varying degrees of mobility or cognitive limitations to fully participate in daily life by walking.

In Prince Rupert, accessibility is highly variable across different areas, depending on the presence of pedestrian infrastructure, the age of and implementation, and the degree to which the infrastructure provides for those with limitations. Through onsite surveying, community feedback, and the additional analysis of accessibility indicators, the CCA found several key accessibility issues, including sidewalk condition and utility clutter, lack of or condition of sidewalk curb cuts, intersection safety, and closed pathways. Below are recommendations to improve accessibility based on community feedback, component analysis, on-site surveying, and alignment with the British Columbia Active Transportation Design Guide (BCATDG).

INTERSECTION SAFETY

Providing safe and accessible pedestrian crossings is crucial to ensuring that people of all ages and abilities can access their daily needs on foot. At intersections, pedestrians are exposed to conflicts with motor vehicles, bicycle users, and other road users. Geometric design elements, signals, signage, and pavement markings can all prioritize pedestrians and mitigate conflicts.

See Section 8.3.1 (Table 5: Actions for Infrastructure) for recommended actions related to intersection safety.

SIDEWALK CONDITION AND UTILITY CLUTTER

Sidewalk conditions across the city were considered fair but with few areas rated as good or excellent. Across the City, sidewalks are also impeded by the placement of signs, utility boxes and other items, which reduce the effective travel width.

See Section 8.3.1 (Table 5: Actions for Infrastructure) and Section 8.3.2 (Table 6: Actions for Transportation) for recommended actions related to sidewalk conditions and utility clutter.

CURB CUTS AND RAMPS

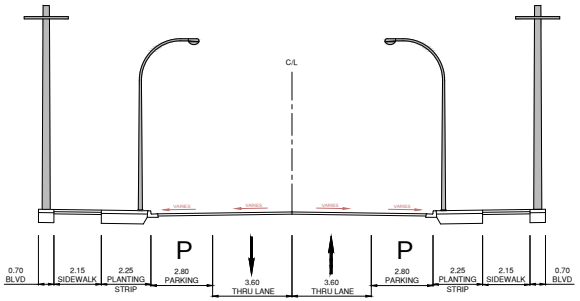
The lack of, or the condition of, curb cuts was identified to be a key accessibility concern, especially in the Downtown area. Common issues included no curb cuts in key commercial areas, the direction of curb cuts leading users to the centre of intersections, pooling water, and low-quality installation resulting in abrupt grade changes.

See Section 8.3.1 (Table 5: Actions for Infrastructure) for recommended actions related to curb cuts and ramps.

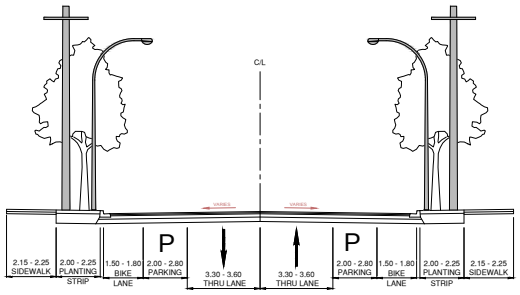
8.2 ENHANCED WALKABILITY ROAD STANDARDS

The City's Infrastructure Replacement Strategy identified significant portions of the City's Street network as having a high risk of failure. Many of these streets are designated as collector streets and local streets. With municipal cost-efficiency in mind, the CCA updated street cross sections for collector and local streets to enhance overall walkability and accessibility. The City also has room for new development via subdivision on privately owned and municipal properties. The updated cross-section designs provide design guidance for developing new roadways through subdivisions. The revised standards may also guide existing roadway reallocation where conditions and funding opportunities make sense. The updated cross sections may also be used to support grant funding opportunities. See Appendix B for cross sections.

FIGURE 19 EXISTING AND RECOMMENDED COLLECTOR STREET CROSS-SECTIONS



EXISTING COLLECTOR ROAD CONDITIONS



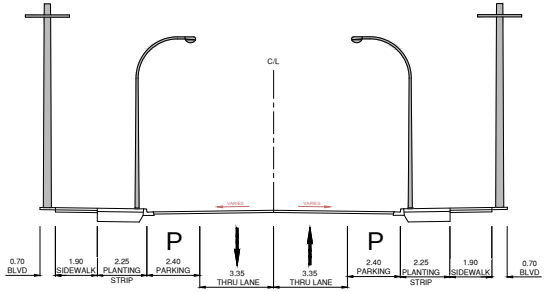
COLLECTOR ROAD IMPROVEMENTS

COLLECTOR STREETS

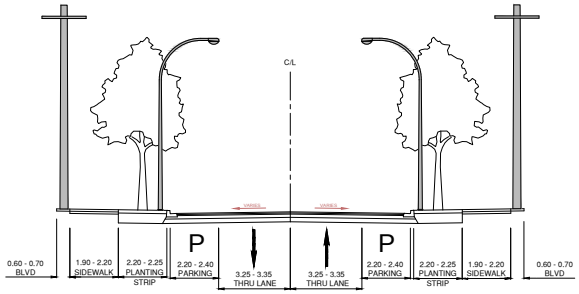
Figure 24 illustrates the recommended changes to the City's current typical cross-section for a collector street. The key changes are highlighted below:

- New 1.8 metre uni-directional bike lanes buffered from vehicle travel by a parking lane.
- Increased sidewalk width by 0.1 metres.
- Utility poles moved to the planting strip.
- Reduced travel lanes from 3.6 metres to 3.3 metres to deter speeding.
- Reduced parking lanes from 2.8 metres to **2.0 - 2.4** metres to deter speeding.
- Trees are recommended to be planted in the planting strip to increase overall canopy coverage. A minimum 2.0 metre width is required for the healthy growth of trees.
- Additional width required for curb and gutters is assumed to be included in the parking lane width.
- Where feasible, utility poles can be located within the planting strip to ensure the sidewalk is clear of obstacles. The utility poles can remain in the boulevard if there is sufficient right-of-way width.

FIGURE 20 EXISTING AND RECOMMENDED LOCAL STREET CROSS-SECTIONS



EXISTING LOCAL ROAD CONDITIONS



LOCAL ROAD IMPROVEMENTS

LOCAL STREETS

Figure 25 illustrates the recommended changes to the City's current typical cross-section for a local street. The key changes are highlighted below:

- Increased sidewalk width by 0.3 metres to exceed the desired multi-family-local street sidewalk width of 2.1 metres (BCAT, Section C.2).
- Trees are recommended to be planted in the planting strip to increase overall canopy coverage. A minimum 2.0-metre width is required for the healthy growth of trees.
- Reduced Parking Lane width by 0.15 metres to provide space for wider sidewalks.
- Reduced Boulevard width by 0.1 metres to provide space for wider sidewalks.
- Reduced Planting strip by 0.05 metres to provide space for wider sidewalks.
- Additional width required for curb and gutters is assumed to be included in the parking lane width.

8.3 KEY DIRECTIONS AND ACTIONS

Building on the opportunities and constraints identified for each of the four lenses and feedback from the community, a series of key directions and actions have been developed to address the gaps and needs identified in the City of Prince Rupert's Complete Communities Assessment. Key directions, actions, implementation, and recommended timeframe have been outlined for each direction and action type.

Each key action can be implemented in a range of ways, including as a (i) capital project, (ii) through ongoing operations and maintenance, (iii) as a policy or programming initiative, or (iv) through a combination of the above. This assessment is a guiding document and does not commit the City to any project nor limit future opportunities. Recommended actions will need to be confirmed and implemented on an ongoing basis through capital funding, grants, development contributions, and effective partnerships.

The recommended timeframe is categorized as follows:

ONGOING Tasks that are implemented over time as needed

QUICK WINS Investments that can resonably be made within one to two years

SHORT-TERM IMPROVEMENTS Investments that can reasonably be made within three to five years

MEDIUM-TERM IMPROVEMENTS Investments intended for six to 10 years

LONG-TERM IMPROVEMENTS Investments that are intended for over 10 years

KEY DIRECTION 1: INFRASTRUCTURE

As the City of Prince Rupert faces a critical and ongoing infrastructure challenge, the key direction for infrastructure is primarily to upgrade essential roadway and pedestrian facilities in alignment with water and sewer advancements. Safe and accessible pedestrian infrastructure is critical for ensuring all residents, including those with mobility challenges, youth, and seniors, can move around the city safely and participate fully in community life.

These recommendations outline the steps the City can take to prepare itself for completing the community under the infrastructure lens. Fourteen actions have been identified from this assessment:

TABLE 5 ACTIONS FOR INFRASTRUCTURE

Action	Timeframe	Implementation	Key Document(s)
Action 1A: Fix curb cuts to ensure they are seamless and aligned with the road. Improvements should be prioritized in areas with Low or Moderate Accessibility scores, (see Section 5.1.2).	Short-Term	Capital Project Operation & Maintenance	Five Year Financial Plan
Action 1B: Update the Subdivision and Servicing Bylaw to require curb cuts at all new and updated intersections with adjoining sidewalks.	Quick Win	Policy & Programming	Subdivision and Servicing Bylaw
Action 1C: Where feasible, require accessible ramps where stairs are present in the pedestrian network.	Ongoing	Capital Project **Operation & Maintenance**	Five Year Financial Plan Connect Rupert (Transportation Plan)
Action 1D: Where feasible at intersections, each corner should provide double curb ramps, as outlined in Section G.3 of the British Columbia Active Transportation Design Guide.	Medium-Term	Capital Project Operation & Maintenance	Five Year Financial Plan Connect Rupert (Transportation Plan) British Columbia Active Transportation Design Guide

Action	Timeframe	Implementation	Key Document(s)
Action 1E: Enhance and repaint roadway markings with reflective paint to improve visibility and safety, including at intersections, accessible parking stalls, fire lanes, and other street markings.	Quick Win	Operation & Maintenance	Five Year Financial Plan
Action 1F: Upgrade lighting at intersections on collector streets to improve nighttime visibility and safety and at local street intersections with visibility concerns.	Medium-Term	Capital Project Operation & Maintenance	Five Year Financial Plan
Action 1G: Improve sidewalk conditions, especially in areas with high walkability and daily needs, such as Downtown, or high housing density, such as Summit, McBride, or Hays Cove, to support pedestrian comfort, safety, and accessibility.	Medium-Term	Capital Project Operation & Maintenance	Five Year Financial Plan
Action 1H: Update the Subdivision and Servicing Bylaw with the updated street cross-section design (see Section 8.2), incorporating improved sidewalks, green infrastructure, and parking and driving lanes.	Quick Win	Policy & Programming Capital Project	Subdivision and Servicing Bylaw
Action 1I: Update the Subdivision and Servicing Bylaw to align with the best practices outlined in Section G.3 of the BCATDG (see Section 8.1), specifically integrating the following accessibility elements: • Curb ramp placement • Signalized crossings • Mid-block pedestrian crossing, especially where trail connections exist • Curb extensions to shorten crossing distances and calm traffic	Quick Win	Policy & Programming	Subdivision and Servicing Bylaw British Columbia Active Transportation Design Guide

Action	Timeframe	Implementation	Key Document(s)
Action 1J: Implement the updated street cross-section designs in new subdivisions to ensure the pedestrian through-zone (the sidewalk) is clear of permanent and temporary objects and provides sufficient width for the expected pedestrian volumes, including people using mobility aids (in alignment with Chapter C.2 BCAT). Where feasible, necessary obstacles should be located in furnishing zones, boulevards and planting strips. If obstacles must be situated on the sidewalk, they should be as close to the roadway or property line as possible. The combination of signage and utilities should also be considered (e.g., using utility poles for lighting and roadway signage or a single pole for multiple signs).	Medium-Term	Policy & Programming	Subdivision and Servicing Bylaw British Columbia Active Transportation Design Guide
Action 1K: Ensure that infrastructure in priority corridors is replaced at a minimum like-for-like standard, maintaining or improving the quality of pedestrian facilities in highly walkable areas.	Ongoing	Capital Project Operation & Maintenance	Five Year Financial Plan
Action 1L: Seek additional funding to go beyond like-for-like improvements related to the BIG project to enhance street conditions when infrastructure is replaced.	Short- to Medium-Term	Capital Project	Five Year Financial Plan
Action 1M: Build sidewalks where there are current gaps in the network (as identified in Action 2B).	Medium-Term	Capital Project Operation & Maintenance	Five Year Financial Plan
Action 1N: Inspect the implementation of curb cuts and other pedestrian infrastructure for issues, and hold contractors accountable for any installation errors.	Ongoing	Operation & Maintenance	Incorporate into Construction Contracts

KEY DIRECTION 2: TRANSPORTATION

The main goal for transportation in Prince Rupert is to put pedestrians and micromobility (e.g., scooters, etc.) users first. This means making sure roads and paths are safe and fair for everyone. The transportation options available to people impact their physical and mental well-being. Prince Rupert can tackle important social, environmental, and economic issues by building a transportation system that encourages walking, cycling, and other sustainable ways to get around. This will help create a healthier and more connected community for all residents.

These recommendations outline the steps the City can take to prepare for completing the community under the transportation lens. Ten actions have been identified from this assessment:

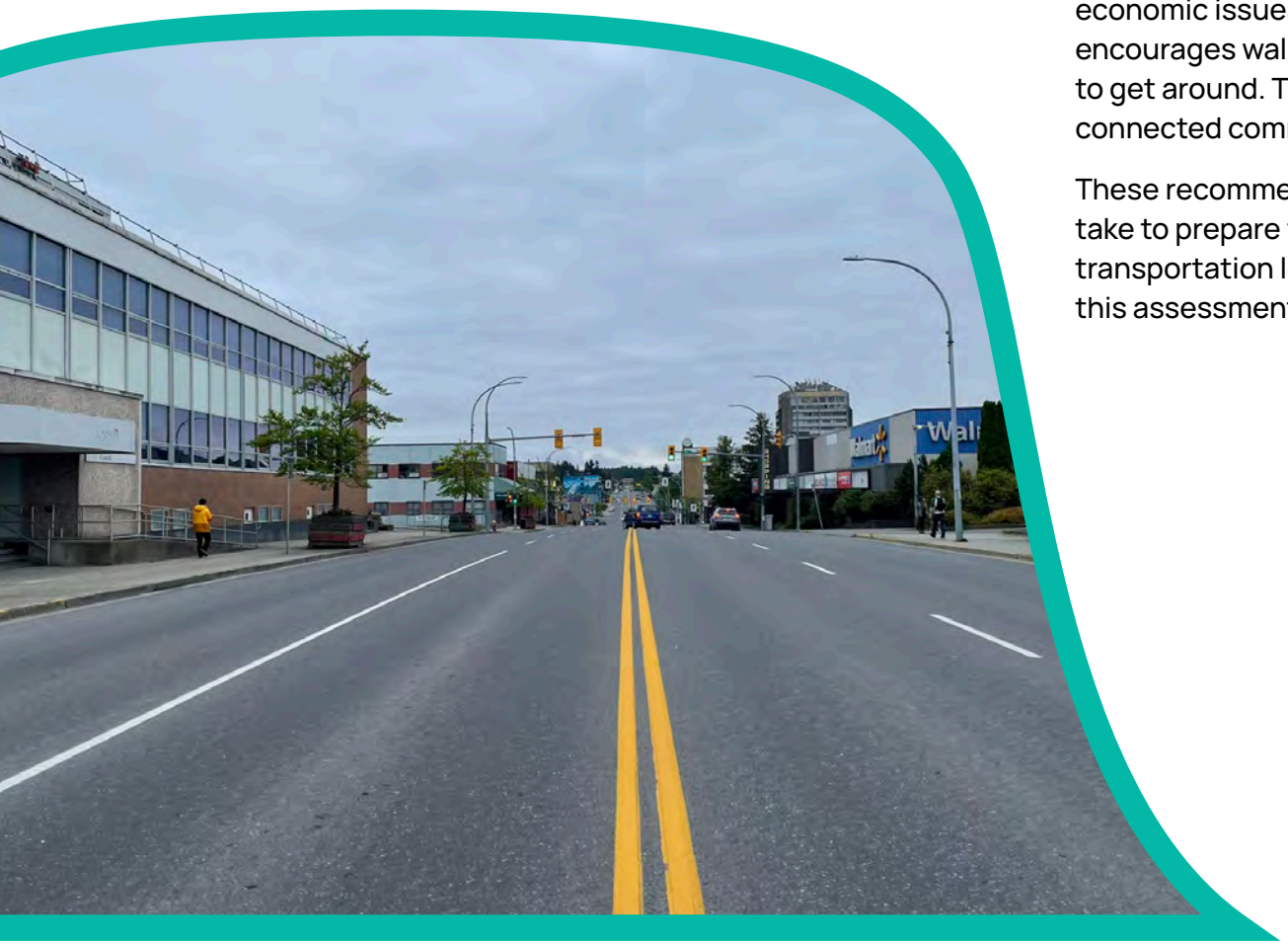


TABLE 6 ACTIONS FOR TRANSPORTATION

Action	Timeframe	Implementation	Key Document(s)
Action 2A: Review and revise the sidewalk network in the Transportation Plan to guide future investment for higher priority sidewalks.	Quick Win	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2B: Identify gaps in the network where crosswalks exist but lack connecting sidewalks to improve pedestrian connectivity and safety.	Quick Win	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2C: Improve sidewalk coverage in areas with high daily needs and amenities.	Medium-Term	**Policy & Programming**	Connect Rupert (Transportation Plan)
Action 2D: Explore and identify City-owned vacant properties that can be used as pathway connections between neighbourhoods.	Short-Term	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2E: Prioritize pedestrian infrastructure investments in areas with low accessibility but high walkability scores, which include Seal Cove, Hays Cove, Charles Hays, and Fairview.	Medium-Term	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2F: Explore the development of more pedestrian cut-throughs and trails through development and existing underutilized rights-of-way, parks, and natural areas.	Long-Term	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2G: Fix steep roll-over curbs at crossings to improve accessibility for those using mobility aids. When feasible, this should occur during roadway replacement associated with the BIG Infrastructure Project.	Short- to Medium-Term	Policy & Programming	Connect Rupert (Transportation Plan)
Action 2H: Where existing and new rollover curbs are used, install signage indicating no parking on the sidewalk.	Quick Win	Operation & Maintenance	Connect Rupert (Transportation Plan)
Action 2I: Install additional safety and wayfinding signage to improve safety for all road users.	Short-Term	Operation & Maintenance	Connect Rupert (Transportation Plan)
Action 2J: Fix and re-open closed pathways.	Short- to Medium-Term	Capital Projects Operation & Maintenance	Connect Rupert (Transportation Plan) Rupert Plays (Parks Plan)

KEY DIRECTION 3: DAILY NEEDS

The key direction for daily needs is to ensure that residents can live and work within walking distance of essential amenities, contributing to community completeness and individual well-being. By increasing the range of housing options near amenity areas and adding amenities to residential neighbourhoods, the City can enhance accessibility and convenience. Ensuring that most residents are within walking distance of frequently used services will support a higher quality of life, reduce reliance on vehicles, and foster a more vibrant, sustainable community.

These recommendations outline the steps the City can take to prepare itself for completing the community under the lens of daily needs. Nine actions have been identified from this assessment:

TABLE 7 ACTIONS FOR DAILY NEEDS

Action	Timeframe	Implementation	Key Document(s)
Action 3A: Implement the standards from the updated street cross-section design (see Section 8.2) in new subdivisions and where site conditions and funding allow to enhance the walkability, functionality and safety of the street network.	Quick Win	Policy & Programming	Subdivision and Development Servicing Standards Bylaw
Action 3B: Increase the number of trees in rights-of-way by implementing updated cross-sections to enhance the urban environment, focusing on areas with less than 30% tree canopy cover, as shown in Figure 9: Tree Canopy Cover. This should be explored in new subdivisions and established areas.	Quick Win	Capital Projects Policy & Programming	Subdivision and Development Servicing Standards Bylaw Outdoor Parks & Recreation Plan
Action 3C: Improve accessibility across the infrastructure network by adding more sidewalks to address barriers and ensure all amenities are easily accessible.	Medium-Term	**Capital Projects** Policy & Programming	Connect Rupert (Transportation Plan)
Action 3D: Establish new micro-neighbourhood centers with mixed-use and commercial zoning within existing residential areas, creating more availability of daily needs around existing convenience stores and residential areas.	Short-Term	Policy & Programming	Official Community Plan

Action	Timeframe	Implementation	Key Document(s)
Action: 3D: Support new micro-neighbourhood centres in existing residential areas through programming of community facilities, schools and other public buildings through partnerships with community organizations to enhance social services, recreation, education and food security.	Medium- to Long-Term	Policy & Programming	Official Community Plan
Action 3F: Enable neighbourhoods outside Downtown to develop additional daily needs (e.g., zoning for commercial, professional services, etc.). Leverage existing commercial use locations as nodes for development.	Short-Term	Policy & Programming	Official Community Plan
Action 3G: Explore the development of a more refined grid structure, notably for Westview and Fairview, through development and existing underutilized rights-of-way through the OCP update process or the development of detailed neighbourhood plans.	Medium-Term	Policy & Programming	Official Community Plan
Action 3H: Implement findings from the City's recently completed Accessibility Plan to improve community access to buildings and other civic amenities.	Medium Term	Capital Project Policy & Programming	Accessibility Plan
Action 3I: Incorporate an appropriate amount of daily needs services within new areas where the City is leveraging City-owned land. This may involve the development of comprehensive zoning or neighbourhood scale plans that detail the appropriate scale and type of commercial and recreational development.	Quick Win	Policy & Programming Real Estate	Subdivision and Development Servicing Standards Bylaw Official Community Plan

KEY DIRECTION 4: HOUSING

The key direction for housing is to promote a diverse mix of housing types and tenures that support the community's completeness and accommodate the needs of residents at all stages of life. By offering a variety of housing options, the City can better support aging in place and provide inclusive, flexible living arrangements for all.

These recommendations outline the steps the City can take to prepare for completing the community under the housing lens. Seven actions have been identified from this assessment:

TABLE 8 ACTIONS FOR DAILY NEEDS

Action	Timeframe	w	Key Document(s)
Action 4A: Increase the suite of permitted housing options in Downtown to support a variety of residential needs.	Short-Term	Policy & Programming	Housing Acceleration Action Plan Official Community Plan
Action 4B: Increase permitted housing density in areas with high access to daily needs to better align residential growth with the availability of essential services.	Medium-Term	Policy & Programming	Housing Acceleration Action Plan
Action 4C: Expand housing development in areas with low-density housing but high walkability, such as Downtown.	Medium-Term	Policy & Programming	Housing Acceleration Action Plan Official Community Plan
Action 4D: Increase the overall supply of rental units, with a particular focus on low-density areas like Downtown, Westview, and Crestview, through incentivizing secondary suites and accessory dwellings.	Short-Term	Policy & Programming	Housing Acceleration Action Plan
Action 4E: Expand multi-family housing in areas with a high proportion of rental units but a low portion of multifamily units. This will enhance rental housing availability and options in neighbourhoods where renters reside.	Medium-Term	Policy & Programming	Housing Acceleration Action Plan Official Community Plan
Action 4F: Review the City's Housing Acceleration Plan to implement actions for reducing barriers to housing (e.g., pre-zoning, reducing parking requirements, developing incentives for new housing, and improving development approval processes, etc.).	Quick Win	Policy & Programming	Housing Acceleration Action Plan
Action 4G: Leverage City-owned land to help incentivize housing development.	Short-Term	Policy & Programming Real Estate	Housing Acceleration Action Plan Official Community Plan

9.0 Conclusion

The UBCM Complete Communities Fund has provided the City of Prince Rupert with a unique opportunity to reflect on its current context and identify ways to enhance residents' livability. The assessment extends the City's Connect Rupert Transportation Plan, which focuses on providing an equitable transportation system. This focused analysis of overall walkability allowed for the assessment of not only how easy it is for people to move around the community but also tied that one aspect to other key elements of a complete community, including how residents can access daily needs, housing, and the implications and opportunities afforded by infrastructure replacement. The actions are driven by quantifiable data and act as a starting point to jump-start the effort of enhancing the livability of Prince Rupert. They also act as a framework for how to assess progress in the future.

APPENDIX A:
TECHNICAL REPORT

THE CITY OF
PRINCE
RUPERT

connect RUPERT

Technical Background Report

COMMUNITY COMPLETE ASSESSMENT: ENHANCING CONNECTIONS

THE CITY OF PRINCE RUPERT

June 2024

PREPARED FOR:

City of Prince Rupert
424 3rd Avenue West
Prince Rupert, BC V8L 1L7

PREPARED BY:

Urban Systems
344 2nd Avenue West
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June 2024

All images provided by the City of Prince Rupert or Urban Systems unless noted otherwise.

THE CITY OF PRINCE RUPERT

URBAN SYSTEMS

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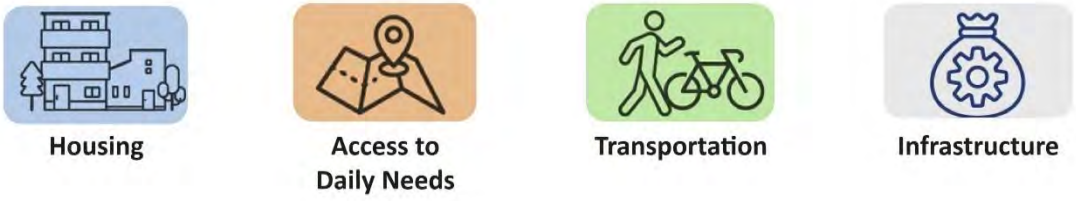
INTRODUCTION

The City of Prince Rupert is conducting a Complete Community Assessment (CCA) to identify avenues for enhancing community completeness while identifying ways to make City Streets safer for walking and rolling. The CCA project is assessing the City's road, sidewalk, and trail network to measure current levels of walkability. This assessment is an extension of Connect Rupert (2022), the City's recently adopted transportation plan, and will help the City prioritize infrastructure investments and policy to enhance walkability. The assessment is well timed to plan walkability enhancements to align with The Big Infrastructure Gap (BIG) Project, the City's plan to upgrade and replace the most critical and aged water and sewer infrastructure. The BIG Project will result in the replacement of a significant proportion of the city's road infrastructure and presents an opportunity to build them back to be better than before. The CCA will strategically identify where investment in accessible pedestrian facilities is most needed.

Figure 1 Connect Rupert – The City's Transportation Plan

The CCA is funded by the Union of British Columbia Municipalities' Complete Communities Initiative. The initiative provides municipalities with up to $150,000 to develop a comprehensive data-driven study to better understand the current context of the community. Each municipality is required to focus their CCA analysis through the following four key lenses:



The Prince Rupert CCA uses these four lenses and detailed indicators to create a Walkability Index that illustrates accessibility gaps, barriers, and opportunities in the City's pedestrian network.

PROJECT CONTEXT

Prince Rupert, located on Kaien Island, is the largest community on the northwest coast of British Columbia. The City is on the cusp of realizing its long-term vision of becoming a prosperous port city. The once fishing and forestry-dominated city is transitioning to a key and bustling port servicing the Pacific Trade Region. The community has experienced a significant decline in population since the mid-1990s, losing approximately one-third of the population base. However, the City's population decline has halted and even increased slightly from 2016 to 2021. According to the City's recent Housing Needs Report, The City is expected to increase by approximately 79% by 2030 to a total population of 22,000. The anticipated population increase is projected to include a significant increase in those aged 65 and older, indicating that an accessible and walkable transportation system will become even more important in the years to come.

The Port of Prince Rupert, which is expected to undergo rapid expansion, shows promise for the City to realize its development potential. While that transition is well underway, conducting a Complete Communities Assessment is well-timed to respond to the expected increase in population and denser housing typologies. The CCA has been crafted to collect and analyze community data through four key lenses and assess overall community completeness, with a primary focus on enhancing walkability. The outcomes of this analysis will be used to enrich planning processes and provide the City with an updated suite of data that can be used to guide future operations, policy, and capital investments.

PROJECT OBJECTIVES

This assessment builds upon information gathered during the development of Connect Rupert to better understand how, why, and where people can safely walk in the City, including pedestrian facilities, key daily needs amenities, and residential housing characteristics.

The CCA will help illustrate key data related to community completeness today through all four 'lenses' identified in the Provincial Complete Communities Guide to better understand strengths, opportunities, and challenges regarding growth and walkability in Prince Rupert.

This project is being developed through a phased approach, with the following three key phases, as illustrated below (**Figure 2**). The project is currently in Phase 2, which consists of analyzing data and developing the Walkability Index. Phase 3 will use the findings from Phase 2 to develop a final report and implementation plan.

Figure 2 Complete Community Assessment Timeline

Key tasks and objectives of the project include the following:

- Data collection and analysis of Prince Rupert's public realm, transportation infrastructure, commercial space, and urban tree canopy, among others.
- Development of a walkable matrix and score mode.
- Conduct community engagement on walkability.
- Provide high-level design guidelines for future infrastructure projects.
- A final report including recommendations and an implementation plan.

1.0 FIELD WORK

In Fall 2023, a road and sidewalk Inspection visit was completed to collect data on the pedestrian network, including 360-degree video. The Inspection occurred between September 11th and September 15th, 2023 and included a detailed condition assessment of 47.5 kilometres (47%) of all City roads, while 360-degree video was captured for the remainder. The purpose of the Inspection was to establish a baseline understanding of existing pedestrian infrastructure and collect 360-degree video that could be referenced throughout the development of the project and serve as a valuable resource for staff in the future. The video has now been uploaded to Google Street View for an updated community resource that will extend beyond the life of the CCA project. Four key infrastructure items were examined during the road and safety inspection, including an in-situ data collection and a detailed desktop review of the 360-degree video.

Sidewalk condition

The condition of the City sidewalks was inspected and ranked based on accessibility. The information will enable the CCA's Walkability Index to account for the current condition of sidewalks and prioritize where investments should be made. Sidewalks that were not included in the road and sidewalk inspection, the age of sidewalks can be used as a proxy for approximate conditions.

Letdowns

The inspection confirmed where letdowns exist, enabling the calculation of letdown density, expressed as the total number of letdowns in a given area.

Sidewalk Presence

The inspection confirmed the extent of the sidewalk network, enabling the calculation of sidewalk density, expressed as the total sidewalk length in a given area, and identifying where gaps in the sidewalk network exist.

Roll-over curbs

The presence of roll-over curbs was collected across the city. While roll-over curbs may provide continuous access along a sidewalk for people rolling, they also enable vehicles to mount the curb easily. This can be a safety issue for moving vehicles and drivers choosing to park on the sidewalk, consequently blocking safe access for pedestrians.

Letdown with a tactical walking surface indicator

Sidewalk

Let down

Damaged sidewalk

Narrow and obstructed sidewalk

Rollover curb

2.0 SUPPORTING BACKGROUND POLICY

The CAA is building on Connect Rupert (2022), the City Transportation Plan and is closely linked to several other plans and policies at the local, regional, provincial, and federal levels. These documents set the overarching goals, visions, and objectives for the City's land use, transportation, and other key long-term planning considerations.

2.1 CITY PLANS AND POLICIES

There are several overarching plans and policies that will inform the CCA. The City's Connect Rupert (2022) and the Official Community Plan (2021) provide guidance for the city's pedestrian network and set the framework for growth and development, as well as several policies related to transportation. The CCA will seek to align with and move forward with the vision and actions established in Connect Rupert the OCP, as well as the other plans and policies.

- Subdivision and Development Servicing Standards Bylaw (2022)
- Zoning Bylaw (2021)
- Labour Market Study (2019)
- Prince Rupert 2030 Vision (2019)
- Downtown Revitalization Consultation Survey Results (2019)
- Transportation Trade Network Analysis Study (2019 – MoTI)
- Small Business Development Action Plan (2018)
- 2030 Sustainable City Policy Objectives (2018)
- Community Energy and Emissions Plan (2017)
- Kaien Island Trail Network Plan (2017)
- Redesign Rupert Recharge (2016)
- Infrastructure Report (2015)
- Hays 2.0 Vision Statement (2015)
- Various Traffic Impact Assessments (TIAs)

2.2 EXTERNAL PLANS AND POLICIES

The provincial and federal governments have established bold targets to reduce greenhouse gas (GHG) emissions. Canada has set a target to cut its GHG emissions by 40-45% below 2005 levels by 2030, while the Province's **CleanBC** plan includes targets to reduce GHGs to 40% below 2007 levels by 2030, 60% by 2040, and 80% by 2050. The Province released **Move. Commute. Connect**. — B.C.'s Active Transportation Strategy in 2019. The strategy sets bold targets to double the percentage of trips taken with active transportation by 2030 to help the province meet its GHG emissions targets. To support the implementation of active transportation infrastructure, the Province released the B.C. **Active Transportation Design Guide** to ensure consistent active transportation facility design across the province.

The Province also administers the **Active Transportation Infrastructure Grant** to support active transportation investments across British Columbia. These provincial initiatives, along with Canada's new federal **National Active Transportation Strategy**, represent new partnership opportunities to help finance transformational active transportation infrastructure programs for communities with shovel-ready projects that meet the goals of making active transportation safe, comfortable, and connected.

BC Transit provides transit service in Prince Rupert and has developed the 2012 **Prince Rupert Transit Service Review** and 2022 **Prince Rupert and Port Edward Transit Future Service Plan**.

Prince Rupert is a service centre for several neighbouring and water-access only communities, including Port Edward, Metlakatla, Lax Kw'alaams, Gitxaala, Dodge Cove, and other smaller communities in the North Coast Regional District. Each of these communities has its own plans and policies that identify how it interfaces with the City and its own plans for increasing community resilience in the form of housing and other services.

In addition, the Prince Rupert Port Authority has federal jurisdiction over a significant amount of land along the city's waterfront that is primarily reserved for transportation and industrial use. However, the Prince Rupert Port Authority is also an important partner for delivering community projects.

Let down and crosswalk

3.0 MEASURING WALKABILITY

A Walkability Index is a tool that can be used to enhance decision-making processes for transportation and land use planning. By establishing an understanding of walkability across a community based on a quantitative assessment of various built environment characteristics, local governments can identify areas of a community that have varying degrees of walkability, ranking each area on a scale from high to low. By doing so, local governments can strategically prioritize land use and transportation decisions and investments to best enhance neighbourhood walkability.

This section summarizes best practices for measuring walkability across different geospatial scales. Section 1.0 includes a high-level scan of several walkability indices to determine common indicators used. Section 2.0 includes a detailed analysis of three prominent walkability indices to evaluate overall walkability measurement and relevant weighting and scoring methodologies. The case studies include an example from Metro Vancouver and two international examples from the United States of America and the Netherlands.

A Walkability Index is based on measuring indicators of walkability in defined areas to generate a comparison between these areas. Accurate walking mode share data for defined areas is the ideal indicator of walkability based on actual use. However, mode share data only assesses outcomes to walkability, as opposed to inputs to walkability. In addition, mode share data is limited and typically is based on national Census data, which is only collected once every five years, only includes commute trips to work and school (as opposed to all types of trips), and only includes "typical" trip on one day of the year. As such, a Walkability Index can be used as an input to assess built environment characteristics based on indicators such as intersection density and residential density, among others, to approximate the walkability potential of each area. The Walkability Index can then be compared with mode share data to identify any trends or correlations.

High levels of residential and commercial density and street network connectivity are commonly associated with walkable neighbourhoods and can be used to approximate walkability. However, they cannot measure the accessibility or experience of walking in specific areas. More complex Walkability Indices can use additional indicators to accurately capture the experience of walking in defined areas. These additional indicators quantify the presence of pedestrian facilities that are associated with more accessible, safe, and interesting places to walk.

It is noted that the term "walkability" is narrow in scope and may not properly capture other considerations, such as accessibility, including other users, such as people using mobility aids. As such, it is suggested that for the purposes of this study, the term "Walkability and Accessibility Index" be used.

3.1 WALKABILITY INDICATORS

A high-level international scan was conducted to identify indicators that can be used to measure walkability. Four indicators were consistently applied in each reviewed study: Residential Density, Commercial Density, Land Use Mix, and Street Network Connectivity.

Residential Density

Residential Density is the number of residential units in an area designed for residential users within a buffer area. Higher densities indicate more people live in the area.

Commercial Density

Commercial Density (or retail Floor Area Ratio) is the amount of area designated for commercial use within a buffer area, using a ratio of commercial floor area to commercial land area. Higher ratios indicate higher commercial densities.

Land Use Mix

Land Use Mix Is the evenness of square footage distinction across residential, commercial (including retail and services), entertainment, and office development within a neighbourhood buffer. A higher value in this measure indicates a more even distribution of land between land use types.

Street Network Connectivity

Street network connectivity is measured by the number of street intersections in a buffer area. More intersections suggest greater network connectivity, enabling more direct travel between two points using existing streets and pathways. A higher density of intersections is thought to be correlated with more walking through, increasing the number of choices for getting to a destination on foot.

Table 1 Lists the common indicators used in Walkability Indices.

Table 1: Common Walkability Indicators and Associated Walkability Indices

Jurisdiction or Entity	Components Used
Metro Vancouver Walkability Index (2011) & 2019 update	1. Residential density 2. Commercial density 3. Land use mix 4. Street connectivity 5. Access to parks 6. Regional accessibility
Netherlands Walkability Index (2022)	1. Population density 2. Retail and service density 3. Land use mix 4. Street connectivity 5. Green space 6. Sidewalk density 7. Public transport density.
US National Walkability Index (USNWI)	1. Street intersection density 2. Proximity to transit stops 3. Diversity of land use
Australian Urban Observatory	1. Land use mix and services of daily living 2. Street connectivity 4. Dwelling density
Walk score ®	1. Distance to amenities by amenity category 2. Population density 3. Block Length 4. Intersection density

A scan of prominent literature[123] regarding the measuring techniques of walkability indicators revealed that many walkability indices often list more indicators that could be used if better data availability and quality assurance were possible. The reason for this is most walkability indices are conducted at a national or regional scale and require comparable datasets over diverse geographic contexts. The result is that more contextual indicators, such as street and public realm characteristics, are not able to be included in geographically large indices. A municipal-specific Walkability Index presents an opportunity to use more granular data to measure walkability.

[1] Microscale walkability indicators for fifty-nine European central urban areas: An open-access tabular dataset and a geospatial web-based platform. (Bartzokas-Tsiompras, et al., 2021),
[2] The development of a walkability index: application to the Neighborhood Quality of Life Study (Frank, et al, 2009).
[3] Contextualizing Walkability: Do Relationships Between Built Environments and Walking Vary by Socioeconomic Context. (Adkins, et al, 2017).

Other measures that may be indicative of walkability include:

- Sidewalk presence
- Sidewalk width
- Sidewalk maintenance
- Sidewalk buffer
- Street lighting
- Crossings
- Pedestrian signals
- Curb ramps
- Traffic Character (Road Type)
- Public seating
- Public park/plaza
- Weather protection
- Building maintenance
- Graffiti
- Slope
- Building setbacks
- Store frontage length
- Walkway characteristic
- Obstacles walking
- Sense of safety
- Sense of security
- Comfort
- Visual interest
- Imageability
- Visual enclosure
- Human-scale design

3.2 CALCULATING WALKABILITY

This section provides an overview of the best practice methods for measuring walkability. Three case studies, including walkability indices in Metro Vancouver, the Netherlands, and the United States, are used to demonstrate different methods of measuring walkability. Below is a description of the indicators used in each of the examples and how the indicators were ranked to create a final walkability composite score.

3.2.1 METRO VANCOUVER

The (MVWI) uses a scoring method developed in the paper *The Development of Walkability Index: Application to the Neighborhood Quality of Life Study* (L. Frank et al., 2009). The method uses a composite score based on the following four walkability components: Residential Density, Land Use Mix, Connectivity, and Retail Floor Area Ratio. By using a composite score, problems relating to collinearity are minimized compared to factor analysis. The composite score is applied to a 1-kilometre network buffer from the **centre of postal code areas**. A network buffer, rather than a Euclidian buffer, measures walkability along real walkable distances rather than a by-the-crow-flies approach.

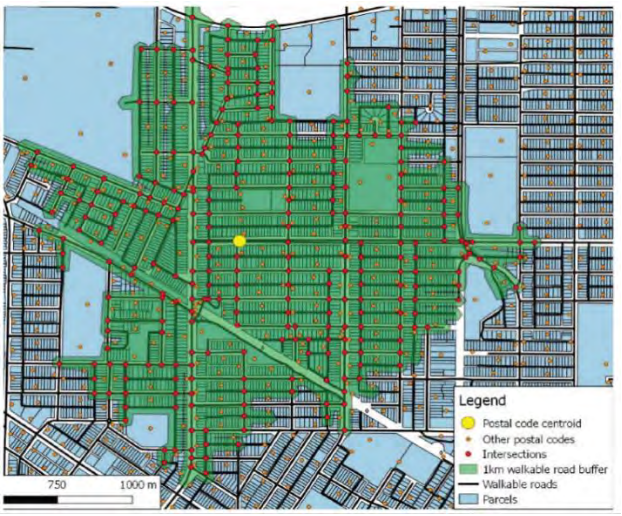


Figure 3 1-Kilometre Pedestrian Network Buffer

Source: Where Matters, UBC - Health and Community Design Lab. (2019).

Index Components:

The four components and each specific calculation is described below (**Table 2**).

Table 2: Metro Vancouver Walkability Index - Model Components

Walkability Component	Calculation
Residential Density	The ratio of residential units to the land area zone for residential use.
Land Use Mix	The mix of all five land use types: residential, entertainment, office, institutional, and retail (excluding big box: ≥ 300.000 sqft). Values are normalized between 0 and 1, with 0.0 being single use and 1.0 indicating a completely even distribution across all five land uses.
Connectivity	The ratio between the number of true intersections (3 or more legs) to the land areas of the block groups in acres
Retail Floor Area Ratio	The retail building square footage divided by retail land square footage.
Access to parks and regional accessibility were not included in the Metro Vancouver analysis.	

Composite Score:

To calculate the composite walkability score, each component score is normalized using a z-score. For example, a normalized residential density score of 1.0 would indicate that the raw value was one standard deviation above the mean value for the category. Intersection density has been shown to strongly influence non-motorized travel choices as it is weighted by a factor of two.[4]. The following equation illustrates how the component score was calculated. An example output of this method is shown below.

$$Walkability = [(2 * z - Connectivity) + (z - Residential\ Density) + (z - Retail\ FAR) + (z - Land\ Use\ Mix)$$

[4] Sallis, J. F., Frank, L. D., Saelens, B. E., & Kraft, M. K. Active transportation, and physical activity: opportunities for collaboration on transportation and public health research. Transportation Research Part A: Policy and Practice, 38, 249-268. 2004.

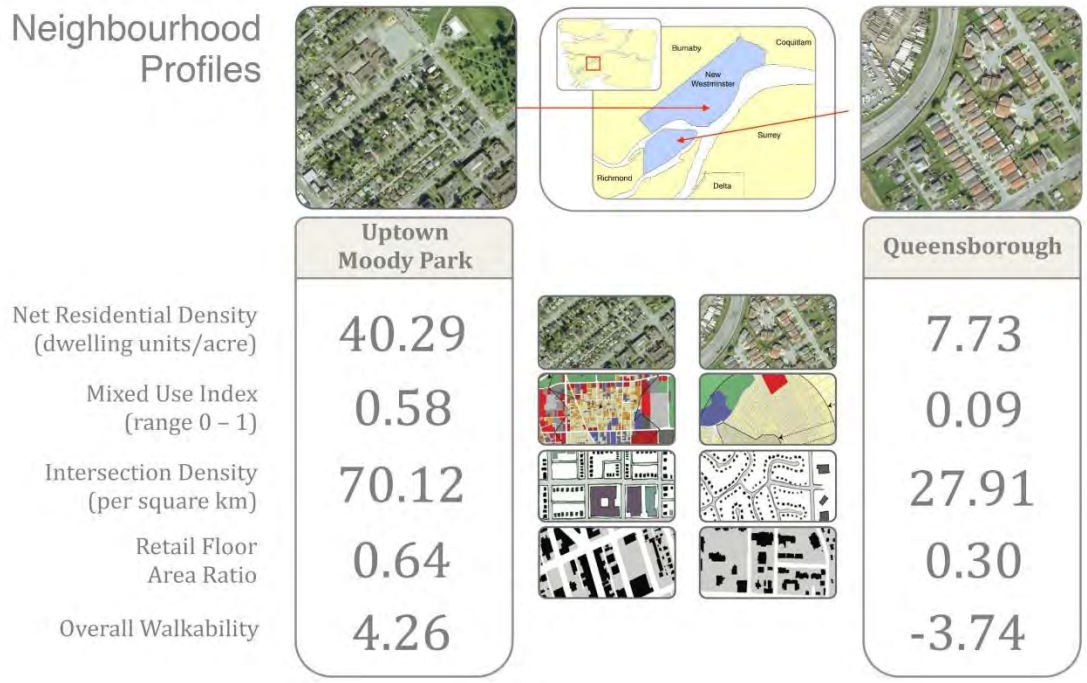


Figure 4 Metro Vancouver Walkability Index - Neighbourhood Profiles

Source: Neighbourhood Design, Travel, and Health in Metro Vancouver, UBC Active Transportation Collaboratory, 2010

3.2.2 NETHERLANDS – OBJECTIVELY MEASURED WALKABILITY INDEX STUDY

The report *Development of an Objectively Measured Walkability Index for the Netherlands* [5] (OMWIN) builds upon studies such as the MVWI by including additional components to estimate neighbourhood walkability. The OMWIN employed three additional components: green space, sidewalk density, and public transport density. The study identified potential additional components that were considered for inclusion but did not have adequate data across all regions, including pedestrian safety, street aesthetics, blue space, and distance to food outlets.

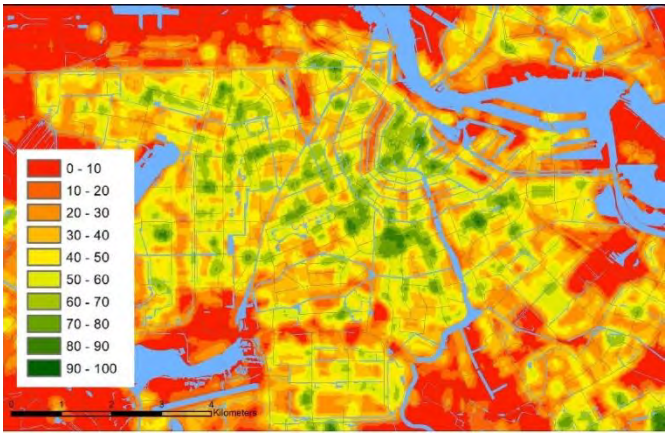


Figure 5 Netherlands Walkability Index - Amsterdam

Source: Objectively Measured Walkability Index Study, T, Lam, et al, 2022).

[5] Lam, T.M., Wang, Z., Vaartjes, I. *et al.* Development of an objectively measured walkability index for the Netherlands. *Int J Behav Nutr Phys Act* **19**, 50 (2022). https://doi.org/10.1186/s12966-022-01270-8

Euclidian Buffer

Each component was calculated for three Euclidean buffers: 150 m, 500 m, and 1000 m around every postal code location and for every administrative neighbourhood. Componential z-scores were averaged, and final indices were normalized between 0 and 100. Euclidian buffer sizes were used for three reasons: first, a comparative Dutch study with green space suggested that Euclidian buffers result in more consistent associations with physical activity. Second, Euclidian buffers do not require street network details and can thus be easily applied and adapted to other settings. Third, circular buffers were to be consistent with previous Dutch walkability studies.

Index Components

The seven components and each specific calculation are described below (**Table 3**).

Table 3 Netherlands Walkability Index Components

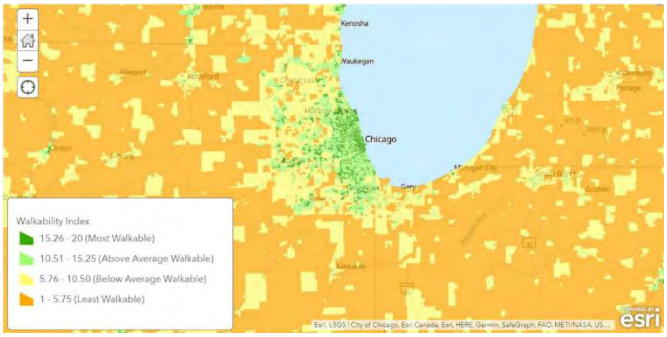
Component	Metric
Population Density	The number of inhabitants per units of area
Retail and Service Density	The proportion of land uses by area of commercial and socio-cultural services (schools, universities, hospitals and medical services, museums, and concert halls)
Land use Mix	The mix of all five land use types: commercial (retail and catering), socio-cultural services, residential areas, offices and public services, green space and recreation (parks and recreation areas, sports and leisure activity areas). Values are normalized between 0 and 1, with 0.0 being single use and 1.0 indicating a completely even distribution across all five land uses.
Intersection Density	The point density of true intersections (3 or more legs) on road segments that are accessible for pedestrians.
Green Space	The proportion of land devoted to parks, public gardens, forests, and graveyards
Sidewalk Density	The area proportion of the sidewalk
Public Transport Density	The point density of all trams, buses, metros and ferries for short-range transport combined with the density of train stations for long-distance transport.

Composite Score:

To calculate the composite walkability score, the study uses an average of each of the normalized z-scores of each of the components. The average score is normalized from 0 to 100. The equation used is as follows:

$$Walkability = [(z - Population\ Density) + (z - Retail\ and\ Service\ Density) + (z - Land\ Use\ Mix) + (z - Intersection\ Density) + (z - Green\ Space) + (z - Sidewalk\ Density)+]/7$$

3.2.3 US NATIONAL WALKABILITY INDEX



The US National Walkability Index (USNWI) calculates an overall walkability score using four key components: intersection density, proximity to transit stops, employment mix, and employment and household mix. The components were selected from the US Environmental Protection Agency's Smart Location Database due to its national coverage, data availability, and consistency. The index is calculated at the census block group level, which is smaller than census tracts and larger than census blocks.

Index Component

The seven components and each specific calculation are described below.

Table 4 UN National Walkability Index Components

Component	Metric
Intersection Density	Pedestrian-oriented intersections per square mile Intersections that include major highways or other facilities that exclude pedestrian passage were not connected.
Proximity to Transit Stops	Distance from the centre of the population area to the nearest transit stop
Employment Mix*	The mix of employment types in a block group (such as retail, office, or industrial). Higher values correlate with more walk trips. The ratio of employment types and occupied housing
Employment and Household Mix*	The mix of employment types and occupied housing. A block group with a diverse set of employment types (such as office, retail, and service) plus a large quantity of occupied housing units will have a relatively high value. Higher values correlate with more walk trips.
**Exact measurement method not publicly available*	

Composite Score:

The USNWI assigns four individual component scores to each census block group to determine the overall walkability score. Each census block group is then placed into 20 quantiles by component score and assigned a rank from 1 to 20 depending on their quantile position. A score of 1 indicates a very low relative influence on walkability, and a score of 20 indicates a high relative influence on walkability. The quantile scores are combined using the following weighting system to determine overall walkability.

$$Walkability = \text{Intersection Density} + \text{Proximity to Transit} + Employment\ Mix(0.5) + \text{Employment and Household Mix}$$

3.3 MEASURING WALKABILITY SUMMARY & RECOMMENDATION

This section summarizes the evaluation process of walkability indices at different scales, including a regional government scale and two significantly different national scales, the Netherlands and the United States of America. Based on the findings, walkability indices, at a basic level, include consideration for land use density and diversity as well as intersection density and connectivity. More detailed analysis depends on the availability and comparability of data. It is recommended that the Prince Rupert Walkability Index, at a minimum, incorporate the following indicators:

- Residential Density
- Commercial Density
- Land Use Mix
- Intersection Density
- Proximity to Parks
- Sidewalk Density
- Transit Stop and Route Density

The scale of a single municipality (Prince Rupert) enables further analysis of indicators that do not typically have comparable data at the national or even regional scale, including metrics relating to the accessibility of the built environment, proximity to daily needs, and transit frequency, among others. The Prince Rupert Walkability Index also has the opportunity to incorporate some of the additional indicators below. Due to some indicators being similar, the scoring model can combine multiple indicators into composite scores, such as sidewalk condition and steep slopes, to an accessibility composite score in order to reduce overlap.

- Trail density
- Block size
- Crosswalk density
- Sidewalk condition and density
- Accessibility
- Steep slopes
- Proximity to key destinations
- Other dependent on available data.

4.0 COMMERCIAL SPACE ANALYSIS

To provide a fuller context for the CCA, an evaluation of the anticipated retail market and spending growth implications on the potential need for additional retail facilities over the next 20+ years. Having a fuller understanding of the demographic and spending habits of Prince Rupert residents can help determine the incremental demand for certain retail categories. For the purposes of this assessment, the commercial space analysis provides key information about the future demand for certain daily needs, which helps to quantify the proportion of space that will be required city-wide.

This analysis was created using Environics SiteWise data, which provides detailed and consolidated data that can be tailored by location and timeframe. SiteWise also provides population and other projections for inter-census years, which can result in slight demographic discrepancies from official sources.

This section summarizes a high-level analysis which comprises the following:

- Summary of anticipated Prince Rupert CMA population growth and related demographic indicators
- Quantification of growth in gross annual spending potential for Prince Rupert CMA residents over the 2026 to 2046 period
- Estimates of reasonable market shares on a category-by-category basis – share of gross annual CMA spending potential likely to be captured within the City of Prince Rupert
- Likely degree of inflow spending (spending by non-residents of the Prince Rupert CMA) on a category-by-category basis
- Anticipated growth in annual net spending (dollar sales volume) within the City of Prince Rupert over the study period (select categories)
- Determination of incremental market-supportable floor area (select categories) within the City of Prince Rupert to 2046

4.1 PRINCE RUPERT CMA POPULATION GROWTH

The current (2024) population within the Prince Rupert CMA is estimated at roughly 14,738 residents. This CMA population is expected to reach 15,610 residents by 2031 and 16,945 residents by 2041. An anticipated year-over-year growth rate, for planning purposes, is expected to average roughly 0.8% per year over the forecast study period.

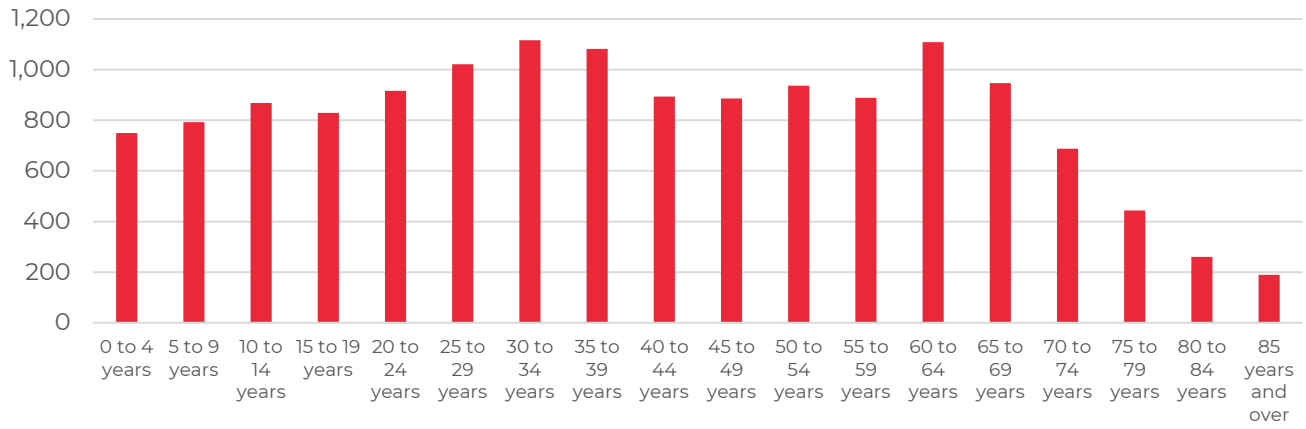
4.2 PRINCE RUPERT CMA DEMOGRAPHIC CHARACTERISTICS

This section provides a more in-depth analysis of Prince Rupert's demographic characteristics. The data was pulled through the 2023 Environics Analytics report on Prince Rupert and accessed through the Sitewise platform.

4.2.1 PRINCE RUPERT CMA AGE PROFILE

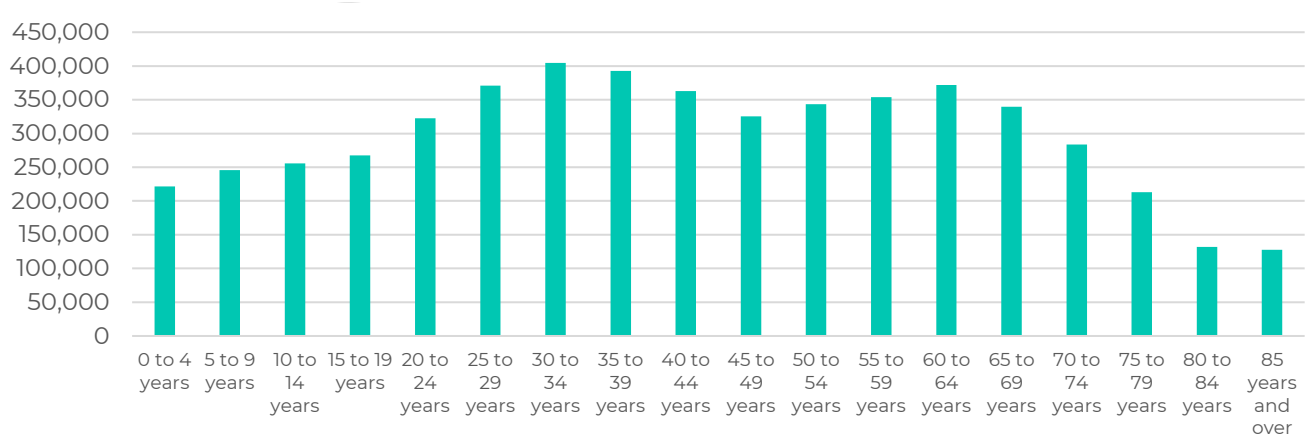
A chart of the Prince Rupert CMA and British Columbia Age Profile is outlined below:

Figure 6 Prince Rupert CMA Age Profile Histogram



Source (both figures): Environics, Sitewise Profile

Figure 7 British Columbia Age Profile Histogram



Source: Environics, Sitewise Profile

Both charts exhibit roughly similar behaviour. For Prince Rupert, there is a higher base % centred around the left tail of the distribution (ages 0-29) compared to the rest of the province. As a result, Prince Rupert's median age is lower than the province's by about 3 years (39.7 years vs 42.6 years).

4.2.2 PRINCE RUPERT CMA HOUSEHOLD SIZE PROFILE

A profile of the Prince Rupert CMA and comparative British Columbia Household size characteristics is outlined below:

Table 5 Prince Rupert CMA Household Size Profile

2023 Estimates Households and Dwellings	Prince Rupert, BC		British Columbia	
		%		%
2023 Households by Size of Household	**5,953**	**% base**	**2,123,342**	**% base**
1 person	1,863	31.3%	629,198	29.6%
2 persons	1,965	33.0%	748,231	35.2%
3 persons	903	15.2%	306,715	14.4%
4 persons	687	11.5%	265,087	12.5%
5 or more persons	535	9.0%	174,111	8.2%
2023 Persons in Households	14,462		5,246,562	
Persons per household	2.43		2.47	

Source: Environics, Sitewise Profile

Highlights are as follows:

- The percentages by household size category are similar between Prince Rupert and the rest of the province, with the majority being comprised of 1 and 2 person households.
- The average persons per household size between Prince Rupert and the province is roughly equal (2.43 vs 2.47, respectively).

4.2.3 PRINCE RUPERT CMA HOUSING TENURE AND TYPE PROFILE

A profile of the Prince Rupert CMA and British Columbia comparative housing tenure and housing type mix are outlined in the table below for reference:

Table 6 Prince Rupert CMA Housing Tenure and Type Profile

2023 Estimates Households and Dwellings	Prince Rupert, BC		British Columbia	
		%		%
2023 Occupied Private Dwellings by Tenure	**5,953**	**% base**	**2,123,342**	**% base**
Owned	3,795	63.7%	1,403,904	66.1%
Rented	2,097	35.2%	708,200	33.4%
Band housing	61	1.0%	11,238	0.5%
2023 Occupied Private Dwellings by Structure Type	**5,953**	**% base**	**2,123,342**	**% base**
Houses	4,084	68.6%	1,133,875	53.4%
Single-detached house	3,511	59.0%	890,264	41.9%
Semi-detached house	252	4.2%	66,024	3.1%
Row house	321	5.4%	177,587	8.4%
Apartment, building low and high rise	1,746	29.3%	933,298	44.0%
Less than five	995	16.7%	437,247	20.6%
Five or more floors	61	1.0%	236,319	11.1%
Detached duplex	690	11.6%	259,732	12.2%
Other Dwelling Types	123	2.1%	56,169	2.6%
Other single-attached house	12	0.2%	3,842	0.2%
Movable dwelling	111	1.9%	52,327	2.5%

Source: Environics, Sitewise Profile

Highlights are as follows:

- There is a slightly higher percentage of rental and band housing units within the Prince Rupert CMA, compared to the province.
- There is a much higher percentage of single-detached houses in Prince Rupert compared to the provincial level (59% vs. 42%).
- Multi-family apartment housing accounts for a significantly smaller proportion of the overall housing stock in the Prince Rupert CMA (29%) relative to the province of BC (44%).

4.2.4 PRINCE RUPERT CMA INCOME PROFILE

A profile of comparative Prince Rupert CMA and British Columbia household incomes is outlined in the table below:

Table 7 Prince Rupert CMA Income Profile

2023 Estimates Household Income	Prince Rupert, BC		British Columbia	
		%		%
2023 Households by Income (Current Year $)	**5,953**	**% base**	**2,123,342**	**% base**
Under $20,000	222	3.7%	89,764	4.2%
$ 20,000 - $39,999	649	10.9%	263,465	12.4%
$ 40,000 - $59,999	712	12.0%	279,676	13.2%
$ 60,000 - $79,999	675	11.3%	265,260	12.5%
$ 80,000 - $99,999	581	9.8%	235,470	11.1%
$ 100,000 and over	3,114	52.3%	989,707	46.6%
$ 100,000 - $ 124,999	685	11.5%	246,085	11.6%
$ 125,000 - $ 149,999	578	9.7%	195,319	9.2%
$ 150,000 - $199,999	829	13.9%	256,247	12.1%
$ 200,000 and over	1,022	17.2%	292,056	13.8%
$ 200,000 - $ 299,999	846	14.2%	197,697	9.3%
$ 300,000 and over	176	3.0%	94,359	4.4%
Average income	$ 121,316		$ 119,172	
Median Income	$ 105,018		$ 93,888	

Source – Environics, Sitewise Profile

Relative income levels are key determinants of likely spending, especially in retail categories driven by more discretionary spending (i.e. non-essentials comparative goods such as clothing, electronics, etc.).

Highlights are as follows:

- There is a significantly higher proportion of household incomes > $100,000 in the Prince Rupert CMA compared to the province (52.3% vs 46.6%). This is due primarily to the significantly higher proportion of high income-earning households (household incomes > $200,000), which accounts for 17.2% of Prince Rupert CMA households, but only 13.8% at the BC level.
- There is a lower percentage of household incomes < $100,000 in the Prince Rupert CMA compared to the province (47.7% vs 53.4%).
- As a result of the income percentages, Prince Rupert has a higher median household income of $105,018 compared to the province median household income of $93,888.

4.2.5 PRINCE RUPERT CMA HOUSEHOLD SPENDING PROFILE

A profile of comparative Prince Rupert CMA and British Columbia household spending[6] is outlined in the table below:

Table 8 Prince Rupert CMA Household Spending Profile

2023 Household Spend Summary	Prince Rupert, BC			British Columbia		
	Total Expenditure	Expenditure per Household	%	Total Expenditure	Expenditure per Household	%
Total Expenditure	**$ 831,808,004**	**$ 139,729**		**$ 282,485,112,024**	**$ 133,038**	
Total current consumption	$ 574,193,215	$ 96,454	69%	$ 198,595,657,802	$ 93,530	70%
Shelter	$ 143,881,121	$ 24,170	17%	$ 53,998,522,579	$ 25,431	19%
Food	$ 107,989,628	$ 18,140	13%	$ 32,682,535,720	$ 15,392	12%
Household operation	$ 35,023,478	$ 5,883	4%	$ 12,852,103,157	$ 6,053	5%
Health care	$ 22,350,045	$ 3,754	3%	$ 11,640,367,152	$ 5,482	4%
Household furnishings and equipment	$ 51,002,071	$ 8,567	6%	$ 10,700,142,787	$ 5,039	4%
Transportation	$ 82,754,215	$ 13,901	10%	$ 28,764,660,392	$ 13,547	10%
Recreation	$ 27,534,577	$ 4,625	3%	$ 11,456,690,870	$ 5,396	4%
Personal care	$ 13,739,163	$ 2,308	2%	$ 4,681,853,009	$ 2,205	2%
Clothing	$ 30,226,704	$ 5,078	4%	$ 9,172,564,318	$ 4,320	3%
Education	$ 6,160,763	$ 1,035	1%	$ 4,739,822,062	$ 2,232	2%
Reading materials and other printed matter	$ 688,351	$ 116	0%	$ 394,157,560	$ 186	0%
Tobacco products and alcoholic beverages	$ 33,556,315	$ 5,637	4%	$ 9,344,275,526	$ 4,401	3%
Games of chance	$ 5,590,569	$ 939	1%	$ 2,918,611,918	$ 1,375	1%
Miscellaneous expenditures	$ 13,696,212	$ 2,301	2%	$ 5,249,350,752	$ 2,472	2%

Source – Environics, Sitewise Profile

Highlights of this comparative household spending are as follows:

- The total current consumption per household (across all household survey categories) in Prince Rupert compared to the province is higher ($96,454 vs 93,530$).
- Prince Rupert households spend relatively more on food, household furnishings, clothing, tobacco products & alcoholic beverages compared to the rest of the province.
- Prince Rupert households spend relatively less on shelter, health care, recreation, and education compared to the rest of the province.

[6] As tracked by Statistics Canada in its annual household spending survey and more focused geographic estimates (Prince Rupert CMA) as compiled by Environics Analytics through its Sitewise Pro platform.

4.3 PRINCE RUPERT RETAIL DEMAND ANALYSIS

This section presents the results of Urban Systems' retail demand model, which leverages key local population and demographic characteristics, as well as provincial trends in category-specific retail trade spending volumes, to forecast anticipated growth in Prince Rupert retail market demand and support for new facilities.

4.3.1 ANTICIPATED GROWTH IN GROSS ANNUAL SPENDING (2024 TO 2046)

Urban Systems' retail demand model leverages historical population growth (in this case, for the Prince Rupert CMA) and per capita annual expenditures in relevant retail categories to project total annual spending potential by category. A table summarizing this anticipated total annual spending potential by retail category over the 2024-46 period is presented in the table below:

Table 9 Gross Expenditure Forecast (Prince Rupert CMA)

Gross Expenditure Forecast (Ref. Year $, x1,000)

Retail Commercial Category	2024	2031	2036	2041	2046	2024-46
Retail trade - All categories	$ 259,632	$ 289,935	$ 313,890	$ 339,971	$ 365,361	$ 105,729
Furniture and home furnishings stores	$ 7,711	$ 8,308	$ 8,767	$ 9,257	$ 9,698	$ 1,988
Electronics and appliances	$ 5,761	$ 5,626	$ 5,485	$ 5,303	$ 5,033	$ (728)
Building materials, garden equipment, supplies	$ 17,757	$ 20,321	$ 22,368	$ 24,614	$ 26,858	$ 9,101
Supermarkets and Other Grocery	$ 37,170	$ 39,839	$ 41,880	$ 44,041	$ 45,953	$ 8,783
Convenience Stores	$ 1,989	$ 2,174	$ 2,319	$ 2,474	$ 2,620	$ 631
Specialty Food Stores	$ 3,120	$ 3,424	$ 3,662	$ 3,919	$ 4,161	$ 1,041
Liquor stores	$ 15,334	$ 17,465	$ 19,164	$ 21,026	$ 22,878	$ 7,544
Clothing Stores	$ 12,894	$ 14,596	$ 15,949	$ 17,430	$ 18,894	$ 6,000
Shoe Stores	$ 1,369	$ 1,466	$ 1,541	$ 1,619	$ 1,688	$ 319
Jewellery, Luggage, Leather Goods Stores	$ 2,042	$ 2,345	$ 2,588	$ 2,854	$ 3,121	$ 1,079
Sporting goods, hobby, book, and music stores	$ 5,430	$ 5,731	$ 5,955	$ 6,187	$ 6,375	$ 944
General merchandise stores	$ 30,196	$ 34,015	$ 37,047	$ 40,358	$ 43,616	$ 13,420
Miscellaneous store retailers	$ 9,216	$ 10,650	$ 11,798	$ 13,061	$ 14,332	$ 5,116
Motor vehicle sales	$ 57,683	$ 65,660	$ 72,018	$ 78,986	$ 85,912	$ 28,229
Auto parts, accessories, tires	$ 5,964	$ 6,879	$ 7,611	$ 8,416	$ 9,225	$ 3,262
Health and personal care	$ 19,018	$ 21,740	$ 23,913	$ 26,296	$ 28,675	$ 9,657
Gasoline	$ 26,979	$ 29,696	$ 31,826	$ 34,129	$ 36,322	$ 9,343

Source – Urban Systems retail demand model, Statistics Canada retail trade data.

Total annual retail expenditure potential for all of Prince Rupert's defined trade areas and for all retail categories is estimated at roughly $259.6 million in 2024. This annual expenditure potential is expected to grow by more than $105.7 million by 2046.

Restaurant food & beverage spending is evaluated by leveraging Statistics Canada's National Household Survey data, as compiled and packaged by Environics Analytics for more local levels of geography. As this category is not captured as part of Statistics Canada's retail trade tracking, the household survey categories of "meals served at restaurants" and "alcoholic beverages served on licensed premises" together serve as a proxy for restaurant food and beverage spending. Per capita annual household spending in these categories were estimated as $5,410 and $423 respectively. These restaurant-focused spending estimates are then used to quantify

total annual resident spending potential using the retail demand model, as excerpted below:

Table 10 Anticipated Gross Annual Spending Potential - Prince Rupert CMA Restaurant Food & Beverage

FB Spending (Ref. Year $, x1,000

	2024	2031	2036	2041	2046	2024-2046
Gross	$ 37,397	$42,467	$46,504	$50,925	$55,309	$17,912

Source – Urban Systems retail demand model, Sitewise Pro base household spending estimates.

4.3.2 ANTICIPATED TRADE AREA RESIDENT MARKET CAPTURE & INFLOW SPENDING

A profile of achievable City of Prince Rupert market shares (of annual CMA potential) and likely market Inflow spending factors is outlined in the table below:

Table 11 Achievable Prince Rupert Market Shares and Projected Inflow by Category

Capture Rates

Retail Commercial Category	Market Capture	Inflow
Furniture and home furnishings stores	70%	0%
Electronics and appliances	80%	5%
Building materials, garden equipment, supplies	70%	5%
Supermarkets and Other Grocery	80%	10%
Convenience Stores	85%	20%
Specialty Food Stores	95%	15%
Liquor stores	90%	15%
Clothing Stores	50%	5%
Shoe Stores	50%	5%
Jewellery, Luggage, Leather Goods Stores	50%	5%
Sporting goods, hobby, book, and music stores	70%	10%
General merchandise stores	80%	10%
Miscellaneous store retailers	85%	15%
Motor vehicle sales	60%	0%
Auto parts, accessories, tires	70%	0%
Health and personal care	90%	15%
Gasoline	90%	10%
Food & Beverage	80%	40%

Source – Urban Systems

Focusing on a key category – Supermarket and Other Grocery – market capture and inflow spending have been determined for the Prince Rupert CMA trade area. These market shares can be interpreted as follows:

- **Prince Rupert Supermarket Market Share of 80%:** 80% of growth in annual Prince Rupert CMA resident spending potential in the supermarket category

is likely to be captured by new supermarket facilities in the City of Prince Rupert. 20% of annual spending potential is, therefore, likely to flow to facilities outside the City.

- **Prince Rupert Supermarket Inflow share of 10%:** 10% of total annual supermarket sales likely to be captured by businesses located in the City of Prince Rupert are likely to be generated by visitors residing outside the Prince Rupert CMA.

These market capture figures are reasonable, as they allow for the natural flow of spending to other larger centres and trip-related spending, and support projecting a reasonable net capture of growth in total annual gross spending that is likely to remain in the City of Prince Rupert.

4.3.3 ANTICIPATED NET INCREMENTAL SPENDING CAPTURE IN PRINCE RUPERT (2024 TO 2046)

Conversion of gross annual trade area expenditure potential to net Prince Rupert CMA sales volume is accomplished by applying market share capture rates to gross annual expenditure potential and then focusing attention on incremental growth in net spending from 2024-2046 to determine likely need for new retail-commercial businesses. A table of the summarized results in shown below:

Table 12 Growth in Anticipated Net Annual Prince Rupert CMA Expenditure Potential (2024-46)

Net Expenditure Forecast (Ref. Year $, x1,000)

Retail-Commercial Category	2024	2031	2036	2041	2046	2024 - 46
Furniture and home furnishings stores	$ 5,397	$ 5,815	$ 6,137	$ 6,480	$ 6,789	$ 1,391
Electronics and appliances	$ 4,609	$ 4,500	$ 4,388	$ 4,243	$ 4,026	$ (583)
Building materials, garden equipment, supplies	$ 12,430	$ 14,224	$ 15,657	$ 17,230	$ 18,800	$ 6,371
Supermarkets and Other Grocery	$ 29,736	$ 31,871	$ 33,504	$ 35,233	$ 36,763	$ 7,027
Convenience Stores	$ 1,691	$ 1,848	$ 1,971	$ 2,103	$ 2,227	$ 536
Specialty Food Stores	$ 2,964	$ 3,253	$ 3,479	$ 3,723	$ 3,953	$ 989
Liquor stores	$ 13,800	$ 15,718	$ 17,247	$ 18,923	$ 20,590	$ 6,790
Clothing Stores	$ 6,447	$ 7,298	$ 7,975	$ 8,715	$ 9,447	$ 3,000
Shoe Stores	$ 685	$ 733	$ 770	$ 810	$ 844	$ 160
Jewellery, Luggage, Leather Goods Stores	$ 1,021	$ 1,173	$ 1,294	$ 1,427	$ 1,560	$ 539
Sporting goods, hobby, book, and music stores	$ 3,801	$ 4,012	$ 4,169	$ 4,331	$ 4,462	$ 661
General merchandise stores	$ 24,157	$ 27,212	$ 29,638	$ 32,287	$ 34,893	$ 10,736
Miscellaneous store retailers	$ 7,833	$ 9,052	$ 10,028	$ 11,102	$ 12,182	$ 4,349
Motor vehicle sales	$ 34,610	$ 39,396	$ 43,211	$ 47,391	$ 51,547	$ 16,938
Auto parts, accessories, tires	$ 4,175	$ 4,815	$ 5,328	$ 5,891	$ 6,458	$ 2,283
Health and personal care	$ 17,116	$ 19,566	$ 21,521	$ 23,667	$ 25,807	$ 8,691
Gasoline	$ 24,281	$ 26,726	$ 28,643	$ 30,716	$ 32,690	$ 8,409
Food & Beverage	$ 29,917	$ 33,973	$ 37,203	$ 40,740	$ 44,248	$ 14,330

Source: Urban Systems retail demand model

Some notable highlights for select categories include:

- Supermarkets and other grocery stores: anticipated annual net spending growth of roughly $7 million over the 2024-46 period
- Liquor stores: expected growth in annual spending of about $6.8 million
- Restaurant food and beverage: anticipated spending growth of approximately $14.3 million over the study period

With these anticipated net spending figures quantified, anticipated incremental net sales volume capture is then converted into market-supportable floor area, which can provide insights into likely new facility needs over time.

4.3.4 MARKET SUPPORTABLE INCREMENTAL FLOOR AREA BY CATEGORY (2024 TO 2046)

With a realistic category-by-category forecast of net additional Prince Rupert retail and restaurant food & beverage sales now quantified over the study period, market-supportable new retail/commercial floor area (sq.ft.) can be derived by applying reasonable target sales per sq. ft. performance rates for the 2024-2046 period. The resulting growth (relative to 2024) in market-supportable floor area (sq. ft.) in the City of Prince Rupert is summarized in the table below:

Table 13 Projected Support for Additional Prince Rupert CMA Retail-Commercial Floor Area by Category

Net New Floor Area Supportable, Including Inflow, Base 2024

Retail Commercial Category	2024-31	2024-36	2024-41	2024-46
Furniture and home furnishings stores	600	1,000	1,400	1,700
Electronics and appliances	(100)	(300)	(400)	(600)
Building materials, garden equipment, supplies	3,800	6,700	9,800	12,700
Supermarkets and Other Grocery	1,600	2,800	4,000	4,900
Convenience Stores	100	300	400	500
Specialty Food Stores	200	300	500	600
Liquor stores	2,100	3,700	5,400	7,000
Clothing Stores	1,300	2,400	3,500	4,500
Shoe Stores	100	100	200	200
Jewellery, Luggage, Leather Goods Stores	200	300	400	500
Sporting goods, hobby, book, and music stores	100	200	300	400
General merchandise stores	7,200	12,800	18,700	24,100
Miscellaneous store retailers	2,800	5,000	7,300	9,500
Motor vehicle sales	10,500	18,500	27,200	35,200
Auto parts, accessories, tires	1,400	2,500	3,700	4,900
Health and personal care	2,600	4,600	6,800	8,800
Gasoline	2,400	4,100	6,000	7,700
Food & Beverage	5,500	9,800	14,300	18,600
Total	42,400	74,800	109,500	141,200

Source: Urban Systems retail demand analysis

Highlights of this market-supportable floor area by category are as follows:

- Growth in floor area market support for additional supermarket/grocery (retail food) space in the City of Prince Rupert is modest and expected to reach roughly 5,000 sq. ft. by the end of the study period;
    - Given that most modern supermarkets also include a significant component of other general merchandise, it worth noting that some portion of demand in the general merchandise category (which will see additional demand for between 7,000 and 24,000 sq. ft. over the study period) could be absorbed into a multi-purpose supermarket/general store concept.
- Anticipated growth in liquor store demand is expected to result in market support for up to 7,000 sq. ft. over the study period.
- Growth in demand for health and personal care stores is expected to reach 8,800 sq. ft. by 2046. This is sufficient to support the addition of 3 to 4 small-scale pharmacies or 1 to 2 medium sized.
- Increased market support in the restaurant food and beverage category is expected to reach nearly 10,000 sq. ft. by 2036 and 19,000 sq. ft. by 2046. This level of incremental support is likely to support a wide range of additional business types, including local cafés (1,500 to 2,500 sq. ft.). grab & go quick-service restaurants (800 to 1,200 sq. ft.), and more full-service restaurants (3,500 to 5,000 sq. ft.).

4.4 PRINCE RUPERT RETAIL DEMAND ANALYSIS - CONCLUSIONS

The results of this incremental market-focused retail demand analysis can then be used to provide market growth insights that relate directly to the current local inventory of relevant facilities in select retail-commercial categories. More complex trade area analysis, which may involve exploration of the City's current geographic drawing power, may be considered to develop a more refined understanding of the City of Prince Rupert's trade area.

5.0 ENGAGEMENT SUMMARY

Phases 1 and 2 included engagement with the public, the accessibility committee and City staff members through several activities. The purpose of the engagement was to better understand the experiences of residents while walking or rolling in the City and to understand where accessibility issues exist. The specific objectives of engaging the community were as follows:

- Where do people walk and roll?
- How often do people walk or roll?
- What barriers do people face when walking or rolling?
- How might these experiences differ for people with a range of physical and mental limitations?

5.1 ENGAGAMENT ACTIVITES

Below is a list of the engagement activities that have occurred to date.

Staff Workshop(s)

Three staff workshops have been completed to date. The purpose and date of each workshop is described below:

- Staff Workshop #1 – October 3rd, 2023
  - Purpose: Scope the scale of analysis for the CCA.
- Staff Workshop #2 – April 8th, 2024
  - Purpose: Review collected geospatial data and walkability model approaches.
- Staff Workshop #3 – June 2nd, 2024
  - Purpose: Review preliminary walkability analysis and findings.

Community Open House

A community open house was held on Wednesday, May 29th, 2024, from 4:00 pm to 7:00 pm at the Jim Ciccone Civic Centre. The community open house was the public's first in-person introduction to the CCA-Enhancing Connections project, and the event was used to introduce the project and its objectives and goals. The project team presented the walkability analysis that has been conducted to date, including data on all complete community lenses, transportation access to daily needs, infrastructure, and housing.

Community members and the project team at the May 29th Community Open House.

The open house also included an interactive mapping exercise where community members could identify the location of specific accessibility issues and barriers to walking or rolling.

In total, 15 community members were engaged during the open house.

The information collected during the open will be used in conjunction with the community survey data to inform the future development of a Walkability Index in Phase 3 and future decision-making for infrastructure investment.

Information Boards at the May 29th Community Open House

5.1.1 COMMUNITY SURVEY

From May 27th to June 18th, 2024, a community survey was available for residents to complete. The survey was hosted on the City's project webpage and received a total of 28 responses. The intent of the survey was to better understand.

- Where people most need to walk or roll to.
- How far people are willing to walk for different types of amenities.
- How often do people currently walk to different types of amenities?

5.1.2 ACCESSIBILITY-TOUR

The accessibility tour took place on May 30, 2024. It allowed residents with limitations and local organizations that advocate for or work with people with limitations to communicate what they see as physical barriers to walking and rolling. The following organizations were invited to attend.

- Prince Rupert Accessibility Committee
- Acropolis Manor - Activity Coordinator
- Thompson Community Services
- Prince Rupert Senior Centre
- Better at Home Prince Rupert
- Friendship House Prince Rupert
- Metlakatla First Nation
- Lax Kw'alaams First Nation

Participants on the accessibility tour.

5.2 WHAT WE HEARD

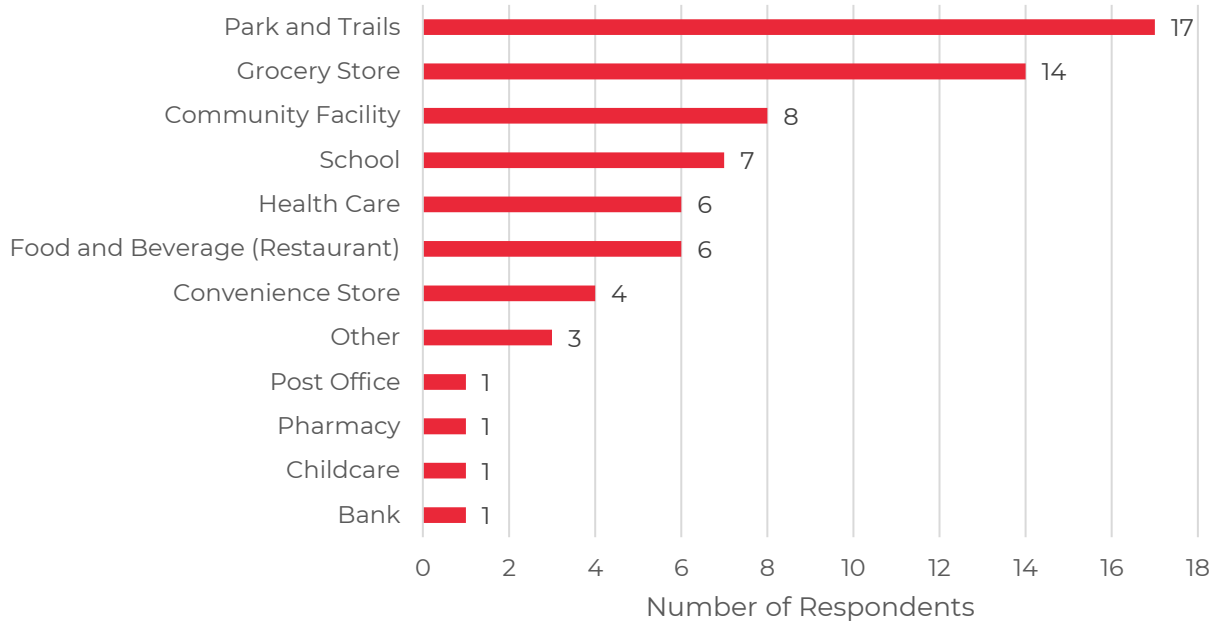
This section provides a summary of the feedback and community contributions from the community survey, the community open house, and the accessibility tour.

5.2.1 COMMUNITY SURVEY RESULTS

The community survey was intended to capture participants' current and potential walking habits in relation to different types of amenities. In total, participants were asked five questions, including two open-ended questions. From May 27th to June 18th, 2024, the survey received 28 total responses.

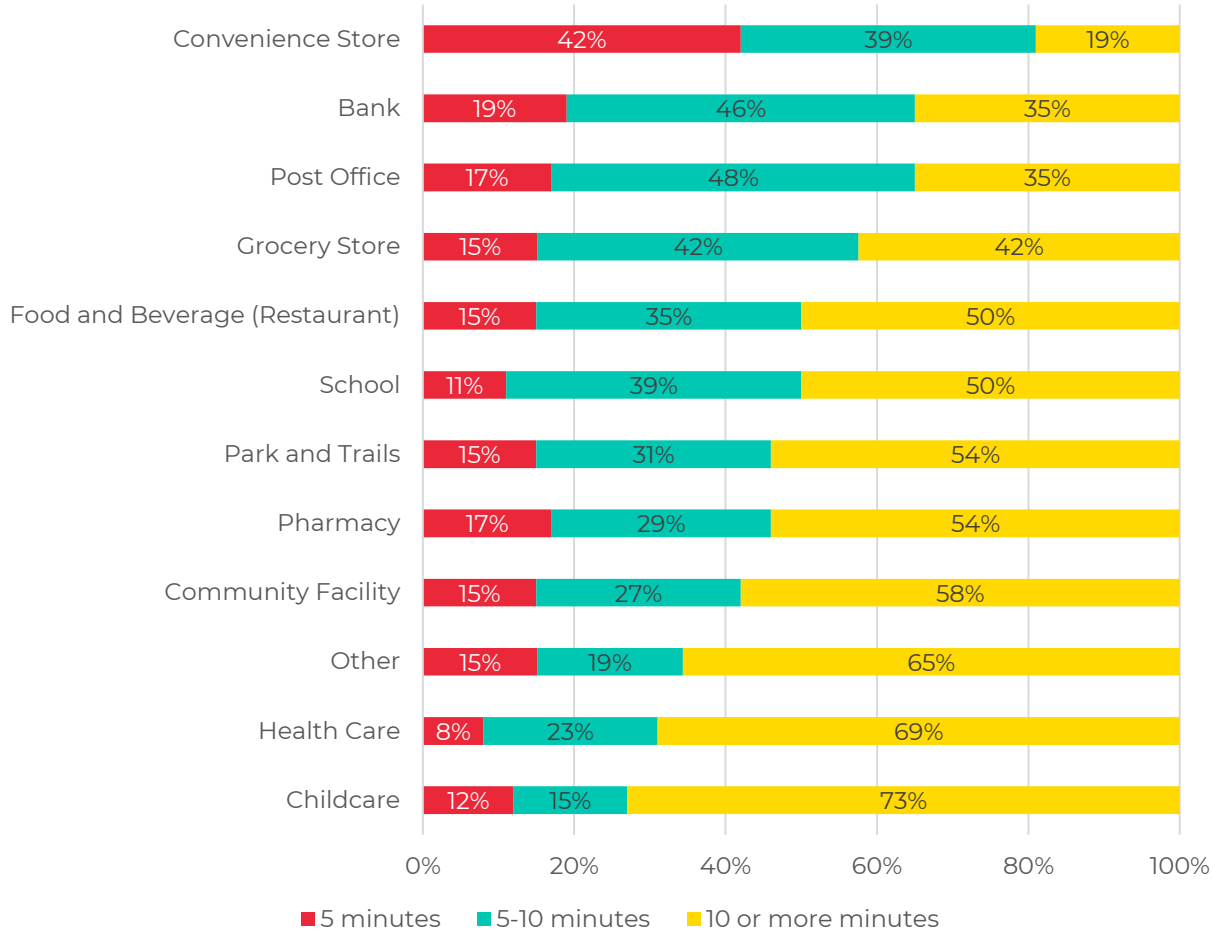
Participants were asked to provide the top three amenities they think are important to have within walking distance. Having access to parks and trails was identified as important by most people (x17), followed by grocery stores (x14) and community facilities (x8). Schools, health care, and food and beverages were identified by many as also being important to have within walking distance. Interestingly, only four (x4) participants chose a convenience store. Services such as a post office, bank, childcare, and pharmacy were not identified by multiple participants as being among their top three amenities to have within walking distance.

Figure 8 Most important amenities to have within walking distance.



The survey asked participants how far they consider a convenient walk to different types of amenities. According to the survey, more than 50% of participants are willing to walk ten minutes or longer to essential services and recreation destinations, including childcare, health care, community facilities, pharmacies, and parks and trails. For amenities such as grocery stores, post offices, and banks, 58% to 65% of participants indicated they don't consider the trip convenient walking if it is longer than ten minutes. Convenience stores were found to need to be closest to all amenities to be considered within a convenient walking distance; only 42% of participants thought a walk of five minutes or under was convenient for a convenience store.

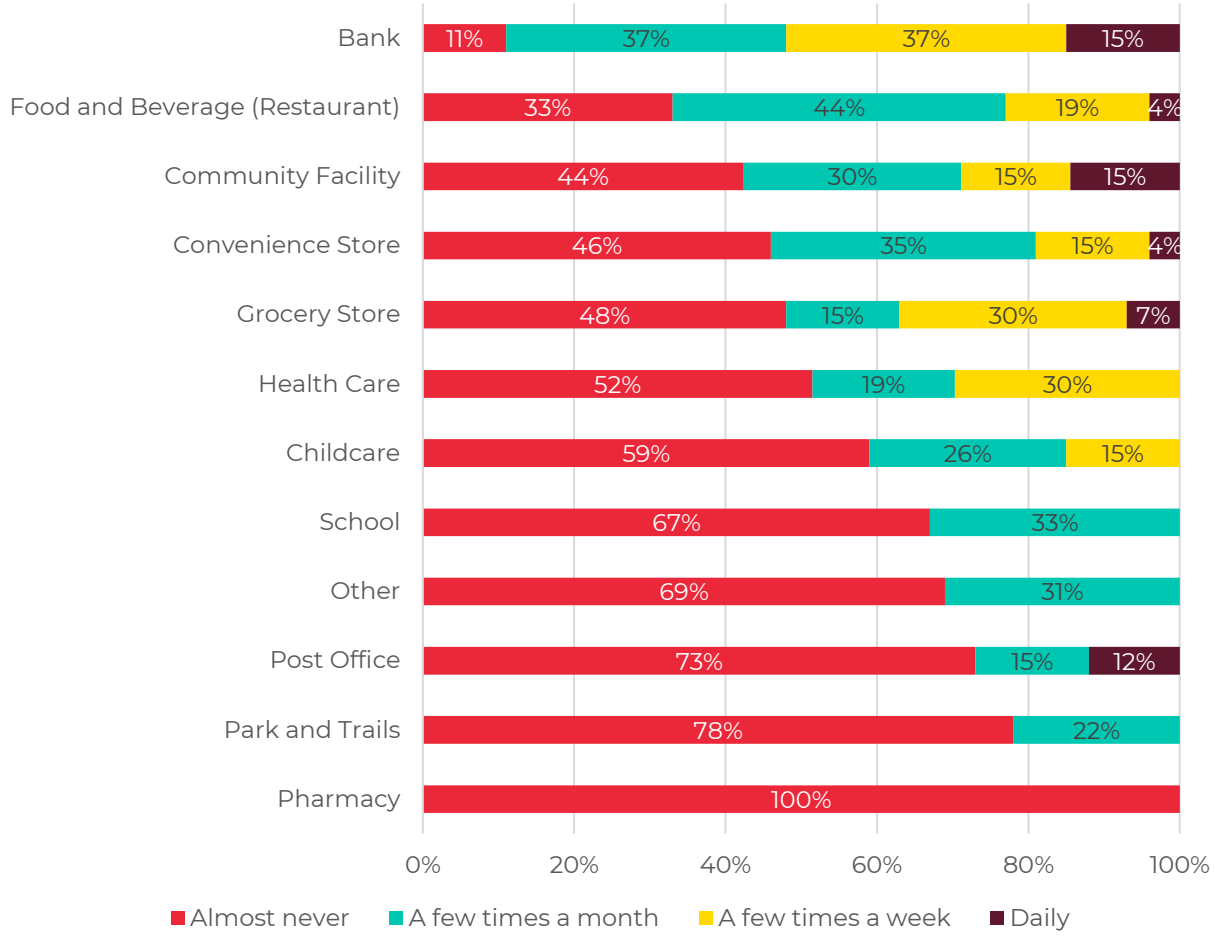
Figure 9 How far of a walk is convenient for the different amenity types?



The survey findings suggest that the majority of respondents (57%) almost never walk to any amenity type. The amenities that respondents walk to the most daily, a few times a week, and a few times a month are banks (89%), food and beverage (restaurant) (67%), community facilities (56%), convenience stores (54%), and grocery stores (52%). It is interesting that the participants indicated that parks and trails are the most important amenities to have within walking distance, but 78% of participants almost never walk to parks or trails. This may indicate a lack of ready access to outdoor recreation opportunities for many residents.

Banks, grocery stores, community facilities, and health care services were found to be the most common amenities for participants to walk to either daily or a few times a week.

Figure 10 How often do you currently walk to each amenity type?



Participants were asked if there were any other types of amenities they thought were important to consider in the CCA. We heard that the following amenities are also important (the number indicates how many times the same response was provided):

- Transit stops (2)
- Place of Employment (2)
- Access to Water (1)
- Specific types of parks and trails
    - Dog parks (1)
    - Playgrounds (1)
    - Covered outdoor spaces, including basketball courts and sitting/gathering areas (2)
    - Trails and pathways that act as shortcuts to amenities (1)
- Free community facilities (1)
- Fitness centres (1)

When asked what participants think the City should change to enhance connections and walkability in general, the following responses were provided:

- Enhance the sidewalk network
    - Improve the quality of sidewalks (8)
    - Widen sidewalks (2)
    - Construct sidewalks in neighbourhoods (1)
    - Create covered sidewalks downtown (1)
    - Level sidewalks (1)
    - Fill cracks (1)
    - Create more sidewalk letdowns (1)
    - Improve existing sidewalk letdowns, as many are in disrepair (1)
    - Improve the sidewalks around the Senior's Center (1)
- Enhance Crossings
    - Improve crosswalk safety (2)
    - Create more controlled intersections downtown (1)
- Remove debris and vegetation (4)
- Maintain and fix the trails between streets (1)
- Improve bus service downtown (2)
- Reduce speed limit downtown (1)
- Construct public washrooms (1)
- Construct more amenities near apartment buildings (1)

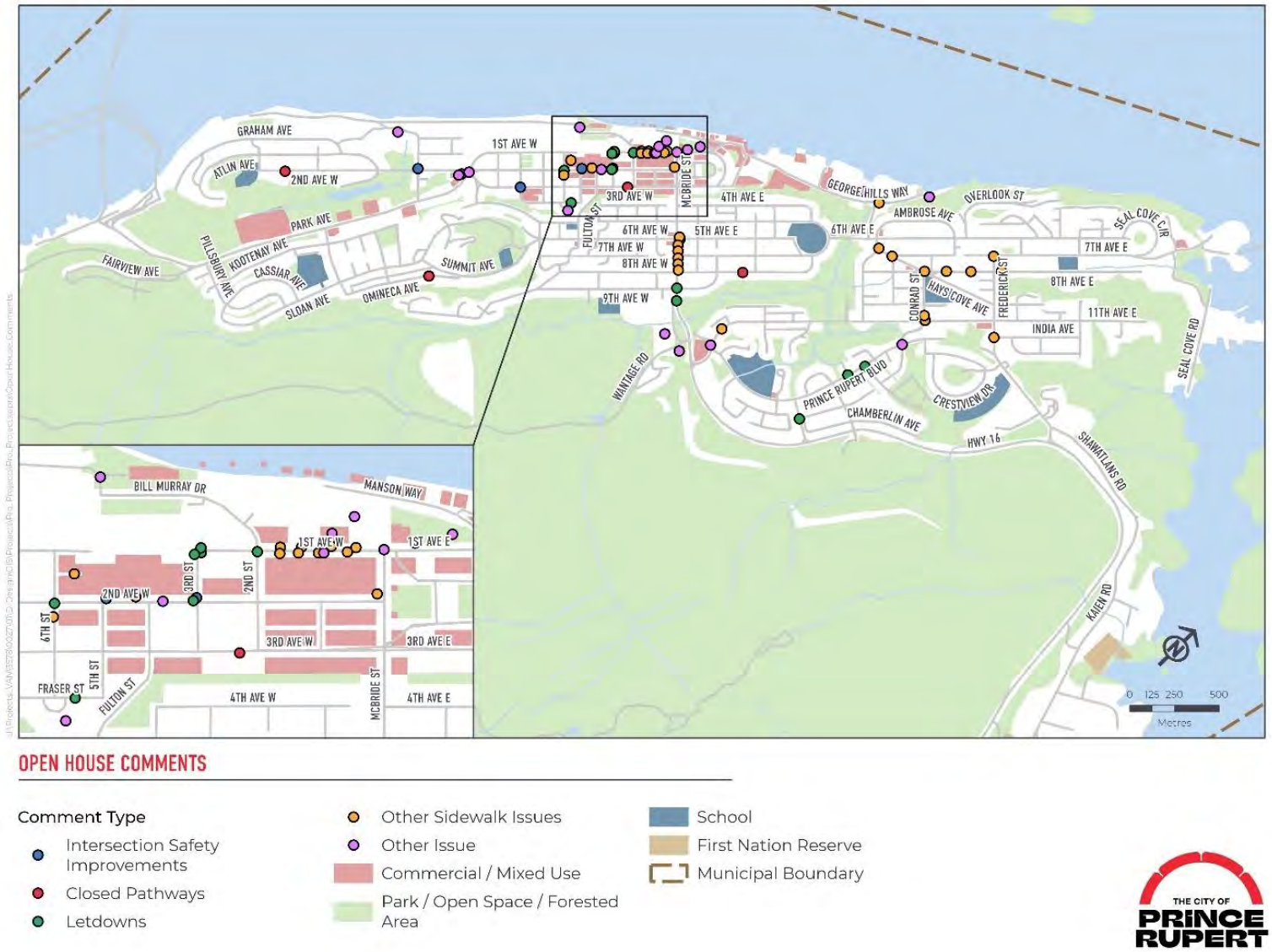
5.2.2 COMMENT SUMMARY AND MAP

Residents who attended the community open provided their input through a tabletop mapping exercise and discussion with the project team. This feedback has been consolidated with feedback heard during the accessibility tour in

Figure 11illustrates where issues exist, including intersection safety improvements, letdowns, other sidewalk issues, closed pathways, and others.

In total, we heard 31 issues relating to other sidewalk issues, 12 issues regarding specific letdown locations, five (5) issues relating to intersection safety, four (4) issues with closed pathways, and 17 other issues. Other issues included accessibility concerns near bus stops, lack of accessible parking spaces, damaged accessible ramps, and poor sightlines, among others. Although it is unclear whether representation in the community feedback was community-wide, a higher number of issues were identified on the east side of the City. The accessibility tour occurred downtown, which is one reason why there is a concentration of identified issues in the downtown area, in addition to the downtown having the most walkable amenities.

Figure 11 Identified Issues - open house and accessibility tour



OPEN HOUSE COMMENTS

Comment Type

- Intersection Safety Improvements
- Closed Pathways
- Letdowns
- Other Sidewalk Issues
- Other Issue
- Commercial / Mixed Use
- Park / Open Space / Forested Area
- School
- First Nation Reserve
- Municipal Boundary

Intersection Safety Improvements

We heard that unsafe intersections are a significant safety issue. Participants identified five (5) safety issues at intersections; however, there are likely substantially more. Common issues that were identified at intersections included:

An intersection with poor drainage

- A need for overhead flashing lights;
- A need for pedestrian-controlled signals;
- Lack of or insufficient lighting;
- Letdowns leading into the middle of the intersection; and
- Poor sightlines, among others.
- Closed Pathways

Letdowns

We heard that the orientation or poor construction of letdowns pose accessibility issues, particularly for those rolling in a wheelchair or using an assistance device. The lack of letdowns creates significant issues for those rolling as they can become stuck with no way off a sidewalk. Many of the existing letdowns direct users to the middle of an intersection rather than parallel to moving traffic. There are also existing letdowns that were constructed with large differences in elevation between the bottom of the letdown and the road.

A Letdown that directs users into traffic

Other sidewalk Issues

Issues relating to sidewalks were heard to be widespread across the city. Many of the sidewalk issues identified involved the poor condition of the sidewalks, uneven surfaces, large elevation changes, too narrow widths, and obstacles blocking movement, among others.

Uneven and cracked sidewalk on 2nd Avenue West

Closed Pathways

Several residents raised concerns about closed pathways that may lead to commercial and recreational areas. Closed pathways, such as staircases, trails, sidewalks, and closures associated with construction create barriers for people by creating a gap in the pedestrian network, forcing users to take a different route or, in some cases, may eliminate a trip. While many of these locations may be closed either temporarily or for maintenance, the gap that is left can significantly affect those who need accessible routes the most.

Closed staircase on 3rd Avenue West

Other issues

Residents indicated that there are several other issues, either issues with specific types of pedestrian facilities or locations with specific issues. For example, a damaged accessible ramp at the seniors centre, insufficient accessible parking at the Mall, poor sightlines on several roads, poor or deteriorating road paint, and inaccessible bus stops, among others.

In summary, we heard that there are many accessible concerns relating to walking and rolling in the City. Pedestrian infrastructure, including sidewalks, signage and wayfinding, letdowns, network gaps, and unsafe conditions, are putting people of all ages and abilities at risk while walking or rolling.

6.0 KEY TAKEAWAYS

The Technical Background provides a summary of the work completed to date on the CCA: Enhancing Connections project, including completed fieldwork, supporting policy analysis, best practices in measuring walkability, commercial space analysis, and a summary of community engagement. The feedback collected and analysis included in this report will meaningfully impact how the CCA project will measure- and create recommendations for enhancing walkability.

Measuring Walkability

Section 3.0 Measuring Walkability summarizes the best practices in measuring walkability and creating a Walkability Index. Based on the review of other walkability measurement methodologies., a Walkability Index should include the following minimum criteria:

- Residential Density
- Commercial Density
- Land Use Mix
- Intersection Density
- Proximity to Parks
- Sidewalk Density
- Transit Stop and Route Density

In the case of the Prince Rupert CCA, there is an opportunity to include additional metrics relating to the accessibility of the built environment, proximity to different types of amenities, and transit accessibility. Additional indicators that the CCA should consider include:

- Trail density
- Block size
- Crosswalk density
- Sidewalk condition and density
- Accessibility
- Steep slopes
- Proximity to key destinations

Commercial Space Analysis

The commercial space analysis (Section 4.0) highlights the expected increase in spending and demand for floor areas for different types of commercial offerings. Notably, the analysis showed that between 2024 and 2046, there is an expected 31,000 sq. ft. increase in floor area demand for supermarkets (the equivalent of 1 moderate size grocery store) and general-purpose retail space, 29,000 sq. ft. of food and beverage space (could be served by several establishments of varying sizes), and 8,800 sq. ft. of health and personal care stores.

Grocery stores, food and beverage, and health care services were three (3) of the top six (6) most important amenities to have within walking distance, as indicated by the community survey. Phase 3 of the CCA will develop recommendations for where these types of amenities are most needed to enhance walkability.

Community Engagement

During the engagement events associated with Phase 2 of the CCA several concerns regarding pedestrian safety and infrastructure were identified. The full list of these issues is in Section 5.0 of this report, but the top items include:

- Sidewalk issues (Lack of sidewalks, poor condition, connectivity, other)
- Lack of letdowns
- Closed pathways
- Crossing concerns

These issues were reported as significant barriers to walkability in the City, especially for people with limitations.

The community feedback will inform Phase 3 of the CCA by directly influencing the Walkability Index and informing high-level design guidance for street cross sections.

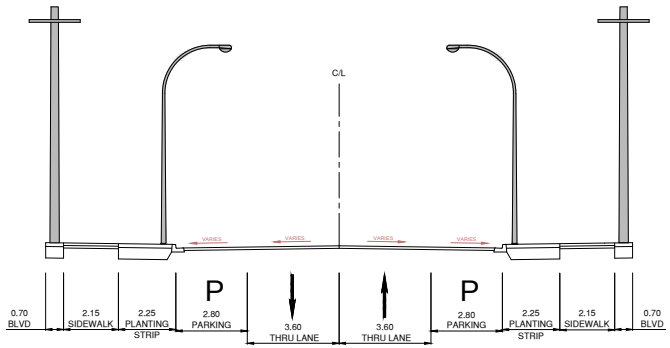
The community feedback will be used to help rank the relative walkability experience across the city, which will be a critical input to the Walkability Index. The Walkability Index will highlight areas where future transportation investments should be prioritized.

- Existing barriers mapped by the community (Figure 11) will support the development of the accessibility ranking inputs to the Walkability Index.
- The desired amenities and services highlighted by the community will inform how different daily needs are ranked based on the importance for overall walkability.

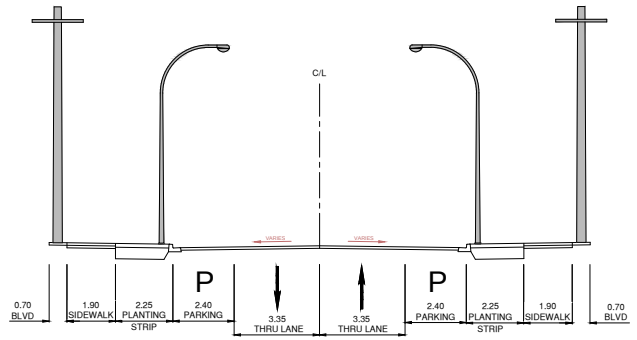
The community's insights will also inform the development of high-level design guidance for future street enhancement projects via street cross-sections and accessibility recommendations.

APPENDIX B:
CROSS SECTIONS

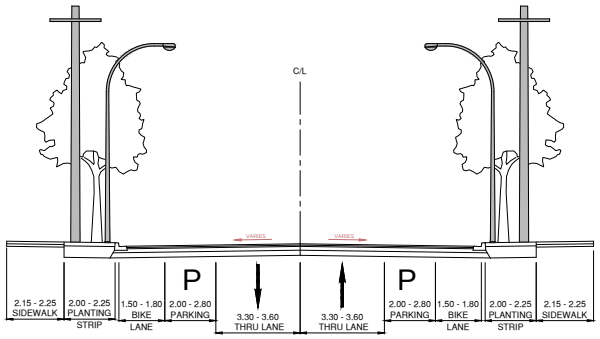
THE CITY OF
PRINCE
RUPERT



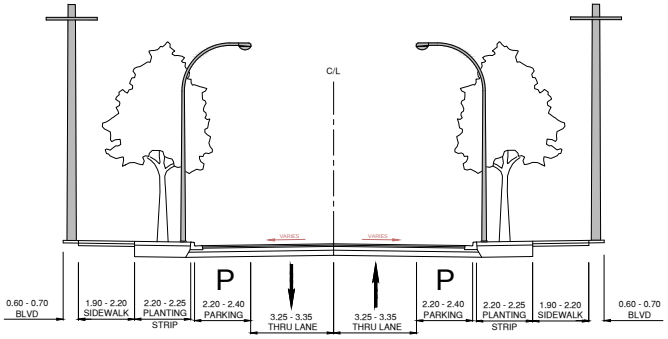
EXISTING COLLECTOR ROAD CONDITIONS



EXISTING LOCAL ROAD CONDITIONS



COLLECTOR ROAD IMPROVEMENTS



LOCAL ROAD IMPROVEMENTS

SURVEY INFORMATION
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Coordinate System: ####
Compilation Date: ####

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urbansystems.ca

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