



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN



LET'S MOVE YK

Yellowknife Transportation Plan

August 2026



CITY OF
YELLOWKNIFE



Prepared for:



CITY OF
YELLOWKNIFE

Prepared by:

URBAN
SYSTEMS

August 2026

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Thank you to the NWT Archives for providing historical images.

LAND ACKNOWLEDGMENT

The City of Yellowknife respectfully acknowledges that we gather, work, and govern within the homelands of the Yellowknives Dene First Nation, the Tłıchǫ, and the North Slave Métis.

We honour their enduring connection to this land and recognize the living laws, knowledge, and stewardship that continue to guide and protect this place. In our work, we commit to walking in partnership and respect, making decisions that honour Ancestors, uplift communities, and care for the generations yet to come.

We recognize all First Nations, Métis, and Inuit who live, work, and contribute to the life of Yellowknife, alongside all residents who now call this city home. Together, we share responsibility for strengthening this community and caring for the land and one another.



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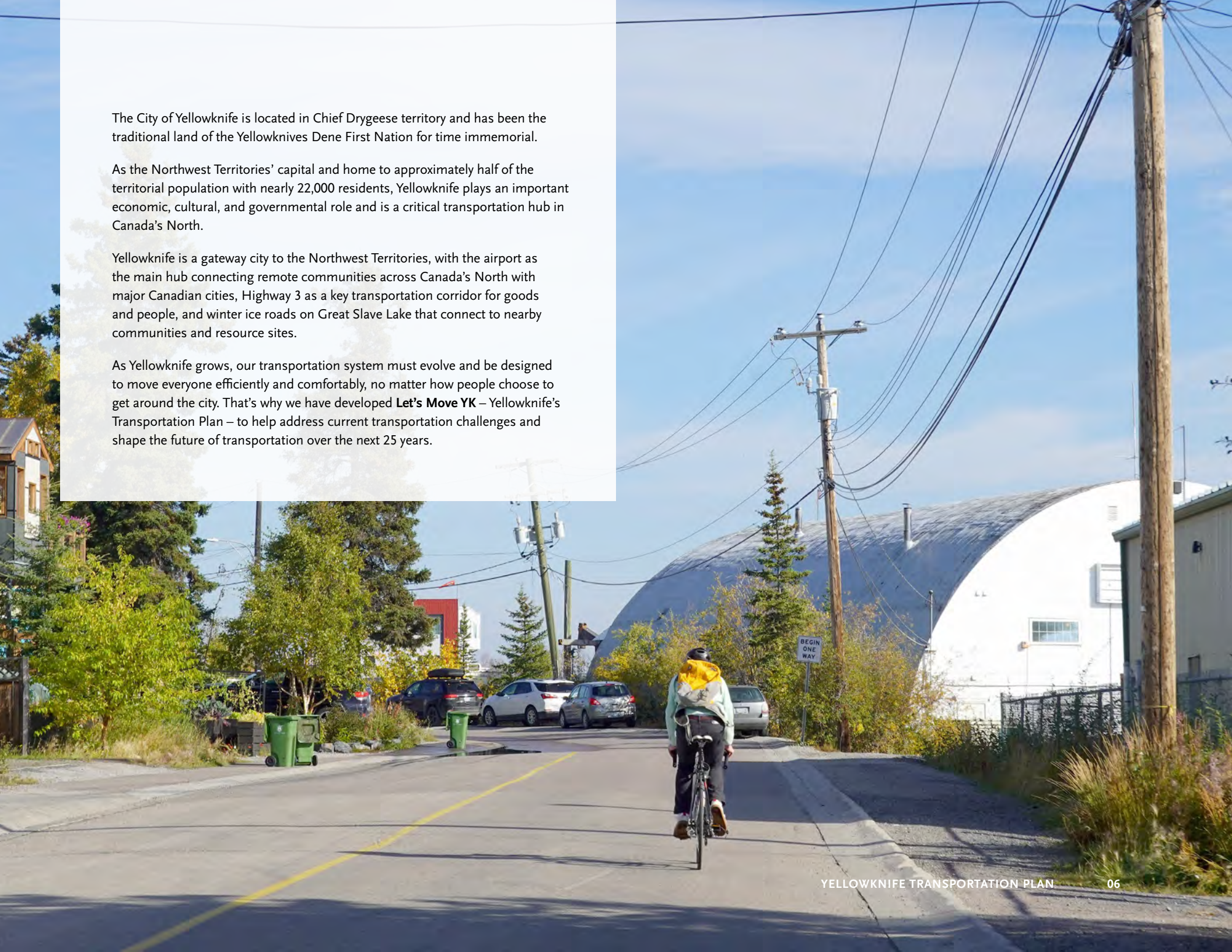
1.0 INTRODUCTION

The City of Yellowknife is located in Chief Drygeese territory and has been the traditional land of the Yellowknives Dene First Nation for time immemorial.

As the Northwest Territories' capital and home to approximately half of the territorial population with nearly 22,000 residents, Yellowknife plays an important economic, cultural, and governmental role and is a critical transportation hub in Canada's North.

Yellowknife is a gateway city to the Northwest Territories, with the airport as the main hub connecting remote communities across Canada's North with major Canadian cities, Highway 3 as a key transportation corridor for goods and people, and winter ice roads on Great Slave Lake that connect to nearby communities and resource sites.

As Yellowknife grows, our transportation system must evolve and be designed to move everyone efficiently and comfortably, no matter how people choose to get around the city. That's why we have developed **Let's Move YK** – Yellowknife's Transportation Plan – to help address current transportation challenges and shape the future of transportation over the next 25 years.



1.1 WHAT IS LET'S MOVE YK?

Yellowknife is always moving through our seasons, across our neighbourhoods, and toward our future. **Let's Move YK** is our plan to shape the future of transportation in Yellowknife.

The name reflects exactly what this plan is meant to do:

Let's

is an invitation. This is a project for everyone, built together by residents, Indigenous governments, community partners, and the City.

Move

captures both the literal ways we travel and the progress we want to make as a community. It is action-oriented, a rallying call for change. It sets the standards and guidance that will shape safer, more inclusive, and connected transportation for everyone.

YK

grounds the plan in our northern reality: our geography, climate, and way of life.

LET'S MOVE!

YK



Let's Move YK brings together past studies, strategies, and policies with new ideas and standards, creating a single, unified roadmap for Yellowknife's transportation network. Its purpose is to make travel safer, more welcoming, and inclusive for all residents, whether they walk, cycle, drive, or take transit.

The plan will help guide the City towards its vision of being a welcoming, inclusive, and prosperous community and is a crucial step towards creating a transportation network that serves community members of all ages and abilities. This plan will serve as our roadmap to guide our transportation investments and decision-making over the next 25 years.

1.2 HOW THE PLAN WAS DEVELOPED

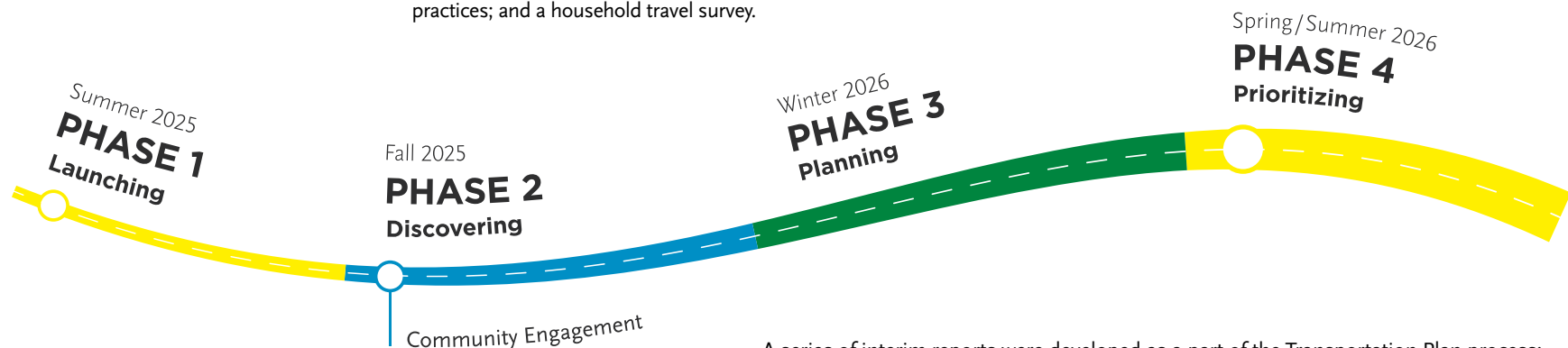
The plan was developed through a four-phase process over a year-long period. The Plan was developed based on best and emerging practices from peer jurisdictions as well as local expertise and extensive community input to chart the course for what transportation in Yellowknife will look like in the next 25 years.

Phase 1: Launching involved initiating the project and collecting and reviewing background data and information.

Phase 2: Discovering involved developing a detailed understanding of existing conditions for transportation in Yellowknife. This phase included community engagement; a review of existing conditions, emerging and best practices; and a household travel survey.

Phase 3: Planning involved developing a vision and goals for the future of transportation in Yellowknife along with actions for each mode of transportation.

Phase 4: Prioritizing involved developing an implementation plan and identifying priorities over the short-, medium-, and long-term.



Community engagement was a critical part of the process. Engagement took place between September and October 2025 and involved gathering input on transportation needs, challenges, and opportunities across Yellowknife. Through surveys, interactive maps, pop-up events, and meetings with community organizations, we heard from hundreds of residents who shared their experiences and ideas for improving how people move around the city. A summary of what we heard is provided in the **Round One Engagement What We Heard Report**.

A series of interim reports were developed as a part of the Transportation Plan process:

- **Interim Report #1: Transportation in Yellowknife Today** provides an overview of the existing state of transportation in Yellowknife
- **Interim Report #2: Best Practices and Emerging Trends** provides an overview of best practices and trends from communities across Canada and internationally
- **Interim Report #3: Transportation Possibilities** outlines the potential long-term directions for the Plan including the vision, strategies, action, and networks

Together, the findings from community engagement and technical work from the three interim reports were used to develop the Yellowknife Transportation Plan.

How we informed



10+

Posters



100+

Postcards & Stickers



1,564 views

Project Webpage



10

Social Media Posts



1

Media Release

How we engaged



1 Community Survey

162 respondents



1 Interactive Map

130 pins



1 Youth Survey

51 respondents



1 Household Travel Survey

715 household respondents



2 Pop-ups

183 attendees



6 Interest Group Meetings

7 attendees



1.3 WHY TRANSPORTATION MATTERS

Transportation is an important element in our everyday lives and directly impacts how safe, affordable, and equitable our communities are. The transportation modes we have available to us and choose to use have impacts for our own health and community.

Creating a transportation system that prioritizes people and sustainability can address a wide range of broader societal objectives, shaping our communities and lives.

Safety

High automobile speeds and traffic volumes contribute to traffic-related injuries and fatalities for pedestrians, cyclists, and motorists. Safe street design improves safety for all road users and addresses people's perception of safety.

Climate Action

Transportation-related air pollutants are the largest contributors to poor air quality and produce greenhouse gas (GHG) emissions. The City's *Corporate and Community Energy and GHG Emissions Inventory and Forecast Report (2023)* found that on-road transportation accounts for 20% of Yellowknife's community GHG emissions. This has had negative implications for community quality of life, public health, and climate change. Supporting sustainable transportation options, such as walking, rolling, cycling, and transit use are ways the City can implement climate action that improves air quality and the resilience of our transportation network. The City's *Climate Action Plan (2026)* identifies sustainable transportation as a key theme and area of focus to support climate change mitigation and adaptation.

Public Health

Transportation and urban planning policies can effectively encourage physical activity. With more active transportation and transit options, people can be more active. Being more physically active improves people's overall health and can reduce rates of chronic disease and premature death.



Equity & Affordability

Transportation equity means ensuring that all people, regardless of income, age, ability, or access to a vehicle, can safely, affordably, and conveniently reach the destinations and services they need. Affordable and equitable transportation can enable residents of all incomes and abilities to access necessary services and supports (e.g., employment, education, healthcare, public and social services and healthy food) that are critical components to people's dignity and well being.

The cost of owning a vehicle (such as car payments, insurance, maintenance and fuel) is significant and rapidly increasing. This also disproportionately impacts lower income individuals and families. While the City boasts one of the highest average household incomes in Canada at over \$165,000, many households face pressures due to the high cost of living, particularly for the combined costs of shelter and transportation.

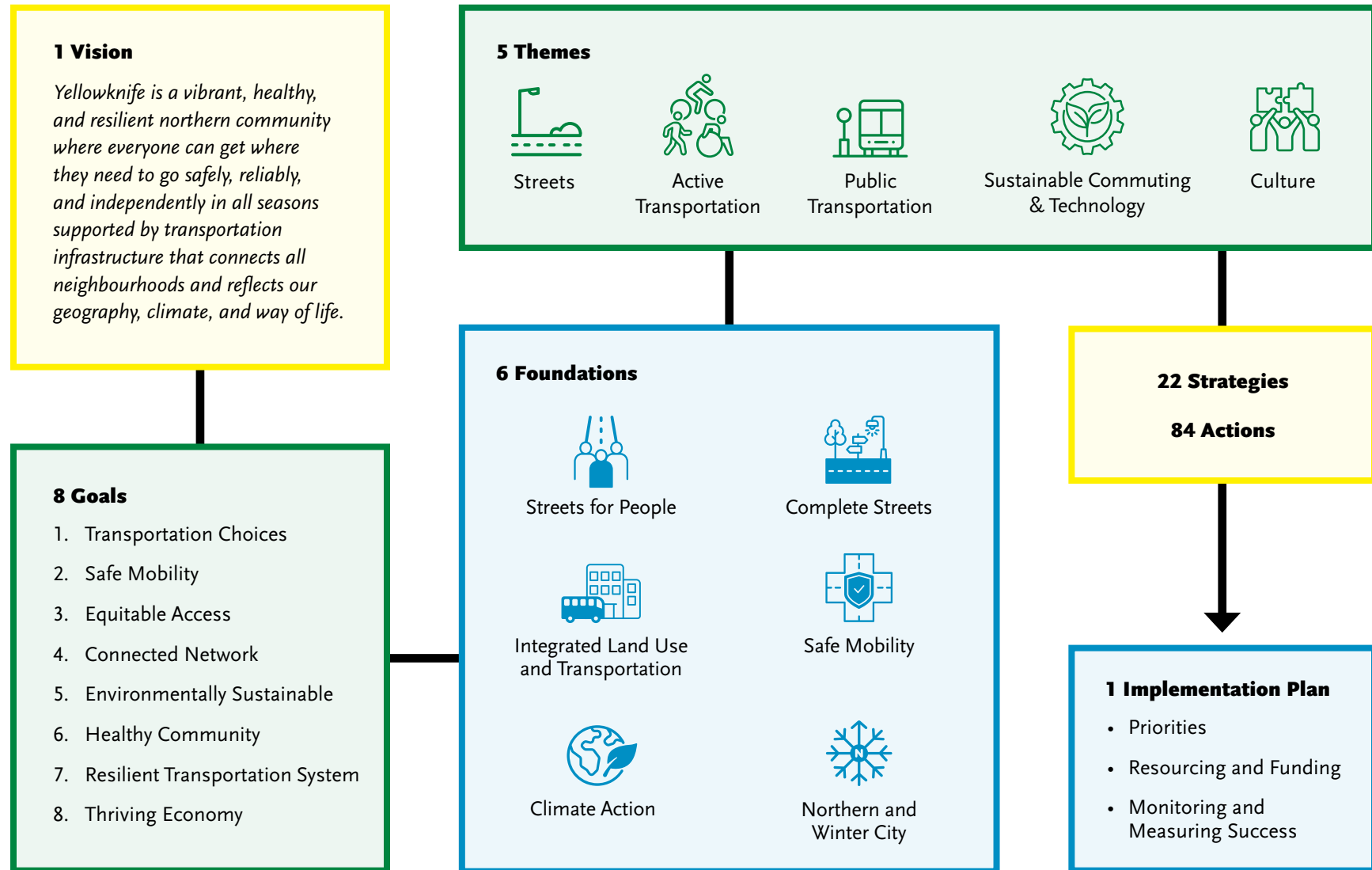
According to Statistics Canada, the average household expenditure on shelter and transportation is over \$44,000 in Yellowknife, which is far higher than the Canadian average of \$31,205. Prioritizing investments that reduce reliance on vehicle ownership can free up resources to support inclusive, affordable transportation options and improve access for residents who face financial or mobility limitations.

Economy

An efficient transportation network benefits more than just commuting employees – goods are delivered with ease, customers can access shops more frequently, and the community becomes a sought-after destination for new businesses. Housing and transportation costs, both of which are often the two largest expenditures for households, are barriers for many. Affordable housing options need to be provided where households have access to sustainable, cost-effective transportation options and choices, particularly transit and proximity to places of employment and daily needs.



1.4 PLAN FRAMEWORK



1.5 HOW TO READ THE PLAN

The Plan has been divided into six sections:

Section 1.0

Introduction

Introduces the Plan's purpose, process, and community engagement activities during the development of the Plan. It also outlines why transportation matters in Yellowknife and how it supports broader community goals.

Section 2.0

Setting The Context

Outlines the considerations that informed the development of the Plan. This includes understanding Yellowknife's context and travel patterns in the community.

Section 3.0

Vision, Goals, and Foundations

Establishes the long-term direction for transportation in Yellowknife. It introduces the vision, goals, and foundations that guide how the transportation system will evolve over the next 25 years.

Section 4.0

Strategies and Actions

Presents strategies and actions under five key themes: streets, active transportation, transit, sustainable commuting and technology, and culture. The strategies and actions guide improvements to the transportation in Yellowknife.

Section 5.0

Implementation Plan

Outlines how the Plan will be delivered, including guiding principles, prioritized actions, infrastructure projects, and resourcing and funding considerations for implementation. It also identifies performance measures to track progress and outlines ways to continue engaging the community, communicating progress, and celebrating success.

Section 6.0

Closing

Summarizes the Transportation Plan and outlines next steps to ensure the Transportation Plan is successfully implemented.



2.0 SETTING THE CONTEXT

Our unique history, geography, climate, and role within the Northwest Territories shapes how people move around the community and how our transportation system operates, both today and in the future.

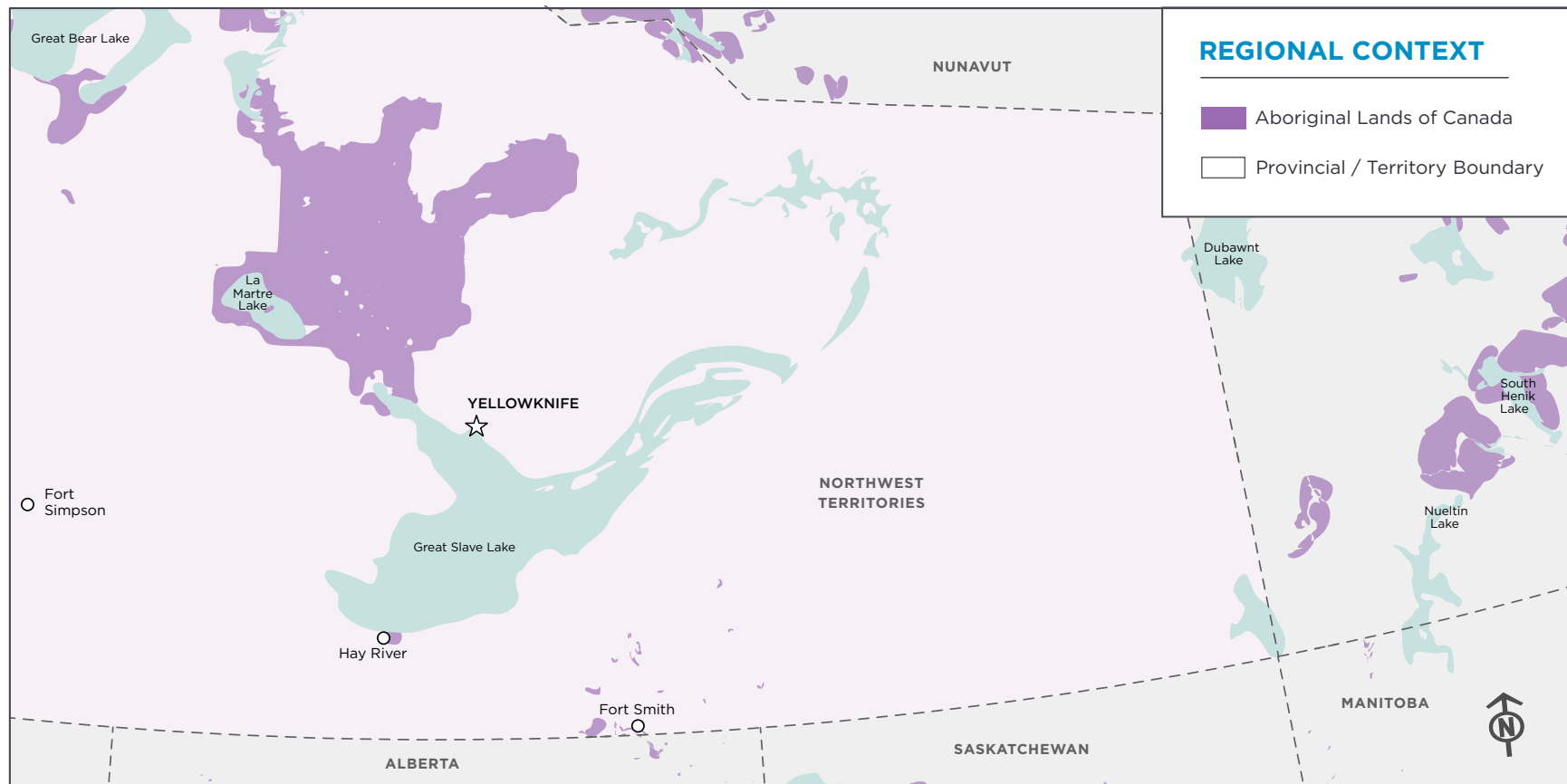
This section provides an overview of some key aspects that influence transportation in Yellowknife, including the city's historical development and evolution, current land use patterns, policy framework, transportation challenges and opportunities, and existing travel patterns. Together, these elements establish a foundation for guiding future transportation planning in a way that reflects Yellowknife's unique context.



2.1 OUR UNIQUE LOCAL CONTEXT

Yellowknife's transportation system is deeply shaped by our geography, history, and evolving role as the capital of the Northwest Territories. On lands that have long been home to the Yellowknives Dene First Nation, Yellowknife has evolved from a resource-based mining town into the administrative capital of the Northwest Territories. Patterns of settlement, growth, and displacement have shaped the city and how people travel today.

Today, Yellowknife's northern climate, geographic constraints, and role as a gateway to the North continue to influence how people and goods move throughout the city and beyond. These factors shape transportation needs, opportunities, and challenges across the community.



A City Shaped by Land, Water, and History

Yellowknife is located in Chief Drygeese territory. Since time immemorial, it has been the traditional land of the Yellowknives Dene First Nation. The Yellowknives Dene people were known for crafting copper tools and lived along the shores of Great Slave Lake. The waters sustained the Yellowknives Dene people by both providing essential resources for fishing, hunting, and gathering, as well as being a vital transportation and trade route connecting communities and supporting the exchange of goods and knowledge across the north.

In the late 18th century, European contact started when fur traders established trading posts near Great Slave Lake. It wasn't until the 1930s when settlement expanded, and Yellowknife grew into a frontier boom town with settlers arriving due to the gold rush. At the same time, Indigenous families were increasingly displaced from their shoreline villages to make way for the influx of settlers and miners settling in Old Town due to the gold mining operations. In 1951, the federal government designated "Lot 500" at the end of Latham Island as an Indigenous-only area which is known as Ndilq.

As the population in Old Town increased, the area became overcrowded, and the Downtown was developed to meet growing residential and commercial needs with an urban street grid. Subsequent growth in the 1970s and 1980s developed in the form of suburban-style neighbourhoods such as Range Lake and Frame Lake. Yellowknife has transformed from being a resource-driven mining town to an administrative capital. The City's designation as the capital of the Northwest Territories in 1967 brought in federal and territorial government offices, workers, and administrative infrastructure. In addition, the discovery of diamonds in the late 1990s and the closure of gold mines in the early 2000s changed the nature of the workforce and patterns.

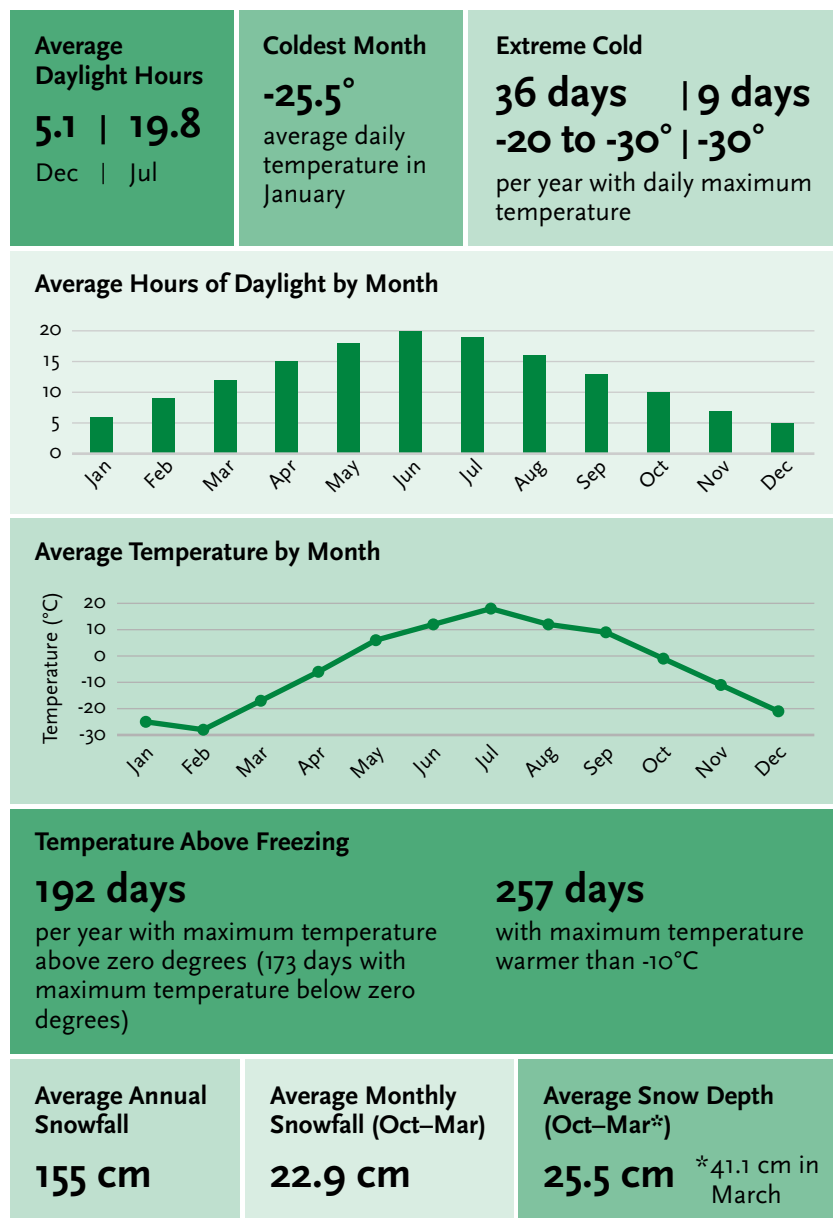


Looking toward New Town from Old Town, 1945



Colourful homes built for Dene families in the late 1950s gave the community its nickname, "Rainbow Valley." The community was officially renamed Ndilq in 1991, meaning "end of the island" in the local Dene dialect

KEY FACTS: GEOGRAPHY AND CLIMATE



(Source: Environment Canada Canadian Climate Normals, 1991–2020)

Yellowknife Today

Yellowknife is unique and has distinct transportation needs

Our history and geography continues to profoundly shape how people move through the City today. As a northern, remote, and growing capital city, Yellowknife's transportation system reflects our unique climate, landscape, community, and patterns of development. The following highlights key factors that influence transportation across the city.

A Gateway to the North

Yellowknife is the gateway to Canada's North and a central hub within the Northwest Territories. The City connects remote communities to each other and to the rest of Canada through its airport, Highway 3, and seasonal winter roads across Great Slave Lake., Tibitt to Contwoyto, and the Tłıchǫ winter roads. These connections are essential for moving people, goods, and services across vast distances and play a critical role in supporting the northern economy.

As a result, Yellowknife functions as both a transportation and service hub, supporting government, health, education, and economic activity across the territory. Its strategic location positions the City as a key junction for regional and national movement. While many of these connections are fundamental to daily life and economic growth, they are largely outside of the City's jurisdiction, shaping how the City plans and prioritizes its transportation network.

Real Canadian Winters and Limited Daylight

Yellowknife's transportation system is shaped by some of Canada's most extreme winter conditions. Temperatures regularly fall below -30°C, and during mid winter, Yellowknife experiences as little as five hours of daylight per day, with sunrise near 10:00 a.m. and sunset by 3:00 p.m. These conditions affect visibility, comfort, and safety for all modes of travel, particularly for people walking, cycling, or waiting for transit. Snow, ice, and cold temperatures influence how infrastructure is designed, maintained, and used throughout the year.

Small City, Big Active Transportation Potential

While Yellowknife covers a large geographic area, development is constrained by the Canadian Shield, surrounding water bodies, and the high cost of servicing land. As a result, the City's urban area is very compact, with many residents located within relatively short distances of downtown and key services. This compact form creates strong opportunities for walking, cycling, and transit, as many daily trips can be completed over short distances. These conditions are reflected in Yellowknife's relatively high active transportation mode share (with 27% of all daily trips made by walking, cycling, or other forms of micromobility, based on the 2025 Household Travel Survey), demonstrating that a significant number of residents already choose to walk or cycle.

Outdoor Living and Active Lifestyles

Yellowknife is a highly active community where outdoor recreation is part of daily life in every season. Yellowknifers use trails, lakes, and open spaces year-round for activities such as skiing, snowshoeing, fat biking, cycling, and walking. Multi-use trails and pathways play a critical role in connecting neighbourhoods to parks, lakes, and key destinations, while also supporting a wide range of activities. In winter, frozen lakes and snow-packed trails become extensions of the transportation network, requiring safe access points, clear signage, and thoughtful design.

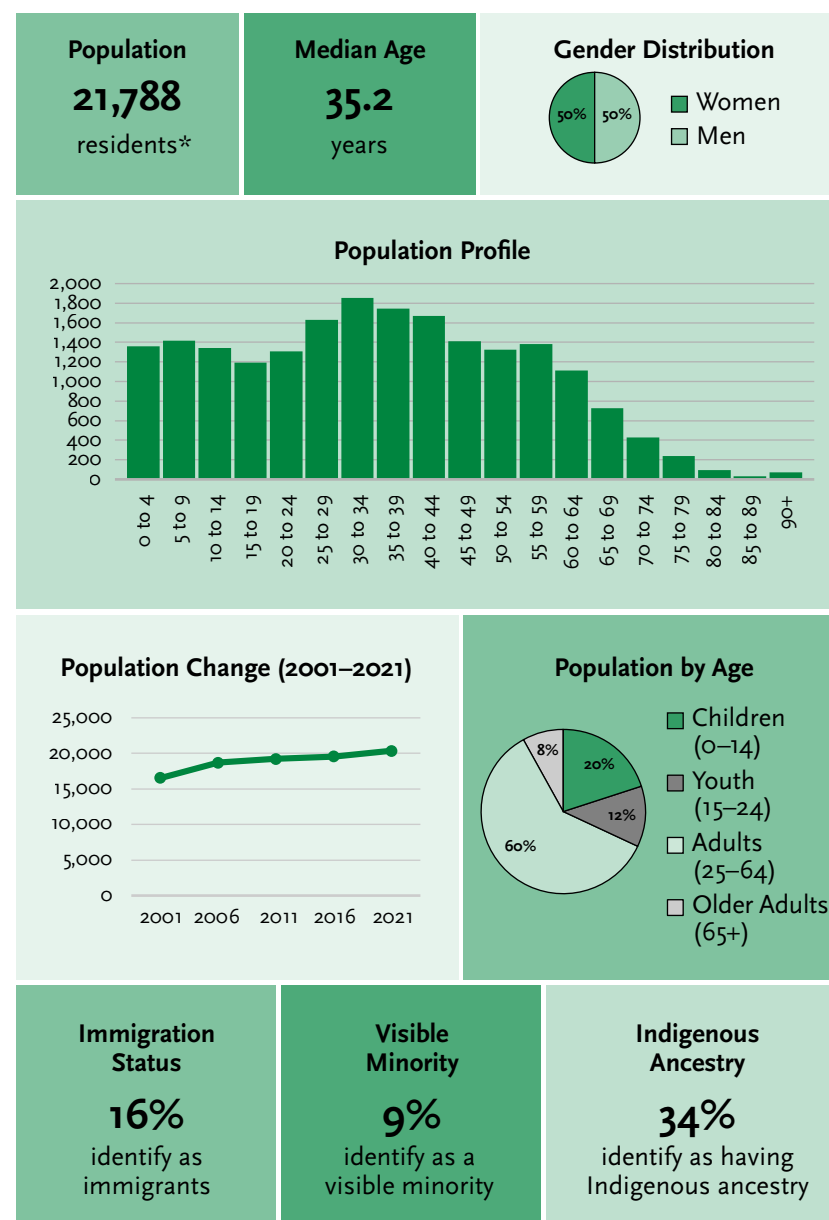
Northern Multi-modal Transportation

Transportation in Yellowknife looks different than in most southern cities. In addition to driving, walking, cycling, and transit, people travel by snowmobile, All-Terrain Vehicles (ATVs), skis, and along trail networks and frozen lakes. Many of these routes are informal or community-maintained, reflecting local knowledge and northern lifestyles.

A Growing City

The City has a population of approximately 22,000 residents. The City's population has increased steadily in recent years, increasing 3.9% between 2016 and 2021, mostly due to natural increases and people moving from other territories and/or provinces. According to the *Yellowknife Population Projections (2025)* report, this growth is expected to continue, with the City's population expected to increase to between 22,979 and 26,659 people by 2051, depending on the growth scenario. This increased population growth will place increasing pressures on the City's transportation system.

KEY FACTS: DEMOGRAPHICS AND POPULATION GROWTH



* Population based on the City's Population Projections Report

(Source: Statistics Canada)

A Diverse Population

Yellowknife's population includes a significant proportion of youth, older adults, and Indigenous residents, compared to Canada as a whole and other northern cities. Over a quarter (26%) of the City's population is 19 years or younger, while 8% of the population is 65 or over. Indigenous residents make up 24% of the population.

It is important to consider all of Yellowknife's residents as they may have different transportation needs. For example, low-income groups may not be able to afford an automobile, while some groups such as children and seniors may not be able to drive, and may be reliant on public transit or active transportation, and other groups may require unique travel patterns to access medical and social services throughout the day. People with disabilities, including people with mobility challenges or people with sight loss, face additional barriers accessing and navigating the transportation network.

A Seasonal and Temporary Workforce

Yellowknife's population is characterized by a significant number of seasonal and temporary workers, including those employed in remote mining and resource industries. This transient group contributes to fluctuating demand for housing, particularly rental and short-term accommodations, and introduces unique transportation needs related to non-traditional work schedules, fly-in/fly-out travel, and reliable access to the airport and key services.

Affordability and High Cost of Living

While the City boasts one of the highest household incomes in Canada, many households face pressures due to the high cost of living, particularly for the combined costs of shelter, food, and transportation, which are higher than the Canadian average. As a result, it is important to consider transportation from an inclusive approach, including people who may not be able to afford an automobile.

Military and Economic Expansion

Yellowknife continues to evolve as a strategic hub for northern operations, with increased investment from the Department of National Defence and a planned airport expansion. These developments are expected to drive population and employment growth, increasing demand on the transportation system. Growth associated with military and logistics activity will influence travel patterns, goods movement, and access to key facilities. Planning for this future requires a transportation system that is flexible, resilient, and able to support long-term growth.

Complex Jurisdictions and Partnerships

Transportation in Yellowknife involves multiple jurisdictions, including the City, the Government of the Northwest Territories (GNWT), Indigenous governments, and the Federal government. Key corridors such as highways, winter roads, and airport infrastructure are outside municipal control but are critical to how people and goods move. Coordination between partners is essential to deliver a connected and efficient system.

Transportation Equity and Barriers

A GIS-based analysis was used to identify areas of the City where there are higher concentrations of groups experiencing transportation barriers. The results of this analysis identify under-served areas in the City where there is an opportunity to make strategic investments to improve transportation access and opportunities.

The analysis used nine indicators that were combined to determine an overall transportation barrier score:

- Youth aged 14 years and under;
- Seniors aged 65 and over;
- Low-income households;
- Indigenous populations;
- Recent immigrants;
- Visible minorities;
- People with limited knowledge of English;
- Rent-burdened households; and
- Single parent households.

A higher transportation barrier score (dark purple) indicates a greater need to improve transportation access and opportunities, as these areas have more residents who face transportation barriers. The area with the highest concentration of these groups is found near the Downtown core, as shown in **Map 1**.

It is important to note that there are several methodologies that can be used to assess demographic characteristics and neighbourhood needs. This GIS analysis does not apply weighting to the selected criteria and is limited to the information available through the federal census. Due to limitations in spatial data, this analysis did not capture people with accessibility needs, the LGBTQ2SIA+ community, people experiencing substance use disorder, and people experiencing homelessness.

How to Read the Transportation Barriers Map

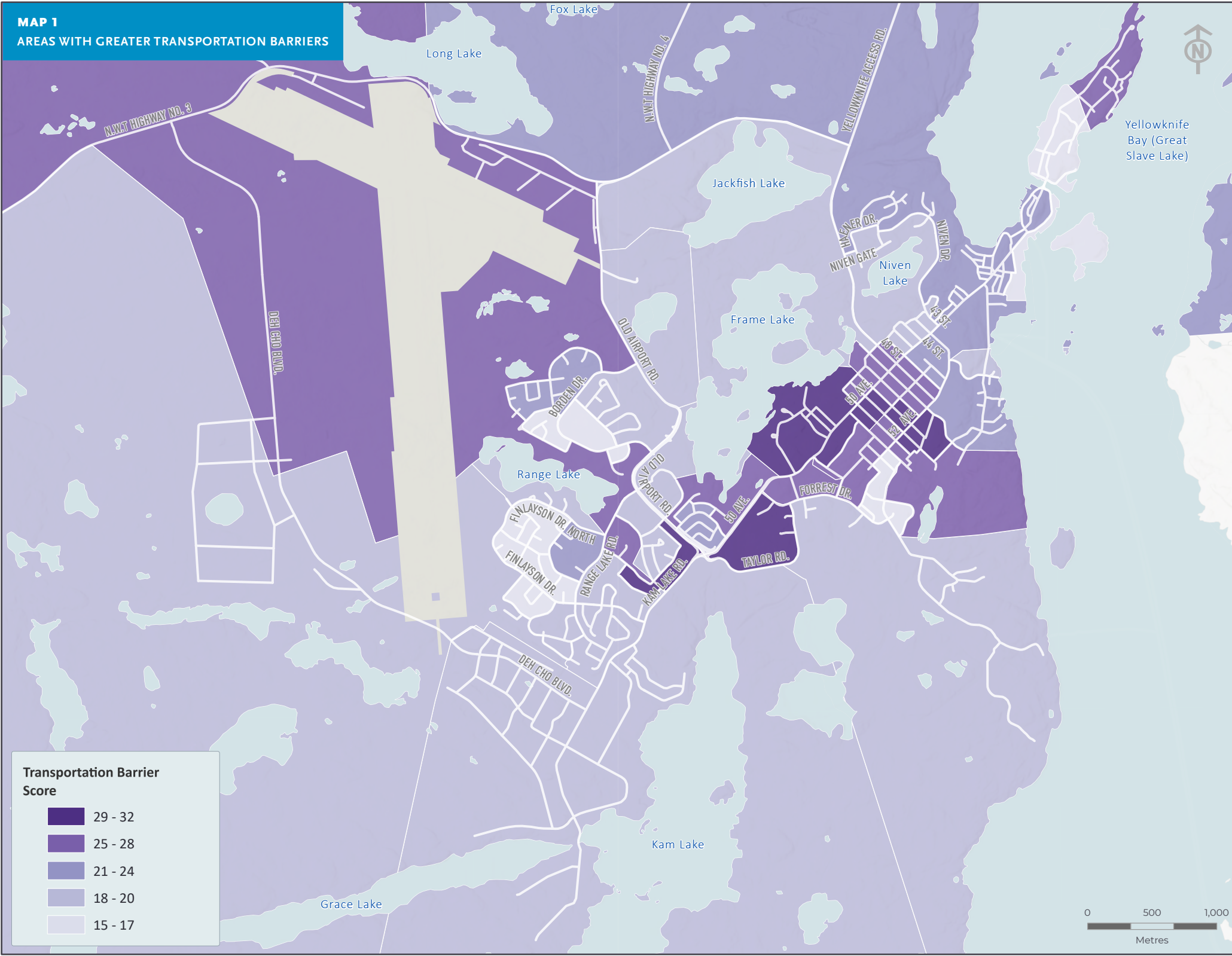
This analysis **uses census tracts** as the geographic unit. Census tracts provide consistent boundaries for comparing population characteristics within a community.

The **size of a census tract on the map represents land area, not population.**

- **Urban tracts** are smaller because they contain higher population densities.
- **Rural tracts** are larger because they cover areas with fewer residents.

Overall, **larger census tracts do not indicate more people - they typically reflect lower population density.**

MAP 1
AREAS WITH GREATER TRANSPORTATION BARRIERS



2.2 OUR POLICY CONTEXT

Let's Move YK is closely linked to several other plans and policies at the local, regional, and territorial levels. These documents set the overarching goals, visions, and objectives for land use, transportation, and other key long-term planning considerations in the city

Alignment with City Plans and Policies

Transportation plays a central role in how the City plans, designs, and operates its infrastructure, from streets, sidewalks, and trails to land use and development decisions. The Transportation Plan builds on and aligns with several existing City plans:

- **Community Plan (2026):** Outlines the important relationship between land use and transportation, emphasizing the City's commitment to a safe, efficient, and accessible transportation system that encourages a shift from private vehicles to sustainable modes like walking, cycling, and public transit.
- **Climate Action Plan (2026):** Identifies sustainable transportation as a key theme and area of focus to support climate change mitigation and adaptation.
- **City of Yellowknife Council Strategic Directions 2023-2026 (2023):** Identifies transportation initiatives such as supporting multi-modal design standards that highlight Yellowknife's advantages as a winter city and providing public transit that meets user needs.
- **Yellowknife Public Transit Review (2020):** Explored opportunities to improve the performance of the City's transit services. A new transit system was introduced on October 1, 2024 as a result of this review with a transit system based on three routes.
- **Bicycle Routing for the City of Yellowknife (2008):** Outlined a plan to enhance cycling infrastructure with proposed bicycle routes

Other relevant plans and policies include:

- Zoning Bylaw No. 5045
- Highway Traffic Bylaw No. 5055
- All Terrain Vehicles Bylaw No. 3054
- Orderly Use of Highways Bylaw No. 1276
- Parking Bylaw No. 5053
- Public Parks and Recreation Facilities Bylaw No. 4564
- Public Transit Bylaw No. 4284
- Snowmobile Bylaw No. 3722
- Fees and Charges Bylaw No. 4436
- Development Initiatives Bylaw No. 5097
- Road Maintenance Program
- Yellowknife Tourism Strategy (2025)
- Design Standards Manual (2022)
- Yellowknife Old Town Emergency Circulation Review and Parking Study (2021)
- Yellowknife Parkade Feasibility Study (2021)
- Economic Development Strategy 2020-2024 (2020)
- Yellowknife Wayfinding Strategy (2019)
- Cycling Route Network (2017)

A detailed review of these plans and policies can be found in **Appendix B**.

Alignment with Territorial and Federal Initiatives

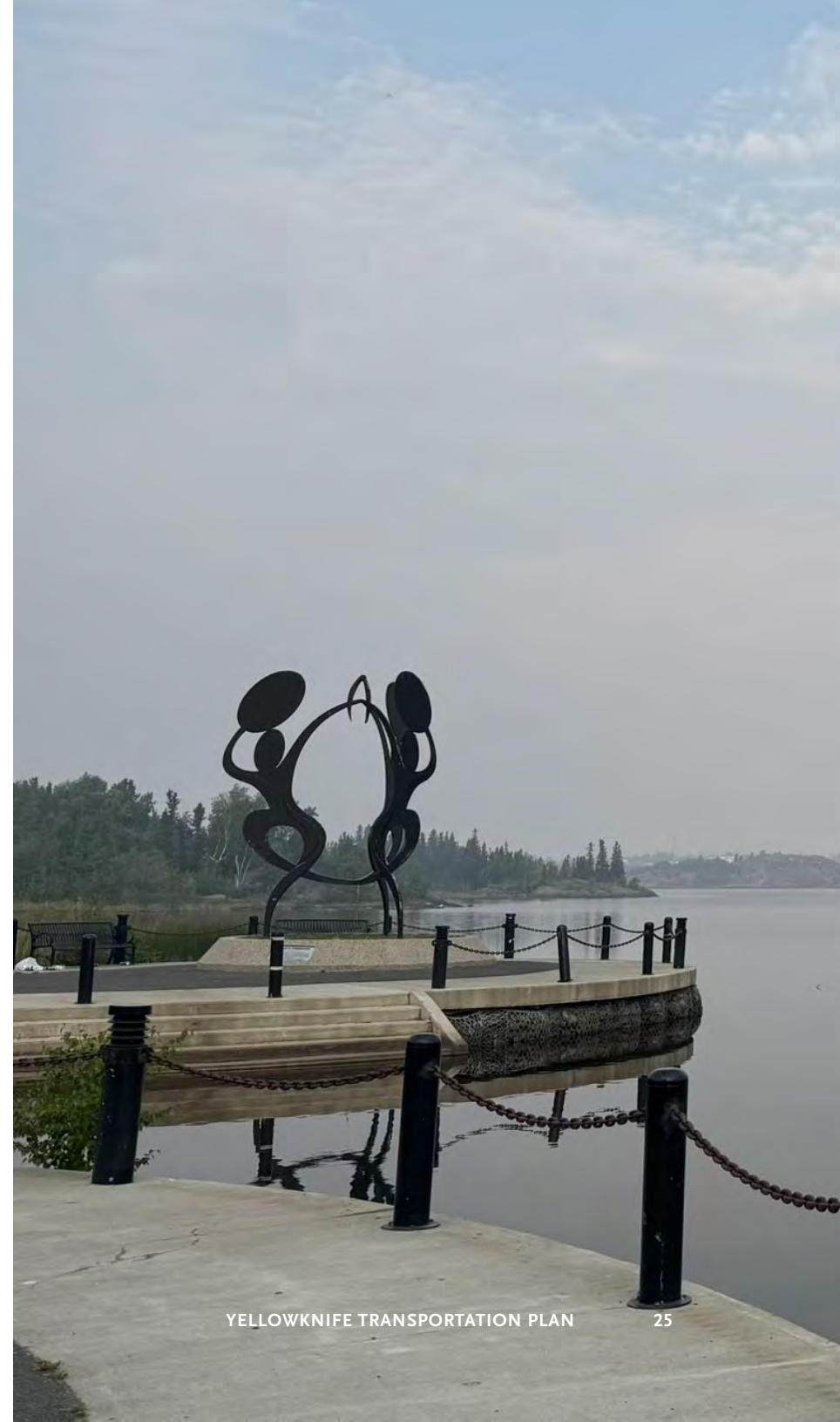
Territorial and federal policies and programs also play a key role in shaping Yellowknife's transportation system. Both the Federal and Territorial governments have established bold targets to reduce GHG emissions.

Territorial Initiatives

- **NWT 2030 Energy Strategy (2018):** Establishes a target to reduce GHGs by 40–30% below 2005 levels by 2030 and achieve net-zero emissions by 2050. Specifically identifies a strategic objective that the GNWT will reduce transportation emissions by 10% per capita. The Strategy also establishes a vision electric vehicle network highway which includes Highway 3.
- **NWT Transportation Strategy 2015-2040 (2015):** Guides the long-term development of an integrated transportation system across the GNWT by providing and promoting a safe, reliable, and sustainable multi-modal transportation system by strengthening connections, capturing opportunities, and embracing innovation.
- **NWT Road Safety Plan (2015):** Provides a four-year strategic framework aimed at guiding efforts to reduce fatalities and injuries on all roads throughout the territory, identifying five key focus areas: education and awareness, policy and regulation, infrastructure improvements, data and research, and partnerships with stakeholders.

Federal Initiatives

- **National Active Transportation Strategy (2021):** Outlines a vision to promote active transportation and its benefits to deliver a better quality of life for communities across the country.
- **Canada's Arctic and Northern Policy Framework (2019):** Recognizes the longstanding transportation inequalities that disadvantage people, especially indigenous peoples, in Canada's Arctic and North. One of the goals identified in the framework is to "expand multi-modal transportation infrastructure and operations to connect communities to Canadian and international opportunities and improve access to essential services."



2.3 HOW WE TRAVEL TODAY

How Yellowknife is Currently Moving

This section provides an overview of how people travel in Yellowknife based on findings from the City's 2025 Household Travel Survey. The Household Travel Survey captured a representative snapshot of how, where, and why residents travelled on a typical weekday in the fall of 2025.

A total of 7,570 randomly selected households were invited to participate in the Household Travel Survey, supported by targeted follow-up to ensure representation across all areas of the city. The final dataset included 694 households and over 1,500 individuals aged five and older, representing approximately 8.2% of all households in Yellowknife. The data was validated and weighted to align with Census demographics, allowing results to be expanded to represent the City's population. Most responses were collected in September 2025, with a smaller portion in October 2025, capturing travel patterns prior to winter conditions. The Household Travel Survey results provide a reliable and representative foundation for understanding travel behaviour in Yellowknife. Further details about the Household Travel Survey are provided in **Appendix C**.

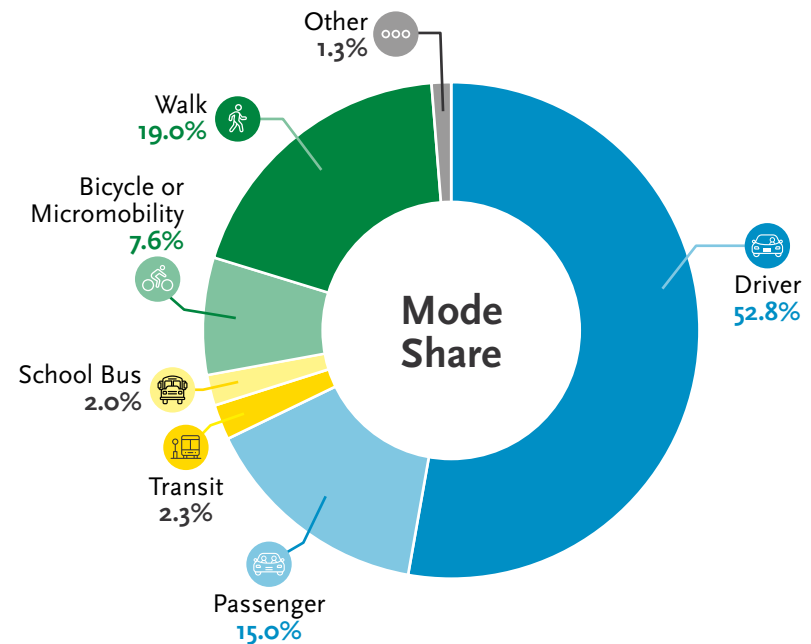
How We Travel

Driving is the dominant mode of travel in Yellowknife, but the city also has a relatively strong active transportation mode share

Approximately two out of every three daily trips (68%) are made by motor vehicle, either as a driver (53%) or passenger (15%). At the same time, Yellowknife also demonstrates a relatively strong active transportation mode share compared to many Canadian communities. More than one in four daily trips (27%) are made by walking, cycling, or other micromobility modes, including 19% by walking, and nearly 8% by bicycles or other types of micromobility devices (such as e-bikes or e-scooters). Public transit accounts for over 2% of all daily trips, with an additional 2% made by school bus.

These travel patterns, especially the relatively high proportion of trips made by active transportation, reflect Yellowknife's compact urban form, short travel distances, and the proximity of many daily destinations, particularly in central neighbourhoods. They also suggest strong potential to grow walking, cycling, and transit use over time by building on an already active community.

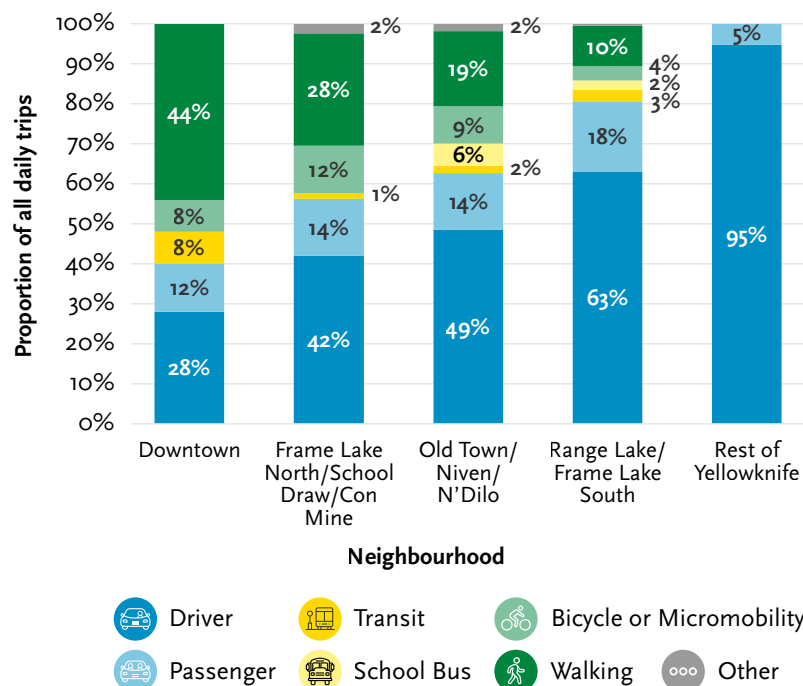
Travel patterns in Yellowknife vary significantly based on where people live, their age, and their household income. These differences highlight how access, proximity, and life stage shape travel behaviour across the community.



Where you live likely influences how you travel

Mode share varies across neighbourhoods, reflecting differences in land use and development patterns, proximity to destinations, and existing transportation infrastructure. In the Downtown area, sustainable transportation accounts for most trips, with 60% of all trips made by walking, bicycle or other micromobility device, or transit, while only 28% of trips are made by driving. This aligns with how most streets in the downtown core and surrounding areas have sidewalks or multi-use pathways on both sides, enhancing pedestrian connectivity and creating a more comfortable and supportive walking environment. In contrast, in areas outside the downtown core, driving is the predominant transportation mode, reaching up to 63% in the Range Lake and Frame Lake South neighbourhoods, and 95% of all trips outside Yellowknife's developed urban core.

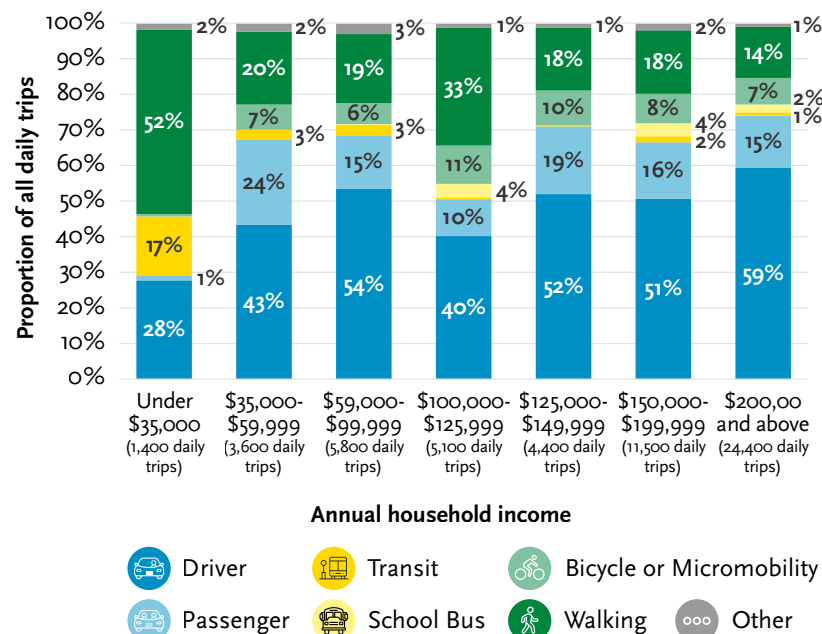
Mode Share by Where People Live



Transportation choice is closely tied to income and access

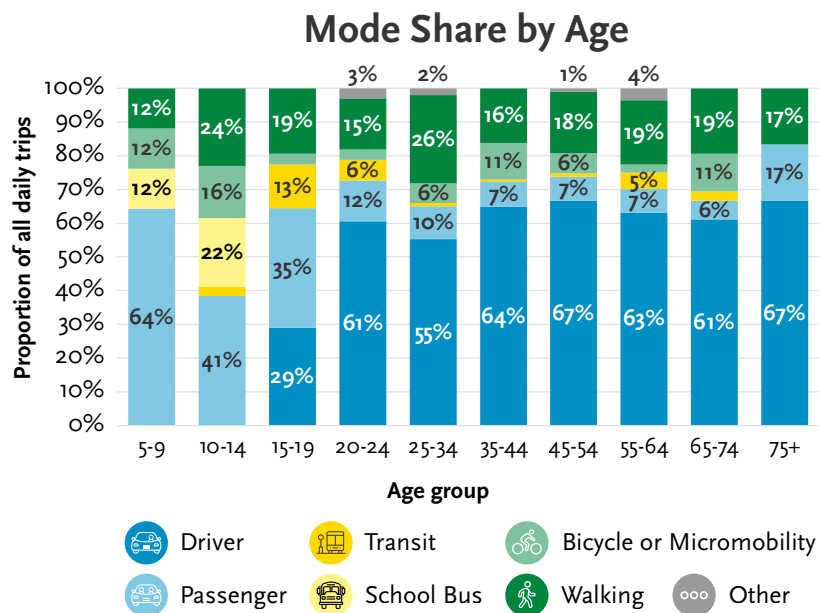
Travel choices are strongly influenced by household income, which affects access to transportation options. Lower-income households (earning under \$35,000 per year) rely heavily on walking and transit, with walking accounting for 52% of trips and transit use reaching 17%, while only 28% of trips are made by driving. In contrast, higher-income households (earning \$200,000 per year and above) are more likely to rely on personal vehicles, with 59% of trips as a driver, while walking declines to 14% and transit use drops to approximately 1-2%. These differences highlight the importance of ensuring reliable and accessible non-auto options to support equitable mobility across income groups.

Mode Share by Household Income



Youth travel patterns shift with age

Travel behaviour changes throughout adolescence. Children aged 5 to 9 primarily travel as passengers (64% of trips), reflecting reliance on caregivers. By ages 10 to 14, travel becomes more diverse, including 41% passenger trips, 22% school bus use, and relatively high walking and cycling rates. By ages 15 to 19, travel patterns shift toward independence, with 29% of trips as a driver and approximately 13% by transit, while active modes decline. This transition highlights a critical period where long-term travel habits are established.

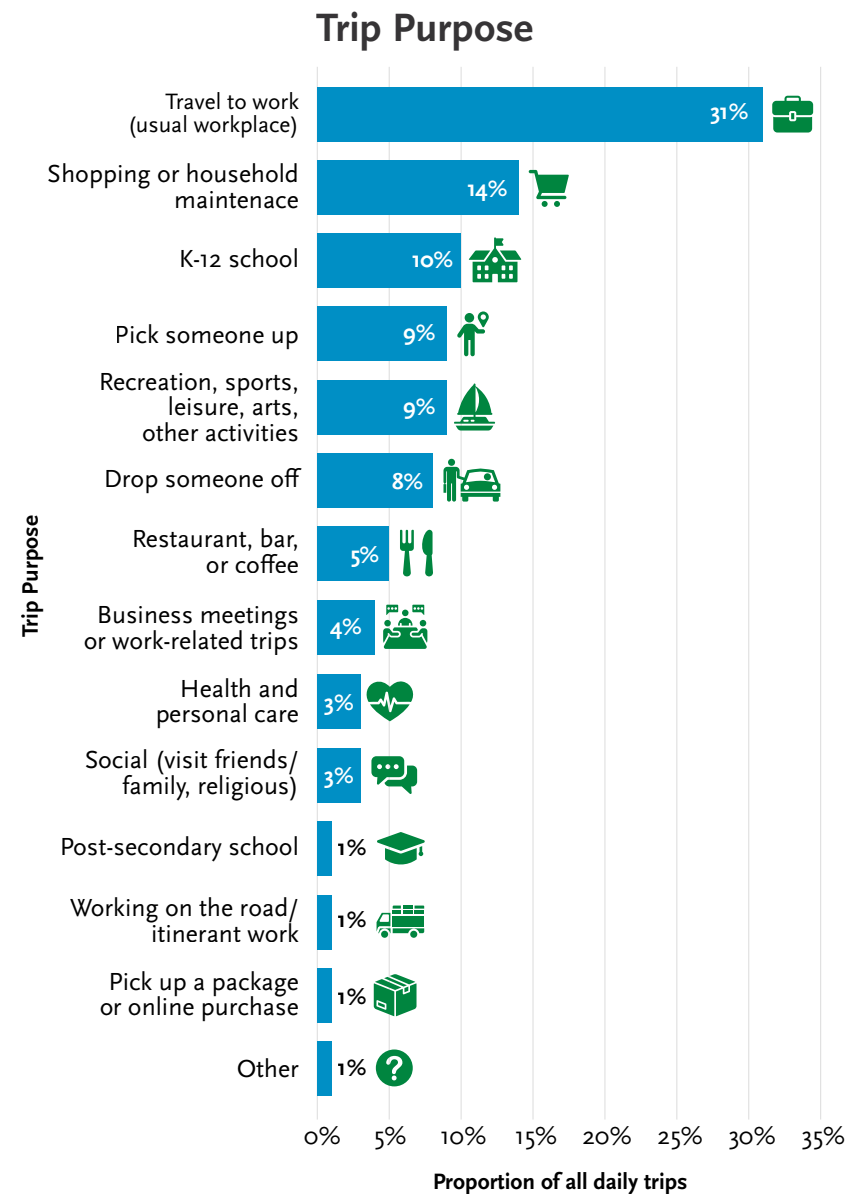


Why People Travel

Travel in Yellowknife is shaped by daily routines, with most trips related to commuting to work or school, shopping, recreation, caregiving, and running errands. Work-related travel is the top trip purpose, representing 36% of all trips when all work activities are included.

However, this means that most trips are not for commuting purposes. School and caregiving trips also play an important role, with 10% of trips to K-12 schools and an additional 16% of trips for pick-up and drop-off, reflecting the influence of household responsibilities on travel patterns. Travel for daily needs is similarly significant, with shopping and errands accounting for 14% of trips, alongside recreation (9%), dining (4%), or social activities (3%).

Together, these patterns demonstrate that travel in Yellowknife is not driven by commuting alone, but by a diverse set of daily activities that require a transportation system capable of supporting short, local, and multi-purpose trips throughout the day.



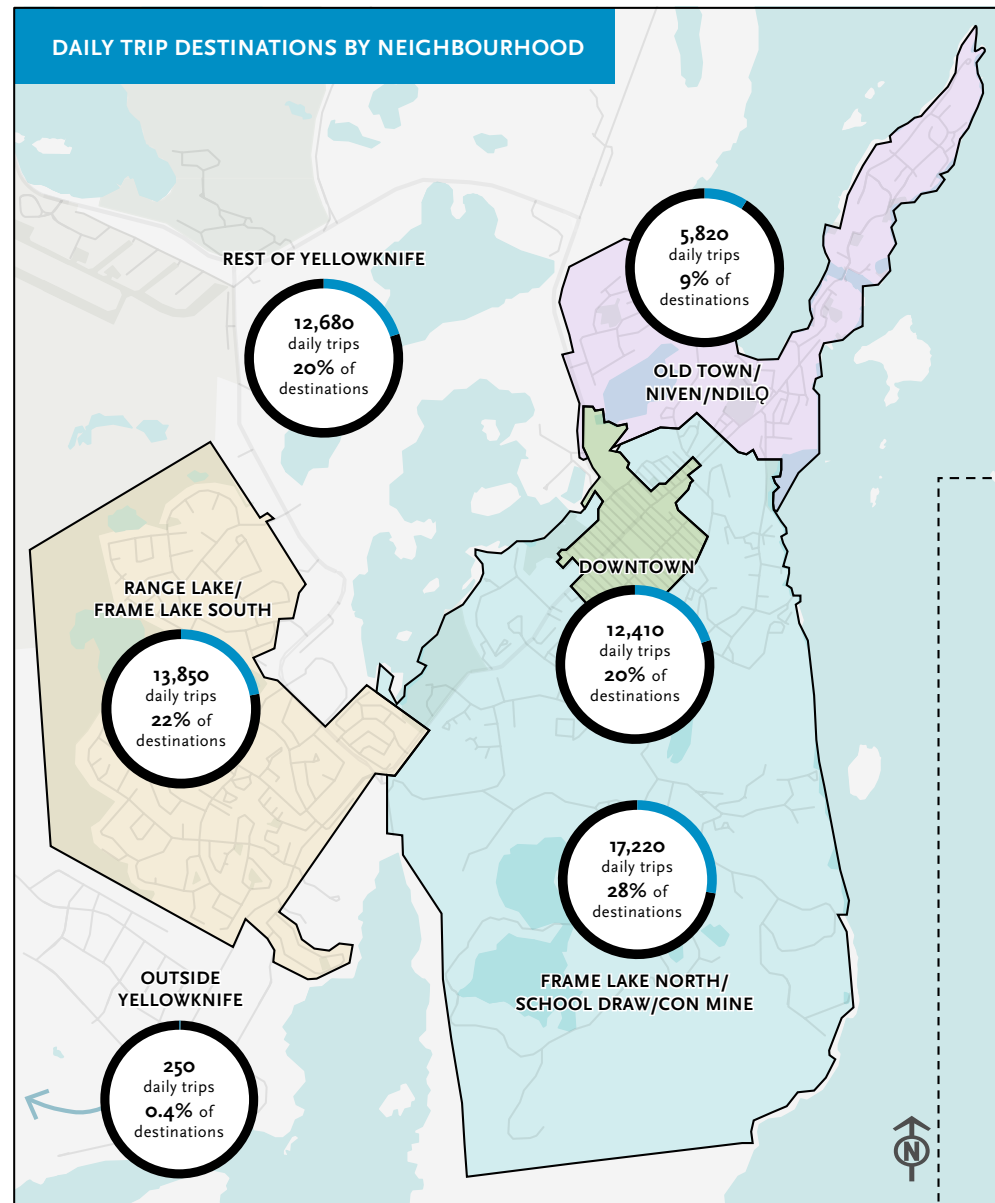
Where People Travel

Travel in Yellowknife is highly local, with almost all daily trips staying within the City. Of the 62,170 daily trips captured in the Household Survey, only 250 trips are made outside Yellowknife, meaning 99.6% of trips remain within the city.

Travel is also concentrated at the neighbourhood scale. About 17,170 daily trips (28%) begin and end within the same neighbourhood, indicating that many trips are short and locally focused. Frame Lake North/School Draw/Con Mine attracts the highest number of daily trips (17,220), making it the most active area in the city. This reflects its role as a key destination, with a mix of residential areas, multiplex and recreation facilities, and nearby civic and downtown-adjacent uses.

When People Travel

Yellowknife residents make approximately 62,200 trips per day across all modes, averaging approximately 3 trips per person per day or 7.4 trips per household per day. Travel is concentrated during short peak periods in the morning and afternoon. The morning peak (7:30-8:30 am) accommodates approximately 5,600 auto driver trips (9% of daily trips), while the afternoon peak (4:30-5:30 pm) sees about 5,300 auto driver trips (9% of daily trips).



Access to Transportation Options

Access to transportation options varies across households and population groups, influencing how people travel throughout the city.

Motor vehicle ownership varies by household size and neighbourhood

On average, residents own 1.6 vehicles per household, and 88% of households have at least one vehicle. However, households in the downtown core are less likely to own a vehicle, with only 67% having at least one, compared to 95% in Range Lake and Frame Lake South. Household size also plays a role, with 63% of one-person households owning a vehicle, compared to over 95% of households with two to four people.

Most households own bicycles or micromobility devices

On average, households own 1.2 adult bicycles, 0.1 e-bikes, and 0.5 child bicycles. Approximately two-thirds of households have at least one bicycle or micromobility device, indicating that active transportation options are present in many homes.

Transit pass ownership and transit use varies by age

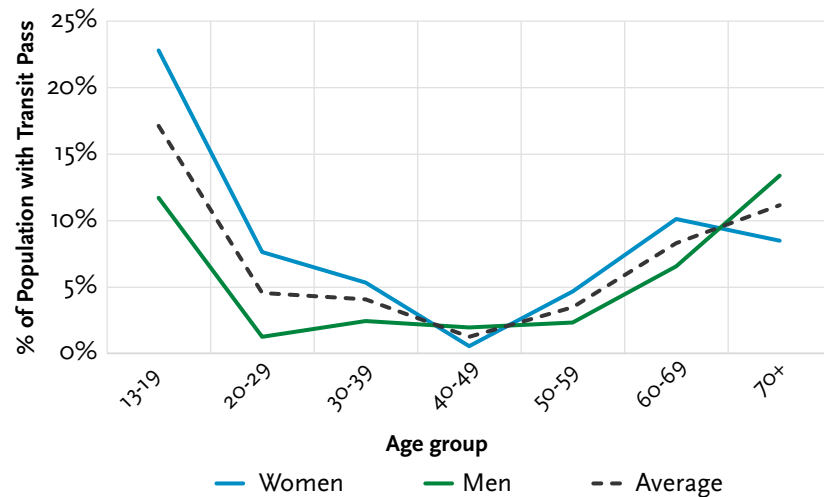
Transit pass ownership rates differ across age groups, reflecting changing travel needs and access to transportation options. Age groups with transit passes are highest among youth (17% for ages 13-19), decline through adulthood (4-5% for ages 20-39 and ~2% for ages 40-49), and then increase again among older adults (8% for ages 60-69 and 11% for ages 70+). Overall, 17% of surveyed household members reported taking transit at least once per month, including 4% who ride daily. Children, youth, and seniors are among the most frequent transit users, including 39% of those aged 10 to 17 who use transit at least once per month.

Potential to Shift More Trips to Active Transportation

The Household Travel Survey findings also point to significant opportunity to increase active transportation in Yellowknife. Walking trips average approximately 1.0 km, cycling and micromobility trips average 2.1 km, and even driving trips are relatively short, averaging only 3.2 km. This suggests that many existing motor vehicle trips could be shifted to walking or cycling with the right conditions, culture shift, and infrastructure in place.

An assessment of mode shift potential found that many trips currently made by auto or transit fall within a reasonable walking or cycling distance. Using a 20-minute travel threshold, equivalent to approximately 1.6 km for walking and 5.5 km for cycling, the analysis found that about 91% of driver trips could be made by bicycle based on distance alone. In mode share terms, this represents a 48% share of trips that could potentially be bikeable and a 15% share that could be walkable.

Transit Pass Ownership by Age



2.4 CHALLENGES, OPPORTUNITIES, AND PRIORITIES

Yellowknife community members shared their experiences, challenges, and aspirations for the future of transportation in Fall 2025. A range of engagement activities were used to gather input and ensure a diversity of perspectives were captured:

- **Community Survey:** An online survey provided residents with an opportunity to share their priorities, travel behaviours, and perspectives on transportation challenges and opportunities.
- **Interactive Map:** A mapping tool was used to collect location-specific feedback, allowing participants to identify areas of concern or opportunity across the network.
- **Youth Survey:** A targeted survey was distributed to high school and college students to better understand the travel needs and perspectives of younger residents.
- **Pop-up Events:** Two pop-up events at the Farmers' Market and Aquatic Centre provided opportunities to share information about the Transportation Plan and gather in-person feedback.
- **Interest Group Meetings:** Meetings with six community interest groups were conducted to hear detailed input from specific user groups and organizations.

Together, these engagement activities provided valuable insights into the current transportation system and helped identify key challenges, opportunities, and priorities for the future.

Key findings and takeaways from this input are summarized below:



Safety is the Top Priority

Improving road safety for all users was identified as the top desired outcome in the community survey. Key concerns include unsafe driving behaviours such as speeding, challenging intersections with long wait times or poor visibility, and personal safety when walking. There is a strong desire for safer road design, improved crossings, and better separation between modes.



Strengthening Connectivity

Gaps in the transportation network were consistently identified across all modes of travel. Sidewalks and trails often lack continuous connections, making it difficult to travel between neighbourhoods and key destinations. Cycling routes are not always connected or direct, which makes it challenging to navigate and move around the community. Transit service also has gaps in coverage, making it challenging for some residents to access key destinations. Improving connectivity across the network will help create a more direct, reliable, and accessible transportation system for all users.



Building a Transportation System for All Seasons

Winter conditions significantly impact how people move around Yellowknife. Extreme cold temperatures can also be a barrier to walking and cycling. Poor snow clearing and icy conditions on sidewalks, cycling routes, and roads reduce safety, comfort, and accessibility for people.



Prioritizing Walking

Walking was ranked as the highest priority mode of travel. Key barriers include personal safety concerns, gaps in pedestrian infrastructure, poor sidewalk conditions, and limited winter maintenance. Community members expressed strong support for more continuous and accessible walking infrastructure, including sidewalks, multi-use pathways, improved lighting, and safer crossings.



Expanding Safe and Connected Cycling Infrastructure

Cycling was identified as the second-highest priority mode, with 37% of respondents indicating they feel somewhat or very unsafe when cycling. The main barriers include a lack of protected cycling infrastructure, gaps in the network, and uncomfortable conditions when riding near traffic. Key improvements include more separated bike lanes, expanded multi-use pathways, and increased bicycle parking and end-of-trip facilities.



Improving Transit to Support More Travel Choice

Approximately two-thirds of community survey respondents indicated they do not regularly use transit. Key barriers include infrequent service, limited routes, and challenges accessing key destinations. Improving transit frequency, expanding route coverage, and enhancing service reliability were identified as critical steps to make transit a more viable option.



A More Balanced Approach to Driving and Mobility

Improving walking, cycling, and transit was identified as the most effective way to improve driving conditions in Yellowknife by reducing the overall need to drive. Key challenges to driving identified unsafe driving behaviours, limited parking availability, and safety concerns at intersections. Addressing these issues alongside investments in other modes will help create a more balanced and efficient transportation network.





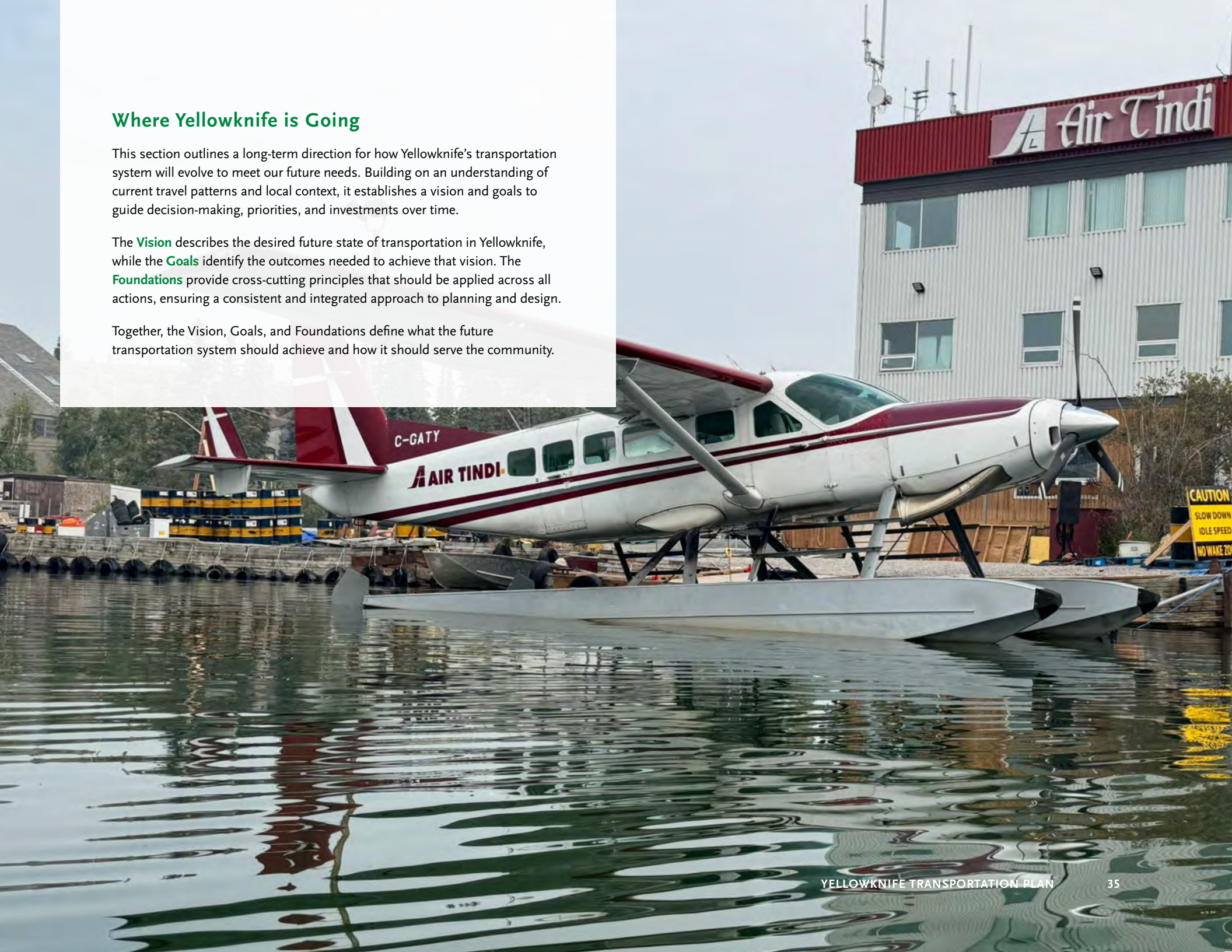
3.0 VISION, GOALS, AND FOUNDATIONS

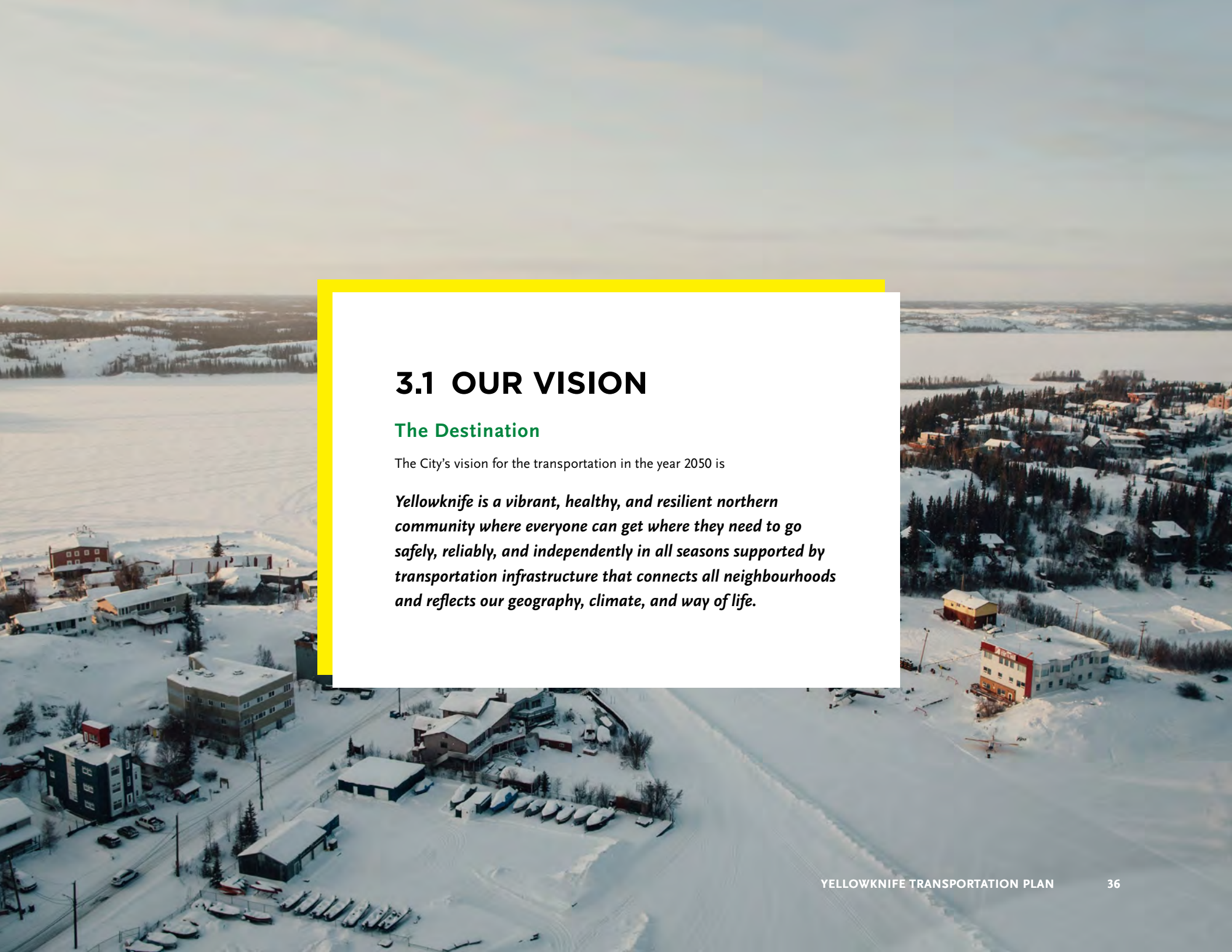
Where Yellowknife is Going

This section outlines a long-term direction for how Yellowknife's transportation system will evolve to meet our future needs. Building on an understanding of current travel patterns and local context, it establishes a vision and goals to guide decision-making, priorities, and investments over time.

The **Vision** describes the desired future state of transportation in Yellowknife, while the **Goals** identify the outcomes needed to achieve that vision. The **Foundations** provide cross-cutting principles that should be applied across all actions, ensuring a consistent and integrated approach to planning and design.

Together, the Vision, Goals, and Foundations define what the future transportation system should achieve and how it should serve the community.





3.1 OUR VISION

The Destination

The City's vision for the transportation in the year 2050 is

Yellowknife is a vibrant, healthy, and resilient northern community where everyone can get where they need to go safely, reliably, and independently in all seasons supported by transportation infrastructure that connects all neighbourhoods and reflects our geography, climate, and way of life.

3.2 THE GOALS

The Outcomes

The vision is supported by eight goals that will further guide the direction of the Yellowknife Transportation Plan.

Key performance indicators to ensure that the goals are SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) can be found in the **Section 5.0**.

Transportation Choices

Provide people with comfortable, convenient, and reliable transportation choices through all our seasons.

Safe Mobility

Improve people's safety and work to eliminate serious injuries and fatalities from our transportation system.

Equitable Access

Ensure that people of all ages, abilities, backgrounds, and identities can access all modes of transportation.

Connected Network

Provide seamless connections for all modes transportation so people can travel to services, neighbourhoods, and community amenities across the city.

Environmentally Sustainable

Reduce our transportation-related emissions according to the targets set under the Climate Action Plan 2026-2036.

Healthy Community

Improve our health and wellbeing.

Resilient Transportation System

Ensure that people can get to their destinations in a consistent, predictable, and reliable manner.

Thriving Economy

Ensure the efficient movement of people and goods to support the local and regional economy.

3.3 THE FOUNDATIONS

The Transportation Plan includes a series of six “Foundations”, which are cross-cutting principles that support every theme identified in the Transportation Plan and should be applied to the transportation network with broad strokes.



Streets for People

A people-first approach redefines how streets are planned, designed, and operated. This is a shift away from a traditional focus on motor vehicles, moving towards prioritizing how people move, experience, and connect within a city. Streets are not only corridors for movement, but also important public spaces that support daily life, access to destinations, and social interaction.

A people-first transportation system prioritizes walking, cycling, and access to transit, while still accommodating motor vehicles in a balanced way. It emphasizes safety, accessibility, and comfort, and ensures that streets support community life, local destinations, and connections going beyond mobility.

Streets for people can take many forms, including expanding the public realm, creating space for parks and gathering areas, widening and improving sidewalks, and providing protected cycling infrastructure. The public realm refers to publicly accessible areas, including streets, parks, and open spaces, supporting the public's interaction and connection with each other and their city.

Traffic calming measures can also be used to create safer and more comfortable environments. Supporting these physical changes are programs and activations that enhance the experience of being in public spaces. These can include wayfinding, lighting, seating, and initiatives that build confidence in walking, cycling, and active school travel. People-centred streets go beyond mobility needs, enhancing community life and creating more vibrant spaces.



Integrated Land Use and Transportation

Land use and transportation are fundamentally interconnected, as land use decisions influence travel patterns, frequency, and mode choice, while transportation investments in turn shape development patterns, support housing and employment growth, and affect how people and goods move. The location, intensity, and mix of housing, jobs, services, schools, and community amenities influence how far people need to travel and whether walking, cycling, and transit are realistic options for daily trips. In turn, transportation investments shape accessibility and guide patterns of development. Research has consistently shown that people who live in areas with higher population and employment densities, greater mixtures of land uses with access to daily needs within short walking distances, and well-connected transportation networks are more likely to walk, roll, or cycle.

With its compact urban form, Yellowknife's built environment already strongly supports sustainable transportation, as most trips are relatively short and can easily be made by walking, cycling, or transit. The Household Travel Survey found that the average trip distance, including trips by all modes is 2.7 kilometres, and 19% of all daily trips are made by walking. Neighbourhoods with higher densities and well-connected street networks have even higher modes shares, with walking accounting for 44% of all trips made by residents living downtown. This is not by accident that residents downtown choose to walk more – this is a reflection of the fact that people living downtown can access their daily needs relatively easily and in a short distance on foot.

In Yellowknife, integrating land use and transportation is particularly important as the city continues to evolve through infill, redevelopment, and future growth areas. A more connected pattern of development focused on complete streets, priority nodes, key destinations, and areas with strong multimodal access can support shorter, more convenient trips and improve overall network efficiency.

While land use is fundamental in shaping how people travel, the Transportation Plan does not explicitly include actions related to land use. Instead, the City's Community Plan provides directions for land use that align with the strategies and actions in the Transportation Plan. In particular, this foundation aligns with the Community Plan and its direction to focus growth on intensification in existing built-up areas. By coordinating land use decisions with transportation investments, the City can support more sustainable travel patterns, improve access to services and amenities, and create a more connected, resilient, and livable community over time.



Complete Streets

“Complete Streets” is a term that refers to the policy and design approach that streets are for people, not just cars. Complete Streets are designed and operated to enable safe and comfortable use for all, regardless of age or ability. A Complete Streets policy and design approach recognizes that streets have different roles, functions, and characteristics depending on their context. Through attractive design, enhanced safety, and multi-modal infrastructure, streets can be transformed into spaces that increase safety, promote a more active lifestyle, decrease carbon dioxide emissions, encourage a sense of community, and support local businesses.

A Complete Streets approach recognizes that transportation corridors are not only corridors for movement, they are also public spaces that shape how people experience the city. Complete Streets with a strong public realm can make walking, waiting for transit, and spending time in public spaces safer, more comfortable, and more enjoyable. This also supports social interaction, local business activity, tourism, and everyday life. Designing streets as welcoming and attractive spaces encourages more people to walk, spend time outdoors, and use sustainable transportation options.



Safe Mobility

The safety of Yellowknife's transportation network is a top priority, regardless of the travel mode being used. The Transportation Plan includes an overarching emphasis on road safety and creating safe streets where serious injuries and fatalities are reduced or eliminated. Safe mobility is considered in all aspects of the Transportation Plan, with the fundamental premise that the City will commit to significantly reducing collisions resulting in serious injuries and fatalities.

Based on RCMP collision data collected between 2018 and 2022, there were 3,475 reported collisions in Yellowknife. Over the course of these five years, approximately 10% of these collisions resulted in an injury or fatality, including 340 injury collisions and nine fatal collisions. The total number of reported collisions has decreased significantly year-over-year, with a 33% reduction in total annual collisions between 2018 and 2022. However, the proportion of collisions resulting in injury or fatality did not see significant changes over time, as they have fluctuated from approximately 60 to 85 injury or fatal collisions over this time. Transportation-related collisions have significant impacts on people's lives, especially those that cause fatalities or serious injuries. Collisions are traumatic events for those involved and tragic events for families and communities affected.

Despite these statistics, we know from evidence around the world that it is possible to significantly reduce, and even prevent, deaths and serious injuries within our transportation system. Experience from communities around the world shows that deaths and serious injuries in transportation networks are preventable. Many jurisdictions have adopted a Vision Zero approach to road safety, which prioritizes human life and health and sets the goal of eliminating all traffic-related fatalities and serious injuries. Vision

Zero is a systems approach to transportation safety premised on the belief that all traffic fatalities and severe injuries can be eliminated, while increasing safe, healthy, and equitable mobility for all people.

The Transportation Plan applies a Safe System approach, prioritizing human life and health in transportation understanding that deaths and serious injuries are preventable. This Safe System approach emphasizes shared responsibility among planners, engineers, decision-makers, enforcement agencies, and road users. It is guided by principles that place safety at the forefront, including designing systems that are forgiving, applying layered and coordinated measures, and taking proactive steps to reduce risk. The figure below outlines the Safe System approach and its five principles. Together, these principles support a transportation system where all users can travel safely and confidently.



VISION ZERO SAFE SYSTEMS APPROACH

(Source: US DOT Federal Highway Administration)



Climate Action

Transportation-related air pollutants are the largest contributors to poor air quality and produce GHG emissions, which has negative implications for community quality of life, public health, and climate change. In Yellowknife, on-street transportation accounts for 20% of 2023 community GHG emissions. Embracing active transportation and sustainable modes of transportation are essential to reducing GHG emissions and offering co-benefits to the community.

Transportation decisions play an important role in responding to climate change. Supporting more walking, cycling, transit, shared mobility, and low-emission travel can help reduce GHG emissions while also delivering co-benefits such as better health, lower household transportation costs, and improved quality of life.

This foundation aligns with the City's *Climate Action Plan (2026)* and reflects the community's priorities in balancing environmental goals with transportation needs. It supports a shift toward more sustainable travel behaviour while improving the efficiency and performance of the transportation system. Together, these approaches contribute to a more resilient, low-carbon future for Yellowknife.



Northern and Winter City

Yellowknife's identity as a northern winter city fundamentally shapes how people move. Extreme cold, snow, ice, wind, freeze-thaw conditions, and limited daylight influence travel choices, infrastructure performance, maintenance practices, and the overall experience of getting around. Seasonal conditions can create barriers to mobility, particularly for walking, cycling, and transit, affecting visibility, surface conditions, comfort, and perceived safety.

This foundation recognizes the importance of designing a transportation system that functions reliably in all seasons. Supporting year-round mobility requires thoughtful consideration of materials, maintenance practices, lighting, and design standards that respond to winter conditions. It also requires ensuring that walking, cycling, and transit remain safe, visible, and accessible during the darker winter months.

By embedding winter considerations into all aspects of planning and design, this foundation supports a transportation network that reflects northern realities while maintaining safe, comfortable, and reliable travel options throughout the year.





4.0 STRATEGIES AND ACTIONS

The plan is organized around **five themes**: streets, active transportation, transit, sustainable commuting and technology, and culture.

This section outlines the strategies and actions for each theme, informed by staff input, Council direction, community engagement, existing conditions analysis, and a review of leading practices and emerging trends.

Each **theme** identifies a key area of focus. Within each theme:

- **Strategies** establish the direction for action, and
- **Actions** define the specific step the City will take to implement the strategy.

Each action includes a timeframe and identifies the lead and supporting agencies responsible for implementation. Timeframes are defined as:

- Quick Win (0–2 years)
- Short-term (3–5 years)
- Medium-term (6–10 years)
- Long-term (11+ years)

Several actions will be implemented on an ongoing basis, in which case they are identified under each timeframe.

Example policies and guidelines to support implementation of select strategies and actions are provided in **Appendix D** for the City's consideration.



THEMES AND STRATEGIES



Streets

STRATEGY 1.1: Adopt and Implement a Multi-modal Street Network Classification and Standards

STRATEGY 1.2: Street Network Improvements

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

STRATEGY 1.4: Design for Safe Speeds

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

STRATEGY 1.6: Plan for Emergencies and Resilience

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

STRATEGY 1.8: Coordinate Highway Improvements With the GNWT



Active Transportation

STRATEGY 2.1: Complete the Sidewalk Network

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

STRATEGY 2.3: Enhance Trails and Pathways

STRATEGY 2.4: Maintain Multi-Use Pathways Year-Round

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

STRATEGY 2.6: Provide Bicycle Parking



Transit

STRATEGY 3.1: Improve Transit Service

STRATEGY 3.2: Enhance the Transit User Experience

STRATEGY 3.3: Improve Transit Accessibility



Sustainable Commuting and Technology

STRATEGY 4.1: Support and Expand Car Share

STRATEGY 4.2: Support Festivals and Community Events with Multi-Modal Access

STRATEGY 4.3: Support Initiatives to Manage Travel Demand



Culture

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility



THEME 1: STREETS

The street network forms the backbone of Yellowknife's transportation system, connecting people, places, and goods across the city. Anchored by key corridors such as Highway 3, Old Airport Road, 50 Avenue, Kam Lake Road, and 48 Street, the network supports regional access, local mobility, and economic activity. It also includes a network of major intersections, including approximately 20 signalized locations, that play a critical role in how people move through the city.

While streets accommodate all modes of travel, this theme focuses on how the street network can safely and efficiently support driving while enabling a balanced, multi-modal system. Enhancing the performance of the street network is essential to improving safety, accessibility, and reliability for all users, including people walking, cycling, taking transit, and driving.

Streets by the Numbers



Yellowknife residents make approximately **62,000** daily trips per day, or approximately **3 trips** per day per resident, or approximately **7.4 trips** per day per household



Private vehicles account for approximately **Two-Thirds (68%)** of all daily trips



104,700 vehicle kilometres are travelled per day



71% of vehicle trips are single-occupant



Peak hour demand is concentrated



Most vehicle trips are made during short, concentrated periods during the morning and afternoon peak periods from **7:30-8:30am** and **4:30-5:30pm**

Source: Household Travel Survey

Top 3 Driving Issues



Unsafe driving behaviours¹



Difficult to find parking



Unsafe intersections²

Top 3 Driving Opportunities



Improve walking, cycling, and transit to reduce the need to drive



Encourage people to drive less



Implement safety improvements at higher collision locations

Source: Community Survey

¹ (e.g., speeding)

² (e.g., impeded sightlines, crosswalks are too long, lack of dedicated left turn lanes)

STRATEGIES

This theme outlines eight strategies to guide how the street network is planned, designed, operated, and maintained:

STRATEGY 1.1: Adopt and Implement a Multi-modal Street Network Classification and Standards

STRATEGY 1.2: Street Network Improvements

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

STRATEGY 1.4: Design for Safe Speeds

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

STRATEGY 1.6: Plan for Emergencies and Resilience

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

STRATEGY 1.8: Coordinate Highway Improvements With the GNWT

Together, they emphasize a shift toward a more multi-modal, resilient, and context-sensitive network.

STRATEGY 1.1: Adopt and Implement a Multi-Modal Street Network Classification and Standards

Streets are multi-functional spaces that serve many users and different modes of transportation. Street network classifications typically include various types of arterial, collector, and local streets. Highways within the city are under the jurisdiction of the Government of the Northwest Territories (GNWT). Developing an updated street network classification through a lens of multi-modal transportation can set the directions and requirements of future road projects as well as existing roads retrofitting works. A street network classification system is meant to guide many of the City's other activities, such as street maintenance, and provides guidance to developers on the design of new roadways.

The City currently does not have a formalized street network classification. The City's Development & Design Standards guide how growth and development occur in an organized and coordinated manner, while maintaining and enhancing quality of life. By establishing requirements for transportation infrastructure at the development stage, the Standards ensure that facilities are delivered proactively rather than retrofitted later. **Map 2** highlights the proposed street network classification.

Integrating the multi-modal street network classification into the Development & Design Standards will align these requirements with each street's intended function and modal priorities. This ensures that new developments provide the appropriate infrastructure for all users based on the role of the street within the network. The multi-modal street network classification should reflect Complete Streets principals. An example Complete Streets Policy and Guidelines can be found in **Appendix D**.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.1A	Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards	Quick Win (0-2 years)	Public Works and Engineering	Planning and Development
1.1B	Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards	Quick Win (0-2 years)	Public Works and Engineering	Planning and Development

STRATEGY 1.2: Street Network Improvements

Street network improvements will be coordinated with land use planning, infrastructure and development, and will be guided by Complete Streets principles to create a safe, accessible, and resilient transportation system for pedestrians, cyclists, transit users, and vehicles. **Map 3** shows potential new street connections to improve connectivity, support planned development, and enhance access for all transportation modes.

To support implementation, the City could consider developing complementary policies and guidelines that establish clear objectives and decision-making for traffic operations. An example Traffic Light Management Objectives Policy can be found in **Appendix D**.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.2A	Implement upgrades to major streets	Ongoing	Public Works and Engineering	
1.2B	Implement new street network connections	Long-term (11+ years)	Public Works and Engineering	
1.2C	Implement traffic light management objectives and policy	Short-term (3-5 years)	Public Works and Engineering	
1.2D	Minimize access points from arterial roads on new developments	Ongoing	Planning and Development	Public Works and Engineering
1.2E	Work with property owners to consolidate driveways and access points where possible	Ongoing	Planning and Development	Public Works and Engineering

STRATEGY 1.3: Improve Safety and Accessibility at Intersections and Crossings

Intersections and crossings are some of the most critical and the highest risk locations within any transportation network. These are the points where people walking, cycling, using mobility devices, and driving intersect, often in complex and constrained environments. Creating safer and more accessible intersections and crossings is essential to supporting a transportation system that works for people of all ages and abilities.

Within Yellowknife, a range of intersection controls and crossing treatments are used to support people walking, cycling, and rolling, including traffic signals and painted crosswalks. While these facilities play an important role in enabling safe crossings, several intersections and crossings present accessibility and safety challenges, especially for older adults and people with disabilities. In addition, ongoing engagement with the City's Accessibility Advisory Committee will support the identification of priority locations, inform design decisions, and help ensure that improvements respond to the lived experiences and needs of people with disabilities.

Addressing safety at intersections and crossings requires a multi-faceted approach that considers both personal and traffic safety. This includes improving sightlines, lighting, and visibility to enhance perceived and actual personal safety, as well as reducing conflict points through measures such as separation from motor vehicles, lower vehicle speeds, and clearer right-of-way.

Map 4 shows intersection improvements, locations for upgraded and new traffic signals and crosswalks.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.3A	Inventory and evaluate intersections and crossings to align with best practices	Short-term (3-5 years)	Public Works and Engineering	
1.3B	Develop and adopt non-standardized crosswalk policy	Short-term (3-5 years)	Public Works and Engineering	
1.3C	Implement new traffic signals	Ongoing	Public Works and Engineering	
1.3D	Install modern Accessible Pedestrian Signals at all existing and new traffic signals	Ongoing	Public Works and Engineering	

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.3E	Implement Leading Pedestrian Intervals at signalized intersections downtown	Medium-term (6-10 years)	Public Works and Engineering	
1.3F	Implement No Right Turn on Red restrictions at locations with demonstrated safety issues	Ongoing	Public Works and Engineering	
1.3G	Implement left turn protections at signalized intersections where feasible	Ongoing	Public Works and Engineering	
1.3H	Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users	Short-term (3-5 years)	Public Works and Engineering	
1.3I	Implement safety and operational improvements at intersections and crossings	Ongoing	Public Works and Engineering	
1.3J	Implement new crossing locations to improve pedestrian safety	Ongoing	Public Works and Engineering	
1.3K	Improve safety at existing crosswalks with treatments such as curb extensions, reduced curb radii, raised crosswalks, Leading Pedestrian Intervals, improved lighting, and/or enhanced crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs) as defined by a warrant analysis	Ongoing	Public Works and Engineering	

STRATEGY 1.4: Design for Safe Speeds

The maximum speed limit within the City of Yellowknife is typically 45 km/h. School zones and playground zones maximum speed limit is 30 km/hr. School zones are enforced at all times, 24 hours 7 days a week. Speed limits increase to 70 km/h and above on GNWT highways. Based on GPS-based speed data for arterial roads in the City, many vehicles are travelling above the speed limit on several arterial streets, including Old Airport Road and 48 Street along with Highway 3, while traffic speeds are generally lower in the Downtown core. Through the Community Survey, respondents noted that unsafe driving behaviours such as speeding was the top barrier to driving.

Research clearly shows that higher speeds increase the risk and the likelihood that a crash will result in a serious injury or fatality. At higher speeds, drivers have a narrower field of vision, and they have less time to react to unexpected occurrences. Collisions at higher speeds have worse outcomes for people. The faster a vehicle is moving, the longer the stopping distance and therefore, the greater the force of impact will be. The risk of death and injury increases significantly as travel speeds increase. Research has shown that a pedestrian struck at 30 km/h has a 90% chance of surviving, while at 50 km/h they have only a 15% chance of surviving.

Roads with higher posted speed limits are riskier, regardless of whether drivers exceed those limits. The City can encourage safe speeds through initiatives such as speed limit reductions, traffic calming, and enforcement to minimize the risks of speed and allow the safe movement of all road users.

To support implementation, the City could consider adopting policies and guidelines that establish a consistent framework for speed management and traffic calming decisions. An example Vision Zero Policy, Speed Limit Policy and Guidelines, and Traffic Calming Policy and Guidelines can be found in **Appendix D**.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.4A	Adopt and implement updated speed limits based on the street network classification	Short-term (3-5 years)	Public Works and Engineering	
1.4B	Develop and implement a Traffic Calming Program	Short-term (3-5 years)	Public Works and Engineering	

STRATEGY 1.5: Maintain Roadways in a State of Good Repair

Maintaining the transportation system in a state of good repair is essential to ensuring safety, reliability, and long-term financial sustainability. Effective asset management allows the City to prioritize investments, extend the useful life of existing infrastructure, and minimize costly reactive repairs.

As a part of this strategy, the City should take every opportunity to extend the remaining life of existing infrastructure to avoid service level reductions and further financial strain. Coordinating maintenance and rehabilitation activities with broader transportation objectives will help ensure that investments deliver maximum value while advancing the City's goals for safety, accessibility, and multi-modal mobility.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.5A	Develop and implement a multi-year pavement rehabilitation plan	Ongoing	Finance	Public Works and Engineering
1.5B	Align asset management practices and investment priorities with updated street classifications	Short-term (3-5 years)	Finance	Public Works and Engineering
1.5C	Adopt an ownership and management framework for transportation assets	Short-term (3-5 years)	Public Works and Engineering, Community Services	
1.5D	Implement multi-modal improvements with all road upgrades and pavement rehabilitations	Ongoing	Public Works and Engineering	

STRATEGY 1.6: Plan for Emergencies and Resilience

The transportation network plays a critical role supporting emergency response, evacuation, and long-term resilience to climate-related risks. Yellowknife faces increasing challenges with wildfires, permafrost thaw, and more variable freeze-thaw cycles which impact the safety and reliability of transportation infrastructure.

To complement the *Climate Action Plan (2026)*, strengthening the resilience of the transportation network can be achieved by ensuring streets are designed and maintained to support emergency access, providing redundant and well-connected routes for evacuation, and adapting infrastructure, standards, and maintenance practices to respond to changing climate conditions. This includes reviewing roadway widths to accommodate emergency vehicles, incorporating FireSmart principles along key corridors, planning for multiple access and egress routes to improve network redundancy, and updating design and maintenance approaches to address permafrost thaw and seasonal variability.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.6A	Review available width of all roadways, including on-street parking, to ensure sufficient width for emergency services	Quick Win (0-2 years)	Public Works and Engineering	Protective Services
1.6B	Utilize FireSmart principles strategically to expand the off-street active transportation network	Ongoing	Public Works and Engineering	Protective Services
1.6C	Provide alternate routes and redundant street networks to provide travel choices in emergencies	Medium-term (6-10 years)	Planning and Development, Protective Services, Public Works and Engineering	
1.6D	Discourage new subdivisions that do not have multiple access and egress points	Ongoing	Planning and Development	

STRATEGY 1.7: Move Goods and Hazardous Materials Efficiently

The efficiency and reliability of trucks are essential components of a goods movement network and broader economic development priorities. The interface of truck routes with routes that prioritize active transportation and smaller passenger vehicles must be carefully designed to prioritize the safety of vulnerable road users. Goods movement, or freight, is broadly defined as the wide array of activities involved in transporting goods (primary, intermediate, or finished) from producer/supplier to consumer. Goods movement can be accommodated by road, rail, or water.

The City has identified designated truck routes but has not developed formal Truck Route Bylaw. Existing truck routes include highways under GNWT jurisdiction (including Highway 3, Highway 4, Yellowknife Access Road, and 48 Street) and several streets under the City's jurisdiction, including (including Deh Cho Boulevard, Old Airport Road, 50th Avenue, Kam Lake Road, and Forrest Drive).

Map 5 shows a designated Truck Route Network.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.7A	Adopt a Truck Route Bylaw	Short-term (3-5 years)	Public Works and Engineering	
1.7B	Identify a Hazardous Materials Network	Medium-term (6-10 years)	Public Works and Engineering, Protective Services	

STRATEGY 1.8: Coordinate highway improvements with the GNWT

While the primary focus of this Plan is on roadways under the City's jurisdiction, the City can also support and/or advocate for improvements along highways under the jurisdiction of the GNWT. The GNWT has jurisdiction of the following roadways (see **Map 6**):

- Highway 3;
- Highway 4 (Ingraham Trail);
- Yellowknife Access Road (north of Highway 3);
- 48 Street (Between Highway 3 and 49 Avenue);
- Stanton Territorial Hospital Access Road; and
- Streets in the vicinity of the Yellowknife Airport, including Archibald Street, Laserich Gate, Bristol Avenue, Idaa Road, Berry Street, and McMillan Street.

Highway 3 is classified as a Highway and provides the main access road to the City of Yellowknife and runs east-west on the northern edge of Yellowknife's urban area. Highway 3 is a two-lane undivided highway that provides access to Yellowknife Airport and acts as a gateway to the City, with major intersections to provide access to the City at Old Airport Road and 48 Street. According to the GNWT's 2023 Highway Traffic Report, Highway 3 accommodates the highest traffic volumes, with Average Annual Daily Traffic Volumes (AADT) of approximately 4,350 vehicles per day in 2023. However, Highway 3 experiences higher volumes in the summer period, with Peak Summer Average Daily Traffic (PSADT) of approximately 5,010 vehicles per day in 2023. Traffic volumes on Highway 3 have been declining in recent years from an AADT of 6,600 vehicles per day and a PSADT of 8,810 vehicles per day in 2014.

Highway 4, also known as the Ingraham Trail, is also classified as a Highway and is a two-lane undivided highway that provides connections beyond Yellowknife to the east to Tiibbit Lake, approximately 70 km east of Yellowknife. In the winter months, Highway 4 also provides access to the Tibbitt to Contwoyto Winter Road, an annual ice road first that provides access to mines and exploration activities. Highway 4 carries an AADT of 600 vehicles per day and a PSADT of 700 vehicles per day in 2023.

Yellowknife Access Road is classified as a Highway and extends north of the intersection of Highway 3 and 48 Street. This roadway formerly provided the main access road to the east before the construction of Highway 4. Today, this roadway primarily provides access to the Giant Mine site.

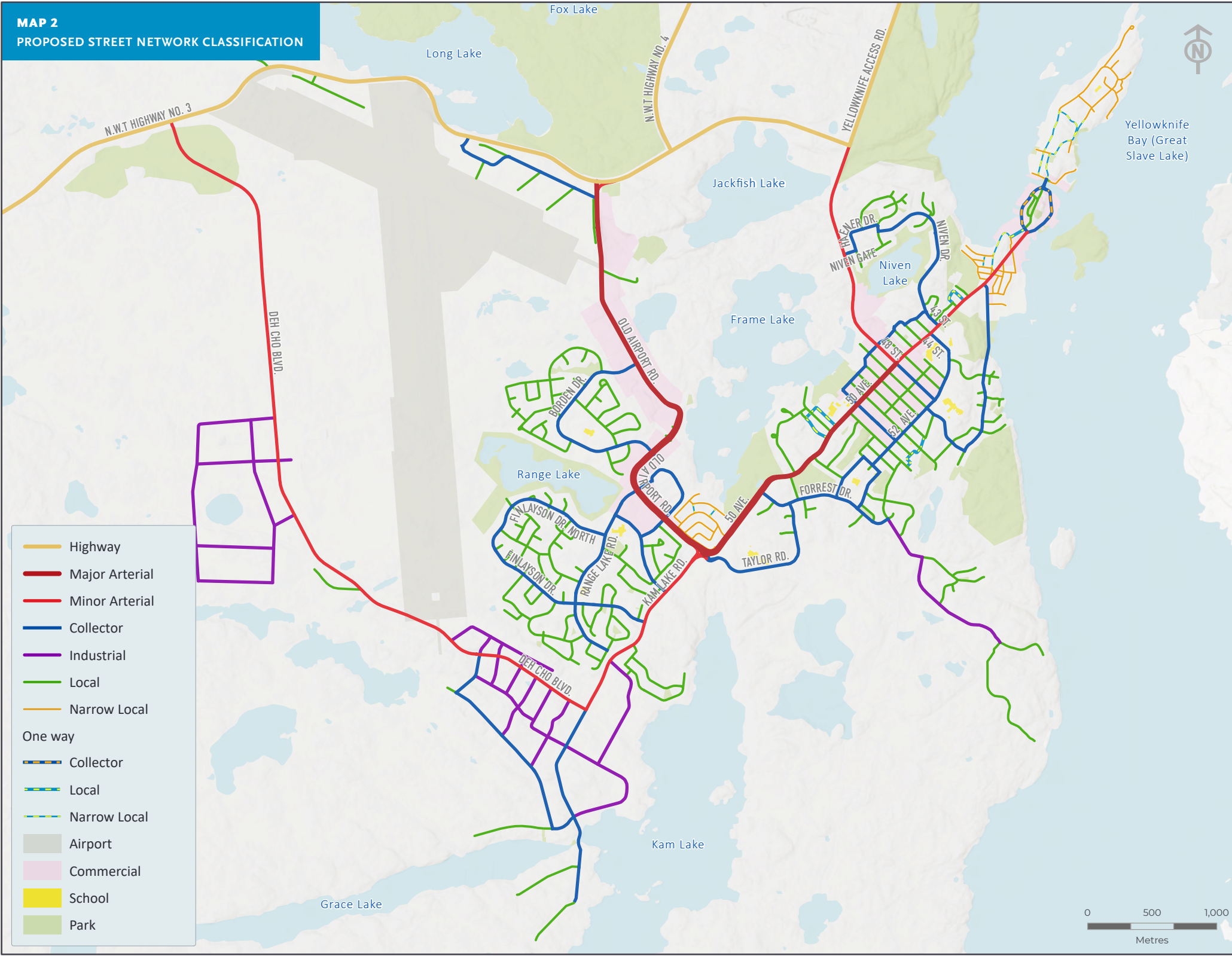
48 Street is classified as a Minor Arterial Street and provides access to the City of Yellowknife. 48 Street is a two-lane undivided roadway that provides access to the Niven neighbourhood, downtown Yellowknife, and several key destinations, including the Northwest Territories Legislative Assembly, Prince of Wales Northern Heritage Centre, and Chateau Nova Yellowknife. A mid-block crossing with actuated flashing beacons is provided at the access road to Chateau Nova Yellowknife and Northwest Territories Legislative Assembly.

The other roadways under GNWT jurisdiction are generally classified as local or collector roads and provide access to the Yellowknife Airport, Stanton Territorial Hospital, and other industrial areas.

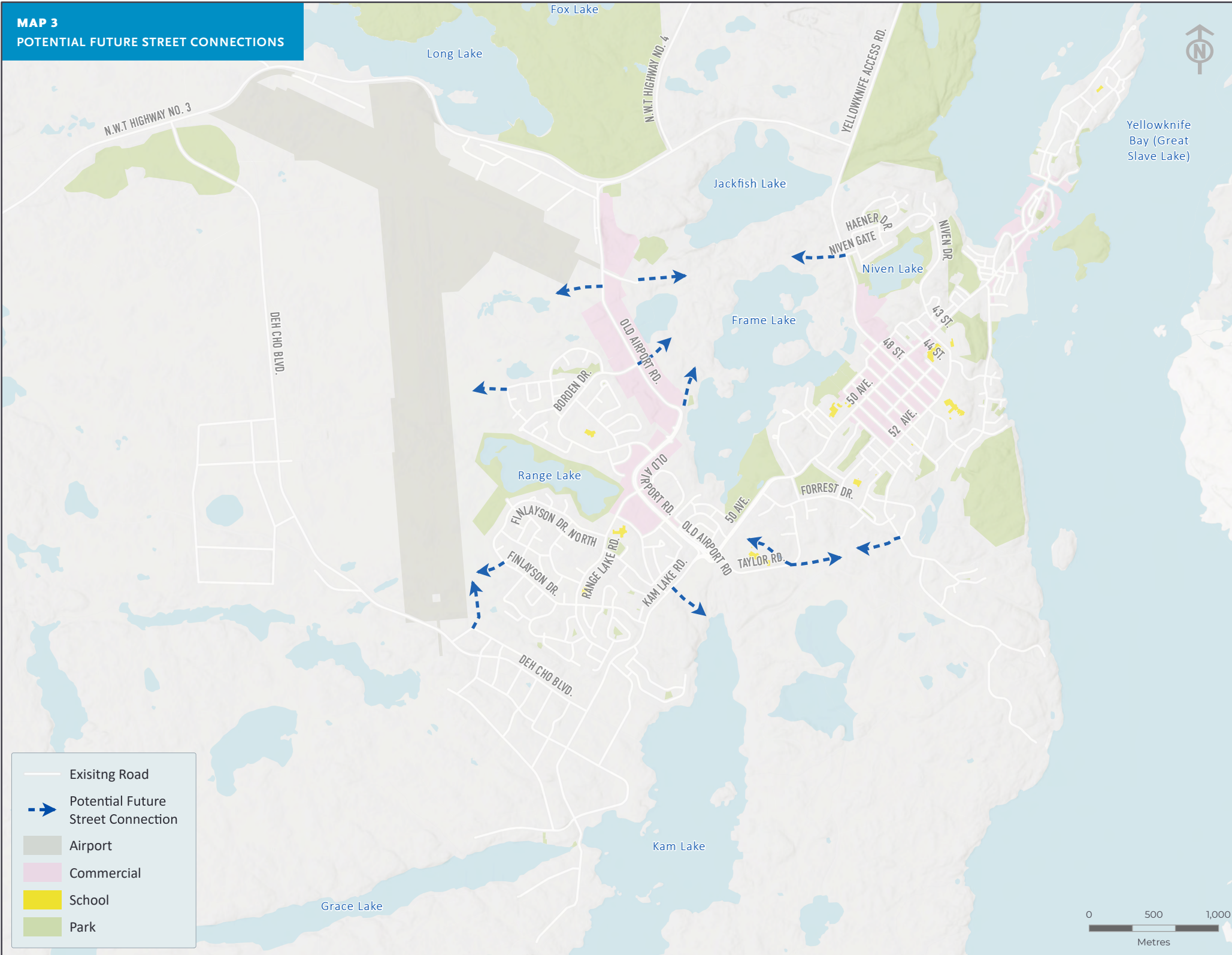
In addition, the Dettah Ice Road is a seasonal winter road that provides direct access from Yellowknife the community of Dettah. The Dettah Ice Road generally operates between December and April (depending on seasonality), and typically carries approximately 600 vehicles per day during those months in which it is operational.

#	Actions	Timeframe	Responsibility	
			Lead	Support
1.8A	Work with the GNWT to identify issues and opportunities to improve regional mobility	Ongoing	GNWT	Public Works and Engineering

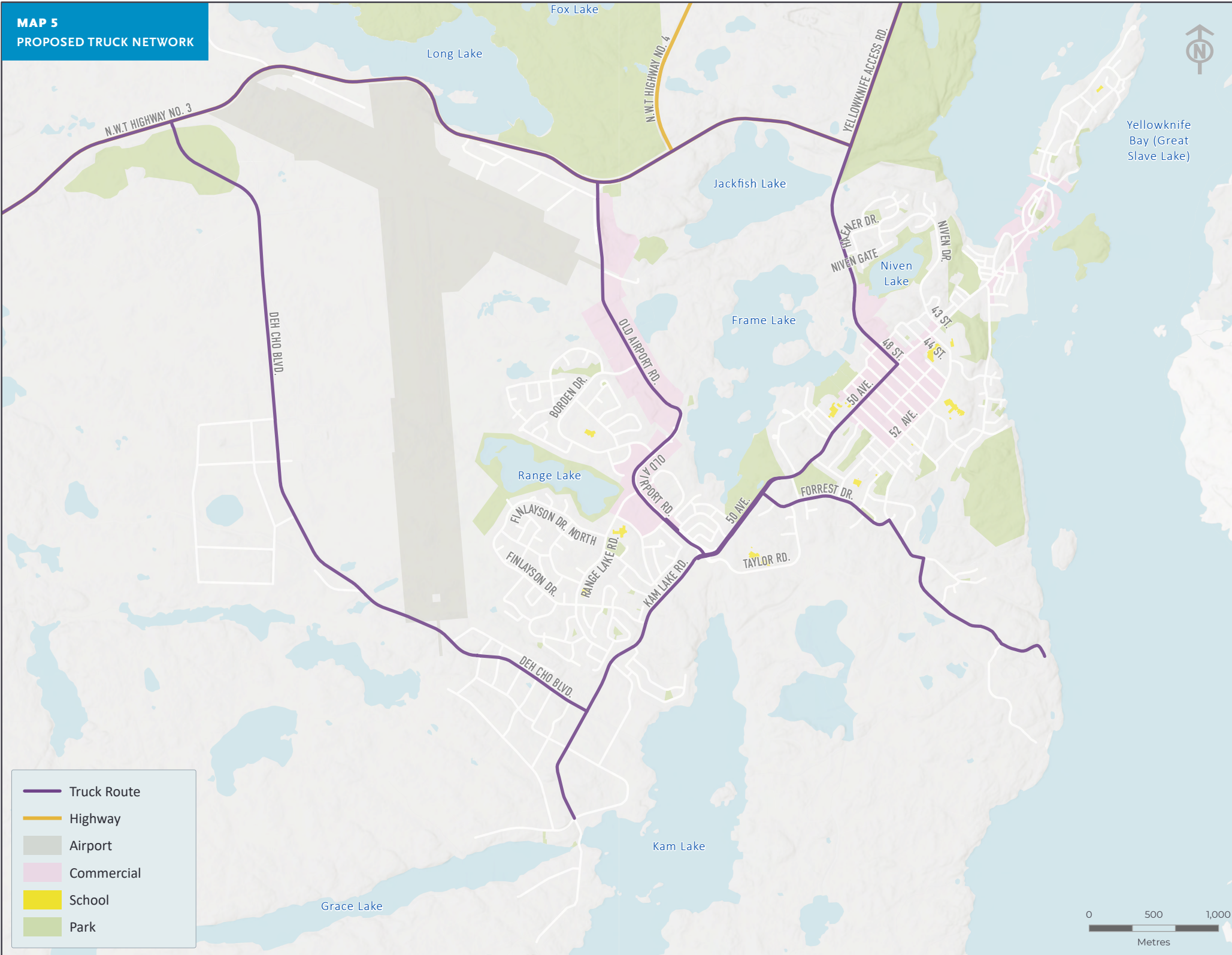
MAP 2 **PROPOSED STREET NETWORK CLASSIFICATION**



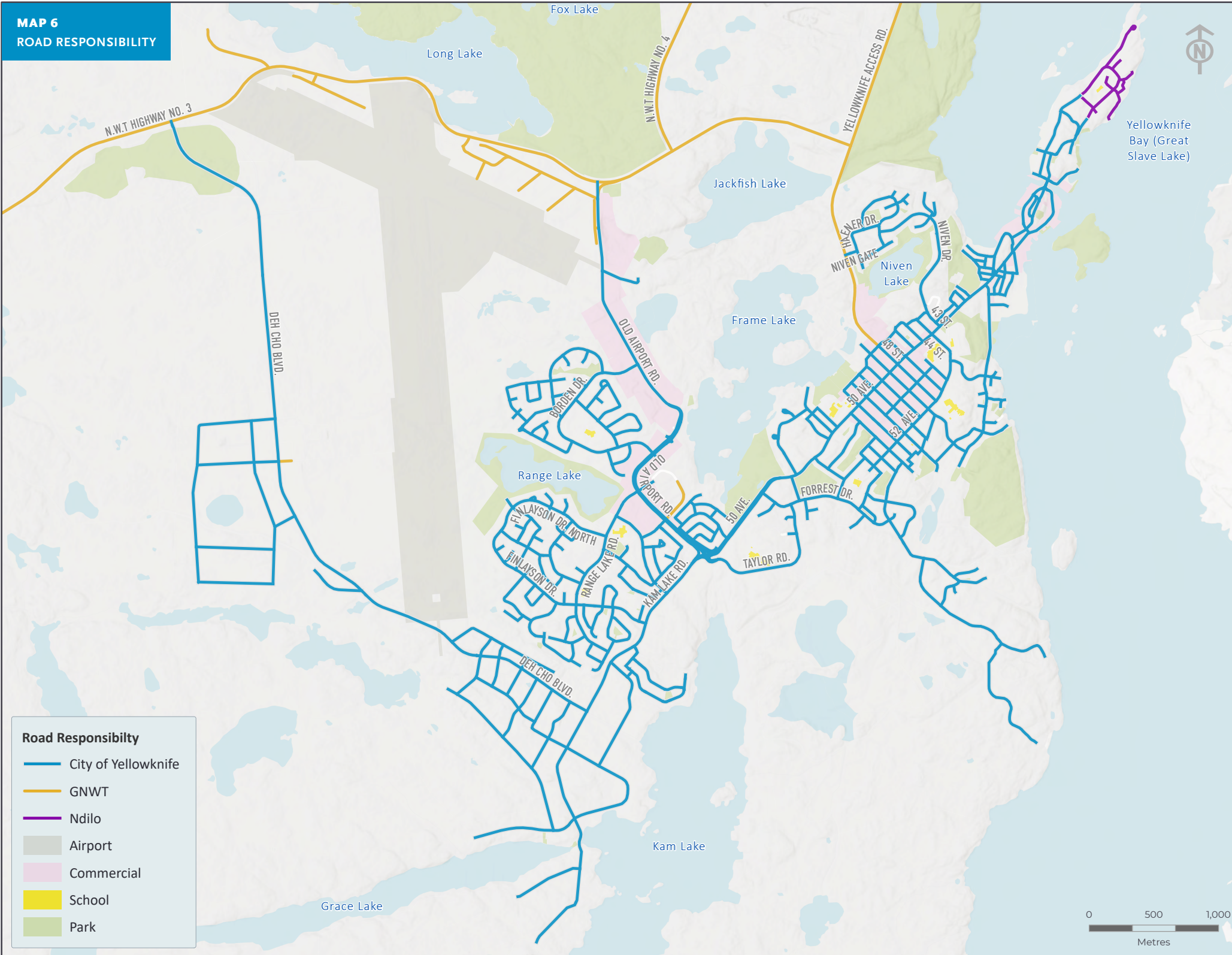
MAP 3
POTENTIAL FUTURE STREET CONNECTIONS



MAP 5
PROPOSED TRUCK NETWORK



MAP 6
ROAD RESPONSIBILITY





THEME 2: ACTIVE TRANSPORTATION

Active Transportation by Numbers



Over one-quarter of all trips (27%)
are made by walking, wheeling, and cycling



Nearly one in five trips (19%)
are made on foot



49% of residents
cycle at least occasionally



Two-thirds of households
own a bicycle or micromobility device



Trips made by active modes **exceed 50%**
in the downtown areas, but drop to
approximately 14% in suburban areas



Most active transportation trips are short, with average
distances of **1.0 km** for walking and **2.1 km** for
cycling or micromobility

Active transportation plays a fundamental role in Yellowknife's transportation system, supporting daily travel, community connection, and overall quality of life. It includes walking, wheeling, cycling, and other forms of human-powered mobility, and provides a range of benefits such as improved health, lower transportation costs, reduced congestion, and more vibrant and livable neighbourhoods.

Walking is the most basic and universal form of transportation, forming part of every trip regardless of mode. As such, a safe, accessible, and well-connected active transportation network is essential to enabling all other forms of travel. Creating environments where walking and cycling are safe, direct, and comfortable allows more people to choose these modes to get around the community.

Top 3 Walking Issues



Personal safety
such as crime



Lack of
pedestrian
facilities¹



Pedestrian facilities
are in poor condition
or uneven

Source: Household Travel Survey

Source: Community Survey

¹ (e.g., sidewalks, multi-use pathways, or trails)

Top 3 Walking Opportunities



More multi-use pathways (paved)



More trails (unpaved)



More sidewalks

Top 3 Cycling Issues



Lack of on-street cycling routes and infrastructure



Cycling routes are not physically protected from vehicle traffic



Lack of off-street cycling routes²

Top 3 Cycling Opportunities



More multi-use pathways



More on-street bike lanes that are physically separated from traffic



More bicycle parking and end-of-trip facilities

Source: Community Survey

² (e.g., sidewalks, multi-use pathways, or trails)

STRATEGIES

This theme focuses on building a complete and connected network that supports people of all ages and abilities, including seniors, children, and people with disabilities through six strategies:

STRATEGY 2.1: Complete the Sidewalk Network

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

STRATEGY 2.3: Enhance Trails and Pathways

STRATEGY 2.4: Maintain Multi-use Pathways Year-round

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

STRATEGY 2.6: Provide Bicycle Parking

Together, the strategies under this theme support a shift toward a more inclusive, accessible, and resilient active transportation network that encourages more people to walk, roll, and cycle as part of their daily travel.

STRATEGY 2.1: Complete the Sidewalk Network

Providing a complete and connected sidewalk network is essential to creating an environment where people of all ages and abilities can walk safely and comfortably for a variety of trip purposes.

Yellowknife's pedestrian network includes a range of pedestrian facilities, primarily sidewalks and multi-use pathways. Most streets have a sidewalk or multi-use pathway on at least one side of the street. The City has relatively good sidewalk coverage near commercial destinations and schools. However, there are some gaps particularly on streets providing access to bus stops. While most sidewalks are constructed of concrete, asphalt and gravel sidewalks are found in low-lying areas such as Old Town and portions of Range Lake Road, Borden Drive, and Kam Lake. Many existing sidewalks also fall below the recommended minimum width of 1.5 metres in the current Design Standards, limiting accessibility and comfort for some people.

The sidewalks standards for new streets in Yellowknife are regulated based on the City's Development & Design Standards Manual. Updating these standards presents an opportunity to ensure that new sidewalks and multi-use pathways are consistent, accessible, and aligned with current best practice design guidance. In addition to updated standards, targeted investments and strategic upgrades are needed to address network gaps, improve sidewalk quality, and better serve areas with high pedestrian demand.

Map 7 shows the existing pedestrian network while **Map 8** shows the proposed pedestrian network, which includes multi-use pathways, sidewalks, trails, and easement pathways.

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.1A	Complete new sidewalks such that there is a sidewalk on at least one side of all local streets and a sidewalk and/or multi-use pathway on both sides of all arterial and collector streets	Ongoing	Public Works and Engineering	
2.1B	Strategically upgrade and widen existing sidewalks in areas of high pedestrian demand	Ongoing	Public Works and Engineering	
2.1C	When new development occurs and creates a gap in the pedestrian and cycling network, ensure a temporary connection or transition to the roadway is provided.	Ongoing	Public Works and Engineering	

STRATEGY 2.2: Develop a Cycling Network for People of All Ages and Abilities

Creating a comfortable, complete, and connected network of cycling facilities is critical to encouraging more people to cycle. For cycling to become a realistic and attractive transportation option, cycling routes must be direct, intuitive, and connect people to key community destinations such as schools, parks, employment areas, commercial centres, and recreational facilities. Given that children and youth make up a significant portion of cycling trips made in Yellowknife, it is particularly important to ensure that safe and comfortable cycling routes are provided to key destinations for children and youth such as schools, parks, and community and recreation facilities.

Yellowknife's cycling network currently includes a variety of facility types, including off-street multi-use sidewalks, off-street bicycle paths, on-street painted bicycle lanes, signed bicycle routes, and paved shoulders. The various facility types can be challenging for people cycling to navigate. Routes often require users to transition frequently between different facility types, resulting in an inconsistent and sometimes confusing experience. In addition, many existing facilities do not meet current best practice design guidance.

The cycling network has also developed incrementally and in an ad-hoc manner, leading to incomplete segments and gaps in connectivity. As a result, there are opportunities to both fill network gaps and upgrade existing and future cycling facilities to better align with best practice design guidance and provide a safer, more comfortable experience for people of all ages and abilities.

Expanding and enhancing Yellowknife's cycling network will also require increased operating and maintenance resources. This includes ongoing investments in snow clearing, vegetation management, wayfinding and regulatory signage, and enforcement support from Bylaw Services and the RCMP.

Consistent design guidance will help ensure that future cycling facilities are safe, comfortable, and aligned with current best practices for people of all ages and abilities. **Map 9** shows the existing cycling network while **Map 10** shows the proposed cycling network, which includes multi-use pathways, neighbourhood bikeways, trails, and easement pathways. Example Cycling Facility Design Guidelines can be found in **Appendix D**.

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.2A	Develop a complete and connected cycling network that is comfortable for people of all ages and abilities	Ongoing	Public Works and Engineering	

STRATEGY 2.3: Enhance Trails and Pathways

Trails and off-street pathways are a core component of Yellowknife's transportation network and play a critical role in supporting walking, cycling, and other forms of active transportation.

Through the Community Survey, Yellowknife residents identified trails and pathways as one of the most loved features of the city. Community members also identified various ways to improve trails and pathways

Yellowknife has a network of trails and pathways that are deeply embedded in daily life and community identity. The Frame Lake Trail, located at the heart of the city, functions as a key transportation corridor connecting neighbourhoods, employment areas, downtown, and other important community destinations. Other trails, such as the Niven Lake trail, provide key neighbourhood connections and recreational access for residents. Off street pathways also play an important role in linking residential areas to sidewalks, cycling facilities, and the broader active transportation network.

While trails and pathways are a key feature of Yellowknife's active transportation network, many were not originally designed to function as formal, year round active transportation routes. Some trails are unpaved, lack lighting or wayfinding, or have limited and unclear connections to sidewalks and cycling facilities. These limitations can reduce accessibility, comfort, and usability particularly during winter months and periods of reduced daylight.

Trails and pathways are shown on both the proposed pedestrian and cycling network maps (**Map 8** and **Map 10**)

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.3A	Establish a Trail and Pathway Classification and Maintenance Framework	Short-term (3-5 years)	Community Services	Public Works and Engineering
2.3B	Upgrade unpaved trails to paved multi-use pathways where they are part of the active transportation network	Medium-term (6-10 years); Ongoing	Public Works and Engineering	
2.3C	Provide wayfinding on trails and pathways	Ongoing	Community Services	Public Works and Engineering, Protective Services
2.3D	Convert and formalize wide sidewalks and shoulders to multi-use pathways	Ongoing	Public Works and Engineering	

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.3E	Ensure trails and pathways have adequate lighting that meets the trail and pathway classification	Ongoing	Community Services	
2.3F	Utilize cut-throughs for active transportation	Ongoing	Public Works and Engineering	Planning and Development, Community Services

STRATEGY 2.4: Maintain Multi-use Pathways Year-Round

Ongoing and regular maintenance of existing and new infrastructure throughout the year is critical to promoting and encouraging active transportation. Active transportation infrastructure that is not well maintained becomes inaccessible and less desirable for people walking, cycling, and rolling. Maintenance should be front-of-mind throughout all stages of the planning, design, and implementation process. Undertaking ongoing rehabilitation and maintenance and improving the accessibility of existing infrastructure also needs to be an important focus.

As the active transportation network is implemented and there are more facilities, this will affect the City's operation and maintenance budget. Increasing operations and maintenance budget is essential when approving new capital projects.

As with any new infrastructure investment, the installation of more cycling infrastructure can carry significant long-term operations, maintenance, and renewal cost dependent on facility type. These lifecycle cost implications should be considered alongside benefits during capital project planning and decision-making.

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.4A	Develop an Active Transportation Maintenance Priority Network	Short-term (3-5 years)	Public Works and Engineering	Community Services
2.4B	Formalize a Snow and Winter Road Maintenance Policy to outline winter snow maintenance procedures for active transportation	Quick Win (0-2 years)	Public Works and Engineering	Community Services, Protective Services
2.4C	Inspect active transportation facilities year-round to ensure they are well-maintained	Ongoing	Public Works and Engineering	Community Services

STRATEGY 2.5: Encourage Micromobility and Other Forms of Active Transportation

Micromobility is an umbrella term encompassing a variety of small, lightweight, and low-speed devices that facilitate human transportation. This includes devices such as bicycles, e-bikes, cargo bikes, e-scooters, skateboards and more.

Under the GNWT Motor Vehicles Act, e bikes are classified as power assisted bicycles and are generally subject to the same rules of the road as conventional bicycles. Municipal bylaws may further regulate where and how e bikes operate within city limits. In contrast, there is currently no GNWT legislation that clearly defines or regulates e scooters, resulting in a regulatory gap.

As micromobility continues to evolve and growth, the City should stay up to date with changes and how other jurisdictions are addressing these modes.

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.5A	Update regulations and bylaws to integrate micromobility users on trails and roadways	Short-term (3-5 years)	Community Services, Protective Services	Public Works and Engineering
2.5B	Develop policy and guidelines to regulate motorized users on off-street pathways	Short-term (3-5 years)	Community Services	Public Works and Engineering, Protective Services
2.5C	Support community initiatives to provide winter-based active transportation, such as cross-country skiing	Medium-term (6-10 years)	Community Services, Public Works and Engineering	Economic Opportunities, Investments and Partnerships

STRATEGY 2.6: Provide Bicycle Parking

The Community Survey found that providing more bicycle parking was one the most frequently cited opportunities to improve cycling in Yellowknife.

There are generally two bicycle parking types: **short-term bicycle parking** and **long-term bicycle parking**:

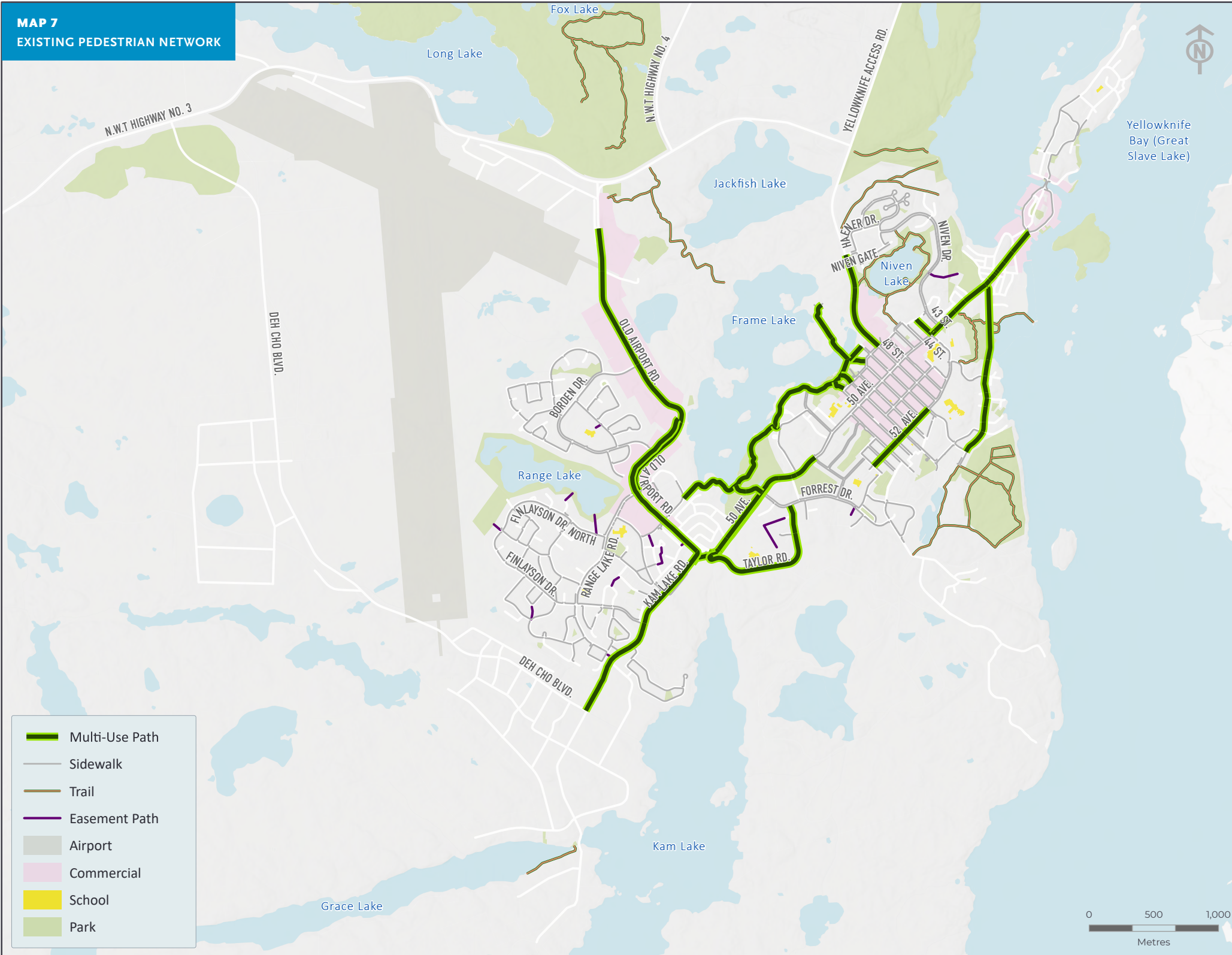
- **Short-term bicycle parking** is generally intended for people stopping for two hours or less such as shoppers, people running errands, or visitors. They are found at sidewalks, commercial destinations, schools, and civic facilities. This includes bicycle racks such as Inverted U and Post and Ring racks, as well as bicycle corrals.
- **Long-term bicycle parking** is generally intended for people stopping for two hours or more such as commuters, employees, and residents in multi-family housing. They are typically inside or near workplaces, civic facilities, schools, transit hubs, or multi-family residential buildings. They may be in the form of bike lockers or indoor bike rooms.

Bicycle racks can be found throughout downtown Yellowknife and at city-owned facilities such as City Hall and the Aquatic Centre, and parks. However, bicycle parking can be harder to find and less visible outside of these areas. Additionally, the City's Zoning Bylaw does not differentiate between short-term and long-term bicycle parking. There are opportunities to update bicycle racks and relocate bicycle racks to ensure they can be accessed from all sides and are intuitive to the user.

Access to secure bicycle parking reduces the fear of theft or vandalism, providing people with peace of mind. Supporting guidelines can help ensure bicycle parking is provided consistently and meets the needs of both short-term and long-term users. Example Bicycle Parking Guidelines can be found in **Appendix D**.

#	Actions	Timeframe	Responsibility	
			Lead	Support
2.6A	Review and update requirements for short-term and long-term bicycle parking	Quick Win (0-2 years)	Planning and Development	Public Works and Engineering
2.6B	Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations	Ongoing	Community Services	Public Works and Engineering
2.6C	Implement bicycle parking within the public right-of-way in the downtown, Old Town and other key destinations.	Quick Win (0-2 years)	Community Services	Public Works and Engineering

MAP 7
EXISTING PEDESTRIAN NETWORK



MAP 8
PROPOSED PEDESTRIAN NETWORK



Yellowknife
Bay (Great
Slave Lake)

Multi-Use Pathway

- Existing
- Upgrade
- New

Sidewalk

- Existing
- New

Trail

- Existing

Easement Path

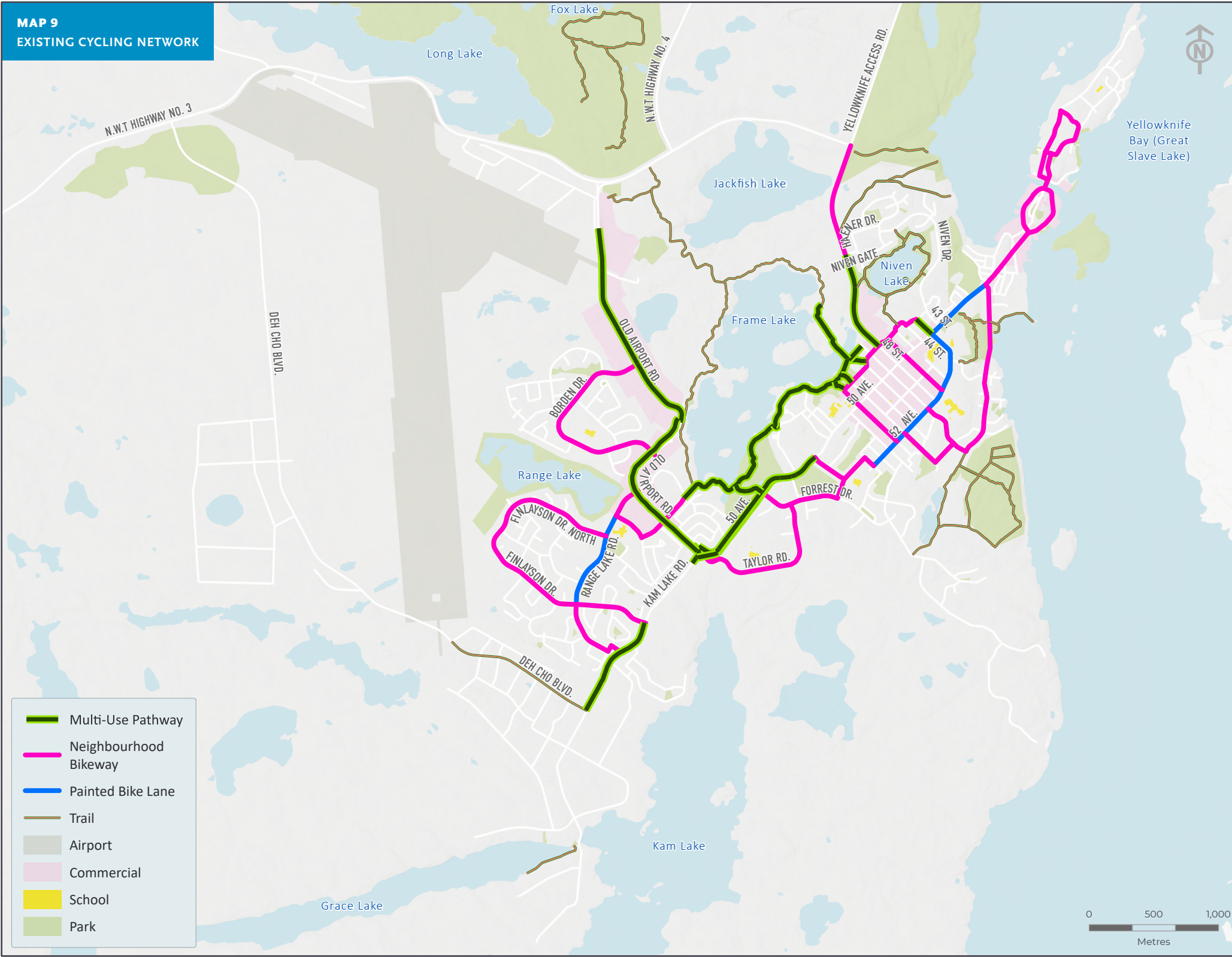
- Existing

- Airport
- Commercial
- School
- Park

0 500 1,000
Metres

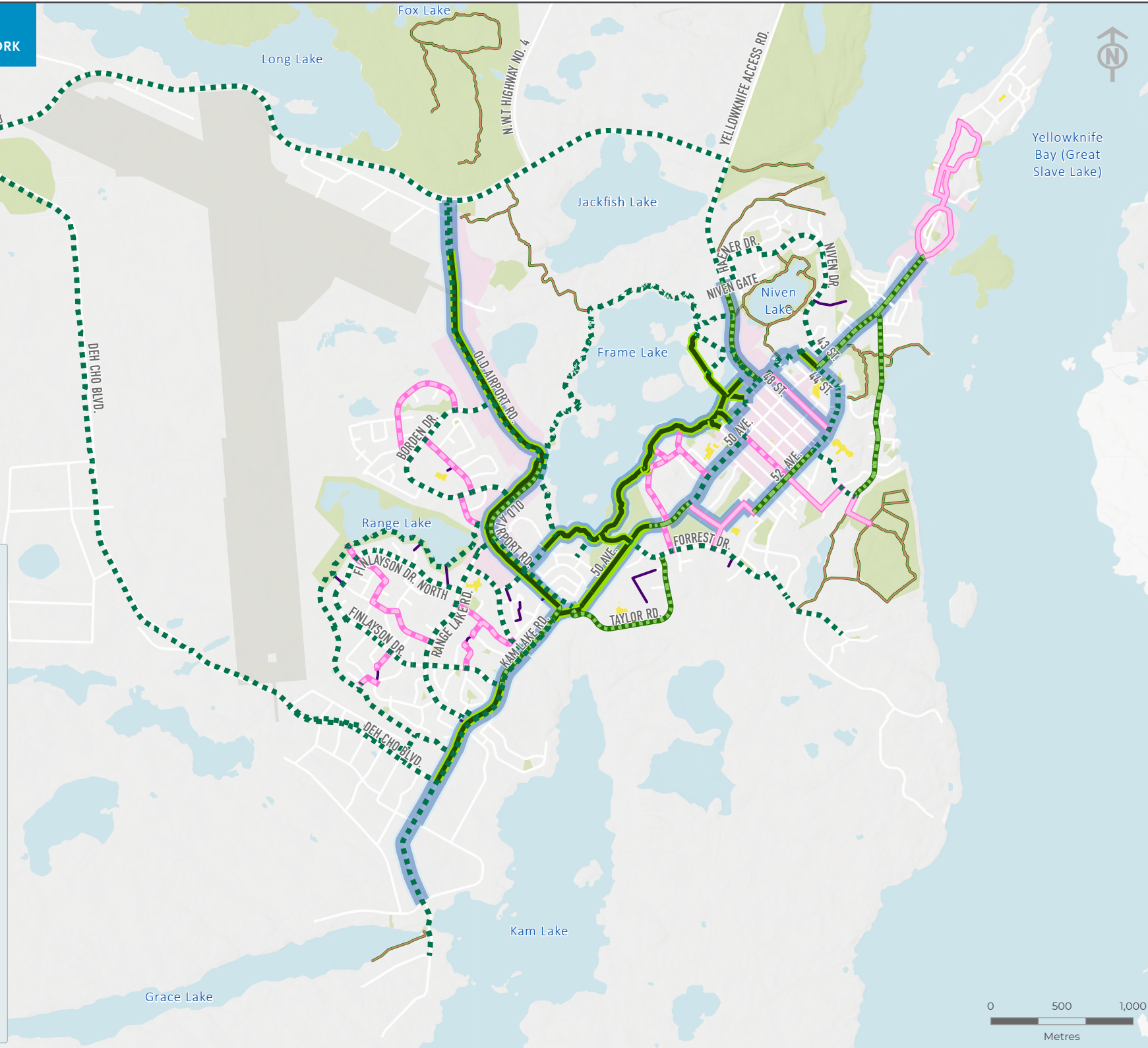
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MAP 9
EXISTING CYCLING NETWORK



MAP 10 **PROPOSED CYCLING NETWORK**

- Core Network**
- Multi-Use Pathway**
 - Existing
 - Upgrade
 - New
- Neighbourhood Bikeway**
 - Upgrade
 - New
- Trail**
 - Existing
- Easement Path**
 - Existing
- Land Use**
 - Airport
 - Commercial
 - School
 - Park





THEME 3: TRANSIT

Transit plays a vital role in providing equitable, reliable, and sustainable transportation options in Yellowknife. It is an essential service for many Yellowknifers, particularly those who do not drive, and contributes to a more inclusive and connected community.

Conventional transit service in Yellowknife is known as YK Transit. YK Transit forms the backbone of the city's conventional transit network, complemented by services such as school buses, taxis, and accessible transit. These services provide important mobility options across the city. However, to be a more competitive and attractive choice to driving, transit must be reliable, frequent, comfortable, and easy to use.

Transit by the Numbers



Transit accounts for **approximately 2%** of all daily trips, with an **additional 2%** of trips made by school bus



Transit use is highest among downtown residents, where it makes up **about 8% of all trips**, compared to **1-2%** in most other neighbourhoods



Approximately **17% of residents** use transit at least once per month, including **4%** who use transit daily



Youth and seniors are among the most frequent transit users, with **39% of youth aged 10 to 17** using transit at least monthly



Only **6% of residents aged 13 and older** have a transit pass, with higher uptake among youth and older adults, as well as among women

Source: Household Travel Survey

Top 3 Transit Issues



Transit isn't frequent enough or doesn't meet my schedule



There is limited transit service to get to destinations in Yellowknife

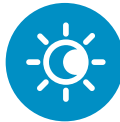


There are no barriers for me taking public transit

Top 3 Transit Opportunities



More frequent transit service



More transit service on weekends and evenings



More transit routes within Yellowknife

Source: Community Survey

STRATEGIES

This theme focuses on three strategies to make transit more reliable, comfortable, and easy to use for everyone:

STRATEGY 3.1: Improve Transit Service

STRATEGY 3.2: Enhance the Transit User Experience

STRATEGY 3.3: Improve Transit Accessibility

Together, these strategies aim to support a more responsive and user-focused transit system that meets the diverse needs of Yellowknife residents.

STRATEGY 3.1: Improve Transit Service

Ensuring that transit service is reliable and efficient is one of the most important components of making transit a competitive alternative to driving and increasing transit ridership.

The City's transit network is made up of three transit routes, including one main connector route and two neighbourhood routes that provide local services throughout Yellowknife. Most transit routes operate six days a week from Monday to Saturday between 6:30 am to 7:30 pm. Transit service is not provided on

Sundays, statutory holidays, or at night. Transit frequency is typically provided every 20 -40 minutes in the morning and afternoon peak periods, and every hour during the mid-day periods and on Saturdays.

Map 11 shows locations with proposed bus shelters, transit stops, and potential future transit route connections.

#	Actions	Timeframe	Responsibility	
			Lead	Support
3.1A	Ensure the transit network connects with all major destinations in the City	Ongoing	Public Works and Engineering	Planning and Development
3.1B	Ensure all new large-scale development areas have transit service within a five-minute walking distance	Medium-term (6-10 years)	Planning and Development	Public Works and Engineering
3.1C	Improve transit service frequency during peak periods	Long-term (11+ years)	Public Works and Engineering	
3.1D	Improve transit service during off-peak periods, including weekends, evenings, and holidays	Long-term (11+ years)	Public Works and Engineering	

#	Actions	Timeframe	Responsibility	
			Lead	Support
3.1E	Increase transit service levels to correspond with population increases	Long-term (11+ years)	Public Works and Engineering, Planning and Development	Finance
3.1F	Work with hotels and major employers to encourage increased shuttle service to the airports and remote destinations	Long-term (11+ years)	Hotel and major employers in Yellowknife	Economic Opportunities, Investments and Partnerships
3.1G	Reexamine the feasibility of on-demand transit and/or smaller neighbourhood-based transit vehicles at the next Transit Study	Long-term (11+ years)	Public Works and Engineering	

STRATEGY 3.2: Enhance the Transit User Experience

To make public transit an attractive transportation option, the user experience must be safe, comfortable, and enjoyable. Improving bus stop passenger amenities is one way that the City can make transit use more enjoyable for Yellowknife residents. Amenities that make bus stops and transit exchanges more comfortable can also have a significant impact on passenger safety and satisfaction, in addition to attracting new customers.

Upgrades to transit facility amenities that Yellowknife can consider include:

- **Benches and Shelters:** Shelters provide protection weather protection, making waits significantly more pleasant. Benches allow people to rest after their walk to the transit stop and are especially important for seniors and people with physical disabilities.
- **Litter/Recycling Bins** help keep the bus stop area clean.
- **Route Information** assists with wayfinding and indicates which buses routes stop at that location.

#	Actions	Timeframe	Responsibility	
			Lead	Support
3.2A	Continue to improve shelters and amenities at bus stops	Ongoing	Public Works and Engineering	
3.2B	Review the transit service fare structure to encourage accessibility and increased ridership	Medium-term (6-10 years)	Public Works and Engineering	Finance

STRATEGY 3.3: Improve Transit Accessibility

Transit must be accessible for everyone. While all conventional transit vehicles are accessible, not everyone is able to use conventional transit. The City also operates YKFlex, an accessible door-to-accessible door custom transit service for people who are unable to use conventional transit with safety and dignity due to a temporary or permanent physical or functional disability. Through community engagement it was noted that more accessible transit service for seniors is desired.

#	Actions	Timeframe	Responsibility	
			Lead	Support
3.3A	Provide more flexible booking options for YKFlex	Medium-term (6-10 years)	YK Transit Operator	Public Works and Engineering
3.3B	Ensure website and mobile applications have digital accessibility features, such as screen-reader compatible apps	Medium-term (6-10 years)	YK Transit Operator	Public Works and Engineering
3.3C	Ensure transit operators continue to provide training that supports respectful and inclusive interactions with people with disabilities, Indigenous peoples, and racialized groups	Ongoing	YK Transit Operator	Public Works and Engineering

MAP 11
PROPOSED TRANSIT NETWORK

Transit Routes

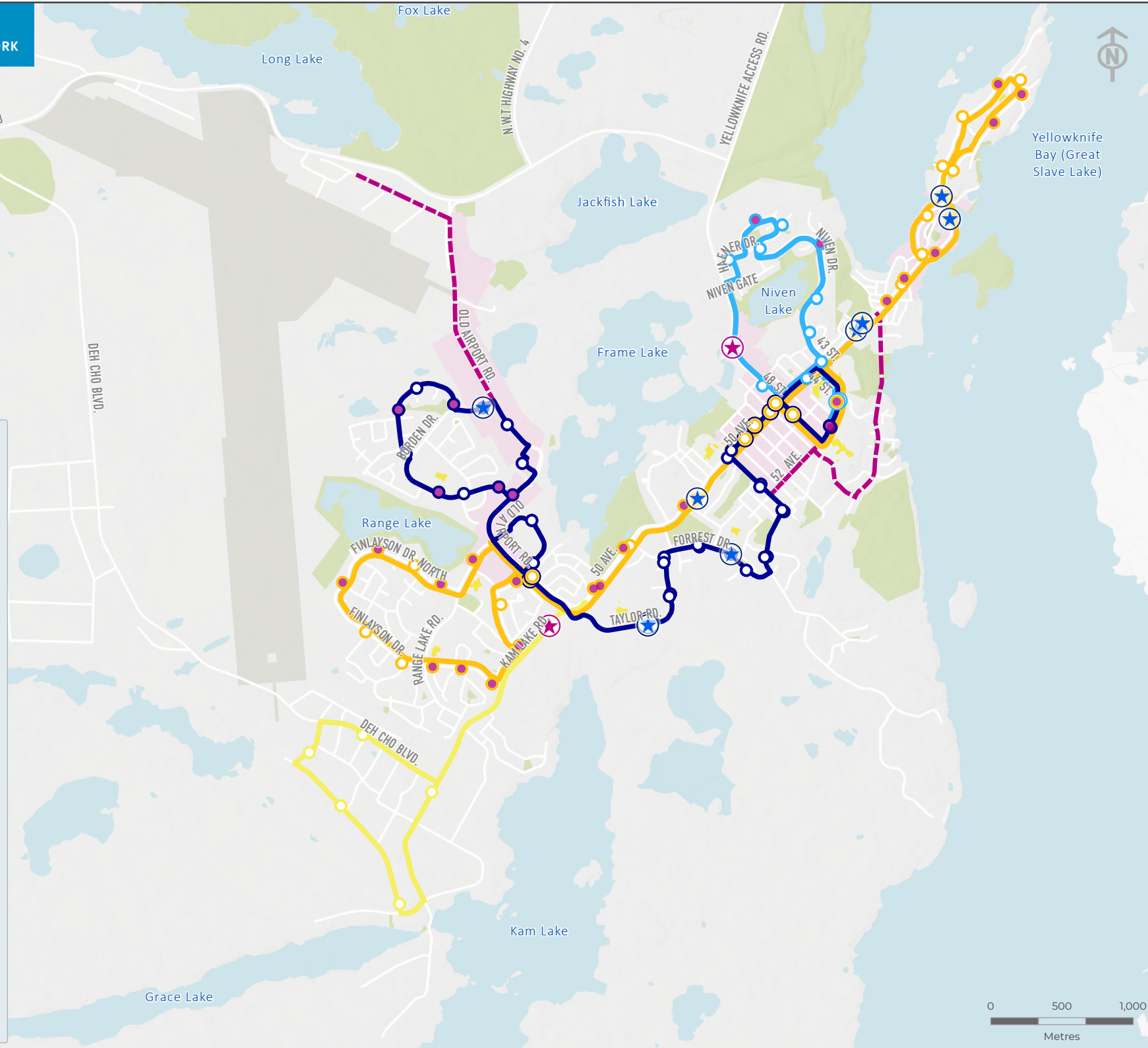
- YK Connector
- Borden / Forrest
- Niven Loop
- Kam Lake
- Potential Future Connection

Transit Stops

- Borden / Forrest
- Kam Lake
- Niven Loop
- YK Connector
- ★ Proposed Transit Stop

Bus Shelters

- Existing
- ★ Proposed
- Airport
- Commercial
- School
- Park





THEME 4: SUSTAINABLE COMMUTING & TECHNOLOGY

Sustainable commuting refers to managing how people travel throughout Yellowknife through Transportation Demand Management (TDM) measures as cost-effective and strategic way to manage increasing travel demands. In Yellowknife today, single-occupant vehicles account for the majority of commute trips, placing increasing pressure on the transportation network. As the city grows and employment continues to concentrate in key areas such as downtown and major corridors, managing travel demand is essential to supporting a more efficient, resilient, and sustainable transportation system.

Transportation Demand Management (TDM) is a broad term that refers to a range of infrastructure, policies, and incentives that can help reduce congestion by supporting changes to people's travel patterns and behaviours. TDM is a shared responsibility – while the City plays a critical role by providing infrastructure, employers can also play an important role with their own policies and programs.

There is no single measure that will work for all employers and employees, as all workplaces are unique with different opportunities and challenges, while people all make their own individual travel choices. TDM provides a toolkit of options that employers and employees can consider – where it makes most sense for them – such as traveling by sustainable modes, providing flexible work from home options, traveling at off-peak times, or using different routes

TDM measures typically focus on four key areas:

- **Infrastructure**, such as providing secure bicycle parking, end-of-trip facilities and workplace vehicle fleets;
- **Policies**, such as allowing remote work and providing flexible work arrangements;
- **Incentives**, such as subsidizing transit passes and hosting sustainable transportation competitions or challenges; and
- **Education**, such as education campaigns to learn more about sustainable transportation options available.

In addition to TDM measures, emerging transportation technologies also play a critical role in shaping how people travel more sustainably, such as through encouraging car sharing services.

Sustainable Commuting and Technology by the Numbers



More than half of workers (54%)

drive alone to work, reinforcing dependence on single-occupant vehicles



30% of commute trips are made by walking or cycling, highlighting strong potential for active commuting



Transit use remains limited, with only **around 3% of workers** commuting by transit, indicating opportunities for incentives and service improvements



Desire for more **expanded transportation options** such as car share, flexible travel choices, and improved multi-modal access to transportation choices

Source: Household Travel Survey, Community Survey

STRATEGIES

This theme focuses on three strategies to encourage TDM and emerging technologies to support more flexible and sustainable ways to getting around the community:

STRATEGY 4.1: Support and Expand Car Share

STRATEGY 4.2: Support Festivals and Community Events with Multi-modal Access

STRATEGY 4.3: Support Initiatives to Manage Travel Demand

Together, the strategies in this theme focus on reducing reliance on single-occupant vehicles, supporting behaviour change, and leveraging technology to create a more adaptable and efficient transportation system.

STRATEGY 4.1: Support and Expand Car Share

Car share services increase mobility options and affordability by providing access to motor vehicles without having to purchase a private vehicle. This promotes sustainable transportation choices, allowing residents to make most trips by active transportation and transit and use a car only when required. Two-way car share services need to be picked up and returned to the same spot, whereas one-way car share allows users to start and end a trip anywhere within a designated home zone.

The City sponsors YK Car Share Co-op, a community-owned electric vehicle car sharing initiative that offers personal plans for individuals and corporate plans for teams and organizations. YK Car Share is a two-way car share service where their pick-up and drop-off locations are located at City Hall and at an Outpost location at a car rental store. YK Car Share has two electric vehicles in their fleet available for hourly and daily rentals.

#	Actions	Timeframe	Responsibility	
			Lead	Support
4.1A	Continue to support the expansion of car share operations throughout Yellowknife	Short-term (3-5 years)	Planning and Development, Finance	

STRATEGY 4.2: Support Festivals and Community Events with Multi-modal Access

Yellowknife hosts many unique northern, community, and seasonal events and festivals throughout the year, including the Yellowknife Farmers Market at Somba K'e Civic Plaza, Folk on the Rocks, NWT Pride, and the Snowking's Winter Festival. These events are an important part of community life and attract large numbers of residents and visitors and may create temporary pressure on parking, traffic circulation, and the surrounding streets. Improving multi-modal access can help reduce congestion and parking demand. Events and festivals can also present an opportunity to pilot new approaches, test temporary changes, and try alternative ways of using street space.

#	Actions	Timeframe	Responsibility	
			Lead	Support
4.2A	Use temporary street changes during events to pilot future permanent improvements	Short-term (3-5 years)	Public Works and Engineering	

STRATEGY 4.3: Support Initiatives to Manage Travel Demand

Transportation Demand Management (TDM) can offer meaningful benefits for employees, employers, and the broader community by making it easier to choose sustainable commuting year-round. TDM can result in several benefits, including:

- **Employee benefits** can include improved physical and mental health, reduced costs, and a reduced carbon footprint.
- **Employer benefits** can include reduced overhead costs by reducing the demand for employee parking and decreasing costs for operating parking lots, improve employee recruitment and retention, and enhanced public image.
- **Community benefits** can include reduced municipal investment in infrastructure, lower risk of collisions, and opportunities to reallocate space for people, gathering places, and events, contributing to a more livable city.

Embedding TDM into City policies, development processes, and day to day operations helps ensure that growth and travel demand are managed in a way that supports the Transportation Plan. Integrating TDM into how new developments are planned and approved and through encouraging travel behaviour change through large employers, institutions, and major developments can help reduce vehicle travel and support more sustainable transportation choices.

#	Actions	Timeframe	Responsibility	
			Lead	Support
4.3A	Integrate TDM requirements into development projects	Ongoing	Planning and Development	
4.3B	Encourage TDM plans for large employers, institutions, and major developments	Short-term (3-5 years); Ongoing	Planning and Development, Economic Opportunities, Investments and Partnerships	
4.3C	Support Active Commute Challenges	Ongoing	Economic Opportunities, Investments and Partnerships	



THEME 5: CULTURE

Creating a transportation system that works for everyone requires more than physical infrastructure. It also depends on fostering a culture that supports safe, inclusive, and respectful use of all modes. A strong transportation culture helps build awareness, confidence, and long-term support for how people move through the city, ensuring that investments in infrastructure are effective and widely used.

Culture and Safety by the Numbers



Approximately two-thirds of children aged 5 to 9 **(64%)** are driven to school

For ages 10-14, travel becomes more varied: **41%** driven, **22%** school bus, and **24%** walking, showing a transition into independence



Unsafe driving behaviours were identified as the top concern among residents



Improving road safety was ranked as the top priority for the Transportation Plan



Education and encouragement were identified as key needs across all modes, particularly to support safe interactions and awareness



Residents expressed a need for ongoing **education for all road users**, including understanding the rules of the road and how to safely navigate new and existing infrastructure



There is strong support for **safe routes to school**, as well as children and youth programming to build confidence, skills, and a culture of active transportation

Source: Household Travel Survey, Community Survey



STRATEGIES

This theme emphasizes the importance of “soft” measures, such as education, encouragement, and community-led initiatives, that complement infrastructure improvements through two strategies:

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility

These efforts help people understand their travel options, develop practical skills, and feel confident navigating the transportation system. They also reinforce shared responsibility among all users, supporting safer interactions across modes.

STRATEGY 5.1: Build a Foundation for Transportation in Early Years

Early experiences play a critical role in shaping how people move through their communities as they age. Building a strong foundation for transportation in the early years helps children and youth develop the skills, confidence, and independence needed to navigate their neighbourhoods safely and comfortably by walking, cycling, rolling, and using other forms of active transportation.

Findings from the Household Travel Survey highlight the importance of focusing on younger age groups. For example, cycling mode share is highest among children and youth aged 5-9 and 10-14, and the use of sustainable transportation modes (walking, cycling or micromobility, school bus, and transit) is also highest among youth aged 10-14. These patterns suggest that children and youth are already more likely to use active and sustainable modes, presenting an important opportunity to both support existing users and encourage greater participation. Investments that improve the safety, comfort, and connectivity of walking and cycling networks

can help ensure that children and youth can travel safely, encourage more students and families to choose active modes, and reinforce travel behaviours that may be carried into adulthood. Maintaining and growing active transportation use among younger age groups can contribute to long-term shifts toward more sustainable travel patterns across the community.

There are limited formal, coordinated school-based or community-based transportation education and awareness initiatives in Yellowknife. This presents an opportunity for the City to work with schools, families, and community partners to support early learning and skill-building that encourages safe, active, and independent travel from a young age. By introducing transportation skills early, children and youth are better equipped to make safe and healthy transportation choices as they grow.

#	Actions	Timeframe	Responsibility	
			Lead	Support
5.1A	Support Safe and Active Travel for Children and Youth	Short-term (3-5 years)	Public Works and Engineering	

STRATEGY 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility

Building a culture of transportation safety and shared responsibility helps ensure that all users feel confident, respected, and supported, regardless of how they travel. In Yellowknife, people move around the city in many different ways and often share spaces across modes and seasons.

Through embedding safety, education, and collaboration in everyday decision making and community life can create that foundation of transportation safety, respect, and shared responsibility. When various groups come together to shape transportation outcomes, lasting change and culture shift can be achieved. By elevating community voices, supporting education and awareness, and encouraging shared ownership of transportation initiatives, the City can foster safer behaviours and more respectful interactions across the transportation system.

#	Actions	Timeframe	Responsibility	
			Lead	Support
5.2A	Develop partnerships with schools, community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives	Short-term (3-5 years)	School Districts, Community Organizations, Non-profits	Economic Opportunities, Investments and Partnerships



5.0 IMPLEMENTATION PLAN

The Implementation Plan provides guidance on prioritizing strategies and actions, identifying key infrastructure projects and cost considerations, and outlining approaches to resourcing and funding. It also establishes a framework for monitoring progress, measuring success, and adapting implementation over time. this section provides a flexible roadmap that enables the City and its partners to respond to evolving needs, funding opportunities, and community priorities.



5.1 GUIDING PRINCIPLES

The implementation plan was developed on the following guiding principles:

A Step Towards a Long-term Vision

The Transportation Plan represents an important step toward achieving Yellowknife's long-term vision. While it establishes clear priorities and actions, it is not the final step. Implementation will occur over time as the city evolves, with future plans and initiatives building on this foundation.

A Flexible and Adaptive Living Document

There is some level of flexibility regarding the corridors and specific locations identified for the transportation network. Recommendations are based on the engagement process and technical analysis, but City staff will need to continue to assess feasibility, respond to emerging needs, and engage meaningfully with the public as projects are refined and advanced.

Ongoing Monitoring and Updates

The City will track progress on implementation and monitor performance to understand what is working and where adjustments are needed. Regular review and updates will ensure the Plan continues to reflect community priorities, supports evidence-based decision-making, and responds to new opportunities and challenges.

Strategic and Sustainable Investment

Implementation will require thoughtful and strategic use of City resources, including both financial and human capital. Investments will be prioritized to maximize impact while considering long-term costs related to operations, maintenance, and programming. Ensuring that infrastructure and initiatives can be sustainably maintained over time will be a key consideration in decision-making.

Partner and Relationship-driven Implementation

Collaboration will be essential to delivering the Plan. The City will work closely with internal departments, the Government of the Northwest Territories, Indigenous governments and organizations, community groups, and private sector partners. Building and maintaining strong relationships will support coordinated action and help advance shared goals established in the Transportation Plan.

Continued Community Engagement

Ongoing engagement with residents, businesses, and stakeholders will be critical to successful implementation. Local knowledge and lived experience of Yellowknifers will help refine actions, inform priorities, and ensure that investments reflect community needs and values.

Aligning Priorities with Financial Planning

Implementation will be grounded in realistic and aligned financial planning. Short-term priorities will be integrated into the City's 5-year Financial Plan, while longer-term actions will inform future capital planning and investment strategies. The City will also pursue external funding opportunities to support implementation and maximize available resources.

5.2 PRIORITIZING STRATEGIES AND ACTIONS

An approach for implementing the actions for the Transportation Plan is outlined in **Tables 1 to 5**. These tables provide guidance with respect to:

Status

- **Continue:** Actions already being conducted by the City or by external partners which the City can continue to support.
- **Enhance:** Actions that build on existing initiatives but require expansion or refinement.
- **New:** Actions that are not currently been implemented by the City or its partners.

Timeframe

- **Quick Win:** Within 0-2 years
- **Short-term:** Within 3-5 years
- **Medium-term:** Within 6-10 years
- **Long-term:** 11+ years

Method of Implementation

This column identifies how each action will be implemented: as a capital project, through ongoing operations and maintenance, or as a policy or programming initiative.

Responsibility

This column suggests the lead and supporting City departments and agencies for each action. Many actions are the primary responsibility of the City of Yellowknife (including Public Works and Engineering, Planning and Development; Finance; Protective Services; Community Services; Economic Opportunities, Investments, and Partnerships), while other actions should be led by external agencies, such as the GNWT, community groups, or the private sector.

Actions identified as “Quick Win” and “Short-term” are supported by detailed next steps outlined in **Appendix E** in an Action Delivery Framework that the City and its partners can take to move actions forward. These actions were identified in collaboration with City staff as those likely to deliver the greatest impact while remaining feasible to implement within the next three years.

TABLE 1: ACTION SUMMARY – STREETS

THEME 1: STREETS	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 1.1: Adopt an Updated Multi-Modal Street Network Classification and Standards														
Action 1.1A: Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards			✓							✓	Public Works and Engineering	Planning and Development		✓
Action 1.1B: Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards		✓								✓	Public Works and Engineering	Planning and Development		✓
Strategy 1.2: Street Network Improvements														
Action 1.2A: Implement upgrades to major streets	✓							✓			Public Works and Engineering		✓	
Action 1.2B: Implement new street network connections			✓					✓			Public Works and Engineering		✓	
Action 1.2C: Implement traffic light management objectives and policy			✓							✓	Public Works and Engineering			✓
Action 1.2D: Minimize access points from arterial roads on new developments		✓								✓	Planning and Development	Public Works and Engineering		✓
Action 1.2E: Work with property owners to consolidate driveways and access points where possible		✓								✓	Planning and Development	Public Works and Engineering		✓
Strategy 1.3: Improve the Safety and Accessibility at Intersections and Crossings														
Action 1.3A: Inventory and evaluate intersections and crossings to align with best practices			✓							✓	Public Works and Engineering			✓
Action 1.3B: Develop and adopt non-standardized crosswalk policy			✓							✓	Public Works and Engineering			✓
Action 1.3C: Implement new traffic signals	✓							✓			Public Works and Engineering		✓	
Action 1.3D: Install modern Accessible Pedestrian Signals at all existing and new traffic signals		✓						✓			Public Works and Engineering		✓	
Action 1.3E: Implement Leading Pedestrian Intervals at signalized intersections downtown			✓						✓		Public Works and Engineering			✓
Action 1.3F: Implement No Right Turn on Red restrictions with demonstrated safety issues		✓							✓		Public Works and Engineering			✓
Action 1.3G: Implement left turn protections at signalized intersections where feasible		✓							✓		Public Works and Engineering			✓
Action 1.3H: Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users		✓							✓		Public Works and Engineering			✓
Action 1.3I: Implement safety and operational improvements at intersections		✓						✓	✓		Public Works and Engineering		✓	
Action 1.3J: Implement new crossing locations to improve pedestrian safety		✓	✓					✓			Public Works and Engineering		✓	
Action 1.3K: Improve safety at existing crosswalks with treatments such as curb extensions, reduced curb radii, raised crosswalks, Leading Pedestrian Intervals, improved lighting, and/or enhanced crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs) as defined by a warrant analysis		✓						✓			Public Works and Engineering		✓	
Strategy 1.4: Design for Safe Speeds														
Action 1.4A: Adopt and implement updated speed limits based on the street network classification			✓							✓	Public Works and Engineering			✓
Action 1.4B: Develop and implement a Traffic Calming Program			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 1.5: Maintain Roadways in a State of Good Repair														
Action 1.5A: Develop and implement a multi-year pavement rehabilitation plan		✓							✓	✓	Finance	Public Works and Engineering	✓	✓
Action 1.5B: Align asset management practices and investment priorities with updated street classifications		✓								✓	Finance	Public Works and Engineering		✓
Action 1.5C: Adopt an ownership and management framework for transportation assets			✓						✓		Public Works and Engineering, Community Services			✓
Action 1.5D: Implement multi-modal improvements with all road upgrades and pavement rehabilitations		✓						✓			Public Works and Engineering		✓	

THEME 1: STREETS	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 1.6: Plan for Emergencies and Resilience														
Action 1.6A: Review available width of all roadway, including on-street parking, to ensure sufficient width for emergency services			✓						✓		Public Works and Engineering	Protective Services		✓
Action 1.6B: Utilize FireSmart principles strategically to expand the off-street active transportation network			✓					✓			Public Works and Engineering	Protective Services	✓	
Action 1.6C: Provide alternate routes and redundant street networks to provide travel choices in emergencies		✓						✓			Planning and Development, Protective Services, Public Works and Engineering			
Action 1.6D: Discourage new subdivisions that do not have multiple access and egress points		✓								✓	Planning and Development			✓
Strategy 1.7: Move Goods and Hazardous Materials Efficiently														
Action 1.7A: Adopt a Truck Route Bylaw			✓							✓	Public Works and Engineering			✓
Action 1.7B: Identify a Hazardous Materials Network			✓							✓	Public Works and Engineering, Protective Services			✓
Strategy 1.8: Coordinate Highway Improvements with the GNWT														
Action 1.8A: Work with the GNWT to identify issues and opportunities to improve regional mobility	✓									✓	GNWT	Public Works and Engineering		✓

TABLE 2: ACTION SUMMARY – ACTIVE TRANSPORTATION

THEME 2: ACTIVE TRANSPORTATION	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 2.1: Complete the Sidewalk Network														
Action 2.1A: Complete new sidewalks such that there is a sidewalk on at least one side of all local streets and on both sides of all arterial and collector streets		✓						✓			Public Works and Engineering		✓	
Action 2.1B: Strategically upgrade and widen existing sidewalks in areas of high pedestrian demand		✓						✓			Public Works and Engineering		✓	
Action 2.1C: When new development occurs and creates a gap in the pedestrian and cycling network, ensure a temporary connection or transition to the roadway is provided			✓						✓		Public Works and Engineering			✓
Strategy 2.2: Develop a Cycling Network for People of All Ages and Abilities														
Action 2.2A: Develop a complete and connected cycling network that is comfortable for people of all ages and abilities			✓					✓			Public Works and Engineering		✓	
Strategy 2.3: Enhance Trails and Pathways														
Action 2.3A: Establish a Trail and Pathway Classification and Maintenance Framework			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.3B: Upgrade unpaved trails to paved multi-use pathways where they are part of the active transportation network		✓						✓			Public Works and Engineering		✓	
Action 2.3C: Provide wayfinding on trails and pathways	✓							✓			Community Services	Public Works and Engineering	✓	
Action 2.3D: Convert and formalize wide sidewalks and shoulders to multi-use pathways		✓						✓			Public Works and Engineering		✓	
Action 2.3E: Ensure trails and pathways have adequate lighting that meet the trail and pathway classification	✓							✓			Community Services		✓	
Action 2.3F: Utilize cut-throughs for active transportation	✓							✓			Public Works and Engineering	Planning and Development,	✓	
Strategy 2.4: Maintain Multi-use Pathways Year-round														
Action 2.4A: Develop an Active Transportation Maintenance Priority Network			✓							✓	Public Works and Engineering	Community Services		✓
Action 2.4B: Formalize a Snow and Winter Road Maintenance Policy to outline winter snow maintenance procedures for active transportation			✓							✓	Public Works and Engineering	Community Services		✓
Action 2.4C: Inspect active transportation facilities year-round to ensure they are well-maintained		✓							✓		Public Works and Engineering	Community Services		✓
Strategy 2.5: Encourage Micromobility and Other Forms of Active Transportation														
Action 2.5A: Update regulations and bylaws to integrate micromobility users on trails and roadways			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.5B: Develop policy and guidelines to regulate motorized users on off-street pathways			✓							✓	Community Services	Public Works and Engineering		✓
Action 2.5C: Support community initiatives to provide winter-based active transportation, such as cross-country skiing			✓							✓	Community Services, Public Works and Engineering	Economic Opportunities, Investments and Partnerships		✓
Strategy 2.6: Provide Bicycle Parking														
Action 2.6A: Review and update requirements for short-term and long-term bicycle parking		✓								✓	Planning and Development	Public Works and Engineering		✓
Action 2.6B: Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations			✓					✓			Community Services	Public Works and Engineering	✓	✓
Action 2.6C: Implement bicycle parking within the public right-of-way in the downtown, Old Town and other key destinations.		✓						✓			Community Services	Public Works and Engineering	✓	✓

TABLE 3: ACTIONS SUMMARY – TRANSIT

THEME 3: TRANSIT	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 3.1: Improve Transit Service														
Action 3.1A: Ensure the transit network connects with all major destinations in the City		✓								✓	Public Works and Engineering	Planning and Development		✓
Action 3.1B: Ensure all new large-scale development areas have transit service within a five-minute walking distance			✓							✓	Planning and Development	Public Works and Engineering		✓
Action 3.1C: Improve transit service frequency during peak periods		✓							✓		Public Works and Engineering			✓
Action 3.1D: Improve transit service during off-peak periods, including weekends, evenings, and holidays		✓							✓		Public Works and Engineering			✓
Action 3.1E: Increase transit service levels to correspond with population increases		✓							✓		Public Works and Engineering, Planning and Development	Finance		✓
Action 3.1F: Work with hotels and major employers to encourage increased shuttle service to the airports and remote destinations	✓								✓			Economic Opportunities, Investments and Partnerships		✓
Action 3.1G: Reexamine the feasibility of on-demand transit and/or smaller neighbourhood-based transit vehicles at the next Transit Study			✓							✓	Public Works and Engineering			✓
Strategy 3.2: Enhance the Transit User Experience														
Action 3.2A: Continue to improve shelters at bus stops		✓						✓			Public Works and Engineering		✓	
Action 3.2B: Review the transit service fare structure to encourage accessibility and increased ridership	✓									✓	Public Works and Engineering	Finance		✓
Strategy 3.3: Improve Transit Accessibility														
Action 3.3A: Provide more flexible booking options for YKFlex		✓							✓		YK Transit Operator	Public Works and Engineering		✓
Action 3.3B: Ensure website and mobile applications have digital accessibility features, such as screen-reader compatible apps		✓							✓		YK Transit Operator	Public Works and Engineering		✓
Action 3.3C: Ensure transit operators continue to provide training that supports respectful and inclusive interactions with people with disabilities, Indigenous peoples, and racialized groups		✓								✓	YK Transit Operator	Public Works and Engineering		✓

TABLE 4: ACTION SUMMARY – SUSTAINABLE COMMUTING & TECHNOLOGY

 THEME 4: SUSTAINABLE COMMUTING & TECHNOLOGY	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 4.1: Support and Expand Car Share														
Action 4.1.A: Continue to support the expansion of car share operations throughout Yellowknife	✓									✓	Planning and Development, Corporate Services			✓
Strategy 4.2: Support Festivals and Community Events with Multi-modal Access														
Action 4.2A: Use temporary street changes during events to pilot future permanent improvements			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 4.3: Support Initiatives to Manage Travel Demand														
Action 4.3A: Integrate TDM requirements into development projects		✓								✓	Planning and Development			✓
Action 4.3B: Encourage TDM plans for large employers, institutions, and major developments			✓							✓	Planning and Development, Economic Opportunities, Investments and Partnerships			✓
Action 4.3C: Support Active Commute Challenges			✓							✓	Economic Opportunities, Investments and Partnerships			✓

TABLE 5: ACTION SUMMARY - CULTURE

 THEME 5: CULTURE	STATUS			TIMEFRAME				METHOD OF IMPLEMENTATION			RESPONSIBILITY		FINANCIAL	
	Continue	Enhance	New	Quick Win (0-2 years)	Short-term (3-5 years)	Medium-term (6-10 years)	Long-Term (11+ years)	Capital	Operations and Maintenance	Policy and Programming	Primary	Secondary	Capital	Operating (Staff & Consultant Resources)
Strategy 5.1: Build a Foundation for Transportation in Early Years														
Action 5.1A: Support Safe and Active Travel for Children and Youth			✓					✓		✓	Public Works and Engineering		✓	✓
Strategy 5.2: Build a Culture of Transportation Safety, Respect, and Shared Responsibility														
Action 5.2A: Develop partnerships with schools, community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives			✓							✓	School Districts, Community Organizations, Non-profits	Economic Opportunities, Investments and Partnerships		✓

5.3 INFRASTRUCTURE PROJECTS

The Transportation Plan identifies an expanded pedestrian network, an expanded cycling network, transit improvements, and improvements for intersections and crossings to advance the City's long-term transportation vision. While these recommendations establish the long-term direction for the transportation network, implementation will occur incrementally through a series of infrastructure projects throughout the community. Some projects are being advanced by the City as short-term priorities in parallel with the development of this plan, while others have been identified as future corridor improvements that will require a phased approach to fully implement.

Currently, three projects are being advanced by the City and are anticipated to be implemented in the short-term, including:

- Frame Lake Trail Extension (Stanton Territorial Hospital to Underpass)
- 52 Street Multi-use Pathways (52 Street to 54 Avenue)
- 52 Street Sidewalk Widening (50 Avenue to 51 Avenue)
- Mandeville Drive Sidewalk Widening
- Taylor Road Transit Stop Improvements (bus shelter at the bus pull-outs)
- Traffic Signal Modernization Program

In addition, a few corridors were identified as priority gap projects to address existing multi-modal improvements and gaps in the transportation network. For these locations, an interim concept is proposed to provide short-term improvements that can be delivered more quickly and cost-effectively while preserving the ability to implement a more comprehensive ultimate concept in the long-term. Interim improvements would use low-cost and temporary materials such as pavement markings and signage

As funds become available in the future, these routes will be improved further with permanent and more substantial infrastructure. This phased approach enables the City to make meaningful progress toward its transportation objectives while aligning major capital investments with future funding opportunities, roadway renewal cycles, and long-term growth.

The corridors identified for this phased implementation approach include:

- Byrne Road (Woolgar Avenue to Frame Lake Trail)
- Range Lake Road (Old Airport Road to Woolgar Avenue and Finlayson Drive South to Bourque Drive)
- Woolgar Avenue (Range Lake Road to Kam Lake Road)

Project sheets for each of these corridors are provided in **Appendix F**. The project sheets summarize existing conditions, key issues and opportunities, the rationale for improvement, and recommended interim and ultimate concepts. These concepts are intended to serve as a planning-level foundation to support future feasibility assessments, detailed design, funding applications, and implementation planning. They are not intended to represent final designs but rather provide strategic direction for how the City can progressively address network gaps and improve transportation connections over time. These project sheets were developed in cooperation with City staff to balance current design guidance best practices and existing City budgets, desires, and snow clearing operations. For all cycling facilities apart from neighbourhood bikeways, physical separation between cyclists and motor vehicles is desired to provide an all ages and abilities facility.

Costs

The Transportation Plan includes order-of-magnitude capital cost estimates to support implementation of the transportation network. These estimates were developed using costing information from construction projects in Yellowknife and are summarized in **Table 6**.

TABLE 6: FACILITY UNIT COSTS

Facility Type	Capital Unit Costs
Pedestrian	Cost per Metre
Sidewalk (new curb required)	\$2,150
Cycling	Cost per Metre
Neighbourhood Bikeway (includes signage and traffic calming)	\$400
Multi-use Path	Cost per Metre
Multi-use Path – Permanent (new curb required)	\$1,600
Multi-use Path – Permanent (remove existing sidewalk, lighting upgrades, intersection improvements, and utility relocation)	\$4,070
Intersections and Crossings	Lump Sum
Traffic Signal	\$350,000
Special Crosswalk Signal	\$150,000
Pedestrian Crossing Modification (RRFB)	\$50,000
Pedestrian Crossing Pavement Markings	\$10,000
Curb Extensions	\$35,000
Signal Timing Improvements	\$7,000
Transit Shelter	\$60,000

The estimates are intended to illustrate relative costs for planning purposes and should not be used for detailed budgeting.

Additional costs not captured in these estimates may be significant and can include items such as detailed project design, retaining walls, and utility pole removal or relocation, as well as other site-specific requirements.

Unit rates provided above represent the cost to implement infrastructure in isolation; however, active transportation facilities are often constructed in conjunction with other infrastructure construction projects such as road repaving, utility upgrades, or adjacent development. Coordinating construction activities as noted above is recommended to reduce the total cost compared to implementing each in isolation.

5.4 RESOURCING AND FUNDING THE PLAN

Implementing the Transportation Plan will require significant investment and resources. This includes staff resources, operations and maintenance, and seeking funding strategies to implement and maintain transportation in Yellowknife.

Staff Resources

Additional staff resources will be needed to implement the strategies and actions identified in the Transportation Plan. An additional staff position, such as a Transportation Planner, will facilitate coordinated planning and design support and/or hiring of consultants. This will support a coordinated implementation of Let's Move YK.

Operations and Maintenance

Building a transportation system that is safe, comfortable, and accessible for everyone requires sustained investment in operations and maintenance. While the Transportation Plan includes new and upgraded infrastructure, the long-term success of the transportation network depends on how well it is maintained and operated year-round.

The City currently undertakes a range of core maintenance activities to support the existing transportation network, including roadway rehabilitation, repaving, and seasonal maintenance. Winter maintenance is a critical component of this work, with efforts focused on sanding for traction at intersections and hills, daily plowing and grading of snow-covered surfaces, and scheduled snow removal to manage accumulation.

As the City expands and enhances its active transportation network, additional operating and maintenance resources will be required to ensure these facilities remain usable and safe in all seasons.

This includes ongoing investment in:

- Snow clearing and de-icing for active transportation facilities
- Vegetation management to maintain clear sightlines and access
- Wayfinding and regulatory signage maintenance
- Lighting and surface upkeep for safety and usability
- Enforcement support from Bylaw Services and the RCMP

Expanding the network will also require investment in equipment and operational capacity. The City currently operates three street sweepers for seasonal roadway and sidewalk maintenance. In spring, two sweepers are deployed to remove winter sand, after which operations transition to a reduced configuration, with one unit serving residential areas and another operating in the downtown core during off-peak hours. Similarly, winter maintenance relies on a combination of sanding, plowing, grading, and snow removal activities.

The City may also continue to rely on contractors to support seasonal maintenance needs, particularly for winter operations, where contractors already play a role. As part of future maintenance contracts, the City could explore enhanced approaches to strengthen accountability for maintaining safe and accessible conditions across all modes. This may include adopting performance-based contracting models, where compensation is tied to outcomes such as infrastructure usability and level of service, rather than relying solely on technical service standards. Approaches could also incorporate user feedback or satisfaction such as bonus incentives or evaluation criteria linked to community experience. These approaches could help better align maintenance outcomes with user experience and goals of the Transportation Plan.

Ongoing collaboration with operations and maintenance staff will be essential to understand equipment, staffing, and training needs associated with expanding the network. This includes identifying opportunities to optimize existing resources, as well as planning for future investments.

Funding Strategies

To maximize value and ensure successful implementation, the Transportation Plan identifies a range of potential funding strategies and sources that the City may pursue to support implementation.

Given that funding programs and opportunities evolve over time, the information in this section should be reviewed and updated regularly. The City will actively monitor funding opportunities across all levels of government and pursue external funding wherever possible to supplement local investment.

Local

Capital Planning

The City will incorporate Transportation Plan recommendations into its short-, medium-, and long-term budgeting processes. Incorporating these recommendations into the City's capital planning framework will help ensure that transportation improvements are delivered in a coordinated and cost-effective manner.

To support this, the City will consider adjustments to its capital budget to accommodate medium- and long-term priorities. Wherever possible, transportation improvements should be aligned with other capital projects such as road rehabilitation and utility upgrades to achieve efficiencies, reduce costs, and minimize disruption.

The City can also explore ways to reinvest by reallocating portions of parking revenue towards the transportation and road safety improvements identified in the Transportation Plan. This could be achieved by creating a dedicated fund to support walking, cycling, transit, and public realm improvements to advance the Transportation Plan.

While external funding can support implementation, it is not always predictable or sufficient on its own. Establishing stable and consistent local funding sources will be important to enable long-term planning, support staff capacity, and ensure that projects can be delivered as scheduled.

Development Contributions

The City can leverage transportation investments during the planning of new development projects. Some ways transportation investments can be leveraged through development activity includes:

- Frontage improvements delivered as part of development projects
- Transportation capacity and safety improvements identified through Transportation Impact Assessments (TIAs)
- Voluntary public realm improvements provided by developers
- Density bonusing and other amenity contribution mechanisms
- Cash-in-lieu of parking
- Provision of high-quality bicycle parking and end-of-trip facilities

These approaches can help integrate transportation improvements into growth areas and ensure new development contributes to a connected and accessible network.

Partnerships and Community Contributions

Community organizations, service clubs, and the private sector can also play an important role in supporting the implementation of the Transportation Plan. Programs such as bicycle parking initiatives (e.g., “adopt-a-rack”), trail maintenance and clean-up, cycling education, and community events can be led or supported by local groups.

Partnerships with organizations and businesses can also support sponsorship opportunities for infrastructure such as multi-use trails, wayfinding, and amenities. In many communities, service clubs have contributed funding and volunteer support for active transportation projects, and similar opportunities may exist in Yellowknife.

Territorial

Community Access Program

The GNWT Community Access Program (CAP) provides grant funding to support the construction and maintenance of access roads, trails, docks, and wharfs. In 2026, the program had an annual budget of \$1.5 million. The CAP accepts proposals twice annually, with a spring intake for summer projects and a fall intake for winter projects. Funding is awarded competitively based on how well proposals demonstrate: improved community transportation access, direct economic benefits, local employment and skills development, indirect community benefits, financial or in-kind contributions from partners, capacity to deliver and maintain the project, level of community support, and available program budget.

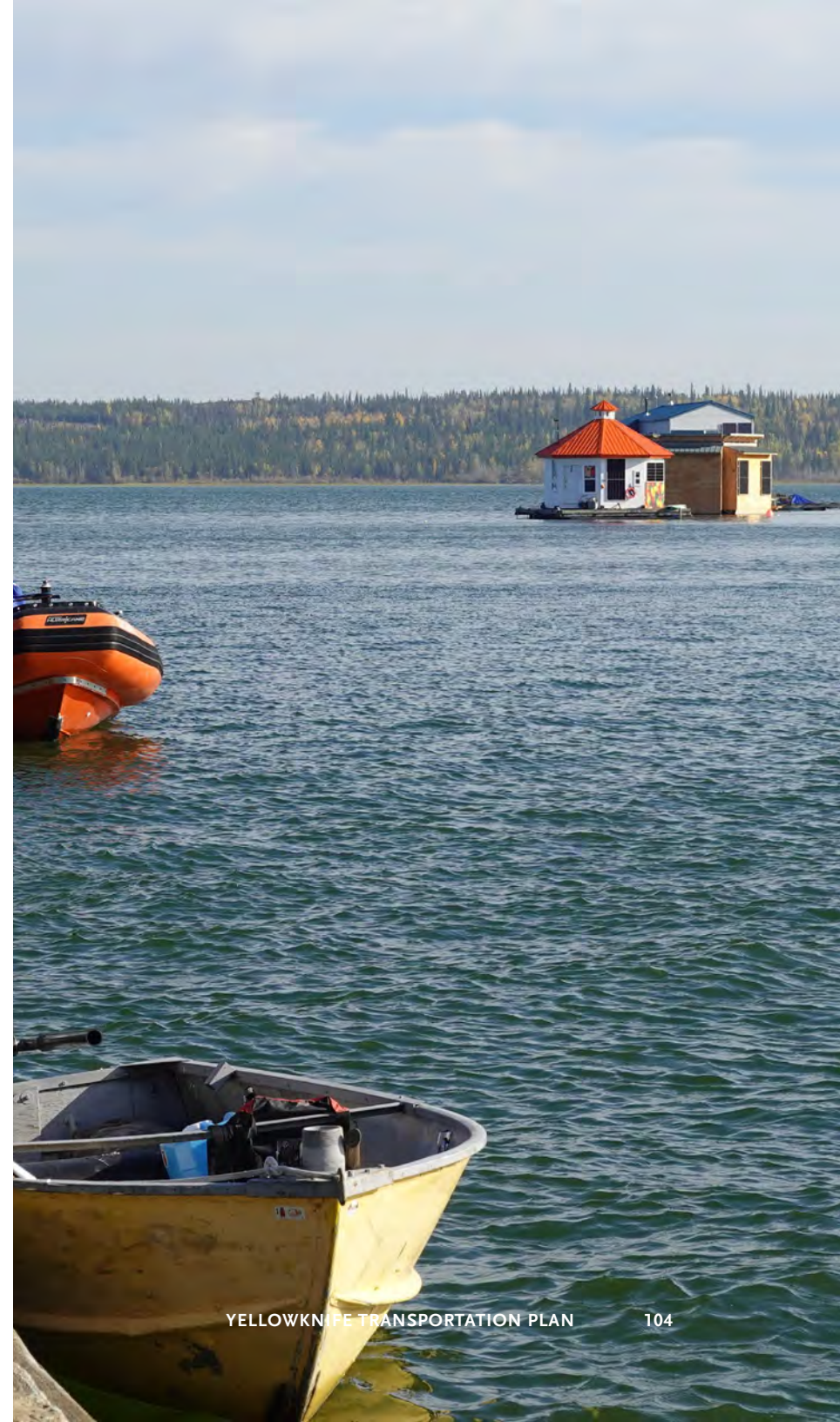
Federal

Green Municipal Funds

Green Municipal Funds are managed by the Federation of Canadian Municipalities, with a total allocation of \$550 million. This fund is intended to support municipal government efforts to reduce pollution, reduce greenhouse gas emissions and improve quality of life. The expectation is that knowledge and experience gained in best practices and innovative environmental projects will be applied to national infrastructure projects.

First Nation Infrastructure Fund Program

Indigenous Services Canada has a **First Nation Infrastructure Fund** program that supports the delivery of on-reserve infrastructure. Proposals for off-reserve projects may be considered if the primary beneficiary is a participating Indigenous community. Eligible infrastructure projects include capital or infrastructure planning, comprehensive community planning, and projects that construct, restore or improve public roads and bridges to improve safety and support tourism, commerce, and the social and economic development of local areas.



5.5 MONITORING AND MEASURING SUCCESS

To measure the success of the Transportation plan, it is essential to monitor how well the City is working towards implementing the plan. Monitoring supports informed decision-making, enables the efficient allocation of financial and staff resources, and helps identify where adjustments may be needed to respond to changing conditions or priorities.

A successful monitoring framework is:

- **Manageable.** Monitoring considers resource constraints and prioritizes efforts based on the most critical areas using available information.
- **Measurable.** Monitoring involves clear, measurable criteria based on accessible data.
- **Meaningful.** Monitoring will provide meaningful results and point to success in achieving the goals of the Transportation Plan.

Data Collection and Management

Effective monitoring relies on consistent and reliable data collection. The City will build on existing data sources where possible and identify opportunities to strengthen data collection and management practices over time.

Maintaining an up-to-date inventory of transportation assets will be critical to supporting both implementation and monitoring. This includes tracking the location, extent, condition, age, and key characteristics of infrastructure such as roadways, sidewalks, pathways, crossings, and traffic control devices as they are updated, expanded, or newly constructed. Keeping current and accurate records will ensure that the City has a clear understanding of the condition, location, and extent of its transportation network over time. This information supports more effective monitoring of implementation progress, helps identify gaps or maintenance needs, and enables informed decision-making related to lifecycle planning, rehabilitation, and future investments.

The City will also consider leveraging technologies to enhance data collection, such as automated counters, temporary count programs, and emerging monitoring tools. These approaches can provide valuable insights into travel patterns across modes and help track changes in network use over time. Strengthening data collection will also help demonstrate the value and impact of transportation investments, providing evidence to support funding requests, prioritize future improvements, and communicate progress to Council and the community.

Ongoing coordination across departments will also be important to ensure data is collected, stored, and used in a consistent and efficient manner. Over time, enhanced data collection and management practices will support more informed decision-making and help the City track progress toward achieving the goals of the Transportation Plan.

Indicators

Metrics or measures help quantify, indicate or assess the status of strategies, actions, and infrastructure. Goals outlined in the Transportation Plan were designed to be SMART goals that are Specific, Measurable, Achievable, Relevant, and Time-bound.

The development of key performance indicators is guided by the following principles:

- **Simplicity:** Data should be readily available and easy to understand
- **Relevance:** Indicators should meaningfully reflect progress toward desired outcomes
- **Reliability:** Data should be collected consistently over time to support accurate trend analysis

Table 7 identifies key performance indicators associated with each goal, ensuring that implementation is both measurable and actionable.

TABLE 7 TRANSPORTATION PLAN KEY PERFORMANCE INDICATORS

Goal	Description	Key Performance Indicator	Baseline Data	Desired Trendline	Data Source
Transportation Choices	Provide people with comfortable, convenient, and reliable transportation choices through all our seasons	Proportion of all trips made by sustainable transportation (walking, cycling, or transit)	30.9% (2025)		Household Travel Survey
Safe Mobility	Improve people's safety and work to eliminate serious injuries and fatalities from our transportation system	Number of traffic-related injuries and fatalities	77 (2022)		RCMP collision data
Equitable Access	Ensure that people of all ages, abilities, backgrounds, and identities can access all modes of transportation	Proportion of trips among children, seniors, and women made by sustainable transportation	Children aged 10 to 14: 65% Children aged 15 to 19: 35% Seniors aged 65 to 74: 33% Women: 33%		Household Travel Survey
Connected Network	Provide seamless connections for all modes transportation so people can travel to services, neighbourhoods, and community amenities across the city	Proportion of the City that is within 400 metres of each of a bus stop, bicycle route, and sidewalk	TBC		Infrastructure Data
Environmentally Sustainable	Reduce our transportation-related emissions according to the targets set under the Climate Action Plan (2026)	Transportation-related GHG emissions	53,965 t CO ₂ e (2023)		Corporate and Community Energy and GHG Emissions Inventory
Healthy Community	Improve our health and wellbeing	Proportion of all trips made by walking, rolling, and cycling	26.6% (2025)		Household Travel Survey

Goal	Description	Key Performance Indicator	Baseline Data	Desired Trendline	Data Source
Resilient Transportation System	Ensure that people can get to their destinations in a consistent, predictable, and reliable manner	Proportion of arterial roads with PM peak median traffic speeds below the posted speed limit	TBD		GPS-based vehicle Speed Data
Thriving Economy	Ensure the efficient movement of people and goods to support the local and regional economy	Number of intersections with Level of Service (LOS) D or better in the AM and PM peak hours	TBD		Intersection Turning Movement Counts

5.6 COMMUNITY PROGRESS AND CELEBRATING SUCCESS

Clear communication, ongoing engagement, and recognition of progress are essential to maintaining momentum and building long-term support for implementation of the Transportation Plan. Together, these elements help ensure transparency and accountability, keep the community informed, and create opportunities for residents to remain actively involved as the Plan is delivered. Celebrating progress and sharing successes will also help reinforce the value of transportation investments, build awareness of improvements, and foster a sense of shared ownership of Yellowknife's evolving transportation system.

Engaging the Community and Gathering Input

Ongoing engagement will be an important component of implementation, ensuring that community perspectives continue to inform decision-making as projects are advanced.

The City will continue to engage residents, businesses, and stakeholders through a range of methods, building on the engagement undertaken during the development of the Plan. This may include project-specific engagement, targeted outreach, and opportunities for ongoing feedback.

To further support this, the City may explore establishing a Transportation Advisory Committee to provide community perspectives and advice on transportation planning, policy, and implementation. The Committee can support the delivery of the Transportation Plan and help strengthen collaboration between community members, City staff, and Council.

The Committee can be composed of representatives reflecting a broad range of transportation users and lived experiences, including people who walk, cycle, roll, use transit, drive, and rely on winter mobility options. It is important to include groups who have historically faced transportation barriers, such as youth, seniors, people with disabilities, and Indigenous peoples. A Terms of Reference for the Transportation Advisory Committee could be developed to define its mandate, scope, roles, and operating procedures.

Communicating Progress

Clear and consistent communication will help ensure transparency and accountability throughout implementation. The City will provide regular updates to Council, stakeholders, and the public on progress made toward implementing the Transportation Plan. This can be achieved in various ways.

- **Annual or Periodic Progress Updates:** Providing summaries highlighting how the implementation of the Transportation Plan is progressing, noting completed actions, ongoing initiatives, and upcoming priorities, can help keep Council and the public informed. An annual “report card” format can communicate progress in a clear and accessible way, using indicators and visuals to show how the City is advancing toward its goals.
- **Updates Aligned with Capital Planning Cycles and Key Milestones:** Integrating progress reporting with existing City processes, such as capital budget cycles or major project milestones can help ensure transportation updates are coordinated with broader municipal planning and helps communicate how investments are being delivered and phased over time.

Reporting on progress will help demonstrate how investments are contributing to improved transportation outcomes and support continued alignment with community priorities.

Celebrating Success

Recognizing and celebrating progress will be key to maintaining momentum and reinforcing the value of transportation investments. Highlighting completed projects and early successes can help build public awareness, demonstrate impact, and foster a sense of shared ownership.

This can be achieved by sharing transportation successes through social media, community events, and public activations to highlight progress, recognize community contributions, and build excitement around transportation implementation. Making transportation improvements visible and relatable will help residents understand how projects benefit everyday travel and encourage broader community support.

The City could also continue to use and refine the “Let’s Move YK” transportation branding to promote educational material and spread awareness about transportation initiatives. Information about transportation can be added to a webpage on the City’s website as a central resource to continue to build support and share transportation resources

Celebrating success not only acknowledges progress but also helps build continued support for implementation and encourages broader participation in achieving the Plan’s vision.





6.0 CLOSING

The Yellowknife Transportation Plan provides a comprehensive approach to guide Yellowknife's progress and investments in transportation infrastructure, programming, and policies over the next 25 years and beyond.

The Plan includes recommendations for improving transportation policies, standards, infrastructure and programs over the long-term, along with priorities over the short- and medium-term.

The Yellowknife Transportation Plan will contribute to increased transportation options by improving the accessibility, comfort, convenience, and safety of active transportation. The Transportation Plan has been developed based on extensive technical work and engagement through a four-phase process.

The City of Yellowknife would like to thank all community members for their participation in the process and valuable input developing the Yellowknife Transportation Plan.



APPENDIX A:

Glossary



The following terms have been defined below as they are referenced in the Transportation Plan and may not be readily understood by all readers.

Accessible	Transportation facilities, infrastructure, and services designed or programmed to enable all people safe and comfortable access and use, regardless of age, physical or cognitive abilities, or socio-economic background.	Mode	A specific form of transportation, such as walking, rolling, cycling, taking transit, or driving.
Active Transportation	Any form of human-powered transportation, including walking, cycling or rolling, including small-wheeled transport such as strollers, roller skates, skateboards, and push scooters. It may also include winter-based active modes (e.g., cross-country skiing and snowshoeing), water-based active modes (e.g., canoe, kayak, and stand-up paddle boarding), and horseback riding.	Mode Share	The percentage of all trips made by a particular mode.
All Ages and Abilities (AAA)	Active transportation infrastructure that is comfortable, convenient, safe, and attractive for everyone regardless of age or ability.	Multi-modal	Two or more modes of transportation. This typically includes the pattern of several modes during a single trip, such as walking to transit; characteristics of a street that accommodates more than one mode; and/or a transport hub that enables people to connect and transfer between different modes of transportation.
Complete Streets	A planning and design approach that creates streets that are safe, comfortable, and accessible for all users, regardless of age, ability, or mode of travel. Complete Streets balance the needs of people walking, cycling, rolling, using transit, driving, and moving goods, while also serving as public spaces that support community activity, local businesses, and placemaking.	Placemaking	Planning, designing, and management to create meaningful places for people.
Key Performance Indicator	A quantifiable measure used to evaluate success in meeting targets and goals.	Public Realm	An area that is publicly accessible, including streets, parks, and open spaces, enabling the public's interaction and connection with each other and their city.
Micromobility	Micromobility is an umbrella term encompassing a variety of small, lightweight, and low-speed devices that facilitate human transportation. This includes devices such as bicycles, e-bikes, cargo bikes, e-scooters, skateboards, and more.	Right-of-way	A right-of-way is a type of easement granted or reserved over the land for transportation purposes, such as a highway, street, footpath, or bicycle path.
		Rectangular Rapid Flashing Beacon (RRFB)	A pedestrian-activated safety device installed at crosswalks to alert drivers, using bright irregular amber LED flashing patterns. RRFBs enhance visibility of people crossing, increasing driver yielding rates at marked crossings.
		Safe Systems Approach	An approach that emphasizes a shared responsibility among planners, engineers, decision-makers, enforcement agencies, and road users.

Sustainable Transportation	Modes of transportation and/or systems that have a low impact on climate and the environment.
Traffic Calming	The combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.
Transportation Demand Management (TDM)	A broad term that refers to a range of infrastructure, policies, and incentives that can help reduce congestion by supporting changes to people's travel patterns and behaviours.
Transportation Equity	The principle that all people, regardless of income, age, ability, gender, race, location, or access to a vehicle, have fair access to safe, affordable, reliable, and accessible transportation options and opportunities.
Vision Zero	A systems approach to transportation safety premised on the belief that all traffic fatalities and severe injuries can be eliminated, while increasing safe, healthy, and equitable mobility for all people.
Walking and Rolling	The mode of transportation of a pedestrian. It includes people travelling by foot and people using mobility devices, such as wheelchairs or walkers and people with strollers.
Wayfinding	A system that assists travellers in orienting, navigating, and moving through an environment using architectural and urban design features, visual cues, and signage.

APPENDIX B:

Policy, Planning, and Standards Review



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INTRODUCTION

This document provides an overview of the existing plans, policies, bylaws, and design standards that are currently in place to plan, design, and maintain the City of Yellowknife's transportation network. The review of these documents will help shape the recommendations for the Transportation Plan.

Completed in Fall 2025 as part of [Interim Report 1: Transportation in Yellowknife Today](#), this review helped establish an understanding of the current transportation and mobility context in Yellowknife and identify opportunities for future improvements.

This summary is broken down into three sections:

City of Yellowknife Documents: These documents have been developed by the City of Yellowknife to guide and regulate the City's decisions and designs related to transportation. This section provides a review of each of the documents and identifies opportunities to update these documents to align with current best practices and/or to integrate into the Transportation Plan.

Territorial and Federal Initiatives: This section outlines the territorial and federal documents and initiatives that can help support the implementation of the Transportation Plan.

Community Partners and Planning Resources: This section outlines the existing community planning resources and guidance for the city. These resources are largely compiled by the non-profit organizations.

CITY OF YELLOWKNIFE

The City of Yellowknife's Transportation Plan will be informed by many of the City's key planning documents that contain active transportation, transit, roadway, goods movement and parking-related policies, plans, goals and visions.

Planning and Strategy Documents Underway

Community Plan Update (2025 – ongoing)

The Community Plan update is underway. It will be developed on a timeline that aligns closely with the Transportation Plan.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

The visions, goals, and strategies from the Community Plan will help inform the development of the Transportation Plan. We will work closely with the Yellowknife Planning team to ensure there is alignment and integration between both Plans.

Climate Action Plan (2026)

The City is developing a Climate Action Plan to assess how climate change considerations are incorporated into its objectives and to establish a strategy for integrating mitigation and adaptation actions into both short-term and long-term planning.

Sustainable Transportation was identified as one of the six themes where strategies and actions focused on embracing active transportation, public transit, and decarbonizing city fleet:

- 1.1: Incorporate Sustainable Transportation in Land-use Planning
- 1.2: Enhance City Operations and Services
- 1.3: Enhance Active Transportation Infrastructure
- 1.4: Increase Low and Zero-emission Vehicles and Infrastructure

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Reference and support Climate Action Plan actions related to land use planning, sustainable transportation, and low- and zero-emission vehicle infrastructure.

Corporate and Community Energy and GHG Emissions Inventory and Forecast Report (2025)

As part of the Climate Action Plan, a 2023 Corporate and Community GHG emission inventory was completed to forecast 2050 GHG emissions.

Fleet transportation (City non-transit vehicles for corporate use and public transit fleet vehicles) represented 4% of the 2023 Corporate GHG emissions inventory. For the City's 2023 Community GHG emissions inventory, the two highest contributing sectors were off-road transportation (40%) and on-road transportation (20%). Aviation turbojet fuel represents 95% of estimated GHG emissions from

off-road transportation, while passenger light-duty gasoline and diesel vehicles represent 50% of estimated GHG emissions from on-road transportation.

The Corporate business-as-usual GHG emission forecast projects that Corporate and public transit fleet transportation emissions are expected to increase with the city's projected population growth. Under the Community business-as-usual scenario, gasoline emissions from on-road passenger vehicles (not within Corporate control) are expected to decrease by approximately 56% from 2023 to 2050, with regulations driving increases in vehicle fuel efficiency and passenger vehicle fleet conversion to battery electric vehicles over fossil fuel vehicles.

Climate Vulnerability Assessment (2025)

As part of the Climate Action Plan, a climate vulnerability assessment was performed on the City's infrastructure portfolio. This assessment identified applicable climate-related hazards, evaluated their historical impacts on infrastructure, services, and the community, and provided recommendations to inform climate action and adaptation strategies that will enhance the City's resilience to climate change.

The assessment found that transportation networks (roadways, bridges, bike lanes, and sidewalks) are highly vulnerable to climate hazards due to their susceptibility to damage and medium adaptive capacity. These assets often face degradation from permafrost thaw and freeze-thaw cycles. Road conditions are also impacted by ice and snow accumulation, hindering transportation and supply routes during winter months.

Transportation-related exposure and impacts of climate hazards include:

- Transportation within the city (e.g., public transit) has been impacted by climate hazards that influence road conditions, such as snowfall and freezing rain.
- Winter weather impacts on transportation and distribution networks have resulted in disruption of supply routes.
- Extreme cold and winter hazards have made commuting more difficult for public transit users and result in delays in transportation of goods to and from the City.
- Ice accumulation and freeze-thaw cycles can lead to cracks, potholes, and uneven surfaces, making trails hazardous for pedestrians and cyclists. Increased freeze thaw cycles have accelerated road deterioration of roadways.

Transportation-related vulnerabilities identified include

- Key transportation and supply routes: Yellowknife's key transportation routes are critical for supporting supply chains to smaller, remote NWT communities. Climate impacts on these routes can disrupt internal operations and affect downstream supply chains, highlighting their sensitivity to extreme events.
- Population changes: Yellowknife has seen an influx of NWT residents seeking employment, with future population growth expected to be concentrated here. This demographic shift

heightens the need for climate relief infrastructure, such as cooling centres, green spaces, and bus shelters.

Existing Planning and Strategy Documents

Community Plan (2019)

The 2019 Community Plan is a comprehensive planning document that outlines the strategic vision and framework for the city's growth and development over a specified period. The plan serves as a blueprint for land use, infrastructure, housing, transportation, and community services, guiding the municipality's decisions to foster sustainable and balanced development.

Transportation Policies

The Community Plan recognizes the important relationship between land use and transportation, emphasizing the City's commitment to a safe, efficient, and accessible transportation system that encourages a shift from private vehicles to sustainable modes like walking, cycling, and public transit. The Plan supports compact urban growth and mixed-use development along transit-served arterial roads, while enhancing connectivity and safety by addressing gaps in the active transportation network.

Roads and Motorized Vehicle Trails

- 1-a. - High collision areas will be identified and plans will be made to improve these areas.
- 2-a. - The road network will be maintained in good condition.
- 3-a. - Active transportation and public transit will be promoted by City administration.

Active Transportation Infrastructure

- 1-a. - Safe and accessible active transportation infrastructure for all ages and abilities will be constructed to better connect residential and commercial areas of the City.
- 1-b. - The McMahon-Frame Lake Trail will be improved to make it more accessible for users with varying abilities.
- 1-c. - Better signage will be installed along active transportation networks to assist users with wayfinding.

Public Transit

- 1-a. Changes to service hours to better serve public transit users will be considered based on recommendations in the 2019 Yellowknife Public Transit Review.
- 1-b. More direct routes will be considered based on recommendations in the 2019 Yellowknife Public Transit Review.
- 2-a. - Service to currently unserved areas and improvements to underserved areas of the City will be considered.
- 2-b. - Service to the airport will be considered.
- 2-c. - Increased service frequency will be considered.

- 2-d. - Frequent and direct service between key activity areas (Old Town, Downtown, Recreation Hub, Old Airport Road, and Airport) will be considered.

Land Use Designation Policies

While the Community Plan does is largely focused on land use designations outlining the intent and character of the land use for that area with corresponding land use objectives and strategies. There are supportive policies within each land use designation's objectives.

Downtown – City Core

- 2-a. - No new surface parking lots will be permitted.
- 2-b. -The City will work with developers to build alternatives for parking that supports new development.
- 2-c. - The City will work with existing developments to build alternatives for parking if desired.
- 3-a. - Improvements will be made to walking and cycling infrastructure so that it is accessible for people of all ages and abilities.
- 3-b. - Increase in level of service for public transit into and within City Core will be considered based on recommendations in the 2019 Yellowknife Public Transit Review.
- 4-a. - Implementation plan for shifting trips to active transportation and public transit will be created.
- 5-a. - Active transportation infrastructure will be safe, connected, accessible, direct and available year round.
- 5-b. - Recommendations from City of Yellowknife Accessibility Audit, with respect to accessibility of City infrastructure, will be implemented.
- 7-a. - Off-street parking minimums will be removed.
- 8-a. - Specific revenue tools for investing in public realm improvements will be created (on-street parking revenue, business improvement district levies density bonusing payments, etc.).
- 9-a. - Parking, unless screened with active uses, will not be permitted in buildings at street level as defined in the Yellowknife Zoning Bylaw
- 13-a. Large open spaces will include amenities that support larger community events of 50 people or more such as public washroom areas, vehicle and bicycle parking and walkways that support accessibility
- 14-a. Incentive programs for outdoor patios that were created in 2017 will be evaluated and considered for zoning bylaw amendment.

Downtown - Central Residential

- 1-a. - Improvements will be made to intersection safety, sidewalks, cycling paths, and trail networks.
- 4-a. - Off-street parking minimums will be reduced.
- 4-b. - Walking and cycling connections will be improved to support active modes of transportation.

- 8-a. - Any future development of Tin Can Hill will maintain space for passive recreation opportunities and maintain appropriate natural buffers between trails and development.
- 10-a. - Gaps in walking and cycling paths to Tin Can Hill will be identified and improved.

Old Town

- 3-a. - Motor vehicle-oriented uses such as non-accessory surface parking lots and drive-thrus will not be permitted.
- 4-a. - Off-street parking minimums for new development will be reduced.
- 6-a. - Gaps in accessible walking infrastructure will be identified and filled.
- 6-b. - Entrances to buildings shall be street oriented and accessible.
- 6-c. - Recommendations from Yellowknife Accessibility Audit for accessibility upgrades to public facilities will be implemented.
- 7-a. - Improve walking and cycling networks between Old Town and other areas of the City.
- 7-b. - Improvements to public transportation based on the 2019 Yellowknife Public Transit Review will be considered.
- 11-a. - The causeway/narrows area between Latham Island and the mainland will be preserved for commercial operations namely aviation and supporting uses, tourism operator activities that require waterfront access and boat docks.
- 16-a. - Smaller emergency vehicles that can more easily manoeuvre in narrower streets will be considered, when existing emergency vehicle fleets are due for replacement, to account for geographic constraints in Old Town.
- 16-b. - Parking policy for emergency vehicles will be reviewed.

Old Airport Road Commercial

- 2-a. Commercial uses will continue to be required to accommodate all customer and delivery motor vehicle parking in off-street parking facilities.
- 3-a. Commercial activities should be designed to accommodate a variety of transportation modes including walking, cycling, and public transit.
- 4-a. Commercial site design must consider needs of users with limited mobility.
- 5-a. - Parking options such as shared parking will be considered to reduce off-street parking requirements.
- 5-b. - New buildings will front the street with street fronting landscaping and off-street parking will be accommodated behind buildings.
- 12-a. - Large commercial blocks will be designed to incorporate wide, tree-lined sidewalks that will allow pedestrians clear, safe, direct and comfortable access through parking lots, from the street to the main entrance of commercial buildings that are located at the rear of the lot.
- 14-a. - The city will consider changes to public transit level of service to Old Airport Road in line with recommendations from the 2019 Yellowknife Public Transit Review.
- 14-b. - Gaps in walking and cycling infrastructure will be identified and an implementation plan will be created to address the gaps.

Capital Area

- 1-a. - Development proposed in proximity to the McMahon Frame Lake Trail will be screened to protect the natural state of the area and outdoor experience for trail users.

Niven Residential

- 1-a. - Gaps in active transportation infrastructure will be identified and filled.
- 1-b. - Active transportation trail improvements will be considered based on the City of Yellowknife Trail Enhancement and Connectivity Strategy.
- 2-a. - Public transit service will be reviewed based on recommendations in public transit studies.
- 3-a. - Walking and cycling infrastructure connecting to downtown for all ages and abilities will be constructed.

West Residential

- 1-a. - Maintain sidewalks and trail networks, identify gaps in active transportation networks and develop a plan to better connect walking and cycling infrastructure to other areas of the City.
- 2-a. - Construct safer and more direct walking and cycling infrastructure for all ages and abilities.
- 2-b. - Increase level of service of public transit and make routes more direct to other key activity nodes in the City.

Grace Lake

- 4-a. - Public access to the south shoreline of Grace Lake will be maintained for recreational activities
- 4-b. - Trail networks will be considered along the southern shoreline based on the general recommendations in the City of Yellowknife Trail Enhancement and Connectivity Strategy for a comprehensive city wide trail network.

Kam Lake

- 3-a - Transportation networks will be maintained to accommodate large motor vehicles, including turning radius, height clearance, provisions for loading areas, staging and off-street parking to support the nature of commercial and light industrial activities.

Kam Lake South

- 1-c. - Public access to waterfront of Kam Lake will be maintained.
- 1-d. - The dog mushing trail network will be preserved.
- 8-a. - Road design will accommodate all users in the area.
- 8-b. - Signage and speed limits will be used to maintain safety for dog teams and motor vehicle traffic.

- 8-c. - Clear sight lines on roads will be maintained to reduce blind spots or visually obstructed corners.

Engle Industrial Business District

- 4-a. - The City shall design the transportation network to a standard that accommodates large industrial vehicles by considering turning radius, height clearance, provisions for loading areas, and staging and off-street parking to support the nature of the heavy industrial activities.
- 6-b. - Road access and widths shall be designed to accommodate emergency response vehicles.
- 7-a. - Future development shall provide safe pedestrian crossings and vehicular movements.

Con Redevelopment Area

- 5-a. - Public access to the waterfront must be maintained. No future development that segments the shoreline and creates exclusive private use will occur.

Recreation Hub

- 2-a. - Public parking for private motor vehicles will be available at recreational facilities.
- 2-b. - Bicycle parking will be available at all recreational facilities.
- 2-c. - Access to the facilities will be made safe with appropriate infrastructure for pedestrians, cyclists, public transit users, and motorists.
- 3-a. -The City will improve the trail connections and networks to the Multi-plex and field house.
- 3-b. - Trails will be well marked and safe for pedestrians and cyclists in all seasons.
- 4-c. - Transportation networks will remain efficient and easily accessible to support prompt response times for emergency services.

Akaitcho

- 1-a. - The City will provide any required relevant municipal information, in good faith, to the parties involved in the ADFN land, resource, and self-government negotiation.
- 2-a. - No development within the jurisdiction of the City will be permitted on withdrawn lands until land negotiations have been settled.
- 3-a. All future development of withdrawn lands, once Agreement is settled, will comply with City's development standards and by-laws.

Fred Henne Park and Yellowknife River Park

- 1-a. - The City will improve walking, cycling and public transportation networks between Fred Henne Territorial Park and built areas of the City.

Special Management Zone

- 4-a. - Trails and watercourses will continue to be used as transportation networks by all-terrain vehicles, snowmobiles and recreational skiers/hikers.

Trail Enhancement and Connectivity Strategy (2018)

The Trail Enhancement and Connectivity Strategy provides an assessment of the City's existing trail network, identifies elements of a trails strategy applying it to the McMahon Frame Lake trail, and provides an action and monitoring plan to ensure these elements are implemented effectively. This report uses active transportation interchangeably with trail use and focuses specifically on the McMahon-Frame Lake trail since it is a key connecting feature of the Yellowknife trail system.

Six trail elements and their corresponding actions are noted below:

Well Connected and Designed Network

- McMahon-Frame Lake Trail – Yellowknife's Trail: Work with land use partners to complete a strong trail connection to the Coop Corner.

Responsive and Sustainable Operations

- Improve maintenance programs and activity (safety) along Frame Lake Trail and along primary road corridors
 - o To be incorporated within existing budgets and through coordination with other City departments (Public Works and Engineering, Public Safety and Policy, Communications and Economic Development)
 - o Clearing and sanding the paved Frame Lk trail, clearing snow (winter) and gravel (spring) from bike lanes
- Address 'low hanging fruit' user experience issues, including curb cuts and asphalt cracking/repair and boardwalk and stair repairs (to be contracted out)
 - o Curb cut on McMahon-Frame Lake Trail at Byrne Rd
 - o Curb cuts along Old Airport Rd at Canadian Tire, RTL, Cemetery Rd, and at end of trail across from Bristol Ave
 - o Curb cut at end of multi-use trail along Kam Lk Rd
 - o Asphalt repair along Taylor Road
 - o Asphalt filling or drainage improvements with ponding water at 52nd St and Franklin
 - o Repair and cut vegetation along Range Lk boardwalks, Jackfish and Frame Lk stairs

Effective Signage and Communication

- Improve signage and wayfinding in the existing network
 - o Install trailhead signage at Range, Frame, Jackfish, Niven, Grace, and Rat Lakes, Backbay, Rotary Park, and Tin Can Hill
 - o Update and replace trail wayfinding along Frame, Jackfish, Range, Grace Lakes, and Tin Can Hill
 - o Install painted lines on McMahon-Frame Lake Trail to avoid confrontation
 - o Paint bike lanes along Kam Lk to Dehcho Blvd and to Grace Lk, and along Old Airport Rd and Bristol Ave to the airport

Coordinated and Accountable

- Formalize a trail representative/contact role within the City (part-time allocation)
- Dedicate annual funding for trail maintenance and expansion (for signage and general upkeep)

Youth Focused

- Prioritize school zones for trail development in Community Plan updates and road construction plans
- Work with schools to create education and outreach events with municipal by-law, library and recreation staff
- Work with schools to create walking and biking programs

Holistic Approach

- Update the Yellowknife Community Plan and By-laws to reference active transportation and support trails
- Grow the network to serve increasing trail users and to provide additional trail opportunities
 - Expansion as funding and community support is available, connecting Grace Lk with Dehcho Blvd, Range Lk to Borden, Frame, Niven, and Jackfish with the Ski Club and Back Bay, circling Kam Lk, Rat Lk boardwalk

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Incorporate relevant recommendations from the Trail Enhancement and Connectivity Strategy into the active transportation network, strategies, and actions identified in the Transportation Plan.

Cycling Routing Network (2017)

This map shows the cycling network in 2017, providing descriptions of each of the cycling facility types:

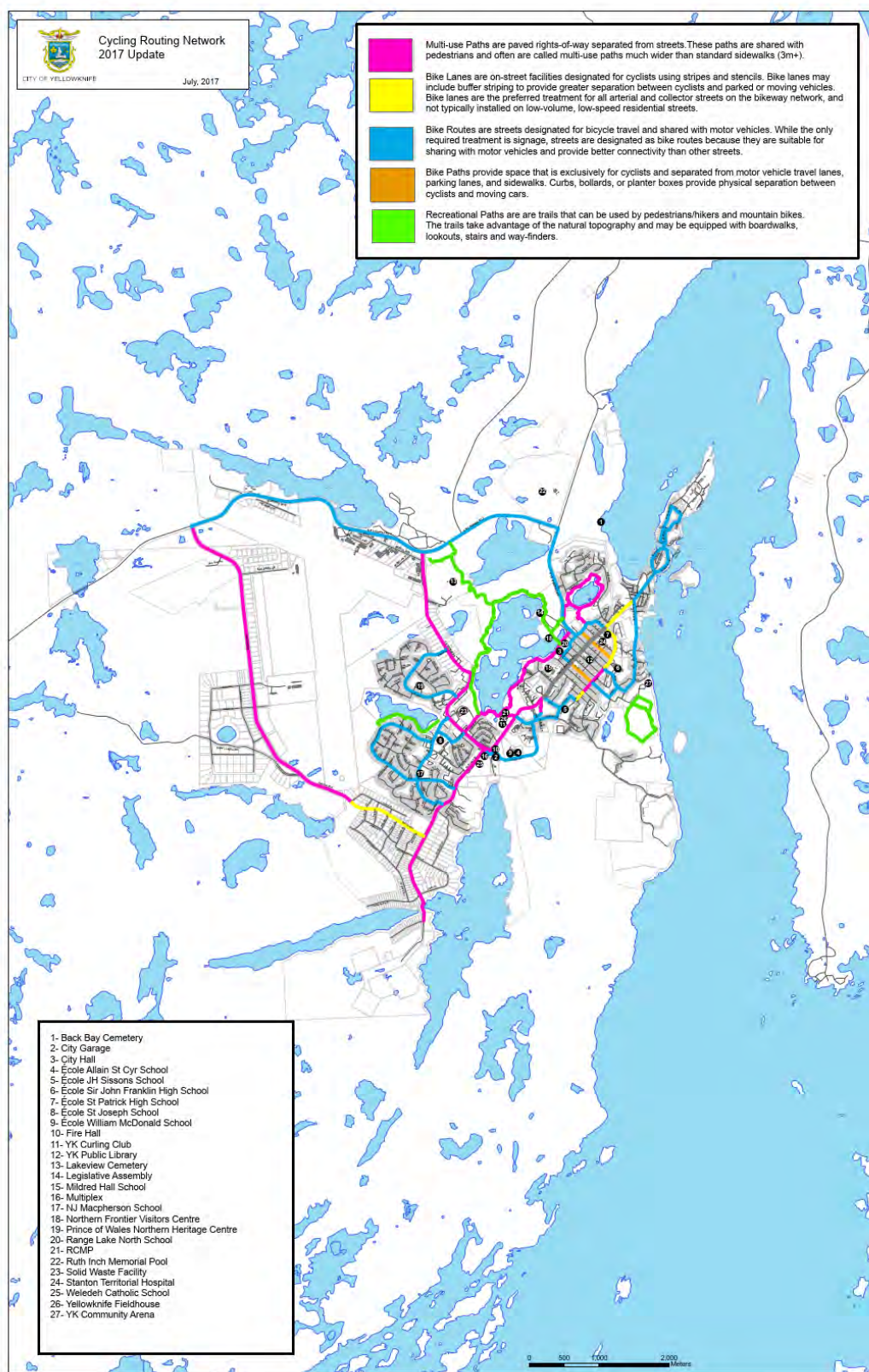
- **Multi-use Paths** are paved rights-of-way separated from streets. These paths are shared with pedestrians and often are called multi-use paths much wider than standard sidewalks (3m+) Bike Lanes.
- **Bike Lanes** are on-street facilities designated for cyclists using stripes and stencils. Bike lanes may include buffer striping to provide greater separation between cyclists and parked or moving vehicles. Bike lanes are the preferred treatment for all arterial and collector streets on the bikeway network, and not typically installed onflow-volume, low-speed residential streets.
- **Bike Routes** are streets designated for bicycle travel and shared with motor vehicles. While the only required treatment is signage, streets are designated as bike routes because they are suitable for sharing with motor vehicles and provide better connectivity than other streets.
- **Bike Paths** provide space that is exclusively for cyclists and separated from motor vehicle travel lanes, parking lanes, and sidewalks. Curbs, bollards, or planter boxes provide physical separation between cyclists and moving cars.

- **Recreational Paths** are trails that can be used by pedestrians/hikers and mountain bikes. The trails take advantage of the natural topography and may be equipped with boardwalks, lookouts, stairs and way-finders.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Use the cycling facility classifications as the foundation for mapping and communicating the existing cycling network, updating them as needed to reflect current conditions.

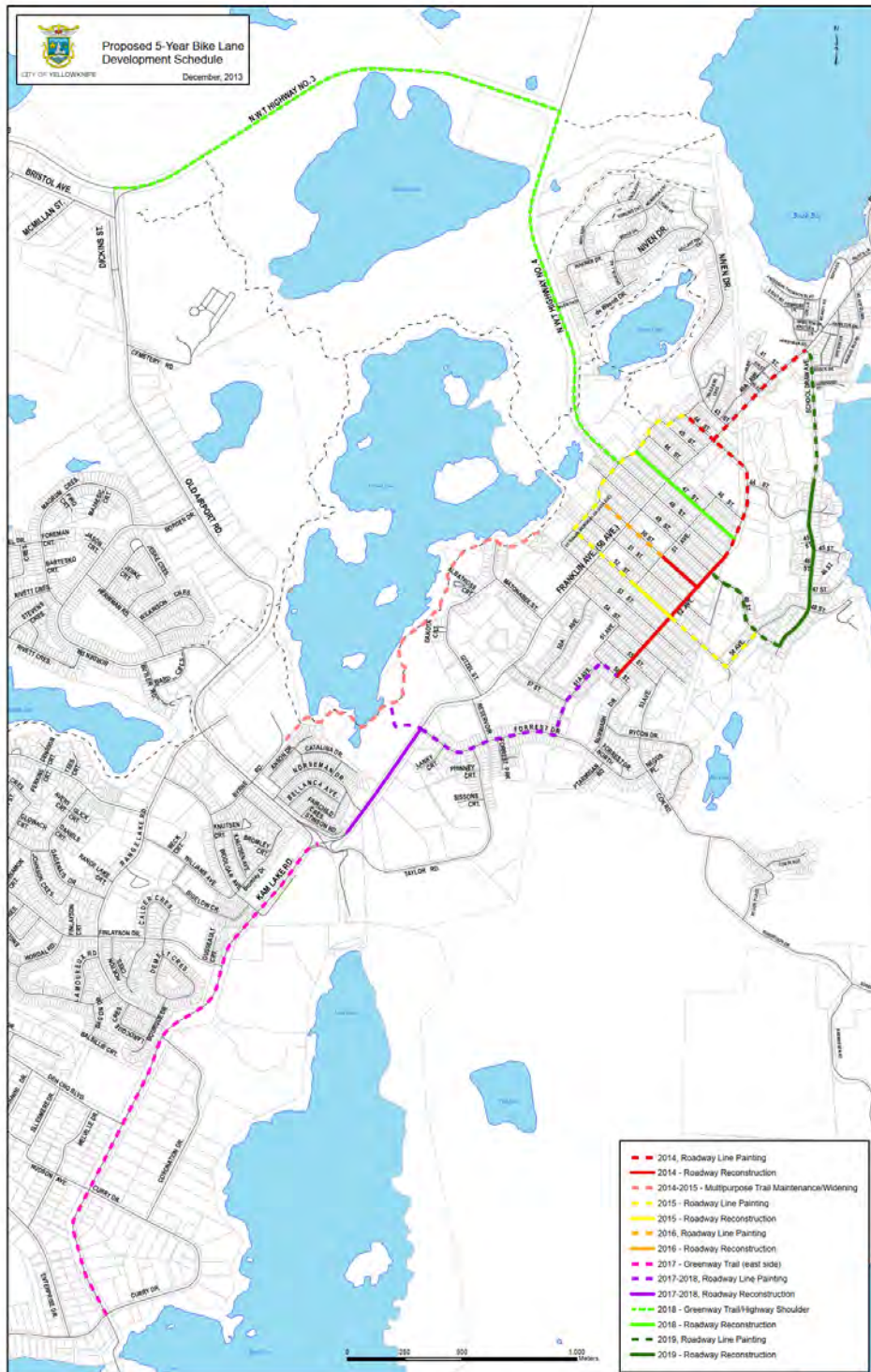
Figure 1: Cycling Routing Network, 2017 Update



Proposed 5-Year Bike Lane Development Schedule (2013)

This map shows the proposed 5-year bike lane development schedule.

Figure 2: Proposed 5-Year Bike Lane Development Schedule, 2013



Smart Growth Development Plan Transportation Improvement Study (2010)

This map shows the proposed 5-year bike lane development schedule.

Figure 3: Long-term Transportation Proposed Improvements (Source: Transportation Improvement Study, 2010)



Bicycle Routing for the City of Yellowknife (2008)

The Bicycle Routing for the City of Yellowknife report outlines a plan to enhance cycling infrastructure and promote active transportation throughout the city. The report includes maps of proposed bicycle routes across the city. As a part of the report, several hot spot locations were identified:

- **Area in the vicinity of the Yellowknife Co-op:** Lack of safety for both bicycling and walking area including difficulty connecting with existing trail, high traffic volumes and the concert barricade.
- **The area behind Stanton Hospital:** Boardwalk and ramp and underpass area are dangerous for walkers and bicyclists.
- **The Multiplex area:** Traffic at the intersection of Airport Rd. and access & egress to and from the Multiplex creates safety problems for bicyclists.
- **Highway 4: Access Road to City:** No linkage to trails and difficulty to access trails in both directions.
- **43rd Street:** No left hand turns permitted.
- **Old Airport Road. at Borden Avenue:** Safety issues on road , bike lane striping on one side-very faint, difficulty with number of driveways, street irregularities and higher traffic volumes from commercial and industrial land uses.
- **Highway 4:** Narrow shoulder and lack of linkages to safer bicycle areas
- **MacDonald Dr.- Old Town- One Way section:** Lack of safety driving space on the street.

Figure 4: Proposed Bicycle Routes and Lanes - Old Town, Niven, Yellowknife Access Road

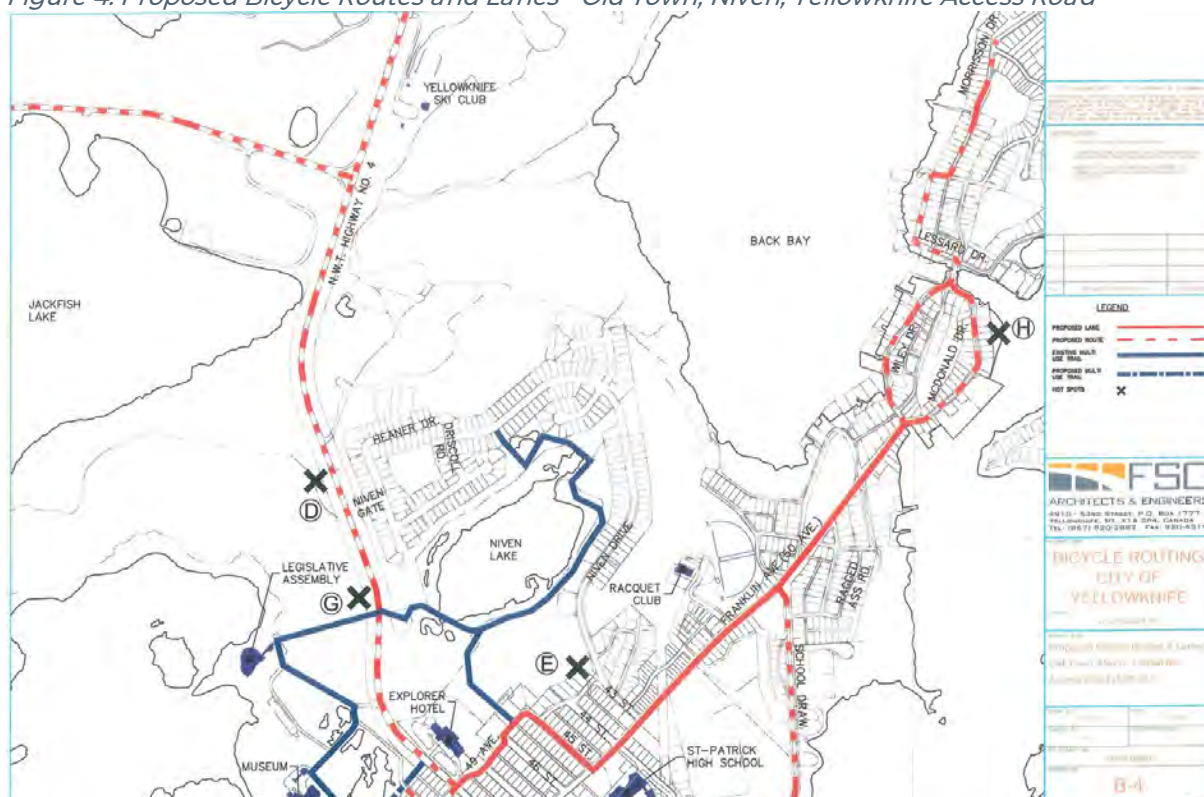


Figure 5: Proposed Bicycle Routes and Lanes – Highway #, Airport, Old Airport Road North



Figure 6: Proposed Bicycle Routes and Lanes – Highway 3, Sand Pit, Shooting Range Access Road



LEGEND

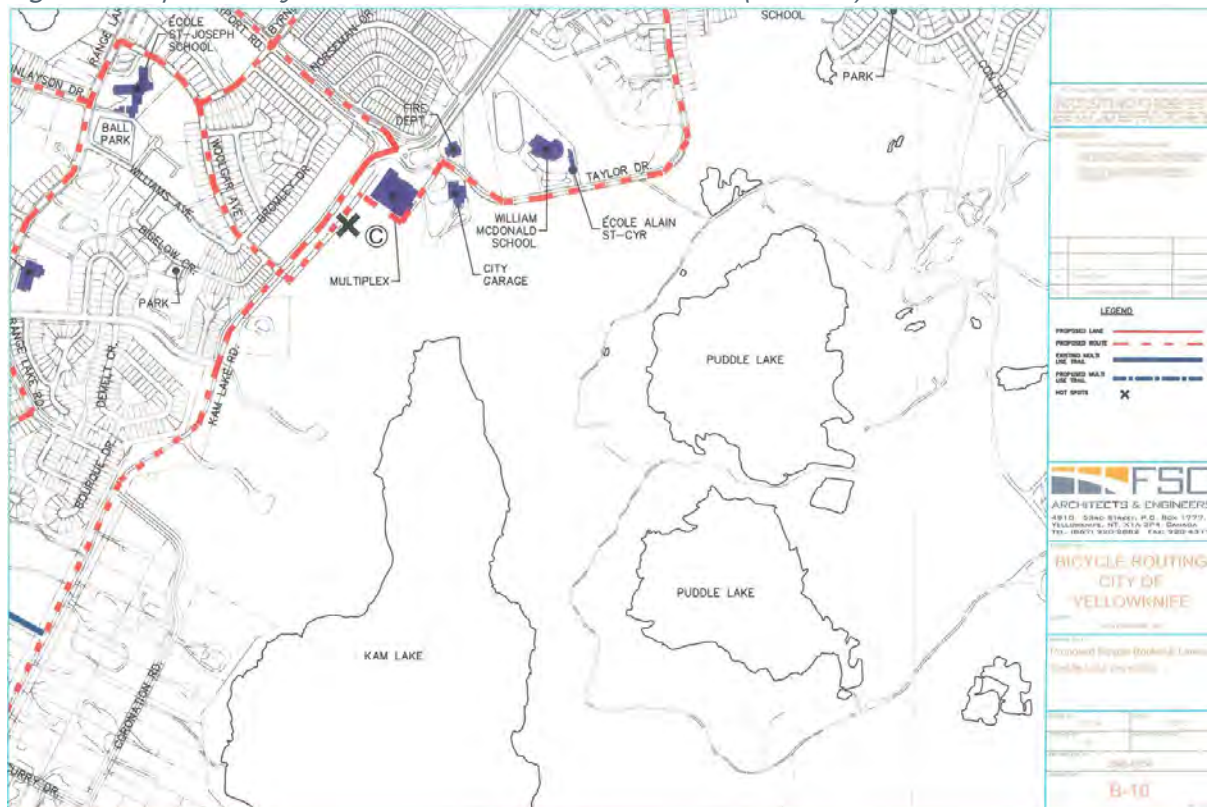
- PROPOSED ROUTE (Red dashed line)
- EXISTING MAIN USE TRAIL (Blue solid line)
- PROPOSED MAIN USE TRAIL (Blue dashed line)
- HOT SPOTS (X)

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BICYCLE ROUTES CITY OF YELLOWKNIFE
 Prepared by:
 City Engineer, Planning & Land Use
 City Engineer, Planning & Land Use
 Transportation Planning Unit

Map Labels:
 KASTLE DR, WYOMING DR, BORDEN DR, HENRIEN DR, RANGE LAKE NORTH SCHOOL, COOP, MULTI USE TRAIL, MINI GOLF COURSE, POOL, ARENA, CURLING CLUB, TENNIS COURT, HOSPITAL, PARKER PARK BALL PARK, RANGE LAKE, FINLAYSON DR, RANGE LAKE RD, OLD AIRPORT RD, JOSEPH SCHOOL, FINLAYSON DR, WARDEN AVE, BRADLEY AVE, DIAMOND DR, BALL PARK, WILLIAMS AVE, WOODBURN AVE, BOWEN DR, FIRE DEPT., WILLIAM MCDONALD SCHOOL, CITY GARAGE, MULTIPLEX, PARK, ÉCOLE ALA ST-CYR, TAYLOR DR, FRAME LAKE, ADZE ST.

Figure 9: Proposed Bicycle Routes and Lanes – Puddle Lake (no route)



POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Review proposed cycling routes and identified collision hot spots to prioritize cycling safety improvements.

Yellowknife Public Transit Review (2020)

The 2020 Yellowknife Public Transit Review provides recommendations that include service change options to improve the performance of transit in Yellowknife.

Service options were divided by service options for immediate consideration and service options for longer term considerations.

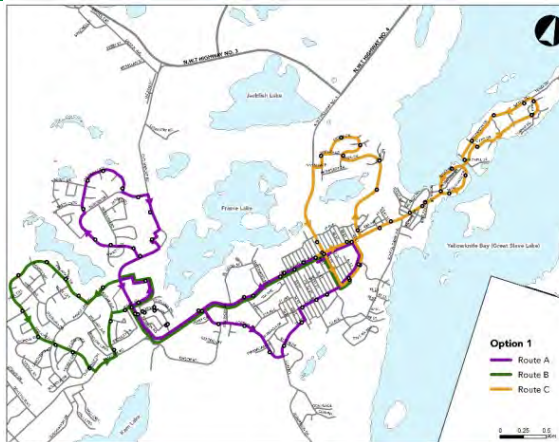
Table 1: Service Options for Immediate Consideration

Service Option

Service Route

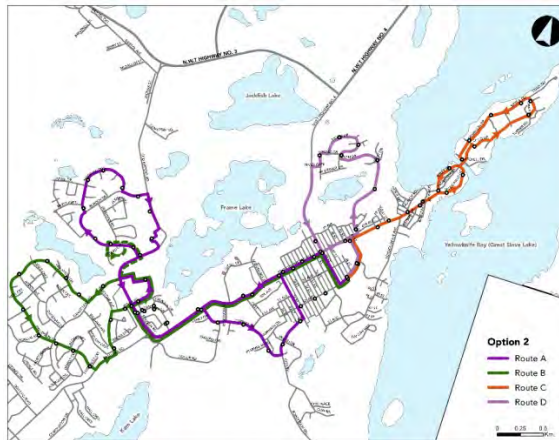
Service Frequency

Service Option 1: Minor Route Restructuring



	AM Peak 7AM - 9AM	Midday 9AM - 3PM	PM Peak 3PM - 6PM	Evening 6PM - 7PM	Saturday 7AM - 7PM
Route A	40	40	40	40	40
Route B	40	40	40	40	40
Route C	40	40	40	40	40
Route B Express	2 trips (no change)		2 trips (no change)		

Service Option 2: Revised Routing + Offset Midday Schedule



	AM Peak 7AM - 9AM	Midday 9AM - 3PM	PM Peak 3PM - 6PM	Evening 6PM - 7PM	Saturday 7AM - 11AM, 11AM - 6PM, 6PM - 7PM		
Route A	40-50*	60**	40-50*	60**	60**	60**	60**
Route B	40-50*	60**	40-50*	60**	60**	60**	60**
Route C	40-50*	60	40-50*	60	60	60	60
Route D	40-50*	60	40-50*	60	60	60	60
Route B Express	2 trips (no change)		2 trips (no change)				

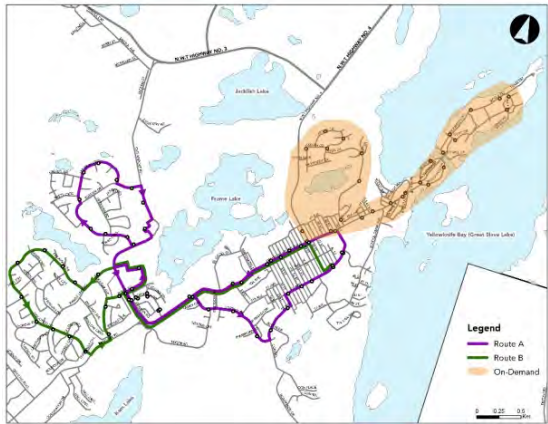
* Commuter service would align as much as possible with existing trip arrive / departure times.
** Trips on Routes A & B would be offset during the midday to offer 30 min service between major destinations.

Service Option 3: Rerouting to Better Match Service to Demand



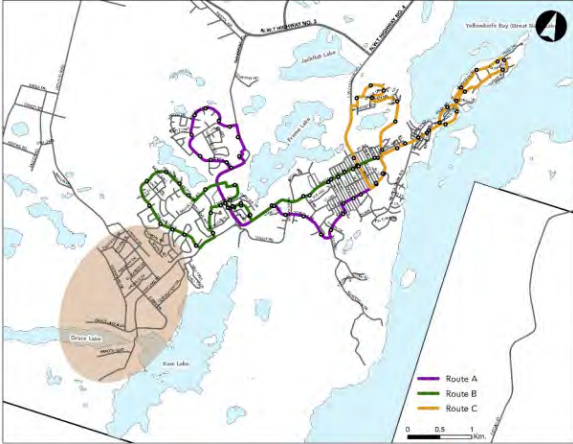
	AM Peak 7AM - 9AM	Midday 9AM - 3PM	PM Peak 3PM - 6PM	Evening 6PM - 7PM	Saturday 7AM - 11AM, 11AM - 6PM, 6PM - 7PM		
YK Connector	30	60**	30	60**	30	60**	60**
Borden - Niven	40-50*	60**	40-50*	60**	60**	60**	60**
Route B Express	2 trips (no change)		2 trips (no change)				

* Commuter service would align as much as possible for Borden and Niven areas with existing trip arrive / departure times.
** Trips on the YK Connector and Borden - Niven routes would be offset during the midday to offer 30 min service between major destinations.

Service Option	Service Route	Service Frequency																														
Service Option 4: Flex-routed Service	 The map displays three service routes in the Yellowknife area. Route A is highlighted in yellow, Route B in green, and On-Demand service in orange. The routes connect Kam Lake, Yellowknife, and Yellowknife Bay (Great Slave Lake). A legend in the bottom right corner identifies the routes: Route A (yellow line), Route B (green line), and On-Demand (orange line). A scale bar indicates distances up to 0.5 km, and a north arrow is present in the top right corner.	Option 4 Frequency: in minutes <table> <tr> <th></th><th>AM Peak 7AM - 9AM</th><th>Midday 9AM - 3PM</th><th>PM Peak 3PM - 6PM</th><th>Evening 6PM - 7PM</th><th>Saturday 7AM - 7PM</th></tr> <tr> <td>Route A</td><td>40</td><td>40</td><td>40</td><td>40</td><td>40</td></tr> <tr> <td>Route B</td><td>40</td><td>40</td><td>40</td><td>40</td><td>40</td></tr> <tr> <td>Route C</td><td>*</td><td>*</td><td>*</td><td>*</td><td>*</td></tr> <tr> <td>Route B Express</td><td>2 trips (no change)</td><td></td><td>2 trips (no change)</td><td></td><td></td></tr> </table> *On-demand Service.		AM Peak 7AM - 9AM	Midday 9AM - 3PM	PM Peak 3PM - 6PM	Evening 6PM - 7PM	Saturday 7AM - 7PM	Route A	40	40	40	40	40	Route B	40	40	40	40	40	Route C	*	*	*	*	*	Route B Express	2 trips (no change)		2 trips (no change)		
	AM Peak 7AM - 9AM	Midday 9AM - 3PM	PM Peak 3PM - 6PM	Evening 6PM - 7PM	Saturday 7AM - 7PM																											
Route A	40	40	40	40	40																											
Route B	40	40	40	40	40																											
Route C	*	*	*	*	*																											
Route B Express	2 trips (no change)		2 trips (no change)																													

- Progress: The City of Yellowknife has updated their transit routes and schedules on October 1, 2024.

Table 2: Service Options for Longer Term Considerations

Service Option	Service Route
Service Option 6: Service to Kam Lake Community	
Service Option 2: Revised Routing + Offset Midday Schedule	

- Progress: The City of Yellowknife has updated their transit routes and schedules on October 1, 2024. There is Kam Lake service via the Express bus service twice a day on weekdays.

Infrastructure Priorities

- IP 1: Ensure accessibility for transit vehicles to bus stops and pick-up / drop-off locations
 - o Recommendation: The City should prioritize snow removal for transit routes, especially at bus stops. YATS could benefit from designated parking at: 1) Primary Care (48th Street), 2) Barrier Free Building (53rd Street). Fixed route transit stops that can be prioritized for snow removal are: 1) Centre Square Mall, 2) Aven Manor, 3) Byrne Rd & Reddi Mart
 - o Progress: Major bus routes have been included as a primary snow removal priority, additional bus routes are identified as a secondary snow removal priority.
 - o
- IP 2: Increase visibility of transit in downtown through improved passenger waiting facilities
 - o Recommendation: If the City moves forward with route structure changes, part of the implementation process should also include creation of a detailed bus stop plan that indicates which stops may need to move, close, be added or re-signed to support the changes. (As the route structure options have been designed to work using as much of the existing system as possible, it is expected that the number of stops required to change will be minimal). This work should also assess and prioritize future stop changes that would be helpful for the system. Some of the suggestions that arose from this Review process include:
 - Creation of a stop in the vicinity of 48 Street at the access road to the Legislative Assembly and Northern Heritage Centre as access to this area is a frequent request by visitors. (An inset map of the core area on transit system materials showing how visitors can access these destinations from downtown via the trail network may also be helpful).
 - Further improvements such as a shelter and accessible landing pad to the southbound stop at Old Airport Road at Byrne Road to serve residents of the western end of Norseman Drive.
 - Consideration of an additional stop on Niven Drive near the intersection of the Niven Lake Trail access and the trail to the Racquet Club.

Policy Priorities

- PP1: Consider Reviewing YATS Policies, Procedures and Guidelines
- PP2: Consider Future Implementation of an In-Person Registration Process for YATS
- PP3: Alignment with Planning Documents and Development Process
- PP4: Ongoing Performance Monitoring

Fare Priorities

- FP1: Concession Fare
 - o The discount offered for concession fares for seniors, youth and people with a disability) is lower than what is typically found in other transit systems.
 - o Many systems are moving towards offering a single cash and ticket fare to improve the simplicity of their fare structure and reserving deeper discounts for bus passes as a way of rewarding regular users.
 - o Adjusting the balance between full and concession fares could be considered as part of the next fare change, with the \$3 adult fare moving down and the \$2 concession fare moving up to a unified cash fare of \$2.50.
- FP2: Day Pass
- FP3: Provide Incentives to the Commuters and Regular Users
 - o Setting up an employer-based program whereby larger employers with a certain number of participating employees (a 5 or 10 person minimum is often set for administrative purposes) can pay for their pass through automatic payroll deduction each pay period.
 - o Incorporating payment towards as part of a rental agreement, whereby residents of participating buildings could add an additional amount to their rent to cover a monthly amount towards the annual pass.
 - o Setting up an automated monthly transaction using a credit card.
- FP4: Consider a semester pass program if none of the other longer-term pass payment options are feasible.
- FP5: Holiday "On the Bus Day Pass"
- FP6: Family Travel Program
- FP7: Further Fare Technology

Customer Information Priorities

- CIP1: Clarify Existing Maps and Schedules
 - o Include arrows to indicate the direction of the route on the maps.
 - o Instead of using numbers for some significant bus stops, consider adding timepoint letters that can be shared across the three routes, to reduce the amount of numbers on the map and more easily convey which destinations are served by multiple routes.
 - o Divide the schedule tables and identify the inbound and outbound direction to make it more intuitive for new users.
 - o Include information on bus etiquette and key information for new users that is available on the transit website within the transit schedule.
 - o Add information on system accessibility. For instance, note which trips are guaranteed to use low floor vehicles, provide information on the YATS service within the fixed

route schedule and describe how both services work together to serve people with a disability in the community

- CIP2: Create Visitor Information Specific Materials
 - o City could produce a visitor-specific version of the Yellowknife Transit brochure that would be a smaller and more focused item than the existing full transit schedule. For instance, this item could be a double-sided “rack card” that is typically 10.2 cm by 22.9 cm (4 inches by 9 inches) and sized to fit in hotel lobby and visitor information centre brochure racks.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Align the Transportation Plan's transit recommendations with priorities identified through the Yellowknife Public Transit Review and community engagement process.

Council Strategic Directions (2023-2026)

The Council's Strategic Directions: 2022-2026 outlines the City of Yellowknife City Council's strategic priorities for the 2022-2026 term, focusing on providing an overarching framework rather than specific actions. With a vision centered on prioritizing people, delivering service excellence, and ensuring a sustainable future, the Council commits to these principles in all decisions and resource allocations. The aim is to make Yellowknife a welcoming, inclusive, and prosperous community with a strong sense of pride in its unique history, culture, natural beauty, and role as the capital city and gateway to the Northwest Territories.

Relevant transportation related key initiatives include:

- Supporting design standards that are multi-modal including recognizing Yellowknife's advantages as a winter city
 - Progress: The Development and Design Standards were last updated in April 2022.
- Providing public transit that meets user needs
 - Progress: As of October 2024, new routes were introduced as a result of the Yellowknife Public Transit Review (2019) and YKTransit Realign projects.

Housing Needs Assessment (2024)

The 2024 Housing Needs Assessment report identifies several transportation-related issues and opportunities to housing needs.

Opportunities include encouraging mixed-use development and expanding commuter trail networks while the high cost of living was identified as a barrier.

As a part of the report, focus group sessions included a question asking whether people feel there is enough public transportation or alternative transit infrastructure connecting areas to essential services like healthcare, schools, and grocery stores.

Yellowknife Old Town Emergency Circulation Review and Parking Study (2021)

The 2021 Emergency Circulation Review and Parking Study identifies parking supply and demand patterns, road access and requirements, and recommended solutions for managing parking in Old Town, an area known for its compact development pattern, narrow streets and alleyways, tourist attractions, and recreation and commercial boating operations.

The study identified three preliminary recommendations:

- Increase and introduce no-parking signage in areas of Old Town in order to maintain effective emergency servicing;

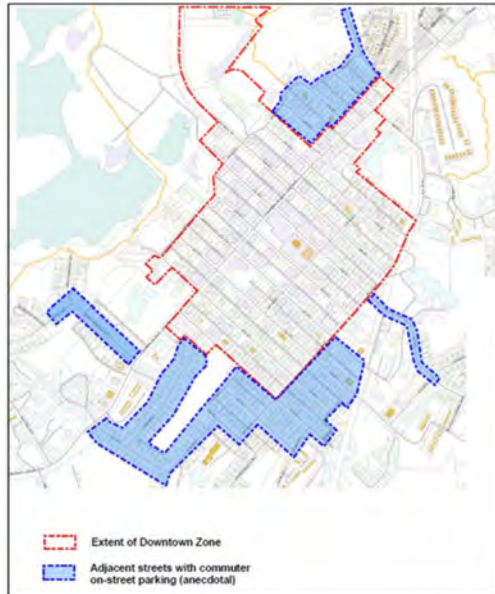
Figure 10: Old Town Emergency Circulation Review and Parking Study Area



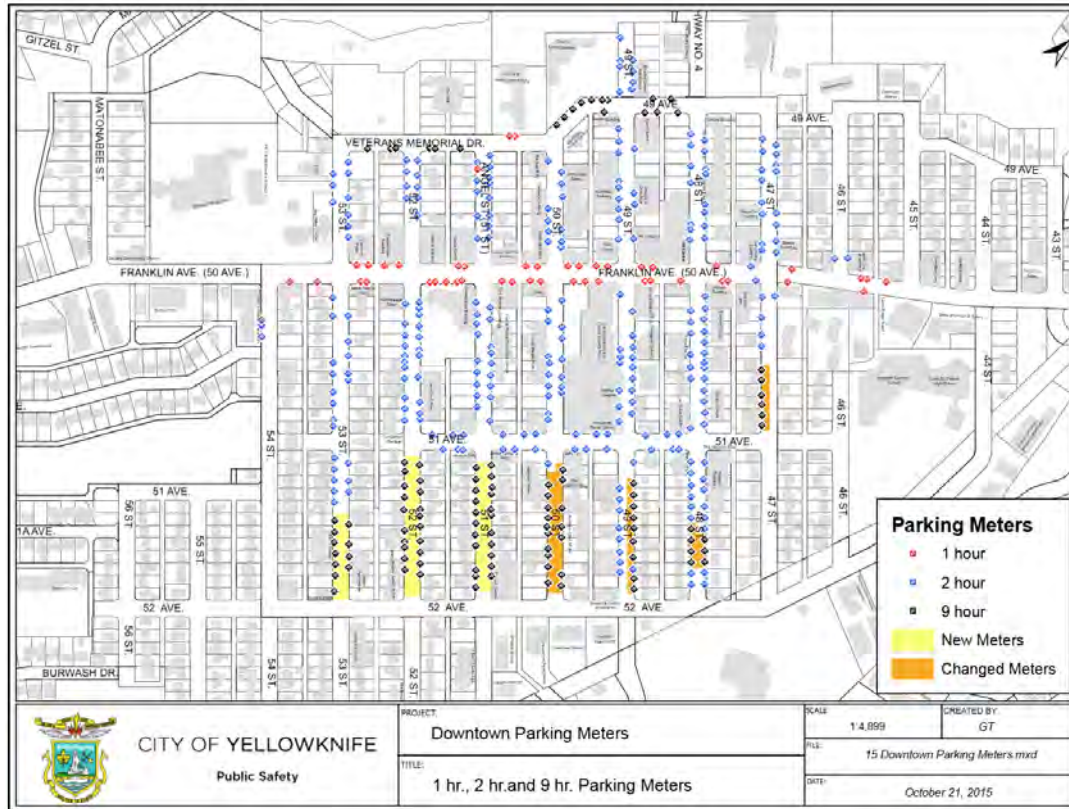
- Capitalize on existing off-street parking areas, such as the Old Town Parking Lot and increase on-street parking through infrastructure improvements; and
- Consider implementing a residential parking pass program in the residential parking areas of Old Town.

Yellowknife Parkade Feasibility Study (2021)

As a part of the Yellowknife Parkade Feasibility Study, a desktop review of 2019 aerial photography was conducted to assess downtown Yellowknife's parking supply.



Type of Parking	Details	Number of Spaces
On-Street	Metered	534
	Unmetered	558
Off-Street	Surface Lots	2548
	Lanes	465
	Centre Square Mall Parkade	550
Total:		4655



The Study found that there is a surplus of parking downtown during peak demand periods (but this needs to be verified with utilization surveys after COVID-19) and that a downtown Parkade may not be necessary to serve future parking demand in downtown Yellowknife.

[Economic Development Strategy 2020-2024 \(2020\)](#)

The Economic Development Strategy outlines goals, strategies, performance measures, and an implementation plan for economic development between 2020 to 2024. With the resource sector being the primary driver for Yellowknife's economic growth, the anticipated closure of several diamond mines has resulted in concerns about Yellowknife's economic outlook. The Strategy highlights how Yellowknife's position as a strategic gateway to the north, quality of life as a community-oriented, family-friendly city, and tourism industry are strengths that can be leveraged.

Transportation-related strategies include:

Tourism Sector

- Prepare an Arts & Culture Master Plan and update the Tourism Strategy
- Implement wayfinding strategy and signage improvements

Downtown Revitalization

- Work to draw more residents into the area by promoting the development of events, concerts, food markets, patios and other places, improving public transit (providing more ready access to the downtown area), working to change resident perceptions of the area, and improving

the attractiveness of the area (incentivizing leasehold improvements, streetscaping, improved lighting, cleaning, and improved wayfinding).

- Encourage the establishment of a local business improvement area (BIA), which would also help to coordinate and implement revitalization activities. The Revitalization Strategy noted that the City of Yellowknife devotes some municipal staff time and that several private sector organizations organize some downtown activities and events.

Yellowknife 2025-2028 Tourism Strategy (2025)

The Yellowknife Tourism Strategy provides the City with a roadmap on how to catalyze tourism investment in the region as a key economic driver for the next three years. Four strategic goals with corresponding initiatives were identified to support tourism in Yellowknife.

Transportation-related goals and initiatives include:

Enhancing the visitor experience:

- Coordinate efforts to enhance the downtown cleanliness/safety/beautification including public art.
- Work with business operators to address accessibility standards.
- Improve access to water for tourism activities (e.g., SUP, canoeing, kayaking, motorboat).
- Create a unique neighborhood environment in Old Town/waterfront (e.g., culinary, events, retail, arts/ culture).
- Work closely with the airport to ensure a seamless/ accessible-friendly experience when arriving into Yellowknife
- Enhance the wayfinding options for visitors as they arrive into Yellowknife.
- Further develop the Visitor Information Centre as a focal point for visitors, residents, and operators including expanding availability of print materials and improved signage to international standards.

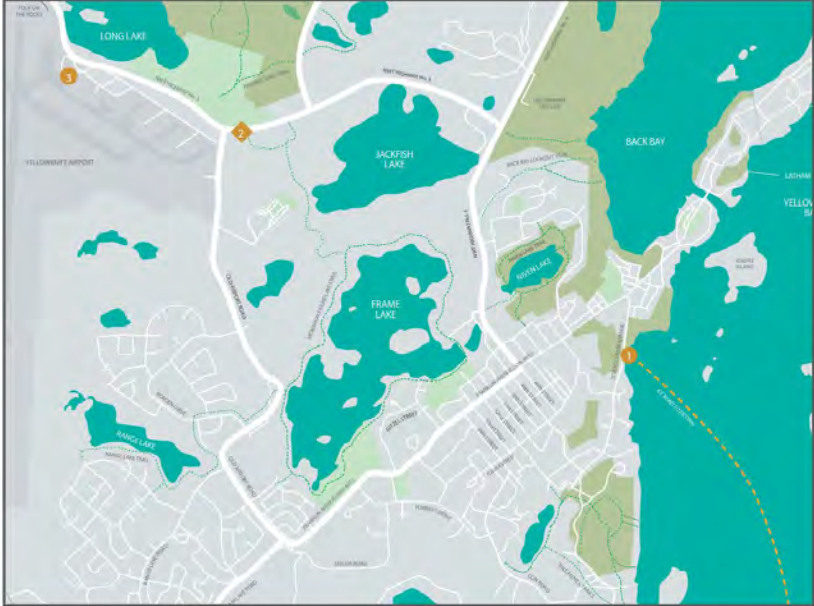
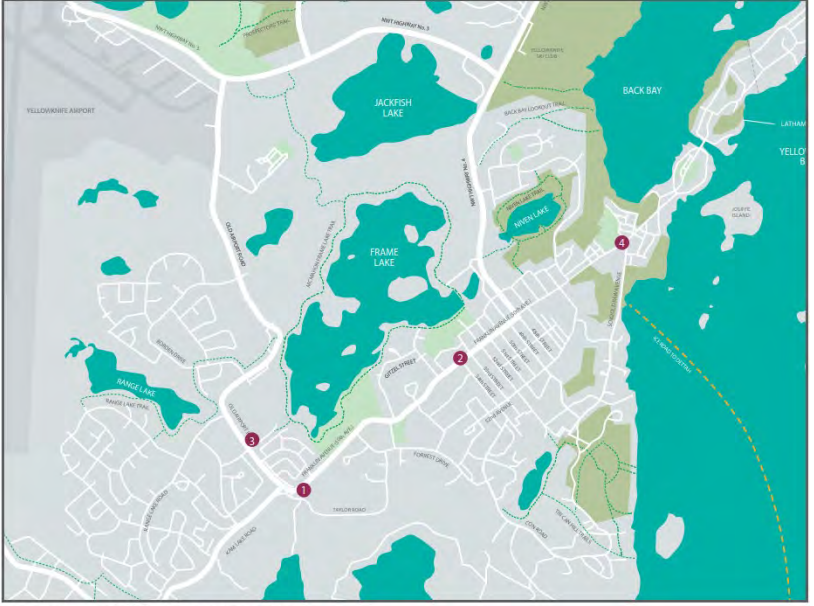
Building strategic partnerships:

- Work with partners to better leverage existing infrastructure for multi-season use (e.g., parks, trails).
- Establish partnerships with transportation providers to offer convenient and affordable transportation options for tourists.
- Create a working relationship with the Yellowknife Airport to increase the number of flights into the city and explore opportunities to enhance airport infrastructure to support the NWT tourist experience (e.g., amenities, strategic plan).

City of Yellowknife Wayfinding Strategy (2019)

In 2019, the City developed a comprehensive wayfinding strategy to meet the needs of residents and visitors. There are 9 key recommendations to help provide a consistent framework for wayfinding in Yellowknife.

Table 3: Family of Signage Recommendations by Location

Family of Wayfinding Signage	Wayfinding Recommended Locations
Welcome Signage	Recommended Locations 1 Ice Road Welcome Sign 2 "Welcome to Yellowknife" site improvements 3 Airport Welcome Sign  Figure 10. Recommended Welcome Signage Locations Map.
Information Kiosks	Recommended Locations 1 RV Dump Station - Kam Lake & Old Airport Road 2 Downtown - Franklin Avenue & 54th Street 3 Old Airport Road - at Byrne Road 4 Old Town Entry - Franklin Avenue & School Draw Avenue  Figure 14. Recommended Information Kiosk Location Map

Family of Wayfinding Signage

Wayfinding Recommended Locations

Trailhead Signage

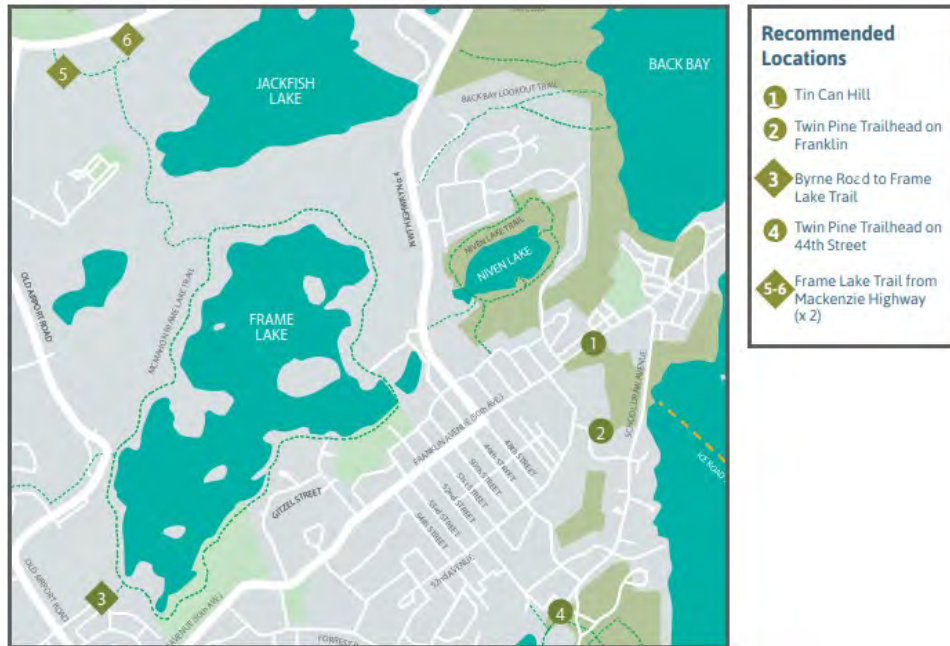


Figure 15. Recommended Trailhead Signage Location Map

Direction Signage (Update and Replace)

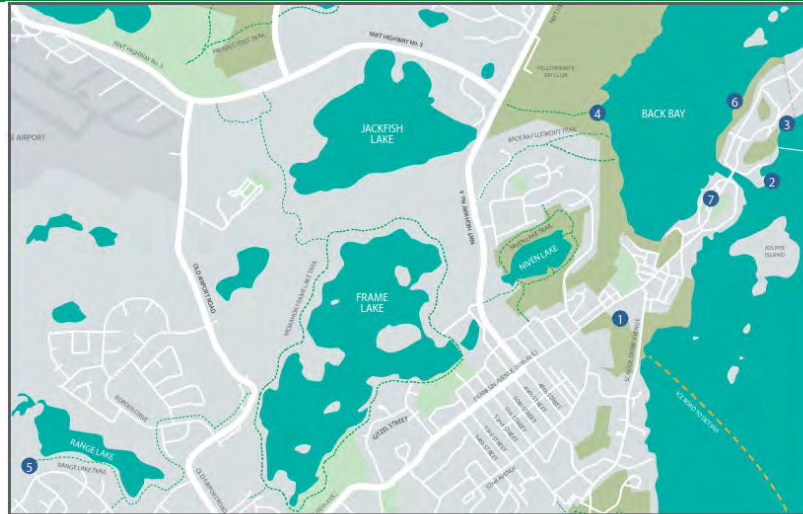


Figure 23. Recommended Directional Signage Location Map

Family of Wayfinding Signage

Wayfinding Recommended Locations

Destination Signage



- Recommended Locations**
- 1 Twin Pine Lookout
 - 2 Mitchell Drive Park
 - 3 Otto Drive Park
 - 4 Back Bay Cemetery
 - 5 Parker Drive Park
 - 6 Watt Drive Park
 - 7 Pilots Monument

Figure 24. Recommended Destination Signage Location Map

The Strategy also provides an implementation plan outlining the prioritization of existing signs for updating, a map of phased wayfinding improvements, and budget recommendations by phase.

Figure 11: Wayfinding Signs Prioritized for Updating



Figure 25. Signs Identified for Repair and Replacement

Figure 12: Phased Wayfinding Improvements

Phased Wayfinding Improvements

The map at right provides a visual summary of the proposed signage and wayfinding improvements by phase. Please refer to the numbered recommendations for further description.



Figure 30. Map of Phased Wayfinding and Signage Improvements

Figure 13: Budget Recommendation by Phase

Budget Recommendation by Phase

#	Key Recommendations	Priority & Budget Recommendations			Responsibility & Partnerships
		Year 1	Year 2-3	Year 4-5	
1.0	Improve "Welcome Signage" in Yellowknife				
1.1	"Welcome to Yellowknife" signs and surrounding landscape near Bristol Monument. a. Landscape design; b. Construction.	Staff time	\$30,000	\$60,000	
1.2	Ice Road Entry at Rotary Centennial Park: Add welcome signage in multiple languages, including indigenous languages.			\$5,000	
1.3	Airport: Add welcome signage in multiple languages, including Indigenous languages.		\$5,000		
2.0	Add Information Kiosks at Key Decision Points				
2.1	Place at Key Decision Points		\$6,000 x 2 kiosks	\$6,000 x 2 kiosks	
2.7	Artist Participation: Highlights the creativity and election of Yellowknife by seeking artists and designers to: a. Participate in designing signage kiosks using following a terms of reference; b. Exhibition copyright fee* for artworks on information kiosks.	Staff time	\$1,000 x 2 kiosks	\$1,000 x 2 kiosks	
3.0	Trail head Signage				
3.2	Add updated trailhead signs at identified locations.	\$1,800 x 2 signs	\$1,800 x 2 signs	\$1,800 x 2 signs	
4.0	Update + Replace Directional Signage				
4.2	Add updated directional signs at identified locations.	\$1,000 x 5 signs	\$1,000 x 7 signs	\$1,000 x 2 signs	
5.0	Destination Signage				
5.2	Add or update destination signs at identified locations: a. Exhibition copyright fee* for artworks on destination signage.	\$1,800 x 3 signs \$600 x 3 signs	\$1,800 x 3 signs \$600 x 3 signs		
6.0	Develop Wayfinding Website				
6.1	Develop an interactive wayfinding website with Chamber of Commerce, Destination Marketing Organization, Visitor Centre.		\$45,000		
7.0	Improve Maintenance of Signs				
7.3	Replace identified damaged or misleading signage.	\$1,800 x 15			
8.0	Continue to Utilize + Strengthen Partnerships				
8.1	Indigenous Languages: Work with the Intercultural Placemaking Committee and the YKDFN to identify the best ways to utilize Tetapi me on signage and wayfinding materials;	Staff time	Staff time	Staff time	
8.2	Foreign Languages: Coordinate with NWIT Tourism annually to identify popular international languages to incorporate printed interpretive and wayfinding materials;	Staff time	Staff time	Staff time	
8.3	Funding: Seek funding opportunities that can be applied to wayfinding.	Staff time	Staff time	Staff time	
8.4	Capital Area Committee: Use the Capital Area Committee Standing meetings to allow partners to review proposed icons, names and sign locations.	Staff time	Staff time	Staff time	
8.5	Support Signage and Wayfinding Improvements through partnerships: a. Ensure Yellowknife paper visitor map is available at Fred Henne Park.	Staff time	Staff time	Staff time	
8.6	Work with partners to re-establish a permanent visitors centre.	Staff time	Staff time	Staff time	
9.0	Increase Signage Visibility without Signage Lighting				
9.1	Increase visibility of signage through adequate font size, high contrast colours, and placing signage to face natural light and/or take advantage of other nearby outdoor lighting	with installation	with installation	with installation	
Budget Recommendations by Phase		\$42,800	\$114,200	\$84,600	

* Based on 2019 CARRAC (Canadian Artists Representation/Le Front des artistes canadiens) minimum exhibition copyright fee schedule A.1

The Strategy also includes wayfinding signage concepts for standard destination signs and trailhead signs.

- **Progress:** The City has been implementing the Strategy by using the Implementation Plan.

Bylaws

Zoning Bylaw No. 5045

The purpose of the Zoning Bylaw is to provide an effective system of land use regulation for the orderly, economic, and sustainable development and redevelopment within the City of Yellowknife

The Zoning Bylaw provides provisions about:

- Off-street Required Parking and Parking for Addition to Existing Use
- Parking Standard Areas
- Accessible Parking Space Requirements
- Large Commercial Vehicles (Tourism Buses)
- Location of Parking Areas
- Parking Structures
- Shared Parking
- Car Sharing
- Cash in lieu of Parking
- Off-street Loading Space Requirements
- Bicycle Parking Requirements

Parking Standard Areas

The Zoning Bylaw establishes parking standard areas to identify minimum parking space requirements by land use.

- Parking Standard Area 1 is for the Downtown land use designation where there are no minimum parking requirements
- Parking Standard Area 2 is for the Residential Central land use designation
- Parking Standard Area 3 is for the Old Town land use designation
- Minimum Parking Requirement is for all other areas within the City

Bicycle Parking Requirements

The Zoning Bylaw provides requirements specific to off-street bicycle parking. It does not provide guidance on long-term bicycle parking or end-of-trip facilities such as shower facilities, lockers, or access to e-bike/scooter charging stations.

Bicycle Parking Minimums

- Multi-Unit Dwelling – 1 space per 2 units;
- Special Care Residence, Hotels and Motels – 1 space per 3 rooms;
- Industrial Use – no bike spaces required; and
- All other Uses, excluding single detached, in-home secondary detached, detached secondary, factory-built, and townhouse dwellings

Bicycle Parking Location

- required bicycle parking shall be provided wholly on the same Site as the Building;
- bicycle parking should be located near the main entrance, in sight of windows, near well-Used pedestrian routes, and unscreened by vegetation;
- bicycle parking shall not be placed so that it blocks the entrance, loading or fire lanes, or inhibit pedestrian flow in or out of the Building; and
- bicycle parking shall be placed on level asphalt or concrete base to which it can be secured.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Update the Zoning Bylaw to establish requirements for long-term bicycle parking as part of new development projects.

All Terrain Vehicles Bylaw No. 3054

The All-Terrain Vehicles Bylaw regulates the control, use, and operation of all-terrain vehicles (ATVs) on highways and other areas within the city.

The bylaw outlines permitted areas of operation for ATVs:

- “No person shall operate an all-terrain vehicle on a highway except for the purpose of crossing the highway at a right angle and only when the crossing can be made in safety.”
- “No person shall operate an all-terrain vehicle within the City except on such highways or portions thereof, or other areas, as may be designated by resolution of Council.”
- “No person shall operate an all-terrain vehicle on private property without the consent of the owner or occupant of the property.”

The bylaw outlines prohibited areas of operation for ATVs:

- “No person shall operate an all-terrain vehicle on a sidewalk.”
- “No person shall operate an all-terrain vehicle on a boulevard.”
- “No person shall operate an all-terrain vehicle on a public park.”
- “No person shall operate an all-terrain vehicle on a playground.”
- “No person shall operate an all-terrain vehicle on school grounds.”
- “No person shall operate an all-terrain vehicle on the open space between 50A and 51A Avenue, Block 106.”
- “No person shall operate an all-terrain vehicle on a highway,” except as noted above.

The following designated areas are forbidden to all-terrain vehicles from May 1st to September 30th of any year:

- Rat Lake
- McNiven Beach
- Long Lake Beach
- The area designated as the Yellowknife Golf Course, exclusive of the designated parking areas;

- The Prince of Wales Northern Heritage Centre including the causeway across Frame Lake, but not including the designated parking areas

Helmet Bylaw No. 4795

The Helmet Bylaw regulates the use of helmets while using any bicycle or wheeled apparatus throughout the city and for the use of helmets while within any approved City facility.

The bylaw outlines regulations about who must wear a helmet when using a bicycle or wheeled device:

- Any youth (any person under the age of 18) within the municipal boundaries of the City shall not operate or use a bicycle or wheeled apparatus on a highway, ride as a passenger on a bicycle, or ride as a passenger in a bicycle trailer without wearing an approved helmet.
- A parent or guardian of a youth shall not authorize or knowingly permit that person to operate a bicycle or wheeled apparatus or ride as a passenger on a bicycle unless the person is wearing an approved helmet.

Highway Traffic Bylaw No. 5055

The Highway Traffic Bylaw regulates traffic and vehicle use on highways and public areas within the City of Yellowknife.

The bylaw outlines **restrictions on speed** within the community:

- No driver shall operate a vehicle within the City of Yellowknife at a speed greater than:
 - o (a) the maximum speed limit that is set out by a traffic control device; or
 - o (b) 45 km/hour if there is no maximum speed limit set out by a traffic control device.
- 30 km/hr in school zones and playground zones during designated hours
 - o School zones are enforced at all times, 24 hours 7 days a week

The bylaw includes several regulations regarding **bicycles and rolling devices**:

- A person who is riding a bicycle:
 - o (a) shall not ride it on a sidewalk;
 - o (b) shall ride it as near as is practicable to the right hand curb or edge of a roadway;
 - o (c) shall not ride beside another bicycle that is being ridden on a highway except when passing that bicycle;
 - o (d) shall keep at least one hand on the handle bars;
 - o (e) shall ride on and astride the seat of the bicycle; and
 - o (f) shall not use the bicycle to carry more persons than the number for which it is designed and equipped. By-law No. 5055 BH 193 (2)
- No person shall ride a bicycle on a roadway if there is a usable path, other than a sidewalk, intended for the use of bicycles adjacent to the roadway.
- No person shall ride on or use a coaster, sled, toboggan, skateboard, ice skates, roller skates, roller blades or skis on a roadway:
 - o (a) if there is a sidewalk adjacent to the roadway that is usable; or

- o (b) if there is no sidewalk adjacent to the roadway that is usable, unless the person rides the device as close as is practicable to the left-hand curb or edge of the roadway.
- 73.
- No driver shall knowingly use a vehicle to tow on a highway a person on a bicycle, coaster, sled, toboggan, skateboard, ice skates, roller skates, roller blades or skis.

The bylaw includes several regulations regarding **pedestrians**:

- Notwithstanding the provisions of this or any other Act or by-law, a driver shall yield the right-of-way to a pedestrian crossing a roadway within a crosswalk at an intersection where:
 - o (a) there are traffic lights at the intersection and the pedestrian is authorized under this by-law to cross the roadway; or
 - o (b) there are no traffic lights at the intersection or the traffic lights are not in operation.
- A driver shall yield the right-of-way to a pedestrian crossing a roadway within a crosswalk that is not at an intersection.
- Where a motor vehicle is stopped at a crosswalk to permit a pedestrian to cross the roadway, a driver approaching from the rear shall not pass the stopped vehicle.
 - o A pedestrian shall look in both directions before leaving a curb or other place of safety to cross a roadway.
 - o No pedestrian shall leave a curb or other place of safety and walk or run into the path of a motor vehicle that is so close that it is impracticable for the driver of the vehicle to yield.
- Where a pedestrian is crossing a roadway at a point other than within a crosswalk, the pedestrian shall yield the right-of-way to all drivers.
- Notwithstanding any provision of this by-law, a driver shall: By-law No. 5055 BH 193
 - o (a) exercise care to avoid colliding with a pedestrian;
 - o (b) give a warning to a pedestrian by sounding the horn or bell on the driver's vehicle when necessary; and
 - o (c) exercise proper precaution and be prepared to stop where a child or an apparently confused or incapacitated person is on a highway.
- A pedestrian shall not walk or run on a roadway if there is a sidewalk that is usable on either side of the roadway.
- Where there is no sidewalk that is usable on either side of a roadway, a pedestrian shall, unless it is impracticable, walk or run on the left-hand side of the highway or the shoulder of the highway.
- No person who is outside of a vehicle shall hold onto a vehicle that is in motion

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Review the Highway Traffic Bylaw to align with best practice standards that support active transportation. Based on the review, consider updating the bylaw to enable the use of small wheels (children's bicycles, kick-scooters, and wheelchairs) on sidewalks. Update the bylaw to incorporate updated language to permit the use of motorized mobility devices on sidewalks where a safe bicycle route is not provided.

Orderly Use of Highways Bylaw No. 1276

The Orderly Use of Highway Permit Application bylaw regulates prohibits unauthorized interference with public infrastructure and outlines enforcement responsibilities to protect municipal services and public safety.

Parking Bylaw No. 5053

The Parking Bylaw regulates the parking of vehicles on municipal highways and the use of vehicle loading zones.

Public Parks and Recreation Facilities Bylaw No. 4564

The purpose of the Public Parks and Recreation Facilities bylaw is to help support municipal operations by provide regulations about activities and park-related rules.

The bylaw includes a regulation about bicycles:

- No person shall ride a bicycle or skateboard within any Public Park or Recreation Facility except on highways or those trails, paths or areas specifically set apart by the City and signed for bicycles or skateboards;

Public Transit Bylaw No. 4284

The Public Transit bylaw provides regulations for fares, bus operations, and passenger conduct in Yellowknife.

Key pieces to note from the bylaw include:

- No person shall bring a baby carriage aboard a Public Transit Vehicle other than a baby carriage of the type that is capable of being folded for the purpose of storage.

Snowmobile Bylaw No. 3722

The Snowmobile Bylaw regulates the use and operation of snowmobiles on highways and other areas within the city.

The bylaw outlines prohibited areas where a snowmobile may operate:

- No person shall operate or ride on a snowmobile or sleigh towed by a snowmobile unless the person is wearing a helmet.
- No person shall operate a snowmobile on any sidewalk
- No person shall drive, operate, or park a snowmobile across a highway or footpath unless the movement can be made in safety.]

- No person shall park a snowmobile on private property without authority from the owner, tenant, occupant or person in charge or control of the private property.
- No person shall operate a snowmobile on any highway within the downtown core, except to cross at designated points.
- No person shall drive a snowmobile in or on:
 - o (a) any school playground; (b) any playground area;
 - o (c) any park or recreational facility;
 - o (d) any cemetery;
 - o (e) any area as set out in Schedule "B" and "C" attached to and forming part of this By-law;
 - o (f) any other area designated by Council from time to time to be a prohibited or restricted area; and
 - o (g) any area where signs prohibit the use of motorized vehicles.

The bylaw outlines prohibited areas:

- The Frame Lake Recreation Tourism Trail System between Byrne Road, City Hall and the Prince of Wales Northern Heritage Center as well as the wooden stairs and wooden walkways on the north side of Frame Lake
- 2. The Range Lake Trail System between Parker Recreational field and the OK Economy Store located on Lot 8, Block 560.
- The childrens sliding area on the open space between 50A Avenue and 51A Avenue (Block 106);
- The area near Highway 3 and the N.W.T. Power Corporation generating plant near Jackfish Lake, known as "Toboggan Hill". 5
- The 'greens' of the Yellowknife Golf Club. 6. The trail system maintained by the Yellowknife Ski Club except when the snowmobile or other all-terrain vehicle is being used for authorized maintenance of the trails

The bylaw outlines restricted areas:

- All areas zoned "Os" - Open Space and "PR" - Parks and Recreation with the following exceptions:
 - o a) streets and roads within such area;
 - o b) traversing from one area of the City to another area of the City where there is no other reasonable access;
 - o c) the Recreation Complex/McNiven Beach area being the whole of Lot 2, Block 122, Plan 2015 but not including the Wade Hamer Mini Golf Course;
 - o d) the area between the two ball diamonds at Fritz Theil Sports Field when snow covered and area zoned "Os" - Open Space north and northwest of Fritz Theil Sports Field, all being part of Lot 1001, Quad 85-J-8;

- o e) the area between what is known as Woodyard and Great Slave Lake bounded on the westerly side by Lot 12, Block 72, zoned "PR" - Parks and Recreation; and
- o f) the area zoned "Os" - Open Space, being the Back Bay waterfront (100' Federal Reserve) adjacent to Blocks 5, 6, 7 and 152 off Morrison Drive.
- o g) the area bordering Taylor Road between the Nerco Mine tailings pond and Forrest Drive Trailer Park being Lot 19, Block 133, Plan 2259, zoned "L" - Limited Development.

Fees and Charges Bylaw No. 4436

The Fees and Charges bylaw outlines how much individuals, businesses, and organizations must pay for various municipal services.

Parking Meter Fees

SERVICE	FEE
Parking Meter Time	
Three (3) minutes	\$.05 cent coin
Six (6) minutes	\$.10 cent coin
Fifteen (15) minutes	\$.25 cent coin
Sixty (60) minutes	\$1.00 coin
One hundred Twenty (120) minutes	\$2.00 coin
Parking Certificate	
Per month	\$ 30.00
Per year	\$300.00
Orderly Use of Highway Permit	\$ 5.00

Public Transit Fees

FARE TYPE	FEE
Single Ticket	
Adult (18 or more years of age)	\$2.50
Students (6 - 17 years of age attending elementary or secondary school)	\$1.50
Seniors (65 or more years of age)	\$1.50
Persons with Disabilities -Yellowknife Accessible Transit ("YATS") -Yellowknife Public Transit	\$2.50 no charge
Children (5 or less years of age when accompanied by an adult)	no charge
Monthly Pass (unlimited rides)	
September - June	
Adults (18 or more years of age)	\$62.00
Aurora College Students and Elementary Students with a Student Bus Pass	\$40.00
Seniors (65 or more years of age)	\$40.00
July - August	
All riders 6 years of age or older	\$40.00
Punch Pass (11 rides for the price of 10)	
Adults (18 or more years of age)	\$25.00
Students (6 - 17 years of age attending elementary or secondary school)	\$15.00
Seniors (65 or more years of age)	\$15.00
Persons with Disabilities -YATS	\$25.00
TRANSIT ADVERTISING	FEE PER MONTH*
Interior Signs	
Interior Card (approx. 11" x 35" - above seats)	\$40.00
Exterior Signs/Wrap	
'Seventies Poster' (approx. 21" x 70" - on rear of bus below window)	\$450.00
'King Poster' (approx. 30" x 139" - on side of bus)	\$600.00
Full Wrap (entire bus - front, back and sides)	\$1,750.00 (min. 12 months)
*fee is for advertising space only - does not include sign/wrap(s) or specialized installation	

POTENTIAL UPDATE

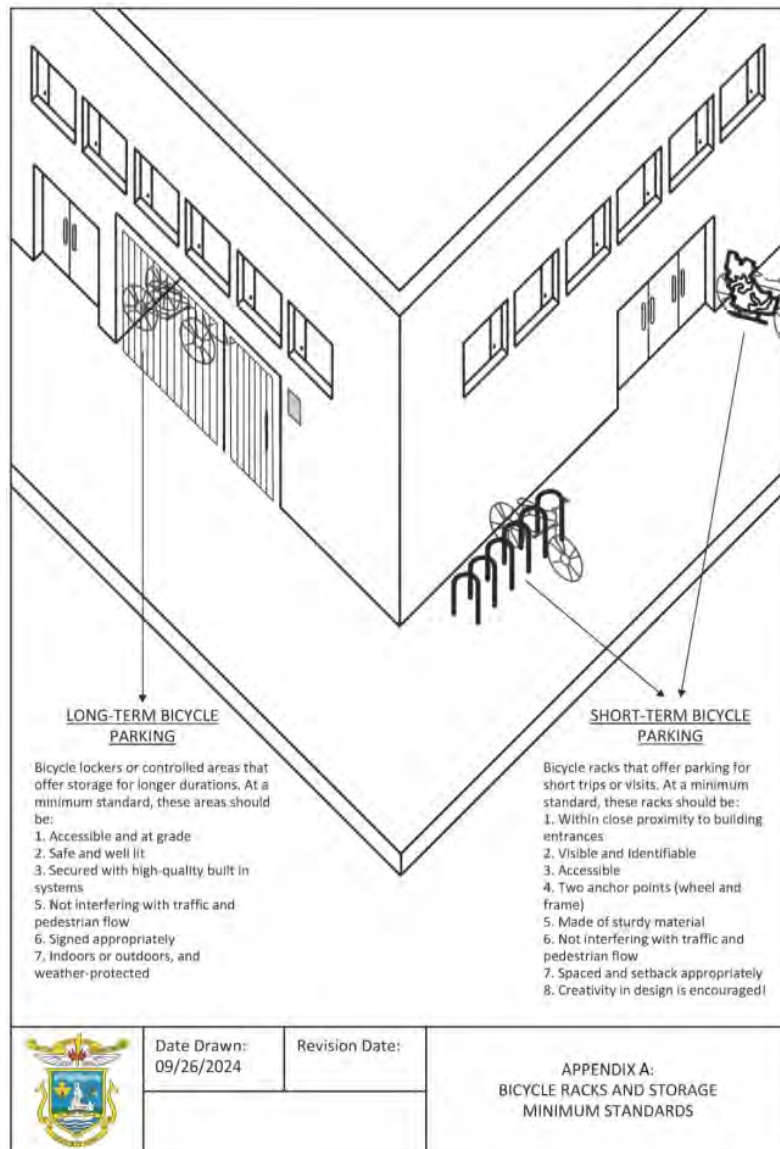
Update the Fees and Charges Bylaw to ensure transit fares align with the updated YK Transit fares.

Development Initiatives Bylaw No. 5097

The Development Initiatives Bylaw provides for the provision of development, redevelopment, relocation and housing incentives, and grants.

Bicycle Racks and Storage Grant

- This Grant is available to new, redevelopment and exterior façade development projects in all zones within the City of Yellowknife. The objective is to facilitate developments throughout the community that provide safe storage of bicycles.
- The use of these racks and storage may be dedicated to residents within a dwelling or, where development is commercial in nature, may be public use.
- The Bicycle Racks and Storage Grant is a contributing payment to property owners to place bicycle racks or bicycle storage on their property which provides:
 - o For property redevelopment the grant is up to 50% of the cost to a maximum of \$1,000;
 - o For property with new development (open and valid building permit) the grant is up to 100% of the cost to a maximum of \$5,000.



Shared Vehicle Grant

- The Shared Vehicle Grant for development supports car sharing or bicycle sharing and storing, in place of parking spaces. All shared vehicles must be for use by those who reside in the residences or who work at the business.
- Qualifying development must be located within the prescribed zones, specifically the Downtown ("DT"), Residential Central ("RC" or "RC-1") or Residential Intensification ("RI" or "RI-1") as indicated in the Zoning By-law. The development must include a minimum of 6 dwelling units where a portion of the development includes residential use.
- Development which is entirely commercial may qualify for one vehicle.
- A qualifying car must be mid-size or smaller. If the vehicle has a combustion engine it must include a block heater and all required plug in facility/connection on the development property for the type of vehicle.

- The Shared Vehicle Grant provides:
 - o a. \$5,000 per car share, to a max of \$20,000 per development (up to 4 cars).
 - o b. \$1,000 per e-bike share to a max of \$5,000 per development (up to 5 e-bikes).
 - o c. \$200 per bike share to a max of \$3,000 per development (up to 15 bicycles).

Design Standards Manual (2022)

The City's Design Standards were updated in 2022. This document establishes standards that ensure growth and development occurring within the City is in an organized and rational manner while maintaining and enhancing the quality of life. This bylaw is important for the future of transportation infrastructure in Yellowknife, as the bylaw can require new developments to include transportation infrastructure without having to retroactively construct or retrofit these facilities.

Table 4 shows the minimum road right-of-ways.

Table 4: Minimum Road Right-of-Ways

Road Type	Width
Lane/Alley	6m
Local Roads • Residential • Commercial/Institutional	20m
Arterial Roads	30m
Residential Cul-de-sac Bulb (Radius)	17m

Table 5 below outlines the active transportation facility requirements for the different roadway classifications in the City based on the City's design drawing specifications and standards.

Table 5: Active Transportation Facility Requirements for Roadway Classifications based on City Design Drawings

	Sidewalk/Multi-use Pathway (MUP) Requirements	Bicycle Lane	Motor Vehicle Lane Width
Roadway Classification			
Road Cross Section – Typical Arterial and Collector Streets 20.0 m R.O.W Drawing # C-4-100 (T)	Sidewalk 1.5m (both sides) or MUP 3.0m*	MUP*	Travel Lane 3.0m Parking Lane 2.5m (both sides)
Road Cross Section – Typical Local Street 20.0 m R.O.W Drawing # C-4-100 (T)	Sidewalk 1.5m (one side) or MUP 3.0m*	MUP*	Travel Lane 3.0m Parking Lane 2.5m (both sides)

	Sidewalk/Multi-use Pathway (MUP) Requirements	Bicycle Lane	Motor Vehicle Lane Width
Road Cross Section – Commercial Street 20.0 m R.O.W Drawing # C-R-100 (C)	Sidewalk 1.8m (both sides) or MUP 3.0m*	MUP*	Travel Lane 4.0m Parking Lane 3.0m (both sides)
Road Cross Section – Industrial Street 20.0m R.O.W Drawing # C-R-100 (I)			Travel Lane 5.5m
Road Cross Section – Cul de Sac Local Street 20.0m Drawing # C-R-100 (CUL)	Sidewalk 1.5m (one side)		Travel Lane 4.25m
Road Cross Section – Cul de Sac Arterial and Collector Streets 20.0m Drawing # C-R-100 (CUL)	Sidewalk 1.5m (both sides)		Travel Lane 4.25m
Typical Road Cross Section Arterial Street 30.0m R.O.W Drawing # C-R-101 (A)	Sidewalk 1.8m (both sides) or MUP 3.0m*	MUP*	Travel Lane 3.75m Turning Lane 3.5m Median 1.5m

*MUPs can be requested in lieu of sidewalks

The Design Standards also state how sidewalks designed for installation within the City's right-of-way shall be:

- Constructed adjacent to school sites and commercial sites and on both sides of the roadway if so, required by the City Engineer.
- Constructed on all other lands that, in the opinion of the City, generate significant pedestrian traffic.
- Stamped with the year of installation and the name of concrete contractor at roadway intersections.
- Constructed with para ramps at the locations of pedestrian crossings.

Curb and Gutter construction requirements are as listed:

- Residential Streets - Rolled face curb and gutter on both sides
- Collector Streets – Rolled face curb and gutter on both sides
- Arterial Streets - Barrier face curb and gutter on both sides.

- Industrial Roads and Lanes - No curb and gutter. Residential Streets - Rolled face curb and gutter on both sides

Traffic Signals

The Design Standards Manual notes the actual intersection signalization shall be identified through a traffic study if requested by the city.

Bike Lanes

The Design Standards Manual states that encourages bikeways, walking trails, and multi-use pathways in all new Developments. Bike lanes may be requested on collector and arterial roads, at City discretion, and at the Developer's expense. Walking trails and multi-use pathways may be required at various locations, at the Developer's expense

3.13.3 Location

Street lights shall be placed at locations not interfering with proposed driveways and in general shall be located in line with the extension of common property lines between two lots.

The face of the posts shall be at least 1.5 m clear of the face of the curb or 0.3 m of the back of the sidewalk or as approved by the City and the Local Power utility.

Street lights shall be provided for each internal park area that does not abut onto a lighted street. A street light shall be located at the point where each walkway opens onto the park area.

Street lights with underground wiring shall be provided for all public walkways which are not in street right-of-way and which in addition are not located immediately adjacent to private dwelling units or public housing.

POTENTIAL UPDATES

Review and update roadway cross-sections and design standards to align with current best practices, prioritizing active transportation, transit, accessibility, and Complete Streets principles

Programs

Road Maintenance Program

The City has a dedicated spring and winter road maintenance program. The City's Public Works and Engineering department is also responsible for operating traffic signals.

Winter Road Maintenance

The City conducts three winter maintenance activities to improve road traction and ensure the safety of pedestrians and drivers:

- Sanding: This increases traction on slippery surfaces, with sand primarily applied at intersections, turning lanes, and hills.
- Snow Plowing: This levels driving surfaces covered with fresh snow or hard-packed, uneven areas.
- Snow Removal: This involves scraping down snow and ice and hauling it away.

The municipality conducts two distinct winter road services: daily snow plowing and grading, and scheduled snow removal.

Plowing and grading are performed daily throughout the winter season, beginning with the first snowfall and continuing until spring when road surfaces are clear. These operations are fast-moving and efficient, enabling coverage of large areas across the community in a short timeframe.

In contrast, snow removal is a more complex and resource-intensive process. It involves the full closure of streets with prior public notice and requires additional personnel and equipment. Due to the scale of the operation, progress is slower:

- On major routes such as Franklin Avenue and Old Airport Road, crews typically remove 400–600 meters of snow per shift, limited by road width.
- On residential streets, removal rates increase to 600–800 meters per shift, though this is influenced by obstacles like parked vehicles and snow pushed onto the road by residents.

The snow removal program spans approximately 18 weeks, with multiple clearings scheduled for high-priority corridors like Franklin Avenue and Old Airport Road. Lower-priority streets are generally cleared once per season. The schedule remains adaptable to accommodate weather-related disruptions, including extreme cold events experienced this year.

Snow and ice management are prioritized based on traffic, safety, and environmental considerations:

- Primary Priorities: Freeways, major arterial roads, emergency routes, main bus routes, and roads near environmentally sensitive areas.
- Secondary Priorities: Remaining arterial roads, additional bus routes, roads in the Central Business District, streets near schools, routes to prioritized City facilities, and other emergency routes.
- Tertiary Priorities: All other City roads, City-owned parking lots, and alleyways.

Sidewalk Clearing

In accordance with the Highway Traffic Bylaw:

- Every occupier of property abutting on a sidewalk in any part whatsoever of the City shall be required on or before the fifteenth day of May in each year to remove dirt, sand, gravel and other debris, accumulated during the winter on such sidewalk.
- If you occupy a residence or business next to a sidewalk in the Central Business District and on Franklin Avenue from Matonabee Street to 57th Street, you must take all reasonable measures to clear away all snow and ice from the sidewalk, within twenty-four hours of the time that the snow or ice accumulated. You must also apply sand or salt as necessary to make the sidewalk safe and take any other reasonable measures as shall be necessary to ensure the safety of pedestrians using the sidewalk.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

Incorporate year-round active transportation maintenance into Transportation Plan actions by prioritizing snow clearing, drainage, surface maintenance, and renewal needs for sidewalks, cycling routes, paved multi-use pathways, and trails. This could include developing an active transportation maintenance priority network, formalizing winter maintenance procedures, and establishing a trail and pathway classification and maintenance framework to guide service levels, responsibilities, equipment needs, and long-term operating costs.

Spring Road Maintenance

The City of Yellowknife operates three street sweepers as part of its road and sidewalk maintenance fleet. Sweeping begins in April, weather permitting, and starts with the removal of bulk gravel left from winter traction control. Heavy gravel is cleared using a front-end loader and truck to minimize wear on sweepers.

Once bulk debris is removed, sweepers clean remaining fine material over a two- to three-week period, operating 32 hours per day across shifts. After initial cleanup, one sweeper continues daily operations throughout the summer under the Litter Control Program, with a focus on the downtown core, where litter has become a growing concern.

The downtown area is swept seven days a week, starting at 3 a.m., reducing traffic disruption and controlling windblown debris. After sweeping downtown, the unit proceeds along the designated priority routes.

The current street sweeping priority include:

- Priority #1 - major arteries and bus routes
- Priority #2 - minor arteries and bus routes, major industrial roads, central business districts, roads adjacent to schools and city-owned properties; and
- Priority #3 - remainder of municipal roads.

- High traffic areas and areas close to schools have a higher priority than low traffic residential roads. A few reasons why a street may have a higher priority are: high vehicle or pedestrian traffic, location of a school, street may be narrow (a public safety concern), trucked services, public or school bus transit, etc.

Reporting to the City on Maintenance – Click and Fix YK

Click and Fix YK is the City's online maintenance request portal. Residents can also attach an image of the issue.

Categories for common request types include:

- Curbside Cart Maintenance
- Overflowing Garbage Bin
- Abandoned Vehicles
- Sidewalk Clearing
- Park Maintenance
- Illegal Dumping
- Surface Line Problem
- Missed Garbage Collection

Please select a category below: ?

Search for keywords:

Eg. "water leak"

Surface Line Problem
SLM

Traffic Light Maintenance
TLM

Unightly Private Location
UPL

Or select from common requests below

Curbside Cart Maintenance	Park Maintenance
Overflowing Garbage Bin	Illegal Dumping
Abandoned Vehicles	Surface Line Problem
Sidewalk Clearing	Missed Garbage Collection

Where is the problem located? ?

Select a location on the map or enter an address here



Esri, USGS | City of Yellowknife, Esri Canada, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, US Census Bureau, USDA, NRCAN, P... Powered by Esri

Further location details: - Optional

Annual Bike Rodeo

The City's Municipal Enforcement Division organizes an annual Bike Rodeo to promote bicycle safety for children from kindergarten to grade six for children and families at Yellowknife's multiplex in the summer. Former activities have included a bicycle skills obstacle course, helmet fittings, bicycle maintenance and tune-up, face painting, balloon animals, and a BBQ.

YKDFN, TERRITORIAL, AND FEDERAL INITIATIVES

Yellowknives Dene First Nation

Transit Assessment (ongoing)

Yellowknives Dene First Nations received funding to complete a transit feasibility through the Federal Rural Transit Solutions Fund. YKDFRN will be exploring traditional and non-traditional public and community transportation options for Ndilq and Dettah.

Government of Northwest Territories

NWT Transportation Strategy 2015-2040 (2015)

The NWT Transportation Strategy was completed in 2015 and guides the long-term development of an integrated transportation system across the territories.

Yellowknife serves as the central hub of the Northwest Territories' transportation network (Figure 2). Positioned as the Gateway to the North with the capital airport, it is connected by Highway 3 and 4, GNWT winter roads, and private winter roads, making it a key junction for movement across the territory.

Figure 14: Map of NWT Transportation System



Yellowknife also has a main cargo marshaling port where resupply cargo is transferred from rail or motor transport systems to marine carriers.

Three strategic priorities were identified: strengthening connections, capturing opportunities, and embracing innovation.

Relevant actions to Yellowknife include:

- Continue maintaining and upgrading the existing transportation system by: $\frac{3}{4}$ promoting and capturing partnership opportunities with industry, other levels of government and other sectors to improve the existing transportation system across all modes as opportunities arise;
- Develop the following priority transportation corridors, which will support a lower cost of living, improved quality of life, sustainable resource development, tourism and other economic activities: improved access into the Slave Geologic Province from Yellowknife to Nunavut.
- Promote and capture partnership opportunities with industry, other levels of government and other sectors to expand the transportation system across all modes as opportunities arise.

- Seek additional funding for the Community Access Program to increase the number of small community-based projects to construct local access roads, trails and boating facilities, which create local employment and training and improve access to recreation, cultural and local tourism opportunities.
- Continue to monitor air transportation infrastructure and incrementally expand facilities such as air terminal buildings, aprons, runways and commercial development areas as required to enable economic development and efficient air transport.
- Continue to improve safety across the transportation system to reduce incidents, fatalities and loss of property.
- Continue to implement the Climate Change Adaptation Plan to protect infrastructure and maintain transportation service levels with expected increased permafrost degradation and severe weather events by continuing to monitor the condition of infrastructure and implement innovative cost-effective solutions in response to changing climatic conditions.

POTENTIAL INTEGRATION WITH TRANSPORTATION PLAN

List the Community Access Program funding grant as a grant opportunity the City can explore.

NWT Road Safety Plan (2015)

The NWT Road Safety Plan is a four-year strategic framework aimed at guiding efforts to reduce fatalities and injuries on all roads throughout the territory. The Plan identifies five key focus areas: education and awareness, policy and regulation, infrastructure improvements, data and research, and partnerships with stakeholders.

NWT 2030 Energy Strategy (2018)

The NWT 2030 Energy Strategy guides the development of affordable, and sustainable energy for transportation, heat, and electricity, support energy efficiency and conservation, and promote renewable and alternative energy solutions for the NWT. One of the strategic objectives is that the GNWT will reduce emissions from transportation by 10% per capital.

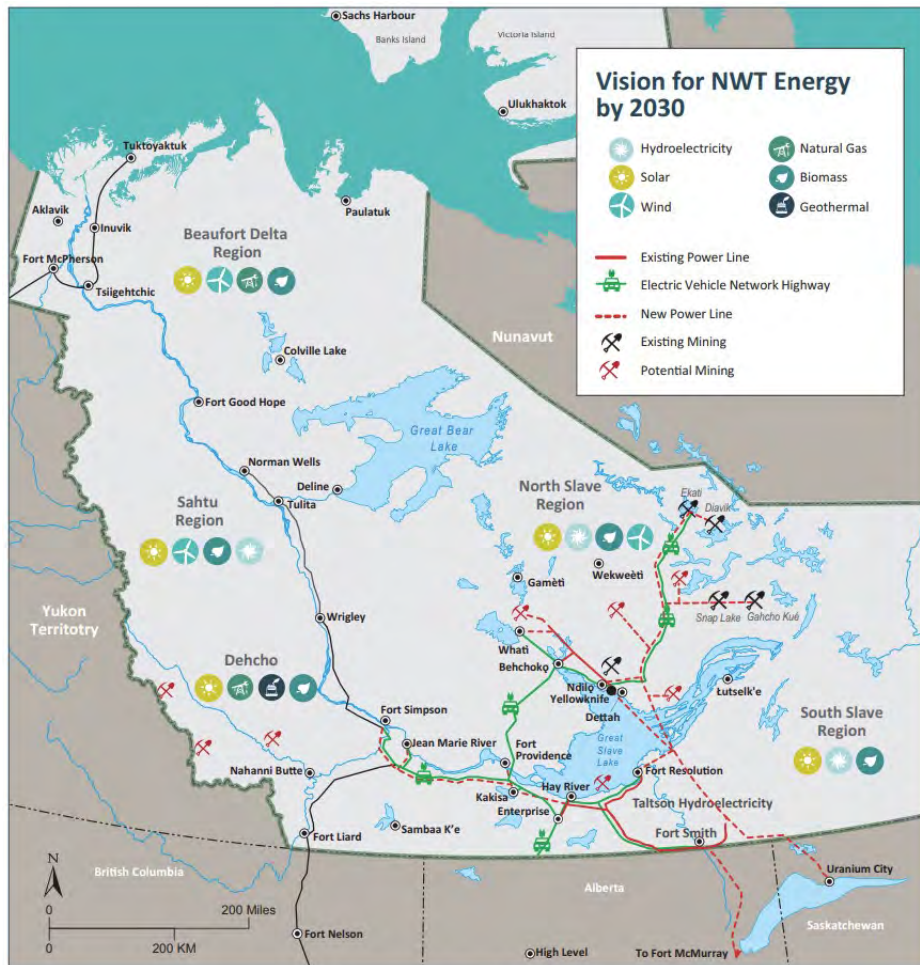
To help achieve this strategic objective, the NWT have identified several activities:

- The GNWT will offer a pilot grant program for the purchase of low or zero emission vehicles in communities that are serviced by hydroelectricity.
- The GNWT will lead by example by undertaking fleet management for its vehicles.
- The GNWT and the AEA will work with NWT communities to identify and implement programs to assist them to reduce their emissions from transportation:
 - o Community Based Solutions: In larger population centres such as Yellowknife, programs aimed at increasing use of public transit (e.g. subsidized bus passes). Other solutions include carpooling and car sharing initiatives and improving the fuel efficiency of transit vehicles.

- o Active Transportation: Existing programs and competitions, such as Commuter Challenges promote active transportation. Expanding similar programs to run year-round or making it easier or safer for residents to choose active transportation, such as building a sidewalk along a main road, create incentives for people to leave their vehicles behind more often.
- o The GNWT will undertake an education and awareness campaign to promote green driving behaviour such as smart idling, efficient driving practices, encourage efficient vehicle choice, and promote alternative transportation choices such as transit, car-pooling or ride-sharing, and active transportation.
- o The GNWT will continue to work with the federal government to continually improve vehicle efficiency standards, and to ensure that renewable fuel standards are appropriate for the North.

The Strategy also highlights how Highway 3 will be a part of the electric vehicle network highway.

Figure 15: Vision for NWT Energy by 2030



2030 NWT Climate Change Strategic Framework (2018)

The NWT Climate Change Strategic Framework provides the GNWT with a long-term comprehensive and coordinated response to climate change.

NWT Tourism 2030 Strategy (under development)

The Tourism 2030 Strategy is currently under review and will be released April 2026.

Government of Canada

Canada's Arctic and Northern Policy Framework (2019)

The Arctic and Northern Policy Framework recognizes the longstanding transportation inequalities that disadvantage people, especially indigenous peoples, in Canada's Arctic and North. One of the goals identified in the framework is to "expand multi-modal transportation infrastructure and operations to connect communities to Canadian and international opportunities and improve access to essential services."

National Active Transportation Strategy and Funding Program (2021)

Canada has set a target to cut its GHG emissions by 40-45% below 2005 levels by 2030. To support this effort, Canada has recently established a federal National Active Transportation Strategy and National Active Transportation Fund to encourage and support investments in pathways and trails for cycling, walking, wheelchairs, e-bikes and scooters, to give everyone the opportunity to be active and access public transportation. The strategy ensures that communities of all sizes can look to incorporate more active transportation in their everyday lives through 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.

COMMUNITY PARTNERS AND PLANNING RESOURCES

SHIFT NWT

SHIFT NWT is a community-driven focused on promoting active mobility and sustainable transportation.

In partnership with the NWT Recreation and Parks Association, SHIFT NWT is piloting the *Decreasing Barriers to Active Mobility* program to improve access to active transportation. People can borrow bikes, e-bikes, e-cargo bikes, and e-trikes free of charge for two weeks, allowing people to explore active mobility without financial or logistical constraints. The initiative is funded by the GNWT Healthy Choices Fund and aims to promote physical activity, reduce vehicle dependence, and support healthier, more sustainable lifestyles.

YK Car Share Co-op

YK Car Share Co-op is a community-owned electric vehicle car sharing initiative offering personal plans for individuals and corporate plans for teams and organizations. YK Car Share is a two-way car share service where their pick-up and drop-off locations are located at City Hall and at an Outpost Location at a car rental store. YK Car Share has two electric vehicles in their fleet available for hourly and daily rentals.

Ecology North

Ecology North is a non-profit environmental organization and is involved with transportation advocacy through its volunteer-run committee “Communities in Motion” (formerly the Transportation Issues Committee.”

Way to Go Yellowknife: Bicycle Routes

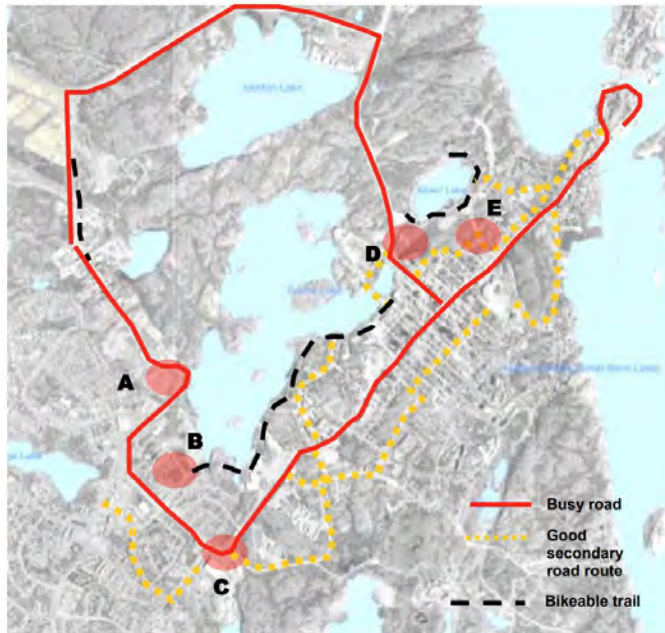
Way to Go Yellowknife maps bicycle routes throughout the city, developed through input from experienced local cyclists and community surveys. It offers targeted recommendations to enhance cycling infrastructure and promote safer, more accessible active transportation in Yellowknife.

Summary of Recommendations

- Work to make alternatives to travelling on busy roads available to cyclists throughout the city and particularly to major commercial and institutional destinations.
- Create a layer on the Explorer's Map available from the City of Yellowknife website showing bike route alternatives and identifying sections of multi-use trails that are bikeable. Advertise this feature on the main page and on the Ecology North website.
- Carry out education and awareness activities and programs about sharing the road and trails at least once a year.
- Introduce modifications to the 'rules of the road' that give cyclists a 'perk' when it can be done without much effect to other users.

- Explore the option of establishing formal rights-of-way across privately owned commercial and institutional properties where this would provide a better bike route connection than making improvements on public lands.
- Consult community bike experts as part of transportation planning. Conduct site tours on bikes when engineering infrastructure improvements or establishing maintenance plans.
- Integrate improvements for bike with any infrastructure work being done for motor vehicle traffic or pedestrians to minimize additional costs and eliminate duplication.
- Give priority to infrastructure and maintenance work that will improve the continuity, condition, and choice of commuting routes when considering improvements for cycling in the city.
- Adopt a new approach to signs related to bikes that focuses on sharing the road or giving directions where trails or permitted uses are not obvious.

Improvement Areas



Hot Spot	Map	Improvement Notes
A: Coop	lane and sidewalk along building front at the Yellowknife Coop store	• No alternative routes on Old Airport Road • Concrete barricade at the Coop • Suggestion to create a pedestrian and bicycle alley through parking lots and along the building frontage marked by planting or paving • Working within the parking lot to connect to trails
B: Hospital to Frame Lake Trail	Improve existing underpass Concrete patches where rock surface is rough or fractured Reconstruct ramp, replace boardwalk Old Airport Road underpass	• Existing boardwalk and ramp only designed for pedestrians • Suggestion to patch rough or fractured rock surfaces with concrete • Improve existing underpass for bicycle access

Hot Spot	Map	Improvement Notes
C: Multiplex		• Improvements to intersection • Enhanced connections to multiplex • Allow bicycles to turn left at City maintenance compound • Extend 30km/hr school zone to main intersection
D: Entrance to the City		• Reduce speed limit sign • Improve street sweeping
E: 51st and 43rd Avenue		• Permit left turns onto 51st Avenue from 43rd Street

NWT Recreation and Parks Association

The **Northwest Territories Recreation and Parks Association (NWTRPA)** is a non-government, non-profit organization established in 1989 to support recreation and land-based leaders across the Northwest Territories.

- **Generations on the Move:** Promotes active, healthy aging in NWT communities. The project is designed to encourage intergenerational connections and increase active living opportunities for older adults.
- **Elders in Motion:** Training program created by NWTRPA to improve access to and the quality of recreation opportunities for older adults in the NWT. Through training and mentorship, community leaders enhance their knowledge, skills, and confidence in organizing and leading safe, engaging, and culturally appropriate recreation programs for older adults.

APPENDIX C:

Household Travel Survey





2025 City of Yellowknife Household Travel Survey

Final Report

February 2026



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN



Prepared for:



CITY OF YELLOWKNIFE

Prepared by:

R.A. Malatest & Associates Ltd.
in association with Urban Systems Ltd.



MALATEST

URBAN
SYSTEMS



ACKNOWLEDGEMENTS

The survey research was conducted by R.A. Malatest & Associates Ltd. in association with Urban Systems. The Consultants gratefully acknowledge the direction and guidance of the City of Yellowknife project team.

This project would not be possible without the contributions of 718 participating households that responded to this survey, via phone interview or online, and told us about their daily travel. We thank you for your participation in the city's household travel survey; you have contributed to transportation planning data that will be useful for years to come.

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ACRONYMS

The table below explains the acronyms that are used in this report or in its appendices.

Acronym	Explanation
API	Application Programming Interface. In this report, refers to Google's Directions and Geocoding APIs used to retrieve travel distances, durations, and location information.
CATI/CAWI	Computer Assisted Telephone/Web Interview survey systems
CSD	Census Subdivision
DA	Census Dissemination Area
FT	Full-time employment or full-time student
Gender	Refers to an individual's personal and social identity as a man, woman, or non-binary person (a person who is not exclusively a man or a woman). Given that the sample of non-binary population surveyed is small, for the purpose of this report, analysis is undertaken using aggregate categories of "men+" and "women+" that group random portions of non-binary persons with men/boys and women/girls. ¹
GIS	Geographic Information System
HOV	High-occupancy vehicle
HTS	Household Travel Survey
IPF	Iterative Proportional Fitting, a method of balancing multi-variate weighting controls
K12	Kindergarten to grade 12 (grade school)
Men+	Aggregate category used for analysis in this report, consisting of men, boys and a portion of people who identify as non-binary, prefer to self-describe, or who refused to provide their gender on the survey.
O-D	Origin-destination
PT	Part-time employment or part-time student
PSE	Post Secondary Education
SOV	Single-occupancy vehicle (only the driver)
UTM	Universal Transverse Mercator (UTM) Zone
VKT	Vehicle Kilometers Travelled
Women+	Aggregate category used for analysis in this report, consisting of women, girls and a portion of people who identify as non-binary, prefer to self-describe, or who refused to provide their gender on the survey.

¹ This follows the approach used by Statistics Canada in aggregating to a two-category gender variable to protect the confidentiality of the responses provided. More information can be found here: *2021 Census gender note* (<https://www12.statcan.gc.ca/census-recensement/2021/ref/gender-genre-eng.cfm>) and *Filling the gaps: Information on gender in the 2021 Census* (<https://www12.statcan.gc.ca/census-recensement/2021/ref/98-20-0001/982000012021001-eng.cfm>).

1 PROJECT OVERVIEW

1.1 Introduction

The City of Yellowknife is developing a new Transportation Plan, Let's Move YK, to suit the needs of the community. The plan will bring together past studies, strategies, and policies with new ideas and standards, creating a single, unified roadmap for Yellowknife's transportation network. This plan will help the City move forward with investments in transportation projects for all modes of travel over the next 25 years.

The 2025 Yellowknife Household Travel Survey (YKHTS) was conducted in support of Let's Move YK. The YKHTS was conducted to better understand how, where, and why residents move within Yellowknife and establish a baseline of key transportation indicators against which progress towards the City's targets can be compared in future years. The last travel survey was conducted in 2008 with a limited sample of residents and very limited analysis. The 2025 survey was conducted with a larger sample of residents and provides a rich dataset for analysis.

Household travel surveys are a commonly used tool that collect individual and household travel data to inform transportation policy, while also broadening the understanding of social and economic trends. The YKHTS furnishes key transportation indicators such as mode share, trip purpose, bicycle ownership, and motor vehicle ownership. These indicators can be cross referenced with household, demographic, and trip characteristic information. This information may be used to inform the City's transportation priorities, and, in the future, understand how implemented policies have impacted travel patterns (report back on performance indicators), and provide a benchmark to compare against. This will be important as new policies are implemented, and the City considers identifying new and refining existing goals, targets, and actions.

1.2 Project Background

This report presents the top-level findings from the *2025 Yellowknife Household Travel Survey*.

In Fall 2025, the City of Yellowknife conducted a comprehensive household travel survey and asked household members aged 5 years or older to share information about their travel behaviours over a recent 24-hour weekday. The survey collected information at three levels:

- **Household**, including number of members, number of vehicles and, type of dwelling and more.
- **Person**, including age, occupational status, type of occupation if employed, whether the person has a driver's licence and more.

- **Trip**, covering the trips made by each household member. For each trip made on the designated survey day, information was gathered about where the trip began (origin), the time the trip began, where it ended (destination), the mode(s) used for the trip (e.g., auto, public transit, bicycle or walk), the purpose of the trip (e.g., commuting to work) and more.

An address-based sample of households was randomly selected and invited to participate by letter. Additionally, some households whose telephone numbers were available were contacted by telephone to target selected areas with low online response rates.

The 2025 survey study area coincides with Yellowknife's municipal boundary. A total of 7,570 households were invited to participate by survey invitation letter and/or phone call. The survey was conducted with a random sample of 718 households in the study area, for a response rate of 9.5% prior to data validation.

The survey data were reviewed for data completeness and trip logic using a battery of validation tests. The data was weighted to compensate for non-response bias and expanded to the population.

The final survey dataset used for analysis comprises 694 households after the removal of surveys with failing validation tests, resulting in a valid response rate of 9.2%. The valid survey dataset exceeds the original survey target of between 500 to 550 surveys, which reflects a high level of engagement with Yellowknife residents through the survey.

The survey data were weighted and expanded to represent close to 8,500 households and 22,100 residents in Yellowknife. This representation may differ from official forecasts of total population in both private and collective dwellings.²

The survey achieved a sampling rate of 8.2% of households or 7.2% of the population living in private residences (exceeding the initial survey target of a 7% household response rate). Overall, the household-level survey results are subject to a margin of sampling error of $\pm 5.0\%$ for household-level results and $\pm 3.3\%$ for person- and trip-level results, at a 95% confidence level, considering the effects of data weighting.³

² The expansion of the survey data was based on 2021 Census counts of households (private dwellings occupied by usual residents), adjusted for undercounting in the Census, and projected forward to 2025 using the Statistics Canada's 2025 population estimates by Census Subdivision. The expanded survey data only represent population in private dwellings occupied by usual residents. The expanded population represented by the survey data may differ from official forecasts of total population from other sources. Note also that the survey data do not represent the portion of the total population that lives in collective dwellings or is unhoused (both of which were out of scope for the survey).

³ 19 times out of 20, for a given survey question, the survey response percentage should be somewhere within the margin of error of the survey results. The margin of error has been corrected to take into account the increase in error associated with data weighting to correct for over-/under-sampling and/or non-response bias.

1.3 Report Organization

The report has five chapters including this introductory chapter:

- Chapter 1 details how and why the survey was conducted, including an overview of the sampling, expansion and analysis.
- Chapter 2 reviews the survey design, sampling design, survey administration, data processing, data expansion, and statistical reliability.
- Chapter 3 explores the key household, demographic, and mobility characteristics that were gathered in the survey.
- Chapter 4 profiles the travel characteristics that were gathered in the survey.
- Chapter 5 provides detailed tables of survey results by sub-municipal zone (five zones that aggregate the 15 neighbourhoods).

The report is accompanied by two appendices:

- Appendix 1 presents the survey invitations (mailed letters)
- Appendix 2 presents the survey instrument (scripts).

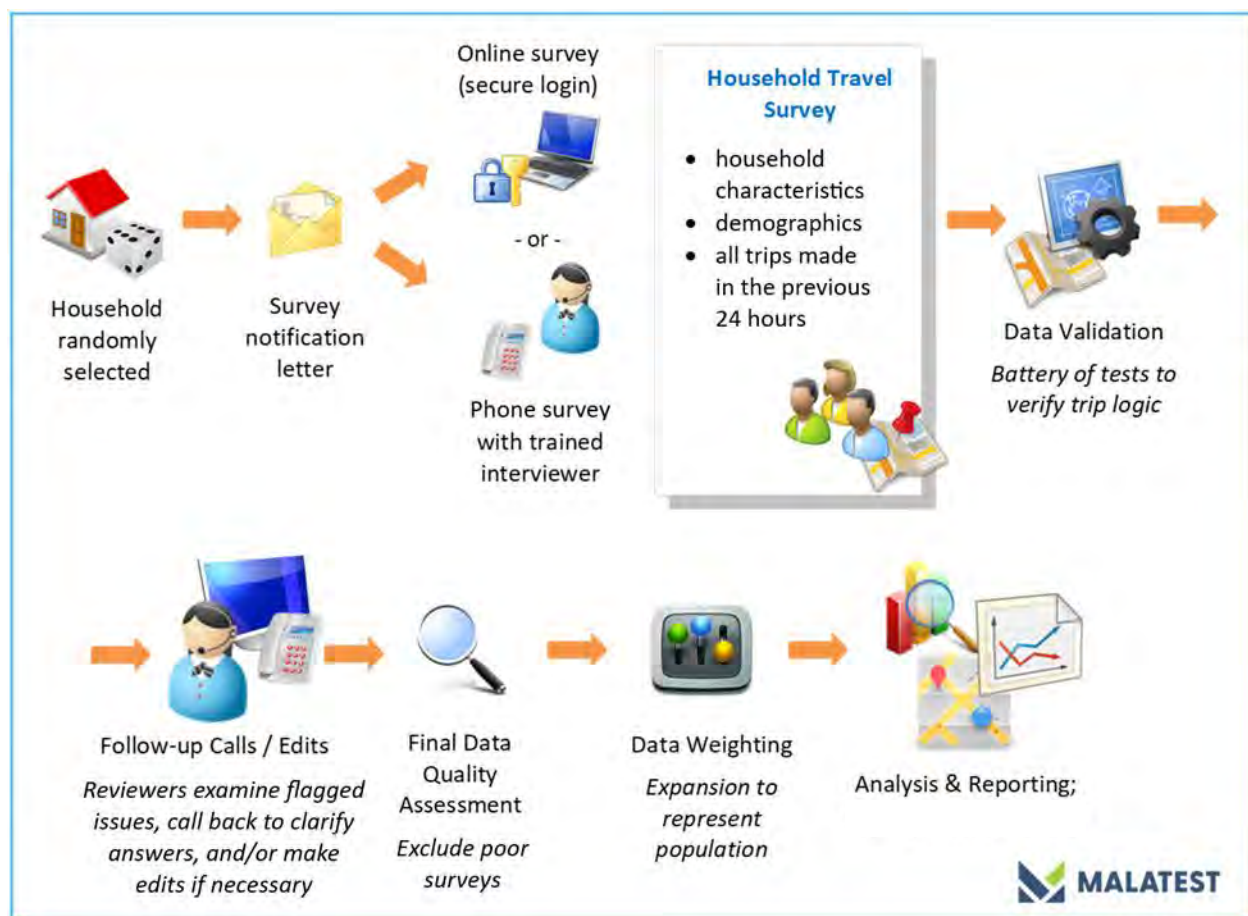
2 SURVEY DESIGN AND CONDUCT

2.1 Overview

The 2025 Yellowknife Household Travel Survey is designed to obtain information on mode shares and travel patterns in the study area. The survey captured information on key household characteristics (number of household members, number of vehicles, dwelling type, income); household residents' demographics, socio-economic characteristics and places of work and school; and trips taken over the past 24 hours (from 4:00 a.m. to 3:59 a.m. the next day).

The study method allowed for the completion of surveys both by telephone and online via a 24-hour recall survey. Triptelligence™, Malatest's CATI/CAWI (Computer Assisted Telephone/Web Interview) system, accommodated both survey modes on a single integrated platform. Figure 1 illustrates the general process for the household travel survey. The survey process described in the figure is explained in the sections that follow.

Figure 1. Household Travel Survey Overview



2.2 Survey Geography

The 2025 Yellowknife HTS study area coincides with Yellowknife's municipal boundary [Figure 2](#). The study area is organized into 5 sub-municipal zones for reporting illustrated in [Figure 3](#) (report zones) and [Figure 4](#) (external zones). The city's 15 neighbourhoods were used as a basis for developing the initial sampling plan and survey targets, which were aggregated into the 5 report zones for analysis.

Figure 2. Map of the City of Yellowknife

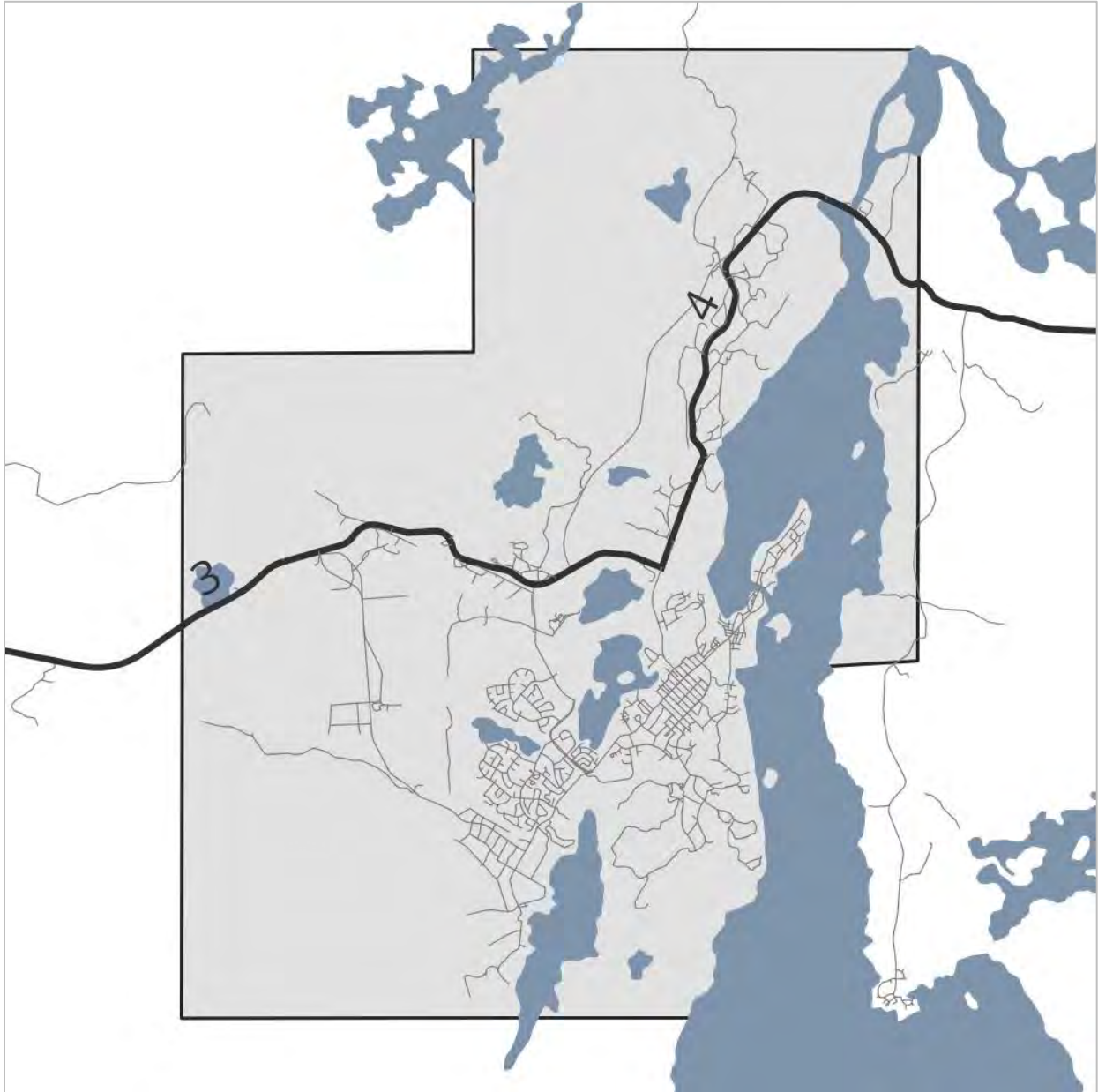


Figure 3. Map of Report Zones used for Analysis

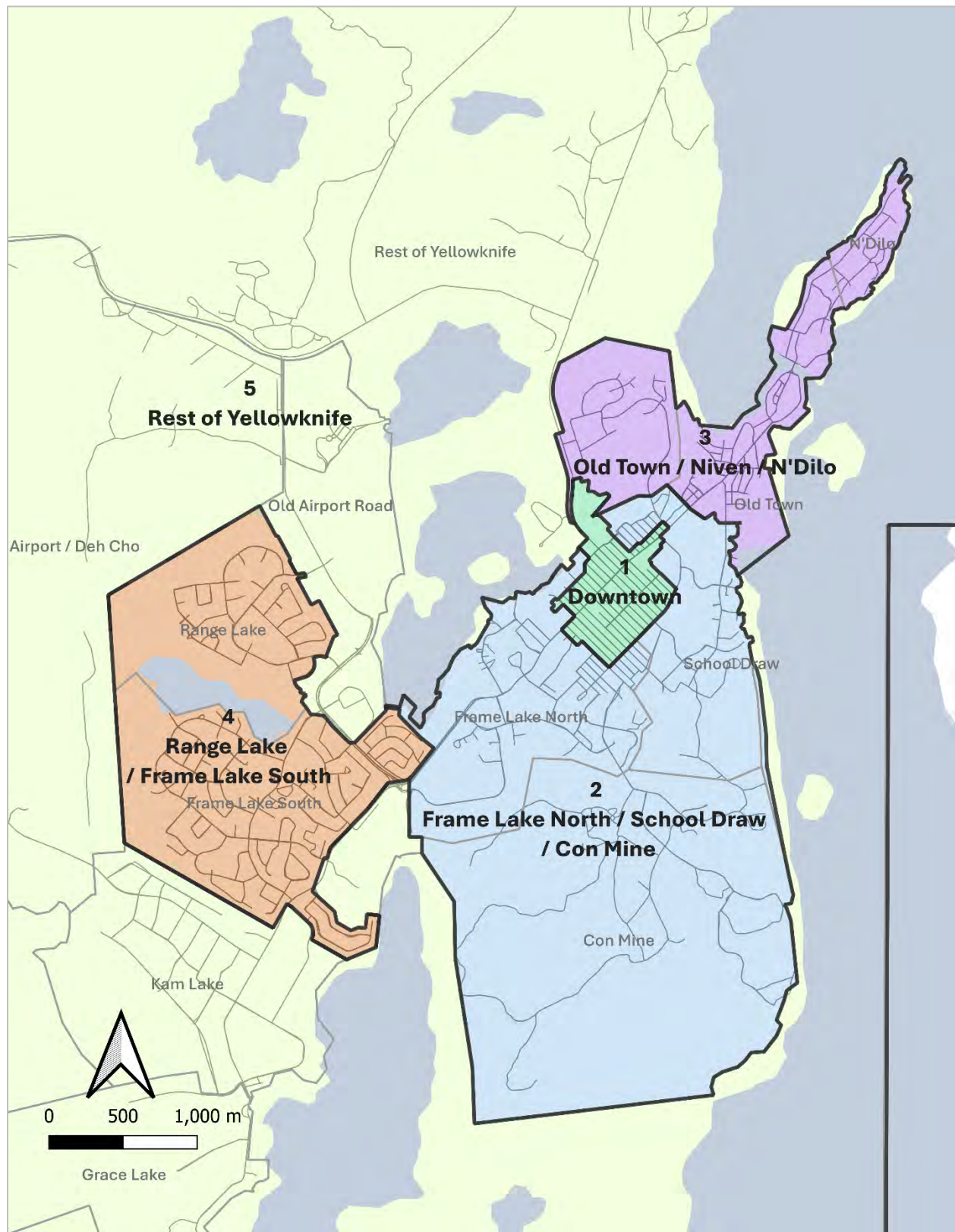
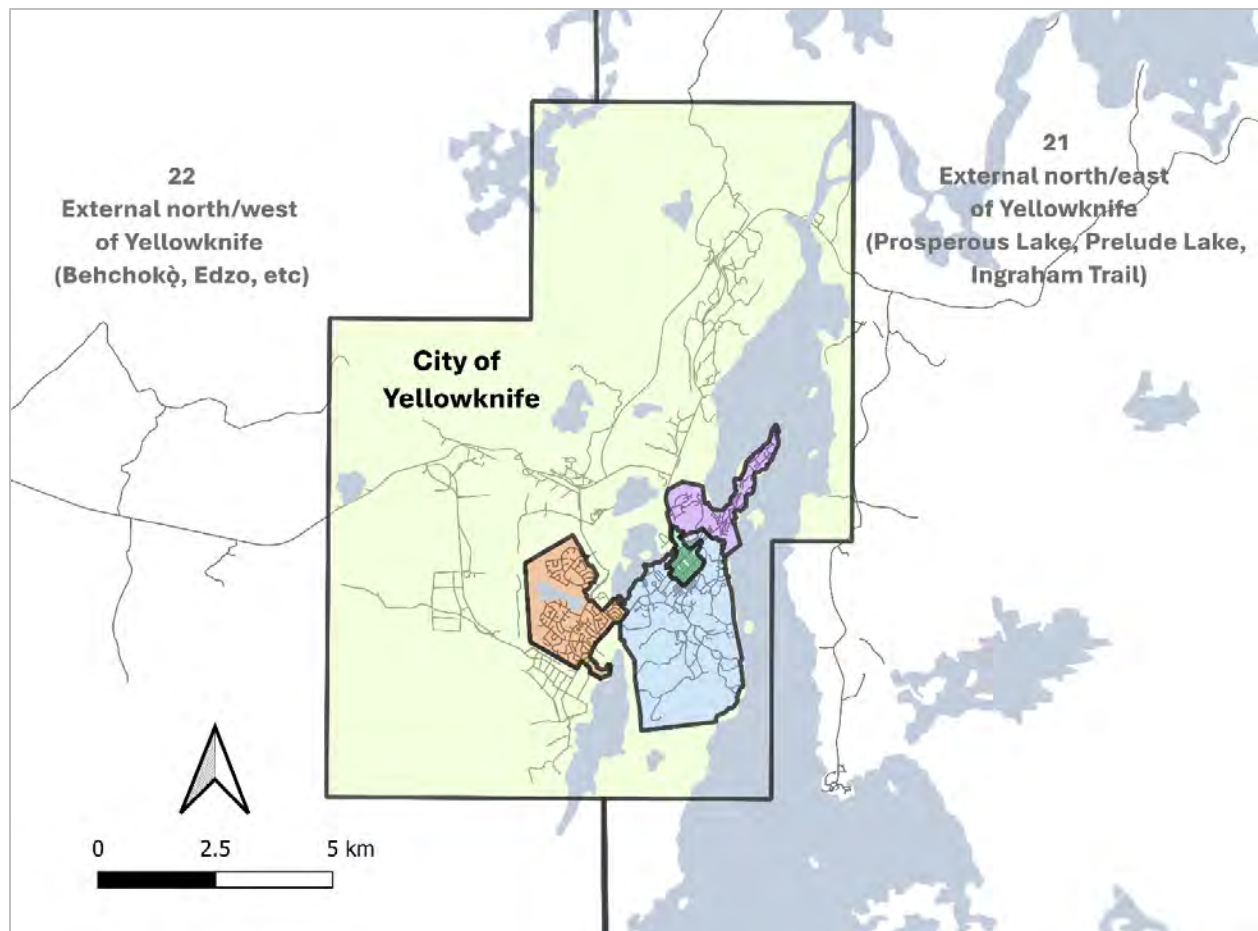


Figure 4. Map of the Study Area with External Zones



2.3 Survey Design

The primary goal of the 2025 Yellowknife Household Travel Survey is to understand where people are going and how they get there by collecting information on the trips made by each member of the household. The 2025 survey design was a household-based survey that collected demographic information on all household members and trip information for household members 5 years of age and older. The survey employed a 24-hour recall method that asked survey respondents to report on their trips on the previous weekday, from 4:00 a.m. on the previous day to 3:59 a.m. the next day. The text box below explains how a trip is defined.

What is a trip?

For this survey, a trip was defined as a journey from one place (origin) to another (destination) with a single purpose that may involve more than one mode of travel. For example, travel to work with a stop at a coffee shop is two separate trips: one with a purpose of restaurant/dining and another with a purpose of work. Travel to work which involved driving to a park-and-ride location and then taking transit the rest of the way is considered a single trip, with transit as the primary mode and driving as the transit access mode.

Respondents could complete the survey online or over the phone, with the majority choosing to do so online. The survey was conducted using Malatest's Triptelligence™ system, an integrated CATI/CAWI (computer assisted telephone/web interview) system incorporating Google Maps and data handling features developed specifically for origin-destination surveys.

2.3.1 Survey Data Elements

The survey collected the following data points at the household, person and trip levels for all household members over five years of age:

Household level

- Confirm have reached appropriate person to complete the survey (online: also confirm at least 16 years of age)
- Confirm phone number and email address (optional)
- Travel day surveyed (date and day of week)
- Confirm household address (Geocode home XY coordinates)
- Dwelling type
- Dwelling tenure
- Number of household members
- Number of vehicles available to members of the household (includes company vehicles, lease or own, motorcycles, light trucks, but not recreational vehicles like RVs, UTVs, or snowmobiles)
- Number of motor vehicles of each fuel type (if vehicles are available to the household)
- Number of conventional adult bicycles, adult e-bikes, child bicycles, and e-micromobility devices available to members of the household
- Household income

Person level

- Identifier (respondent's preference – first name, initial, relationship, or other identifier) for reference in survey questions
- Gender
- Age
- Driver's licence (yes/no)

- Transit pass (yes/no)
- Cycling frequency in the last month
- Frequency of transit use in the last month
- Student status (full-time, part-time)
- School type (Elementary, High School, College, etc.)
- School name / location (Geocode school XY coordinates)
- Attending school in-person, online/home schooled, or hybrid
- Employment status (full-time, part-time, self-employed, unemployed, retired)
- Occupation Type
- Workplace location (employed) (note if home) (Geocode workplace XY coordinates)
- Weekdays commuted or telecommuted last week
- Usual mode of travel to work
- Made any trips between 4:00 a.m. yesterday and 3:59 a.m. on travel day

Trip level

- Origin (Geocode origin XY coordinates)
- Destination (Geocode destination XY coordinates)
- Trip departure time
- Trip purpose (or activity at destination location)
- Mode of travel (up to five modes)
- Clarify access and egress modes if transit was chosen without a preceding or subsequent mode entry in the trip chain
- Bus route(s) taken on trip (if transit taken)
- Number of vehicle occupants (if auto driver or auto passenger)
- Additional information about trip

2.4 Sample Design

The population frame for the 2025 Yellowknife Household Travel Survey (HTS) included all private households within the study area. All persons normally residing within each sampled household in the study area were included in the sample frame. Detailed trip data were only collected for individuals five or older, as it is assumed that younger children would generally be accompanied by an older individual for their travel. Beyond reducing the response burden for families with young children, another reason for limiting the data collection to older individuals is the reluctance of some respondents to provide potentially sensitive information about the activities of younger children. For children under five, the survey collects some limited demographic information (such as age and gender).

It may be noted that the sample frame does not include the small proportions of the population housed in collective dwellings such as long-term care homes, student residences, or institutional settings or unhoused persons.

A sampling plan was developed that stratified the survey area into 15 sampling zones based on neighborhoods. Dwelling counts for each sampling zone were developed from matching 2021 Census dissemination blocks to the zones as best as possible, with apportionment of dissemination blocks that straddled zones as best as possible.

To obtain a representative sample of households in the study area, an address-based sampling approach was employed. Households were randomly sampled from a database of mailable residential addresses maintained by Canada Post, with a portion of records having only address listings (address-only) and a portion having addresses that could be matched to listed phone numbers (address-and-phone). A list of 8,269 residential addresses was obtained, although not all were needed in the course of survey administration in order to reach survey targets.

2.5 Survey Conduct

Households were sent survey invitation letters signed by the City of Yellowknife's Mayor with a secure access code and instructions for completing the survey online at yktravelsurvey.ca or over the telephone.⁴ The mixed-mode telephone/online method maximized opportunities for households to complete the survey. A total of 7,570 households were sent a survey invitation letter, with the largest flights of invitations mailed out in early September.

The first wave of survey invitation letters was mailed on August 29, 2025, and the first survey completions were received on September 4. The first week of surveying assessed initial response, tested telephone administration of the survey, ensured processes associated with the reception of calls to the toll-free line and email enquiries were working as intended, confirmed that the survey programming functioned as intended, and gauged the effectiveness of the survey questions through feedback from initial respondents and telephone surveyors. No issues were identified, and survey administration continued without the need to make any changes to the questionnaire or to processes. A second wave of survey invitation letters was sent on September 9, followed by a small third wave on September 19 that targeted sampling zones with low initial response to the first two mailouts. Delivery of most of the third mailout was delayed while Canada Post delivery service was suspended due to labour action between September 25 and October 11.

A toll-free telephone line was staffed to provide support to respondents interested in doing the survey over the phone or who wanted help in completing the survey online. Telephone surveying was undertaken with the small portion of the address sample that was matched to a directory-listed landline telephone number. Telephone follow-ups for partially completed surveys were undertaken to help respondents finish their surveys and to obtain extra survey

⁴ An FAQ was also made available for download on the survey website at https://yktravelsurvey.ca/pdf/YK_HOUSEHOLD_TRAVEL_SURVEY_FAQ.pdf

completions. The over-achievement of the target number of survey response also provided room to replace any surveys which might later be found to contain unusable data.

As the 2025 Yellowknife HTS considers only weekday travel, telephone surveying was limited to Tuesday through Saturday, to collect data on Monday through Friday travel. Online respondents were permitted to complete the survey between Sunday and Monday. While the survey usually asked about the most previous weekday, to mitigate the potential for over-representation of Friday travel, a portion of respondents who completed the survey on Saturday or Sunday were directed to complete the survey with respect to Thursday. Those who complete the survey on Monday were always asked about Friday, as recollection of Thursday travel may wane more by Monday. No calls were made regarding trips made on National Truth & Reconciliation Day (September 30), or Thanksgiving (October 13) as travel recorded on these dates would be atypical of normal travel patterns for many households. Online surveys were also restricted from providing travel for these dates.

Survey administration continued until the end of October. Most survey completions were obtained in September (86%) when temperature and hours of daylight are still conducive to active transportation (walking, cycling and micromobility), while 14% of surveys were completed in October, which saw a rapid shift in temperatures and the shortening of daylight hours, with first snow flurries observed in the last two weeks of October. The first travel date recorded was September 3, 2025, and the last was October 31, 2025, by which time the survey completion targets had been met or exceeded for all sampling zones. The survey results may be considered to be generally representative of travel in early Fall before the advent of inclement winter weather.

Table 1. Survey Completion by Week of Survey Administration

Survey Week (Starting the week of Sept 1)	Month	Survey Completions	Cumulative Surveys	Cumulative %
1	September	81	81	11%
2	September	335	416	58%
3	September	109	525	73%
4	September	77	602	84%
5	Sept. / Oct.	46	648	90%
6	October	19	667	93%
7	October	29	696	97%
8	October	12	708	99%
9	Oct. / Nov.	10	718	100%

A prize draw was offered to survey respondents to encourage participation. The prize draw included one grand prize of a \$500.00 gift card for a local merchant, and twenty-five \$25 gift

cards for local merchants. The prize draw was administered in January 2026 after initial survey data verification processes had been completed.

2.6 Data Processing

2.6.1 Data Validation and Imputations

Each night, Malatest's Triptelligence™ data validation system automatically ran a battery of tests on survey completions from the previous day. The system assigned flags for different issues with different levels of priority (critical issue, possible error, warning, etc.) for review by data validation staff. The data validation staff reviewed each flagged survey and either made logical corrections, re-geocoded locations, called back respondents to clarify information, or rejected the survey as unsalvageable. Surveys that passed all data validation tests were randomly selected for manual review to verify that such surveys appeared to be correct and that validation tests were working as expected. Through the data validation process, 3.3% of surveys were rejected.

The data was systematically reviewed and tested by data analysts during and post data collection to provide quality control of the dataset and rule out the possibility of any systemic data issues. Any relevant re-codes to the data were undertaken (such as combining captured information on work status, school status or other status into a single occupation variable) in preparing the data for analysis.

After data collection, the survey data was further tested by analysts using additional/final validation tests and manual checks to flag any remaining errors in the data or issues with trip logic, addressing any unresolved edits or errors from case follow ups/ corrections to finalize the dataset for analysis and reporting.

A modest number of missing data points were imputed in preparation for the data weighting by age and gender. Person records with unknown age were imputed (88 who provided a five-year age range and 12 who answered only a broader age range, out of 1,595 person records in the dataset used for analysis). Those who reported non-binary gender or who refused to provide their gender (13 persons) were randomly assigned to categories of "men+" (men and boys plus a portion of non-binary/refused) or "women+" (women and girls plus a portion of non-binary/refused) for data weighting and analysis, as such respondents were too few to analyse separately. This follows the approach used by Statistics Canada in reporting the Census profile results used for Yellowknife HTS data weighting. The original responses are preserved in the final dataset.

After data validation and rejection of surveys with unresolvable trip logic issues, 694 surveys were retained.

2.6.2 Geocoding

After finalization of the dataset, all latitude/longitude coordinates for locations captured by the survey (home, work, school, trip origin, trip destination) were geocoded using GIS tools to relevant study geographies and to Universal Transverse Mercator (UTM) Zone 11N x-y coordinates.

2.6.3 Trip Distances

Euclidean straight-line distances between trip origins and destinations were computed from the UTM Zone 11N x-y coordinates associated with the latitudes and longitudes.

Google APIs were accessed to determine estimates of the actual trip distance and duration as travelled on actual roads, cycling paths, and/or walking paths using Google's recommended route of travel for the given mode of travel and time of day. The Google API may not have returned trip distances and durations for a small portion of trips. The actual distance travelled by the participant on their travel day may have differed if the participant's route choice differed from Google's recommended route. Durations are estimates for the given mode and time of day and may have differed on the actual day of travel. The durations for different modes are not exactly comparable: for transit trips, the trip duration includes the total time associated with the journey, including time spent walking to the bus stop or transit station, time walking between transfers, and time waiting for transfers; For automobile trips, the duration does not include time to find parking or time to walk from the parking location to the final destination. It may be noted that for the small portion of transit trips that has access modes other than walking, the trip distance and duration obtained from this method may not always be accurate.

Distances for trips reported with the mode of school bus are not known, as routes are not known, but were estimated using driving distance for analysis purposes.

2.7 Data Expansion and Weighting

The data for the surveyed households were expanded to represent the total population living in residential households in the study area. The survey data were also weighted to more accurately represent the distributions of households by household characteristics and demographics. This is necessary to address non-response bias and uneven sampling rates in the final survey sample.

Households were weighted against data controls from the Census for households that are usual occupants of private dwellings.

The study area geography was organized into five expansion zones as the base geographical unit for data weighting. The expansion zones were developed based on aggregations of Yellowknife's 37 dissemination areas (DAs) that best corresponded with the five report zones (although with some significant boundary differences). Detailed Census Profile data were available for all the 37 dissemination areas.

An iterative proportional fitting (IPF) method was employed to balance household weights and person weights for the multiple weighting controls. In this method, incremental adjustments to the household weights are made in succession for each of the household controls, as well as a composite adjustment to each household weight to account for the disproportionate distribution by age/gender amongst the members of each household. Each successive adjustment to balance a given control may slightly or significantly unbalance the correction previously introduced for a different control. However, iteratively cycling through each control results in convergence to a solution where all household and population controls have expected distributions (to within reasonable tolerance; some deviations may be expected, particularly for expansion zones with smaller sample sizes). In this manner, all persons within each household carry the same weight as the household.

Limits were set on extreme weights, although they were allowed to range from 0.2 to 5 times the base expansion weight for the household's expansion zone. Only 6% of households received weights above 2.0 times the base expansion weight. The weights received final calibrations to ensure that the total number of households in each expansion zone matched the control totals.

The core weighting controls were developed from 2021 Census Profile data. The controls were selected for having significant influence on trip-making behaviour and for completeness of the information in the survey data. Estimates for 2025 were initially projected forward from 2021 Census counts based on a 6.5% four-year growth estimate from Statistics Canada population estimates and compensating for undercounting, with the estimate of the 2021 Census undercount being 5.2%.⁵ Together, this resulted in scaling of the 2021 Census Profile counts by approximately 12%. The weighted data were later rescaled such that the count of total dwellings matched the City of Yellowknife's 2023 dwelling count estimates.

Adjustments to the resulting Census-based counts were also made to remove the portion of the population outside the survey sampling frame (approximately 1.5% of the population) that lives in collective dwellings or without a fixed address. The adjustments to the distributions of population by age group considered that seniors make up a greater portion of the population living in collective dwellings. For this adjustment, information from Statistics Canada on the proportion of population by age and gender at the Census Subdivision level were used determine subtractions in the population counts by age and gender groups in those expansion zones known to have population in collective dwellings. The final Census-based weighting controls thus represent the age distributions of population living in private households. In some smaller expansion zones, certain age and/or gender categories may have been collapsed further due to small sample sizes or strata with no sample.

⁵ Statistics Canada. Table 17-10-0155-01. Population estimates, July 1, by census subdivision, 2021 boundaries. Release date: 2026-01-14.

Throughout the IPF iterations, Census-level weighting controls were applied to households. For each expansion zone, the weighting controls applied to 'households' included:

- total households (private dwellings occupied by usual residents);
- household counts by dwelling type (house, apartment 0 to 4 floors, apartment 5+ floors, other ground-oriented⁶);
- household counts by household size (1-person, 2-person, 3-person, 4-person, 5+ person);
- population counts by age and gender (12 age ranges, 2 genders⁷);
- household counts by expansion zone (5 zones);

In addition, the weights were seeded by an initial adjustment of household counts by dissemination area to better balance the sample geographically within each expansion zone. After this, the expansion zone level adjustments were applied. Given that boundaries of the expansion zones differed from the report zones in places, after the expansion zone adjustment, a final adjustment was undertaken to better match dwelling counts by neighbourhood as determined by aggregations of dissemination blocks.⁸ This was done so that the reported results would more accurately represent the 2025 estimate of dwellings in each report zone.

To contain the variance of the data weights, no attempt was made to adjust the weighting to balance the survey sample by day of the week, as such weighting could create more extreme high or low data weights. It may be noted that travel on some days is under-represented (in part due to postal delivery dates for the mailouts). In comparison, Fridays are over-represented (28% of all surveys, due to a higher likelihood of the survey being completed for the previous weekday for any response submitted between Saturday through Monday).

While the expanded number of households represented by the survey data after data weighting matches the forecast of households used, in neighbourhoods with small samples of larger households, the resulting expanded population may fall short of forecast population in private households, due to limits placed on extreme weights. Note that as the data weighting controls are based on the proportion of dwellings that are private dwellings occupied by usual residents

⁶ 'Other ground-oriented' includes dwellings such as town houses, row houses and semi-detached dwellings but excludes single-family dwellings and apartments.

⁷ Men+ (men, boys, and some non-binary persons) and Women+ (women, girls, and some non-binary persons).

⁸ Statistics Canada provides dwelling and population counts (but not Census Profiles) for dissemination blocks, which are smaller geographies than the dissemination areas for which Census Profile data are available.

from the Census, the resulting expanded survey population may not match population estimates from other sources.⁹

2.8 Validation of the Weighted Survey Data

The weighted survey data were validated against Census statistics (various household and demographic characteristics),¹⁰ and other available reference data. The results compared favourably for most Census characteristics, including geographic distributions, most household size categories, dwelling type, age/gender, and household income.¹¹ This suggests that the survey results can be taken to be generally representative of the total population.

However, it may be noted that the survey appears to somewhat under-represent renters (44% per the 2021 Census; 32% in the survey results) and somewhat over-represent owners (56% Census; 66% in the survey, with 3% unknown). It may also be noted that in some expansion zones, the survey under-represents households with five or more persons and thus may slightly under-represent the population even when the number of dwellings matches Census counts. It also may be noted that the weighted survey results are less than the total Yellowknife population, given that persons living in collective dwellings are not in scope. Furthermore, it may be noted that the expanded population from the survey may differ from population estimates from other sources due to differences in data sources and forecast methodologies.

YKTransit ridership figures provide estimates of almost 26,800 monthly riders in September and 29,300 in October, including all operating days of the week (i.e. including limited Saturday service, but no service on statutory holidays). The survey only collected information on weekday travel, and the monthly transit ridership figures are not available for weekdays only, therefore only rough comparisons can be made. If one assumes that Saturday ridership is, hypothetically, 40% of weekday ridership due to the more limited schedule and lower commuting demand, daily ridership weekday could be estimated to be about 1,240 riders per day.¹² This compares to

⁹ In particular, Census profile data on private dwellings and private dwellings occupied by usual residents do not take into account Census undercounts of population or temporary residents.

¹⁰ Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released November 15, 2023. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed February 05, 2026)

¹¹ About 11% of households declined to answer the annual household income question. Examining the weighted responses of households that provided an answer, the results suggest slight over-representation of households with incomes of under \$60,000 (10% per the Census; 14% in the survey results) and over \$200,000 (32% per the Census; 33% in the survey results) and slight under-representation of the various income ranges between \$50,000 and \$150,000, but the overall profile is generally quite similar. Note that we do not know whether the incomes of those who declined to answer would necessarily match the distribution of those who answered; also, the Census counts are five years stale (pertaining to household income in 2020, the year before the Census).

¹² Calculated based on 4 Saturdays and 20 weekdays of service in September (with no service on Labour Day or National Day of Truth and Reconciliation statutory holidays), and 4 Saturdays and 22 weekdays of service in October (with no service on

the expanded survey estimate of 1,430 riders per day. This suggests that the survey may somewhat over-estimate transit ridership, although there could be other reasons for the apparent discrepancy (for example, undercounting in farebox data or driver tallies at busy stops during rush hour periods).

2.9 Final Survey Dataset

The final database is in Microsoft Access format and includes the expanded data for the 2025 Yellowknife HTS. The dataset consists of three main data tables (household, persons and trips) along with associated lookup tables. The final dataset contains the following records:

Table 2. Final Dataset Summary

Table	# of Valid Records	Weighted #
Household	694	8,460
Persons	1,595	22,100
Trips (for persons 5+ years)	4,592	62,200

Table 3 presents the breakdown of weighted surveys completed by day of the week of the travel dates surveyed. As previously noted, Wednesdays are under-represented and Fridays are over-represented and there may be modest bias in the survey data to Friday travel patterns, which may somewhat from other days of the week.

Table 3. Survey Completions by Travel Day (Day of Week)

Day	% of Surveys	Weighted %
Monday	19%	20%
Tuesday	16%	18%
Wednesday	16%	15%
Thursday	21%	20%
Friday	28%	26%

2.10 Statistical Reliability

Even with stratified random sampling, well-designed survey instruments, thorough quality control during data collection, data validation, and data processing, and data weighting to correct for sampling bias and better represent the population, it is inherent in any survey to have some residual and unavoidable errors, such as sampling error. To inform applications of the survey data, this section discusses data reliability and explains possible sources of error in the

Thanksgiving Monday statutory holiday), and the hypothetical assumption that Saturday ridership might only be 40% of weekday ridership (has not been verified).

data. The section concludes with a summary of caveats that analysts should note when using the data.

2.10.1 Data Reliability

As with any survey, the data collected can be subject to sources of error or bias that can affect the reliability of the survey results. Potential sources of error can include the following:

- **Under coverage.** Coverage error is associated with the failure to include some populations in the same frame used for sample selection, which may occur with samples of convenience such as telephone directories. The sample frame used was a Canada Post database of mailable residential addresses which provides excellent coverage of private dwellings in the study area, reducing the concern of under-coverage. However, the Canada Post database may occasionally miss or under-represent some housing types, such as basement / secondary suites, mobile home parks and other non-conventional dwelling types.
- **Non-response bias.** Non-response bias occurs when individuals who do not participate in a survey differ in relevant ways from individuals who do participate. For example, younger people are often less inclined to participate in surveys. This bias has also been addressed, in part, through the data expansion process, including the weighting by household size, dwelling type, age, and gender. However, it should be noted that there can be other, hidden biases in the data that could not be corrected by the data weighting.
- **Measurement error.** This type of error is associated with the failure of survey instruments to capture correct information (e.g., through misunderstanding survey questions). To control for this, the questionnaire and associated materials were based on previously well-tested survey questions, thoroughly reviewed for content and meaning and field-tested with a sample of respondents prior to the full survey administration. Telephone interviewers were trained on the objectives of the survey, definitions of key terms, the intent of survey questions and how to address different trip circumstances described by respondents. During survey administration, telephone interviews were regularly monitored by a supervisor to ensure consistent application of questions. The online survey also included several built-in tests to prompt respondents to confirm key data and clarify illogical responses (e.g., checking for someone who reported their travel mode as 'auto driver' even though they were not reported as having a driver's licence).
- **Respondent under-reporting of minor trips for other household members.** This type of error could include respondents failing to report all trips made by other household members. In the 24-hour recall method employed in this survey, in which a household member reports on the travel made by other household members, the household

member responding to the survey should remember all of their trips, and will likely be aware of the most important trips made by other household members, such as non-discretionary (commuting) trips as well as their home-based trips (those that leave or arrive at home), they may sometimes not be aware of or report non-home-based trips with discretionary purposes, such as stop for coffee along the way to somewhere else or a short trip at lunch from work to a sandwich shop and back. Thus, there may be some under-representation in the survey data of brief stops along reported journeys or short non-home-based discretionary trips. No attempt was made to correct for possible under-reporting of such trips.¹³

- **Processing error.** Processing errors include data entry, coding, editing and imputation errors. These potential sources of error were addressed through comprehensive training of survey staff and survey validation staff, continuous quality management practices and data validation.
- **Sampling error.** Sampling error refers to the variability that occurs by chance because a sample was surveyed, rather than the complete population. As best as possible, sampling error was controlled by obtaining a robust survey sample and targeting areas with lower-than-expected response rates to improve sample sizes for these areas.
- **Error due to extreme weights when analysing small samples.** Notwithstanding the limiting of very extreme weights in the data weighting, small sample sizes for some strata and non-response bias may contribute to the assignment of high weights for some cases relative to others within the same geographic zone or population stratum. Users of the data should take note that the sample sizes for some zones are relatively modest. The survey results for such zones should be interpreted with caution. Caution should also be exercised when analysing any small subgroups of the total population.

2.10.2 Estimates of Sampling Error

Sampling error can be estimated based on the size of the sample universe (number of households in the study area) and the number of household survey completions. The estimated margin of error for the survey results at the household level is at $\pm 5.0\%$ at a 95% confidence level (theoretically, for a given survey question, the true response proportion for the population would be somewhere within the margin of error of the survey results 19 times out of 20), considering the effects of data weighting on sampling error. For person- and trip-level survey

¹³ Such adjustments would require detailed analysis of the trip making behaviours by trip type, trip purpose, and demographic characteristics of primary respondents and proxy respondents (other household members) as well as complex trip-synthesis imputations and/or weighting adjustments that would have been beyond the scope of this project. Such imputations or weighting adjustments also carry the risk of introducing unintended bias (e.g., over-compensation) and/or distortion of other trip characteristics such as average trip distances.

results for the entire study area, the sampling error is estimated to be $\pm 3.3\%$. Sampling errors increase when the study area is disaggregated into report zones or other sub-municipal districts, or when analysing population sub-samples.

Table 4 provides the household sampling rate, the household and person sample sizes and the household and person sampling errors for the geographies in the study area. Most report zones had high sampling rates (ranging from 6.9% to 8.1% of the estimated number of households) except the sparsely populated Rest of Yellowknife zone. Results for residents of Downtown and Rest of Yellowknife should be interpreted with considerable caution due to small sample sizes and very high sampling error.

Table 4. Survey Samples and Sampling Errors for Different Levels of Reporting

Geography	Households *	Population *	Surveys	Sampling Rate (% of Households)	Sampling Error, Household Level ($\pm\%$)	Persons in Surveyed Households	Sampling Rate (% of Population in Private Dwellings)	Sampling Error for Persons, Trips Info ($\pm\%$)
Yellowknife	8,500	22,100	694	8.2%	$\pm 5.0\%$	1,595	7.2%	$\pm 3.3\%$
Report Zones								
Downtown	600	1,100	44	6.9%	$\pm 19.4\%$	71	6.4%	$\pm 14.3\%$
Frame Lake North / School Draw / Con Mine	3,200	7,600	258	8.1%	$\pm 7.5\%$	548	7.2%	$\pm 5.1\%$
Old Town / Niven / N'Dilo	1,300	3,400	115	9.2%	$\pm 12.7\%$	276	8.1%	$\pm 8.1\%$
Range Lake / Frame Lake South	3,200	9,500	272	8.4%	$\pm 8.6\%$	688	7.2%	$\pm 5.4\%$
Rest of Yellowknife	200	500	5	3.1%	$\pm 54.3\%$	12	2.7%	$\pm 33.4\%$

* In this table, Households and Population are the expanded survey estimates. Figures may differ from aggregated data and reflect some under-representation of total population due to the under-representation of households with five or more persons and/or because persons living in collective dwellings and unhoused persons are not included in the sampling frame.

The sampling errors for person-level information can be considered to carry over to the trips those people make (i.e., the person-level sampling error is associated with the entire trip chain). Reporting of survey results related to trips originating in or destined to given report zones includes trips made by residents of the given geography as well as other residents of the study area from outside that given geography. Therefore, the sampling error associated with information on trips to, from or within the area would be much better than that for just the trips made by residents of the area, particularly in areas that attract a lot of trips. Therefore, if required, the calculation of sampling error can be undertaken using the number of persons who make trips to a given zone as the sample size rather than number of trips.

2.10.3 Caveats

Sampling error is not the only possible source of error. While efforts have been made to control for possible error and to weight the data to be more representative of the population, there

may remain some non-response bias or other sources of error not accounted for in the data weighting and data processing.

The weighted survey data are based on a sample of the population expanded to represent the total population of persons living in private dwellings (excluding those living in collective dwellings). As such, expanded counts from the survey data should be understood to be estimates, not exact counts.

Caution should be exercised when comparing the survey results with other sources of information that may use different methodologies in their estimations. Comparisons with other sources of information may be more reliable when the other source of information has exact counts rather than estimations (e.g., Census-based data), however the time frame of the information compared against should be taken into consideration (e.g., the last Census was conducted during the peak of the COVID-19 pandemic).

Users of the survey data should note that while the survey captured information on transit routes used, and the reported routes were checked against origin/destination for reasonableness, the expanded counts were not validated by route for reasonableness. Analysis of the data by route should be undertaken with caution given the modest sample sizes of transit users by individual route, although analysis for high-ridership bus routes or SkyTrain lines may be more reliable.

3 HOUSEHOLDS AND DEMOGRAPHICS

This chapter describes key household and demographic factors that influence people's travel choices and patterns. The 2025 survey may be considered a new baseline year.¹⁴ It will allow for comparisons in future survey cycles that will reveal trends in key determinants of travel behaviours with shifts in the population demographics, changes economic conditions, and the influence of urban planning on where and how people live and work.

Note that the factors and proportions presented in this chapter reflected the survey results, which were expanded and validated to Census and other reference statistics described in the previous chapter. As a result, in most cases the results are consistent with these references. However, references to the working population may differ from the Census, given that the 2021 Census was taken at the height of a COVID wave whereas the household travel survey was conducted in 2025. These differences refer specifically to total employment, mode of travel to work and the number of people working at home.

Important note on interpreting the survey results

In interpreting the survey results, it is important to emphasize that the expanded survey counts are estimates based on 694 households surveyed, or an 8.2% sample of all dwellings occupied by usual residents, and 7.2% of the population.

After application of the data weights, the survey results are subject to an estimated effective margin of sampling error of $\pm 5.0\%$ at the household level and $\pm 3.3\%$ at the person- and trip-level, taking into account the effects of data weighting.

The expanded counts from the survey are estimates based on weighted survey data expanded to represent the size of the population, with these expanded counts. These estimates are based on a survey sample and should not be taken to represent exact counts.

All household and person level results in this report are rounded to the nearest 10. Trip level results are rounded to the nearest 10 or nearest 100, depending on the context. Due to rounding, occasionally the sum of individual rounded results may not add to the rounded total listed.

When percentages are presented, due to rounding, the percentages presented for individual response categories may not always sum to 100%.

¹⁴ Reporting on the 2008 survey results was brief, and the sample size was relatively small. The 2025 survey provides a more robust sample of the population suitable for longitudinal comparisons.

3.1 Key Household and Population Indicators

This section describes the household and demographic factors that influence people's travel choices and patterns and discusses how these relate to each other.

Note that the factors and proportions presented in this chapter are reflective of the survey results, which were expanded and validated to the Census and other reference statistics described in the previous chapter. As a result, in most cases, the results are consistent with these references. However, the population and households in the survey may not necessarily align with the 2021 Census given that the figures below include growth factors from 2021 to 2025 and account for undercounting in the Census. In addition, differential growth factors were applied by neighbourhood drawing on the 2025 distribution of residential addresses from Canada Post.

Further, references to the working population may differ from the Census, given that the 2021 Census was taken at the height of the Covid pandemic whereas the 2025 household travel survey was conducted during a non-pandemic period. These differences refer specifically to total employment, mode of travel to work and the number of people working at home.

Figure 5 and Figure 6 present key survey estimates and indicators from the survey, which Table 5 summarises.

The expanded surveys represent an estimated 8,460 households with 22,100 usual residents. It may be noted that this is less than total population from Statistics Canada's 2025 estimate of 22,858. This difference may be explained in part by the fact that the survey frame included only private residential addresses and so does not represent residents living in collective dwellings (seniors care homes, group homes, prisons, etc.) or the homeless, and in part by higher non-response bias for larger households (those with six or more household members). The survey results suggest that the estimated fleet of household vehicles is 13,850.

Of the residents represented by the survey results, 96% are 5 years of age or older, the age threshold for collecting trip information in the household travel survey. More than half (56%) of Yellowknife residents are employed.

The average household size is 2.61 persons per household, with 1.53 workers per household, and 1.64 vehicles per household. The number of vehicles is greater than the number of workers, at 1.07 vehicles per worker on average (although of course not all workers have access to a vehicle). In future iterations of the survey, it will be interesting to observe the trends in these indicators and Yellowknife continues to grow and as transportation options evolve.

Figure 5. Expanded Survey Estimates

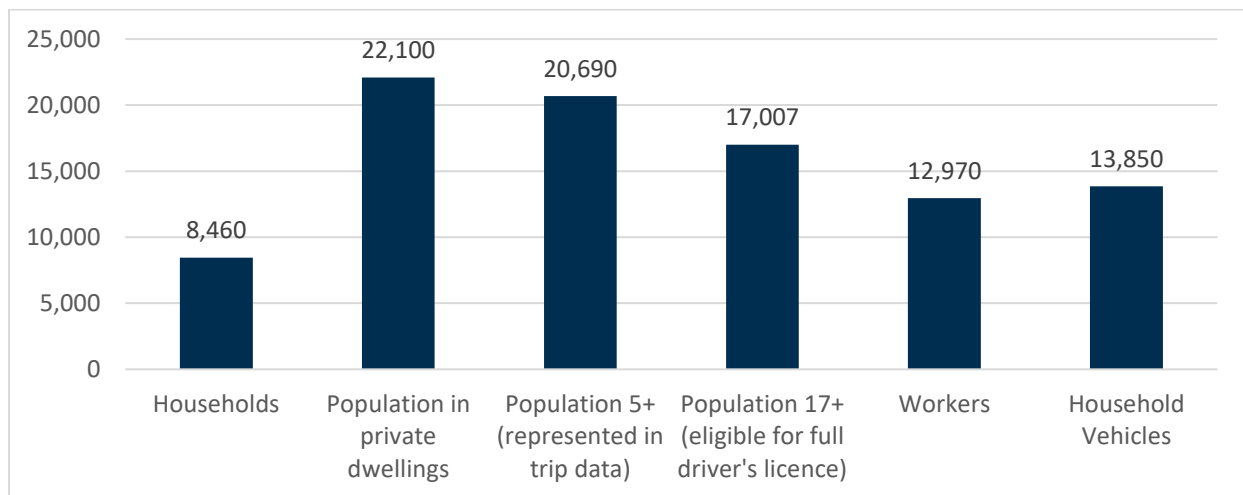


Figure 6. Key Indicators

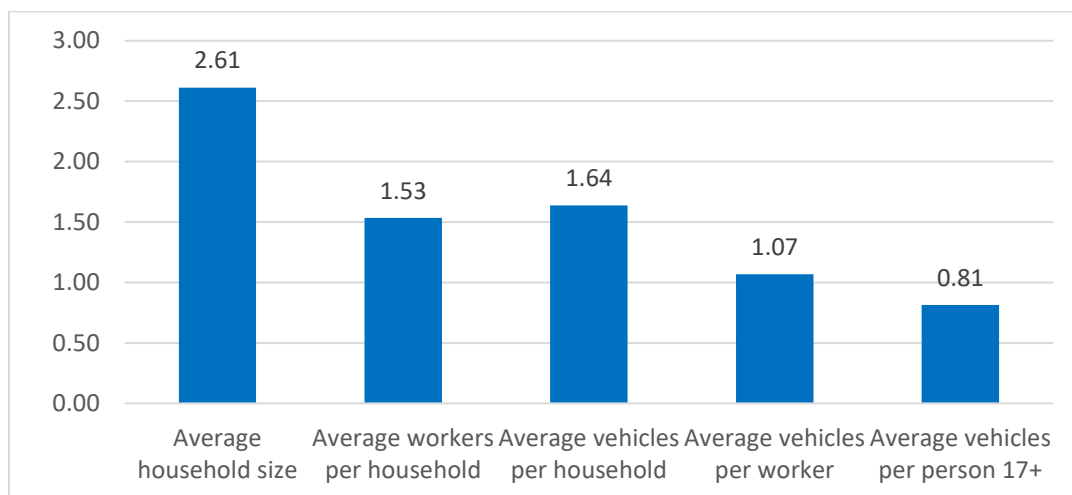


Table 5. Key Indicators (Households, Vehicles, Population, Employed Population)

Statistic	2025 Expanded Survey Estimate
Households	8,460
Population in private dwellings	22,100
Population 5+ (represented in trip data)	20,690
Population 17+ (eligible for full driver's licence)	17,007
Workers	12,970
Household Vehicles	13,850
Average household size	2.61
Average workers per household	1.53
Average vehicles per household	1.64
Average vehicles per worker	1.07
Average vehicles per person 17+	0.81

3.2 Household Characteristics

The most common household type in this study is single-detached homes, at 44% of the weighted sample (Figure 7). The remainder is split between other ground-oriented units, at 25% of all households, low-rise apartments (one to four storeys), at 27%, and apartments in buildings of five or more storeys, at 4%. The proportions compare favourably with the Census, given that dwelling type was one of the weighting controls. Note that within the ‘other ground-oriented’ dwelling type—which includes semi-detached, duplex, triplex, townhouse, mobile home other—the individual categories differ slightly from the Census, so caution should be undertaken for any analysis using detailed dwelling types.

Figure 7. Dwelling Type

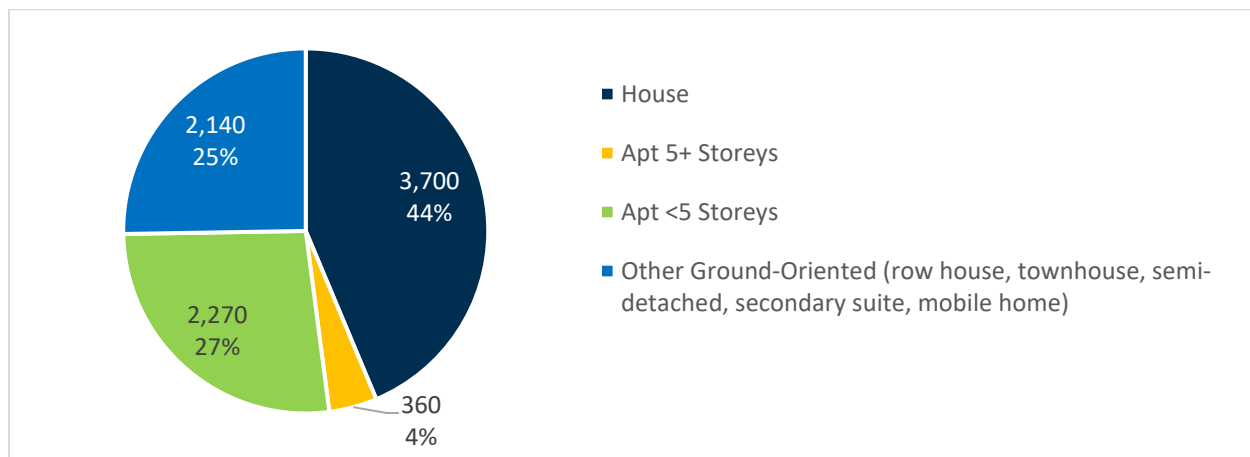


Table 6 shows the distribution of surveyed households by dwelling tenure, with Census-based distributions listed to illustrate differences. Close to one third (32%) of survey respondents are renting, while almost two thirds (66%) own their dwellings and almost 3% did not provide a response to this question. When compared to the Census, owners are overrepresented by 10% (56% owners in Census data) and renters are underrepresented by 12% (44% renters in Census data). This modest under-representation of renters is a caveat to the survey results.

Table 6. Households by Dwelling Tenure: Expanded Survey Data vs. Census

Dwelling Tenure	Census	%	Survey	%
Rent	3,750	44%	2,700	32%
Own	4,730	56%	5,550	66%
Unknown	n/a	n/a	210	3%

*Source: Statistics Canada 2021 Census Profile scaled to 2025 household estimates.

Household size distributions are presented in Figure 8. Overall, 24% are single-person households, 31% have two household members, and 45% have three or more household members.

Figure 8. Household Size

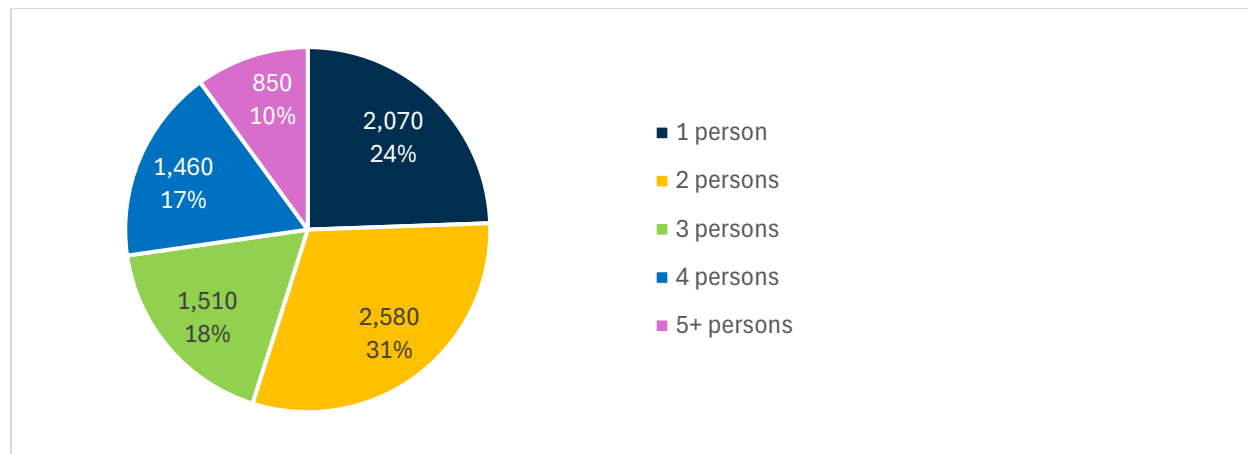


Figure 9 provides the distribution of households by household structure. Two thirds (66%) of households do not have children while one third (33%) have children. Single-person households make up 24% of all households, and just under one in ten (9%) of households have three or more adults (extended-family households, roommates, or other situations), with a little over half of the 3+ adult households also including children.

Figure 9. Household Structure

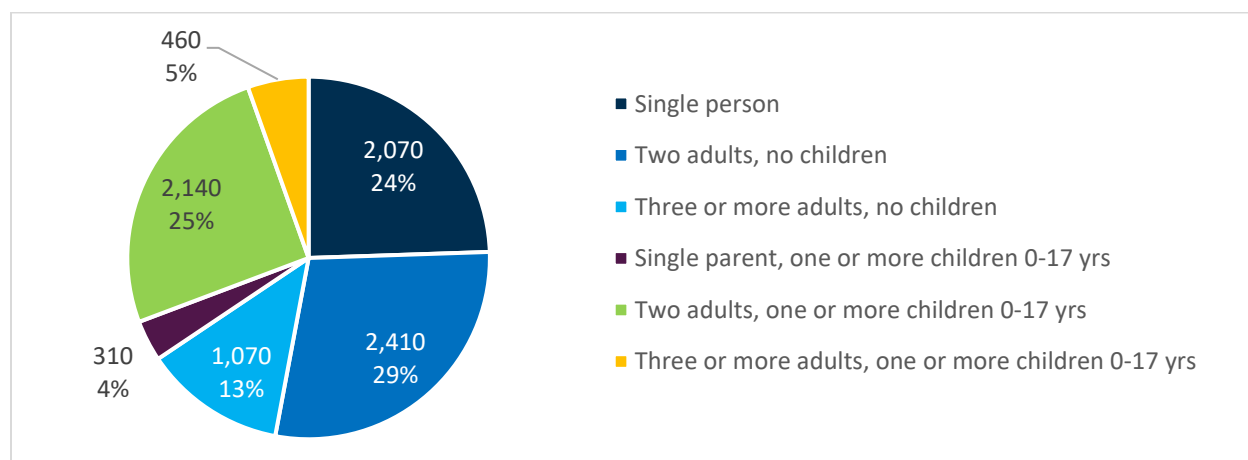


Figure 10 and Table 7 highlight the income distribution of households surveyed, which, for households who provided an answer, is very similar to the distribution per the 2021 National Census. There is some apparent overrepresentation of low-income households (3% having incomes of less than \$35,000 per the 2021 Census, compared to 7% in the valid expanded survey counts) and underrepresentation of households within incomes between \$125,000 and \$200,000 (with 12% in the \$125,000-149,999 range and 19% in the \$150,000-199,999 range per the Census compared to 9% and 17% respectively in the survey data). Comparison with the Census should be undertaken with caution given that 11% of households surveyed either declined to provide their household income range or did not know it; it is not known whether their income distributions follow the same distribution profile as for those who did provide a response. In addition, the Census asked about annual income in 2020, and household incomes may have shifted in the last four years.

Figure 10. Household Income

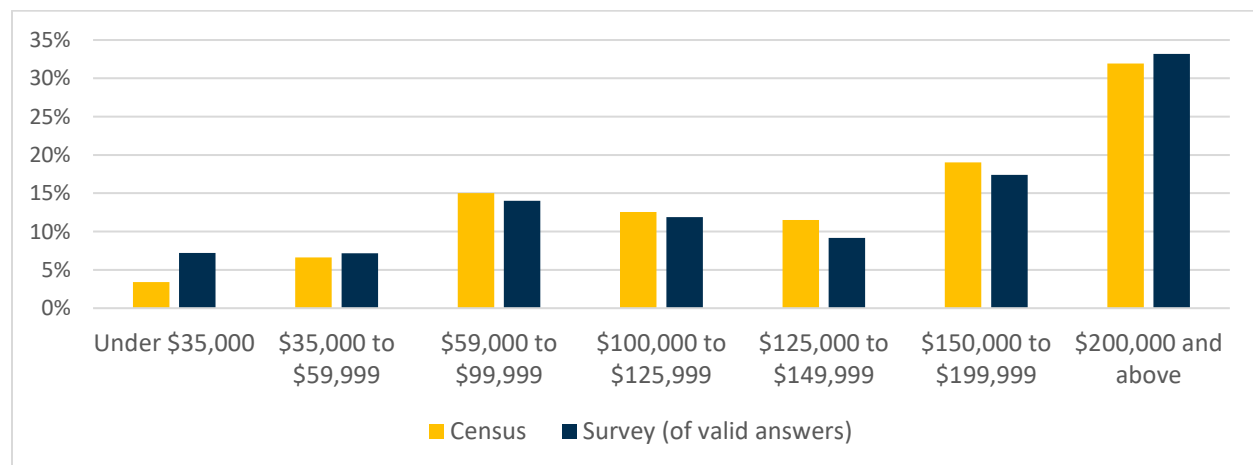


Table 7. Household Income (Total Household Income before Taxes)

Annual Household Income	Census*	%	Survey	% with answer
Under \$35,000	270	3%	540	7%
\$35,000 to \$59,999	530	7%	540	7%
\$59,000 to \$99,999	1,210	15%	1,060	14%
\$100,000 to \$125,999	1,010	13%	900	12%
\$125,000 to \$149,999	920	12%	690	9%
\$150,000 to \$199,999	1,530	19%	1,310	17%
\$200,000 and above	2,570	32%	2,500	33%
Total known	8,040	100%	7,540	100%
<i>Unknown**</i>	440	<i>5% of households</i>	920	<i>(11 % of surveys)</i>
<i>Total households</i>	8,480		8,460	

*Source: Statistics Canada 2021 Census Profile scaled to 2025 household estimates. Unknown: for Census data = not published at Dissemination Area level; for survey data = unknown or declined to answer).

3.3 Access to Transportation

3.3.1 Household Vehicles

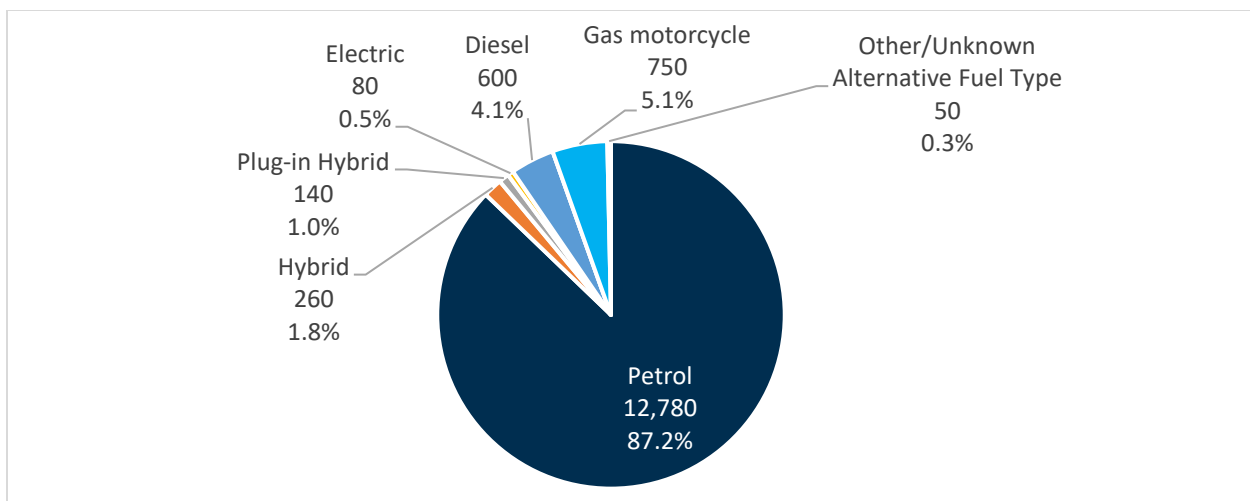
The average number of vehicles per household is 1.64. Table 8 shows the variation in this statistic by household size. Across all household sizes, residents have 0.81 vehicles per person (of those eligible to hold a driver's licence), with fluctuations by household size. Figure 11 presents vehicle fuel types for household vehicles. Overall, 1.6% are zero-emissions vehicles (ZEV), which consist of hybrid plug-in and electric,¹⁵ while fully 3.4% are electrified, when including non-plug-in hybrids. 87% of vehicles are powered by petrol, 4% by diesel, and 5% are gas motorcycles. It will be interesting to track the trend in vehicle fuel type in future surveys.

Table 8. Vehicles Per Household by Household Size

Household Size	Households	Vehicles	People 17+*	Vehicles / Household	Vehicles / Person 17+	% of households with vehicles
1 person	2,070	1,570	2,070	0.76	0.76	63%
2 persons	2,580	4,240	5,020	1.65	0.84	97%
3 persons	1,510	3,370	3,700	2.23	0.91	99%
4 persons	1,460	2,760	3,790	1.89	0.73	96%
5+ persons	850	1,910	2,430	2.25	0.79	91%
TOTAL	8,460	13,850	17,010	1.64	0.81	88%

*Population 17 years or older who are eligible for a driver's licence, whether or not they hold a licence. (Excludes 15- and 16-year-olds eligible for a learner's licence and can only drive accompanied by someone 17+ with a non-probationary licence).

Figure 11. Vehicle Fuel Type



¹⁵ Transport Canada defines a ZEV is a vehicle that either produces no tailpipe emissions or has the potential to produce no emissions, for example, an electric vehicle. There are three types of ZEVs on the market: battery-electric, plug-in hybrid electric, and hydrogen fuel cell.

Table 9 provides a breakdown of key vehicle statistics by zone and shows that access to a vehicle is not uniform throughout Yellowknife, being less likely in the Downtown (67%) and Frame Lake North / School Draw / Con Mine (83%) zones, although still the majority of households at 88% on average. This stands to reason given the access to nearby services and amenities in the two noted zones.

Table 9. Selected Vehicle Statistics by Zone

	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Household vehicles	13,850	500	3,960	2,090	6,720	580
% of households with a vehicle	88%	67%	83%	92%	95%	100%
Vehicles per person 17+	0.81	0.47	0.67	0.80	0.93	1.29
% of vehicles that are ZEVs	1.6%	0.0%	3.0%	1.4%	1.0%	0.0%

ZEVs = EVs + plug-in hybrid vehicles

* Results for Downtown and Rest of Yellowknife should be interpreted with consideration caution due to very survey small sample sizes

3.3.2 Household Bicycles and E-Micromobility

Table 10 presents survey estimates on the stock of bicycle and e-micromobility devices in Yellowknife, and related statistics. A little more than 3 in 5 households (63%) reported owning any bicycles. Of total adult bicycles, 96% are conventional while 4% are e-bikes.

Table 10. Selected Bicycle and E-Micromobility Statistics

	Study Area
Total households	8,460
Population in households	22,100
% of households with at least one bicycle or e-micromobility device	63%
Total bicycles	15,030
Adult bicycles (conventional)	10,440
Adult e-bikes	450
Child bicycles	4,140
E-micromobility devices (e-scooter, e-skateboard, etc.)	480
Avg. bicycles per household	1.23
Avg. bicycles per capita	0.68
Persons 16+ years of age (of a reasonable age to begin using an adult bicycle)	17,320
Avg. adult bicycles per person 16+ years of age	0.63
Adults 18+ years of age	16,660
Avg. adult bicycles per adult 18+ years of age	0.65

3.4 Demographic Characteristics

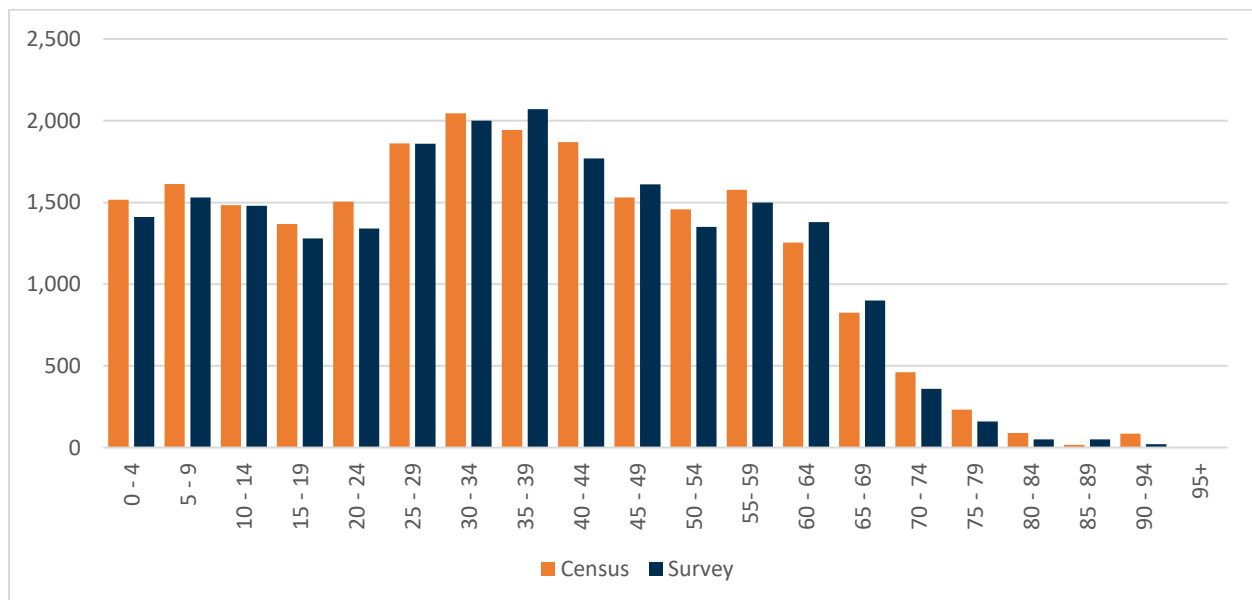
This section provides an overview of demographic characteristics of the expanded survey sample (age, immigration status, car share membership, driver's licences, occupation status, occupation type).

3.4.1 Age Distribution / Gender

The survey data was weighted by age and gender in five-year age groups up to age 34, ten-year age groups between 35 and 75, and a single aggregation for all those 75+ years of age. The survey data was also adjusted to exclude persons living in collective dwellings by age range, based on CSD-level (Census subdivision) data from Statistics Canada. Figure 12 compares the survey results to the Census-based estimates by 5-year age range. The distribution does not perfectly match with Census,¹⁶ however, the overall profile is generally the same

The results show that the City has a significant population between the ages of 25 and 44, who collectively represent over one-third (35%) of total population in private dwellings.

Figure 12. Population by Age Distribution, 2021 Census vs 2025 Yellowknife HTS



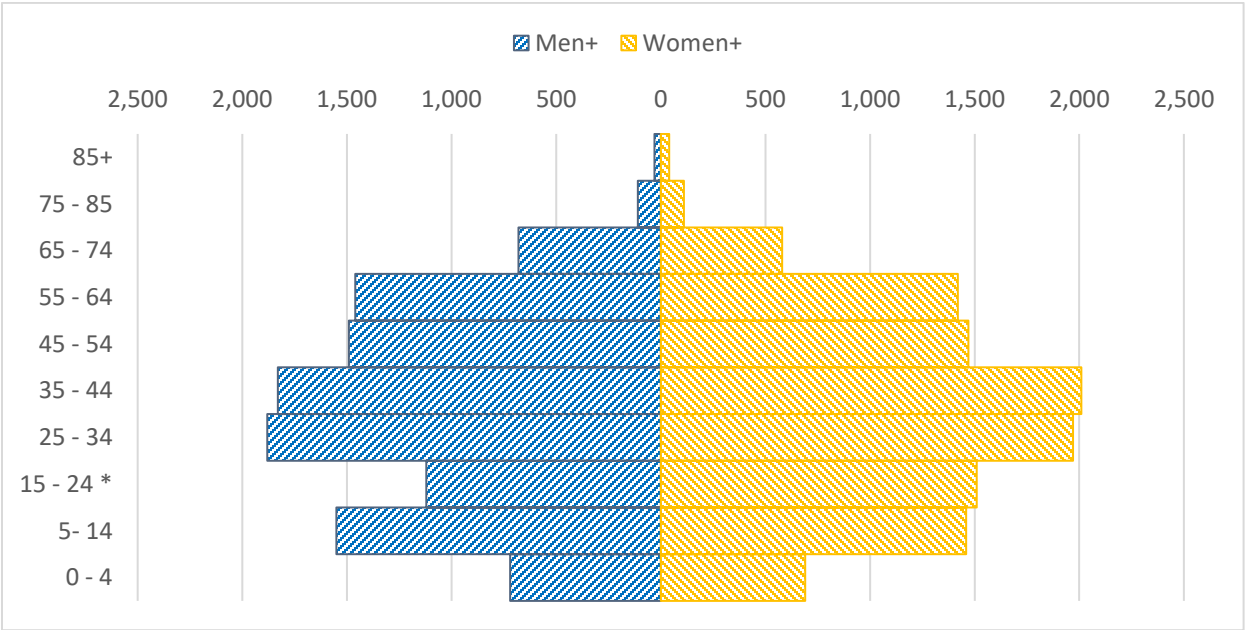
Census = 2021 Census counts for total population (including those in collective dwellings) scaled up for growth and to compensate for undercounting.

Survey = 2025 YKHTS expanded survey estimates, population in private dwellings.

¹⁶ Even though age was a weighting control, the differences from the Census counts may be explained by the following factors: small sample sizes for children and youth under 25 years of age in certain expansion zones; limits placed on extreme weights; above the age of 35, weighting was undertaken for 10-year age ranges (so there are some imbalances by 5-year range); the survey does not represent persons living in collective dwellings such as long-term care homes; and the survey may slightly under-represent the largest households.

Age distributions in the survey data are shown in Figure 13, and broken out by gender. In the chart, “Men+” includes men, boys, and a portion of non-binary, self-described, or undisclosed gender respondents. “Women+” includes women, girls, and a portion of the same.¹⁷ Amongst children, there may be some imbalance by gender which may be due to collapsing gender groupings in the data weighting for certain expansion zones with small samples. When examining the data by individual superzone, greater variations from the Census age distributions may be possible than what is displayed in the chart.

Figure 13. Survey Population Distributions by Gender and Age Range



* In the 15-24 age range, the survey results somewhat under-represent men+ and over-represent women+; this is due to small sample sizes and the need to collapse age/gender categories in certain expansion zones, as well as limits on extreme weights.

3.4.2 Driver’s Licences

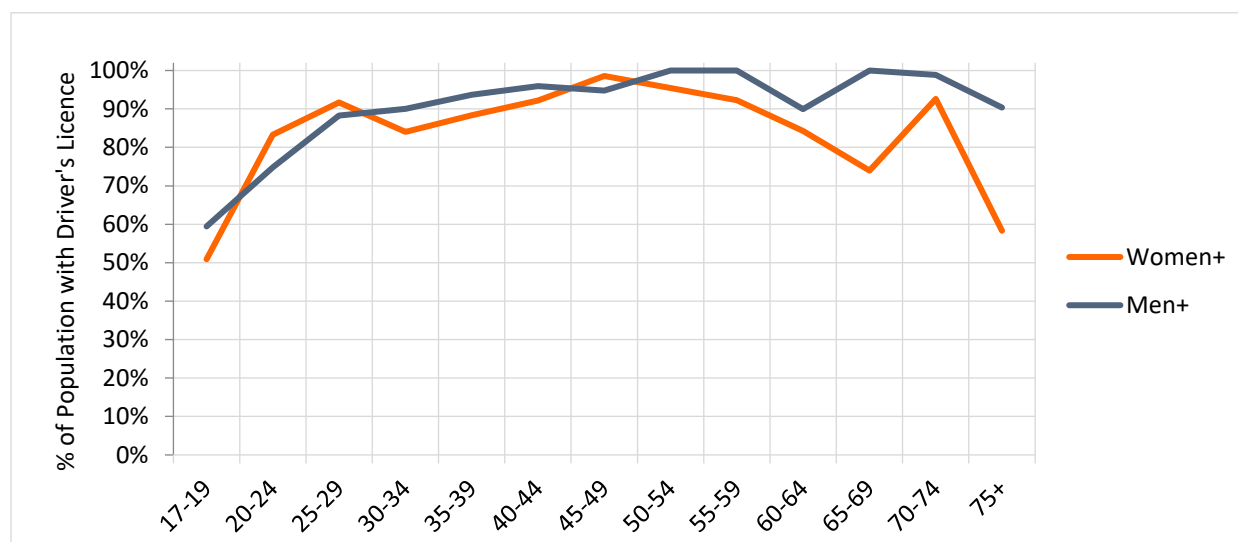
The survey results suggest that of population 17 years of age and older, 89% have a driver’s licence. There is a notable difference between the proportion of women+ with driver licence and men+ with driver licence. Overall, across all age groups, 92% of men+ over the age of 17 have a driver’s licence vs. 87% of women+.¹⁸ Figure 14 illustrates the overall trend in differences

¹⁷ This follows the approach used by Statistics Canada to aggregate data to a two-category gender variable to protect the confidentiality of responses provided, given that the non-binary population is small.

¹⁸ Analysis is undertaken using aggregate categories of “men+” and “women+” that group random portions of non-binary persons with men/boys and women/girls, to protect the confidentiality of responses of the small sample of non-binary persons surveyed, following the approach used by Statistics Canada.

by age group, with some of the variation by age group likely due to the modest sample sizes in certain age groups.

Figure 14. Percent of Population with Driver's Licence by Age Group and Gender



Sample sizes range from n=13 to n=99.

Interpret results with caution for the following ranges: 17-19, 20-24, 70-74, and 75+ (sample sizes from n=13 to n=29).

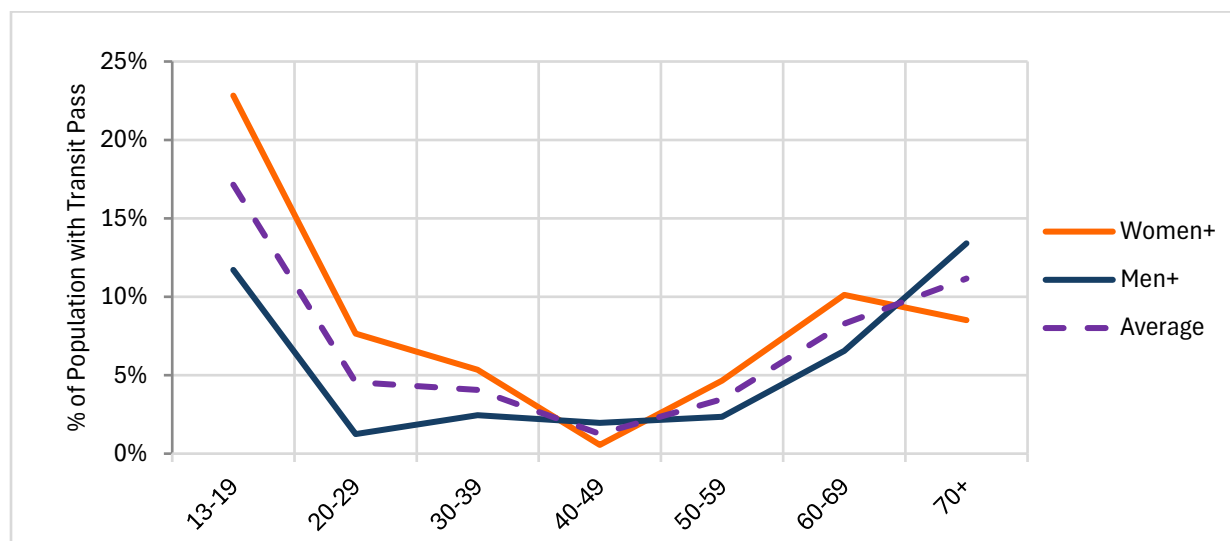
3.4.3 Public Transit Pass Take-Up

Children 12 years of age and under travel on YK Transit for free, and there are separate fees for school bus (yellow bus) passes. Of those 13 years of age and older, 6% have a transit pass. By gender, 4% of men and 7% of women have a transit pass.

Figure 15 presents the survey results by age and gender. Results have been grouped into broad age groups due to small sample sizes and high variability between age ranges, which may be a function of survey sampling error, the low incidence of transit passes, and cases with high weights in the data weighting.

Transit pass uptake is highest amongst children and youth aged 13 to 19 (average 17%), then drops to 5% amongst those aged 20 to 29 and is at its lowest amongst those aged 40 to 49 years (average 1%). Possession of a transit pass increases again for age ranges above 50, arriving at 11% for those 70+ years of age. In almost all age groups except 40 to 49 and 70+, transit pass uptake is notably higher amongst women than men.

Figure 15. Percent of Population with Transit Pass by Broad Age Group and Gender



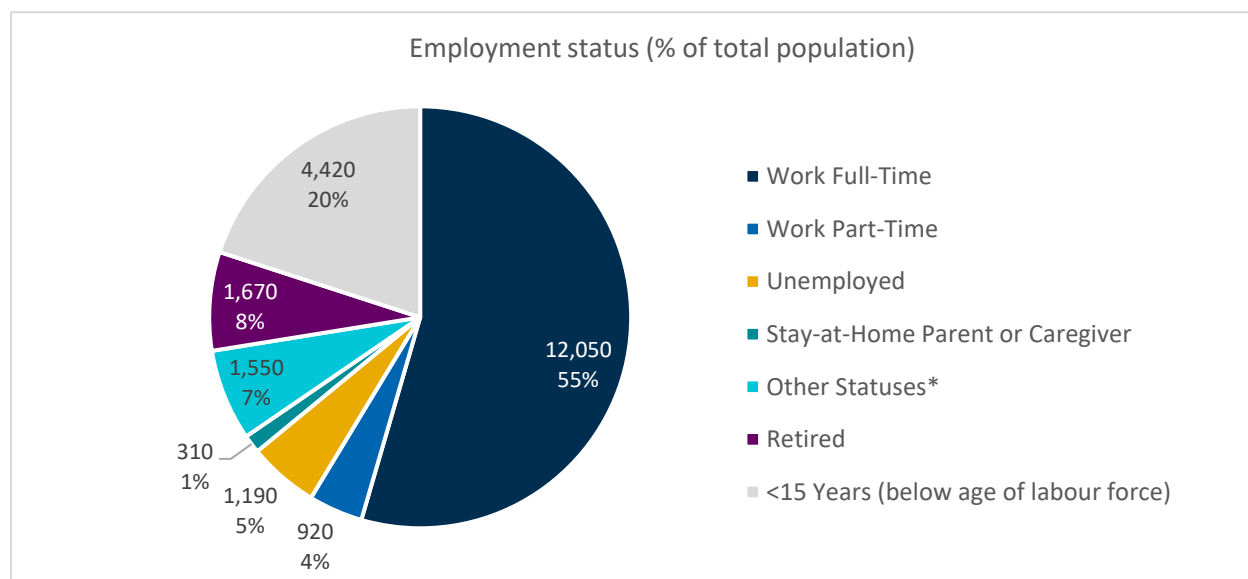
Sample sizes by age/gender groups range from n=47 to n=180.

Caution should be exercised when interpreting results for 13-19 and 70+; sample sizes for each gender in these groups are modest and range from n=47 to n=55.

3.4.4 Occupation Status

Figure 16 provides a breakdown of employment status for the survey population. Overall, 59% of the surveyed population is employed, with 55% full-time and 4% part-time. 20% are under the age of 15, while only 8% are retired. Table 11 shows the detailed breakdown of occupation status, combining the survey responses on questions about employment, student status, or other status. Overall, 22% of the population are students (including K-12 and post-secondary).

Figure 16. Employment Status



* Other statuses: students aged 15+ years who are not working; those on disability supports; on parental leave etc.

Table 11. Detailed Occupation Status

Overall Status	Expanded Count	%
Total	22,100	100%
Employed full-time	11,850	54%
Employed part-time	680	3%
Employed full-time / student part-time	200	1%
Student full-time / employed part-time	200	1%
Student part-time / employed part-time	110	0%
Student full-time	4,180	19%
Student part-time	170	1%
Stay at home parent or caregiver *	310	1%
Unemployed and not looking for work	430	2%
Unemployed and looking for work	750	3%
Retired	1,670	8%
Other status	140	1%
Under 5 years of age	1,410	6%
Subtotals - Employed	13,040	59%
Employed Full Time	12,050	55%
Employed Part Time	990	4%
Subtotals - Students	4,850	22%
Student Full Time	4,380	20%
Student Part Time	470	2%

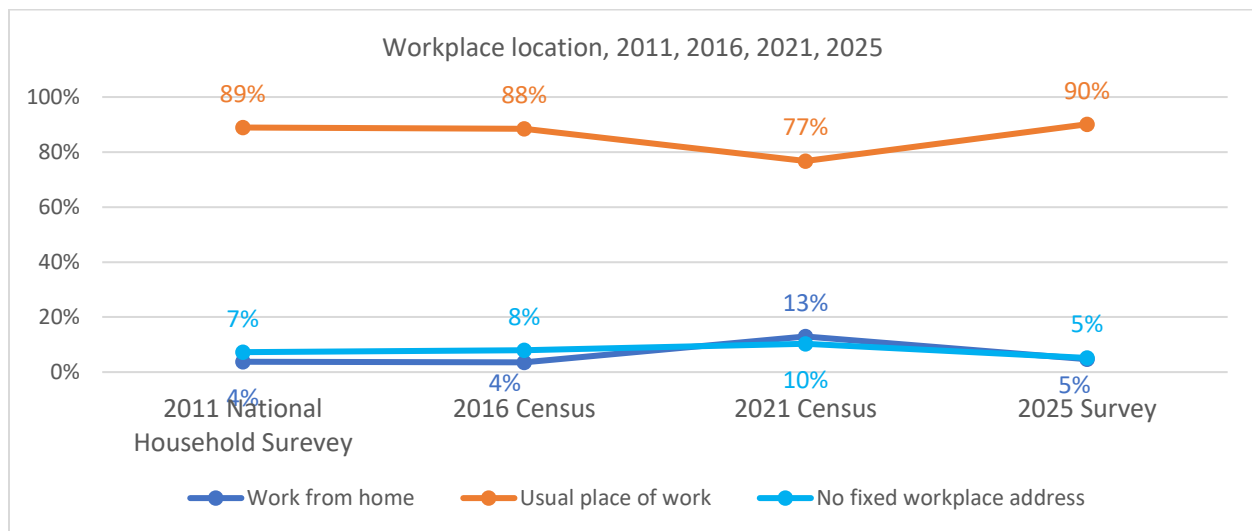
* Stay at home parent or caregiver = primary occupation is care of children or household. Note that some who gave other statuses such as unemployed and other may also stay at home to care for children or others in the household, but are not reported here as having a primary occupation of stay-at-home parent or caregiver.

3.5 Place of Work, Commuting and Telecommuting

3.5.1 Place of Work

Looking at the trend in place of work between 2011 and 2025, the combined proportion of workers who work exclusively from home and those who have no fixed workplace address was relatively stable between 2011 and 2016 (11% and 12% respectively), rose to 23% in 2021 during the COVID-19 pandemic (Figure 17), and has since returned to pre-pandemic levels (10%, which is in the same ballpark as 2016, some of the difference possibly attributable to random sampling). Looking at just the proportion that reported working exclusively from home, this was 4% in 2016, 13% during the pandemic, and 5% in 2025. This bucks the trend observed in many other Canadian jurisdictions, where the proportion of those who report working exclusively from home is considerably higher than pre-pandemic. The difference from 2016 in persons with no fixed workplace could be indicative of a trend, or it could be differences in how people interpreted the questionnaire (i.e., some who would answer 'no fixed workplace' on the Census may have given a 'usual workplace' on the travel survey).

Figure 17. Trend in Place of Work, 2011 - 2025

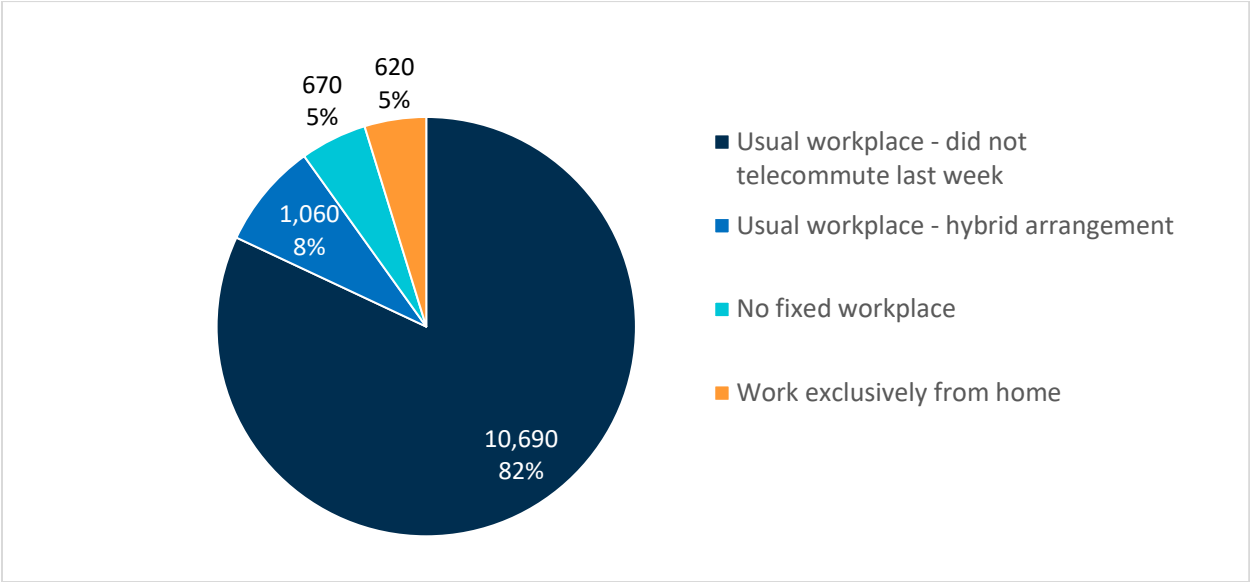


Sources: 2011 National Household Survey, 2016, 2021 Canada Censuses, 2025 Yellowknife Household Travel Survey

Despite the return to roughly pre-pandemic proportions of those with a usual workplace outside the home, shifts in workplace arrangements may go deeper than workplace location, with technological improvements to support remote work prior to and during the COVID-19 pandemic and implemented in many workplaces due to the pandemic. Figure 18 highlights the 2025 Yellowknife HTS results, breaking out those with a usual workplace into those with hybrid work arrangements and those who only commute to work, based on the results of a question asking workers with a usual workplace which days they commuted and telecommuted in the last week. Table 12 breaks out the results further for full-time and part-time workers.

As indicated, close to one in ten (8%) of all workers have hybrid work arrangements (or 9% of those with a usual workplace), meaning that they telecommuted to work instead of travelling to their usual workplace at least one day in the week previous to their survey, which can ease the burden on the transportation network. This is a lower proportion than found in many other Canadian cities in which the same question has been asked as part of a household travel survey (e.g. 21% hybrid work arrangements in Saskatoon, Saskatchewan; 27% in Burnaby, B.C.).¹⁹

Figure 18. Place of Work (including Hybrid Work)



Usual workplace - hybrid arrangement = telecommuted on at least one day in the last week

Table 12. Workplace Location, Full-Time, Part-Time, Total

	Full-time	Part-Time	Total
Usual workplace - did not telecommute last week	10,060	630	10,690
Usual workplace - hybrid last week	980	80	1,060
No fixed workplace	490	190	670
Work exclusively from home	520	100	620
Total Workers	12,050	990	13,040
Usual workplace - did not telecommute last week	84%	63%	82%
Usual workplace - hybrid last week	8%	8%	8%
No fixed workplace	4%	19%	5%
Work exclusively from home	4%	10%	5%
Total Workers	100%	100%	100%

¹⁹ 2023 Saskatoon Household Travel Survey Final Report, August 2024; 2024 Burnaby Household Travel Survey Summary Report, June 2025.

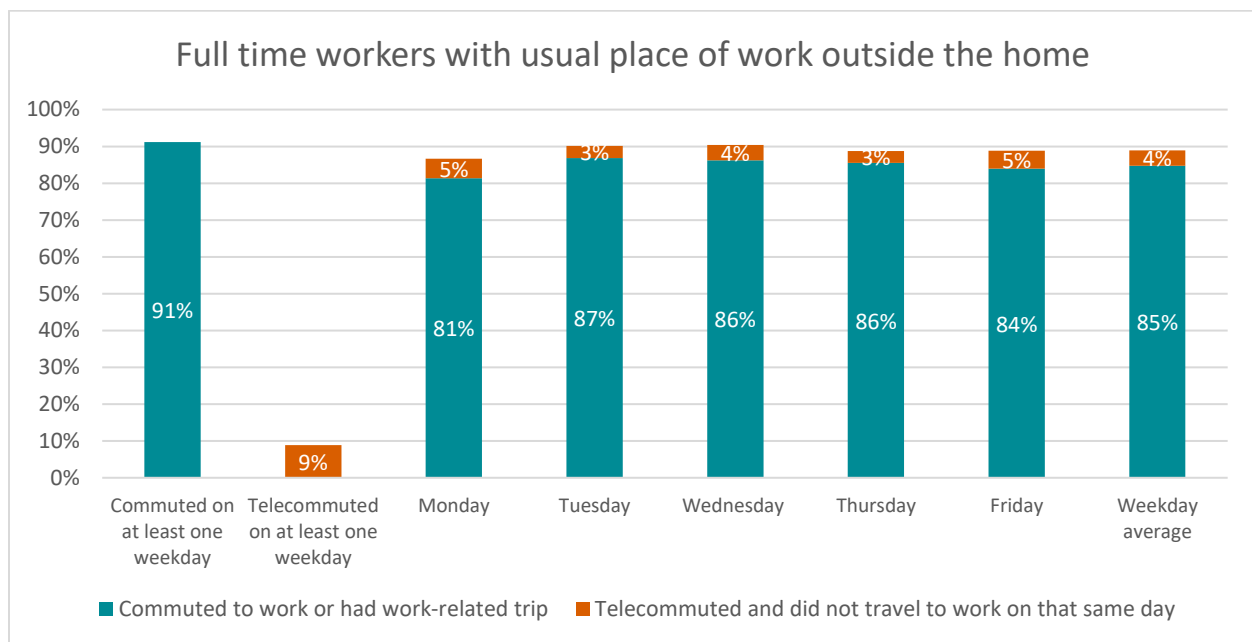
3.5.2 Commuting and Telecommuting (Full Time Workers)

Additional details on the commuting and telecommuting patterns of *full-time workers* with a usual workplace can be found in Figure 19 and illustrate the prevalence of telecommuting.

Of full-time workers with a usual workplace, 91% reported commuting to work on at least one day in the previous week, with the 9% who did not likely either not working due to time off or leave or possibly having liberal hybrid arrangements that seldom require them to be in the office. Overall, 9% of full-time workers with a usual workplace reported telecommuting at least one day in the previous week.

On an average weekday, 4% telecommuted and did not commute to work, with this proportion being highest on Mondays and Fridays (5%), and lower on other weekdays (3%-4%).

Figure 19. Commuting and Telecommuting Patterns by Day of Week – % of Full Time Workers with Typical Workplace outside the Home



Note: if someone reported that they both travelled to or for work and also worked from home on the same day, they were not counted as telecommuting for that day. For the purpose of this analysis, telecommuting considers only working from home for the entire day instead of travelling to or for work.

3.5.3 Workers by Place of Residence and Location of Work

To this point, the discussion has looked at characteristics at the home end: that is, where people live, and where the working population lives, whose habitual commuting patterns have traditionally dominated peak period travel, public transit use and more. Where the workplaces are located – where people work – also shapes commuting choices. Table 13 presents the distribution of workers by place of residence vs. place of work. People who reported that they work from home or who have no fixed workplace location were assigned to their home zone, although it may be noted that those with no fixed workplace location do not necessarily go to worksites within their own home quadrant. Note that as the Yellowknife HTS only surveyed Yellowknife residents, the analysis cannot take into account jobs within Yellowknife held by residents of other cities. Overall, 43% of Yellowknife residents who work reside in the Range Lake / Frame Lake superzone, and 33% in the Frame Lake North / School Draw / Con Mine superzone. In terms of job location, 41% of jobs are located Downtown, while 25% are located in the Rest of Yellowknife superzone, outside the more urbanized part of Yellowknife. Only 2% of jobs held by Yellowknife residents have a usual workplace located outside of Yellowknife. The ratio of jobs (places of work) to resident workers is highest in Downtown and the Rest of Yellowknife (8.15 and 13.24 respectively) and low elsewhere (ranging from 0.15 to 0.38). These results demonstrate that the minority of residents live in the same zone where they work, however, it should be noted that the city is relatively small and, as discussed in the next section, many workers are within distance to use active modes to get to work.

Table 13. Distribution of Workers' Places of Residence and Place of Work by Superzone

	Workers by Place of Residence	%	Place of Work	%	Jobs per resident worker
Survey Total	13,040	100%	13,040	100%	
Yellowknife Subtotal	13,040	100%	12,730	98%	0.98
Downtown	650	5%	5,300	41%	8.15
Frame Lake North / School Draw / Con Mine	4,330	33%	1,630	13%	0.38
Old Town / Niven / N'Dilo	2,090	16%	450	3%	0.22
Range Lake / Frame Lake South	5,620	43%	850	7%	0.15
Rest of Yellowknife	340	3%	4,500	35%	13.24
External Subtotal		0%	310	2%	
External north/east of Yellowknife (e.g. Prosperous Lake, Prelude Lake, Ingraham Trail)			20	0%	
External north/west of Yellowknife (e.g. Behchokǫ, Edzo, etc.)			70	1%	
External rest of NWT			190	1%	
External rest of Canada			20	0%	

*Places of work for residents of Yellowknife only. People who reported that they worked from home, or who have no fixed workplace location, were assigned to their home zone.

Does not include employment in the city for residents of communities outside the study area.

3.5.4 Usual Commute Mode

Table 14 presents the usual mode of travel reported by workers surveyed that have a usual workplace location or who have no fixed workplace address (i.e., excludes people who work exclusively from home). It should be noted that this does not necessarily translate into mode shares on an average day, since on any given day some workers will not be scheduled for work, some will not work due to illness or vacation, some will work from home, and some may choose a different mode than their usual mode. Caution is recommended when comparing these survey results to the Census journey to work data, given that the 2021 Census was conducted during the height of the pandemic. The following observations can be made:

- About six in ten workers who work outside the home rely on auto commutes (54% driver, 7% passenger)
- One-fifth (20%) of workers reported walking and one-tenth (10%) cycle to work. This is a function of the modest size of Yellowknife and of many residents' proximity to their workplaces. The highest active (walk and cycle) proportions were observed for workers living Downtown, with Frame Lake North / School Draw / Con Mine and Old Town/ Niven / N'Dilo both also showing in the area of 4 in 10 workers usually walking or cycling to work.
- Only 3% usually take transit to work.
- One in twenty (5%) reported other modes such as airplane or helicopter, taxi, motorcycle, accessible transit, or other.

As noted above, this does not translate into daily commute mode shares. Mode shares on a typical weekday are explored later in Section 4.4 of this report.

Table 14. Usual Mode of Travel to/for Work by Superzone

	Survey Total	Superzone of residence				
		Downtown **	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife **
Workers*	12,420	630	4,120	1,930	5,460	280
Usual Mode to Work						
Driver	54%	20%	41%	47%	68%	100%
Passenger	7%	2%	7%	8%	8%	-
Transit	3%	7%	3%	0%	3%	-
Bicycle+micromobility	10%	9%	13%	20%	4%	-
Walked	20%	61%	31%	18%	10%	-
Other	5%	2%	6%	5%	6%	-
Subtotals						
Sustainable Modes	33%	76%	47%	39%	17%	0%
Active Modes	30%	69%	44%	38%	14%	0%

Sustainable Modes = Transit + Bicycle/micromobility + Walked; Active Modes = Bicycle/micromobility + Walked

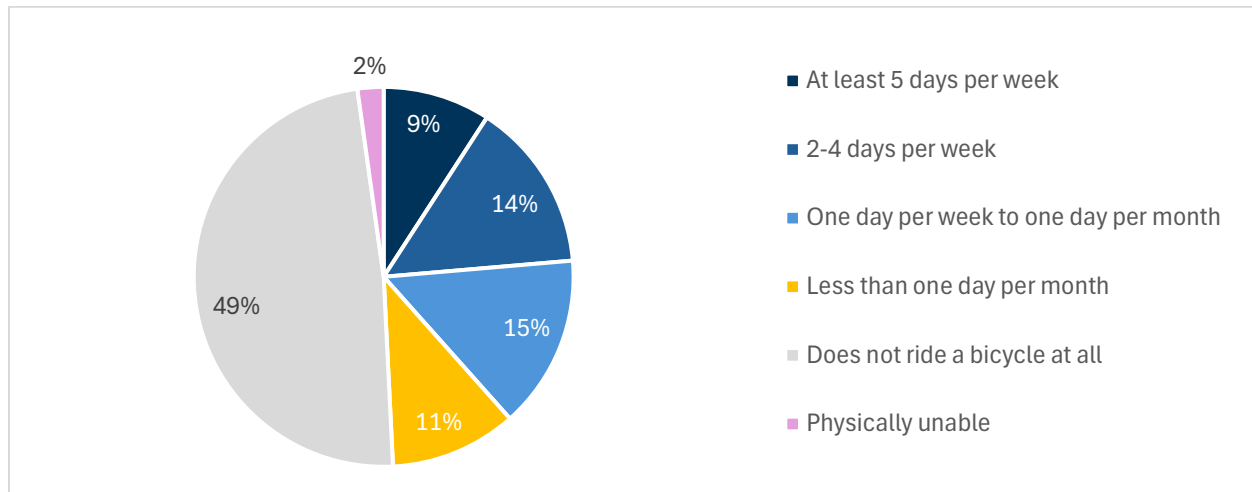
* Workers with usual workplace + workers with no fixed workplace address (excl. those who work exclusively from home)

** Interpret results with caution for Downtown and Rest of Yellowknife due to small sample sizes.

3.6 Reported Frequency of Cycling

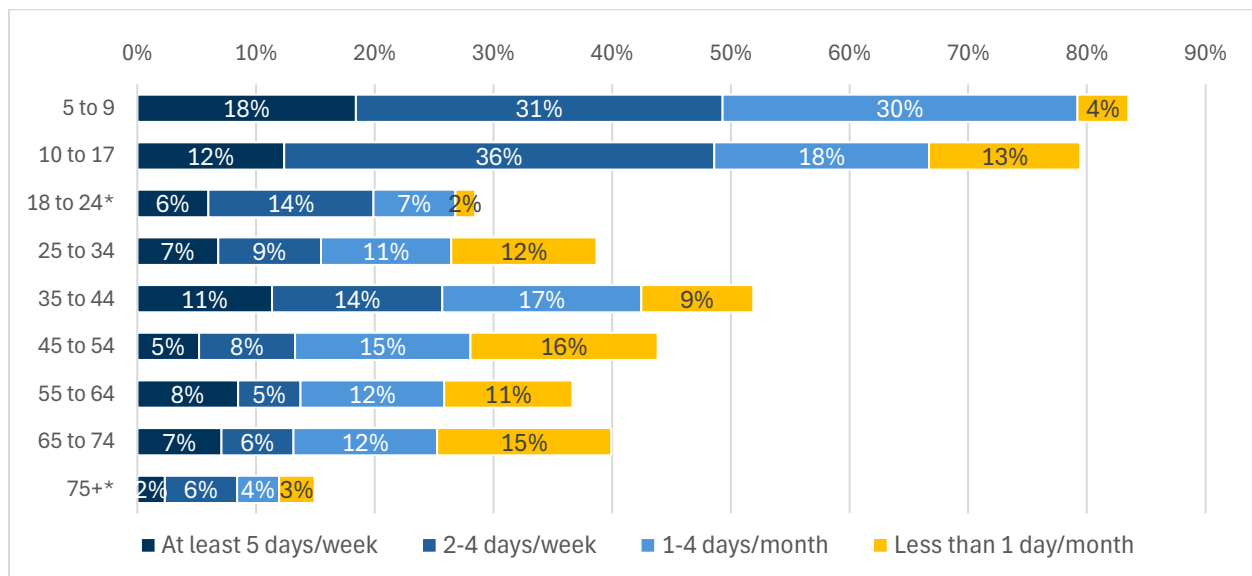
Overall, 38% of surveyed household members over aged 5+ years were reported to cycle at least once per month (Figure 20), with almost one in ten (9%) doing so daily and the others split between 2-4 days per week and one day per week to one day per month (14% and 15% respectively). Results are shown by age group in Figure 21. Readers are reminded that most surveys were conducted in September, when conditions were good for cycling.

Figure 20. Cycling Frequency



% of population 5+

Figure 21. Cycling Frequency by Age Group



Sample sizes range from n=54 to n=339. Percentages for “do not ride a bicycle at all” and “physically unable” are not shown.

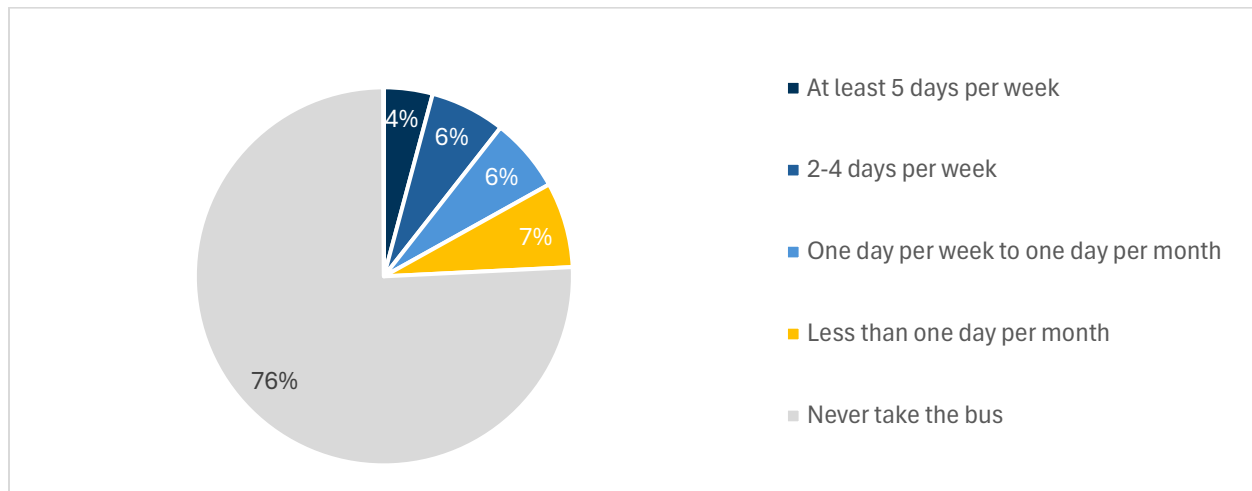
Note that the percentage for physically unable rises is 3% for those 45-54, 6% for 55-64, 8% for 65-74, and 19% for 75+.

*Interpret results for 18-24 and 75+ with caution due to modest sample sizes (n=50, n=54 respectively).

3.7 Reported Frequency of Transit Use

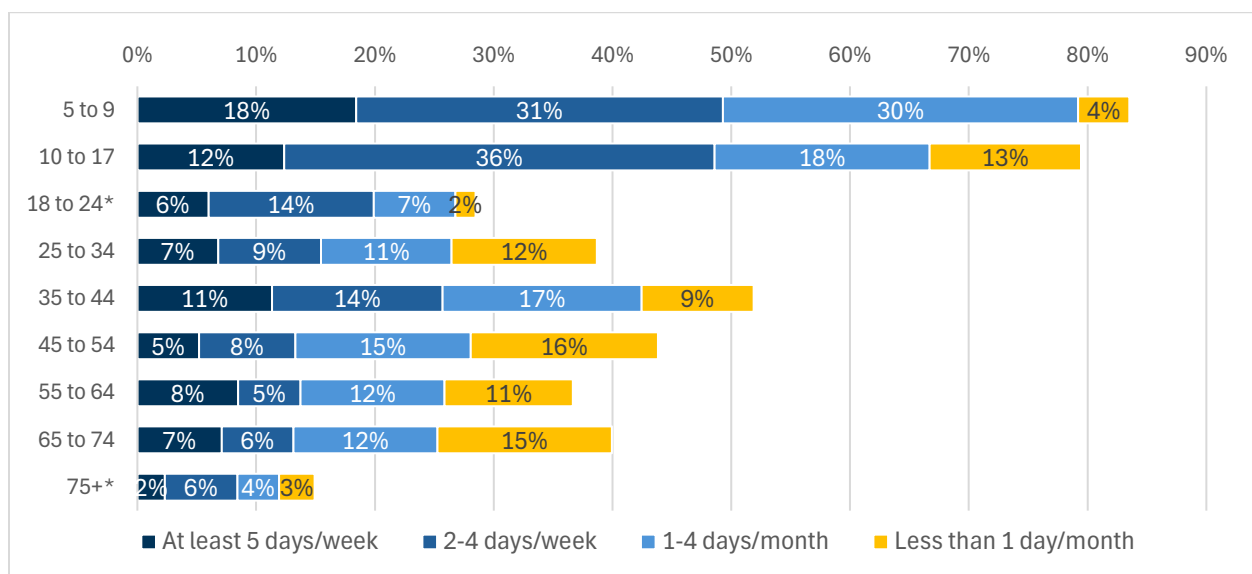
Overall, 38% of surveyed household members over aged 5+ years were reported to cycle at least once per month (Figure 22), with almost one in ten (9%) doing so daily and the others split between 2-4 days per week and one day per week to one day per month (14% and 15% respectively). Results are shown by age group in Figure 23.

Figure 22. Frequency of Transit Use



% of population 5+

Figure 23. Transit Use Frequency by Age Group



Sample sizes range from n=54 to n=339. Percentages for “never take the bus” are not shown.

*Interpret results for 18-24 and 75+ with caution due to modest sample sizes (n=50, n=54 respectively).

4 TRAVEL CHARACTERISTICS

This section of the report presents trip characteristics for the weighted data. Trip details were collected from household members who were 5 years of age or older (referred to elsewhere as “persons 5+”). The first part of this section covers trip characteristics with respect to household and demographics followed by sections describing trips rate by mode, purpose, number of passengers in vehicle, distance travelled, origin-destination flows, and other travel characteristics of interest. 2025 is a baseline survey year against which the results for future surveys will reveal trends in travel patterns.

Important note on interpreting the survey results

Readers are reminded that expanded counts from the survey are estimates based on weighted survey sample of 8.2% of households expanded to represent the size of the population, and should not be taken to be exact counts. Overall trip-level results are subject to a margin of error associated with random sampling of $\pm 3.3\%$ at a 95% confidence level.

Household- and person- level results are usually rounded to the nearest 10 and trip level results. Trip-level results are sometimes rounded to the nearest 10 and sometimes to the nearest 100. Due to rounding, occasionally the sum of individual rounded results may not always add to the rounded total listed. Due to rounding, the percentages presented for individual response categories may not always sum to 100%.

4.1 Total Trips and Trip Rates by Demographic Characteristics

The expanded survey results suggest that residents of the City of Yellowknife make about 555,200 trips per day (as of late Fall 2025, the time of the survey). As illustrated in Table 15, the average daily trip rate for residents of the City of Yellowknife is 3.01 trips per person, which is slightly lower than 2008 rate of about 3.17 trips per person, a decrease of 5%. Factors such as the COVID-19 pandemic or other trends may have had an impact on or accelerated shifts in travel behaviours, such as possible increases in online shopping, grocery deliveries, restaurant deliveries and/or engagement in social and recreational activities.

Trip rates are presented by household size in Table 16, dwelling type in Table 17, household income in Table 18, and household type in Table 19. Blue shading has been used to highlight trip rates that are above average.

Table 15. Average Daily Trips per Household and per Person

Year	Households	Persons 5+ Years	Total Daily Trips	Avg. Daily Trips Per Household	Avg. Daily Trips per Person 5+
2025	8,460	22,100	62,200	7.35	3.01

Table 16. Total Daily Trips and Trip Rate by Household Size

Household Size	Total Daily Trips	Household Trip Rate	Trips per Person 5+
1 person	6,700	3.26	3.26
2 people	15,800	6.12	3.07
3 people	11,900	7.87	2.84
4 people	17,400	11.91	3.26
5+ people	10,400	12.28	2.62

Table 17. Total Daily Trips and Trip Rate by Dwelling Type

Dwelling Type	Total Daily Trips	Household Trip Rate	Trips per Person 5+
House	32,900	8.91	3.17
Apartment 5+ storeys	1,700	4.76	2.52
Apartment <5 storeys	11,900	5.24	2.83
Other Ground-Oriented	15,700	7.34	2.89

Table 18. Total Daily Trips and Trip Rate by Household Income

Household Income	Total Daily Trips	Household Trip Rate	Trips per Person 5+
Under \$35,000	1,400	2.64	1.44
\$35,000 to \$59,999	3,600	6.64	3.05
\$59,000 to \$99,999	5,800	5.47	2.84
\$100,000 to \$125,999	5,100	5.72	2.73
\$125,000 to \$149,999	4,400	6.35	3.04
\$150,000 to \$199,999	11,500	8.77	3.38
\$200,000 and above	24,500	9.77	3.42
Don't Know / Refused	5,900	6.46	2.27

Table 19. Total Daily Trips and Trip Rate by Household Type

Household Type	Total Daily Trips	Household Trip Rate	Trips per Person 5+
Single person	6,900	3.34	3.34
Two adults, no children	14,700	6.11	3.05
Three or more adults, no children	8,400	7.83	2.26
Single parent, one or more children 0-17 yrs	2,200	7.20	2.75
Two adults, one or more children 0-17 yrs	26,700	12.47	3.65
Three or more adults, one or more children 0-17 yrs	3,700	8.07	1.90

The following charts and tables illustrate trip rates by key demographic characteristics (age and employment status). The survey results suggest that people between the ages of 35 to 74 have the highest trip rates, with peak trip rates between the ages of 35 and 44 (Figure 24). This stands to reason as people in these age ranges are more likely to be in their prime productive years and/or have families with children (who often require driving passengers to/from school and activities). Breaking this out by gender (Figure 25) reveals that women have notably higher trip rates than men between the ages of 10 to 24 but notably lower than men above the age of 55. Workers average 2.40 trips per day, whereas retired people average 2.09 trips per day, while unemployed people average only 1.34 trips per day (Table 20).

Figure 24. Trip Rates and Cumulative Daily Trips by Age Group

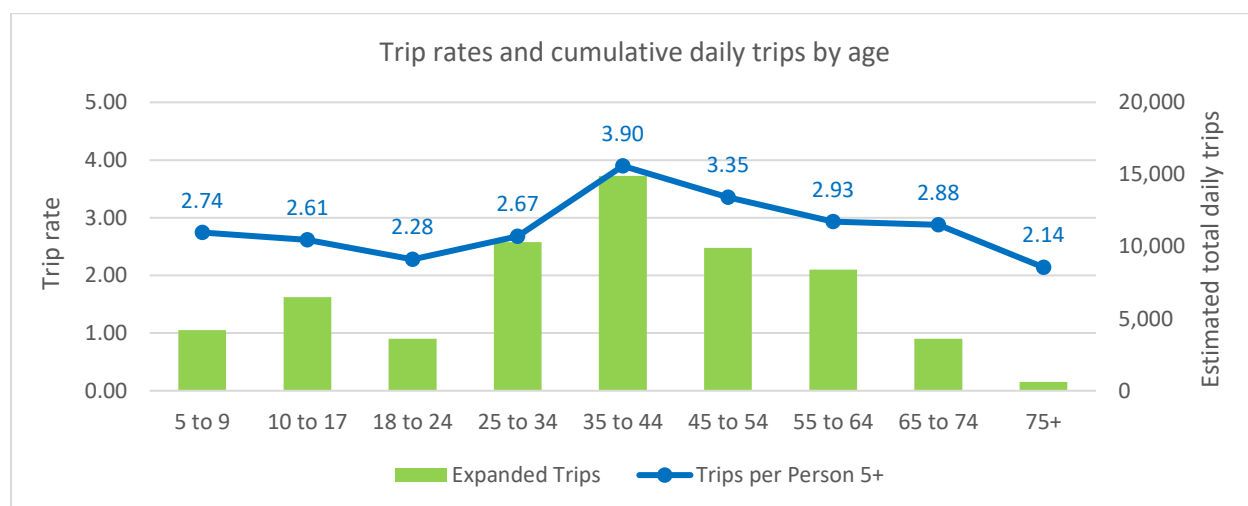


Figure 25. Trip Rates and Cumulative Daily Trips by Age Group and Gender

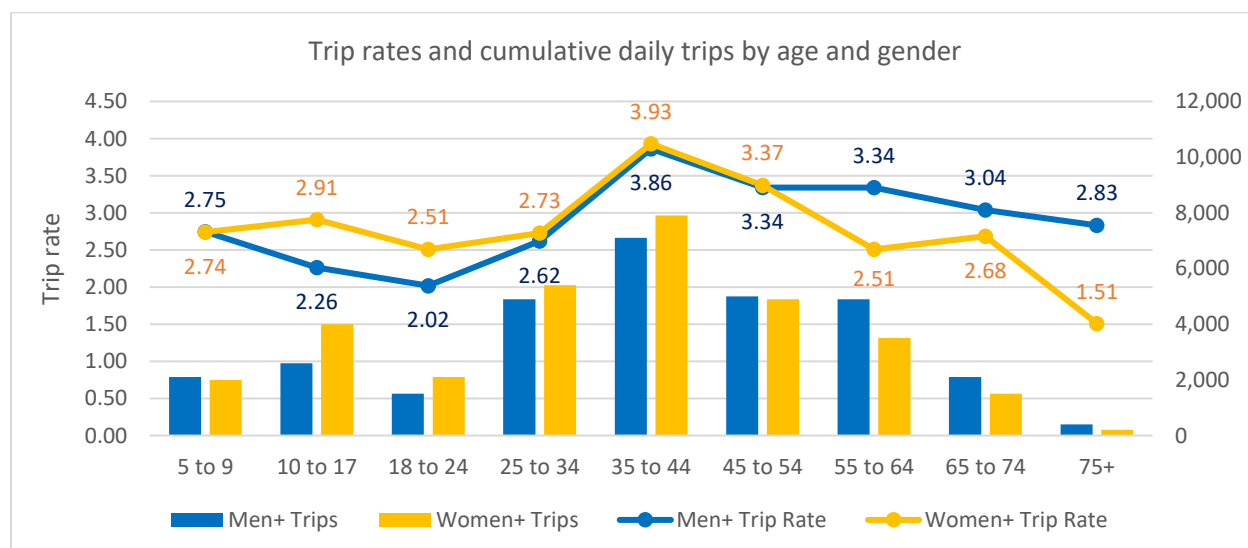


Table 20. Total Daily Trip and Trip Rate by Employment Status

Occupation Status	Expanded Trips	Trips per Person 5+
Work Full-Time	41,300	3.43
Work Part-Time	3,200	3.46
Unemployed	900	1.16
Other (includes students 15+ who do not work)	4,700	2.07
Retired	4,200	2.51
Not applicable (5-14 yrs)	7,900	2.64

4.2 Comparison with Other Jurisdictions

Table 21 compares daily person and household trip rates from the 2025 Yellowknife Household Travel Surveys with selected rates from recent surveys in several other urban regions. The comparison serves to validate these key travel characteristics, both current and as they have evolved before and through the pandemic. All sources are publicly available or used with permission, although not all information was available.

Before 2025, the last household travel survey conducted in Yellowknife was in 2008. As limited documentation of the 2008 survey is available, the trip rates could only be estimated based on available unweighted survey data. It appears that the 2025 trip rates are modestly lower than in 2008. This is consistent with a general reduction in trip rates observed in many jurisdictions over the past two decades (even before the COVID-19 pandemic) that may in part be attributed to shifts in age demographics, shifts in types of work, the rise of streaming media, online shopping, technological improvements that enable work from home, and other socio-economic trends.

Comparing with other municipalities, while the trip rates vary by municipality, the comparison shows that Yellowknife's person and household trip rates are generally higher than other cities using the same survey methods (method "A" in the table; caution should be exercised when comparing to other methods). This may be the product of multiple factors; however, it is likely that type of work (e.g., proportion of office jobs vs. other types of work) and working arrangements may have a good deal of influence on this. Compared to the other municipalities featured, Yellowknife has generally fewer people who work exclusively from home (with levels having returned to very close to pre-pandemic levels), and fewer people with workplaces outside the home who have hybrid work arrangements (i.e., who telecommute at least one weekday per week in place of travelling to work), and only a small percentage telecommuting each day. Many of the other municipalities with household travel surveys completed since 2022 have not returned to pre-COVID pandemic levels of workers who work at a usual workplace, to varying degrees they tend to have higher proportions of workers who have adopted hybrid work arrangements; in the table, this is evidenced in the post-pandemic drops in trip rates observed in these municipalities.

Table 21. Comparison of Trip Rates

City	Year of Survey	Daily Person Trip Rate	Daily Household Trip Rate	Population	Method
City of Yellowknife Household Travel Survey	2025	3.01 (persons 5+)	7.35 (trips by those 5+)	22,100	A
	2008	~3.17 (persons 11+; unweighted)	~7.64 (trips by those 11+; unweighted)	19,000	A
Regina CMA	2024	2.67	6.11	252,500	A
	2009	3.37	--	203,400	A
City of Red Deer	2024	2.48	5.67	94,100	A
	2016	2.83	6.55	91,900	A
City of Burnaby	2024	2.28	5.26	253,780	A
City of Kingston	2024	2.69	5.66	157,600	A
	2019	2.98	6.43	139,600	A
City of Saskatoon	2023	2.74	5.60	281,700	A
	2008	3.29	7.42	218,800	A
City of Coquitlam	2022	2.41	6.04	140,600	A
Greater Montréal Region **	2023	2.01	4.46	4,674,080	A
	2018	2.22	4.97	4,474,180	A
	2013	2.30	5.13	4,287,630	A
	2008	2.16	--	3,939,760	A
NCR (Ottawa-Gatineau)	2022	2.47	5.23	1,365,600	A
	2011	2.69	5.70	1,233,800	A
	2005	2.78	6.03	1,150,600	A
Greater Toronto and Hamilton Area ***	2022 5+	2.10	5.27	7,154,600	B
	2022 11+ [†]	1.96	4.61		C
	Fall 2021 ^{††}	--	2.60	--	G
	2016	2.22	5.24	6,813,900	C
	2011	2.36	5.76	6,577,200	C
	2006	2.40	5.67	5,871,900	C
	1996	2.42	5.58	4,926,400	C
	1986	2.36	5.57	4,062,900	C
Québec-Lévis Region	2017	2.57	--	841,404	A
	2011	2.40	--	827,929	A
	2006	2.73	--	743,392	A
TransLink Regional Trip Diary – Burnaby Result	2023	2.86	--	not published	E1
	2017	2.99	--	not published	E1
	2011	2.93	--	not published	D

City	Year of Survey	Daily Person Trip Rate	Daily Household Trip Rate	Population	Method
TransLink Metro Vancouver Regional Trip Diary – Vancouver Result	2023	3.11	--	not published	E1
	2017	3.27	--	not published	E1
	2011	2.94	--	not published	D
Capital Regional District (Victoria region)	2022	2.63	5.23	394,000	A
	2017	3.20	6.35	363,300	A
	2011	3.30	6.58	338,000	A
Central Okanagan (Kelowna region)	2018	3.02	6.67	237,250	A
	2013	3.22	7.14	220,470	A
	2007	3.37	7.63	198,870	A
City of Edmonton	2015	3.51	8.54	894,400	D
	2005	3.63	8.57	712,400	D
City of Vancouver ‡	2025	3.17	--	714,600	F
	2023	3.03	--	687,700	F
	2022	2.90	--	674,100	F
	2021	2.85	--	663,900	F
	2020	2.71	--	--	F
	2019	3.73	--	--	F
	2018	3.76	--	--	F
Vancouver North Shore Municipalities ‡‡ (individuals 15+ years)	2023	3.12	--	200,400	F
	2021	3.13	--	196,360	F
	2019	3.66	--	189,390	F

Methods:

A = similar method to Yellowknife HTS: 24-hour recall, address-based sampling for recent cycles, trips captured for persons 5+ years of age. A trip can have multiple modes. Note that the 2008 Yellowknife survey, conducted in December 2008, only captured trips between 7:00 a.m. and 7:00 p.m.

B = 24-hour recall, but slightly different trip definition. TTS asks respondents to exclude short stops of less than 15 minutes along a longer trip, e.g., stopping at a gas station or drive-through restaurant).

C = 24-hour recall, but trips only captured for persons 11+ years of age.

D = trip diary method (recruit respondent, assign travel day, provide diary, report back).

E1 = mix of smart-phone app and online surveys, applies an adjustment factor to boost trip rates for online surveys (TransLink 2023).

F = similar method of sampling and completion but restricting to a single individual in each household (results are for adults 18+ or persons 15+).

G = other / unknown.

Notes:

2008 Yellowknife trip rates are estimated based on available unweighted data and should be interpreted with caution. The 2008 survey captured trips between 7:00 a.m. and 7:00 p.m., so trip rates are missing the contribution of trips outside of this period (which were likely only a small portion of total daily trips, particularly given the limited hours of daylight and typical weather conditions in December).

* In some jurisdictions, the Study Areas varied between surveys.

** Trips per person aged 5+. Sources: *Enquête origine-destination 2023, La mobilité des personnes dans la région métropolitaine de Montréal*, ARTM, 2025, and previous reporting for 2008 to 2018.

*** Transportation Tomorrow Survey (TTS) results are for trips per person aged 11+ unless otherwise noted. The TTS trip definition in all survey cycles does not include incidental stops of less than 15 minutes (such as stopping for gas or a drive-through coffee) on the way to a main destination. In 2016 and earlier cycles, non-commute walk trips were not captured, and the age for trip capture was 11+ years. In 2022, trips for persons 5+ and non-commute walking trips were captured.

Sources: RA Malatest, *TTS 2022: 2016, 2011, 2006, 1996 and 1986 Travel Summaries for the Greater Toronto & Hamilton Area*, MTO. To be published in 2025.

† 2022 TTS 11+ statistic is for comparability to previous TTS survey cycles. It filters the 2022 result to ages 11+ years and filters out non-commute walking trips that would not have been captured in 2016 and earlier cycles.

†† Very small sample. Unweighted results. Source: *COVID-19 influenced Households' Interrupted Travel Schedules (COVHITS) Survey: Fall 2021 Cycle Report*, University of Toronto, December 31, 2021.

‡ Small sample (panel survey) of adults 18+ years of age. Source: *2022 Vancouver Transportation Fall Survey, Final Report*, City of Vancouver, July 2023. Population listed is total population of all ages.

‡‡ Small sample (panel survey) of persons 15+ years of age in City of North Vancouver, District of North Vancouver, and District of West Vancouver, Source: 2023 North Shore Transportation Survey. Population listed is total population of all ages.

Other sources:

- TransLink Metro Vancouver Regional Trip Diary interactive dashboards for 2023, 2011, and 2011, results for City of Yellowknife. (<https://www.translink.ca/plans-and-projects/data-and-information/research-and-insights>).
- *Enquête origine-destination 2017, La mobilité des personnes dans la région de Québec-Lévis, Faits saillants*, MTMD, 2019.
- City of Red Deer, City of Regina, and City of Kingston, as-yet unpublished data from household travel surveys, used with permission of the client.
- City of Coquitlam 2022 Coquitlam Household Travel Survey Arc GIS Online results portal (<https://experience.arcgis.com/experience/64d3b70b2707497199281c76ec34da0a>)
- RA Malatest with David Kriger Consultants Inc., *2015 Edmonton and Region Household Travel Survey, Summary Report*, City of Edmonton, 2018.
- RA Malatest with David Kriger Consultants Inc., *Capital Region District (CRD) Origin Destination Household Travel Survey 2022, Final Report*, September 2023.

4.3 Trips by Hour of Day

Figure 26 illustrates the hourly volumes of total person-trips by all modes as estimated from the survey results. Figure 27 illustrates the estimated hourly volume of vehicle trips (those reported with a primary mode of auto driver). In both charts, green shading is used to highlight the hours that fall within the peak periods, with periods defined as follows based on the trip departure times reported on the survey:

• AM Peak	700 to 859	7:00 a.m. to 8:59 a.m.	2 hours	15,100 trips
• Midday	900 to 1459	9:00 a.m. to 2:59 p.m.	6 hours	15,000 trips
• PM Peak	1500 to 1759	3:00 p.m. to 5:59 p.m.	3 hours	21,100 trips
• Evening /Overnight	1800 to 659	6:00 p.m. to 6:59 a.m.	13 hours	11,000 trips

As illustrated, the morning has a very narrowly defined AM Peak between 7:00 a.m. and 9:00 a.m. (2 hours), while the afternoon is also well defined between 3:00 p.m. and 5:59 p.m., corresponding to the times of work and school commutes. Looking at vehicle trips (those reported with primary mode of auto driver) reveals the same general pattern, with the exception that the volume of auto driver trips in the hour starting at 3:00 p.m. is proportionately lower. While this hour is busy in terms of person trips, many of them are school commutes either as auto passengers or via non-auto modes, therefore, vehicle trips only increase modestly above the volume observed in the preceding hour starting at 2:00 p.m.

Closer examination of the data aggregated by 15-minute interval (time of departure) revealed that the *AM peak hour* for both total trips and auto driver trips is 7:30 to 8:29 a.m., with about 12,200 person-trips and 5,600 vehicle trips. The *PM peak hour* for total trips is 4:15 to 5:14 p.m. (almost 8,900 person-trips) and for vehicle trips is 4:30 to 5:29 p.m. (5,300 auto driver trips).

Readers are reminded that the survey only captured personal trips of residents in Yellowknife. While it captured trips to and from work or for occasional work-related purposes like business meetings and errands, it did not capture the commercial trips made by professional drivers such as taxi drivers, delivery drivers, truck drivers, etc.

Figure 26. Hourly Trip Volumes (Total Person-Trips)

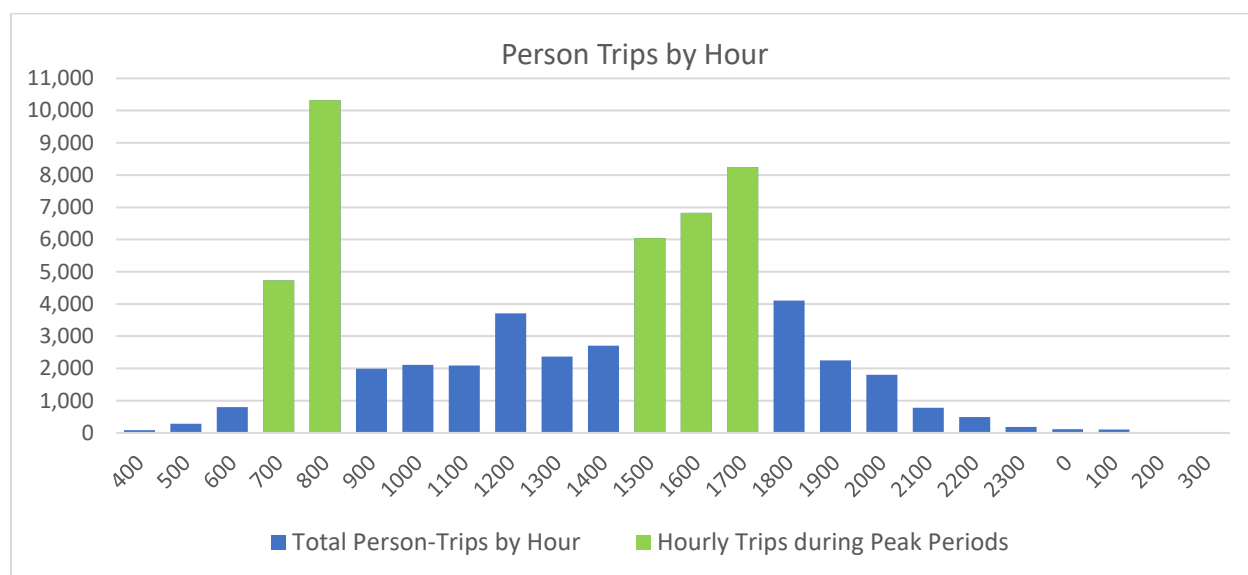
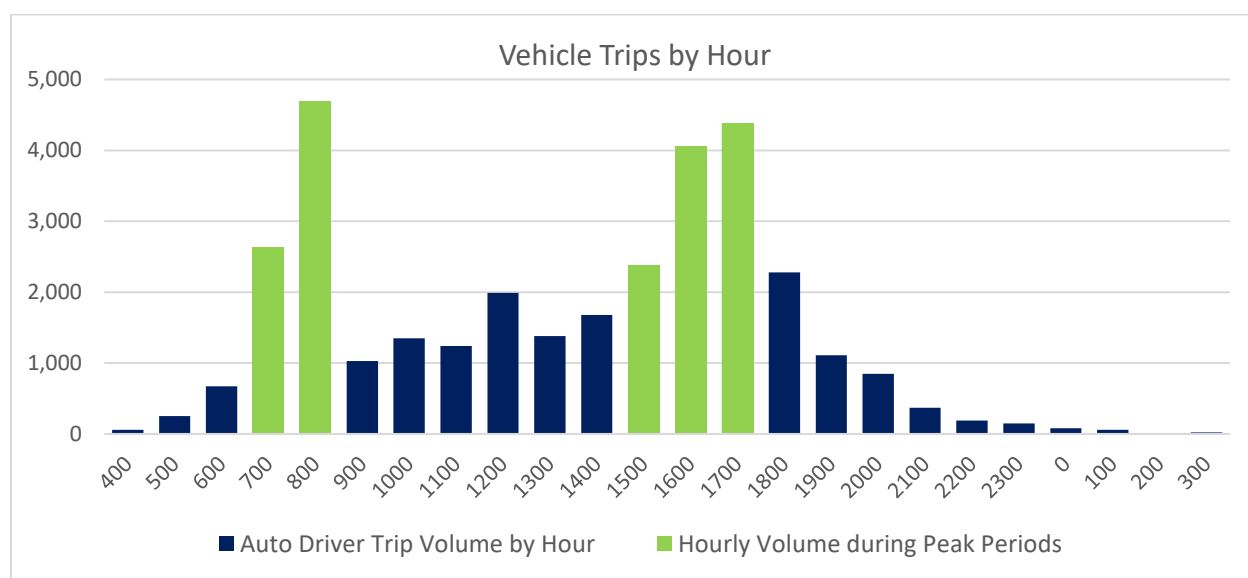


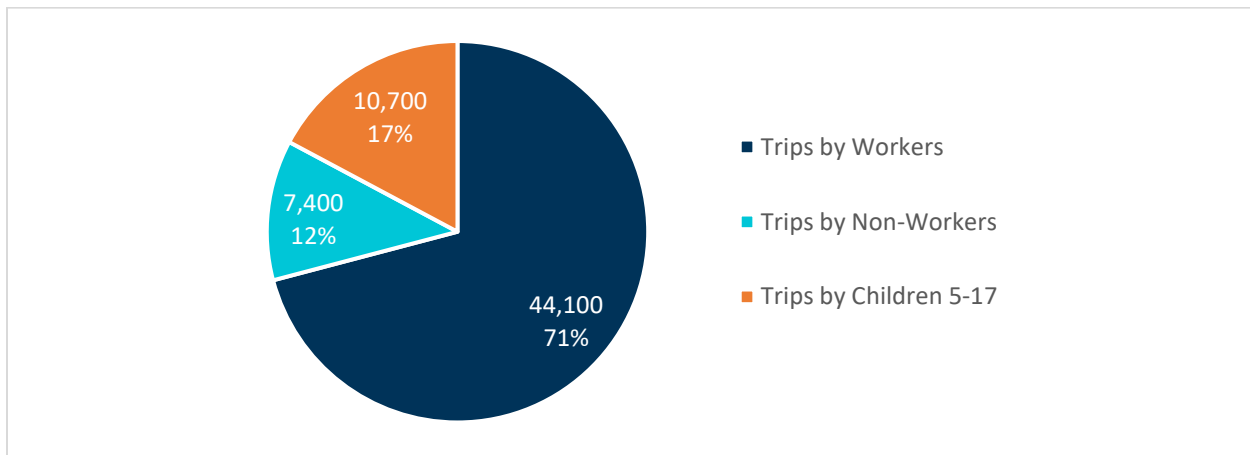
Figure 27. Hourly Vehicle Trips (Auto Driver Trips)



4.4 Trips by Worker Status (Adults 18+ Years)

Figure 28 illustrates the estimated number and proportion of trips made each day by adult workers, adult non-workers, and children 5 to 17 years of age. Overall, 71% of all Yellowknife resident's daily trips are made by workers. Non-workers make 12% of the trips and children between the age of 5 and 17 make 17% of the trips.

Figure 28. Trips by Worker Status



Details on trip volumes by time of day by work status can be found in Figure 29. The Percentage of trips by time of day by work status is shown in Figure 30. Looking at the daily trips by hour of day for the different population groups:

- Workers' trips peaked in the hours starting at 8:00 a.m. and 5:00 p.m. with decent numbers of trips between the peak periods.
- Children between ages of 5 to 17 have sharp peaks in trips in the hours starting at 8:00 a.m. and 3:00 p.m. with very few trips in between the peak periods and some trips after 5:00 p.m.
- Non-workers have trips that are more spread out throughout the day, with a peak in the hour starting at 3:00 p.m., which could be contributed to in part by non-workers picking up children from school.

Readers are again reminded that the survey only captured personal trips of residents in Yellowknife, but not commercial trips made by professional drivers.

Figure 29. Volume of Trips by Time of Day by Worker Status

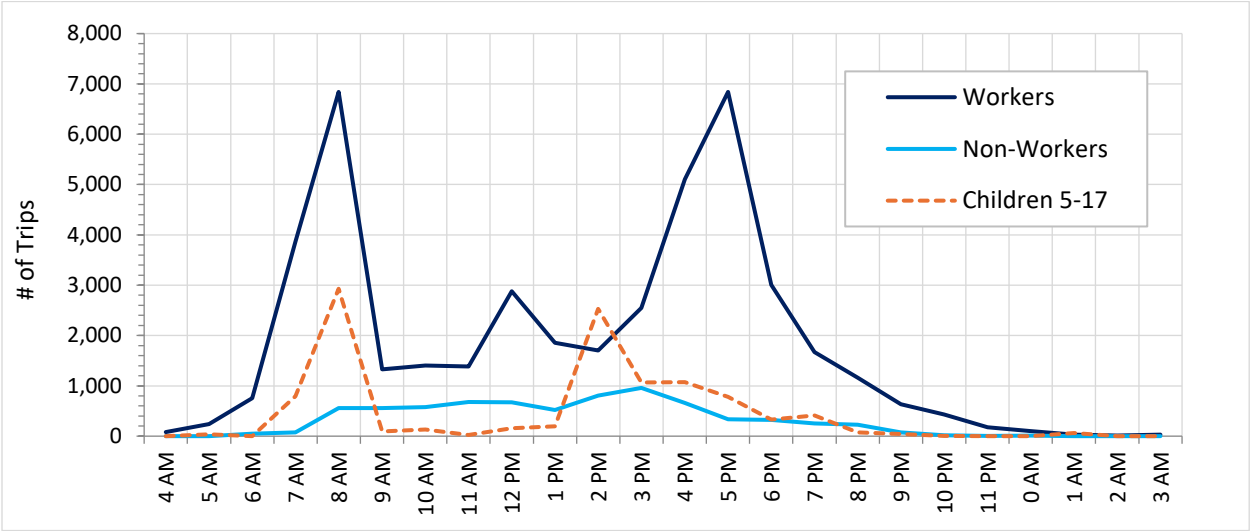
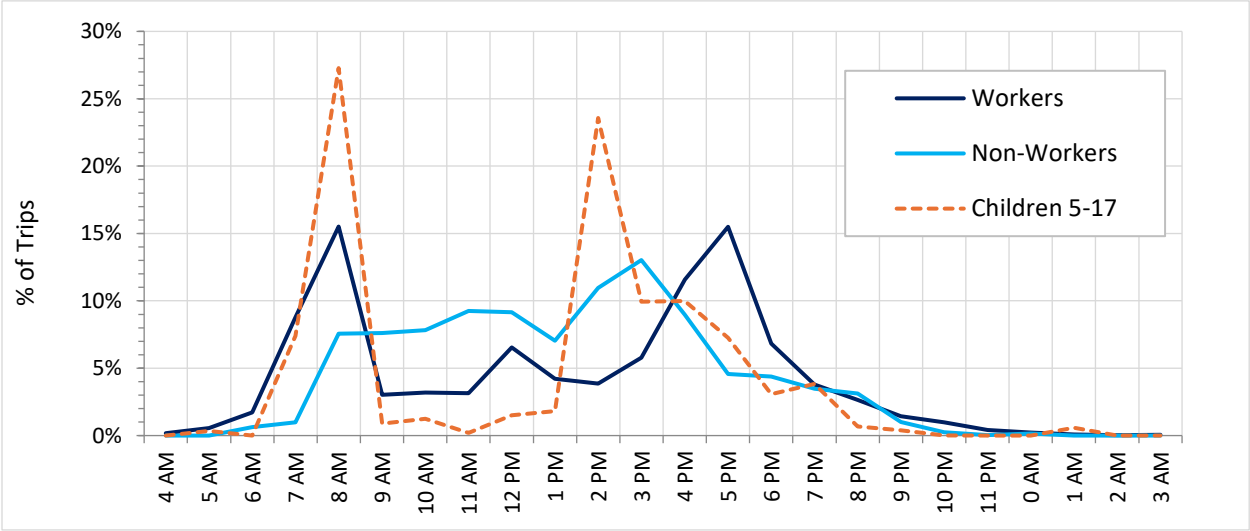


Figure 30. Percent Daily Trips by Time of Day by Worker Status



The denominator for the hourly percentages for each population group is the total daily trips for the given population group.

4.5 Primary Mode

This section describes daily mode shares. For analysis, detailed modes collected were grouped as follows below. In instances where more than one mode was used in a trip, the primary mode was assigned to the trip according to a hierarchy of modes based on which modes are most likely to be the longer part of a trip. For example, in a park-and-ride trip (automobile then transit), the primary mode assigned was transit.

Mode group	Modes included
Auto driver	auto driver
Auto passenger	auto passenger
Transit	transit bus
School bus	yellow school bus (does not include trips via YK transit bus used to get to school)
Bicycle + micromobility	Bicycle, e-bike (power-assisted bicycle with pedals), e-scooter or other electric micromobility device (e-skateboard, hoverboard, e-unicycle/mono-wheel, throttle e-bike that does not require pedalling), other micromobility (skateboard, kick scooter, longboard, roller blades, unicycle, or other human-powered device)
Walk	walked (including jogging), assisted mobility device (wheelchair, mobility scooter)
Other	motorcycle or motor scooter, taxi or limousine

4.5.1 Daily Mode Shares

Figure 31 presents daily mode shares. Automobile trips dominate, with 53% of all person-trips being made by auto drivers, and 15% as auto passengers. Walking mode share is the second highest, accounting for almost 19% of trips. Bicycles and micromobility mode share are at 8%, while bus and school bus trips each account for 2%.

Table 22 presents mode shares by detailed mode, along with expanded trip volume estimates from the survey. Examining the disaggregated bicycle/micromobility modes within mode groups reveals that 83% of trips in this group are via conventional bicycle, 13% via e-bike, 4% via e-scooter or other micromobility device, trips almost no trips reported via skateboard or other human-powered device. Of interest, while e-bikes account for only 3% of total household bicycles/micromobility devices (or 4% of adult bicycles), they account for 13% of all bicycle/micromobility trips, suggesting that e-bike owners purchase them intending to use them on a daily basis and continue to do so after purchase. Note that e-micromobility devices account for 3% of total household bicycles/micromobility devices and 4% of bicycle/micromobility devices, which is more proportionate.

Figure 31. Daily Mode Shares

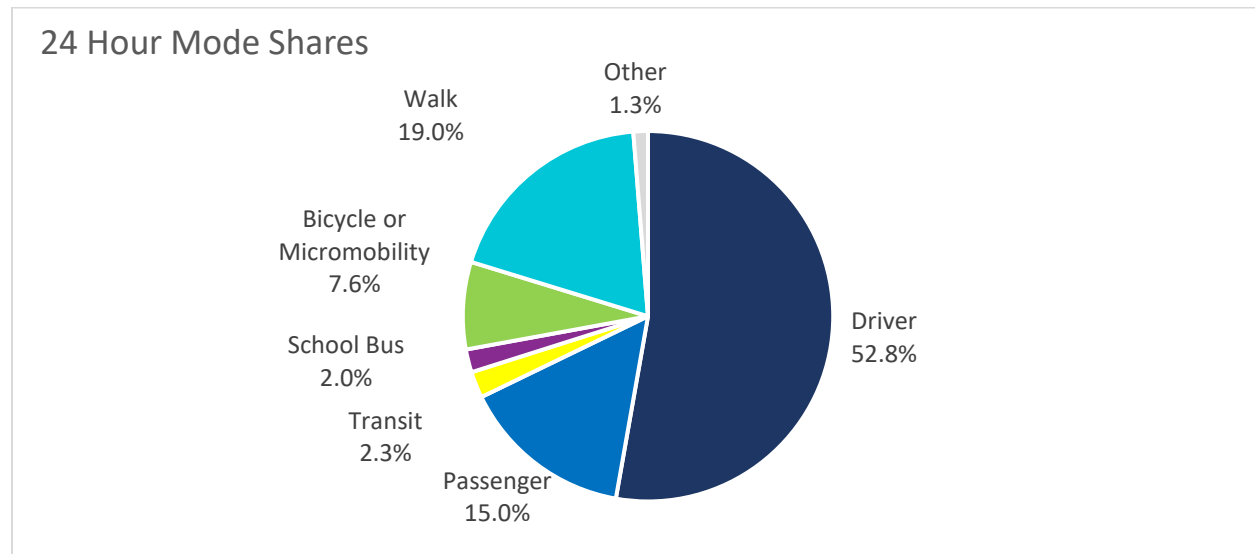


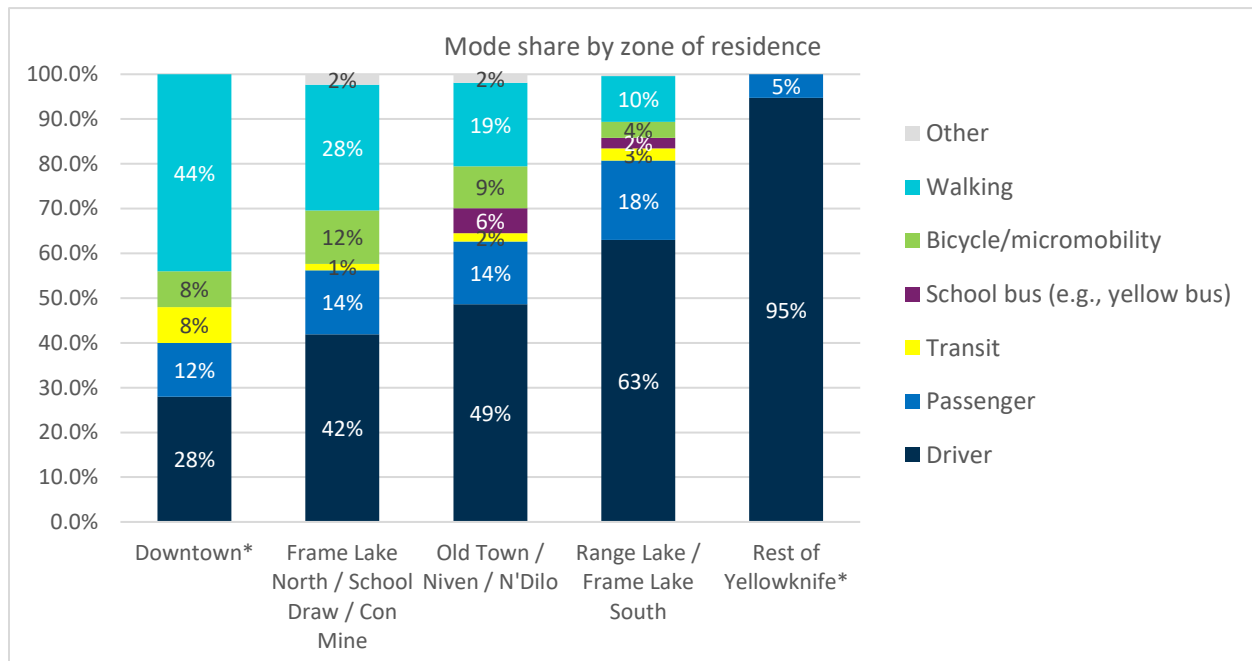
Table 22. Daily Mode Shares – Detailed Breakdown

Mode Group	Detailed Primary Mode	Expanded 24-Hour Trips	Mode Share
Driver	Driver	32,830	52.8%
Passenger	Passenger	9,350	15.0%
Transit	Transit	1,430	2.3%
School Bus	School Bus	1,250	2.0%
Bicycle + Micromobility (total: 4,740, 7.6%)	Bicycle	3,940	6.3%
	E-Bike	610	1.0%
	E-scooter or other e-micromobility	170	0.3%
	Skateboard or other human-powered device	20	0.03%
Walk	Walk	11,810	19.0%
Other (total: 790, 1.3%)	Motorcycle or Moped	130	0.2%
	Taxi or Limousine	370	0.6%
	Accessible transit (YKFlex)	70	0.1%
	Other	220	0.4%

4.5.2 Mode Shares by Zone

Figure 32 presents mode shares for residents of the five superzones. Results for Zone 1 Downtown and Zone 5 Rest of Yellowknife should be interpreted with caution due to small sample sizes, although the mode shares reported by residents surveyed are consistent with expectations for these areas, with those living in the downtown area more likely to walk (due to proximity to jobs, amenities, and services), and those living outside of the urban area relying exclusively on travel via automobile.

Figure 32. Mode Shares by Superzone



*interpret results for Downtown and Rest of Yellowknife with caution due to smaller sample sizes

4.5.3 Mode Shares by Hour

Figure 33 presents survey estimates for volumes of trips by mode by hour across 24 hours, while Table 23 provides detail of the mode shares by hour.

Mode shares for school bus, bicycle/micromobility and transit volumes are notably higher during peak commuting hours

Figure 33. Mode Volumes by Hour

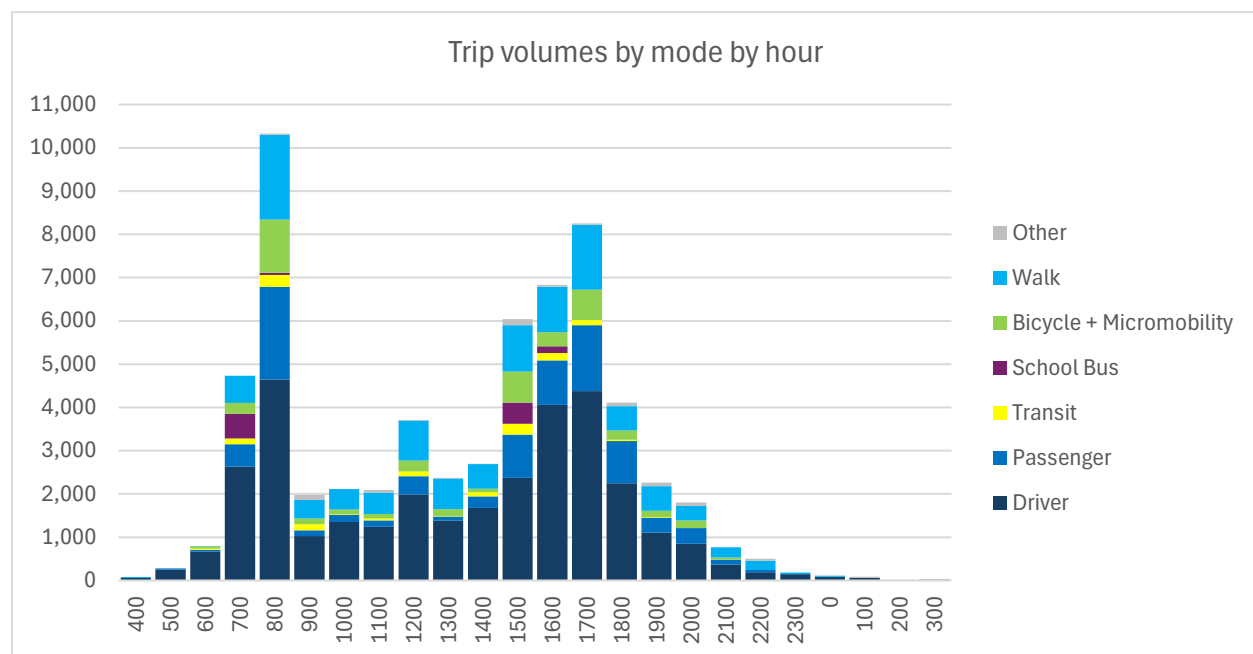


Table 23. Mode Shares by Hour

Hour (24-hour format)	Hourly Trip Volume	Driver	Passenger	Transit	School Bus	Bicycle + Micromobility	Walk	Other
400	80	73%	-	-	-	-	27%	-
500	280	89%	10%	-	-	1%	1%	-
600	800	83%	5%	4%	-	7%	2%	-
700	4,730	56%	11%	3%	12%	5%	13%	0%
800	10,320	45%	21%	3%	0%	12%	19%	0%
900	1,990	52%	6%	7%	-	7%	22%	6%
1000	2,110	64%	8%	1%	-	5%	22%	-
1100	2,090	59%	7%	2%	-	5%	24%	3%
1200	3,710	54%	11%	3%	-	7%	25%	0%
1300	2,370	58%	4%	1%	-	7%	30%	0%
1400	2,710	62%	10%	4%	-	3%	21%	0%
1500	6,040	39%	17%	4%	8%	12%	18%	2%
1600	6,830	59%	15%	2%	2%	5%	15%	1%
1700	8,250	53%	18%	1%	-	8%	18%	0%
1800	4,110	55%	24%	1%	-	5%	14%	2%
1900	2,250	49%	15%	0%	-	7%	25%	3%
2000	1,800	47%	20%	-	-	10%	18%	4%
2100	780	48%	14%	-	-	7%	31%	0%
2200	490	38%	10%	-	-	-	44%	8%
2300	180	84%	1%	-	-	-	15%	-
0	110	69%	9%	-	-	-	15%	8%
100	100	66%	-	-	-	-	-	34%
200	10	100%	-	-	-	-	-	-
300	30	66%	-	-	-	-	-	34%

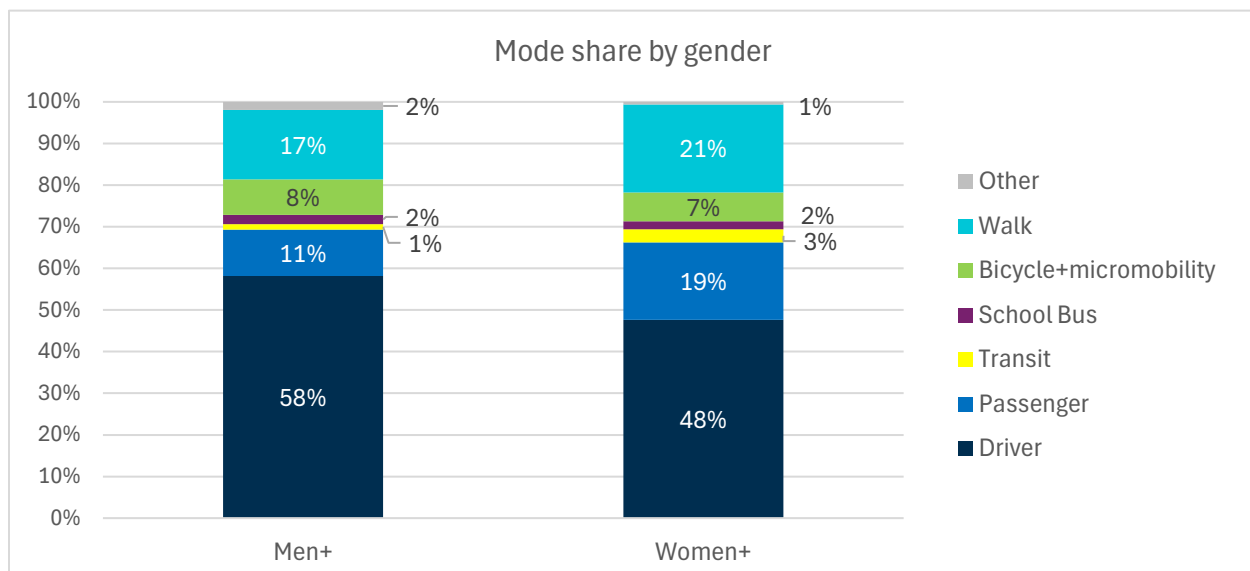
"0%" indicates mode shares of less than 0.5%; a dash (-) indicates no trips reported for the given mode and hour.

4.5.4 Mode Shares by Gender and Age

Figure 34 presents mode shares by gender. As shown:

- Men are more likely to drive, at 58% drive mode share, compared to 48% for women. They are just slightly more likely to cycle (8% vs. 7% for women) or to use other modes (2% vs. 1%). Men's overall sustainable mode share (combining transit, school bus, cycling/micromobility, and walking) is 29%, with an active mode share (cycling/micromobility and walking) is 23%.
- Women are more likely to be passengers (19% vs. 11% for men), take transit (3% vs. 1%), and walk (21% vs. 17%). Women's overall sustainable mode share is 33%, with an active mode share of 28%.

Figure 34. Mode Shares by Gender

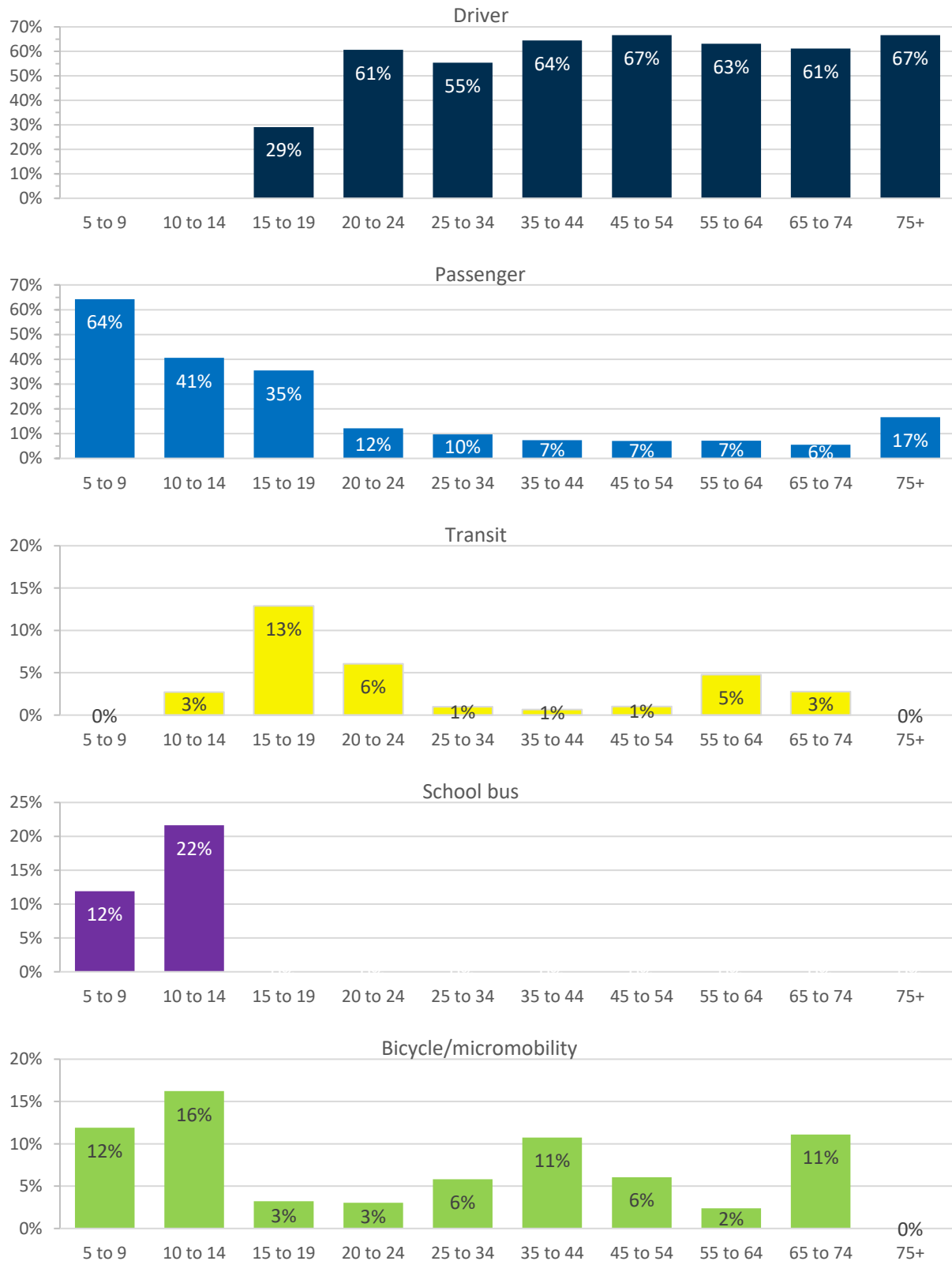


The charts in Figure 35 illustrate mode shares by age range, with younger age groups split out by 5-year age ranges, and those 25 years and older split out by 10-year age range. Figure 36 provides a summary chart. Aggregated sustainable and active mode shares are illustrated in Figure 37 and Figure 38. The two tables that follow (Table 24 and Table 25) provide details of the mode shares and mode volumes by age range. For the latter table, readers are reminded that trip volumes presented are estimated volumes based on weighted survey data, not exact counts. Results by age group should be interpreted with caution, as sample sizes by 5-year and 10-year age range are modest, thus, some of the variation between age groups may be due to error associated with random sampling.

The following observations can be made:

- Auto driver shares predominate for age cohorts from 25 onwards, peaking at 67% for the 45-54 cohort. This is commensurate with people joining the workforce, and, for many, starting families.
- Auto passenger mode shares are highest among children below the driving age, at 64% for those 5-9 years, 41% for those 10 to 14, and 35% for those 15 to 19. Auto passenger mode shares are also higher for those 75+ years, at 17% of trips made by this cohort.
- Transit use is highest amongst those 15-19 years, at 13%, and 6% for those 20-24 years of age. This is consistent with subsidized or discounted transit passes available to K-12 students and less access to vehicles than people aged 25 and older.
- School bus accounts for 22% of trips made by children 10-14 years of age, and 12% of those ages 5-9 (who are more likely to be driven by parents).
- Approximately 22% of trips made by children 10-14 years of age are via school bus. Public transit use rises to 53% amongst young adults 18-24 years, then steadily declining with age.
- Bicycle mode shares are highest amongst children 5-9 and 10-14 years, at 12% and 16% of all trips, respectively. Cycling mode shares were lower for most age groups above 15, ranging from 2% to 6%, except for those 35-44 and 65-74, who reported 11% of their trips as being via bicycle.
- Walk mode shares are highest for those 10-14 and 25-34 (24% and 26% respectively), and lowest for those 5-9 (12%). For all other age cohorts, shares range from 15% to 19%.
- Overall sustainable mode shares (aggregating transit, school bus, bicycle/micromobility, and walking) are highest amongst those 10-14 years of age, at 65%, more than double the survey average of 31%. Sustainable mode shares are lowest amongst those 75+ (17%) and are also lower than the average for 20-24 and cohorts between 35 and 64.
- Overall active mode shares (aggregating bicycle/micromobility and walking) are again highest for those 10-14, at 41%, compared to the survey average of 27%. Active mode shares are lowest amongst those 20-24 (18%) and 75+ (17%).

Figure 35. Mode Shares by Age Group



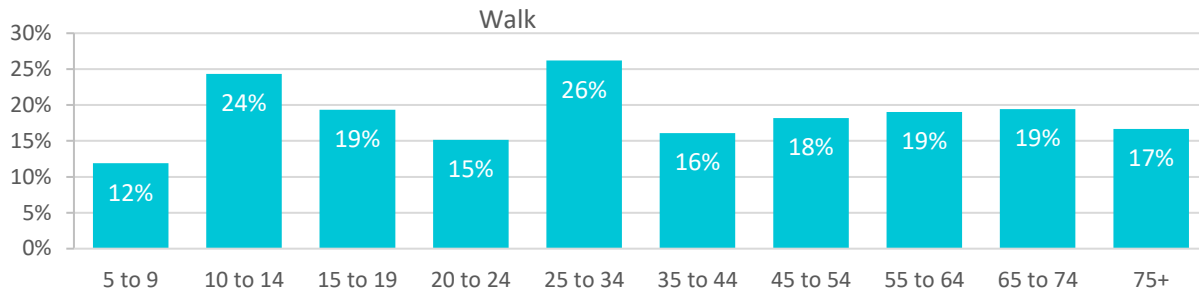


Figure 36. Mode Shares by Age Group – Summary Chart

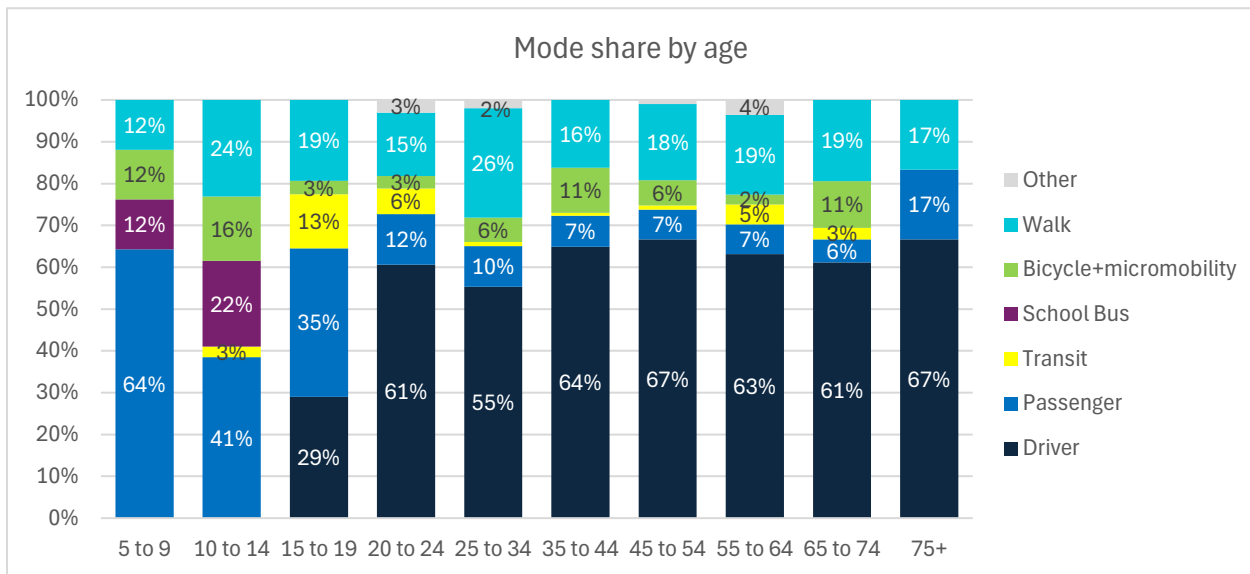


Figure 37. Sustainable Mode Shares by Age Group

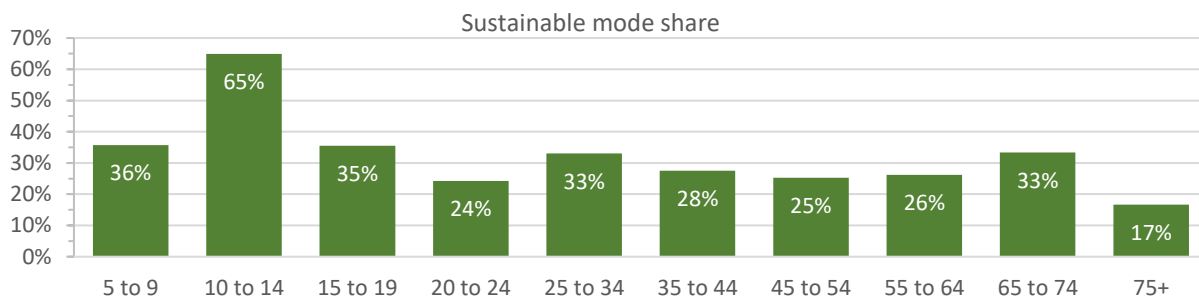


Figure 38. Active Mode Shares by Age Group

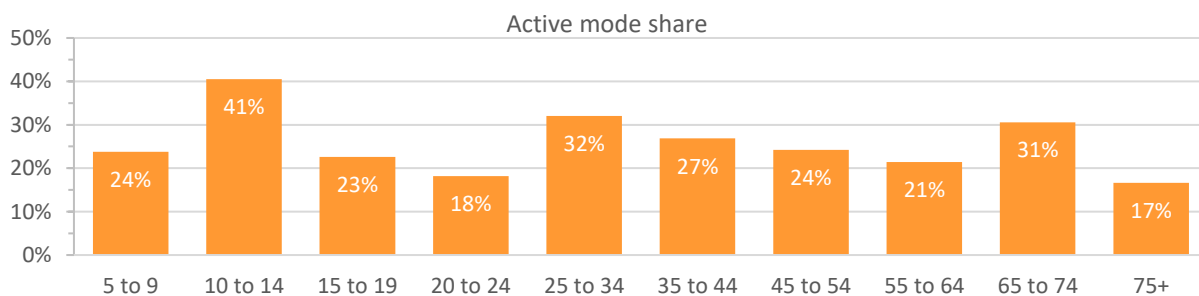


Table 24. Mode Shares by Age Group

	Total Trips	Driver	Passenger	Transit	School Bus	Bicycle+ micromobility	Walk	Other
Survey Total	62,200	53%	15%	2%	2%	8%	19%	1%
5 to 9	4,200	0%	64%	0%	12%	12%	12%	0%
10 to 14	3,700	0%	41%	3%	22%	16%	24%	0%
15 to 19	3,100	29%	35%	13%	0%	3%	19%	0%
20 to 24	3,300	61%	12%	6%	0%	3%	15%	3%
25 to 34	10,300	55%	10%	1%	0%	6%	26%	2%
35 to 44	14,900	64%	7%	1%	0%	11%	16%	0%
45 to 54	9,900	67%	7%	1%	0%	6%	18%	1%
55 to 64	8,400	63%	7%	5%	0%	2%	19%	4%
65 to 74	3,600	61%	6%	3%	0%	11%	19%	0%
75+	600	67%	17%	0%	0%	0%	17%	0%

Trip volumes are rounded to the closest 100. Row percentages may not sum to 100% due to rounding. Interpret results for 5 to 19, 10 to 14, 15 to 19, 20-24, and 75+ with caution due to modest samples sizes.

Table 25. Estimated Daily Volume of Trips by Mode by Age Group

	Total Trips	Driver	Passenger	Transit	School Bus	Bicycle + micromobility	Walk	Other
Survey Total	62,200	32,800	9,300	1,400	1,200	4,700	11,800	800
5 to 9	4,200	0	2,700	0	500	500	500	0
10 to 14	3,700	0	1,500	100	800	600	900	0
15 to 19	3,100	900	1,100	400	0	100	600	0
20 to 24	3,300	2,000	400	200	0	100	500	100
25 to 34	10,300	5,700	1,000	100	0	600	2,700	200
35 to 44	14,900	9,600	1,100	100	0	1,600	2,400	0
45 to 54	9,900	6,600	700	100	0	600	1,800	100
55 to 64	8,400	5,300	600	400	0	200	1,600	300
65 to 74	3,600	2,200	200	100	0	400	700	0
75+	600	400	100	0	0	0	100	0

Trip volumes are rounded to the closest 100. Interpret results for 5 to 19, 10 to 14, 15 to 19, 20-24, and 75+ with caution due to modest samples sizes.

4.5.5 Mode Shares by Household Characteristics

The charts below provide mode shares for other household and demographic characteristics. Figure 39 presents mode shares by dwelling type. Figure 40 presents daily mode shares by household income. Those living in houses have the highest automobile usage (57% auto driver share, 16% auto passenger share) and lowest transit usage (1%). Those living in apartments with five or more storeys have the lowest auto shares (with a 17% auto driver share) and the highest transit shares (at 8% of daily trips). Walking trips are more prevalent amongst those living in all forms of multi-unit building, ranging from 17% to 54% shares.

Figure 39. Mode Shares by Dwelling Type

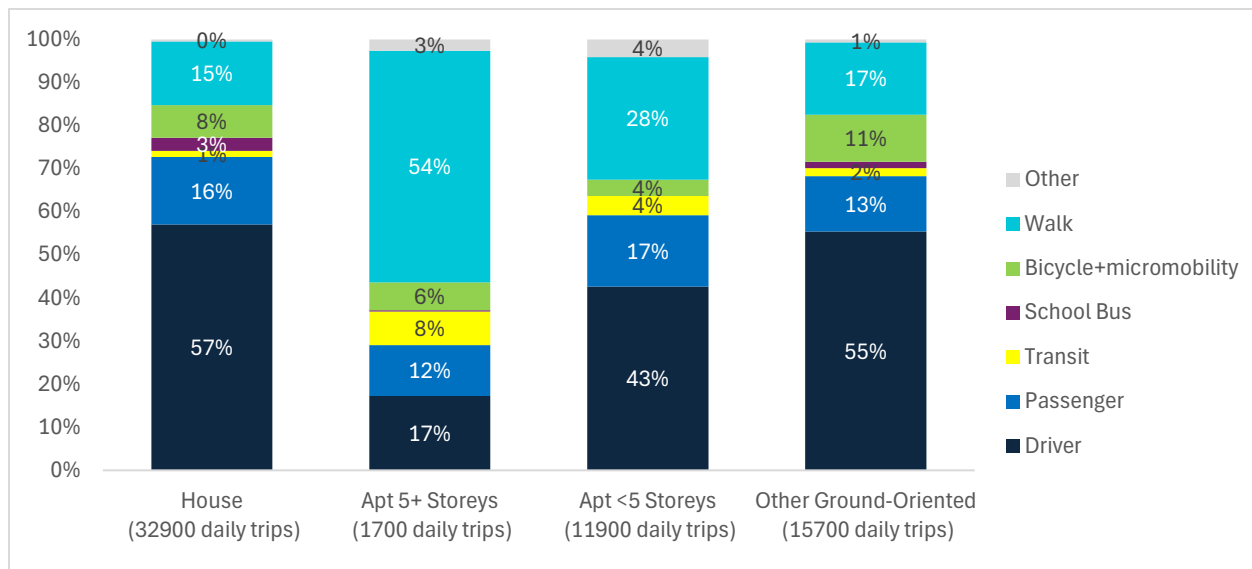
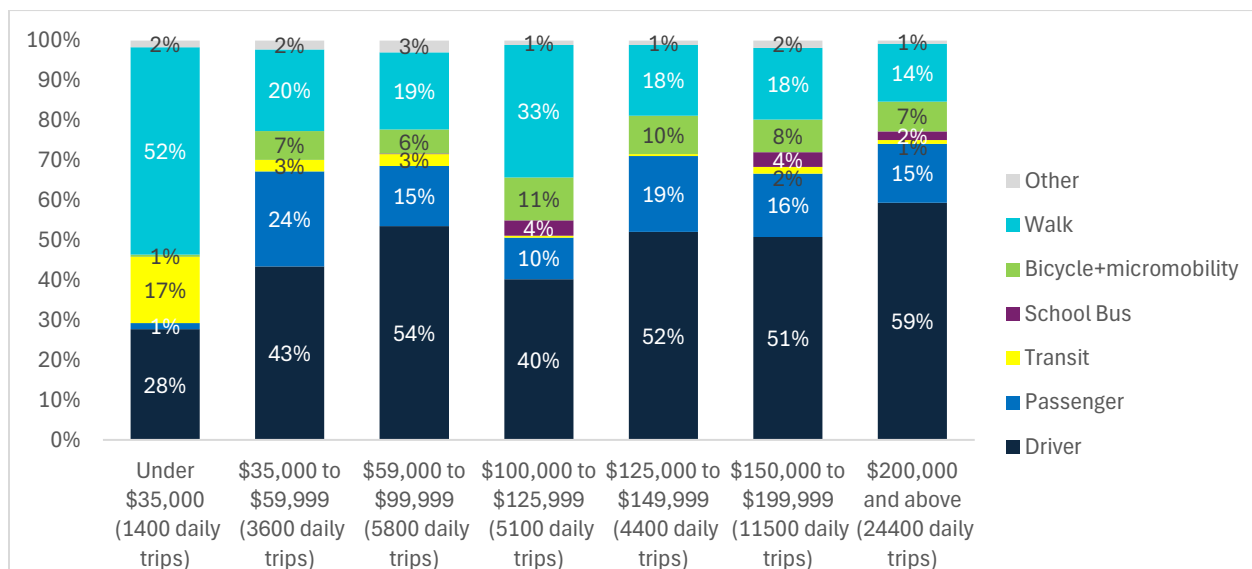


Figure 40. Mode Shares by Household Income



4.6 Trip Purpose

4.6.1 Trip Purpose Distribution

Figure 41 illustrates the distribution of trips by detailed trip purpose, with Table 26 providing groupings used in other analyses. Note that this is analysis of trip purpose at the destination end of the trip, with 39% of all trips made returning home from destinations outside the home.

- Overall, work commutes, work-related trips, and school commutes accounts for 30% of all trip destinations: trips to work and for work-related reasons account for 23% of all trip destinations, while trips to school account for 7% (with less than 1% to post-secondary, and just over 6% to K-12 schools).
- One in ten trips (10%) are to escort passengers, many of which support school children's trips to and from school, others which support other destinations and passengers.
- Shopping and personal business account for 11% (8% shopping/household maintenance, 1% picking up packages or online purchases, and 2% health and personal care).
- Another one in ten trips are for dining or food pickup (3%), social purposes (2%) or recreation (5%), with another 1% for other purposes not elsewhere classified

Figure 41. Detailed Trip Purposes

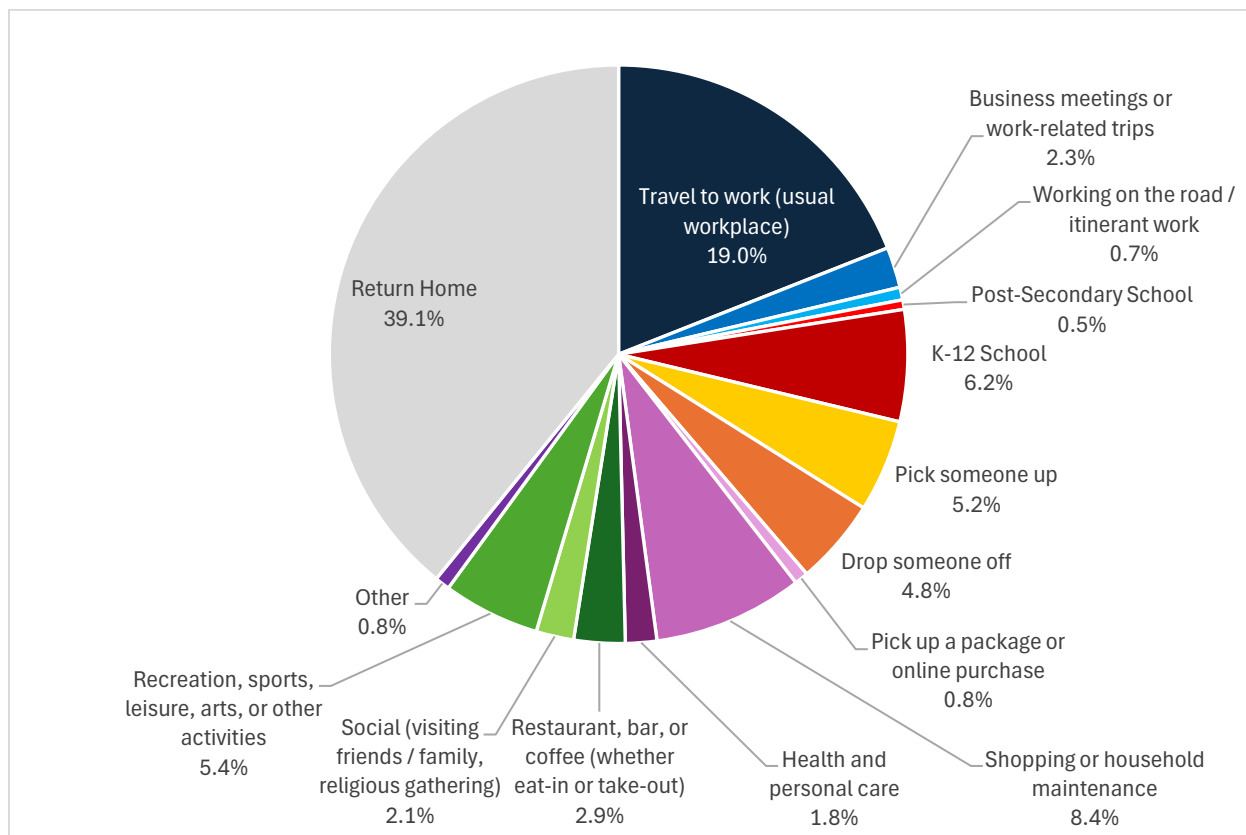


Table 26. Trips by Trip Purpose

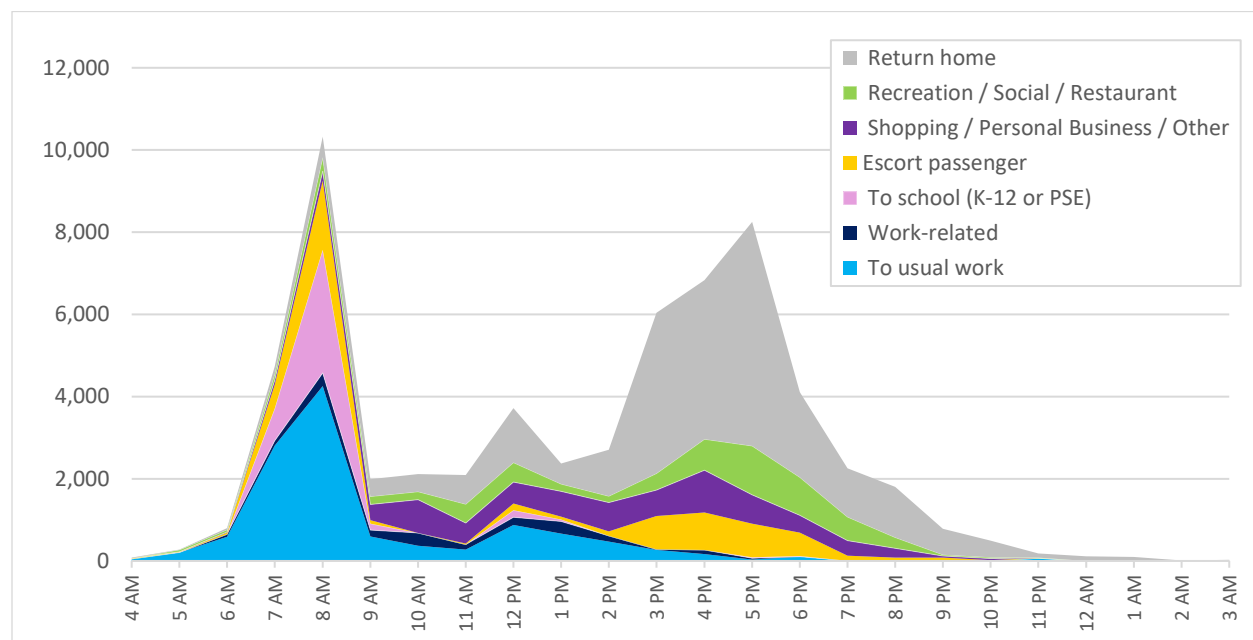
Group	%	Trips by Trip Purpose	Expanded Trips	%
Work / Work Related	22%	Travel to work (usual workplace)	11,820	19.0%
		Business meetings or work-related trips	1,410	2.3%
		Working on the road / itinerant work	440	0.7%
School	7%	Post-Secondary School	330	0.5%
		K-12 School	3,880	6.2%
Escort Passenger	10%	Pick someone up	3,210	5.2%
		Drop someone off	2,990	4.8%
Shopping / Personal Business	11%	Pick up a package or online purchase	480	0.8%
		Shopping or household maintenance	5,210	8.4%
		Health and personal care	1,090	1.8%
Social / Recreation / Dining	10%	Restaurant, bar, or coffee	1,780	2.9%
		Social (visit friends / family, religious)	1,310	2.1%
		Recreation, sports, leisure, arts, other activities	3,370	5.4%
Other		Other	520	0.8%
Return Home		Return Home	24,340	39.1%

4.6.2 Trip Purpose by Time of Day

Figure 42 provides another view of daily trips, illustrating the distribution of trip purposes by time of day (by 1-hour interval based on the time of departure).

The distribution shows a classic profile of a concentrated AM peak dominated by commute trips to work and school (including passenger drop-off trips by those serving passengers) ending by 9:00 a.m., with other kinds of trip purposes beginning to increase at by 10:00 a.m. The extended PM peak begins mid-afternoon (at 3:00 p.m., tapering off by 6:00 p.m.) and is dominated by return-home trips, but with notable proportions of pick-up/drop-off, shopping/personal business, and social/recreational purposes.

Figure 42. Trips by Purpose by Hour of Departure



4.6.3 Mode Shares by Trip Purpose

Mode shares and volumes by trip purpose are presented in the following two tables (Table 27 and Table 28).

These results illustrate the mix of modes for work commutes, with close to six in ten (57%) as an auto driver, one-quarter (24%) walk, 9% bicycle/micromobility, and 7% passenger, with transit used for only 2% of trips to work. This aligns well with the usual commute modes reported by survey respondents (Section 3.5.4); some differences from reported usual commute mode are to be expected as the trip results here provide a snapshot of a typical day on which some workers may not work, some may telecommute, and some may choose a different mode from their usual mode.

The results also illustrate the mix of modes for trips to attend K-12 school, with four in ten such trips as an auto passenger (39%), notable shares for walking, school bus, and bicycle/micromobility (21%, 16% and 13% respectively), and transit and driving each accounting for about one in twenty trips to school (5% and 6% respectively).

Table 27. Mode Shares by Purpose

Purpose	Trips	Driver	Passenger	Transit	School Bus	Bicycle + micro-mobility	Walk	Other
Total Trips	62,190	53%	15%	2%	2%	8%	19%	1%
To usual work	11,820	57%	7%	2%	0%	9%	24%	1%
Work-related	1,850	81%	4%	0%	0%	2%	10%	2%
To post-secondary school	330	12%	32%	19%	0%	0%	36%	0%
To K-12 school	3,880	6%	39%	5%	16%	13%	21%	0%
Serve passenger	6,200	77%	15%	0%	0%	4%	4%	1%
Pick up package	480	64%	17%	0%	0%	0%	19%	0%
Shopping	5,210	63%	6%	1%	0%	6%	20%	3%
Health and personal care	1,090	52%	16%	7%	0%	4%	21%	0%
Restaurant	1,780	57%	21%	1%	0%	4%	17%	0%
Social	1,310	43%	11%	1%	1%	11%	27%	6%
Recreation	3,370	34%	22%	2%	0%	9%	33%	1%
Other	520	37%	8%	2%	0%	3%	46%	5%
Return home	24,340	51%	16%	3%	3%	8%	17%	1%

Trip volumes are rounded to the closest 10. 0% = none or less than 0.5%. Rows may not sum to 100% due to rounding. Blue shading highlights larger %. Interpret results for trips to post-secondary school, pickup package, and other with caution due to small sample sizes.

Table 28. Trip Volumes by Primary Mode and Purpose

Purpose	Trips	Driver	Passenger	Transit	School Bus	Bicycle + micro-mobility	Walk	Other
Total trips	62,190	32,830	9,350	1,430	1,250	4,740	11,810	790
To usual work	11,820	6,680	870	280	0	1,070	2,810	120
Work-related	1,850	1,510	70	0	0	40	190	40
To post-secondary school*	330	40	100	60	0	0	120	0
To K-12 school	3,880	240	1,520	180	610	500	820	0
Serve passenger	6,200	4,770	920	10	0	240	230	40
Pick up package*	480	310	80	0	0	0	90	0
Shopping	5,210	3,300	340	30	0	330	1,060	150
Health and personal care	1,090	570	170	80	0	50	230	0
Restaurant	1,780	1,010	370	20	0	70	310	0
Social	1,310	560	140	10	20	140	350	80
Recreation	3,370	1,150	730	80	0	290	1,100	20
Other*	520	190	40	10	0	10	240	30
Return home	24,340	12,490	4,000	670	610	2,000	4,250	310

Trip volumes are rounded to the closest 10. Interpret results for trips to post-secondary school, pickup package, and other with caution due to small sample sizes.

4.6.4 Trip Purpose by Gender and Age

The tables on the following page provide trip purposes by gender (Table 29) and age (Table 30).

Table 29. Trip Purposes by Gender

	Total Trips	To usual work	Work related	To post-secondary school	To K-12 school	Pick up Package	Shopping	Health and personal care	Restaurant	Social	Recreation	Escort passenger	Other	Return home	Total
Survey Total	62,200	19%	3%	1%	6%	1%	8%	2%	3%	2%	5%	10%	1%	39%	100%
Men+	30,500	20%	4%	1%	6%	1%	9%	1%	3%	2%	5%	10%	1%	39%	100%
Women+	31,700	19%	2%	1%	7%	1%	9%	2%	3%	3%	6%	9%	1%	39%	100%

Trip volumes are rounded to the closest 100. 0% = none or less than 0.5%. Rows may not sum to 100% due to rounding. Blue shading highlights larger percentages.

Table 30. Trip Purposes by Age Group

	Total Trips	To usual work	Work related	To post-secondary school	To K-12 school	Pick up Package	Shopping	Health and personal care	Restaurant	Social	Recreation	Escort passenger	Other	Return home	Age Group Total
Survey Total	62,200	19%	3%	1%	6%	1%	8%	2%	3%	2%	5%	10%	1%	39%	100%
5 to 9	4,300	0%	0%	0%	33%	2%	0%	0%	2%	2%	9%	7%	0%	44%	100%
10 to 14	3,700	0%	0%	0%	35%	0%	0%	0%	0%	5%	8%	5%	0%	46%	100%
15 to 19	2,900	3%	0%	0%	38%	0%	3%	0%	0%	3%	3%	0%	0%	48%	100%
20 to 24	3,200	31%	3%	6%	0%	0%	6%	3%	6%	0%	0%	0%	0%	44%	100%
25 to 34	10,300	27%	5%	0%	0%	0%	9%	1%	2%	1%	6%	10%	1%	39%	100%
35 to 44	15,200	21%	3%	0%	0%	1%	7%	2%	3%	3%	5%	18%	1%	36%	100%
45 to 54	10,100	29%	6%	0%	0%	1%	8%	1%	4%	1%	4%	11%	1%	35%	100%
55 to 64	8,500	18%	1%	0%	0%	1%	16%	2%	4%	2%	6%	8%	1%	40%	100%
65 to 74	3,700	8%	3%	0%	0%	0%	22%	3%	3%	3%	11%	5%	3%	41%	100%
75+	600	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	25%	0%	50%	100%

Trip volumes are rounded to the closest 100. 0% = none or less than 0.5%. Rows may not sum to 100% due to rounding Interpret results for 5 to 19, 10 to 14, 15 to 19, 20-24, and 75+ with caution due to modest samples sizes. Blue shading highlights larger percentages.

4.7 Vehicle Occupancy

Figure 43 illustrates the proportion of auto driver trips that are single- and high-occupancy. Table 31 provides more detail, including the number of person-trips when taking into account passengers. The average number of vehicle occupants reported was 1.4 persons per vehicle, with 71% of all trips being single-occupant vehicle (SOV) trips.

Figure 43. Trips by purpose by hour of departure

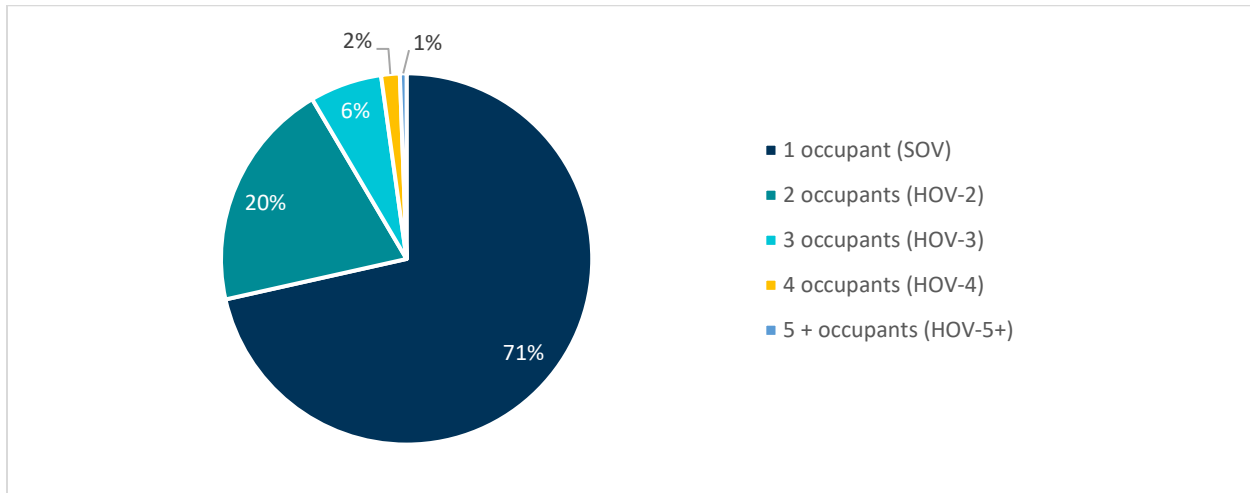


Table 31. Number of Vehicle Occupants

Vehicle Occupants	Expanded Vehicle Trips	% of Vehicle Trips	Person-Trips by Auto	% of Person Trips by Auto
1 occupant (SOV)	23,400	71%	23,400	50%
2 occupants (HOV-2)	6,500	20%	13,100	28%
3 occupants (HOV-3)	2,100	6%	6,200	13%
4 occupants (HOV-4)	500	2%	2,100	5%
5 + occupants (HOV-5+)	400	1%	1,900	2%
Total	32,800	100%	46,600	100%
Average # of occupants per vehicle	1.42			

4.8 Trip Distance

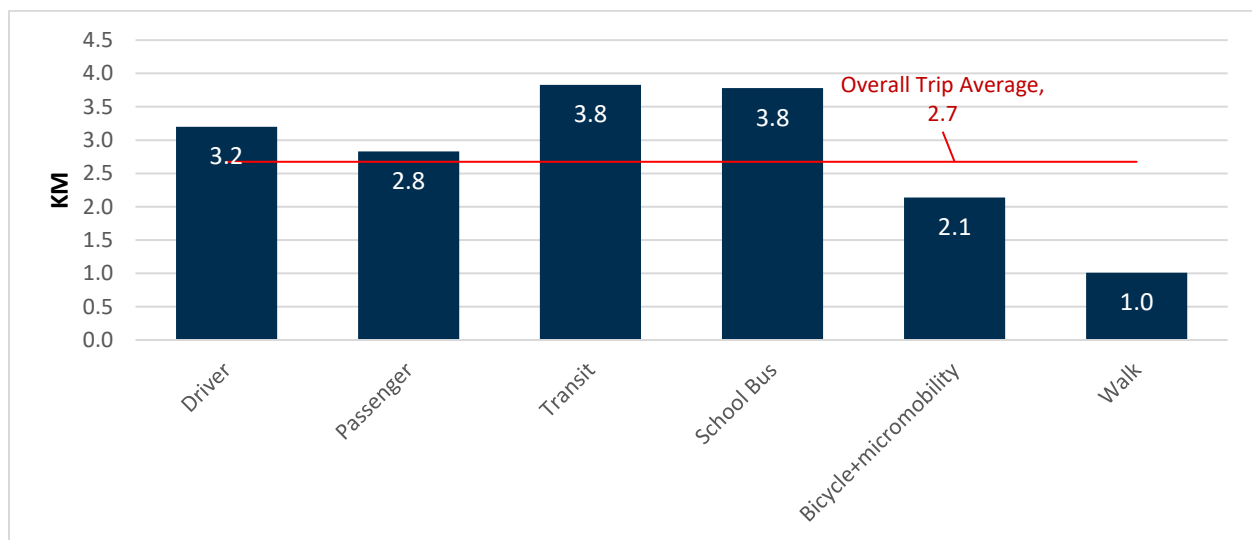
4.8.1 Average Trip Distance and Duration

Trip distances as determined by using the Google map directions API are analysed in this section. The trip origin, destination, time of day, and mode of travel were sent to the Google map directions API, returning the estimated actual distance travel on the recommended routes using routes available for the given mode (e.g., if automobile, roads; if bicycle, roads and bicycle paths, etc.). Distance and durations reflect conditions at the time the survey was completed and may vary due to factors such as time of day, road closures, or routing updates, which may not be the same as on the travel day. Note that while transit distances and durations take into account walks to and from the transit stop, driving distances and durations do not include time spent driving to parking or walking to and from parking. To ensure data quality, trips with distances greater than 100 km were treated as outliers and excluded from the analysis.

Figure 44 presents the average trip distance by mode of travel. The longest trips are via transit and school bus, averaging 3.8 km. Driving trips average 3.2 km per day, followed by passenger trips at 2.8 km per day, bicycle and micromobility trips at 2.1 km, and walk trips at 1.0 km.

Figure 45 and Figure 46 presents the average trip distance and average trip duration by trip purpose. Recreational trips have the longest distances, at just over 3.6 km on average, with post-secondary trips having the longest duration (at almost 11 minutes on average).

Figure 44. Mean Trip Distance (Average Google Distance) by Mode of Travel



Interpret results for Other mode (taxi, motorcycle, etc.) with caution due to small sample size (n = 46).

Figure 45. Mean Trip Distance (Average Google Distance) by Purpose of Travel

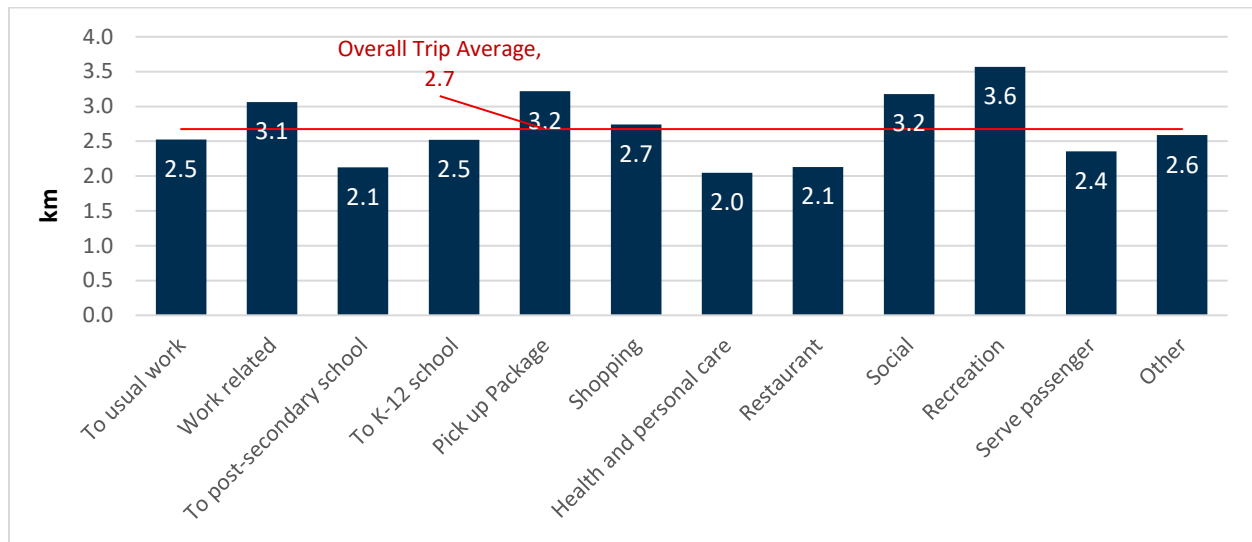
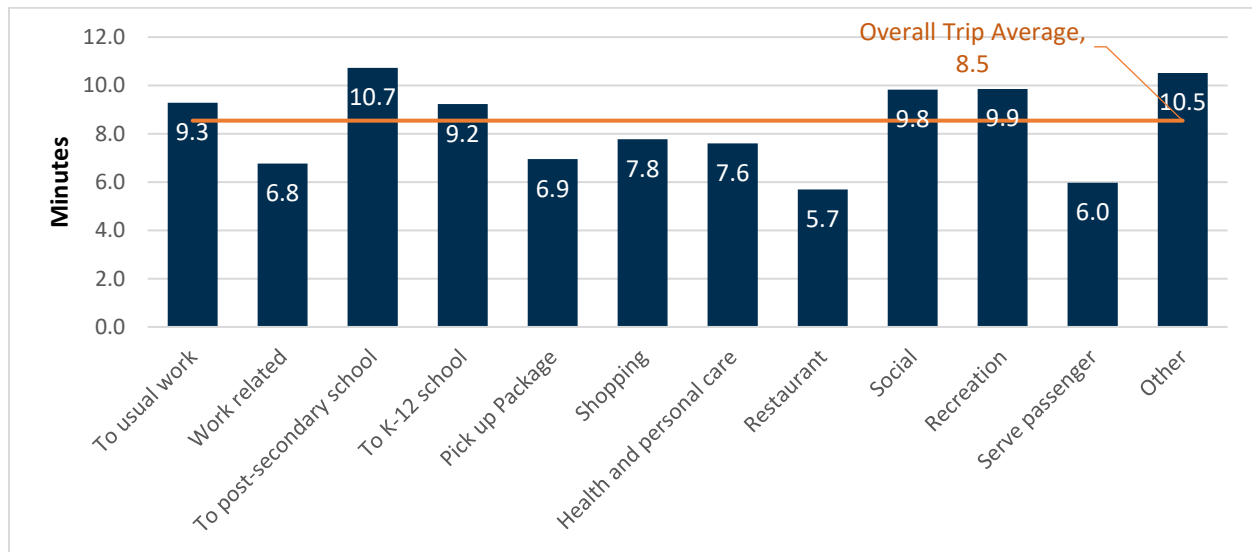


Figure 46. Mean Trip Duration by Purpose of Travel



4.8.2 Vehicle Kilometres Travelled (VKT)

This section examines daily Vehicle Kilometers Travelled (VKT), i.e., the total kilometers travelled for personal auto driver trips reported on the survey, as derived from Google distances for those trips. Note that the survey did not capture trips made by commercial drivers while at work. Readers are also reminded that this is for an average weekday and does not represent travel on weekends, which may differ considerably.

As shown in Table 32, the survey results suggest that the total daily VKT for City of Yellowknife residents is 104,700 kilometers/day with average daily VKT per capita of 4.7 km. Residents of the Rest of Yellowknife have the highest VKT per capita, at 15.9 km, while those in Downtown average the least, at 2.4 km per capita.

Table 32. VKT by Zone of Residence

Geography	Total Daily VKT	Daily VKT per capita
Downtown*	2,600	2.4
Frame Lake North / School Draw / Con Mine	28,900	3.8
Old Town / Niven / N'Dilo	18,000	5.3
Range Lake / Frame Lake South	48,000	5.0
Rest of Yellowknife*	7,200	15.9
Yellowknife Total	104,700	4.7

* Interpret results for Downtown and Rest of Yellowknife with caution due to small sample sizes

4.9 Origins and Destinations

The tables that follow detail the estimated volumes of trips to, from and entirely within each zone for total daily trips (Table 33) and for the AM Peak (Table 34).

Across an average 24-hour day, Zone 2 (Frame Lake North / School Draw / Con Mine) accounts for 17,220 of the daily trip destinations (including return home trips), almost 28% of daily trip destinations.

In the AM Peak period from 7:00 a.m. to 8:59 a.m., which provides some insight into commuting patterns:

- Zone 2 (Frame Lake North / School Draw / Con Mine) draws 5,070 trips, or 34% of AM Peak trip destinations,
- followed by Zone 1 (Downtown) at 4,350 (29% of AM Peak destinations),
- Zone 5 (Rest of Yellowknife) at 3,010 (20%), and
- Zone 4 (Range Lake / Frame Lake South) at 2,260 (15%).

Zone 2 and Zone 4 both have large numbers of internalized trips (within the same zone) in the AM Peak period, with Zone 2 at 2,230 (15% of AM Peak trips) and Zone 4 at 1,390 (9%). All other flows between zones and internalized to zones account for 11% of all AM Peak trips. Note that while Zone 1 and Zone 5, which have modest and very little population respectively, together account for almost half of AM Peak destinations, due to their concentration of work destinations.

The top 12 inter-zone and internalized trip flows in the AM Peak period are presented in Figure 47.

Table 33. Origin-Destination Matrix by Superzone – 24-Hour Trips (All Modes)

Destination		1	2	3	4	5	21	22	
Origin		Downtown	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife	External North/East	External North/West	Total from Origin Zone
1	Downtown	3,160	3,650	1,410	2,570	1,630	30	0	12,460
2	Frame Lake North / School Draw / Con Mine	3,680	6,230	1,330	2,750	3,130	50	40	17,220
3	Old Town / Niven / N'Dilo	1,500	1,360	1,220	630	1,110	50	0	5,860
4	Range Lake / Frame Lake South	2,510	2,780	630	3,890	4,050	30	30	13,910
5	Rest of Yellowknife	1,560	3,140	1,190	3,960	2,670	10	0	12,530
21	External North/East	0	40	40	20	20	10	0	120
22	External North/West	0	20	0	30	20	0	0	70
Total to Destination Zone		12,410	17,220	5,820	13,850	12,630	180	70	62,170

Blue shading is used to highlight origin-destination pairs with higher volumes of trips, with the intensity of the shading increasing to the highest value of non-internalized trips. Orange shading is used to highlight zones with higher volumes of internalized trips (within the same zone), with the intensity of the shading increasing to the highest value of internalized trips.

Expanded survey estimates have been rounded to the closest 10. Zeros may occur due to rounding and may be less than 5 trips.

Table 34. Origin-Destination Matrix by Superzone – AM Peak (7:00 a.m. to 8:59 a.m.) Trips (All Modes)

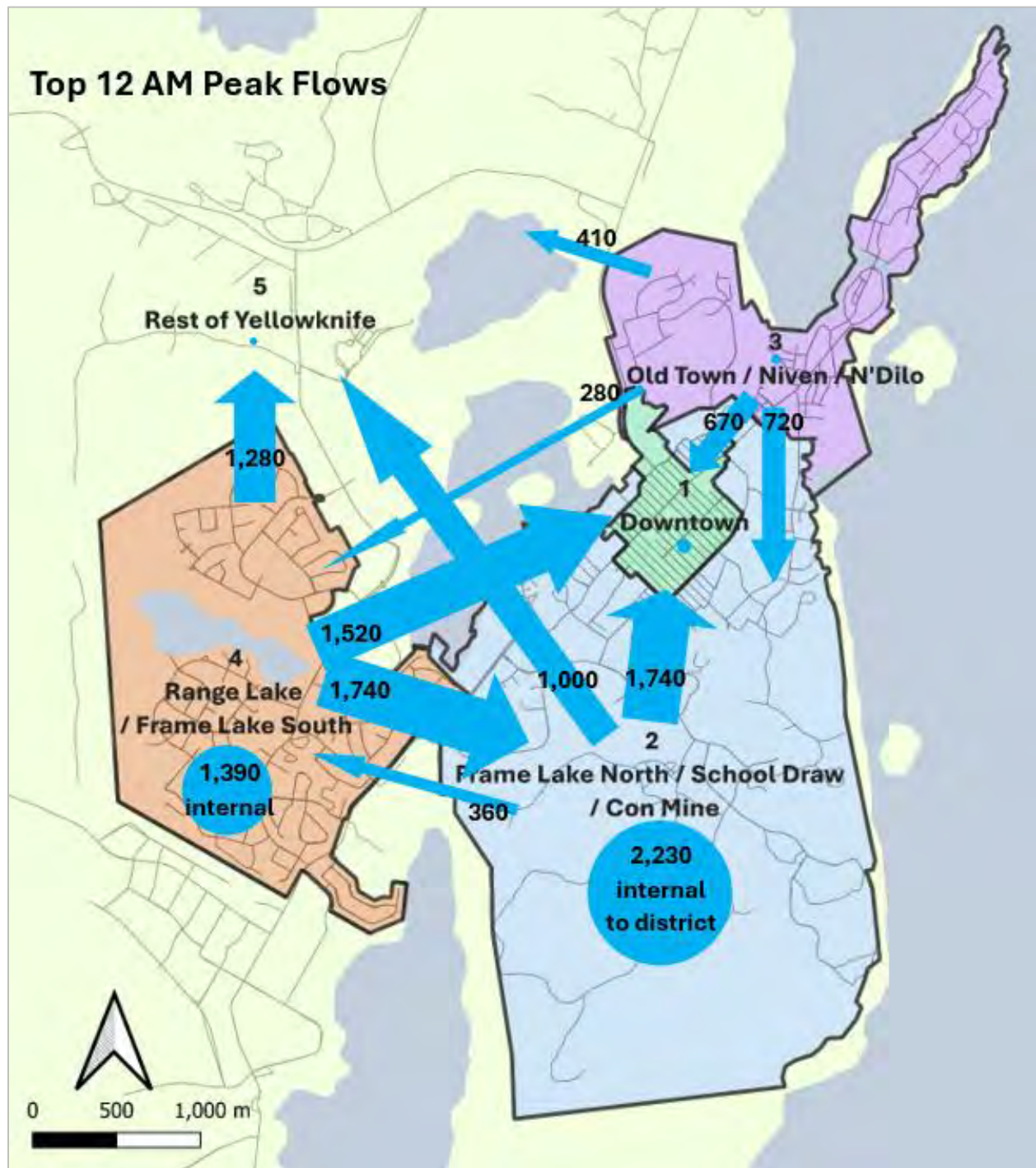
Destination		1	2	3	4	5	21	22	
Origin		Downtown	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife	External North/East	External North/West	Total from Origin Zone
1	Downtown	220	240	60	10	200	0	0	720
2	Frame Lake North / School Draw / Con Mine	1,740	2,230	80	360	1,000	0	30	5,440
3	Old Town / Niven / N'Dilo	670	720	150	280	410	0	0	2,230
4	Range Lake / Frame Lake South	1,520	1,740	10	1,390	1,280	0	0	5,950
5	Rest of Yellowknife	200	140	40	220	120	0	0	720
Total to Destination Zone		4,350	5,070	340	2,260	3,010	0	30	15,060

Blue shading is used to highlight origin-destination pairs with higher volumes of trips, with the intensity of the shading increasing to the highest value of non-internalized trips.

Orange shading is used to highlight zones with higher volumes of internalized trips (within the same zone), with the intensity of the shading increasing to the highest value of internalized trips.

Expanded survey estimates have been rounded to the closest 10. Zeros may occur due to rounding and may be less than 5 trips.

Figure 47. Top 12 Inter-Zone / Internal Flows in the AM Peak Period (7:00 a.m. to 8:59 a.m.), Person-Trips (All Modes)



4.10 Walkable and Bikeable Trips

This section examines the extent to which trips made by auto or transit could feasibly have been made on foot or by bicycle instead. The analysis uses distance to assess ‘walkability’ and ‘bikeability.’ The distance was based on the trip length for each mode.

This section examines the extent to which trips made by auto or transit could feasibly have been made on foot or by bicycle instead. The analysis uses distance to assess ‘walkability’ and ‘bikeability.’ The distance was based on the trip length for each mode. Bikeable trips were determined as those within a 5.5 km range based on about 20 minutes travel time at average speeds being a reasonable threshold.²⁰ The distance threshold for walkable trips was set 1.6 km range, also based on 20 minutes being a reasonable threshold.²¹ For trips made via auto or transit the trip origin, destination and time of day were processed via the Google API to determine the auto trips whose lengths fell within the eligible bicycle and walk thresholds.

Figure 48 presents the findings and Table 35 details the potential shifts in auto driver trips. In the table and the discussion below, ‘mode shift potential’ refers to the potential percentage-points of the current mode share (the percentage of all trips by all modes) that could be shifted to walking or biking based on distance alone. Note that walkable trips are also bikeable, while some bikeable trips may be too long to be walkable.

Most motorized trips are bikeable, which is to be expected given size of the Yellowknife urban area, and a good portion of auto driver and auto passenger trips are also walkable.

- About nine out of 10 (91%) of auto driver trips could easily be made by bicycle. In terms of mode share, there is a 48% auto mode share that could be bikeable and an 15% auto mode share that could be walkable. These potential proportions are highest for residents of the Range Lake/Frame Lake South.
- About 19 out of 20 (96%) of auto passenger trips are bikeable, while 37% are walkable. These proportions correspond to a potential mode shift of 14% to bicycle and a potential mode shift of 6% to walking trips.
- About 19 out of 20 transit trips are bikeable (96%), while 9% of transit trips are walkable. These proportions correspond to a potential mode shift of 2% to bicycle and a potential mode shift of 0.2% to walking trips, the latter reflecting that very few transit trips are made for very short distances.

²⁰ Of bicycle/micromobility trips reported on the survey, 97% were within the 5.5 km threshold used to assess bikeability. Some cyclists and/or micromobility device users are quite comfortable travelling longer distances, particularly those who use e-bikes or e-scooters. The threshold considers what would be a comfortable and convenient distance for most people.

²¹ Of walking trips reported, the great majority, 86%, were within the 1.6 km threshold used to assess walkability.

Results should be caveated in that this examines only distance. Many of the auto or transit trips that are of walkable or bikeable distance may be impractical. For example, these trips may be part of a trip chain that requires a vehicle, an auto that is needed to carry heavy items not easily carried while walking or biking, the traveller might have disability or a health condition that limits ability to walk or bike, some cyclists will use only separated pathways rather than travelling on the road, etc. Furthermore, bikeability is seasonally weather-dependent. There may also be a need to ensure that the ‘supply’ of bicycle and pedestrian facilities is available to meet traveller needs and itineraries.

Figure 48. Walkable or Bikeable Trips by Existing Mode

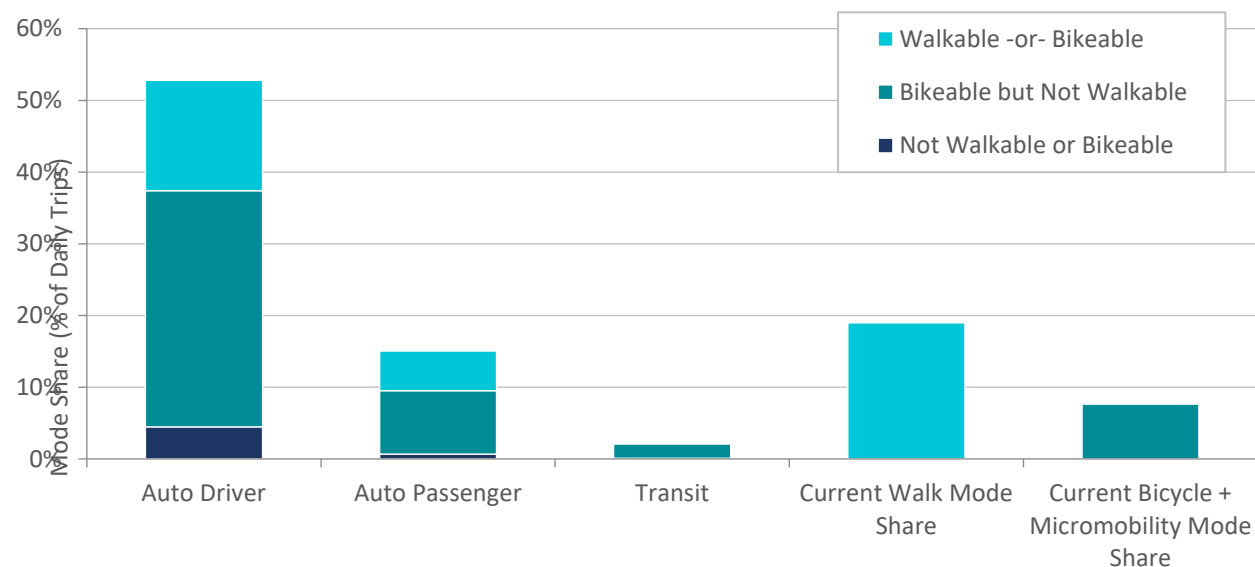


Table 35. Walkable or Bikeable Auto Driver Trips by Zone of Residence

	Yellowknife Total	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Auto Driver Trips	32,800	700	9,100	5,200	16,000	1,800
Auto Driver Mode Share	53%	28%	42%	49%	63%	97%
Bikeable Trips	30,000	600	8,100	4,300	15,500	1,500
% of Auto Driver Trips	91%	85%	89%	81%	97%	86%
Mode shift potential	48%	23%	37%	40%	61%	83%
Walkable Trips	9,600	0	3,600	1,500	4,200	300
% of Auto Driver Trips	29%	7%	39%	28%	26%	15%
Mode shift potential	15%	2%	17%	14%	17%	14%

‘Mode shift potential’ refers to the potential mode share (% of total trips) that could shift from auto driver to walking or biking based on the trip distance being short enough to be walkable or bikeable. This does not take into account age, ability, or other factors that could influence mode choice.

* Results for Downtown and Rest of Yellowknife should be interpreted with caution due to small sample sizes.

5 KEY INDICATORS BY ZONE

This section presents key expanded survey results by zone of residence. I.e. the trip-level results presented are for the characteristics of trips made by residents of those areas, not the trips to or from those areas.

All results are weighted and expanded to represent total households and population, except for the “Unweighted n” column, which lists the associated survey sample size (# of households surveyed, # of person records, or # of trip records) for the overall survey total.

Note: Stats are rounded to nearest 10. As such, fewer than 5 trips may show up as 0 trips. There may be slight differences in percentages and rounding when comparing to results presented in the analytical sections of this report.

5.1 Household Characteristics

Table 36. Household Key Indicators

Household Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Survey meta data							
Households surveyed (n)	694	694	44	258	115	272	5
Persons surveyed (n)	1,595	1,595	71	548	276	688	12
Maximum sampling error for person-level results (accounting for data weighting)	1,595	3.3%	14.3%	5.1%	8.1%	5.4%	33.4%
Households, population							
Households (private dwelling occupied by usual residents)	694	8,460	640	3,170	1,250	3,240	160
Population in Private Dwellings (excl. pop'n in collective dwellings, unhoused people)	1,595	22,100	1,100	7,610	3,400	9,540	450
Persons / household		2.61	1.72	2.40	2.72	2.94	2.81
Number of Children 0 to 14 years	266	4,410	40	1,500	710	2,160	0
Number of Children 0 to 17 years	322	5,440	70	1,830	890	2,590	60
# of Persons 15+ Eligible for Labour Force	1,329	17,690	1,070	6,110	2,690	7,380	450
Number of Adults 18+ Years	1,273	16,660	1,030	5,770	2,520	6,950	390
Population Aged 5+ Years (had trip capture)	1,502	20,690	1,080	7,090	3,170	8,890	450
Population 16+ Years (eligible for licence)	1,307	17,320	1,070	5,930	2,620	7,250	450
Daily trips (weekdays)							
Trips (Persons 5+)	1,595	62,190	2,490	21,710	10,720	25,400	1,870
Daily Trips / Person 5+ Years of Age	1,595	3.01	2.31	3.06	3.38	2.86	4.16
Vehicles							
Households with vehicles	615	7,450	430	2,640	1,150	3,070	160
% of households		88%	67%	83%	92%	95%	100%
Total Vehicles	1,097	13,850	500	3,960	2,090	6,720	580
Avg per household		1.64	0.78	1.25	1.67	2.07	3.63
Avg per person 16+ years of age		0.80	0.47	0.67	0.80	0.93	1.29
Fuel Type							
Petrol	944	11,980	470	3,540	1,860	5,570	530
Hybrid	28	260	20	90	60	80	0

Household Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Plug-in Hybrid	12	140	0	60	20	60	0
Electric	9	80	0	60	10	10	0
Diesel	42	600	0	100	50	440	0
Biodiesel	0	0	0	0	0	0	0
Gas motorcycle	56	750	0	100	70	530	40
Other	6	50	0	0	20	20	0
% of vehicles							
Petrol	944	86%	94%	89%	89%	83%	91%
Hybrid	28	2%	4%	2%	3%	1%	0%
Plug-in Hybrid	12	1%	0%	2%	1%	1%	0%
Electric	9	1%	0%	2%	0%	0%	0%
Diesel	42	4%	0%	3%	2%	7%	0%
Biodiesel	0	0%	0%	0%	0%	0%	0%
Gas motorcycle	56	5%	0%	3%	3%	8%	7%
Other	6	0%	0%	0%	1%	0%	0%
Bicycles and micromobility							
Households with Bicycles, Adult E-Bikes or E-Micromobility Devices	436	5,340	190	1,910	1,030	2,100	110
% households		63%	30%	60%	82%	65%	69%
Adult Bicycles	855	10,440	390	3,620	2,340	3,680	400
Adult E-Bikes	48	450	10	180	90	160	10
Child Bicycles	253	4,140	0	1,590	790	1,770	0
E-micromobility	28	480	0	150	150	180	0
Avg per household							
Adult Bicycles		1.23	0.61	1.14	1.87	1.14	2.50
Adult E-Bikes		0.05	0.02	0.06	0.07	0.05	0.06
Child Bicycles		0.49	0.00	0.50	0.63	0.55	0.00
E-micromobility		0.06	0.00	0.05	0.12	0.06	0.00
Dwelling Type (grouped categories used in data weighting)							
House	294	3,700	170	850	570	1,940	160
Apt 5+ Storeys	51	360	160	200	0	0	0
Apt <5 Storeys	160	2,270	300	1,340	310	310	0

Household Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Other Ground-Oriented (row house, townhouse, semi-detached, secondary suite, mobile home)	189	2,140	0	770	370	990	0
% of Households							
House	294	44%	27%	27%	46%	60%	100%
Apt 5+ Storeys	51	4%	25%	6%	0%	0%	0%
Apt <5 Storeys	160	27%	47%	42%	25%	10%	0%
Other Ground-Oriented (row house, townhouse, semi-detached, secondary suite, mobile home)	189	25%	0%	24%	30%	31%	0%
Dwelling type (detailed survey answers)							
Single-detached house	294	3,700	170	850	570	1,940	160
Row house or townhouse*	57	750	0	430	90	240	0
Semi-detached (side-by-side)*	28	410	0	100	200	110	0
Apartment or condominium, <5 stories	160	2,270	300	1,340	310	310	0
Apartment or condominium, 5+ stories	51	360	160	200	0	0	0
Mobile home / other*	91	840	0	180	70	590	0
% of Households							
Single-detached house	294	44%	27%	27%	46%	60%	100%
Row house or townhouse*	57	9%	0%	14%	7%	7%	0%
Semi-detached (side-by-side)*	28	5%	0%	3%	16%	3%	0%
Apartment or condominium, <5 stories	160	27%	47%	42%	25%	10%	0%
Apartment or condominium, 5+ stories	51	4%	25%	6%	0%	0%	0%
Mobile home / other*	91	10%	0%	6%	6%	18%	0%
<i>* note the balance of other ground-oriented dwelling types may not match Census counts, as these were combined for data weighting purposes, and there may sometimes be confusion on the part of survey respondents in these types of dwellings as to which dwelling type category applies to them</i>							
Household Size							
1 person	191	2,070	330	980	240	480	40
2 persons	267	2,580	210	970	420	970	10
3 persons	109	1,510	50	540	230	630	60
4 persons	99	1,460	50	420	220	720	50
5+ persons	28	850	0	260	140	450	0
% of Households							
1 person	191	24%	52%	31%	19%	15%	25%

Household Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
2 persons	267	30%	33%	31%	34%	30%	6%
3 persons	109	18%	8%	17%	18%	19%	38%
4 persons	99	17%	8%	13%	18%	22%	31%
5+ persons	28	10%	0%	8%	11%	14%	0%
Dwelling Tenure: Rent or Own							
Rent	195	2,700	270	1,590	290	510	50
Own	491	5,550	310	1,480	920	2,710	110
Provided by local govt, FN, or band	8	210	60	100	40	20	0
% of Households							
Rent	195	32%	42%	50%	23%	16%	31%
Own	491	66%	48%	47%	74%	84%	69%
Provided by local govt, FN, or band	8	2%	9%	3%	3%	1%	0%
Note: dwelling tenure was not adjusted for in data weighting and the survey data may have some bias towards ownership							
Household Income							
\$0 to less than \$35,000	35	540	60	270	50	170	0
\$35,000 to less than \$60,000	37	540	170	210	10	100	50
\$60,000 to less than \$100,000	89	1,060	70	460	120	410	0
\$100,000 to less than \$125,000	74	900	30	480	110	280	0
\$125,000 to less than \$150,000	77	690	60	320	70	230	0
\$150,000 to less than \$200,000	120	1,310	60	370	230	650	0
\$200,000 and above	189	2,500	120	700	600	1,020	60
Decline / don't know	73	920	60	370	80	380	40
% of Households with Income Response							
\$0 to less than \$35,000	35	6%	9%	9%	4%	5%	0%
\$35,000 to less than \$60,000	37	6%	27%	7%	1%	3%	31%
\$60,000 to less than \$100,000	89	13%	11%	15%	10%	13%	0%
\$100,000 to less than \$125,000	74	11%	5%	15%	9%	9%	0%
\$125,000 to less than \$150,000	77	8%	9%	10%	6%	7%	0%
\$150,000 to less than \$200,000	120	15%	9%	12%	18%	20%	0%
\$200,000 and above	189	30%	19%	22%	48%	31%	38%
Decline / don't know	73	11%	9%	12%	6%	12%	25%

5.2 Demographics and Other Person Characteristics

Table 37. Demographic Key Indicators

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Licensed Drivers							
# with driver's licence	1,180	15,310	900	5,300	2,370	6,290	450
% of Persons 15+ years of age		86.5%	84.1%	86.9%	88.1%	85.6%	100.0%
Work status							
Total workers living in area	970	12,970	650	4,330	2,090	5,560	340
Full time workers	890	12,050	620	3,970	1,920	5,190	340
Part time workers	80	920	30	360	170	360	0
% of Persons							
Total workers living in area		58.7%	59.1%	56.9%	61.5%	58.3%	75.6%
Full time workers		54.5%	56.4%	52.2%	56.5%	54.4%	75.6%
Part time workers		4.2%	2.7%	4.7%	5.0%	3.8%	0.0%
Work location							
Work exclusively from home	55	620	20	210	160	160	60
Usual place of work - Hybrid Telecommuter	106	1,060	70	380	210	400	0
Usual place of work - Commuter	768	10,690	500	3,620	1,680	4,720	160
No fixed workplace address	43	670	60	120	30	340	110
% of Workers							
Work exclusively from home		4.8%	3.1%	4.8%	7.7%	2.9%	17.6%
Usual place of work - Hybrid Telecommuter		8.2%	10.8%	8.8%	10.0%	7.2%	0.0%
Usual place of work - Commuter		82.4%	76.9%	83.6%	80.4%	84.9%	47.1%
No fixed workplace address		5.2%	9.2%	2.8%	1.4%	6.1%	32.4%
Usual commute mode							
Auto Driver	395	5,680	120	1,460	800	3,070	230
Auto Passenger	61	740	10	260	110	360	0
Transit	23	280	40	110	0	110	0
Bicycle	74	890	50	420	300	120	0

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Walked	151	1,980	250	960	320	460	0
Other	9	150	0	80	10	60	0
% workers with usual workplace or no fixed workplace address							
Auto Driver		50.0%	21.4%	39.0%	46.8%	60.7%	85.2%
Auto Passenger		6.5%	1.8%	7.0%	6.4%	7.1%	0.0%
Transit		2.5%	7.1%	2.9%	0.0%	2.2%	0.0%
Bicycle		7.8%	8.9%	11.2%	17.5%	2.4%	0.0%
Walked		17.4%	44.6%	25.7%	18.7%	9.1%	0.0%
Other		1.3%	0.0%	2.1%	0.6%	1.2%	0.0%
^ Only asked of respondents who work at a usual workplace outside home or had no fixed workplace address. Excludes workers who work exclusively from home.							
Student status							
Total students living in area	277	4,850	100	1,790	670	2,230	60
Full Time student	242	4,380	80	1,500	650	2,080	60
Part Time student	35	470	20	290	10	160	0
% of Persons							
Total students living in area		21.9%	9.1%	23.5%	19.7%	23.4%	13.3%
Full Time student		19.8%	7.3%	19.7%	19.1%	21.8%	13.3%
Part Time student		2.1%	1.8%	3.8%	0.3%	1.7%	0.0%
Students K-12 vs PSE							
FT student age K-12	227	4,020	50	1,340	650	1,910	60
PT student age K-12	7	100	0	20	10	70	0
FT student PSE / other	15	360	30	160	10	160	0
PT student PSE / other	28	370	20	270	0	90	0
% of Persons							
FT student age K-12		18.2%	4.5%	17.6%	19.1%	20.0%	13.3%
PT student age K-12		0.5%	0.0%	0.3%	0.3%	0.7%	0.0%
FT student PSE / other		1.6%	2.7%	2.1%	0.3%	1.7%	0.0%
PT student PSE / other		1.7%	1.8%	3.5%	0.0%	0.9%	0.0%
Location of school attendance							
School seats K-12*	234	4,120	110	2,990	0	1,010	0
School seats PSE / other**	18	390	360	30	0	0	0

*note: may include occasional home locations if the location of schooling is distance learning or home schooling; may include external locations

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
** note: may include some High School students; may include occasional home location if location of schooling is distance learning; may include external locations							
Detailed Occupation Status							
Work Full-Time	871	11,850	600	3,850	1,920	5,130	340
Work Part-Time	61	680	30	270	160	220	0
Student Full-Time	11	310	30	160	0	120	0
Work Part-Time / Student Full-Time	4	50	0	0	10	40	0
Student Part-Time	3	90	0	90	0	0	0
Work Full-Time / Student Part-Time	19	200	20	120	0	60	0
Work Part-Time / Student Part-Time	6	90	0	60	0	30	0
Retired	190	1,670	170	570	240	630	50
Unemployed looking for work	40	750	80	290	90	290	0
Not employed and not looking for work	30	430	50	170	80	130	0
Stay-at-home parent or caregiver	20	310	30	120	0	160	0
Other, specify	64	1,150	40	380	190	480	60
15+ High School Student Works PT	9	100	0	30	0	70	0
Not in labour force 5-14 yrs (almost all in school full-time)	174	3,010	20	980	480	1,530	0
Not in labour force nor school 0-4 yrs	93	1,410	20	520	230	650	0
% of Persons							
Work Full-Time		53.6%	54.5%	50.6%	56.5%	53.8%	75.6%
Work Part-Time		3.1%	2.7%	3.5%	4.7%	2.3%	0.0%
Student Full-Time		1.4%	2.7%	2.1%	0.0%	1.3%	0.0%
Work Part-Time / Student Full-Time		0.2%	0.0%	0.0%	0.3%	0.4%	0.0%
Student Part-Time		0.4%	0.0%	1.2%	0.0%	0.0%	0.0%
Work Full-Time / Student Part-Time		0.9%	1.8%	1.6%	0.0%	0.6%	0.0%
Work Part-Time / Student Part-Time		0.4%	0.0%	0.8%	0.0%	0.3%	0.0%
Retired		7.6%	15.5%	7.5%	7.1%	6.6%	11.1%
Unemployed looking for work		3.4%	7.3%	3.8%	2.6%	3.0%	0.0%
Not employed and not looking for work		1.9%	4.5%	2.2%	2.4%	1.4%	0.0%
Stay-at-home parent or caregiver		1.4%	2.7%	1.6%	0.0%	1.7%	0.0%
Other, specify		5.2%	3.6%	5.0%	5.6%	5.0%	13.3%
15+ High School Student Works PT		0.5%	0.0%	0.4%	0.0%	0.7%	0.0%
Not in labour force 5-14 yrs (almost all in school full-time)		13.6%	1.8%	12.9%	14.1%	16.0%	0.0%

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Not in labour force nor school 0-4 yrs		6.4%	1.8%	6.8%	6.8%	6.8%	0.0%
Sex							
Men+	763	10,870	490	3,730	1,650	4,740	260
Women+	832	11,240	610	3,880	1,760	4,800	190
% of Persons							
Men+		49.2%	44.5%	49.0%	48.5%	49.7%	57.8%
Women+		50.9%	55.5%	51.0%	51.8%	50.3%	42.2%
<i>For analysis, persons with non-binary/other/refused gender have been randomly apportioned to either Men+ or Women+</i>							
Age Range							
0 - 4 years	93	1,410	20	520	230	650	0
5 - 9 years	76	1,530	20	500	260	750	0
10 - 14 years	98	1,480	0	480	220	780	0
15 - 19 years	71	1,280	30	400	230	550	60
20 - 24 years	34	1,340	50	590	190	520	0
25 - 29 years	99	1,860	130	640	280	710	100
30 - 34 years	151	2,000	160	740	310	780	0
35 - 39 years	185	2,070	40	810	310	920	0
40 - 44 years	154	1,770	90	480	290	910	0
45 - 49 years	119	1,610	70	640	200	690	0
50 - 54 years	102	1,350	40	280	300	650	70
55 - 59 years	90	1,500	110	520	180	570	120
60 - 64 years	122	1,380	110	480	180	560	60
65 - 69 years	102	900	170	220	110	390	0
70 - 74 years	45	360	40	120	90	60	40
75 - 79 years	36	160	30	90	10	30	0
80 - 84 years	10	50	0	40	10	0	0
85 - 89 years	7	50	0	30	0	10	0
90 - 94 years	1	20	0	20	0	0	0
% of Persons							
0 - 4 years		6.4%	1.8%	6.8%	6.8%	6.8%	0.0%
5 - 9 years		6.9%	1.8%	6.6%	7.6%	7.9%	0.0%
10 - 14 years		6.7%	0.0%	6.3%	6.5%	8.2%	0.0%

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
15 - 19 years		5.8%	2.7%	5.3%	6.8%	5.8%	13.3%
20 - 24 years		6.1%	4.5%	7.8%	5.6%	5.5%	0.0%
25 - 29 years		8.4%	11.8%	8.4%	8.2%	7.4%	22.2%
30 - 34 years		9.0%	14.5%	9.7%	9.1%	8.2%	0.0%
35 - 39 years		9.4%	3.6%	10.6%	9.1%	9.6%	0.0%
40 - 44 years		8.0%	8.2%	6.3%	8.5%	9.5%	0.0%
45 - 49 years		7.3%	6.4%	8.4%	5.9%	7.2%	0.0%
50 - 54 years		6.1%	3.6%	3.7%	8.8%	6.8%	15.6%
55- 59 years		6.8%	10.0%	6.8%	5.3%	6.0%	26.7%
60 - 64 years		6.2%	10.0%	6.3%	5.3%	5.9%	13.3%
65 - 69 years		4.1%	15.5%	2.9%	3.2%	4.1%	0.0%
70 - 74 years		1.6%	3.6%	1.6%	2.6%	0.6%	8.9%
75 - 79 years		0.7%	2.7%	1.2%	0.3%	0.3%	0.0%
80 - 84 years		0.2%	0.0%	0.5%	0.3%	0.0%	0.0%
85 - 89 years		0.2%	0.0%	0.4%	0.0%	0.1%	0.0%
90 - 94 years		0.1%	0.0%	0.3%	0.0%	0.0%	0.0%
Transit pass							
Has transit pass	55	980	110	380	210	280	0
% of persons 16+ years of age		6%	10%	6%	8%	4%	0%
Disability Status							
Have disability or condition that affects travel	76	990	130	320	130	400	0
Uses a mobility aid such as a wheelchair, walker, crutch, cane, or seeing-eye dog	24	340	60	50	120	110	0
% of persons							
Have disability or condition that affects travel		4%	12%	4%	4%	4%	0%
Uses a mobility aid such as a wheelchair, walker, crutch, cane, or seeing-eye dog		2%	5%	1%	4%	1%	0%
Cycling Frequency							
At least 5 days per week	55	980	110	380	210	280	0
2-4 day per week	137	1,880	60	1,060	330	420	0
One day per week to one day per month	191	2,970	20	1,080	670	1,200	0
Less than one day per month	211	3,030	110	1,150	530	1,170	70

Person Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
I do not ride a bicycle at all	184	2,210	80	780	240	1,040	70
I am physically unable to ride a bicycle or use an electric micromobility device (e-scooter, e-skateboard, etc.)	724	9,960	710	2,740	1,390	4,800	310
Prefer not to answer	37	450	90	160	10	200	0
Transit Frequency							
At least 5 days per week	54	860	40	170	220	430	0
2-4 day per week	72	1,320	100	540	150	530	0
One day per week to one day per month	81	1,300	80	680	220	330	0
Less than one day per month	95	1,500	100	560	350	500	0
I do not ride the bus at all	1,189	15,580	760	5,040	2,240	7,100	450
I am physically unable to take the bus	3	10	0	0	0	10	0
Prefer not to answer	8	120	0	110	0	0	0

Note that weighting by age and gender was undertaken with stratifications by 5-year age range up to age 34, by 10-year age range up to age 84, and an aggregate 85+ group, with some strata being collapsed in certain zones with small samples. Therefore, the age distribution by 5-year age group in the survey data may not always match Census distributions although it may more closely match the Census when aggregated to 10-year age range.

5.3 Trip Characteristics

Table 38. Trip Key Indicators

Trip Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Daily trips (weekdays)							
Population Aged 5+ Years (eligible for trip capture)	1,502	20,690	1,080	7,090	3,170	8,890	450
Trips (Persons 5+)	1,595	62,190	2,490	21,710	10,720	25,400	1,870
Daily Trips / Person 5+ Yrs of Age		3.01	2.31	3.06	3.38	2.86	4.16
Travelled on travel day							
No trips on travel day	258	3,540	300	1,170	400	1,670	0
Yes, took trips	1,244	17,150	790	5,920	2,780	7,220	450
Aggregate Mode							
Driver	2,455	32,830	690	9,080	5,220	16,040	1,800
Passenger	653	9,350	250	3,090	1,480	4,470	60
Transit	102	1,430	160	330	230	700	0
School bus (e.g., yellow bus)	69	1,250	0	40	640	580	0
Bicycle/micromobility	395	4,740	250	2,600	1,030	860	0
Walking	872	11,810	1,140	6,080	1,960	2,620	0
Other	46	790	0	500	160	130	0
% of Trips							
Driver		52.8%	27.7%	41.8%	48.7%	63.1%	96.3%
Passenger		15.0%	10.0%	14.2%	13.8%	17.6%	3.2%
Transit		2.3%	6.4%	1.5%	2.1%	2.8%	0.0%
School bus (e.g., yellow bus)		2.0%	0.0%	0.2%	6.0%	2.3%	0.0%
Bicycle/micromobility		7.6%	10.0%	12.0%	9.6%	3.4%	0.0%
Walking		19.0%	45.8%	28.0%	18.3%	10.3%	0.0%
Other		1.3%	0.0%	2.3%	1.5%	0.5%	0.0%
Detailed Mode Shares							
Car - driver	2,455	32,830	690	9,080	5,220	16,040	1,800
Car - passenger	653	9,350	250	3,090	1,480	4,470	60
Transit Bus	102	1,430	160	330	230	700	0

Trip Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
School bus (e.g., yellow bus)	69	1,250	0	40	640	580	0
Accessible transit (YKFlex)	2	70	0	0	0	70	0
Work/campus shuttle bus	0	0	0	0	0	0	0
Bicycle (conventional bicycle)	337	3,940	250	2,210	820	660	0
E-bike (power-assisted bicycle with pedals)	44	610	0	360	110	150	0
E-scooter or other electric micromobility device	10	170	0	30	90	60	0
Walk (includes jogging)	872	11,810	1,140	6,080	1,960	2,620	0
Skateboard, kick scooter, roller blades, unicycle, or other human-powered device	4	20	0	10	0	0	0
Motorcycle or motor-scooter	8	130	0	0	110	20	0
Taxi or limousine	29	370	0	280	50	40	0
Other	7	220	0	220	0	0	0
% of Trips							
Car - driver		52.8%	27.7%	41.8%	48.7%	63.1%	96.3%
Car - passenger		15.0%	10.0%	14.2%	13.8%	17.6%	3.2%
Transit Bus		2.3%	6.4%	1.5%	2.1%	2.8%	0.0%
School bus (e.g., yellow bus)		2.0%	0.0%	0.2%	6.0%	2.3%	0.0%
Accessible transit (YKFlex)		0.1%	0.0%	0.0%	0.0%	0.3%	0.0%
Work/campus shuttle bus		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycle (conventional bicycle)		6.3%	10.0%	10.2%	7.6%	2.6%	0.0%
E-bike (power-assisted bicycle with pedals)		1.0%	0.0%	1.7%	1.0%	0.6%	0.0%
E-scooter or other electric micromobility device		0.3%	0.0%	0.1%	0.8%	0.2%	0.0%
Walk (includes jogging)		19.0%	45.8%	28.0%	18.3%	10.3%	0.0%
Skateboard, kick scooter, roller blades, unicycle, or other human-powered device		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Motorcycle or motor-scooter		0.2%	0.0%	0.0%	1.0%	0.1%	0.0%
Taxi or limousine		0.6%	0.0%	1.3%	0.5%	0.2%	0.0%
Other		0.4%	0.0%	1.0%	0.0%	0.0%	0.0%

Trip Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Destination purpose							
Travel to Work (usual place of work)	883	11,820	490	4,200	2,070	4,940	110
Business meeting or work-related trips	79	1,410	30	470	210	580	110
Working on the road / itinerant	30	440	100	20	0	260	60
Post-Secondary School	15	330	30	160	0	130	0
Attend School (K-12)	221	3,880	30	1,340	640	1,740	130
Picking up a package or online purchase (from a store or pick-up locker)	25	480	30	100	170	110	60
Shopping or household maintenance (grocery, shoe store, auto repair, gas station)	438	5,210	210	1,710	1,030	1,850	420
Health and personal care	111	1,090	100	380	280	340	0
Restaurant, bar, or coffee (whether eat-in or take-out)	148	1,780	90	750	180	630	130
Social (visiting friends / family, religious gathering)	109	1,310	90	510	150	490	70
Recreation, sports, leisure, arts, or other recreational activities	276	3,370	110	1,500	710	1,040	0
Pick someone up	215	3,210	70	1,100	390	1,650	0
Drop someone off	220	2,990	20	1,000	450	1,520	0
Return Home	1,786	24,340	1,040	8,340	4,320	9,870	770
Other	36	520	50	120	120	230	0
% of Trips							
Travel to Work (usual place of work)		19.0%	19.7%	19.3%	19.3%	19.4%	5.9%
Work-related trips to attend meetings		2.3%	1.2%	2.2%	2.0%	2.3%	5.9%
Working on the road / itinerant		0.7%	4.0%	0.1%	0.0%	1.0%	3.2%
Post-Secondary School		0.5%	1.2%	0.7%	0.0%	0.5%	0.0%
Attend School (K-12)		6.2%	1.2%	6.2%	6.0%	6.9%	7.0%
Picking up a package or online purchase (from a store or pick-up locker)		0.8%	1.2%	0.5%	1.6%	0.4%	3.2%
Shopping or household maintenance (grocery, shoe store, auto repair, gas station)		8.4%	8.4%	7.9%	9.6%	7.3%	22.5%
Personal business (e.g., bank, dentist, health appointments, personal care)		1.8%	4.0%	1.8%	2.6%	1.3%	0.0%

Trip Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
Restaurant, bar, or coffee (whether eat-in or take-out)		2.9%	3.6%	3.5%	1.7%	2.5%	7.0%
Social (visiting friends / family, religious gathering)		2.1%	3.6%	2.3%	1.4%	1.9%	3.7%
Recreation, sports, leisure, arts, or other recreational activities		5.4%	4.4%	6.9%	6.6%	4.1%	0.0%
Pick someone up		5.2%	2.8%	5.1%	3.6%	6.5%	0.0%
Drop someone off		4.8%	0.8%	4.6%	4.2%	6.0%	0.0%
Return Home		39.1%	41.8%	38.4%	40.3%	38.9%	41.2%
Other		0.8%	2.0%	0.6%	1.1%	0.9%	0.0%
Mode of first trip to work							
Auto Driver	399	5,710	120	1,490	800	3,070	230
Auto Passenger	61	740	10	260	110	360	0
Transit	23	280	40	110	0	110	0
Bicycle	74	890	50	420	300	120	0
Walked	152	1,990	250	960	320	460	0
Other	9	150	0	80	10	60	0
% of workers with a usual workplace outside home or no fixed work address							
Auto Driver		58.5%	25.5%	44.9%	51.9%	73.4%	100.0%
Auto Passenger		7.6%	2.1%	7.8%	7.1%	8.6%	0.0%
Transit		2.9%	8.5%	3.3%	0.0%	2.6%	0.0%
Bicycle		9.1%	10.6%	12.7%	19.5%	2.9%	0.0%
Walked		20.4%	53.2%	28.9%	20.8%	11.0%	0.0%
Other		1.5%	0.0%	2.4%	0.6%	1.4%	0.0%
Travel to Work on Travel Day*							
Total workers who travelled to work or for a work-related purpose on travel day*	718	9,750	480	3,320	1,550	4,180	230
% of workers		75.2%	73.4%	76.7%	74.1%	75.2%	67.4%
*%s are based on total workers including those who work exclusively from home or who have no fixed workplace address. Caution should be exercised when comparing Census Journey to Work data against the survey data. The survey has reported modes of travel for current workers scheduled to work at a usual workplace outside the home on a sampled weekday (with some workers not travelling due to work from home, some workers not scheduled to work on the given weekday, and some workers absent from work due to illness) as well as workers who had work-related errands. The Census, on the other hand, has reported habitual mode choice for a typical							

Trip Characteristic	Unweighted n	Study Area	Downtown*	Frame Lake North / School Draw / Con Mine	Old Town / Niven / N'Dilo	Range Lake / Frame Lake South	Rest of Yellowknife*
journey to work on any day of the week for any frequency per week. In addition, the 2021 Census was conducted at the height of the COVID-19 pandemic, and the labour force characteristics, workplace arrangements, and commuting patterns may vary considerably in 2024.							
Vehicle occupants for auto driver trips							
1 occupant (SOV)	1,736	23,360	510	6,390	3,650	11,260	1,550
2 occupants (HOV-2)	536	6,540	180	1,800	1,090	3,210	250
3+ occupants (HOV 3+)	183	2,920	0	880	480	1,560	0
% auto driver trips							
1 occupant (SOV)		71.2%	73.9%	70.4%	69.9%	70.2%	86.1%
2 occupants (HOV-2)		19.9%	26.1%	19.8%	20.9%	20.0%	13.9%
3+ occupants (HOV 3+)		8.9%	0.0%	9.7%	9.2%	9.7%	0.0%

APPENDICES

Appendix 1: Survey Invitation Letter



CITY OF YELLOWKNIFE

Street Address

Yellowknife, NT X1X 1X1

DATE



Log in at
YKtravelsurvey.ca
Your secure access code is
Y123ABC

Help shape your city's transportation future!

Dear resident of Yellowknife,

I'm pleased to let you know that your household has been randomly selected to participate in the City of Yellowknife's **2025 Household Travel Survey**. The survey is being conducted as part of Let's Move YK — Yellowknife's Transportation Plan. The plan will create a single, unified roadmap for Yellowknife's transportation network. This plan will help the City move forward with investments in transportation projects for all modes of travel over the next 25 years.

Your participation will go a long way towards improving transportation in your community. By understanding how, where, and why residents travel within Yellowknife, we can better plan our future transportation system and services to help you get to where you need to go.

You can complete the survey in two ways:

- Take the survey online at **YKtravelsurvey.ca** using the secure access code at the top of this letter; OR
- Complete the survey over the phone by calling the survey toll-free hotline at **1-855-688-1137**.

You may also receive a phone call requesting your participation. R.A. Malatest & Associates Ltd., an independent Canadian research firm, is conducting the survey on behalf of the City of Yellowknife.

In appreciation of your time, you'll be entered for a chance to win a \$500 grand prize gift card for a local merchant or a \$25 gift card for a local merchant.

If you have questions about the survey, call the toll-free survey hotline at **1-855-688-1137** or email info@YKtravelsurvey.ca

Thank you for your participation in this important survey.

Sincerely,

Ben Hendriksen

Mayor



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN

Appendix 2: Survey Questionnaire

City of Yellowknife 2025 Household Travel Survey**Survey Questionnaire****Online / Phone Interview Scripts****INDEX**

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Questionnaire numbering is non-sequential and refers to numbering within the original template.

Grey shading indicates scripts for the telephone interview version that differ from the online version.

Orange text indicates a key variable name in the final data file that is associated with a given question. Names are from a template, but may be adjusted in the final data deliverable to match client preferences.

How survey is identified (name, where it is, who is it for)

These should be generally consistent whenever mentioned in the survey and in communications materials

Full Survey name: 2025 Yellowknife Household Travel Survey
Agency survey: City of Yellowknife
Scope of the survey: Residents of the City of Yellowknife.
Trips to/from/within Yellowknife and the surrounding area.

Survey Contact information

Survey Portal URL: YKtravelsurvey.ca
Survey toll-free help line: 1-855-688-1137
Survey email: info@YKtravelsurvey.ca
City contact(s) for respondents:
City of Yellowknife:
Richela Solatorio
Community Engagement Advisor
rsolatorio@yellowknife.ca
867-669-3413

Client Privacy Contact (if different from main City contact for the public)
Same as above for now (Richela)

City's webpage for this project:
<https://www.yellowknife.ca/TransportationPlan/>

Incentives: a \$500 grand prize gift card to a local merchant or one of 20 \$25 gift cards to a local merchant

Project / client logo(s):

City logo



City logo used as header with dotted arc and logotype reading City of Yellowknife



Project / client colours: primary / secondary colours

Crest colour palette

Blue	R0 G143 B197 #008FC5	Pantone 640 C		reversed .
Red	R227 G27 B35 #E31B23	Pantone 1797 C		reversed .
Green	R0 G133 B63 #00853F	Pantone 356 C		reversed .
Black	R0 G0 B0 #000000	Black 100%		reversed .
Yellow	R255 G239 B0 #FFEF00	Pantone Yellow C		reversed .

Project logo:

Transportation Plan project logo



LET'S MOVE YK!
YELLOWKNIFE TRANSPORTATION PLAN

**2025 Yellowknife Household Travel Survey
Online Survey / Telephone Interview Script**

INTRODUCTION – ONLINE HOUSEHOLD TRAVEL SURVEY

[City of Yellowknife][CLIENT LOGO]

[Project logo]

Secure Access Code: _____

Begin Survey

Welcome to the 2025 Yellowknife Household Travel Survey.

The City of Yellowknife is undertaking a Household Travel Survey to learn more about the travel patterns of residents. The goal of the survey is to understand where people are going and how they get there by collecting information on the trips made by each member of your household.

Survey invitation letters have been sent to randomly selected households.

The survey will support the development of the Let's Move YK – Yellowknife's Transportation Plan. The Transportation Plan will be a comprehensive long-term plan to guide the future of Yellowknife's transportation network.

The information you provide will be used to make informed decisions on future planning for roads, public transit, cycling and pedestrian infrastructure, and other transportation-related projects for years to come.

In appreciation of your time, you'll be entered for a chance to win a **\$500 grand prize gift card or one of 20 \$25 gift cards** for a local merchant upon the completion of this survey.

[FAQ's below will be in expand-on-click format]

How long does it take to complete the survey? Approximately 10-25 minutes depending on the size of your household and number of trips. It is extremely important all your data is entered completely and accurately. You can also complete the survey by telephone with one of our professional interviewers by calling us toll-free at **1-855-688-1137**.

What kinds of questions are asked? The first two sections of the survey contain questions about your household and the people living in your household. The final section asks questions about the trips taken by each member of your household that is 5 years of age or older on a particular weekday (your Travel Day).

Will my privacy be protected? Yes. Your survey responses will be combined with others' responses before they are analyzed. Your contact information will be permanently deleted once the survey is concluded. Click here to view our [Privacy Statement](#).

How was I selected for the survey? Your household was selected at random from households across Yellowknife. Only a limited number of invitations are sent out, so the few minutes you take to participate will have a big impact. The survey is voluntary, but to truly represent the travel behaviour of all types of residents in your neighbourhood, we hope that you will choose to participate.

Who is being surveyed? We will be surveying randomly selected households across the City of Yellowknife. Only a limited number of invitations may be sent out, so your participation is very important.

Who is conducting the survey? The City of Yellowknife has contracted independent research firm R.A. Malatest & Associates Ltd. to conduct the survey.

What day of the week should I report on? We are interested in your travel on the most recent previous weekday. It is important that you provide a snapshot of what you actually did on that day, even if it was not a typical day, and even if you did not make any trips.

I've also been asked to participate in a Community Survey. Is this the same thing? No, it is a different survey. Both surveys are being conducted as part of Let'sMoveYK, Yellowknife's Transportation Plan. This Household Travel Survey collects factual data about travel from randomly selected households, so that we can build an accurate picture of daily travel patterns. The Community Survey is open to all residents and gathers feedback on what you see as the priorities, challenges, and opportunities for transportation in Yellowknife. It would be of great help if you can complete both surveys. A link to the Community Survey is included at the end of this survey.

Who do I contact for more information or for help?

- If you would prefer to complete the survey by telephone, please call 1-855-688-1137 (toll free).
- You may also call the number above for assistance with the online survey, or email us at info@YKtravelsurvey.ca.
- If you wish to validate the authenticity of this survey you may contact the City of Yellowknife at [867-669-3413](tel:867-669-3413) or visit the City of Yellowknife [webpage \[https://www.yellowknife.ca/TransportationPlan/\]](https://www.yellowknife.ca/TransportationPlan/).
- For more information about this survey, please visit YKtravelsurvey.ca.

Please note that your answers to the survey are saved each time you click on the Previous or Continue Buttons.

A1. **The survey should be completed by a person in your household 16 years of age or older who is familiar with your household's weekday travel. Are you that person?**

1. Yes
2. No

A1X. [if A1=No]

This survey must be completed by someone 16 years of age or older who is familiar with your household's weekday travel.

The survey may only be completed by someone under the age of 16 if consent is provided by their parent or legal guardian.

Please have a parent or legal guardian review and answer the following question before proceeding:

The goal of the **Yellowknife Household Travel Survey** is to understand where people are going and how they get there by collecting information on the trips made by each member of your household. The information you provide will be used to make informed decisions on future planning for roads, public transit, cycling and pedestrian infrastructure, and other transportation facilities. All the information you provide is strictly confidential.

1. I am a parent or legal guardian of a person in this household who is under the age of 16 and I consent to this young person filling out the **Yellowknife Household Travel Survey** on behalf of the household
2. No, I do not consent to having a younger household member fill out the survey

[If consent is not given, please click 'Previous' to go back to the introduction and ask an older member of the household to complete the survey.]

[If answer is No, do not allow respondent to proceed. Provide the following error message]

Please either obtain consent or ask an older member of the household to complete the survey.

If you are 16 years of age or older, click the Previous button to change your answer.

If you are under the age of 16, please have an older person in your household fill out the survey.

A1Z. [Ask ALL] Notice and Consent to Participate

The 2025 Yellowknife Household Travel Survey is being conducted by the City of Yellowknife. This survey will provide critical information for making future decisions about Yellowknife's transportation systems.

An independent, Canadian research firm, R.A. Malatest & Associates Ltd., has been contracted to administer the survey. The City of Yellowknife and R.A. Malatest & Associates Ltd. are dedicated to protecting the privacy of participants.

This survey is voluntary and the personal information you provide will be kept confidential and will only be used for the purpose of conducting this survey. Click here to view our [Privacy Statement](#).

Select "I Agree" to confirm that you have read the above statement and agree to participate in the survey.

1. I agree
2. I do not agree [end survey]

Questions about this survey and use of your personal information may be directed to:

[Richela Solatorio, Community Engagement Advisor, City of Yellowknife](#)

email: rsolatorio@yellowknife.ca

INTRODUCTION – TELEPHONE INTERVIEW

[This introduction is for phone interviews. The Persuaders section includes script interviewers can read to answer common questions from respondents]

Hello, my name is _____, and I am calling on behalf of the City of Yellowknife to follow up on an invitation we recently sent you to participate in the Yellowknife Household Travel Survey.

The data collected in this study will help inform decisions to improve transportation infrastructure and services in the City of Yellowknife. In this survey, we will ask you some questions about the trips made by members of your household yesterday.

(INTERVIEWER: If respondent sounds young, verify over the age of 16. If no, ask to talk to appropriate person and restart intro or ensure that the parent provides consent for the younger person to complete the survey on behalf of the household, or schedule a call back)

USE FOLLOWING SCRIPTS AS NECESSARY:

- This survey is about the transportation choices people make. The survey results will be used to help plan improvements to roads, transit infrastructure, and pedestrian and cycling facilities in Yellowknife.

- Your household has been randomly selected to participate in this study. The last time this important transportation study was undertaken was 17 years ago, in 2008. This was a year before video streaming was available in Canada. It is time to update our understanding of residents' transportation habits. The survey is voluntary, but to truly represent the travel behaviour of residents in your area, it is important that you participate in the study.
- The survey takes about 10-20 minutes depending on the size of your household and your answers.
- The survey contains questions about your household and the people in your household. It also asks about the trips people in your household make.
- Even if you did not make any trips yesterday, it is important that we record that information as well. The survey will be shorter for you.
- I work for R.A. Malatest & Associates Ltd, a professional research firm. The City of Yellowknife has contracted our firm to conduct this survey on their behalf.
- If you wish to validate the authenticity of this survey you may contact the City of Yellowknife at **867-669-3413** or visit the City of Yellowknife [webpage](https://www.yellowknife.ca/TransportationPlan/).
[<https://www.yellowknife.ca/TransportationPlan/>]
- I can send you an email with information about the study, and a link to the website for this study.
- In appreciation of your time, you'll be entered for a chance to win a \$500 grand prize gift card for a local merchant or one of 20 \$25 gift cards for a local merchant upon the completion of this survey. The prize draw is administered by R.A. Malatest & Associates Ltd. and will be drawn once the survey administration period is completed.

A1. Please note that this call may be recorded for quality control purposes. I need to talk to a person, 16 or older, who is most familiar with your household's trips made yesterday. Are you that person?

1. Yes (confirmed correct person)
2. No

A1X. [if A1=No]

This survey must be completed by someone 16 years of age or older who is familiar with your household's weekday travel. May I speak to someone in your household who is over the age of sixteen and who is familiar with your household's travel?

INTERVIEWER: Click Previous to change the answer on previous page and proceed.

A2. [ONLY ASKED OF TELEPHONE INTERVIEW RESPONDENTS. ASSUME ONLINE RESPONDENTS HAVE RECEIVED THE LETTER IN THE MAIL IN ORDER TO GET ACCESS CODE TO LOG ON]

Have you received the letter in the mail describing this study?

1. Yes
2. No
3. Don't know

INTERVIEWER: IF RESPONDENT DID NOT RECEIVE LETTER AND WISHES FOR MORE INFORMATION BEFORE PROCEEDING:

I can send you an email with information about the study, and a link to the website for this study.

A3. The 2025 Yellowknife Household Travel Survey is being conducted by the City of Yellowknife. As part of the survey, you will be asked questions about the trips made by each member of your household and information about your household (such as the type of building you live in, number of vehicles you have access to, and age of each household member). The information will be used for transportation planning purposes only.

If you have questions about this survey and use of your personal information, I can provide you with contact information for the project contact at the City of Yellowknife.

IF ASKED:

Richela Solatorio, Community Engagement Advisor, City of Yellowknife,
rsolatorio@yellowknife.ca, 867-669-3413

A1Z. This survey is voluntary, and I can assure you all personal information will be kept confidential and will only be used for the purpose of this survey. (Interviewer: click here for the [Privacy Statement](#) if more info is required).

Do you agree to take part in the study?

- 1: Agree
- 2: Call later / appointment
- 3: Refuse

SURVEY PRIVACY STATEMENT

[available anywhere there is a link to the [Privacy Statement](#)]

Participation in this survey is voluntary.

The City is dedicated to protecting your privacy. Collection of information for the survey is being undertaken in accordance with the Northwest Territories' *Access to Information and Protection of Privacy Act* (ATIPPA) and the federal *Personal Information Protection and Electronic Documents Act* (PIPEDA). The confidentiality of any information collected is protected under the provisions of the Acts.

Your survey data will remain confidential and will only be analyzed when combined with the information of other households.

Data collected through this survey will be used by the City of Yellowknife for future transportation and land use planning purposes. It may not be accessed or used for other purposes except as required by law.

Any information obtained from each household through the survey is processed, stored, and used in a form that does not permit any particular household to be identified. Your contact information will not be shared with anyone for any other purpose outside of this survey. Your contact information will not be included in the survey dataset delivered to the City of Yellowknife.

Canadian-based research firm R.A. Malatest & Associates Ltd. is conducting the survey data collection under the direction of the City of Yellowknife with the highest standards of the protection of privacy and confidentiality. Click here for a link to the firm's Privacy Policy [URL: <http://www.malatest.com/Privacy.htm>] [LAUNCH IN SEPARATE WINDOW].

For more information, please contact 1-855-688-1137 (toll free) or email info@YKtravelsurvey.ca.

If you wish to validate the authenticity of this survey, or if you have any questions or concerns regarding the collection, use, disclosure, retention or disposal of personal information in connection with the survey, you may contact [Richela Solatorio, Community Engagement Advisor, City of Yellowknife](#) at rsolatorio@yellowknife.ca. You may also visit the City of Yellowknife's [webpage](#) for more information. [<https://www.yellowknife.ca/TransportationPlan/>]

Your information will be retained for at least 12 months after conclusion of data collection. If after completing the survey you wish to withdraw your consent to collect your information, please contact [Richela Solatorio, Community Engagement Advisor, City of Yellowknife](#), rsolatorio@yellowknife.ca, 867-669-3413. After 12 months, the research contractor will delete your personal information from the data.

For more information about this research study please visit [YKtravelsurvey.ca](#).

HOUSEHOLD INFORMATION

[B1A Web] Please provide a phone number and email that we can reach you at if we need to clarify your responses.

PHONE: Can you please provide a phone number and email address in case one of our staff need to reach you?

Name: [NAME] [optional]

Phone Number: [PHONE NUMBER] [optional] Extension: _____ [optional]

Email: _____ [optional]

Your contact information will be kept confidential and will not be shared with anyone. We will contact you only in the event we need to verify your responses. After 12 months, we will delete any contact information you provide on this page.

All fields on this page are optional; you may select Continue to proceed if you do not wish to provide your contact information.

B2. [If address exists in sample file AND street address flag=1 (i.e., address is not a mailing address like a rural route or PO Box)]]

The home address we have for you is listed below. Please verify the address and edit the fields below if necessary. This information is required to identify the location of your trips.

We are interested in the physical address of your home, not your mailing address or unit number. Please review the following address and correct it if necessary.

STREET ADDRESS

CITY / TOWN

POSTAL CODE

Please confirm the address is correct, or edit the fields displayed and select confirm to proceed.

1. Yes, I confirm this address is correct

99. Decline to answer / don't know

B2X. [IF DECLINE TO ANSWER IN B2]

Unfortunately, the survey cannot proceed without an answer to this question. Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our [Privacy Statement](#).

If you are uncomfortable providing us your exact street address and you live in an urban area, you may provide your postal code. If you live in a rural area, please provide your street address, or at least the closest cross-streets.

PHONE: Rather than terminating the survey, would you reconsider answering this question?

1. Yes, I will provide my street address [if agree, go back to previous question]
3. I would prefer to report a nearby location by finding my postal code or the closest cross-streets with Google Map [if selected, go back to map address capture page]
2. I will not give my address or a nearby location [If still refuse:] Unfortunately, we cannot continue the survey without this information. Thank you for your time. Have a pleasant day / evening.

HomeLat, HomeLong, etc.

HOME_LOCATION

B2Y. Where do you live?

Please use the buttons below the map to either confirm that the location is correct or to search for the correct location. [Map the address provided using Google Maps]

[If no address in sample or if address flag indicates a mailing address such as PO Box and address page was skipped]: **Please provide the address of your place of residence. This information is required to identify the location of your trips. Please do not provide a postal code or P.O Box.**

[If confirmed address on previous page:] [display confirmed address above Google Map]

WEB: Does the map correctly show where your home address is located? If not, click "Search again" to search for your correct address? If not, please move the marker to where it is located, or use the Search box to search for your correct address.

PHONE: CONFIRM WITH RESPONDENT WHAT THE MAP SHOWS: E.g., I am looking at the location on Google Maps. It looks like your home is near the intersection of [STREET] and [STREET]. Is that correct?

OUTSIDE_STUDY_AREA_TERM

[If address location mapped appears to be out of bounds of the study area (the City of Yellowknife)]

Your household address appears to be outside of the [study area](#) (the City of Yellowknife municipal boundaries).

[PROGRAMMER: on click "[study area](#)", display pop up modal window with map]

Please check the location of the marker on the map. If the marker is not precisely where your home is physically located, move the marker, or search again. If the location of the

marker is correct, then you live outside of the survey area and we cannot proceed any further in the survey, but we thank you for your participation!

Please contact us at 1-855-688-1137 or info@YKtravelsurvey.ca if there has been an error or to confirm if your household should participate in this study, or click the Previous button if you have mapped your household address incorrectly.

PHONE: I will stop the interview here and thank you for your time. Have a good day / evening.

DwellingType

B3. What type of dwelling do you live in?

1. single-detached house, laneway house, or detached garden suite
2. semi-detached house or duplex
3. house with a secondary suite
4. townhouse / row house
6. apartment or condo in a building with 1 to 4 floors
7. apartment or condo in a building with 5 or more floors
8. mobile home or movable dwelling (manufactured home)
77. other, please specify: _____

Mouseovers:

Single-detached house: A single dwelling not attached to any other dwelling or structure (except its own garage or shed). Has open space on all sides and has no dwellings either above it or below it. Includes mobile homes if they are permanently attached to a foundation. Includes laneway houses and garden suites that are separate buildings not attached to other dwellings.

Semi-detached house or duplex: Two dwellings attached side by side, back to back or one above the other. Include basement apartments in houses with only two dwelling units.

House with a secondary suite: Choose this option if you live in a house with a secondary suite (including if you live in the primary suite or the secondary suite in that house), and you are not sure whether it should be classified as a semi-detached house or duplex or an apartment in a building with 1 to 4 floors.

Townhouse / row house: Three or more dwellings joined side by side or occasionally back to front, such as a townhouse or garden home, but not having other dwellings either above or below. Include triplexes or quadruplexes only if all dwelling units are on the same level.

Apartment or condo in a building with 1 to 4 floors: A dwelling unit attached to other residential dwelling units, commercial units, or other non-residential space in a building that has fewer than five storeys. Includes basement apartments in houses with three or more dwelling units. Include triplexes or quadruplexes if there are dwelling units on different levels (some units are above or below). If condo townhouse, please select 'Townhouse'.

SecondarySuite

B3B. [if dwelling type = 3 house with a secondary suite]

Is the secondary suite in a building with 3 or more apartments or dwelling units?

1. Yes
2. No

[this question exists to help us determine whether or not to classify it as an apartment]

RentOwn

B3C. Do you rent or own your place of residence?

1. Rent
2. Own
99. Decline to answer

HaveVehicles, NumVehicles, NumVehPetrol, NumVehHybrid, etc.

B7. **How many licensed motor vehicles (including cars, SUVs, light trucks, vans and motorcycles) of each fuel type are available to the members of your household, including yourself?**

INTERVIEWER: prompt as necessary. You can ask how many vehicles are available to members of your household, then ask how many are of each fuel type.

Include all personal and business vehicles. Include vehicles provided by employers and which household members use to go to work or for personal use.

Exclude vehicles that are not currently insured to be on the road. Exclude bicycles, ATVs, UTVs, and RVs. Exclude car share vehicles.

Regular gasoline (not a hybrid) ____ [allow entry of numbers from **0 to 19**]

Hybrid ____

Plug-in hybrid ____

Electric-only ____

Diesel ____

Biodiesel ____

Gas motorcycle ____

Other / unsure of fuel type*: ____

77. None (no vehicles)

99. Don't know

* Other / unsure of type, please describe: _____

Total vehicles: ____ [DISPLAY RUNNING TOTAL AS RESPONDENT MAKES ENTRIES]

NumVehConfirm

B7X [if response to # of vehicles anything other than 77 none (no vehicles) and 99 don't know]
The sum of your entries on the previous question is **[RECALL TOTAL VEHICLES]**.

Is **[RECALL TOTAL VEHICLES]** the correct total number of licensed motor vehicles available to members of your household?

1. Yes
2. No

NumVehAlt

B7Y [if B7=99 don't know or if B7X=2 total vehicles not correct]

[if B7=99 don't know:] If you do not know the number of vehicles of each fuel type, can you tell us how many licensed motor vehicles are available to members of your household in total?

[if B7X=2 total vehicles not correct:] You said **[RECALL TOTAL VEHICLES]** is not the correct total number of vehicles.

What is the correct total number of licensed motor vehicles available to members of your household?

Include all personal and business vehicles. Include vehicles provided by employers and which household members use to go to work or for personal use.

Exclude vehicles that are not currently insured to be on the road. Exclude bicycles, ATVs, UTVs, and RVs. Exclude car share vehicles.

___ [allow entry of numbers from 1 to 15]

99: Decline to answer / don't know

HaveBikes, NumBikesChild, NumBikesAdult, NumEBikesAdult, NumEmobility

B8. **How many working bicycles, electric bicycles or other e-mobility devices are available to members of your household, including yourself? (Please only record bicycles or devices that have been used in the last year).**

[INTERVIEWER: prompt for each of the options below]

Children's bicycles: ___

Adult bicycles: ___

Adult e-bicycles – (electric-assist): ___

E-scooter or other electric mobility device (e-skateboard, hoverboard, e-unicycle/mono-wheel, "throttle e-bike" that does not require pedalling): ___

77. None

99. Decline / don't know

NumHouseholders

B4. **How many people are currently living in your household, including yourself?**

Include all persons who normally live in the household unit, including babies, children, grandparents. Include children in joint custody if living in your household on your **Travel Day [MONTH DAY YEAR]**. Include roommates, live-in housekeepers and lodgers who share communal facilities.

Exclude anyone living in a separate apartment or suite within the building. Exclude persons living elsewhere for more than 1 month (e.g., son or daughter living away at school). Exclude temporary guests living here for less than 1 month.

___ **Total # persons in household [Allow entry from 1 to 15]**

(confirm with respondent)

99. Decline / don't know [go to B5]

B5. [IF DECLINE TO ANSWER IN B4]

Unfortunately, the survey cannot proceed without an answer to this question. Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our [Privacy Statement](#).

PHONE: Rather than terminating the survey, would you reconsider providing this information?

WEB: Click the Previous button to go back and provide a response, or click End Survey to quit
[if agree, go back to previous question]

[If still refuse, record as refusal:] Thank you for your time. Have a pleasant day / evening

DEMOGRAPHICS INTRO

The next section is about your household's demographics. You will be asked to provide some information about yourself and the other members of your household.

Your responses are entirely confidential. Your personal information will be protected and will not be shared with anyone for any other purpose outside of this survey. Click here to view our Privacy Statement.

If anyone is missing, click the + sign to add another person to the list.

Please fill in the following table with a way of identifying each person. This will make it easier to refer to them in questions later in the survey. You could use a name, nickname, initials, or family relationship ('spouse', 'son #2', 'child 12 years old', etc.). These names or nicknames will be removed from the final data file to preserve your household's anonymity.

Household Member #1 ID: You

[Add fields for other HH members according to # in B4)

[Option for respondent to add more HH members]

+ Add new person

Upon selecting 'Continue,' the information provided thus far will be saved and processed.

[IF ONE PERSON HOUSEHOLD OR B4B=2 NO]

The next section is about your household's demographics.

Please click on the 'begin demographics' link to answer your demographic questions.

If the number of people in the household is not correct, use the Previous button to go back to the question about the number of people in the household.

Upon selecting 'Continue,' the information provided thus far will be saved and processed.

Person #1 ID	Begin Demographics
--------------	------------------------------------

[once all demographics complete:] To edit your demographic information, please click on the Edit Demographics link in the above table. Once your demographic questions are complete, you can enter your trips.

[IF MORE THAN ONE PERSON]

Please click on the links beside each household member to answer the demographic questions.

If the number of people in the household is not correct, use the Previous button to go back to the question about the number of people in the household.

Upon selecting 'Continue,' the information provided thus far will be saved and processed.

Household Member	Age	Gender	Status	
You	-	-	Complete	Edit
[recall Person #2 ID]	-	-	Begin Demographics	
[recall Person #3 ID]	-	-	Begin Demographics	
Etc.				

1 record complete out of 3

Click 'Begin Demographics' to start entering demographics for each person.

[Once completed for all household members, display the following instructions:]

The demographics section of the survey is now complete. You can use the Edit links to update/edit your previously entered responses, or click Continue to start entering information about your trips.

Before proceeding, please ensure that all information provided is accurate.

Upon selecting 'Continue,' the information provided up to this point will be saved and processed.

DEMOGRAPHICS – GENDER, AGE, LICENCE, ETC.**Age**

C2. **What is [your/PERSON's] age?**

____[0-98]

98. older than 98 years of age

99. decline to answer

[If PERSON # >=2:] If younger than 1 year of age, please enter 0.

Gender**C1. What gender [do you/does PERSON] most identify with?**

Refers to current gender which may be different from sex assigned at birth and may be different from what is indicated on legal documents.

[INTERVIEWER: do not ask unless necessary – record only]

1. Male
2. Female
3. Non-binary
4. Two-spirit
77. Prefer to self-identify: _____
99. Prefer not to say

AgeRangeResponse**C2A. [If decline to answer:] What age group do [you/PERSON] belong to?**

(INTERVIEWER: Read the age ranges, starting at a relevant one)

- 1: 0-4 years
- 2: 5-9
- 3: 10-15
- 4: 16-19
- 5: 20-24
- 6: 25-29
- 7: 30-34
- 8: 35-39
- 9: 40-44
- 10: 45-49
- 11: 50-54
- 12: 55-59
- 13: 60-64
- 14: 65-69
- 15: 70-74
- 16: 75-79
- 17: 80-84
- 18: 85-89
- 19: 90-94
- 20: over 95 years of age
- 99: decline to answer

[NOTE: Age categories are in five-year age ranges except to differentiate above or below age of driver's licence, and with survey trip capture cut-off age of 5+. Including this follow up question if C2 was refused allows us to at least capture an age range. Within that range, the age will be randomly assigned within certain limits (e.g., if 16-19, random assignment of age will also be guided by whether enrolled in school and type of school enrolled in).]

AgeCategory

C2B. [if 99 to C2A]

**Unfortunately, the survey cannot proceed without an answer to this question.
Demographic information such as age is crucial to transportation research.**

Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our [Privacy Statement](#).

PHONE: Rather than terminating the survey, would you reconsider answering this question?

If you are uncomfortable providing us [your / PERSON's] exact age, please select from the ranges below to continue the survey.

INTERVIEWER: Go back to previous question if precise range given or select from broad ranges below

1. 0-4 years (infant or toddler, trips will not be captured)
2. 5-14 years (child or youth not eligible for driver's licence)
3. 15-19 years (youth eligible for driver's licence)
4. 20-29 years
5. 30-49 years
6. 50-64 years
7. 65+ years of age
99. Decline to answer

[If still refuse:] Unfortunately, the survey cannot proceed without this information. Thank you for your time. Have a pleasant day / evening.

[WEB:] Close your browser window to end the survey

C2C. [if (PERSON #1<16 IN C2 or PERSON#1=C2A age range<4 (under 16)or PERSON#1=C2B age category <3 (under 16))

[Cul-de-sac page with only Previous and End Survey buttons]

[if # of people in household=1]: You indicated that only one person lives in your household, and that you are [AGE years or AGE RANGE] old.

[All]: This survey must be completed by someone 16 years of age or older who is familiar with your household's weekday travel.

[if # of people in household=1]: If you are 16 years of age or older, click the Previous button to change your answer.

[if # of people in household>1]: **If you are 16 years of age or older, click the Previous button to change your answer. Please fill in the information for Person #1 identified as “You” with your own information.**

If you are under the age of 16, please have a member of your household who is 16 years of age or older fill out the survey.

DriversLicence

C3. [if age >= 15, or C2A>=4 or C2B >=3]

[Do you/Does PERSON] have a valid driver’s licence?

[*mouseover for valid driver’s licence:* This includes any category of motor vehicle licence, including a temporary learner’s permit. Answer ‘No’ if the licence has expired and has not been renewed or if it has been suspended.]

1. Yes
2. No
99. Decline / don’t know

[Note: residents can obtain a learner’s permit at age 15+]

TransitPass

C3B. [if 13+ years of age (C2>=12 or C2A>=3 or C2B>=2)]

Do you/does PERSON] have a monthly or annual transit pass?

A transit pass is a product that allows unlimited travel for a month or a year (or the school year for discounted passes for secondary school students). Do not count single tickets, cash fares, or 10-ride passes into account.

1. Yes
2. No
99. Decline / don’t know

[note: children 12 years and younger ride free on YKTransit, so above question only asked for ages 13+]

OccStatus, WorkFt, WorkPT, StudentFt, StudentPT, Etc.

C4. [If age 5+]

Which of the following apply to [you/PERSON]? Select all that apply.

PHONE:

[If 15+years:] INTERVIEWER: ASK ABOUT BOTH EMPLOYMENT STATUS AND STUDENT STATUS

[Are you/Is PERSON] currently working (i.e., an employee or self-employed)? Is that full-time or part-time?

[Do you/does PERSON] currently attend school or another educational institution? (K-12 or post-secondary) Is that full-time or part-time?

1. Work full-time (30 or more hours per week), including self-employment [only display if age 12+]
2. Work part-time (less than 30 hours per week), including self-employment [only display if age 12+]
3. Student full-time
4. Student part-time
5. Unemployed (available for and actively seeking work) [display only if age 15+]
51. Not employed and not looking for work (disability, unpaid volunteer, parental leave) [display only if age 15+]
6. Retired [only display if age 40 +]
7. Stay-at-home parent or caregiver [only display if age 16+]
77. Other, specify: _____

[PROGRAMMING NOTE: cannot select 'unemployed' or 'not employed and not looking for work' if work full-time or part-time]

SchoolProbe

[If age between 5 and 16 and C4 response did not include either student full-time or student part-time. PROGRAMMER: This is a warning, so allow the respondent to proceed.]

Earlier you indicated that [you are/PERSON is] under the age of 17 ([RECALL Age OR AgeRange]) and you did not indicate [you/they] are a student.

If [you/they] are a student, please select student full-time or student part-time.

If [you/they] are not a student, please indicate so in the 'Other specify' text field if you have not already done so.

Use the Next button to proceed to the next question.

DEMOGRAPHICS – SCHOOL DETAILS

FTWorkFTSchool

C4X. [if respondent indicated both f/t student and f/t worker, provide confirmation message:]

From your answers, it appears that [you attend/PERSON attends] school full-time and also [work/works] full-time (more than 30 hours per week at [your/PERSON's] main job).

Is this correct?

1. Yes, attend **school full-time** and **work full-time** (more than 30 hours/week)
2. No, attend **school part-time** and **work full-time** (more than 30 hours/week)
3. No, attend **school full-time** and **work part-time** (less than 30 hours/week)
99. Unsure

SchoolType

C4A. [IF C4 = 2 OR 3 student full time or student part-time]

What kind of school [do you/does PERSON] attend?

1. Elementary school
3. High school
5. College or university [display if age $\geq$ 16]
6. Adult basic education or other adult non-postsecondary [display if age $\geq$ 18]
77. Other, specify: _____
99. Decline / don't know

SchoolName

C4B. [if student]

What is the name of [your/PERSON'S] school?

(you can choose from suggestions that appear as you type, or, if none of the suggestions applies, you can type the name exactly as you know it)

School Name: _____ [Auto-suggest as you type]

8. Home schooled [PROGRAMMER: do not display home schooled option if schooltype = 5 college/uni or 6 adult basic ed]

[List of K-12 schools in study area, supplemented with public post-secondary, and larger private post-secondary]

[Include street address and municipality in description of school location]

SchoolAttend

C4B1. [if C4B not home schooled and C4A school type greater than high school]

Which best applies to how [you/PERSON] [attend/attends] class:

PHONE: [Do you/does PERSON] travel to school to attend classes, are [your/PERSON's] classes online only, or a mixture of both?

1. Travel to school to attend classes in person
2. Attend school online, home-based or virtual learning **only**
3. Mix of in-person and online classes

SchoolAddress, SchoolLat, SchoolLong, etc.

C4D. [if student, but can skip location capture only if C4A School Name = home schooled or if C4BB SchoolAttend = 2 online/distance education only]

[If not in list] **What is the location of the school?**

[If in list in C4B or C4B1, map location:] **Does this location appear to be correct?** (If it is not correct, please drag the marker on the map, double-click, or use the search bar to find the correct location)

LOCATION CAPTURE [SCHOOL CO-ORDINATES]

*DEMOGRAPHICS – WORK DETAILS***Workplace**

C6B. [if employed]

Do [you/PERSON] have a usual place of work outside the home?

This is the worksite that [you/PERSON] normally commute[s] to, even if [you/PERSON] sometimes work from home.

6. Workplace away from home that [you/PERSON] travels to regularly or occasionally as part of a hybrid scheme (use Google Map on the next page to map your usual workplace)

3. No fixed workplace address / no usual place of work / work on the road / work site changes daily

1. Work exclusively from home (and do not have a workplace [you/PERSON] would usually travel to)

Mouseover on “workplace away from home”: A permanent workplace location outside the home that you travel to for work, whether you go there frequently or only occasionally.

Mouseover on “No fixed workplace address”: If you regularly work outside the home but do not travel to the same worksite every day, please select “No fixed workplace address”. Do not use this option if you work from home all of the time. Do not use this option if you have a fixed workplace address, terminal, or base outside the home that you start or end your day at.

Mouseover on “Work exclusively from home”: Please only select ‘work exclusively from home’ as your response if you do not work at any other locations. If there is an office, business or other work location outside the home that is available for you to work at, please select ‘workplace away from home’ and use Google maps on the next page to map your work location.

Work Location Capture

What is the address or location of your usual place of work (main job)?

(This is the address of the worksite that you normally commute to, whether regularly or occasionally)

To search for an address, start typing in the searchbox, or double-click on the map.

Mouseover on “regularly or occasionally”: Even if you are currently working from home some weekdays, identify the worksite you would normally commute to.

WorkTelecommute, WorkCommute

If [you/PERSON] traveled to work and telecommuted on the same day, you can select the same day of the week for both questions.

C6C. [if work at a usual workplace outside the home OR if have no fixed workplace address (i.e., exclude only those who work exclusively from home or who are not workers)]

In the last week, on which weekdays did [you/PERSON] work from home/telecommute rather than travel to [your/PERSON's] usual workplace? Select all that apply

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday

77. Did not work from home at all in the last week [PROGRAMMER: mutually exclusive to 1 through 5]

88. Don't know

C6D. [if work at a usual workplace outside the home or if have no fixed workplace address (i.e., exclude those who work exclusively from home)]

In the last week, on which weekdays did [you/PERSON] travel to work or travel for work-related purposes? Select all that apply

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday

77. Did not travel to work or for work purposes in the last week [PROGRAMMER: mutually exclusive to 1 through 5]

88. Don't know

TRAVEL HABITS**WorkUsualMode**

C6U. [if work at a usual workplace outside the home OR have no fixed workplace address (i.e., exclude those who work exclusively from home)]

What is [your/PERSON's] usual mode of transportation at this time of year for trips to or from work? Select one only.

If you usually use more than one mode (such as auto and transit on the same trip), please select the one used for most of the travel distance. If you alternate between modes on different days, pick the one you use most often.

[see mode list from mode question in trips section]

[Cycle through above questions for as many people in household as were indicated. Some questions may not be applicable for children under the age of 5 for whom we will not ask about trips]

PersonCycleFreq

C3C. [if 5+ years of age ($C2 \geq 5$ or $C2A \geq 2$ or $C2B \geq 2$)]

About how often have [you/PERSON] used a bicycle, e-bike, other electric micromobility device (e-scooter, e-skateboard, etc.) in the past month?

1. At least 5 days per week
2. 2-4 days per week
3. One day per week to one day per month
4. Less than one day per month
5. [I do/PERSON does] not ride a bicycle at all
6. [I am/PERSON is] physically unable to ride a bicycle or use an electric micromobility device (e-scooter, e-skateboard, etc.)
99. Prefer not to answer

PersonTransitFreq

C3D. [if 5+ years of age ($C2 \geq 5$ or $C2A \geq 2$ or $C2B \geq 2$)]

About how often have [you/PERSON] taken the bus (YKTransit) in the past month?

1. At least 5 days per week
2. 2-4 day per week
3. One day per week to one day per month
4. Less than one day per month
5. [I do/PERSON does] not ride the bus at all
6. [I am/PERSON is] physically unable to take the bus
99. Prefer not to answer

TRIPS INTRODUCTION

D1. [Begin with primary respondent, section is tailored as appropriately for subsequent respondents]

This section consists of questions about the trips taken by the members of your household **during a single weekday** (your Travel Day).

In order to ensure the most accurate recollection of your travel, please use [yesterday/TRAVELDAY] as your Travel Day.

Please report any trips made during the 24-hour period between 4:00 AM [TRAVEL DAY] and 3:59 a.m. [TRAVEL DAY +1], whether for work, school, shopping, or any other purpose.

This section will have a series of questions for each separate trip. [if any member of the household is under the age of 5, i.e., C2<5 or C2A=1 or C2B=1:] We will only ask for trip details for children 5 years of age or older.

[CYCLE THROUGH TRIPS SECTION FOR ALL HOUSEHOLDERS >= age 5]

What is a trip? A trip is a one-way journey from one location to a destination for a single purpose. A trip may include more than one mode of travel, such as car and transit.

How to report trips

- It is important to report **all trips**, even for a short distance, on foot for instance.
- If you stopped off on your way to somewhere else, such as to drop off a child at school or pick up a coffee, then that journey would have two trips. The return portion of a journey is also considered a separate trip.
- Report all trips, whether made by walking, car, truck, bicycle, transit, or any other mode of travel.
- The return portion of a journey is considered a separate trip.
- Report any picking up or dropping off of a passenger as a separate trip. For example, if you drop someone off at their school on your way to work, report the school you dropped them off at, with a purpose of 'drop off a passenger'; The next trip you report will be from their school to your workplace, with a purpose of 'work'.
- [if person is employed:] Report your trips for business meetings and work-related purposes.
- For trips requiring air travel, please treat the trip to or from the airport as a separate trip from the trip on the airplane.

Do not report

- Do not report walking the dog with no destination. (However, report the trip if you walk the dog to a specific destination, such as a park.)
- Do not report going for a jog in the neighbourhood with no destination. (However, if you jog to work, please report jogging to work as a trip to work).
- Do not report moving around between classes on campus or within the same building complex.



How precise do locations need to be? We will ask you where you travelled to. Please try to describe locations as precisely as possible, to the accuracy of street address. Use the Google Map provided to search for a specific business or place, or double click on the map to set a ‘pushpin’ marker. You can drag the marker to the exact location. If possible, try to avoid placing markers at intersections – drag them to the actual destination you travelled to.
[if person is employed:]

If [you are/PERSON is] a commercial driver (bus driver, taxi driver, courier, traveling salesperson): You do not have to tell us about the all the work trips [you/PERSON] made for commercial deliveries, or while driving a taxi or bus. But please report the following:

- Your first trip to where you started your work day (terminal, office) or your first delivery or stopping point if you started your delivery/work schedule directly from home.
- Your final work-related stopping point if it is different from the one above.
- A return trip to your home or other non-work-related location at the end of your work day.
- All personal trips by any mode of travel.

(INTERVIEWER: If the person was out of town yesterday, we can capture their travel if it passed through or ended up in Yellowknife).

[CYCLE THROUGH TRIP SECTION FOR PRIMARY RESPONDENT]

[NEXT, CYCLE THROUGH INTRODUCTION AND TRIP FOR EACH HOUSEHOLD MEMBER]

*TRIP CAPTURE – START OF TRAVEL DAY***QSTART_HOME**

E1. **Did [you/PERSON] first trip start from home [Travel Day]?**

[If SchoolType=college or university:]

Do report trips to or from school campuses or any trips made off-campus.

Do not report trips moving around between classes on the same campus or within the same building complex.

1. Yes, my first trip started from home
7. No, my first trip started somewhere else
2. I did not take any trips [Travel Day]

WhyNoTrips

E1X. [If E1=2 (no trips):]

Why did [you/PERSON] not leave home or make any trips [yesterday/TRAVEL DAY]?

1. Out of town for entire day
2. Sick/ill or care for other sick/ill household member
3. Not scheduled for school classes or activities [ONLY SHOW IF STUDENT]
4. Not scheduled for work or on extended leave from work (paternity/maternity, short-term disability) [ONLY SHOW IF EMPLOYED]
5. Worked from home, and did not leave home for any reason [ONLY SHOW IF EMPLOYED]
6. Attended class remotely from home, and did not leave home for any reason [ONLY SHOW IF STUDENT]
7. No need to leave home
8. Could not leave home, no transportation available
77. Other (specify): _____
100. **Actually, [I/PERSON] did leave home to go to work or school or to make at least one other kind of trip** [GO BACK TO E1]

WhyNoWork1

E1X1. [if employed (whether pt or ft) AND (E1X IN 2, 3, 6, 7, 8, 9, 77), regardless of whether work from home or not]

You did not report [going to work / that [PERSON] went to work] [yesterday/on TRAVEL DAY].

Were [you/PERSON] working at home?

1. Yes, [I/PERSON] worked from home/telecommuted
2. Away on business / working on the road / attended a meeting or worked at a location other than the usual place of work
3. Did not work (not scheduled to work, or off work for some other reason)
100. Actually [I/PERSON] worked and did take work-related trips
77. Other, specify: _____

E1X2. [if E1X1=100 actually did make work trips]]

Please report [your/PERSON's] trips to and from work, or for work-related purposes, whether [you/PERSON] walked or used another mode of travel.

[PROCEED TO E4]

WhyNoSchool1

E1X3. [if a student AND (E1X=2,4,5,7,8,77), regardless of whether home-schooled or not]

You did not report [going to school / that PERSON went to school]. Did [you/PERSON] attend school [yesterday/on TRAVELDAY]?

5. [I/PERSON] started the travel day at school, and did not make any other trips to school
1. Attended school from home (home schooled, distance learning)
2. No, did not have any scheduled classes, stayed home sick, or did not attend school for another reason
3. No, away on a field trip or other travel
100. Yes, [I/PERSON] did travel to school
77. Other, specify: _____

E1X4. [if E1X3=100 Yes, did go to school]

Please report [your/PERSON's] trips to and from school, or for school related purposes, whether [you/PERSON] walked or used another mode of travel.

[PROCEED TO E4]

OriginLat, OriginLon, etc.

E4. **Did [your/PERSON's] first trip start from home?**

1. Yes, [my/PERSON's] first trip started from home
2. No, [my/PERSON's] first trip started somewhere else

OriginNotHomeReason

E4A. [If E4 <> home]

You mentioned that [your/person's] first trip of the day started at a location other than your home. Is it that [you were/PERSON was]...?

1. Working a night shift (past 4 am, the start of the travel day)
2. Staying overnight at another household within Yellowknife? (friend's, relative's, parent's, etc.)
3. Away from home on business, vacation, or other personal travel outside Yellowknife?
77. Another reason, please specify: _____

E4B. [if E4A=3, 4 (away on business or vacation travel)]

You mentioned that [you/PERSON] started the travel day away from home because [you were/PERSON was] away on business or vacation travel. Did you travel back to Yellowknife between 3:59 a.m. [yesterday/TRAVEL DAY] and 4:00 a.m. [today/TRAVELDAY +1]?

1. Yes
2. No

[Programmer: Include pop-up modal window on click Yellowknife, with map of the study area]

E4X. [If E4B=no]

You said that [you were/PERSON was] away the entire day due to business or vacation. Since [you/PERSON] did not return to the survey area, you do not have to enter trips for this day.

If [you/PERSON] did return, please click the Previous button below to change your answer to Yes, and then please report on your travel for the day.

[PROGRAMMING NOTE: if E4B=no, conclude trip capture and log person as "No trips" in (should be reflected in person table in household overview)]

E4C. [If E4=another location and (E4B=yes or E4A=1,2,or 77)]

What was the starting point of your first trip [yesterday/TRAVEL DAY]?

LOCATION CAPTURE [ORIGIN CO-ORDINATES]

[PROGRAMMER: if first trip and E1=1 Yes started from home, then automatically populate first trip origin with home location and skip this question. For subsequent trips, trip origin is by default the destination of the previous trip.]

*TRIP CAPTURE – LOCATION, TIME, PURPOSE, MODES***DestLat, DestLong, etc.**

E5. [if trip=1 and started from home:] **Where did [you/PERSON] go first?**

[if trip=1 and started from other than home:] **Where did [you/PERSON] go from there?**

[if trip>1:] **Where did you go next?**

(Note: For trips requiring air travel to another region outside Yellowknife: please treat the trip to the airport as a separate trip from the trip on the airplane)

[If workplace is a usual fixed workplace outside the home and last trip was to usual work:]

LOCATION CAPTURE [DESTINATION CO-ORDINATES / TAZ]

[WORK LOCATIONS AND SCHOOL LOCATIONS FOR ALL HOUSEHOLD MEMBERS ARE INCLUDED IN LIST OF KNOWN LOCATIONS]

PHONE: If needed: "Could you tell me the name of the place, address or street intersection?"

Depart

E2. **At what time did [you/PERSON] leave on this trip?**

Please enter a time between 3:59 a.m. the previous day [TRAVELDAY] and 4:00 a.m.

[TRAVELDAY+1]

Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

Please provide your best guess if you cannot give the exact time.

TIME VALIDATION

E2B. [If this trip's depart time < depart time of previous trip, then display warning]

The time you entered for this trip (DEPART TIME FOR CURRENT TRIP) is prior to the time you entered in your previous trip (DEPART TIME FOR PREVIOUS TRIP). Please select "Previous" to go back and correct the time of this trip, or select "Continue" to leave this trip time out of sequence with your previous trip.

Purpose

[if destination selected above = home, assume purpose is RETURN HOME and do not ask this question]

E3. **What was the main purpose of this trip?**

10. **Going to work (usual place of work)**

11. **Business meeting or work-related (other than usual place of work)**

[mouseover: Trips to attend meetings, and for other work-related purposes.

If job hunting or volunteering, please select 'Other.']

12. **Working on the road / itinerant workplace / no fixed work address**

20. **Attend Post-Secondary School (university, college, private post-secondary)**

30. **Attend School (K-12 grade school)**

[mouseover: Trips made for the purpose of attending school.

If driving someone to/from school, select 'Pick up a passenger' or 'drop off a passenger.'

If parent attending parent-teacher meeting, select 'Other'.

If work at the school, select Work.]

40. Picking up a package or online purchase (from a store or pick-up location)

[mouseover: Picking up a package or groceries ordered online or over the phone from a store (but not doing other shopping there) or picking up a package from Canada Post, a UPS/Fedex/Purolator outlet, , or other pickup location away from home to which the goods were delivered.

Do not include take out orders from restaurants. Select "Restaurant bar or coffee" if you picked up a takeout order.

Select "Shopping" if you did other in-person shopping on the same visit when picking up the package from the store.]

41. Shopping or household maintenance (groceries, gas station, bank, mechanic, lawyer, vet, etc.)

43. Health and personal care

[mouseover: Doctor, dentist, chiropractor, massage therapist, barber, hairdresser, aesthetician, etc. If the traveller's trip is to take someone else to their health and personal care appointment, choose "drop someone off"]

44. Restaurant, bar or coffee (including take-out or drive-through)

45. Social (visiting friends, family, religious gathering)

46. Recreation, sports, leisure, arts, or other recreational activities

51. Pick someone up (e.g., pick up child at school or daycare, pick up someone at work, etc.)

52. Drop someone off (e.g., drop off child at school or daycare, drop off someone at work, etc.)

80. RETURN HOME ([recall address]) [DO NOT DISPLAY IF (LOCATION SELECTED IS 'USUAL WORK') OR IF ((ORIGIN IS HOME AND DESTINATION IS NOT HOME)) OR IF (ORIGIN IS WORK AND USUAL WORK = HOME)]

77. Other, please specify: _____

E5B. [Include probes to clarify if trip purpose = RETURN HOME but did not select home as destination]

E5C. [Include probes to clarify if trip purpose <> RETURN HOME but select destination=home]

Mode1, Mode2, Mode3, Mode4, Mode5

E7. **How did [you/PERSON] get there? Please select up to 5 modes, in order of use.**

INTERVIEWER: If Transit bus in first mode, probe: how did you get to the bus stop?

If only one mode, prompt: did you use another mode of transportation?

If answer of "carpooling": was that as a passenger or as a driver?

What was your first mode of transportation?

1. Auto driver
 2. Auto passenger
 3. Transit bus (YKTransit)
 41. Accessible transit (YKFlex)
 6. Bicycle (conventional bicycle)
 61. E-bike (power-assisted bicycle with pedals)
 64. E-scooter or other electric micromobility device (e-skateboard, hoverboard, e-unicycle/mono-wheel, throttle e-bike that does not require pedalling)
 7. Walked (including jogging)
 71. Assisted mobility device (wheelchair, mobility scooter)
 72. Skateboard, kick scooter, roller blades, unicycle, or other human-powered device
 8. Motorcycle or motor-scooter
 9. Taxi or limousine
 46. Airplane
 77. Other, please specify: _____
- [note re other, please specify: If your mode of travel is not on this list, use this category to record the other mode of travel.]

[note: response numbering is not in sequence as it matches how modes are already numbered in the underlying programming template]

*TRIP CAPTURE – TRANSIT***TransitAccessModeCheck**

E7A. [if first mode recorded was 3. transit bus or other transit mode between 31 and 35]

How did [you/PERSON] get to the bus stop?

19. Bus stop was right in front of my origin (the starting point of the trip: [previous destination])

[+ Same list of modes as above excluding public transit (mode=3 or between 31 and 35)]

TransitEgressModeCheck

E7B. [If last of the modes recorded was 3. transit bus or other transit mode between 31 and 35. (last mode could be in any of Mode 1-5)]

How did [you/PERSON] get from the bus stop to your final destination ([destination of this trip])? Or did the bus drop you off right in front of your destination?

19. Bus stop was right at my destination ([recall current destination])

[+ Same list of modes as above excluding public transit mode=3 or between 31 and 35]

BusRoutes

E7C. [If answer to E7 is public transit other than regular school bus, i.e., mode=3 or 31 to 35]

Which transit routes did [you/PERSON] take on this trip? (from [ORIGIN] to [DESTINATION]).

Please list all routes taken. List each route in the order that [you/PERSON] took them.

Bus 1: ____

Bus 2: ____

Bus 3: ____

*TRIP CAPTURE – AUTO DRIVER OR PASSENGER***DriverNoLicence**

E19A. [if (E7 mode or E7A or E7B = auto driver OR motorcycle) AND not licensed to drive]
[if auto driver:] **You reported that [you were/PERSON was] an automobile driver for this trip; however, you previously indicated that [you do/PERSON does] not have a driver's licence. Which of the following best applies...?**

[if motorcycle:] **You reported that [you were/PERSON was] traveled by motorcycle on this trip; however, you previously indicated that [you do/PERSON does] not have a driver's licence. Which of the following best applies...?**

1. [YOU actually have/Person actually has] a driver's licence

2. [YOU were/Person was] a [if motorcycle: motorcycle] passenger, not the driver

77. Other, please specify: _____

DriverNoHhVehicles

E19B. [If (E7 mode or E7A or E7B = auto driver OR motorcycle) AND no vehicles available to the household (B6=0)]

You reported that [YOU were/PERSON was] an automobile driver for this trip; however, you previously indicated that your household has no vehicles available for your use.

Which of the following applies...?

1. I drove a work vehicle, rental, or borrowed vehicle

2. I drove a car share vehicle

3. My household actually has vehicles. Please specify how many: _____

6. No, [I/PERSON] was actually a passenger, not the driver

VehicleOccupants

E10. [if E7 mode or E7A or E7B = automobile driver OR auto passenger (look at answers of all of main mode question and of access and egress mode questions)

How many people were in the car, including [yourself/PERSON]?

Include the driver and all passengers.

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7 or more people
99. Don't know

TRIP CAPTURE – OTHER STOPS

[Note: answers in this section will be used to split original trip record reported into multiple trip records, but will not be included in the final dataset.]

OtherStop

E50. [ask this question if Age>14 and {(Origin=Home and Destination=any householder's work or school) OR (Origin= any householder's work or school and Destination=Home)}. Intent is to capture missed incidental trips during commute trips without forcing respondent to go back and correct previous info.]

In [your/PERSON's] trip from [ORIGIN] to [DESTINATION], did [you/PERSON] make any other stops along the way? (stopped for gas, went through drive-through, picked someone up, or dropped someone off)

1. Yes
2. No

OtherStopLat, OtherStopLong, etc.

E50B. [If E50=Yes]

Where did [you/PERSON] stop?

LOCATION CAPTURE

OtherStopPurpose

E50C. [If E50=Yes]

Why did [you/PERSON] stop there?

[Repeat list of trip purposes]

OtherStopPickup

E50D. [If E50=Yes and E50C = picked someone up and Mode=Driver]

How many people did [you/PERSON] pick up there?

OtherStopDropoff

E50E. [If E50=Yes and E50C = dropped someone off and Mode=Driver]

How many people did [you/PERSON] drop off there?

OtherStopArrive

E50F. **What time did [you/PERSON] arrive at [location in E50B]?**

Please enter a time between 3:59 a.m. the previous day [TRAVELDAY] and 4:00 a.m. [TRAVELDAY+1]

Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

OtherStopDepart

E50F. **What time did [you/PERSON] leave [location in E50B] to go to [E5 DESTINATION]?**

Please enter a time between 3:59 a.m. the previous day [TRAVELDAY] and 4:00 a.m. [TRAVELDAY+1]

Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

*TRIP CAPTURE – OTHER INFORMATION***TripNotes**

E11N.

PHONE: INTERVIEWER: If there is anything unusual about a trip (e.g., round trip from home to home) or the individual trip chains, or if useful information, please make notes here, otherwise proceed to next question without delay. Use only when necessary.

WEB: Is there any additional information you would like to provide about this trip (e.g. clarification of location, purpose, etc.)?

For assistance, please contact 1-855-688-1137 or email us at info@YKtravelsurvey.ca.

OtherTrip

E12. **Prompt: Did [you/PERSON] make another trip after that?**

1. Yes
2. No

*TRIP CAPTURE – END OF TRAVEL DAY***NotReturnHome**

E13. [if E12 = No AND (destination <> home OR trip purpose <> home)]

From your answers, it appears [you/PERSON] did not return home.

Just to confirm, [were you/was PERSON] at this final destination, [RECALL DESTINATION], until at least past 4:00 a.m. [today/TRAVEL DAY+1] (the end of the travel day)?

1. Did not return home, was at this final destination until past 4:00 a.m.
2. Returned home, more trips to record (including the trip to return home) [RETURN TO E12 AND CORRECT ANSWER]
3. Returned home, but already entered the return home trip earlier in the survey

NotReturnHomeReason

E14. [if E13 = 1. Did not return home]

Why did [you/PERSON] not return home before the end of the day?

(We are only asking as a check to ensure that we captured [your/PERSON's] entire travel)

1. Worked a night shift past 4:00 a.m.
2. Stayed overnight at another household (whether friend, relative, parent)
3. Away from home on business travel
4. Away from home for vacation travel
77. Other, please specify: _____

[Note: When respondent is directed to record an additional trip record for their return home trip (after answering 'returned home' to E13, response pattern of no to E12 any more trips, then yes to did you return home, E13): Display customized text about recording your return home trip:]

On the next page please record another trip record to note the mode and time of your return trip home when asked 'where did you go next'. When you have finished entering all of your trips for the day, please select 'no' when asked if you took another trip.

[Note: the same conditions / warning text above is displayed when student but no trip to school recorded or for worker with no work trip recorded, with slight variation of text for 'trip to work' 'trip to school' and 'return trip home']

WhyNoWork2

E16. [if employed full time, part time, and self-employed AND did not make a work or work-related trip AND no trip destination of 'usual workplace' (E5<>main work location) AND E12=777 (No more trips)].

From the trips described, it does not appear that [you/PERSON] made any work-related trips.

Did [you/PERSON] work between 4:00 a.m. Thursday and 3:59 a.m. Friday?

9. [if B2A= 1 or B3 dwelling type=5 on-campus student residence :] No, worked on the same campus where [I/PERSON] live, so did not have off-campus trips to work.
1. Yes, [I/PERSON] worked from home/telecommuted
 2. Away on business / working on the road / attended a meeting or worked at a location other than the usual place of work
 3. Did not work (not scheduled to work, or off work for some other reason)
 5. [I/PERSON] started the travel day at work (i.e., worked an overnight or graveyard shift), and did not make any other trips to work
 100. Actually, [I/PERSON] worked and did take work-related trips
 77. Other, specify: _____

E17A. [if E16=100 Yes actually did work]

Please add your trips to and from work on the Trips Overview page, whether you walked or used another mode of travel.

Please also record any other trips by modes other than walking that you may have missed. *Link to Trips Overview page*

WhyNoSchool

E16A. [if a full-time student AND did not make a school-related trip AND no trip destination of 'school' (E5<>person's own school) AND E12=777 (No more trips)]

You did not report [going to school / that PERSON went to school]. Did [you/PERSON] attend school [yesterday/on TRAVELDAY]?

100. Yes, [I/PERSON] did travel to school
1. Attended school from home (home schooled, distance learning)
2. No, did not have any scheduled classes, stayed home sick, or did not attend school for another reason
3. No, away on a field trip or other travel
5. [I/PERSON] started the travel day at school, and did not make any other trips to school
[PROGRAMMER: only display if age >=17]
77. Other, specify: _____

E17B. [if went to school E16A=100 Yes and usual school location other than 'home']

Please add your trips to and from school, on the Trips Overview page, whether you walked or used another mode of travel. *Link to Trips Overview Page*

Please also record any other trips by modes other than walking that you may have missed.

[CYCLE THROUGH TRIPS FOR EACH PERSON]

[Error message when people try to continue from this page when they haven't finished entering trips for all HH members]:

Unfortunately, you may not proceed forward until the trip diary section has been completed. Click the "begin entering trips" or "edit" links in the table below to complete the trip entries for your household.

- E20. Your household trips can be reviewed and edited on this page before exiting the trip section of the survey. You can also add additional trips here that you may have missed. Can you think of any other trips you or other members of your household made [yesterday/TRAVEL DAY] either during the day or in the evening that we may have missed? If so, click on Add Trips or use the Edit trip links to edit a trip you've already entered. If you are done entering trips, click on Go to Household Summary where you can continue through the final questions of the survey once you've finished your trip entries for your household.

FINAL HOUSEHOLD AND PERSON QUESTIONS

Income

- B9A. **Thank you for reporting your travel information. We just have a few final questions for you. This information is used for transportation planning purposes, to better understand households and their travel patterns, and to ensure there is representation of all demographic groups. Your answers will remain entirely confidential. Click here to see our Privacy Statement.**

WEB: Which of the following ranges corresponds to your household's total income last year?

Please consider all sources of income before income taxes.

PHONE: May I ask which of the following ranges corresponds to your household's total income last year? (Consider all sources of income, before income taxes)? (INTERVIEWER: read answers until confirmation)

1. \$0 to less than \$35,000
2. \$35,000 to less than \$60,000
3. \$60,000 to less than \$100,000
4. \$100,000 to less than \$125,000
5. \$125,000 to less than \$150,000
6. \$150,000 to less than \$200,000
7. \$200,000 and above
99. Decline / don't know

[Displayed online, or available to the interviewer if necessary:]

Why do we ask this question? [This question will help us understand whether we have surveyed a representative sample of the entire population. It will help us better understand the different transportation needs and travel patterns of all residents of our city, including how easy or difficult it is for households of different income levels to travel

around our city. This question, like other questions on the survey, is entirely voluntary. Your answers will remain entirely confidential.

B34A. [Household size = 1:] **Do you have a disability or cognitive or physical condition that affects or limits your ability to travel?**

[Household size is greater than 1:] **Does any member of your household have a disability or cognitive or physical condition that affects or limits their ability to travel?**

This includes both ongoing and temporary conditions.

1. Yes

2. No

99. Don't know / Prefer not to answer

B34B. [if yes (at least one person in the household has disability)]

[if household size=1, prefill the disability radio button for PERSON 1]

Do you use a mobility aid such as a wheelchair, walker, crutch, cane, or seeing-eye dog?

If so, please select the appropriate option in the table below.

[if household size >1:]

Please indicate each person who has a disability or cognitive or physical condition that affects or limits their ability to travel.

PHONE: Which people in your household have a disability or cognitive or physical condition that affects their ability to travel? Select all that apply:

INTERVIEWER: For those with such conditions, prompt:

Do they use a mobility aid such as a wheelchair, walker, crutch, cane, or seeing-eye dog?

	Disability or condition that affects travel	Uses a mobility aid such as a wheelchair, walker, crutch, cane, or seeing-eye dog	
PERSON1	☐	☐	
PERSON2	☐	☐	
...etc...	☐	☐	

[Programmer: mobility aid and accessible parking placard should only be allowed if disability selected]

SurveyNotes

B10A. Did you have any difficulty reporting your trip information? Or do you have any comments about the information you provided on your survey?

1. Yes:

2. No

INTERVIEWER: Do not ask the respondent if they have any final comments to make. Do not record any information here unless it pertains to potential issues in the trip data collected (e.g., you think you made an error in capturing trips, or the system did not perform as expected).

FutureResearch

B11. Would you be willing to be contacted to participate in future transportation-related research?

Your contact information will only be used to contact you for future transportation-related research conducted by the City of Yellowknife. Your answers to the 2025 Yellowknife Household Travel Survey may be used to select groups of participants for future research (for example, some research might target only bicycle users, transit users, or people living in a neighbourhood).

Your contact information will never be sold or shared with any other agency, or used for any other purpose other than to invite you to participate in City of Yellowknife transportation research in the future. Click here to see our [Privacy Statement](#).

1. Yes

2. No

PRIZE DRAW**PrizeDraw**

F1. Participants are eligible to enter a prize draw. Would you like to enter into the draw?

Details of the prize draw can be found [here](#) [Link to contest rules and other related consent/privacy statement]

INTERVIEWER: If more information requested:

Prizes include: a **\$500 grand prize gift card for a local merchant** or one of **20 \$25 gift certificates for a local merchant**

The prize draw is administered by R.A. Malatest & Associates Ltd. and will be drawn once the survey administration period is completed.

1. Yes
2. No

FutureContactName, FutureContactPhone, FutureContactEmail

F2. [If yes to prize draw F1 or Yes to future research B11]

PHONE:

[if F1=Yes and B11<>Yes:] **May I confirm your name and phone number or email address, so that we can contact you to let you know if you have won?**

[if F1<>Yes and B11=Yes:] **You said you would be interested in participating in future transportation-related research conducted by the City of Yellowknife. May I confirm your contact information ?**

[if F1=Yes and B11=Yes:] **May I confirm your contact information so that we can contact you if you win a prize or to let you know about future transportation-related research in Yellowknife?**

[if F1=Yes and B11<>Yes:] Your name and phone number will be kept confidential and will be used only to contact you in the event your name is selected in the prize draw.

[if F1<>Yes and B11=Yes:] Your name and phone number will be kept confidential and will be used only to contact you to let you know of future transportation research in Yellowknife.

[if F1=Yes and B11=Yes:] Your name and phone number will be kept confidential and will be used only to contact you in the event your name is selected in the prize draw or to let you know of future transportation research in Yellowknife.

WEB:

[if F1=Yes and B11<>Yes] **Please confirm your contact information, so that the survey administrator can contact you at this phone number in the event your name is selected in the prize draw.**

[if F1<>Yes and B11=Yes] **You said you would be interested in participating in future transportation-related research conducted by the City of Yellowknife. Please confirm your contact information.**

[if F1=Yes and B11=Yes] **Please confirm your contact information, so that the survey administrator can contact you at this phone number in the event your name is selected in the prize draw, or to let you know about future research in Yellowknife.**

This personal information will not be used for any other purpose, nor will it be shared with anyone else.

Name: _____ [prepopulate with first name, if respondent provided their name earlier]

Phone: _____ [prepopulated with household phone number. Allow edits in case respondent wants to be contacted at another number]

Email: _____ [prepopulate with household email, allow edits]

CONCLUSION

Please click on the Submit button to submit your survey answers and conclude the survey.
After you click Submit, you will no longer be able to edit your answers.

That concludes the Household Travel Survey.
Thank you very much for your participation!

Your survey answers have been saved. Click here to see our [Privacy Statement](#).

If you wish to change any of your answers, or if you have any concerns about the household travel survey, please contact **info@YKtravelsurvey.ca** or **1-855-688-1137**

**PHONE ONLY: That concludes the survey. Thank you very much for your cooperation.
Have a pleasant day/evening.**

For more information about the household travel survey, please visit: **YKtravelsurvey.ca**

Let us know your thoughts on transportation in the City

As part of the work on the city's Transportation Plan, a separate Community Survey is taking place.

The Community Survey gathers residents' feedback on what you see as the priorities, challenges, and opportunities for transportation and mobility in Yellowknife. The results of the survey will help shape the new Transportation Plan.

It would be greatly appreciated if you could also fill out the Community Survey before October 3, 2025, if you have not already filled it out.

To participate, please visit:

<https://www.yellowknife.ca/TransportationPlan/>

APPENDIX D:

Example Policies and Guidelines



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A. COMPLETE STREETS POLICY AND GUIDELINES

PURPOSE

Complete Streets are streets that are designed for all ages, abilities, and modes of transportation. A Complete Streets approach moves away from a traditional vehicle-centric approach to a people-focused approach to planning and designing streets.

Complete streets approaches recognize that streets serve dual purposes: they are routes for moving people and goods, but they are also important places that shape how people experience the city. A Complete Streets approach supports the design and operation of streets that are safe, comfortable, and functional for all users – whether they are walking, cycling, using transit, carpooling, or driving – while also contributing to a vibrant, inclusive, and attractive community.

The Complete Streets Policy and Guidelines will provide guidance for the City and developers to consistently design streets within the public right-of-way following a Complete Streets approach that puts the needs of people before those of vehicles.

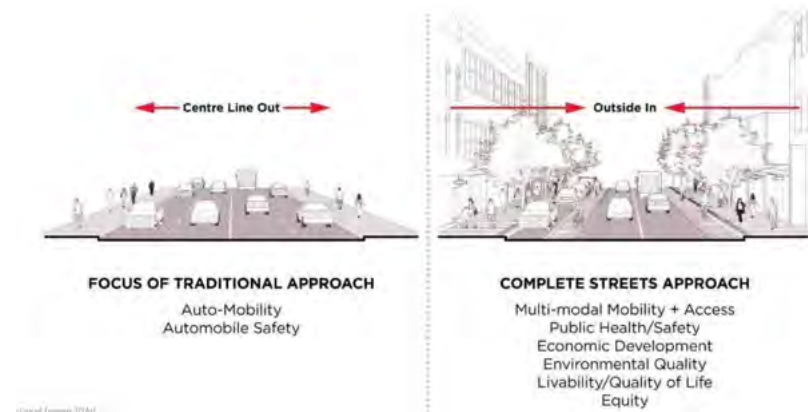
BACKGROUND

The Yellowknife Transportation Plan outlines a long-term vision to provide a safe, reliable, and connected multi-modal transportation network that provides transportation choices and prioritizes safe mobility.

“Complete Streets” is a term that refers to the policy and design approach that streets are for people, not just vehicles. Complete Streets are designed and operated to enable safe and comfortable use for everyone, regardless of their age or ability. A Complete Streets policy and design approach recognizes that streets have different roles, functions, and characteristics depending on their context. Through attractive design, enhanced safety, and multi-modal infrastructure, streets can be transformed into spaces that increase safety, promote a more active lifestyle, decrease greenhouse gas emissions, encourage a sense of community, and support local businesses.

RATIONALE

A Complete Streets approach can help the City transition from a more traditional, approach to street design, which has historically focused on prioritizing motor vehicles, to a more balanced approach that creates diverse and safe transportation options and a transportation system that meets the needs of all residents and road users (see **Appendix D Figure 1**). The status quo of streets being designed primarily for motorists is no longer considered acceptable, with more Canadian cities moving towards more inclusive streets that are supportive of all road users and experiences. This includes the need to consider the unique needs of people walking, cycling, using micromobility devices, or using transit, as well as people with disabilities and equity-priority groups, in the planning and design of Yellowknife's streets.



APPENDIX D FIGURE 1: TRADITIONAL VS COMPLETE STREETS APPROACH TO TRANSPORTATION PLANNING (Source: City of Toronto, DTAH)

Complete streets are intended to be reimagined as multi-modal streets that prioritize walking, cycling, and transit and have been identified in the Community Plan on Old Airport Road from the Co-op to Lakeview Cemetery Road and on 50 Avenue through downtown from Old Airport Road to School Draw Avenue. Additionally, new streets implemented through development or road rehabilitation projects should be considered an opportunity to implement a complete street.

POLICY

As noted in the Yellowknife Transportation Plan, complete streets in Yellowknife should be planned, designed, operated, and maintained to enable accessible, comfortable, convenient, and safe access and mobility for all users, regardless of their selected mode of travel.

Policy Statement

Through this policy, the City will create safer and more accessible streets that consider the needs of all users – including pedestrians, cyclists, micromobility users, transit and school bus riders, drivers, passengers, people moving goods, delivery personnel, and emergency responders – following Complete Streets principles. This can be done by reviewing available right-of-way, land use and neighbourhood context, and the function of the street as part of any street project.

Objectives

The Complete Streets Policy also includes the following objectives:

- Prioritize safety over traffic operations
- Focus on the needs of people walking, cycling, and using transit over the needs of private vehicles
- Design streets to be universally accessible
- Adopt Complete Streets as the default condition – not the exception – for Yellowknife's streets at all stages of the planning process, from planning and design to implementation, operations and maintenance
- Embed this Complete Streets approach in all of Yellowknife's transportation planning and design projects, including spot improvements, retrofits, reconstruction, new construction, capital and operational projects, and projects taking place through redevelopment

Guidelines

Streets are dynamic spaces that typically serve two overarching functions of mobility and access. The potential functions of streets are summarized below.

- **Mobility of People:** Streets enable people to travel to their desired destination, including trips within a community or between communities, by walking, rolling, cycling, taking transit, driving, and any combination.
- **Mobility of Goods:** Streets support the reliable movement of goods and services to serve the local economy and beyond.
- **Access for People:** Streets facilitate people's arrival to their destination or transfer point between modes. Access for people includes bus stops, bicycle parking, passenger loading zones, and driveways.
- **Access for Goods:** Streets facilitate the exchange of goods and services between buyers and sellers by providing the infrastructure and interfacing between the street, building, and commercial or business activity, including but not limited to sidewalk, storefront, display, driveway, and loading facilities.
- **Activation:** Streets provide social spaces for people to inhabit and enjoy, and contribute to a community's vibrancy, safety, and sense of place. Street activation includes plazas and parklets, outdoor patios, public art, wayfinding and special street name signage, and street furniture.
- **Greening:** Streets incorporate landscaping and sustainable features within streetscape design to mimic natural systems found in nature and contribute to aesthetics, comfort, and enjoyment of moving through or being on the street.
- **Storage:** Streets can provide parking for cars, commercial vehicles, bicycles, scooters, and other emerging technologies, as well as receptacles (i.e. recycling and garbage) to support people's use of the street

A Complete Streets planning approach prioritizes pedestrians, cyclists, transit users, and motorists, ensuring accessibility for all. Key features include sidewalks, bicycle lanes, safe crossings, and traffic calming, enhancing safety, and economic activity.

It is important to note that there are capital and operational costs associated with the features noted above, and throughout this document, that should be considered as part of the planning and design process.

There is no 'one size fits all approach' when thinking about the elements and principles of a complete street. The typology and elements that are included on a street are informed by:

- The function and role of the street within the network (road classification, truck route, transit route, commercial street with parking or loading zones etc.)
- Available right-of-way space or an opportunity to reallocate road space
- The form of the street is influenced by adjacent land uses, buildings, activity, and any other factors that may make it unique

- The impact on emergency services balancing emergency vehicle access needs with street design that supports pedestrians, cyclists, and transit
- Cost considerations

A review of each roadway is required to determine which, if any, complete street elements can be included in a roadway. **Appendix D Table 1** summarizes key characteristics of each street classification.

APPENDIX D TABLE 1: FUNCTIONS AND CHARACTERISTICS OF DIFFERENT STREET CLASSIFICATIONS

	Primary Functions	Secondary Functions	Typical Daily Traffic Volumes	Vehicle Lanes	Crossing Opportunities	Pedestrian Facilities	Cycling Facilities	On-street Parking
Major Arterial	• Movement for people • Mobility for goods • Emergency services	• Access for people • Activation • Greening	>10,000	Four 3.5 metre lanes with dedicated 3.3m turn lanes	Every 200–400 metres	3.0 metre multi-use pathway on both sides separated by landscaped boulevard		None (outside commercial areas) Both sides (within commercial areas)
Minor Arterial	• Movement for people • Mobility for goods • Emergency services	• Access for people • Access for goods • Activation • Greening	4,000–10,000	Two 3.5-metre lanes with dedicated 3.3m turn lanes	Every 200–400 metres	3.0 metre multi-use pathway on both sides separated by landscaped boulevard		None
Collector	• Movement for people • Access for people • Access for goods	• Movement for goods • Activation • Greening • Storage • Emergency services	1,000–5,000	Two 3.5-metre lanes	Every 100–200 metres	2.0 metre sidewalk on both sides separated by landscaped boulevard or 3.0 metre multi-use pathway on one side and sidewalk on the other	3.0 metre multi-use pathway on at least one side	Both sides

	Primary Functions	Secondary Functions	Typical Daily Traffic Volumes	Vehicle Lanes	Crossing Opportunities	Pedestrian Facilities	Cycling Facilities	On-street Parking
Industrial	• Mobility for goods • Mobility for people • Access for goods	• Access for people	<1,000	Two 3.5-metre lanes with 1.5m shoulders	Every 200–400 metres	On transit route only, 2.0 metre sidewalk on one side separated by landscaped boulevard	Not required	Both sides
Local	• Access for people • Access for goods • Greening	• Activation • Storage • Movement for people • Emergency services	<1,000	One 6.0 metre shared roadway	Every 100 metres	2.0 metre sidewalk on both sides separated by landscaped boulevard	Neighbourhood bikeway	Both sides
Narrow Local	• Access for people • Access for goods • Greening	• Activation • Storage • Movement for people	<500	One 6.0 metre shared roadway	Every 100 metres	N/A	N/A	Restrict parking on roads that cannot provide a minimum operating space of 6.0 metres for emergency access vehicles to safely operate
Lane	• Access for people	• N/A	<100	One 6.0 metre shared roadway	N/A	N/A	N/A	N/A

In addition to the features described above, several urban design features can be considered to create Complete Streets, including:

- **Wide Sidewalks** make walking more comfortable and accessible for everyone, particularly in high activity areas and on commercial streets.
- **Cycling Facilities** help to provide a complete and interconnected cycling network throughout Yellowknife. This is critical to support and encourage more people to bicycle.
- **Boulevards and Curb Extensions** are buffers that separate people walking from vehicle traffic. These spaces create a more comfortable walking

experience and provide space for street trees and other amenities, including bicycle parking or seating. Curb extensions shorten the crossing distance while creating additional space for appropriate landscaping and amenities.

- **Street Trees** play an important role in increasing the comfort and safety of people walking and should be incorporated into all sidewalks wherever possible. Trees are particularly important for streets with high pedestrian demand or where parking does not provide a buffer between the road and sidewalk. Street trees also help to provide shade in the summer, improve air quality, create wildlife habitat, reduce the urban heat island effect, and act as carbon sinks, absorbing and storing greenhouse gases.

- **Pedestrian Amenities** such as planters, litter and recycling bins, and benches help to improve the attractiveness and comfort of the pedestrian environment.
- **Public Art and Historic Features** such as artistic benches, community art projects, and community-based design initiatives can help to improve spaces for people walking. These features can be used to help showcase Yellowknife's diversity and inclusiveness celebrating the local and historical context of the City.
- **Wind Mitigation:** Reducing wind exposure can improve pedestrian comfort year-round, particularly in winter conditions. This can be achieved through urban design and streetscape elements such as strategic landscaping, building placement and orientation, and street furniture.
- **Enhanced Lighting:** Pedestrian-scale street lighting can significantly enhance a street's character while also improving its safety and accessibility.
- **Wayfinding and Pedestrian-Scale Signage:** Wayfinding creates a navigable pedestrian environment by identifying pedestrian routes, key destinations, and access to public transit. Wayfinding and signing can be designed to showcase a neighbourhood's or corridor's unique character, which helps to create a sense of place.
- **Urban Parks and Plazas:** These spaces allow people to gather, create unique destinations, and add to the overall character, vibrancy, and visual appeal of the city. Pedestrians can stop, take a break, and enjoy the facilities offered.
- **Establish Pedestrian Priority Streets:** Treatments can be used to turn streets into high activity spaces that welcome and prioritize pedestrians in a traffic calmed environment. These streets can also be designed to stimulate business activity with patios, seating, and other design elements such as public art, lighting, and planters.
- **Laneways:** Laneways play an important role in the streetscapes of Downtown Yellowknife. Creating inviting, unique, and well used laneways will provide long term benefits to the neighbourhood. The beautification of laneways has become a popular way to re-invent the use of space in communities of all sizes.
- **Outdoor Patio Spaces:** Temporary outdoor patio space located within a public roadway is a popular solution to provide cafes and restaurants with an expanded seating area for the summer months. Temporary patios support the sharing of public space and show the public how streets can be altered in a temporary fashion. If there is public support after a number of trial seasons, the City can explore making some patio spaces more permanent through tenure agreements with adjacent businesses and expansion of the sidewalk into parking areas.

IMPLEMENTATION

The City will update standard cross-section drawings in the Development & Design Standards Manual based on road classification that incorporate complete street guidance. Proposed updates include:

- Requiring sidewalks and/or multi-use pathways on both sides of all streets, except industrial streets that do not have transit service;
- Requiring sidewalks be at least 2.0 metres for all street classifications and that a landscaped boulevard be provided between the sidewalk and the street where possible;
- Including All Ages and Abilities cycling facilities in cross-sections; and
- Establishing consistent lane widths for motor vehicle lanes and on-street parking lanes, recognizing there is currently significant variability in the existing cross-sections based on street classifications.

For new roads, cross-sections for new roads in the Development & Design Standards Manual should be updated following the guidance in **Appendix D Table 2** for new roads.

For retrofit roads, guidance in **Appendix D Table 3** should be followed to determine potential cross-section elements, depending on the road width. However, note that all retrofit projects are unique and this guidance may not address all site-specific conditions. Practitioners should use this as a starting point to consider the range of complete street elements as part of road retrofit projects, prioritizing improvements that enhance safety accessibility, and comfort for vulnerable road users.

Develop Key Performance Indicators to monitor success following a Complete Streets approach, including indicators for all modes of transportation.

APPENDIX D TABLE 2: COMPLETE STREETS PROPOSED CROSS-SECTIONS FOR NEW ROADS¹

New Roads	Utility Border	MUP	SW	Bldv	Parking	Lane	Lane	Turn	Median	Lane	Lane	Parking	Bldv	SW	MUP	Utility Border	Total ROW	Total Road
Major Arterial 30.0m ²	0.3	3.0		2.3		3.5	3.5	3.3	2.0	3.5	3.5		2.3		3.0	0.3	30.5	19.3
Collector 25.0m ³	0.5	3.0		3.0	3.0		3.5			3.5		3.0	3.0	2.0		0.5	25.0	13.0
Local 20.0m	0.5		2.0	2.0	3.0		3.0			3.0		3.0	2.0	2.0		0.5	21.0	12.0

APPENDIX D TABLE 3: COMPLETE STREETS PROPOSED CROSS-SECTIONS FOR RETROFIT ROADS

New Roads	Utility Border	MUP	SW	Bldv	Parking	Lane	Lane	Turn	Median	Lane	Lane	Parking	Bldv	SW	MUP	Utility Border	Total ROW	Total Road
25.0m - MUP one side, sidewalk one side	1.0	3.0		2.5	3.0		3.5			3.5		3.0	2.5	2.0		1.0	25.0	13.0
24.0m - MUP one side, sidewalk one side	0.5	3.0		2.5	3.0		3.5			3.5		3.0	2.5	2.0		0.5	24.0	13.0
23.0m - MUP one side, sidewalk one side	0.5	3.0		2.0	3.0		3.5			3.5		3.0	2.0	2.0		0.5	23.0	13.0
22.0m - MUP one side, sidewalk one side	0.3	3.0		1.7	3.0		3.5			3.5		3.0	1.7	2.0		0.3	22.0	13.0
21.0m - MUP one side, sidewalk one side	0.3	3.0		1.2	3.0		3.5			3.5		3.0	1.2	2.0		0.3	21.0	13.0
20.0m - MUP one side, sidewalk one side	0.3	3.0		0.9	3.0		3.5			3.5		3.0	0.5	2.0		0.3	20.0	13.0
20.0m - Industrial, No Parking, Separated sidewalk one side ⁴	0.5		2.0	3.0			5.0			5.0						4.5	20.0	10.0
20.0m - Separated sidewalk with moderate buffer both sides	0.5		2.0	1	3.0		3.5			3.5		3.0	1.0	2.0		0.5	20.0	13.0
19.0m - Separated sidewalk narrow buffer both sides	0.3		2.0	0.7	3.0		3.5			3.5		3.0	0.7	2.0		0.3	19.0	13.0
18.0m - Monolithic sidewalk one side and separated sidewalk narrow buffer	0.3		2.0	0.2	3.0		3.5			3.5		3.0	0.2	2.0		0.3	18.0	13.0
17.0m - Monolithic sidewalk one side and parking both sides	0.5		2.0		3.0		3.5			3.5		3.0				1.5	17.0	13.0
16.0m - Monolithic sidewalk one side and parking both sides	0.5		2.0		3.0		3.5			3.5		3.0				0.5	16.0	13.0
15.0m - Monolithic sidewalk one side and parking one side	2.0		2.0				3.5			3.5		3.0				1.0	15.0	10.0
14.0m - Parking both sides and no sidewalk	1.5				3.0		3.0			3.0		3.0				1.5	15.0	12.0
<10.0 m - Alley, no parking and no sidewalks, low speed and volume road	1.5						3.0			3.0						1.5	9.0	6.0–9.0

1 All vehicle travel lanes include gutter pan width where applicable.

2 Turn lanes and medians share the same space. At mid-block, medians will widen to encompass the total combined width (4.8m) and serve as snow storage. Medians can be reduced midblock to accommodate wider boulevards or other street amenities. At intersections, the centre median narrows to 1.5m to accommodate the turn lane (3.3m).

3 Boulevard and/or utility border space may be reduced to accommodate MUP on both sides as opposed to sidewalk on one side.

4 Industrial roads should feature 3.5m travel lanes with 1.5m shoulders.

B. VISION ZERO POLICY

PURPOSE

The purpose of this policy is to outline how the City of Yellowknife will work towards Vision Zero and incorporate Vision Zero principles into transportation projects at the planning, design, and implementation phases of the project.

BACKGROUND

The safety of Yellowknife's transportation network is a top priority, regardless of the travel mode being used. Based on RCMP collision data collected between 2018 and 2022, there were 3,475 reported collisions in Yellowknife.

Evidence from around the world indicates that it is possible to significantly reduce, and even prevent, deaths and serious injuries from transportation systems. Many communities around the world have increasingly been taking a "Vision Zero" approach to road safety. Vision Zero is a philosophy that views death and serious injuries as unacceptable consequences of collisions and establishes the goal to eliminate them. Vision Zero prioritizes human life and health in the transportation system and asserts that deaths and serious injuries are preventable.

What is Vision Zero?

Vision Zero seeks to eliminate all traffic fatalities and serious injuries while promoting safe, healthy, and equitable mobility for all road users. This includes, but is not limited to, people who walk, ride a bike, use a mobility aid, ride a motorcycle, take the bus, or drive. It is a recognition that one traffic fatality or serious injury is too many.

RATIONALE

Over the past decade, there has been increased recognition that fatalities and serious injuries on our roads can and should be eliminated. This had led to the development of strategies globally and at all levels of government.

- Nationally, *Canada's Road Safety Strategy (2025)* provides a national framework for addressing safety, including a year-to-year fatal and serious injury reduction target, an endorsement of the Safe System Approach, and a list of high-risk behaviours and countermeasures. A revised strategy will come into effect in 2026.
- The Government of the Northwest Territories developed a *Road Safety Plan (2015)* which highlights the importance of road and transportation safety. While it doesn't reference Vision Zero specifically, it highlights a list of strategies including policy updates that focus on reducing collisions and fatalities on roads within the territory.
- Several municipalities throughout Canada have developed strategies that outline their commitment to Vision Zero. The City of Whitehorse for example has developed a Vision Zero Policy and Safe Mobility Action Plan.

POLICY

To work towards Vision Zero, the City will follow a 'Safe System Approach' to road safety. This approach aims to create a safe mobility system that is forgiving of human error. Everyone involved in the transportation system, including planners, engineers, policy makers, and police officers, have a shared responsibility with road users for designing a road system that does not allow human error to result in serious or fatal outcomes. **Appendix D Figure 2** summarizes the Safe System Approach, and the relationship with Vision Zero. Vision Zero is the *what* and the Safe System Approach is *how* it is achieved.

The Safe System Approach is based on the following principles:

- Deaths and serious injuries on roads are unacceptable;
- People make mistakes and they are inherently vulnerable but they should not result in injury or death;
- Responsibility is shared among system designers and road users;
- A systematic approach that includes overlapping measures is necessary; and
- Improvements to safety are proactive.

The Safe Systems Approach utilizes six key elements – **safe road design, safe speeds, safe vehicles, safe road users, safe land use planning, and post-crash care.**

The City has the strongest influence on the following elements:

- **Safe road design** – The City will design and maintain transportation infrastructure that is context appropriate and that reduce the risk of crashes occurring and the severity of an injury in case of a crash. This is typically done by separating different modes, designing for safe speed limits, and ensuring roads are designed so that users understand what is expected of them.
- **Safe speeds** – managing speed is critical for avoiding crashes and designing for survivable speeds. This is typically done by establishing appropriate speed limits (see the accompanying Speed Limit Policy and Guidelines), designing roads for the appropriate and desired speed, enforcing speed limits, and educating road users.
- **Safe land use planning** – integrating road safety policy and recommendations into community planning can influence where and how people travel (mode choice). For example, land use planning can encourage people to walk, take transit, or cycle instead of using their private automobile. It can also reduce average trip length and travel distance.



APPENDIX D FIGURE 2: VISION ZERO AND SAFE SYSTEM APPROACH
(Source: Transportation Association of Canada)

IMPLEMENTATION

There are several planning and engineering approaches that the City will adopt to support moving towards Vision Zero, as summarized in the Yellowknife Transportation Plan, such as:

- Filling in gaps in the pedestrian network and expanding the City's cycling network;
- Encouraging more transit ridership as the safest form of transportation;
- Implementing fully protected left turns at signalized intersections;
- Providing Leading Pedestrian Intervals at signalized intersections;
- Installing Rectangular Rapid Flashing Beacons (RRFBs) at uncontrolled approaches to improve pedestrian safety, where warranted;
- Reducing curb radii where possible with any new and improved street designs to prioritize slower turn movements and improve pedestrian safety, while ensuring design and control vehicles can be accommodated;
- Implementing roundabouts or other treatments that slow speeds through intersection;
- Including warning and delineation on horizontal curves and reduce complexity on intersection approaches;
- Adopting and implementing the Speed Limit Policy and Guidelines; and
- Adopting and implementing the Traffic Calming Policy and Guidelines.

C. SPEED LIMIT POLICY AND GUIDELINES

PURPOSE

The purpose of this policy is to set guidelines for establishing appropriate regulatory speed limits on all streets under the jurisdiction of the City of Yellowknife. This policy follows a simple, flexible, and context-sensitive approach that provides staff with guidance based on the context of the street, while also ensuring a consistent approach to establishing speed limits throughout the City that is easy for staff and the public to understand.

Staff may use their discretion, where appropriate, to deviate from these guidelines should a well-documented justification exist based on engineering judgment.

BACKGROUND

This policy was informed by a review of current research and best practices for establishing speed limits, including the National Association of City Transportation Officials' (NACTO) *City Limits: Setting Safe Speed Limits on Urban Streets*, Global Designing Cities Initiative's (GDCI) *Designing for Safe Speeds*, and several municipalities across Canada using innovative approaches.

Research shows that higher speeds increase the risk and the likelihood that a crash will result in a serious injury or fatality. At higher speeds, drivers have a narrower field of vision, and they have less time to react to unexpected occurrences. Collisions at higher speeds have worse outcomes for people. The faster a vehicle moves, the longer the stopping distance and therefore, the greater the force of impact will be.

Collisions at 30 km/h or less correlate with a higher probability of survival (90%), whereas at motor vehicle speeds above 40 km/h, the probability of survival decreases significantly (see **Appendix D Figure 3**). Streets with higher posted speed limits are riskier, regardless of whether drivers exceed those limits. These findings highlight the importance of managing motor vehicle speeds as one way to reduce the number and severity of collisions, thus making roads safer for everyone.

There is evidence that speed limit reductions alone (even in the absence of complementary engineering interventions) can reduce speeds and crashes, stating: "A growing body of research shows that speed limit changes alone can lead to measurable declines in speeds and crashes, even absent enforcement or engineering changes."⁵ While Yellowknife can encourage safe speeds through initiatives such as speed limit reductions, other initiatives such as traffic calming (see **Section D Traffic Calming**) and enforcement are also recommended to minimize the risks of speed and allow the safe movement of all road users.



APPENDIX D FIGURE 3: RELATIONSHIP BETWEEN MOTOR VEHICLE SPEEDS AND PEDESTRIAN FATALITY RISK IN A COLLISION (Source: City of Kelowna, *Safe Mobility Action Plan*, 2024)

RATIONALE

The City of Yellowknife's *Highway Traffic Bylaw No. 5055 (2022)* regulates traffic and vehicle use on highways and public areas within the City. The Bylaw outlines restrictions on speed within the community and states that the maximum speed limit on most streets under City of Yellowknife jurisdiction is typically 45 km/h, unless otherwise posted. The City also has school zones and playground zones with maximum speed limits of 30 km/h. School zones are enforced at all times, 24 hours 7 days a week. Speed limits increase to 70 km/h and above on GNWT highways.

Based on GPS-based speed data for arterial streets in the City, many vehicles are travelling above the speed limit on several arterial streets, including Old Airport Road and 48 Street along with Highway 3.

⁵ A 2004 study found that a 10% reduction in the average speed resulted in 19% fewer injury crashes, 27% fewer severe crashes, and 34% fewer fatal crashes

POLICY

Establishing speed limits for the safety of all users is an important piece in creating a safe and accessible transportation system. Two possible speed limits categories are recommended (30 km/h and 45 km/h) based on two types of streets as follows:

Type A Street (Local Street)

Streets in this category are defined as:

- Streets classified as “Local Streets” in the Street Network Classification;
- Streets without a continuous yellow centre line; and/or
- Streets with an existing “Neighbourhood Bikeway” (as defined in the Cycling Facility Design Guidelines)

The maximum speed limit on all Type A streets shall be 30km/h.

Type B Street (Collector and Arterial Street)

Streets in this category are defined as:

- Streets classified as “Collector Streets”, “Industrial Streets”, or “Arterial Streets” in the Street Network Classification;
- Streets with a continuous yellow centre line; and/or
- Streets not captured in Street Type A.

The maximum speed limit on all Type B streets shall be 45 km/h, unless otherwise noted as follows:

- Intersections are spaced less than 125 metres apart;
- Street is located in area of high pedestrian activity;
- Active transportation facilities are present but are not physically separated from motor vehicle traffic;
- Street is located in designated School Zone; and/or
- Street is located in designated Playground Zone.

The City may consider reducing the speed limit to 30 km/h in each of the cases noted above. In all such cases where the speed limit is reduced, posted 30 km/h speed limits shall be enforced at all times, 24 hours 7 days a week.

IMPLEMENTATION

The guidelines outlined in this policy are intended as guidance and are applicable on streets where the design or operational characteristics support the suggested speed limit.

The City should establish a map identifying all Type A and Type B streets and all exceptions to Type B streets to ensure the public has a clear understanding of speed limits.

These suggested speed limits are not intended to be applied across the City all at once. Changes to posted speed limits require changes in regulatory signage to establish the new posted speed limit. As such, the City should implement changes to speed limits on Type A streets on an incremental basis focusing on implementing the changes one neighbourhood at a time in the following neighbourhoods:

- Range Lake North;
- Frame Lake;
- Downtown;
- Niven Lake;
- Old Town;
- School Draw;
- Industrial area.

Implementation of changes to speed limits on Type A streets can also be done in conjunction with the implementation of traffic calming changes, as per the corresponding Traffic Calming Policy in **Section D**.

Changes to speed limits on Type B streets are to be implemented on a location-specific basis as required in areas with higher active transportation activity, while allowing higher speeds for streets intended to move people across the City.

Speed limit changes may also be pursued in conjunction with capital projects or operational improvements such as pavement markings, curb extensions, signal timing adjustments, crossing upgrades, or gateway treatments, when these changes create conditions that support the intended operating speed.

D. TRAFFIC CALMING POLICY AND GUIDELINES

PURPOSE

The purpose of this policy is to outline a process for the City of Yellowknife to follow when assessing requests for traffic calming, initiating technical reviews, prioritizing candidate Traffic Calming locations, and selecting Traffic Calming Measures.

BACKGROUND

Traffic calming is a tool used to reduce vehicle speeds and lower traffic volumes, contributing to safer and more livable neighbourhoods. Traffic calming measures can be effective in reducing motor vehicle speeds, decreasing traffic volumes, alleviating conflicts between street users, and improving neighbourhood safety and livability.

Traffic calming can help to achieve two key goals:

- **Improve Safety:** Traffic calming can make streets safe for everyone, including all road users – pedestrians, cyclists, motorists and others. Many conflicts and collisions are the result of excessive speeds and excessive through traffic – the very problems that traffic calming can correct on local or collector streets. Research has shown that specific traffic calming devices can reduce collision rates by as much as 90%.
- **Improve Livability:** Traffic calming can help to preserve and enhance the livability of a neighbourhood by minimizing the negative impacts of traffic, such as noise, pollution, and visual intrusion. Attractively designed and landscaped traffic calming devices can also enhance the streetscape, enhancing livability as a result.

Objectives to achieve the goals of improving safety and livability include:

- **Reduce vehicle speeds:** Speeds which are suitable for one type of street – such as an arterial road, for example – may be considered excessive on a collector or local street within a neighbourhood. Measures which reduce vehicle speeds help to improve safety on neighbourhood streets

for pedestrians, cyclists, motorists and other road users, and also help to improve the livability of a community by reducing noise and other negative impacts of traffic.

- **Discourage through traffic on neighbourhood streets:** Local streets are primarily intended for access to properties, not for accommodating through traffic. Reducing through traffic helps to improve safety by reducing the potential for conflicts. Reducing through traffic also reduces delays for local traffic, pedestrians, cyclists and other road users, and helps to improve livability by reducing noise and other negative impacts of traffic.
- **Minimize conflicts between street users:** Reducing conflicts between road users helps to improve safety, as well as improve the livability of a community.
- **Enhance the neighbourhood environment:** Reducing vehicle speeds, traffic volumes, and conflicts helps to enhance the livability of a community by reducing the apparent dominance of traffic. This means reducing noise from traffic, reducing air pollution, and reducing congestion on neighbourhood streets. Traffic calming measures can also enhance the streetscape by providing opportunities for landscaping and public art.
- **Establish an on-going process to address problems:** New streets, additional development and other changes may result in changes in traffic patterns within a neighbourhood, and may create new traffic problems in the future. Establishing an on-going process of monitoring and review can help to ensure that these problems are corrected when they occur, or better yet, are anticipated and corrected before they occur.

RATIONALE

The City of Yellowknife is committed to creating livable neighbourhoods with inviting streets that are safe for all road users. Traffic calming can be an effective tool for reducing motor vehicle speeds and volumes on streets classified as “Local Streets” or “Collector Streets” in the Street Network Classification, while maintaining reasonable access for residents, public transit, snow clearing, and emergency services on these roads. The City will use traffic calming to improve

safety and neighbourhood livability for Yellowknife residents, in combination with other engineering, education, enforcement, and community engagement initiatives.

The City should follow the Transportation Association of Canada (TAC) *Canadian Guide to Traffic Calming Second Edition (2018)* for detailed information and guidance related to the planning, design, installation, operation, and maintenance of traffic calming measures.

Traffic calming is possible in winter communities, with a thoughtful framework to snow clearing.

POLICY

The objectives of this policy are to:

- Provide guidance on the types of traffic calming measures that can be considered based on the type of street;
- Provide guidance on the process for residents to request a technical review; and
- Provide guidance on the process for staff to initiate technical reviews, prioritize candidate locations, and select measures for traffic calming.

Types of Traffic Calming

Traffic calming measures consist of devices that reduce motor vehicle speeds and/or motor vehicle volumes. The types of traffic calming devices can generally be divided into three categories: vertical deflections, horizontal deflections, and modal filters, each of which are described below.

The TAC *Canadian Guide to Traffic Calming Second Edition (2018)* provides design guidance on various traffic calming treatments, some of which may be appropriate to reduce motor vehicle speeds along a neighbourhood bikeway as described below.

Vertical Deflections

Vertical deflection measures cause a vertical upward movement of the motor vehicle, thereby lowering motor vehicle speeds as motorists slow to avoid an unpleasant sensation as they traverse the traffic calming measure. Vertical deflections have the secondary benefits of reducing motor vehicle volumes and deterring neighbourhood short-cutting traffic.

In winter cities such as Yellowknife, it is important to ensure that signage is provided with any vertical deflections to alert all road users, including maintenance vehicles and emergency services, to the presence of the vertical deflection.

Vertical deflections include:

- **Speed Humps:** Raised areas of a road that cause the vertical upward movement of a traversing motor vehicle, intended to reduce motor vehicle speeds. Speed humps should be used only on local or collector streets where transit vehicles, emergency vehicles, and other large vehicles are not anticipated at high volumes.
- **Speed Tables:** Elongated raised speed humps with a flat-topped section that is long enough to raise the entire wheelbase of a motor vehicle. Speed tables may be used on public transit and emergency response routes.
- **Raised Crosswalks:** Type of speed tables enhanced to provide a marked pedestrian crosswalk. Raised crosswalks follow the same design guidance as speed tables, except that they should extend the full width of the roadway to provide a direct connection to the sidewalk.
- **Raised Intersections:** Intersections constructed at a higher elevation than the approach roads, resulting in a vertical change upon entry to the intersection. The purpose of raised intersections is to reduce motor vehicle speeds and reduce conflicts, as they often are provided in conjunction with a stop control on one or both intersecting roads.

Horizontal Deflections

Horizontal deflection measures include a lateral shift in the travel pattern of motor vehicles and cause motorists to slow down in response to either a visually narrower road or a need to navigate a curving travel lane. Various horizontal deflection measures are described below.

In winter cities such as Yellowknife, it is important to ensure that signage and obstruction markers are provided with any horizontal deflections to alert all road users, including maintenance vehicles and emergency services, to the presence of the horizontal deflection and the location of the curb.

- **Traffic Circles:** Islands located at the centre of an intersection that require motor vehicles to travel through the intersection in a counter-clockwise direction around the island. Traffic circles are applied on lower

road classifications typically replace either uncontrolled intersections or intersections controlled by stop signs. Traffic circles are effective in reducing motor vehicle speeds and also eliminate the need for people cycling to stop as is the case where stop signs are provided.

- **Curb Extensions:** Horizontal intrusions of the curb into the road, resulting in a narrower section of the road. Curb extensions visually and effectively narrow the road width. This reduces motor vehicle speeds, reduces pedestrian crossing distances, prevents parking close to an intersection, and increases motorist and cycling sightlines.
- **Chicanes:** A series of curb extensions on alternating sides of a street, which narrow the street and require motorists to steer from one side of the street to the other to travel through the chicane.

Modal Filters

Modal filters refer to devices that restrict motor vehicle movements at intersections, while allowing unrestricted movements for people walking, rolling, and cycling. These devices are effective in reducing motor vehicle volumes. Since emergency vehicle access can be an issue with traffic diversion devices, local jurisdictions should work with emergency service providers prior to implementing these devices. In addition, local jurisdictions should consult with the community to ensure that impacts to traffic ingress and egress are understood and managed.

Practitioners should take a network-wide approach to placement, locating diversion measures so they strategically disrupt through-traffic routes without shifting volumes onto nearby parallel local streets. While there is no fixed standard for spacing, placement should be informed by street network geometry, block lengths, and observed cut-through patterns.

- **Directional Closures:** A series of curb extensions or vertical barriers extending to approximately the directional dividing line of a road, effectively prohibiting one direction of motor vehicle traffic.
- **Diagonal Diverters:** Raised barriers placed diagonally across an intersection that force motor vehicle traffic to turn and prevents through movement.
- **Intersection Channelizations:** The use of raised islands or bollards in an intersection to obstruct traffic movements and physically direct motor vehicle traffic through an intersection.

- **Right-in / Right-out Islands:** Raised triangular islands at an intersection approach which obstruct left turns and through movements by motor vehicles to and from the intersecting street or driveway.
- **Raised Medians:** Concrete or asphalt islands located on the directional dividing line of a two-way road through an intersection that prevents left turns and through movements for motor vehicles to and from the intersecting roads.
- **Full Closures:** Barriers extending the entire width of the road that obstructs all motor vehicle traffic movements from continuing along the road.

Process

Annual Traffic Calming Program

The City will set and adopt an annual budget for traffic calming projects. Each year, the City will prepare a priority list of candidate locations for traffic calming projects based on resident requests and technical reviews. The City will implement traffic calming measures for as many candidate locations as possible on the priority list, based on the available budget allocated by Council, staff capacity, and timing of other City initiatives.

The Annual Traffic Calming Program will be administered based on the following guiding principles:

- **Livable neighbourhoods:** The Annual Traffic Calming Program improves safety for all road users, reduces speeding and shortcutting traffic, and contributes to inviting streets where people want to spend time.
- **Fair decision-making:** The Annual Traffic Calming Program supports a consistent and transparent process that enables Yellowknife residents to contribute in a meaningful way.
- **Best-value projects:** The Annual Traffic Calming Program prioritizes areas where projects will have the most benefit and maximizes the impact of available resources.

The Annual Traffic Calming Program will have two separate project streams: Neighbourhood Improvements and Spot Improvements (**Appendix D Table 4**).

APPENDIX D TABLE 4: NEIGHBOURHOOD VS SPOT IMPROVEMENTS

	Neighbourhood Improvements	Spot Improvements
<i>Scope</i>	Several streets within a community or neighbourhood	Single street
<i>Number of Projects</i>	Up to 1 neighbourhood/year	Up to 5 spot improvements/year
<i>Budget</i>	Variable budget determined through capital budgeting process	Set annual budget determined by Council
<i>Number of Measures</i>	More than one	One per spot

Data Collection

The City will collect traffic speed and volume data every Fall for each request that met Technical Warrant 1 (Eligibility). Data will not be collected on statutory holidays. Additional data collection can occur at the discretion of the Manager of Engineering Services.

The Manager of Engineering Services can choose to share the data with the RCMP to guide enforcement efforts. The City will request updated collision data from the Government of the Northwest Territories (GNWT) biannually every Spring and Fall to inform technical reviews. The City will work with other departments to monitor the operating cost impacts of traffic calming measures.

Engagement

The City will host public engagement to gather input on proposed traffic calming projects, at minimum:

- **Before and after surveys** for both Neighbourhood Improvements and Spot Improvements; and
- **Open houses** for Neighbourhood Improvements.

The City will prepare an annual report for City Council sharing information about:

- **The number of requests received, reviewed, and escalated** to the priority list for the Annual Traffic Calming Program;

- **Potential operating impacts** to other departments; and
- **Impacts of traffic calming measures** on speed, volume, and collisions. Technical Warrants may be revised at the discretion of the Manager of Engineering Services. If revisions are made, all requests must be reviewed consistently against the most recent Technical Warrants.

These technical warrants are based on existing guidance from TAC *Canadian Guide to Traffic Calming Second Edition (2018)* and the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* and provide a starting point for communities across Canada to support implementation. Technical Warrants may be revised at the discretion of the Director of Public Works and Engineering or Designate. If revisions are made, all requests must be reviewed consistently against the most recent Technical Warrants.

Traffic Calming Request and Technical Review Process

The following steps should be completed as part of the request and technical review process:

Step 1: Resident submits complete intake form with information to support the request for Traffic Calming. Complete intake forms received before September 30 each calendar year will be reviewed and considered for implementation the following Summer.

Step 2: Based on the completed intake form received, the City will complete Technical Warrant 1 (Eligibility) and determine if the location is eligible for traffic calming, based on:

- Street network classification (traffic calming measures are most suitable for Local and Collector street);
- Posted speed limit;
- Road length; and
- Recently completed technical reviews in the area.

Step 3: If Technical Warrant 1 (Eligibility) is met, then the City will complete Technical Warrant 2 (Problem Definition). The City will analyze recent traffic data to determine if the perceived nature and severity of the traffic issue aligns with the speed, volume, and collision data.

Requests for traffic calming will be considered in areas where there are:

- Recorded vehicle speeds that substantially exceed the posted speed limit;
- Traffic volumes that are higher than appropriate based on the road classification; and/or
- More than one reported collision, with a focus on injury or fatal collisions, and collisions involving pedestrians, cyclists, or motorcyclists.

Step 4: If Technical Warrant 2 (Problem Definition) is met, then the City will complete Technical Warrant 3 (Prioritization) to prioritize candidate locations for traffic calming projects. Requests will be prioritized in the following areas:

- Areas with recorded speeding, shortcutting, and reported collisions;
- Areas with a higher proportion of vulnerable road users. Vulnerable road users can include older adults, children, and people with disabilities;
- Areas where road renewal projects are planned and there are opportunities for integration with other projects; or
- Areas where there has been a history of resident requests and support from community associations.

If the request meets all three Technical Warrants, the City will add to the list of potential traffic calming projects as part of the Annual Traffic Calming Program.

Selecting Traffic Calming Measures

The City will review applicable plans related to the area (e.g. Yellowknife Transportation Plan, Community Plan) to understand how the potential traffic calming project aligns with the overall development and transportation context.

When possible, it is encouraged to trial traffic calming measures first with low cost, temporary solutions, to enable quick implementation and have a trial period to gauge effectiveness before investing in more permanent improvements.

The City will select measures and develop traffic calming projects based on best practice, engineering judgement, internal engagement, public engagement, technical standards, and the following considerations adapted from the TAC *Canadian Guide to Traffic Calming Second Edition (2018)*:

- **Effectiveness:** Will the proposed traffic calming measure address the target problem (speeding, shortcutting, or collisions)?

- **Local vehicle access:** Will the benefits of the proposed traffic calming measure justify the impact on access for local people driving and parking cars?
- **Pedestrian/cyclist access:** Will the proposed traffic calming measure maintain or improve access for local people walking, rolling, or wheeling?
- **Transit/emergency vehicle access:** Will the benefits of the proposed traffic calming measure justify the impact on transit/emergency vehicle access?
- **Winter maintenance:** Will the benefits of the proposed traffic calming measure justify the impact on winter maintenance?
- **Community design:** Will the proposed traffic calming measure improve the community design and contribute to an inviting streetscape where people want to spend time?
- **Flexibility:** Will the proposed traffic calming measure allow for future adjustments based on internal or public engagement feedback?
- **Grade:** Is the proposed traffic calming measure suitable for the grade?
- **Cost:** Will the benefits of the proposed traffic calming measure justify the cost?

Removing Traffic Calming Measures

Some traffic calming measures will be implemented seasonally and removed annually prior to winter conditions.

To give people time to adjust to new road conditions, the City will not action requests to remove traffic calming measures for at least three (3) months after a project is implemented.

The City reserves the right to modify or remove a traffic calming measure at any time for safety reasons.

The City will review resident requests to remove traffic calming measures in their neighbourhood and prioritize safety concerns. City Council must approve the permanent removal of traffic calming measures.

If a traffic calming measure is removed at the request of residents, the City will not review new traffic calming requests on that street for at least three (3) years.

E. TRAFFIC SIGNAL MANAGEMENT POLICY

PURPOSE

The purpose of this policy is to guide the planning, design, timing, coordination, and operation of traffic signals in the city. Traffic signal management objectives touch on elements such as accessibility and safety. This policy will provide directions on items such as pedestrian crossing times and coordination with nearby intersections.

This document provides:

- Guidance on the implementation of new traffic signals
- Considerations for modifications to existing intersection crossings and signals

This policy will be reviewed and updated to reflect changes in development and emerging technologies.

BACKGROUND

The City's Complete Streets, Vision Zero, Speed Limit, and Traffic Calming policies highlight the importance of planning, designing, and implementing a transportation network that prioritizes the safe and accessible movement of all road users. Intersections and traffic signals play an important role within the transportation system enabling safe and accessible crossings of streets in Yellowknife.

Within Yellowknife, a range of intersection controls and crossing treatments are used to support people walking, cycling, and rolling, including traffic signals, painted crosswalks, and Rectangular Rapid Flashing Beacons (RRFBs). While these facilities play an important role in enabling safe crossings, several intersections and crossings present accessibility and safety challenges, especially for older adults and people with disabilities.

The Transportation Plan has an action specifically tied to implementing new traffic signals as part of new developments and implementing safety and operational improvements at intersections. Additionally, the Plan notes that the City should implement targeted safety and operational improvements at intersections.

This Traffic Signal Management Policy provides guidance on the features of traffic systems that can promote consistent, safe, and efficient control of traffic signals.

RATIONALE

This document will be used by those involved in traffic signal operations and planning to promote consistent, safe, and efficient traffic signal operations in the City. The recommendations included in this policy are based on the following guiding principles:

- Follow the Vision Zero Policy and prioritize safety for all road users
- Provide complete streets and a transportation network that supports all modes of transportation
- Provide consistent, reliable, and efficient traffic signal operations

When considering the need for and type of traffic control, signal timing and progression, and other considerations, the impact on safety for vulnerable road users should be the top priority. While some traffic signal treatments may improve vehicle flow and reduce delays for motorists, they may also create delays, barriers, or safety concerns for other road users. Similarly, certain treatments may prioritize pedestrian comfort and safety while resulting in longer delays for motor vehicle traffic. Decisions regarding traffic signal operations should consider the surrounding land use context, the presence and needs of vulnerable users, and the tradeoffs associated with different treatments and techniques. In all cases, safety should take precedence when evaluating these tradeoffs.

Since traffic signal technology changes at a rapid pace, the City reserves the right to change the Traffic Signal Management Policy at any time. The recommendations included in this document are based on the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* and *Transportation Association of Canada (TAC) Guidelines*. Additionally, the *BC Active Transportation Design Guide (2019)*, the *City of Toronto Traffic Signal Operations Policies and Strategies (2021)* document, and *City of Vancouver Traffic Signal Timing Guidelines (2023)* were reviewed for reference.

POLICY

The objectives of the policy are to provide guidance on:

- Implementing new traffic signals and traffic control devices
- Balancing safety and mobility
- The types of signalized traffic control and warning devices
- Signal timing and progression policies
- Other considerations

Implementing New Traffic Signals and Traffic Control Devices

The identification and implementation of new traffic signals and traffic control devices can occur through different mechanisms. The Yellowknife Transportation Plan identifies proposed traffic signals to improve safety, traffic operations, and multimodal accessibility based on a review of existing conditions, community input, and connections to future areas of development. The following section outlines some of the mechanisms and approaches to identifying and confirming the location of new traffic signals and crossing improvements.

Development: As new development occurs and the transportation network is expanded, there may be need to plan and implement new traffic signals. In this case, road classification is often an indicator of when signalization is recommended. The need for a traffic signal should be considered when:

- Two arterial roads intersect
- An arterial road intersects a collector road (especially if the collector road is the main access point to a new subdivision/development)

Warrants: Warrant analyses are comprehensive studies of traffic conditions and the physical characteristics of the site to determine which traffic control device should be implemented. Documents that can be used to support the warrant process include:

- *TAC Pedestrian Crossing Control Guide (2018)*: the Treatment Selection Tool, contained within the Guide, is a reference that may be used to support and inform the selection of a suitable crossing treatment.
- *TAC Traffic Signal and Pedestrian Head Warrant Handbook (2014)*

It is important to note that warrants should not be used as a substitute for engineering judgement. It is a traffic practitioner's fundamental responsibility to exercise engineering judgement and experience on technical matters. Designing for context has become increasingly important, and considerations regarding the presence of collisions, community member complaints, proximity to schools, and known or anticipated use by vulnerable users should be considered when reviewing the need for a change in traffic control.

Ongoing Monitoring: When considering when and where to install a new or upgrade the existing traffic control system, the City will continue to monitor potential locations for:

- Increasing traffic volumes or specific turning movements
- Road user behaviours (e.g., are people taking more risks, making unsafe movements due to inadequate gaps in opposing traffic ?)
- Change in users (e.g., is there is an increase in vulnerable road users due to changing land use?)

While there are several different techniques for monitoring, within the context of Yellowknife, manual data collection may be the most appropriate.

Types of Signalized Traffic Control and Warning Systems

Appendix D Table 5 outlines the types of traffic control and warning systems that can be considered in Yellowknife. A brief description has been provided along with some of the advantages and disadvantages of each system.

APPENDIX D TABLE 5: POTENTIAL TRAFFIC CONTROL AND WARNING SYSTEMS FOR USE IN YELLOWKNIFE

Type of Signal	Description	Advantages	Disadvantages
Traffic Signals (Full Signals)	Traffic signals control all approaches and regulate which user can enter the intersection at a given time. Traffic signals are used at intersections between a combination of roads that are major and minor in functional classification. The installation of full traffic signals is often determined by a warrant process.	• All users are given a clear signal of when to cross and stop • Suitable for roads with higher volumes and larger cross sections • Ability to coordinate/delay/time the actuations and calls • May be accessible for all users	• Highest installation costs due to more infrastructure required than other traffic devices • May impact traffic operations and result in delay to people walking, rolling, and cycling • May cause pedestrian delay which can reduce convenience and discourage walking • High warrant demands for justification
Pedestrian Activated Signal (Half Signal)	Pedestrian activated signals are traffic signals that include all the elements of a full traffic signal, except for side road vehicle indication and detection. Pedestrian activated signals are intended to facilitate pedestrian (and cycling) movements while controlling motor vehicle movements on only one road, rather than two or more roads. They can be used at the intersection of major and minor roads, or they can be used at major mid-block crossings. The decision to implement is typically determined by a study that includes a warrant process and can be installed wherever deemed appropriate.	• Pedestrians are given a clear signal when to cross, and motorists on the major road see a conventional signal indicating when to stop • Suitable for roads with higher volumes, speeds, and larger cross sections, where crossing opportunities are less frequent and where side-mounted systems are less effective • Less delay for major streets as it is activated on demand only	• Lower installation cost than a traffic signal but higher installation cost compared to other traffic devices • Increased delay for major roads compared to overhead pedestrian flashers or RRFBs • If located on transit routes, could impact the predictability of transit schedule as pedestrian and bicycle activation will slow motor vehicle traffic • May increase short-cutting motor vehicle traffic on minor side streets unless implemented with traffic calming and traffic diversion measures • Potential confusion with side road being stop controlled

Type of Signal	Description	Advantages	Disadvantages
Overhead Flashing Beacon	Overhead flashing beacons are also known as Special Crosswalks. They are not considered a traffic control signal but are instead a traffic control device installed to enhance visibility and yielding of motorists for a crosswalk at intersections or mid-block locations. The system consists of an overhead illuminated Pedestrian Crossing sign (MUTCDC RA-5) with pedestrian-activated flashing amber beacons. Advanced warning signs and flashers can be installed where sightlines are constrained. Pavement markings and side-mounted signs and beacons also supplement the overhead flashing beacons. Beacons flash in an alternating pattern. Practitioners should undertake a site-specific assessment to determine the most appropriate active pedestrian crossing control for each location under consideration.	• Less delay for major road, as it is activated on demand only • Can be implemented when conventional signal warrant is not met or where a conventional traffic signal is not desired • Lower installation costs than traffic signals (full or half) • Requires less infrastructure than traffic signals (full or half)	• Warning device only, does not provide a 'red/stop' condition for motorists, and may lead to variation in motorist behaviour • No platooning of crossing users can be unpredictable for motor vehicle traffic • Less visibility than a traffic signal • Typically not suitable for higher speed roadways
Rectangular Rapid Flashing Beacon (RRFB) or Other Side-Mounted Flashing Beacon	When activated, Rectangular Rapid Flashing Beacons (RRFBs) or other side-mounted flashing beacons have flashing amber lights that alternate back and forth to attract motorists' attention, increasing yielding behaviour. As flashing amber lights indicate caution only, RRFB's should not be used to assign right-of-way. When used, RRFBs or other side-mounted flashing beacons should be installed with one on either side of the road and a two-sided RRFB in the median island, if a median exists. RRFBs or other side-mounted flashing beacons can be used to mitigate conflicts at challenging crossings such as channelized right turn lanes, roundabouts, and at mid-block crossings, bicycle crossings, or multi-use pathway crossings.	• Less delay for major road • Can be implemented when conventional signal warrant is not met or where a conventional traffic signal is not desired • Requires less infrastructure than all other devices • Lowest installation cost compared to other traffic devices	• Warning device only, does not provide a 'red/stop' condition for motorists and may lead to variation in motorist behaviour • Wide roads can make side of road signing more difficult for drivers to see • No platooning of crossing users can be unpredictable for motor vehicle traffic • Generally, not suitable for higher speed roadways, and on roads with multi-lane cross-sections

Signal Timing and Progression Policies

Signal Phasing: The *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* defines a signal phase as the right-of-way (green), amber, and all-red clearance intervals in a signal cycle that are assigned to an independent traffic movement or combination of non-conflicting traffic movements serving different modes (i.e. motorists, pedestrians, cyclists, and transit). Different phases are considered depending on the intersection configuration and site conditions to balance the different needs of road users. The underlying recommendation is to focus on minimizing unnecessary delays for pedestrians.

Signalized movements requiring actuation utilize detectors that identify users (cyclists, vehicles, and pedestrians) of the intersection. For **fixed time signals**, detection infrastructure may not be required. The signal phasing is operated by pre-programmed sequences. However, this may not always align with demand and can result in unnecessary delays if pedestrian volumes are low.

For **fully actuated signals**, every movement contains vehicle, cyclists, and/or pedestrian detectors that moderate the length of green time based on the current demand (detection is required). **Semi-actuated signals** maintain the through phase for the major street unless a minor street vehicle detector or a pedestrian push-button is actuated.

Protected and Permissive Turning Movements: Protected signal phases allow a specified turning movement to be made while other conflicting traffic is stopped or only the adjacent through movement is allowed. Protected turning movements reduce the potential for conflicts between flows of traffic but may increase overall intersection cycle lengths and increase delay.

Left Turn Movements: To determine if a protected left turn movement is recommended, the City should review the Need in comparison to the Impact. This includes reviewing vehicle volumes, traffic delays, and collision experience.

- **Need:** Factors that highlight why a left-turn phase would be beneficial – high left-turn volumes, high opposing through-traffic volumes, collision history, identified safety concerns, or significant traffic delays due to turning movements.
- **Impact:** unacceptable delays or operational problems for other road users.

Additionally, intersection geometry and the ability to allocate space to a turn lane may factor in the decision. Depending on the intersection context the City may implement:

- **Protected / Permissive Left-Turn Phasing:** Allows left turns on a green arrow and later permits left turns on a green ball while yielding to oncoming traffic.
- **Fully Protected Left-Turn Phasing:** A fully exclusive phase where left-turning traffic has a dedicated arrow and opposing traffic is stopped.

Right Turn Movements: Some communities have implemented protected/permissive or fully protected right turn phasing. Right-turn phasing is typically only installed when there is a complementary left-turn phase, green phase, and an exclusive right turn lane.

Signal Coordination: Depending on the location of the route and time of day, signal coordination design strategies may be developed to optimize traffic flow along arterial routes. Typically, coordination should balance overall delays and manage safe and reasonable speeds. Coordination can be considered for signalized intersections whereby the spacing between intersections is less than 400 metres. For coordination between signalized intersections, consider, and where possible, reduce delays for pedestrians.

Signal Timing Plans: Because traffic conditions vary based on the time of day, day of the week, or for special events, traditional signal controllers can be programmed to operate with different timing plans depending on the forecast demand. As Yellowknife evaluates various approaches to phasing signal timing, different signal timing plans based on time of day or week may be considered.

Pedestrian Phase and Signal Components

The pedestrian phase consists of 'Walk' and 'Flashing Don't Walk' (FDW) intervals. The Walk interval is the time that allows pedestrians to notice the change in signal indications and begin their movement. The FDW interval follows the Walk interval where sufficient crossing time is given for someone who entered the crosswalk (at the end of the Walk interval) to reach a designated pedestrian refuge or the other side of the road in a safe manner before conflicting traffic receives a green indication.

Pedestrian Walk Times: A minimum of 7.0 seconds of initial Walk time can be provided for pedestrian signals. In areas with higher pedestrian volumes and/or where pedestrian storage is an issue, the Walk duration can extend beyond 7.0 seconds.

Pedestrian Walk Speeds: Pedestrian walking speed is used to determine the minimum safe pedestrian clearance interval for which a pedestrian may cross a signalized intersection. Pedestrian walking speeds vary depending on the demographics of the pedestrians.

In accordance with the *Manual of Uniform Traffic Control Devices for Canada (MUTCDC)* guidelines, crossing time should be determined using a pedestrian walking speed ranging from 0.8 m/s to 1.0 m/s. The range of walking speeds are described below:

- **0.8 m/s** - walking speed should be used near hospitals and senior centers where pedestrians crossing the signalized intersection use assistive devices for mobility.
- **0.9 m/s** - walking speed should be used in cases where a moderate percentage of pedestrians crossing the signalized intersection are older pedestrians (65 years of age or older).
- **1.0 m/s** - walking speed should be used to accommodate the general population.

In special circumstances, an increase up to a walk speed of 1.2 m/s may be explored when maintaining coordination with adjacent signals and/or reducing the overall signal cycle length is deemed critical.

Leading Pedestrian Intervals (LPI): A LPI is a traffic signal timing strategy that can be used to give pedestrians a head start before motor vehicle traffic to increase visibility and reduce conflicts. This early walk phase (typically 3 to 7 seconds) allows pedestrians to enter the crosswalk and establish visibility in the intersection, reducing the likelihood of conflicts with turning vehicles, particularly right-turning motorists. LPIs are especially beneficial in urban environments and high-conflict intersections, as they enhance pedestrian safety by increasing yielding compliance and reducing vehicle encroachment into the crosswalk.

LPIs are recommended by the Federal Highway Administration (FHWA), National Association of City Transportation Officials (NACTO), and are included in the *MUTCDC*. LPIs are a cost-effective measure to improve pedestrian safety without requiring significant changes to intersection geometry.

Pedestrian Signal Components:

- Accessible Pedestrian Signals (APS) are used to provide non-visual cues to support people with sight loss to cross the street safely. The main resource for APS is the *TAC Guidelines for Understanding, Use, and Implementation of Audible Pedestrian Signals (2008)*. The *Canadian Standards Association (CSA) Accessible Design of the Built Environment (2023)* defers to these TAC guidelines. However, they have not been updated recently. Additional resources include the *National Cooperative Highway Research Program (NCHRP) Report 117A: Accessible Pedestrian Signals: A Guide to Best Practices (2007)*, *BC Active Transportation Design Guide (2019)*, and the Accessible Design for the Blind, Consumer Access Group, Canadian National Institute for the Blind (CNIB) Foundation are also helpful references.
- Pedestrian push button placement should be provided for each direction of travel and should be properly placed to offer the full benefits to all pedestrians, including people with sight loss. Pedestrian push buttons should be placed either on stub poles or on the same pole as the pedestrian signal head. The *TAC Guidelines for Understanding, Use, and Implementation of Audible Pedestrian Signals (2008)* provides detailed recommendations on the placement of pedestrian push buttons.
- Pedestrian countdown timers provide information for pedestrians to cross the street by informing them of the time until the pedestrian phase terminates. Pedestrian countdown timers indicate the remaining time in the Walk phase, giving pedestrians an idea of how long the signal will display.

Pedestrians retain the legal right to complete their crossing even after the countdown ends. They should be provided at all signalized intersections. There are mixed research results regarding pedestrian and driver compliance and behaviours.

- Automatic pedestrian detection can be considered, particularly in areas with high pedestrian volumes and continuous activity. In cases where automatic pedestrian detection is in place, a push button would not be required. See the section above regarding signal phasing regarding detection.

Other Considerations

Detection: Vehicle detection systems are installed at intersections to actuate and extend signal phases based on traffic demand. They are typically in-roadway sensors, video, or radar detection. Detection can be used to trigger certain cycles at fully actuated signals, including turning phases. Pedestrian detectors include pedestrian push buttons, which trigger a pedestrian phase.

Preemption: Allows the typical signal operation to be preempted by a different signal operation (typically triggered by emergency vehicles, rail crossings or transit). The traffic signal controller safely terminates the current phase and serves a pre-defined or set of pre-emption phases.

Malfunction: Cold weather conditions can result in equipment malfunctions. Signal obstructions (particularly LED traffic lights), camera detection failure, and battery degradation due to ice accumulation and extreme weather. Heating elements integrated into technologies (such as heat tape and lens warmers) and hydrophobic and anti-ice coatings have been shown to help. Monitoring and early detection of malfunctions is extremely important to mitigate issues quickly.

F. CYCLING FACILITY DESIGN GUIDELINES

INTRODUCTION

The purpose of this design guide is to supplement the Yellowknife Transportation Plan and provide guidance to the City when selecting, designing future cycling facilities. This document includes a cycle facility selection tool as well as guidelines for the recommended widths, signage, and pavement markings for a range of cycling facilities.

This document has been developed based on best practice and guidance from the *Active Transportation Design Guide for Yukon Highways (2025)*, *BC Active Transportation Design Guide (2019)*, the *Transportation Association of Canada (TAC) Geometric Design Guidelines for Canadian Roads (2017)*, and the *Ontario Traffic Manual Book 18: Cycling Facilities (2014)*.

Other references from outside of Canada include the *Federal Highway Administration's Small Town and Rural Multimodal Networks (2016)*, *National Association of Transportation Officials Urban Bikeway Design Guide (2025)*, and the *City of Oulu's Winter Maintenance Guidelines*.

The *Active Transportation Design Guide for Yukon Highways (2025)* and the *BC Active Transportation Design Guide (2019)* were primarily used as references due to their recency and cycling focus that builds off the TAC *Geometric Design Guide*. Most of the figures and graphics included in this document have been pulled from existing guidelines to illustrate preferred designs.

PLANNING AND DESIGN CONSIDERATIONS

Design Domain

The *BC Active Transportation Design Guide (2019)* includes two levels within the design domain: desired and constrained with absolute minimums and maximums provided where applicable. These levels will be used for these guidelines as they facilitate decision making that is flexible to meet the context of local conditions.

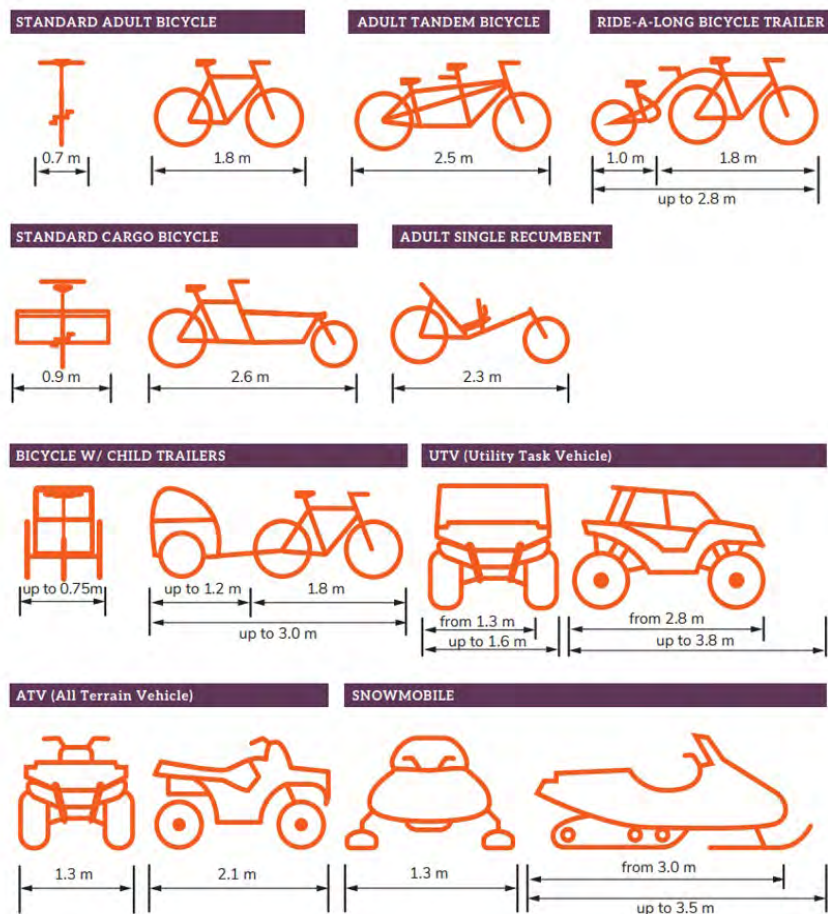
This range has a relationship with the fitness-for-purpose of the design element. Values on the lower end of the range will be less costly to construct but provide a less satisfactory experience for users, while values on the higher end of the range may run into cost issues or space constraints. Whichever value is chosen will have unique benefits and constraints in terms of operational performance and the experience of the user. While all values within the range of the Design Domain are acceptable, some may be better than others for a given situation. Engineering judgement will need to be used to determine this in any given situation.

Calculating Measurements

Where there is a curb and/or gutter, all measurements in this document are measured from the lip of gutter (as opposed to the face of curb) and exclude the gutter pan. Where there is no curb and/or gutter, all measurements in this Design Guide are measured to the edge of pavement. In addition, measurements to longitudinal pavement markings are calculated to the centre of the painted line.

Bicycle Dimensions and Operating Space

Bicycles come in many shapes and sizes, with “non-standard” cycles becoming increasingly common across North America. Cycling facilities must be designed to accommodate the full range of cycles, including standard cycles such as road, touring, mountain, fat tire cycles, and hybrid styles, but also non-standard bicycles such as children's cycles, adult tricycles, cargo bicycles, bicycles with trailers, electric bicycles (e-bikes), and recumbent bicycles (**Appendix D Figure 4**). Considering all types of bicycles in the planning and design process can ensure the cycling facility is accessible for all ages and abilities.

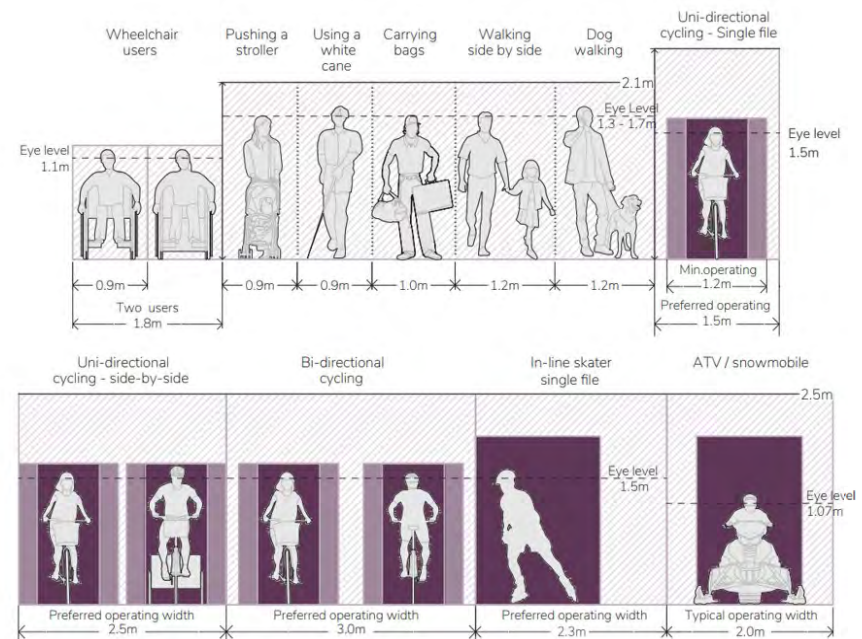


APPENDIX D FIGURE 4: TYPICAL DEVICE DIMENSIONS (Source: Active Transportation Guide for Yukon Highways, 2025)

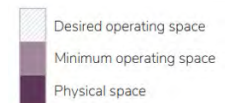
Designers are reminded that this is not to be considered an exhaustive list and that bicycles come in many different configurations, including bicycles built for use by people with mobility restrictions. Facilities designed with this range of design vehicles in mind, including consideration of bicycles built for people with mobility restrictions, will accommodate most existing and potential bicycle users. Additional users of cycling facilities may include skateboarders, longboarders, in-line skaters, electric scooter riders, and roller skaters.

Type 3 trails (recreational motorized pathways) as outlined in the Trail and Pathway Classification in Action 2.3A of the Transportation Plan can include motorized users such as snowmobiles and ATVs. Emerging technologies, both human-powered and electric, will require consideration in the future as well.

The operating space required by a person cycling is shown in **Appendix D Figure 5**. In addition to the dimensions of the bicycle itself, the person riding the bicycle must also be considered. A single person cycling requires a horizontal operating envelope of 1.2 to 1.5 metres, which allows for variations in tracking (i.e. lateral movement, which is common when riding uphill and when moving at full speed). These dimensions form the basis of the design parameters for cycling facilities.



APPENDIX D FIGURE 5: TYPICAL OPERATING SPACE
(Source: Active Transportation Guide for Yukon Highways, 2025)



Cycling Facility Selection

There are a wide variety of considerations for selecting the type of cycling facility infrastructure for a given roadway context. Some of the key factors to consider include:

- Motor Vehicle Speed and Volume
- Users
- Road Width
- Curbside Use
- Natural Features
- Truck and Bus Traffic
- Conflict Points
- Aesthetics
- Cost / Funding
- Maintenance and Operations
- Land Use and Development Context
- Road Classification

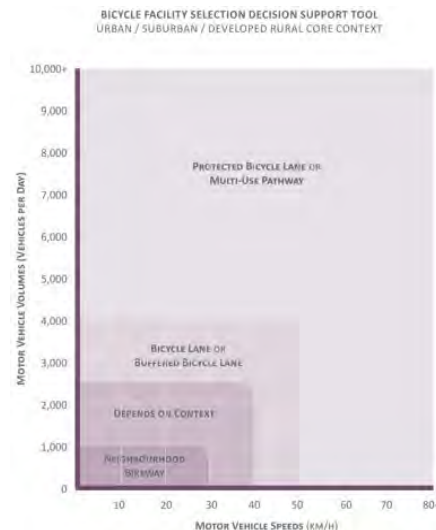
The cycling facility selection process is complex. The choice between facility types is not always simple, as all of the factors noted above must be weighed against one another. Facility design selection involves a certain degree of flexibility, as designs must recognize context and adapt to site specific characteristics. The final decision regarding bicycle infrastructure design will depend in part on the experience and professional judgment of a qualified professional.

Further guidance is provided in Section D.1 of the *BC Active Transportation Design Guide (2019)*.

A simple facility selection tool can be seen in **Appendix D Figure 6**. This tool can be used to select cycling facility type based off both the speed and the volume of the roadway.

APPENDIX D FIGURE 6: CYCLING FACILITY SELECTION TOOL

(Source: *BC Active Transportation Design Guide, 2019*)



The road network in Yellowknife has been reviewed through the lens of determining what facility types are best suited for each street classification.

Appendix D Table 6 below outlines facility recommendations and considerations to be used when selecting cycling facility types.

APPENDIX D TABLE 6: CYCLING FACILITY BY ROAD CLASSIFICATION

City of Yellowknife Road Classification	Recommended Cycling Facility	Other Considerations
Highway	Multi-Use Pathways or Protected Bicycle Lanes	Coordination with the Government of the Northwest Territories would be required
Arterial	Multi-Use Pathways Bicycle Lanes (including Buffered Bicycle Lanes)	On arterial roadways with existing sidewalks buffered bicycle lanes may be suitable to expediate the implementation of the long term cycling network
Collector	Multi-Use Pathways Bicycle Lanes (including Buffered Bicycle Lanes)	Consider multi-use pathways on collector roadways without existing sidewalks
Local	Neighbourhood Bikeways	Neighbourhood bikeways are suitable for local streets, install traffic calming treatments as required

CYCLING FACILITY DESIGN GUIDANCE

There is a range of different cycling facility types that can be appropriate in various contexts. Municipalities have been moving towards networks of cycling facilities that are considered comfortable for most or comfortable for many.

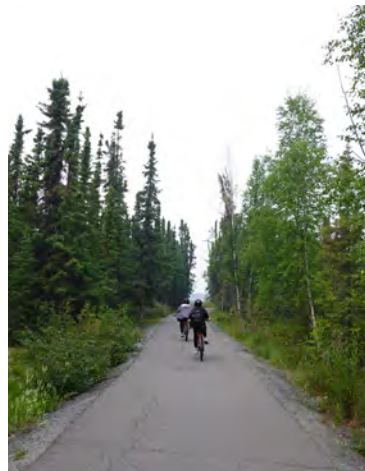
The Transportation Plan identifies a proposed cycling network that is made up of a variety of facility types:

- Multi-use pathways
- Neighbourhood bikeways
- Bicycle lanes

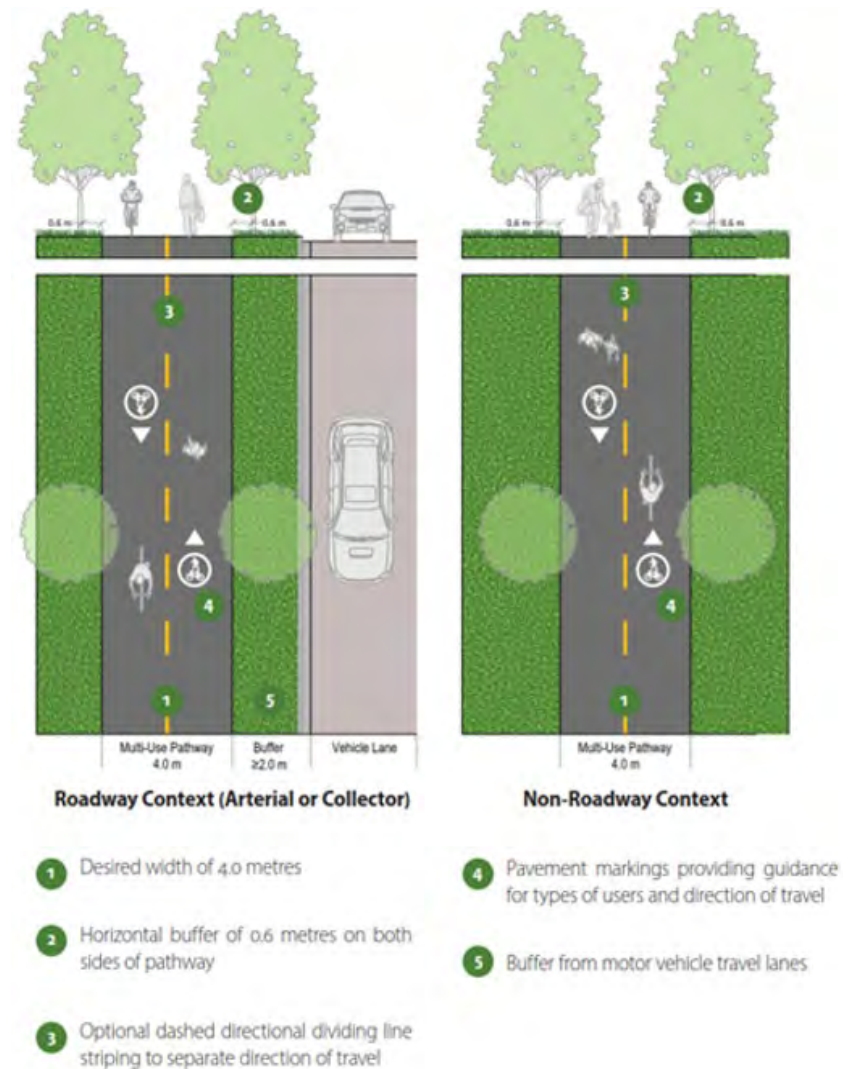
Multi-use Pathways

Multi-use pathways are physically separated from motor vehicles by an open space or barrier, depending on the application, and can be used simultaneously by a number of users including cyclists, pedestrians, joggers, in-line skaters, people walking dogs, people with mobility aids, and a variety of other users at the same time. An example of a multi-use path can be seen in **Appendix D Figure 7**. Multi-use pathways provide great connections for recreational and commuter purposes.

Considerations for separating cyclists and pedestrians should be made when the off-street pathway is either used by a high percentage of pedestrians, at locations where the total user volumes are high, or where space is available. Generally, it is recommended that if there are consistently more than 1,500 combined users on a 3.0 to 4.0 metre wide pathway and space is available, separation is recommended. When users are separated out with physical separation (beyond a painted line) the cycling facility would then be referred to as a bike path. Design guidance on bike paths is provided in the following section.



APPENDIX D FIGURE 7: MULTI-USE PATHWAY IN YELLOWKNIFE



APPENDIX D FIGURE 8: MULTI-USE PATHWAY CROSS-SECTION

(Source: BC Active Transportation Design Guide, 2019)

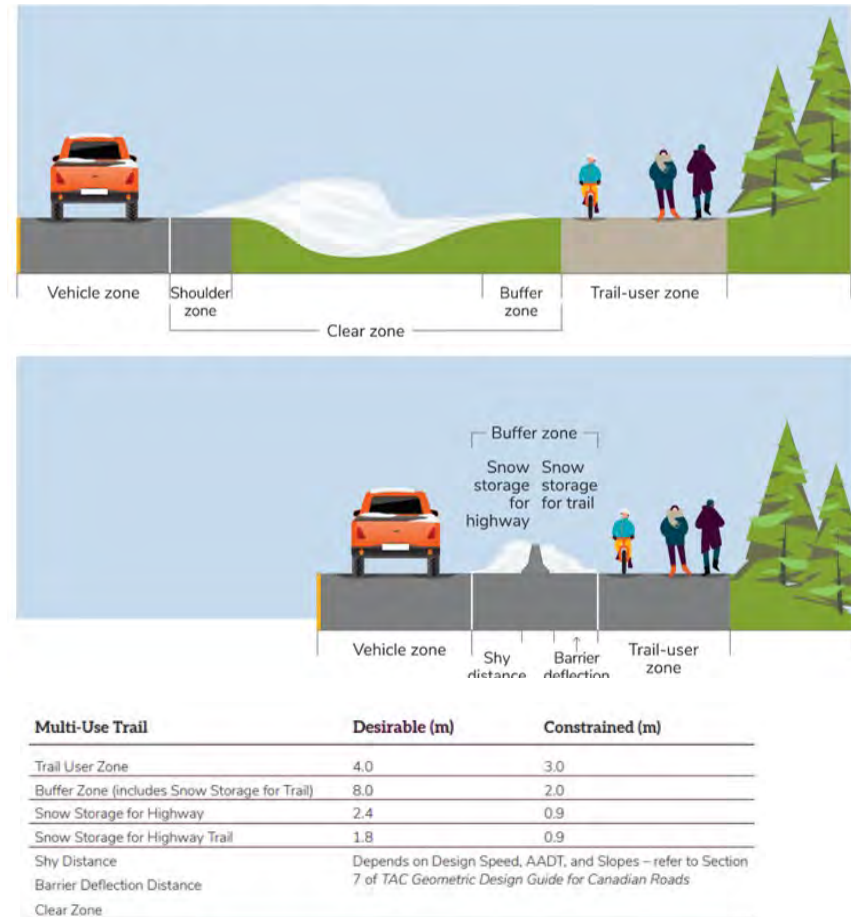
Width

Multi-use pathways are recommended to be built between 3.0 metres and 4.0 metres wide. A multi-use pathway within these widths provides a comfortable width for cyclists passing another cyclist traveling in the opposing direction, or two pedestrians walking side by side. **Appendix D Figure 9** shows the design domain widths recommended by the *BC Active Transportation Design Guide (2019)*. More information on considerations for the design width of multi-use pathways can be found in the *BC Active Transportation Design Guide (2019)*.

CONTEXT	DESIRABLE (M)	CONSTRAINED (M)
Highway Corridor		
See Chapter F.1		
Roadway Corridor (Arterial and Collector Roads)		
Pathway Width	4.0	3.0
Street buffer Zone Width*	≥ 2.0	0.6
Roadway Corridor (Local Roads)		
Pathway Width	3.0 – 4.0**	3.0
Street Buffer Zone Width*	≥ 1.5	0.6
All Other Contexts		
Pathway Width	3.0 – 4.0**	2.7
Lateral Clearance	0.6***	0.6

APPENDIX D FIGURE 9: MULTI-USE PATH WIDTH DESIGN GUIDANCE (Source: *BC Active Transportation Design Guide, 2019*)

Special considerations need to be made when designing a multi-use pathway within a highway right-of-way. When a multi-use pathway is to be built within a highway right-of-way it should be located outside of the clear zone of the highway, which is based on the design speed and traffic volume of the highway.



APPENDIX D FIGURE 10: MULTI-USE PATHWAY DESIRABLE AND CONSTRAINED CROSS-SECTIONS (Source: *Active Transportation Guide of Yukon Highways, 2025*)

Separating Users

As noted, considerations for separating cyclists and pedestrians should be made when the multi-use pathway is either used by a high percentage of pedestrians, at locations where the total user volumes are high, or if adequate space is available. There are varying levels and types of separation that can be provided to separate modes travelling along a multi-use pathway ranging from median or boulevard separation, curb separation, tactile warning delineator separation, and paint. The type of separation used typically depends on the amount of space available.

In Yellowknife, on multi-use pathways that are 3.5 metres or wider, adjacent to a roadway, and there is a multi-use pathway on both sides of the street, a dashed painted line separating users is recommended. This would accommodate uni-directional bicycle travel and bi-directional pedestrian travel. In this scenario, a white dashed centre line would be provided with a bicycle stencil indicating the direction of travel for cyclists and two-way pedestrian stencil.



APPENDIX D FIGURE 11: EXAMPLE OF A MULTI-USE PATHWAY SEPARATING USERS
(City of North Vancouver, BC)

Signage

Along shared multi-use pathways, the Shared Pathway (RB-93) sign may be used to indicate that both people cycling and walking are permitted to use the trail. Additional pathway etiquette signs indicating the recommended yielding behaviour of different modes of pathway users can be used but is not required. The Pathway Organization sign (RB-94) indicates to people cycling and walking how to share a pathway on which there is a designated area provided for each. This sign may be installed back-to-back. The Turning Vehicles Yield to Bicycle sign (RB-37) may be used at conflict zones where motorists are required to cross a bike path.

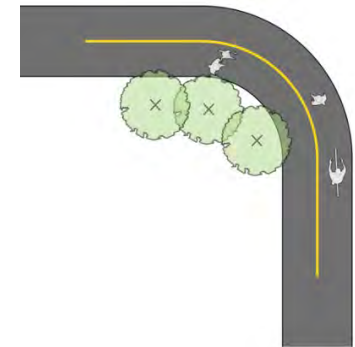
Signage may also be used to restrict unwanted motorized vehicle access. Signage that can be used include the Parking Prohibited Sign (RB-51), Stopping Prohibited Sign (RB-55), Motorcycles Prohibited Sign (RB-85), and/or the Automobiles Prohibited Sign (RB-88).

Pavement Markings

General multi-use path stencils should be used at pathway entrances, after any intersection, and at conflict points. Additionally, stencils may be placed every 50 to 100 metres along the trail, depending on context. Tighter spacing may be considered near sharp corners.

Centreline striping is generally not recommended along off-street pathways. However, in certain scenarios, centerline striping may provide safety and wayfinding benefits. Centreline striping should be implemented when it is being used to separate users. This can include a dashed line. The use of yellow or white paint will be dependent on whether the pathway accommodates uni-directional or bi-directional bicycle travel.

Centreline striping is recommended when multi-use paths are located on hills with a grade steeper than 5%, at locations where passing is dangerous due to space constraints and limited visibility (**Appendix D Figure 12**), and/or as a way of wayfinding and demarcating the multi-use path at locations such as trail access points and intersections. Centreline striping is also recommended at locations where the multi-use path experiences high bi-directional volumes.



APPENDIX D FIGURE 12: CENTRELINE STRIPING FOR LIMITED VISIBILITY
(Source: Urban Systems)

Grade

The recommended longitudinal grade for a multi-use path is 0.6%, as the slight grade is required to facilitate drainage. The ideal grade for a multi-use path is less than 5.0% from a user accessibility standpoint. For pathways situated in hilly areas with a longitudinal grade exceeding 5% but less than 6%, flatter resting areas of 3% or less should be provided every 100 metres. For pathways between 6% and 8%, the interval of rest areas is reduced to 50 metres. For pathways with a grade of greater than 8%, alternative solutions should be explored, such as relocating the pathway to a flatter area, or implementing switchbacks along the path.

Neighbourhood Bikeways

Neighbourhood bikeways refer to shared bicycle routes that are located on local streets with lower traffic volumes and speeds and that have been optimized to varying degrees to prioritize bicycle traffic. In cases where traffic volumes and speeds are relatively low, and the street is of sufficient width to allow safe passing between cyclists and motor vehicles, cyclists and motorists are able to comfortably share the road without the need for significant physical improvements to the roadway.



APPENDIX D FIGURE 13: EXAMPLE OF A NEIGHBOURHOOD BIKEWAY
(Lethbridge, AB)

In cases where existing conditions on the local street have relatively low traffic volumes (<1,000 vehicles/day) and speeds (≤ 30 km/h posted speed), the only improvements required may be signage, intersection treatments, and pavement markings to help identify the road as a bicycle route. In cases where a neighbourhood bikeway is desired on a local street, but the existing speed and/or volume exceeds the recommended limit, traffic calming measures can be used to slow down the travel speed and potentially reduce short cutting traffic. Recommended treatment levels based on the speed and volume of a local roadway are summarized in **Appendix D Figure 14** below.

Existing Motor Vehicle Volumes (VPD)	Existing Posted Motor Vehicle Speeds	Level of Treatments		
		Level 1: Required Treatments (Intersection Treatments, Signage, and Pavement Markings)	Level 2: Traffic Calming (Speed Management)	Level 3: Traffic Diversion (Volume Management)
<1,000	30 km/h or less	✓		
<1,000	30 to 50 km/h	✓	✓	
1,000 – 2,500	30 km/h or less	✓		✓
1,000 – 2,500	30 to 50 km/h	✓	✓	✓
>2,500	> 50 km/h	Consider alternate facility type		

APPENDIX D FIGURE 14: NEIGHBOURHOOD BIKEWAY LEVEL OF TREATMENT GUIDANCE (Source: BC Active Transportation Guide, 2019)

Signage

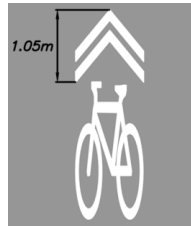
In many cases, neighbourhood bikeways can be implemented easily and for a low cost with the application of bicycle route signage to identify the road as a bicycle route. The purpose of the signage is to identify routes for both cyclists and motorists and may provide destination and distance information and/or warn users about changes in road conditions. Recognizing the maintenance costs associated with pavement marking in the Yellowknife context, additional signage should be considered for neighbourhood bikeways at every intersection.

Pavement Markings

In addition to route signs, bicycle sharrow pavement markings (**Appendix D Figure 15**) should be placed on the roadway to identify the route as a neighbourhood bikeway.

APPENDIX D FIGURE 15: SHARROW PAVEMENT MARKING

(Source: BC Active Transportation Design Guide, 2019)



Traffic Calming

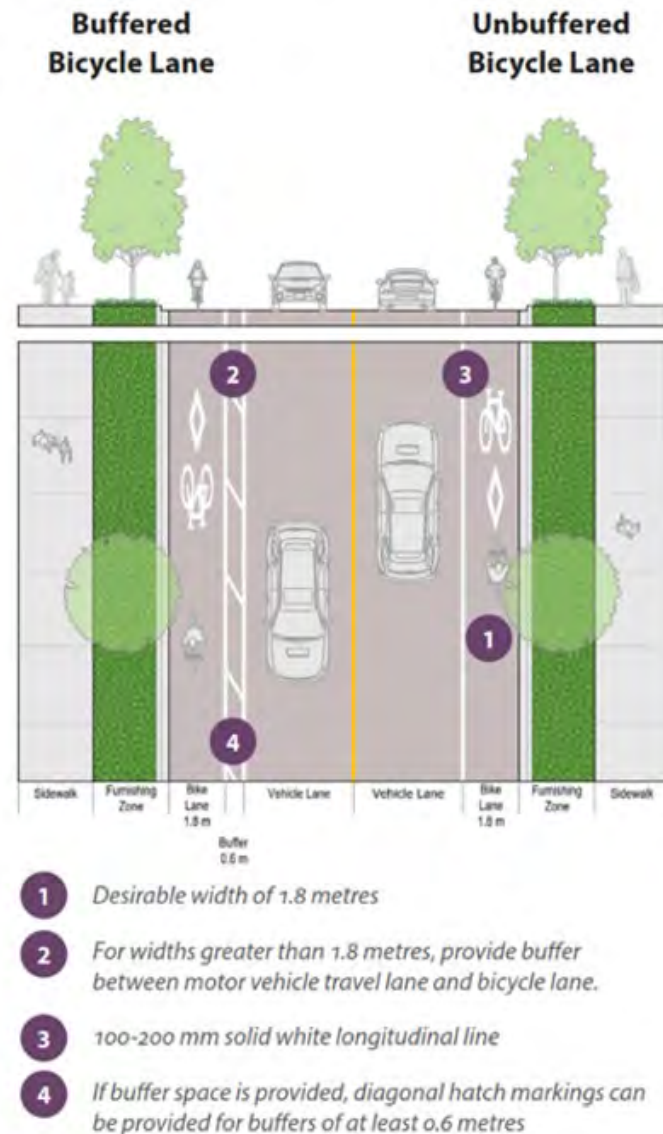
Traffic calming measures consist of devices that provide either horizontal or vertical deflection to reduce motor vehicle speeds and volumes, improving cycling safety and comfort. Traffic calming measures should be considered on all neighbourhood bikeways with posted vehicle speeds of 50km/h or greater. There are several typical traffic calming measures that can be considered, including: traffic circles, speed humps, speed tables, and curb extensions. For further guidance on traffic calming measures refer to Yellowknife's Traffic Calming Policy and Guidance, Section D.2, TAC *Canadian Guide to Traffic Calming Second Edition (2018)* and Appendix C of the *BC Active Transportation Design Guide (2019)*.

Painted Bicycle Lanes

Conventional bicycle lanes are separate travel lanes designated for the exclusive use of bicycles. In most cases, they are located on the right-hand side of the road adjacent to the curb, and are identified with a solid white line and by signage and pavement markings placed at regular intervals. Bicycle traffic in a conventional bicycle lane is typically one-way in the same direction as the adjacent travel lane. Painted bicycle lanes may be installed with a painted buffer on busier roads or where additional space is available to create a more safe and comfortable cycling environment (**Appendix D Figure 16**).



APPENDIX D FIGURE 16: PAINTED BICYCLE LANE IN YELLOWKNIFE



APPENDIX D FIGURE 17: PAINTED BICYCLE LANE CROSS-SECTION

(Source: BC Active Transportation Design Guide, 2019)

Width

Painted bicycle lanes are recommended to be between 1.5 metres and 1.8 metres wide to accommodate single file bicycle travel and allow passing. Additionally, the painted bicycle lane width is recommended to be at least 1.8 metres when adjacent to parked vehicles to provide a space of at least 0.3 metres for motor vehicle doors to open while still allowing cyclists to pass in the remaining unobstructed painted bike lane. According to the *BC Active Transportation Design Guide (2019)*, the absolute lower limit for width of a painted bicycle lane is 1.2 metres based on the horizontal operating envelope noted in the **Bicycle Dimensions and Operating Space** section. When painted bicycle lanes less than 1.5 metres are used, a special design exception should be required to justify and outline the constraints present.

FACILITY	DESIRABLE (M)	CONSTRAINED LIMIT (M)
Curbside bicycle lane	1.8*	1.5**
***Buffer (between bicycle lane & motor vehicle lane)	0.6	0.3

*For any width greater than 1.8 metres, a buffer should be provided to avoid the bicycle lane being mistaken or used for other purposes, such as parking or motor vehicle travel.

**The absolute minimum width of an unbuffered curbside bicycle lane is 1.2 metres. A bicycle lane width between 1.2 metres and 1.5 metres should only be considered for short distances (less than 100 metres), in constrained areas, and when reasonable consideration has been given to an alternate design.

*** Where motor vehicles speeds are 50 km/h or greater, adding a buffer is strongly recommended.

APPENDIX D FIGURE 18: PAINTED BICYCLE LANE DESIGN DOMAIN

(Source: BC Active Transportation Design Guide, 2019)

Signage

Along painted bicycle lanes, Reserved Bicycle Lane signs (RB-91, RB-90) should be installed at a minimum of one sign between each intersection and spaced mid-block at least every 200 metres, when intersection spacing exceeds 200 metres in an urban environment. This frequency should increase where pavement markings are challenging to maintain.

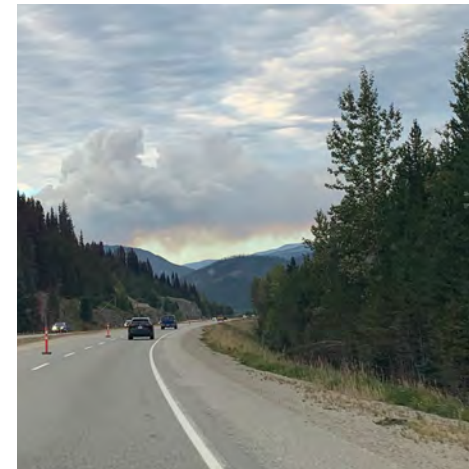
Pavement Markings

Solid white lines 100mm thick should be painted to delineate the edge of a travel lane dedicated for bicycle use. At locations where motor vehicle traffic is allowed to cross into the bicycle lane to access a bus stop, driveway, or at an intersection, a dashed white line should be used. When a dashed line is used, it should be used for a minimum of 15 metres.

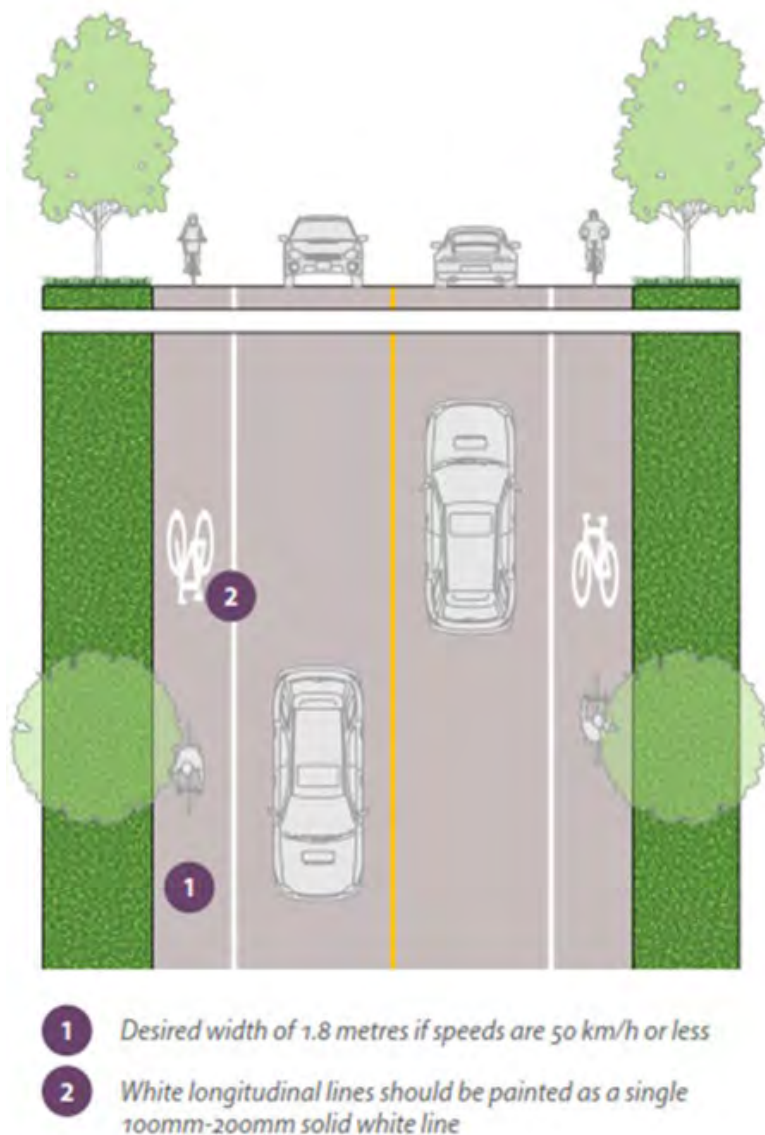
An elongated bicycle symbol with an accompanying diamond symbol should be installed in the painted bicycle lane in advance of and after intersections to indicate the dedicated use of the lane by bicycles (**Appendix D Figure 24**).

Shoulder Bicycle Lanes

A shoulder bicycle lane is a paved area located next to a travel lane and separated by a white painted line, shown in **Appendix D Figure 19**. Typically shoulder bicycle lanes exist in cases where the roadway does not have a curb and gutter, such as a highway or rural roadway. Shoulder bicycle lanes are typically not designed or designated for cyclists and are often shared with pedestrians in rural contexts. Travel in a shoulder bicycle lane is always one-way in the direction of the adjacent motor vehicle lane.



APPENDIX D FIGURE 19: EXAMPLE OF A SHOULDER BICYCLE LANE



APPENDIX D FIGURE 20: SHOULDER BICYCLE LANE CROSS-SECTION
(Source: BC Active Transportation Design Guide, 2019)

Width

Shoulder bicycle lanes are recommended to be a minimum of 1.8 metres, but on roadways with speed limits of 50 km/h or lower a 1.5 metre bicycle shoulder is sufficient. The design domain recommendations from the *BC Active Transportation Design Guide (2019)* are shown in **Appendix D Figure 21**.

FACILITY BY DESIGN SPEED	DESIRABLE (M)	CONSTRAINED LIMIT (M)
Rural ≤ 50 km/h	1.8	1.5
Rural < 70 km/h	2.5	1.5
Rural > 70 km/h	3.0	2.0
Buffer (between shoulder and motor vehicle lane for higher posted speed and/or higher motor vehicle volumes)	1.2	0.9

APPENDIX D FIGURE 21: SHOULDER BICYCLE LANE DESIGN DOMAIN
(Source: BC Active Transportation Design Guide, 2019)

Signage

Roadways with shoulder bicycle lanes should have bike route signage to create awareness for both cyclists and motorists. If on-street parking is likely to occur in the shoulder bicycle lane, no parking signage should be considered to keep the shoulder free for cyclists.

Pavement Markings

A solid white line 100-200 mm wide should be used to delineate the shoulder bicycle lane along the right-hand side of the road. Shoulder bicycle lanes may include the standard bicycle symbol but should not be supplemented by the diamond which denotes exclusive use.

Bike Paths

Similar to multi-use pathways, off-street bike paths are physically separated from motor vehicles by an open space or barrier, depending on the application, but are for the exclusive use of bicycles (**Appendix D Figure 22**). Bike paths can be either two-way or one-way. Bike paths provide great connections for commuter purposes but can also be enjoyed by recreational cyclists.



APPENDIX D FIGURE 22: EXAMPLE OF A BI-DIRECTIONAL OFF-STREET BIKE PATH
(Vancouver, BC)

Width

Unidirectional bike paths are recommended to be built between 1.8 metres and 3.0 metres wide. Bidirectional bike paths are recommended to be built between 3.0 metres and 4.0 metres wide. **Appendix D Figure 23** shows the design domain widths recommended by *BC Active Transportation Design Guide (2019)*. Further information on considerations for the design width of bike paths can be found in the *BC Active Transportation Design Guide (2019)*.

FACILITY	DESIRABLE (m)	CONSTRAINED LIMIT (m)
Bicycle Pathway (Uni-Directional Bicycle)	2.0*	1.8
Bicycle Pathway (Bi-Directional Bicycle)	4.0	3.0

*If uni-directional bicycle pathway has greater than 150 bicycle users per peak hour for bicycle traffic, or there is a desire for side-by-side riding, then pathway should be 2.5 metres to 3.0 metres.

APPENDIX D FIGURE 23: BIKE PATH DESIGN DOMAIN

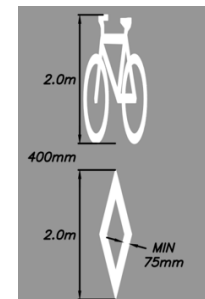
(Source: *BC Active Transportation Design Guide, 2019*)

Signage

Signage plays an important role in designating the dedicated space for cyclists and requires additional consideration when the bike path travels adjacent to a sidewalk, and where the bike path crosses a roadway. Along bike paths that are adjacent to a sidewalk, the Pathway Organization sign (RB-94) should be used, as per Section A.2.9.6.6 of the *MUTCDC*. The Turning Vehicles Yield to Bicycle sign (RB-37) may be used at conflict zones where motorists are required to cross a bike path.

Pavement Markings

An elongated bicycle symbol with an accompanying diamond symbol (**Appendix D Figure 24**) should be installed on off-street bike paths directly adjacent to motor vehicle roadways in advance of and after intersections to indicate the dedicated use of the lane by bicycles. Additional bicycle symbols and diamonds should be installed at a spacing of 50 to 100 metres depending on the context. Tighter spacing may be considered in areas of conflict and high traffic.



APPENDIX D FIGURE 24: DEDICATED BICYCLE LANE SYMBOL

(Source: *BC Active Transportation Design Guide, 2019*)

When a bike path is directly adjacent to a sidewalk and no physical or tactile separation is provided, solid or broken striping should be added to demarcate the bike path from the sidewalk. A yellow centerline should be installed for bidirectional bike paths in the 10 metres approaching all intersections as well as around curves with limited sightlines and on extended grades 5% and steeper.

Conflict zone pavement markings, including green pavement markings or contrasting surface colors, can be used at conflict points such as driveways, alleyways, and intersections.

Intersections

Intersections tend to be high conflict areas along bicycle routes, so careful consideration must be taken to ensure bicyclists can navigate them in a safe and comfortable manner.

Multi-use Pathways and Off-street Bike Paths

Where multi-use pathways and off-street bike paths intersect with a roadway, additional design considerations should be taken to inform pathway users and drivers of the crossing. Some of the treatments to consider include: pavement markings, contrasting paving materials, vertical deflection, and protected signal-phasing for the pathway users crossing (**Appendix D Figure 25**). However, winter cities such as Yellowknife cannot rely on surface treatments such as pavement markings and contrasting paving materials due to these surfaces being covered with snow and excessive wear from snow clearing activities. Thus, other approaches such as signage and geometric design should be used to improve MUP safety at intersections.



APPENDIX D FIGURE 25: EXAMPLE INTERSECTION TREATMENTS FOR BICYCLES

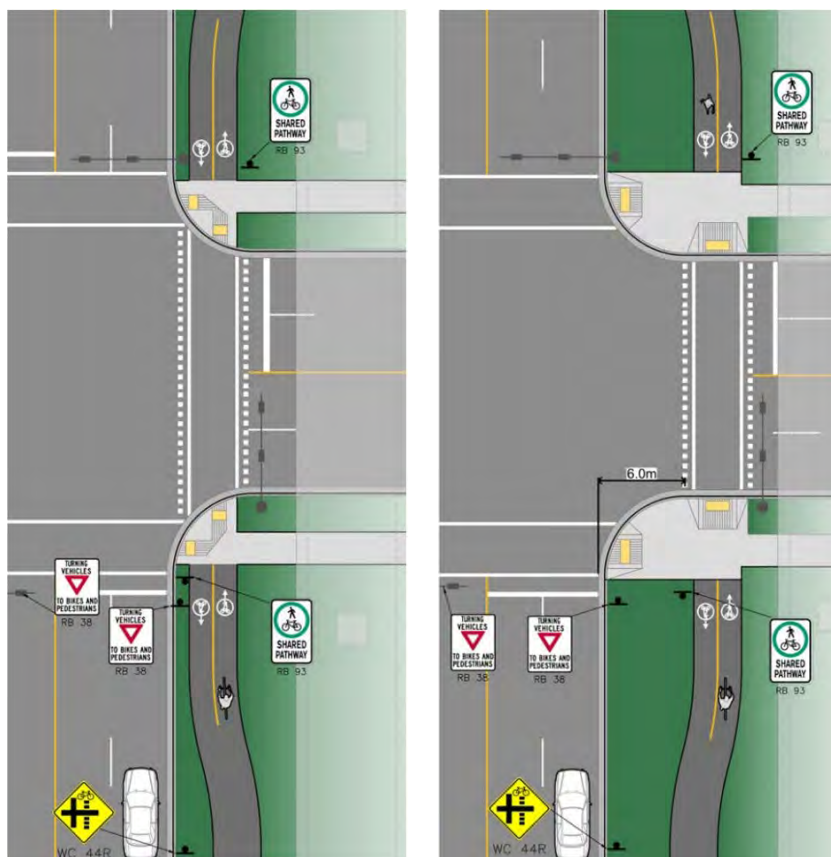
Design considerations can be made to shift the alignment of off-street pathways which run parallel to a roadway as it approaches an intersection. It is desirable for the pathway to either bend-in towards the roadway or bend-out away from the roadway as seen in **Appendix D Figure 26**. Both options provide benefits by improving pathway user awareness of the approaching intersection, reducing pathway user speeds, and enhancing the visibility of pathway users for drivers. Where the right-of-way space exists, the bend-out option is generally preferred.

Cross ride pavement markings should be used at intersections and conflict points such as busy driveways or alleyways when multi-use pathways continue through the intersection. Continuous green pavement markings may also be used to further enhance the visibility of pathway users. Advance warning and regulatory signage should be provided to alert both pathway users and drivers of the upcoming crossing, reinforce right-of-way expectations, and increase awareness of potential conflicts.

Curb let-downs for MUPs should be at least 3.0m wide and ideally 4.0m wide to safely accommodate pedestrians and cyclists at the same time. If sufficient space is available, pedestrians and cyclists should have their own separate crossing and curb ramps.

Raised crossings can be provided at minor intersections and mid-block crossings to reduce motor vehicle speed and enhance the comfort, safety, and visibility of pathway users. When an off-street pathway crosses at a signalized intersection, considerations should be made for pathway users to actuate the traffic signal, most often with the installation of signal actuation pushbuttons, to avoid long delays.

Further information on off-street pathway intersection design can be found in Section G.5 of the *BC Active Transportation Design Guide (2019)*.



APPENDIX D FIGURE 26: BEND-IN (LEFT) AND BEND-OUT (RIGHT) MULTI-USE PATHWAY INTERSECTIONS (Source: BC Parkway Intersection Design Guidelines, 2019)

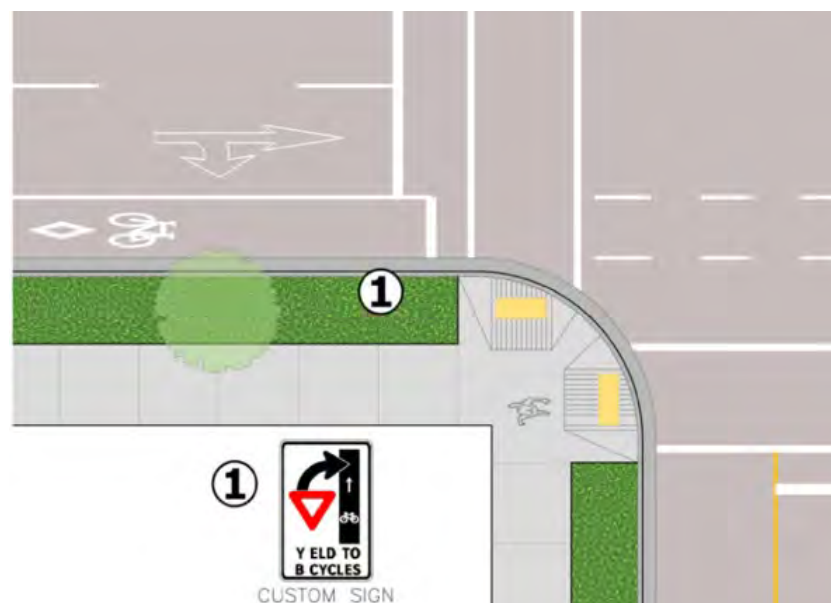
To increase the visibility of pathway users at intersections and conflict points, such as busy driveways or alleyways, contrasting surface colours for crosswalks may be used until the City develops a non-standard crosswalk policy.

APPENDIX D FIGURE 27: EXAMPLE OF A CROSSWALK WITH CONTRASTING SURFACE COLOURS IN YELLOWKNIFE



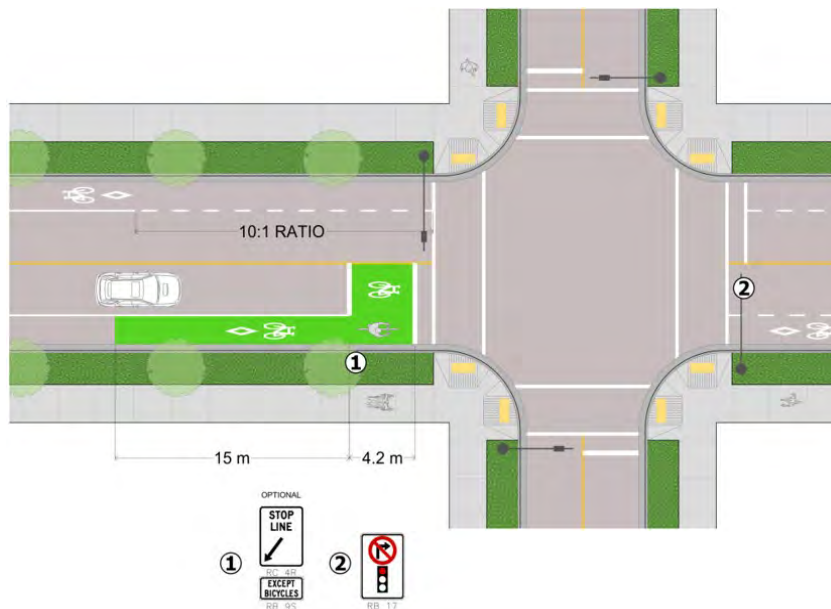
Painted Bicycle Lanes

Painted and buffered bicycle lanes require careful consideration at intersections. Intersection design needs to consider the conflicting bicycle and motor vehicle movements present at each intersection. Pavement markings, signage, and signal phasing can be used to reduce the risk of conflicts between cyclists and motorists. Designs can include intersection tracking pavement markings and advanced stop bars as seen in **Appendix D Figure 28** to create awareness for motorists turning across the cycling lane.



APPENDIX D FIGURE 28: INTERSECTION PAVEMENT MARKINGS (Source: BC Active Transportation Design Guide, 2019)

Additional considerations should be made to ensure that cyclists are able to safely make turning movements out of their lane and change directions at intersections if desired, this can be done through the use of a bike box as seen in **Appendix D Figure 29**. Continuous green pavement markings may also be used to further enhance the visibility of pathway users. Advance warning and regulatory signage should be provided to alert both pathway users and drivers of the upcoming crossing, reinforce right-of-way expectations, and increase awareness of potential conflicts.



APPENDIX D FIGURE 29: LEFT TURN BICYCLE BOX

(Source: *BC Active Transportation Design Guide*, 2019)

Further information on painted bicycle lane intersection design can be found in Section G.4 of the *BC Active Transportation Design Guide (2019)*.

Other Facility Types

When cycling facilities such as bicycle boulevards, shoulder bicycle lanes, shared use lanes cross major roads it is important to accommodate safe and convenient crossing.

At these critical locations additional design considerations are required to ensure safe access for cyclists. Crossing treatments can be used to assist cyclists, pedestrians, and others in crossing major roads, and to minimize potential conflicts with motor vehicles. The type of crossing treatment depends on the width of the intersecting road, the volume of motor vehicle traffic, and the number of cyclists, pedestrians and others using the crossing.

G. BICYCLE PARKING GUIDELINES

INTRODUCTION

The Bicycle Parking Guidelines supplement the Yellowknife Transportation Plan by providing guidance on the selection, design, and placement of bicycle parking facilities throughout the city. The document outlines the different types of bicycle parking, including short-term and long-term facilities, and provides considerations for selecting appropriate bicycle parking solutions, as well as siting and placement best practices.

These Guidelines are informed by industry best practices and draw primarily from the *Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines, Third Edition (2026)* and the *BC Active Transportation Design Guide (2019)*. These documents were selected because they are among the leading and most comprehensive references available for bicycle parking planning and design. While many active transportation design guides include limited guidance on bicycle parking, relatively few publications focus specifically on bicycle parking best practices, making these resources particularly valuable in informing the recommendations contained in this document.

Many of the figures and illustrations included in this document have been adapted or reproduced from these resources to demonstrate recommended bicycle parking design, siting, and placement principles.

TYPES OF BICYCLE PARKING

There are different types of bicycle parking, each of which is suitable in different situations depending on the duration of the stay and trip purpose. There are two primary categories of bicycle parking: short-term and long-term.

- Short-term bicycle parking is generally intended for people stopping for two hours or less, such as shoppers, people running errands, or visitors. Short-term bicycle parking is often found adjacent to sidewalks, at commercial destinations, schools, and civic facilities.

- Long-term bicycle parking is generally intended for people stopping for two hours or more, such as commuters, employees, and residents in multi-family housing. They are typically inside or near workplaces, civic facilities, schools, or multi-family residential buildings. They may be in the form of bike lockers or indoor bike rooms

Appendix D Figure 30 provides an overview of criteria to help guide planning for bicycle parking.

Criteria	Short-Term	Long-Term
Parking duration	Less than two hours	More than two hours
Fixture types	Simple bicycle racks	Lockers, bike racks in secured areas
Weather protection	Often unsheltered	Sheltered or enclosed
Security	Typically self-lock, passive surveillance (eyes on the street)	Secured, active surveillance
		Unsupervised:
		“Individual-secure” such as bicycle lockers
		“Shared-secure” such as bicycle room or cage
		Supervised:
Typical Land Uses	Commercial or retail, medical/healthcare, parks and recreation areas, and community centers	Valet bicycle parking
		Paid bike parking area of transit station
		Residential, workplace and transit

APPENDIX D FIGURE 30: CRITERIA FOR SHORT-TERM AND LONG-TERM BICYCLE PARKING (Source: APBP Bicycle Parking Guide, 2026)

Short-term Bicycle Parking

Short-term Bicycle Parking often consists of bicycle racks distributed in the public right-of-way in commercial areas and at key destinations. **Appendix D Table 7** outlines the typical performance criteria for bike racks.

APPENDIX D TABLE 7: BICYCLE RACK PERFORMANCE CRITERIA

(Adapted from the BC Active Transportation Design Guide, 2019)

Criteria	Detail
Supportive	Supports a bicycle in the upright position, providing two points of contact with the frame.
Lockable	Allows the frame and at least one wheel to be securely locked to the rack using a U-lock.
Flexible	Accommodates a variety of bicycles and attachments.
Intuitive	Easy to recognize and use. Does not require lifting the bicycle.
Secure	Made from durable materials and installed with tamperproof bolts.

Below are example images of post-and-ring racks, inverted 'U' racks and short-term covered bicycle parking in Toronto, ON, Winnipeg, MB, and Victoria, BC.



APPENDIX D FIGURE 31: EXAMPLES OF VARIOUS SHORT-TERM BICYCLE PARKING OPTIONS

Short-term bicycle parking can take a variety of forms, but the two most user-friendly designs are inverted 'U' racks and post-and-ring racks (see **Appendix D Figure 32**). **Appendix D Figure 33** shows several types of bicycle racks to avoid since they fail to meet the performance criteria identified in **Appendix D Table 7**.

RACK TYPE	NOTES
Inverted U (Also called loop or staple rack) 	• Can support two bicycles per rack. • Can be installed alone or in a series on rails. • Many variations are available. • Can be efficiently located within the Furnishing Zone of a public right-of-way.
Post and Ring 	• Can support two bicycles per rack. • Products exist to retrofit certain parking metres to create custom post and ring racks. • Can be efficiently located within the Furnishing Zone of a public right-of-way.

APPENDIX D FIGURE 32: PREFERRED BICYCLE RACK TYPES

(Source: BC Active Transportation Design Guide, 2019)

RACK TYPE		NOTES
Wave		•Only supports frame at one location and can require lifting wheel to park bicycle. •Often fails to provide advertised capacity.
Spiral		•Only supports frame at one location and can require lifting wheel to park bicycle. •Often fails to provide advertised capacity.
Coat Hanger		•Top bar limits the height of bicycles that can be accommodated. •Thin 'coat hanger' loops are less durable than the thicker posts on other rack types.
Schoolyard		•Only supports frame at one location and can lead to wheel damage. •Does not allow locking of frame to bicycle rack.
Wheelwell		•Presents a tripping hazard when not in use. •Only supports frame at one location and can lead to wheel damage. •Does not allow locking of frame to bicycle rack.
Bollard		•Similar to Post and Ring rack, but narrower design typically does not support bicycle at two locations
Swing arm secured		•Only accommodates limited bicycle designs. •Moving parts create maintenance complications.

APPENDIX D FIGURE 33: BICYCLE RACKS TO AVOID

(Source: BC Active Transportation Design Guide, 2019)

Additionally, consideration should be given to position racks to allow longer bicycles (non-standard bicycles), such as bicycle with trailers, to park securely without impeding the sidewalk or building entrances.

In terms of placement and siting, considerations need to be made to locate bicycle racks clear from other people's travel paths, **Appendix D Figure 34** outlines the recommended clear space when installing bike racks. Bicycle racks should be located as close to destinations as possible in convenient and highly visible locations.

CLEAR SPACE REQUIRED BETWEEN:	DESIRABLE WIDTH (M)	CONSTRAINED LIMIT WIDTH (M)
Bicycle racks in series (parallel to curb)	1.8	1.8
Bicycle racks in series (perpendicular to curb)	1.2	0.9
Bicycle racks in series (angled)	0.7	0.7
Bicycle rack and face of curb	0.9	0.6
Bicycle rack and street furniture and utilities*	1.2	0.9
Bicycle rack and multi-modal conflicts (curb ramps, driveways, crosswalks, loading zone, bus stops)*	1.2	1.2



APPENDIX D FIGURE 34: BICYCLE PARKING REQUIRED SPACE

(Source: BC Active Transportation Design Guide, 2019)

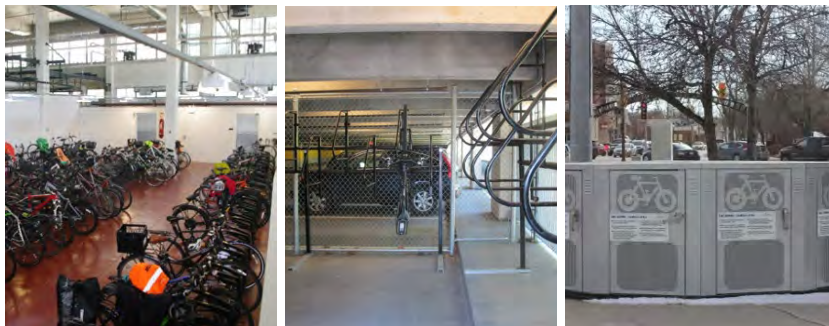
Covered Bicycle Parking

Providing covered short-term bicycle parking can improve the experience for bicycle users and encourage all-weather cycling by providing shelter from rain, snow, and sun. Covered bicycle parking is warranted anywhere that bicycle racks may be located, but is most appropriate in a variety of locations, including major commercial centres, areas with sufficient space on the sidewalk or in plazas, and where there is demand for longer-term bicycle parking, such as at schools, recreation centres, and community centres.

Long-term Bicycle Parking

Long-Term Bicycle Parking is more secure than short-term bicycle parking. It may include bicycle lockers or larger secure facilities, such as bicycle rooms, bicycle cages, secure bicycle parking areas, or full-service bicycle stations. Long-term parking is generally oriented towards cyclists needing to park a bicycle for longer periods of time such as at workplaces or multi-family housing. With the increasing prevalence of non-standard bicycles, a proportion of the bicycle parking spots should be large enough to accommodate non-standard bicycles that are longer or wider, such as cargo bicycles or bicycles with trailers.

Below are example images of a bike room, bike cage, and bike locker in Vancouver, BC, Victoria, BC, and Winnipeg, MB.



APPENDIX D FIGURE 35: EXAMPLES OF VARIOUS LONG-TERM BICYCLE PARKING OPTIONS

Bike Lockers

Bike lockers are large metal or plastic stand-alone boxes that offer high-security, weather-protected bicycle parking. They are suitable for daily and overnight long-term bicycle parking (where permitted) at locations such as universities and transit stations. In addition to providing secure bicycle parking, bicycle lockers can also securely store gear and other accessories along with the bicycle, giving people cycling more flexibility in their travel arrangements. A flat, level surface is required for installation. They should be installed close to building entrances or on the first level of a parking garage.

Bike Rooms, Cages, and Parkades

Bicycle rooms, cages, and parkades are types of off-road, long-term, higher capacity bicycle parking designed for increased security, weather protection, and capacity. They can be built as standalone structures or added to existing buildings or motor vehicle parkades. These facilities are suitable at post-secondary educational institutions, transit stations, and dense commercial or residential buildings.

Each of these facilities consist of enclosed structures containing bicycle racks and secured with a locked door. These facilities vary by enclosure type, capacity, level of security, means of access, and other features. Some bicycle rooms and parkades also include other end-of-trip amenities.

Refer to Section H.2 of the *BC Active Transportation Design Guide (2019)* for further information on bicycle parking.

APPENDIX E:

Action Delivery Framework



The Action Delivery Framework provides additional guidance to support the implementation of “Quick Win” and “Short-Term” actions identified in this Plan. It outlines practical, step-by-step approaches that the City and its partners can take to move actions forward.

The framework is intended to support actions that are expected to be initiated within the short-term and focuses primarily on implementation steps that can be advanced over approximately the first five years of the Plan. While some of these actions may be completed within the quick win and short-term timeframe, others require ongoing effort or phased implementation over multiple timeframes. Accordingly, the delivery approaches outlined in this appendix focus on quick win and short-term actions and may not include all future steps required to fully implement an action over the life of the Plan.

ACTION 1.1A: Adopt a multi-modal street network classification and incorporate this classification in the Development & Design Standards

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review the proposed street network classification (**Map 2**) to ensure it reflects existing and future transportation needs.
- Undertake an internal review with City departments to ensure the proposed street network classification supports City operations, infrastructure planning, maintenance practices, and long-term growth objectives.
- Formally adopt the street network classification through Council approval and integrate the street network classification into relevant plans, policies, and design documents.
- Update GIS spatial data to ensure all streets are updated with their adopted street classification.
- *Ongoing:* Maintain GIS spatial datasets as development occurs and the street network changes.
- *Ongoing:* Periodically review the classification system to reflect changes in growth patterns and transportation needs.

ACTION 1.1B: Develop updated multi-modal street cross-sections based on the street network classification in the Development & Design Standards

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review the City's existing standard cross-sections and identify opportunities to better align cross-sections with Complete Streets principles (see **Appendix D**).
- Develop updated standard cross-sections for each adopted street classification.
- Consider providing staff training and guidance materials to support the consistent application of updated standards during development review and roadway reconstruction projects.
- *Ongoing:* Periodically review and refine cross-sections as best practices evolve, new facility types emerge, and the City's transportation network changes over time.

ACTION 1.2C: Develop and adopt traffic light management objectives and policy

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Traffic Signal Management Policy (**Appendix D**) and incorporate it into the planning, design, operation, and maintenance of signalized intersections throughout the city.
- Complete a comprehensive review of all existing signalized intersections, signal timing plans, pedestrian crossing times, accessibility features, and signal coordination strategies to identify opportunities for improvement.
- Consider developing procedures for regularly reviewing signal performance, responding to public requests, investigating safety concerns, and identifying opportunities to improve operations.

ACTION 1.3A: Inventory and evaluate intersections and crossings to align with best practices

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop a comprehensive inventory of all signalized intersections, stop-controlled intersections, pedestrian crossings, and mid-block crossings throughout the city. Document existing crossing controls, accessibility features, traffic control devices, pavement markings, lighting, and intersection geometry.
- Assess each location for safety, accessibility, visibility, comfort, and operational performance. Evaluation criteria may include crossing distance, pedestrian refuge opportunities, curb ramp design, sightlines, crossing delays, vehicle turning movements, and compliance with accessibility requirements.
- Review collision history, public feedback, maintenance requests, and community concerns to identify intersections and crossings with known or recurring safety issues.
- Develop a prioritization framework to identify locations requiring upgrade. This could be based on factors such as collision history, pedestrian demand, proximity to key destinations, and existing accessibility barriers.
- Prepare a city-wide intersection and crossing improvement program that identifies short-, medium-, and long-term upgrades, including opportunities to coordinate improvements with planned roadway rehabilitation, active transportation projects, and utility works.
- *Ongoing:* As intersections and crossings are upgraded or new ones are introduced, update the inventory to reflect current conditions, ensuring it remains a living tool to guide ongoing improvements and long-term investment decisions.

ACTION 1.3B: Develop and adopt non-standardized crosswalk policy

Timeframe: Short-term (3–5 years)

Delivery Approach

- Conduct a review of guidance and practices from comparable northern municipalities, transportation agencies, and accessibility organizations to inform the development of the policy.
- Engage key interest holders, including accessibility advocates, school representatives, emergency services, and transportation staff, to ensure the policy reflects a range of user needs and operational considerations.
- Write the policy based on best practice review and key interest holder engagement.
- Adopt and integrate the policy into the City's transportation planning, capital project delivery, and roadway maintenance programs to ensure consistent application of crossing treatments across the network.

ACTION 1.3H: Review and update pedestrian crossing times to accommodate pedestrian crossing times, particularly in areas with a high concentration of vulnerable road users

Timeframe: Short-term (3–5 years)

Delivery Approach

- Conduct a city-wide review of pedestrian crossing times at all signalized intersections using the walking speed guidance identified in the Traffic Signal Management Policy (**Appendix D**).
- Prioritize intersections located near schools, seniors housing, healthcare facilities, recreation centres, transit stops, commercial areas, and other destinations frequently used by vulnerable road users.
- Assess pedestrian crossing distances, signal timing parameters, queue lengths, and observed pedestrian behaviour to identify locations where existing crossing times may not provide sufficient time for users to safely complete their crossing.
- *Ongoing*: Monitor pedestrian compliance, safety performance, and user feedback following implementation to determine whether further adjustments are warranted.

ACTION 1.4A: Adopt and implement updated speed limits based on the street network classification

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Speed Limit Policy and Guidelines (**Appendix D**) and incorporate the policy into the Highway Traffic Bylaw and other applicable municipal regulations.
- Develop a comprehensive speed limit map that identifies all Type A and Type B streets, including locations where exceptions to standard speed limits apply.
- Review all existing posted speed limits to identify locations where current speed limits are inconsistent with the adopted street network classification and policy framework.
- Develop a phased implementation program that introduces revised speed limits neighbourhood-by-neighbourhood.
- Identify corridors and locations where 85th percentile operating speeds significantly exceed the desired or posted speed limit and develop targeted speed management measures to support compliance. Potential measures may include traffic calming, roadway narrowing, curb extensions, gateway treatments, enhanced crossings, active transportation improvements, speed feedback signs, or other context-appropriate engineering interventions.
- Update regulatory signage, pavement markings, and supporting wayfinding infrastructure required to communicate revised speed limits to road users.
- Coordinate implementation with roadway reconstruction, active transportation improvements, traffic signal upgrades, and traffic calming projects wherever possible to reinforce desired operating speeds.
- *Ongoing:* Monitor speeds, collision trends, user perceptions, and compliance rates following implementation and adjust where warranted.

ACTION 1.4B: Develop and implement a Traffic Calming Program

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review and formally adopt the Traffic Calming Policy (**Appendix D**) and establish an annual Traffic Calming Program with dedicated operating and capital funding allocations.
- Develop and launch a standardized traffic calming request process, including application forms, technical review procedures, prioritization criteria, and public-facing guidance materials.
- Establish annual data collection and monitoring programs to gather traffic speed, traffic volume, shortcutting, and collision information needed to support the technical review process.
- Develop a city-wide inventory of candidate traffic calming locations and apply the policy's technical warrants and prioritization framework to create a rolling implementation program.
- Using the Traffic Calming Policy and TAC Canadian Guide to Traffic Calming to identify appropriate measures based on local conditions, develop conceptual and detailed designs for traffic calming projects.
- Coordinate traffic calming projects with active transportation improvements, speed limit changes, neighbourhood bikeways, school travel planning initiatives, and Complete Streets projects to maximize community benefits.
- *Ongoing:* Conduct before-and-after evaluations to measure changes in vehicle speeds, traffic volumes, collisions, and user perceptions, and publish annual results as part of the City's Traffic Calming Program reporting.
- *Ongoing:* Review and update the annual priority list each year to ensure new requests, changing conditions, and emerging safety concerns are incorporated into future implementation programs.

ACTION 1.5B: Align asset management practices and investment priorities with updated street classifications

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review the City's existing asset management practices to understand how streets are prioritized for rehabilitation, renewal, reconstruction, maintenance, and upgrades.
- As outlined in the Complete Streets Policy and Guidelines (**Appendix D**), review the updated street network classifications and their primary and secondary functions. Update asset management criteria to reflect the function of each street classification.
- Integrate the updated and adopted street classification into the City's pavement rehabilitation process.
- Coordinate asset management planning with the City's capital planning and budgeting processes so that transportation investments are sequenced in a way that supports long-term network performance. Where possible, roadway rehabilitation should be coordinated with utility upgrades, drainage improvements, active transportation projects, accessibility upgrades, and other planned capital works to reduce costs and minimize disruption.
- Develop a process to regularly update asset condition data and reassess investment priorities as roadway conditions, land use patterns, growth areas, and transportation demands change over time. This should include mechanisms for incorporating new data from inspections, maintenance records, public requests, and capital project outcomes.

ACTION 1.5C: Adopt an ownership and management framework for transportation assets

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop a comprehensive inventory of transportation assets that require clear ownership and management responsibility. This may include streets, sidewalks, multi-use pathways, trails, bicycle facilities, crossings, traffic signals, signage, pavement markings, bicycle parking, bus stops, lighting, street furniture, parking assets, and other transportation-related infrastructure.
- Identify the current department or external agency responsible for each asset type across its lifecycle, including planning, design, construction, inspection, operations, maintenance, renewal, and replacement. This review should document current roles, informal practices, areas of overlap, and known gaps in responsibility.
- Develop an ownership and management framework that clearly assigns roles and responsibilities for each transportation asset category. The framework should identify who is responsible for asset planning, capital delivery, maintenance, inspections, condition assessments, data updates, budget requests, public requests, and long-term renewal planning.
- Create a process to document asset ownership in GIS and asset management systems so that responsibility is transparent, searchable, and updated as infrastructure is added, upgraded, transferred, or removed.
- *Ongoing:* Review and update the framework periodically to reflect organizational changes, new infrastructure types, evolving maintenance practices, and changes in service levels.

ACTION 1.6A: Review available width of all roadways, including on-street parking, to ensure sufficient width for emergency services

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Complete a GIS-based review of all streets under City jurisdiction to assess available roadway width, including the impact of on-street parking, snow storage, curbside activity, and other obstructions on clear operating space for emergency vehicles.
- Identify streets where the available operating width (6.0 metres) may be constrained due to narrow pavement widths, parking on one or both sides of the street, or other roadway conditions. Attention should be given to residential streets, narrow local streets, older neighbourhoods, cul-de-sacs, areas with limited off-street parking, and routes that provide critical emergency access.
- Develop a prioritized list of locations where corrective action may be required. Mitigation measures may include restricting parking on one or both sides of the street, formalizing seasonal parking restrictions, improving signage and enforcement, adjusting snow storage practices, widening roadways where feasible, or introducing curbside management measures.
- Coordinate the review with Protective Services, Public Works and Engineering, Planning and Development, and winter maintenance staff to confirm that recommended changes are operationally feasible and aligned with emergency response needs, neighbourhood access, and maintenance practices.

ACTION 1.7A: Adopt a Truck Route Bylaw

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop a Truck Route Bylaw that clearly identifies designated truck routes, restricted routes, allowable exemptions, and conditions for truck access to destinations located off the truck route network. The bylaw should provide clear direction for heavy vehicles, over-dimensional and over-weight vehicles, commercial deliveries, construction access, and local deliveries.
- Review and define vehicle types, weight thresholds, truck route requirements, and exemptions in a way that is clear, enforceable, and consistent with the City's existing regulatory framework.
- Develop an implementation plan that includes bylaw adoption, public and industry communication, signage installation, enforcement approach, and transition procedures. The City should ensure truck route information is clearly available through maps, the City website, permit materials, and development review processes.

ACTION 2.3A: Establish a trail and pathway classification and maintenance framework

Timeframe: Short-term (3–5 years)

Delivery Approach

- Complete an inventory of existing trails, multi-use pathways, informal pathways, park trails, neighbourhood connections, and off-street active transportation routes. The inventory should document location, surface type, width, lighting, wayfinding, accessibility, maintenance responsibility.
- Review and adopt the proposed trail and pathway classification system:

Trail Type	Trail Description	Primary Mode	Primary Purpose	Width	Surface	Year-round Considerations
1	Nature Trail	Walking	Recreation	At least 1.25 metres	Natural surface	No lighting or winter maintenance required
2	Recreational Trail	Walking, Mountain Biking	Recreation	At least 2.0 metres	Gravel or compacted aggregate	No lighting or winter maintenance required
3	Recreational Motorized Pathway	Walking, Rolling, Cycling, and Motorized Users (snowmobiles, ATVs)	Transportation	At least 3.0 metres	Unpaved	No lighting or winter maintenance required
4	Multi-use Pathway	Walking, Rolling, and Cycling (including e-bikes and e-scooters)	Transportation	At least 3.0 metres	Paved	Lighting and winter maintenance required

- Integrate the classification and maintenance framework into capital planning, asset management, winter maintenance planning, wayfinding, active transportation network planning, and development review processes.

ACTION 2.4A: Develop an active transportation maintenance priority network

Timeframe: Short-term (3–5 years)

Delivery Approach

- Develop and adopt an Active Transportation Maintenance Priority Network that identifies the walking, cycling, trail, pathway, and multi-use pathway facilities that should receive the highest level of maintenance service throughout the year.
- Develop mapping and communication materials identifying maintenance priority networks for staff, the public, and contractors.
- *Ongoing:* Monitor feedback, maintenance requests, and network performance annually to evaluate whether maintenance priorities continue to align with travel patterns and community needs.

ACTION 2.4B: Formalize a Snow and Winter Road Maintenance Policy

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Conduct a Snow and Ice Study to review existing winter maintenance practices and operational procedures to identify gaps and opportunities for improvement. This study will include:
 - › Reviewing existing snow and winter road maintenance practices, service levels, operational procedures, and prioritization methods for roads, sidewalks, transit stops, crossings, multi-use paths, and cycling facilities.
 - › Developing a comprehensive Snow and Winter Road Maintenance Policy that consolidates winter maintenance procedures, priorities, service standards, and responsibilities into a clear, publicly accessible document.
- *Ongoing:* Periodically review and update the policy to reflect network expansion, changing climate conditions, evolving best practices, and community needs, including consideration of sidewalk maintenance responsibilities where appropriate.

ACTION 2.5A: Update regulations and bylaws to integrate micromobility users on trails and roadways

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review existing bylaws, regulations, and policies related to bicycles, e-bikes, e-scooters, skateboards, rollerblades, and other micromobility devices to identify gaps and inconsistencies.
- Work with the GNWT to monitor legislative developments related to emerging micromobility devices.
- Update the Highway Traffic Bylaw to clarify where different micromobility devices are permitted to operate, including roads, trails, pathways, bicycle facilities, and sidewalks.
- Consider permitting children to ride bicycles on sidewalks in defined circumstances, such as age-based or bicycle size-based allowances.
- Develop public education materials to improve understanding of updated regulations and safe operating practices.
- *Ongoing:* Periodically review regulations to ensure they remain aligned with evolving technologies, legislation, and user needs.

ACTION 2.5B: Develop policy and guidelines to regulate motorized users on off-street pathways

Timeframe: Short-term (3–5 years)

Delivery Approach

- Review existing trail and pathway use to identify where motorized users such as snowmobiles and ATVs currently operate and where user conflicts occur.
- Develop a policy that establishes where motorized users are permitted, restricted, or prohibited on off-street pathways.
- Establish criteria to guide permitted motorized use based on pathway type, width, user volumes, surrounding land use, seasonal conditions, environmental sensitivity, and potential impacts on natural areas and wildlife habitat.
- Identify and designate appropriate routes for snowmobiles and ATVs that minimize conflicts with active transportation users.
- Develop maps that clearly identify permitted, restricted, and seasonal motorized-use routes.
- Install clear signage and wayfinding to communicate permitted uses and user expectations.
- *Ongoing:* Monitor user conflicts, compliance, and feedback and update the policy as needed over time.

ACTION 2.6A: Review and update requirements for short-term and long-term bicycle parking

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Review existing bicycle parking requirements outlined in the Zoning Bylaw and assess if they reflect current best practices.
- Using the Bicycle Parking Guidelines (**Appendix D**), update Zoning Bylaw bicycle parking requirements to establish separate standards for short-term and long-term bicycle parking. Increase minimum bicycle parking requirements and provide design guidance on appropriate siting, accessibility, weather protection, visibility, and security to ensure bicycle parking is convenient, comfortable, and easy to use.

ACTION 2.6B: Upgrade existing short-term bicycle parking to high-quality, winter-friendly racks, and expand bike parking at civic facilities and priority cycling destinations

Timeframe: Ongoing

Delivery Approach

- Conduct a comprehensive inventory of existing short-term bicycle parking at civic facilities and priority destinations. Document the location, type, condition, and capacity of existing racks, and assess their alignment with current best practices for safety, accessibility, and usability. This review should also evaluate siting, visibility, and placement relative to building entrances and pedestrian routes.
- Use the inventory to identify non-compliant racks, high-demand locations, and gaps in provision. Prioritize upgrades at civic facilities, commercial areas, transit stops, and key destinations where racks are outdated, poorly located, or insufficient to meet demand.
- Replace non-compliant or outdated racks with durable, secure, and user-friendly designs (e.g., inverted U or post-and-ring racks) that provide two points of contact and allow secure locking. Refer to the Bicycle Parking Guidelines (**Appendix D**) for more guidance.
- Seek opportunities to work with property owners and businesses to repurpose or relocate removed racks and support installation on private property, particularly in commercial areas. Where racks are transferred, clearly establish that responsibility for installation, maintenance, and upkeep will rest with the property owner or business.

ACTION 2.6C: Implement bicycle parking within public right-of-way in the downtown, Old Town and other key destinations

Timeframe: Quick Win (0–2 years)

Delivery Approach

- Using the inventory of existing short-term bicycle parking, identify gaps, and prioritize locations for bicycle parking within the downtown, Old Town, and other key destinations for bicycle parking, including civic buildings, trail entrances, and high-activity areas.
- Refer to the Bicycle Parking Guidelines (**Appendix D**) to guide the selection, placement, and installation of high-quality bicycle racks that are durable, accessible, and suitable for year-round use.
- Prioritize installation of bicycle parking in the downtown core. Ensure there are at least two bicycle racks on every block. At the intersection of 50 Street and 50 Avenue, provide a downtown bicycle parking hub with at least eight bicycle racks.
- Install bicycle parking at all City-owned facilities where gaps are identified and expand bicycle rack coverage in Old Town.
- Work with partner agencies to support broader bicycle parking provision:
 - › Collaborate with school boards to develop a coordinated approach for procuring and installing bicycle parking on school grounds.
 - › Coordinate with GNWT to provide bicycle parking at key destinations such as the Prince of Wales Northern Heritage Centre and Legislative Assembly.

ACTION 4.1A: Continue to support the expansion of car share operations throughout Yellowknife

Timeframe: Short-term (3–5 years)

Delivery Approach

- Work with car share operators to identify barriers to expansion and opportunities to improve the car share experience in Yellowknife.
- Identify priority locations for car share vehicles based on population density, multifamily housing, employment areas, civic facilities, and access to transit and active transportation networks.
- Support car share operators through measures such as providing dedicated parking spaces, reducing parking requirements in new developments, and exploring other incentives where appropriate.
- Encourage developers to incorporate car share spaces and memberships into new residential and mixed-use developments as part of Transportation Demand Management (TDM) strategies.
- Consider promoting awareness of car share services and their benefits through public education and partnerships with major employers and institutions.

ACTION 4.2A: Use temporary street changes during events to pilot future permanent improvements

Timeframe: Short-term (3–5 years)

Delivery Approach

- Identify opportunities to use community events, festivals, and seasonal programming to test temporary street changes that support walking, cycling, placemaking, and community use of public space.
- Implement temporary treatments such as street closures, expanded pedestrian areas, temporary crossings, bicycle parking, pop-up bicycle lanes, traffic calming measures, seating areas, and parklets to demonstrate potential long-term improvements.
- Prioritize pilots in locations where future transportation, public realm, or active transportation improvements have been identified through community feedback or City plans.
- Work with event organizers, businesses, residents, and community groups to design and implement temporary street changes that support event activities.
- Collect feedback during pilots to evaluate impacts on safety, accessibility, comfort, business activity, and overall user experience.
- Use lessons learned from successful pilot projects to inform the design, prioritization, and implementation of future permanent transportation and public realm improvements.

ACTION 5.1A: Support active and safe travel for children and youth

Timeframe: Short-term (3–5 years)

Delivery Approach

- Consider the needs of children and youth when planning, designing, and prioritizing transportation improvements, particularly in areas surrounding schools and other destinations frequently accessed by students.
- Work with schools, school districts, parents, and community organizations to support and promote active, safe, and independent travel by walking, cycling, and rolling.
- Incorporate school-area needs into existing transportation initiatives and capital projects, including sidewalk, crossing, pathway, bicycle parking, wayfinding, and traffic calming improvements.
- Support and promote transportation education, awareness campaigns, and community-led initiatives that encourage safe and active travel choices among children and youth.
- Prioritize transportation safety improvements around schools through existing programs, policies, and funding opportunities.

ACTION 5.2A: Develop partnerships with schools community organizations, non-profit organizations, and cultural groups to co-deliver transportation education and awareness initiatives

Timeframe: Short-term (3–5 years)

Delivery Approach

- Establish partnerships with schools, Indigenous governments and organizations, community organizations, non-profits, cultural groups, and other stakeholders to support transportation education and awareness initiatives.
- Work with partners to deliver education and awareness initiatives on topics such as road safety, active transportation skills, winter mobility, transit use, micromobility awareness, and respectful sharing of streets, trails, and pathways.
- Support the development of educational materials and campaigns that can be tailored to different audiences, including children, youth, older adults, new residents, and people with disabilities.
- Leverage schools, community events, recreation programs, and cultural programming to build transportation knowledge and encourage safe travel behaviours from an early age.
- Support community-led initiatives by providing technical expertise, promotional support, educational resources, and access to City facilities and public spaces where appropriate.

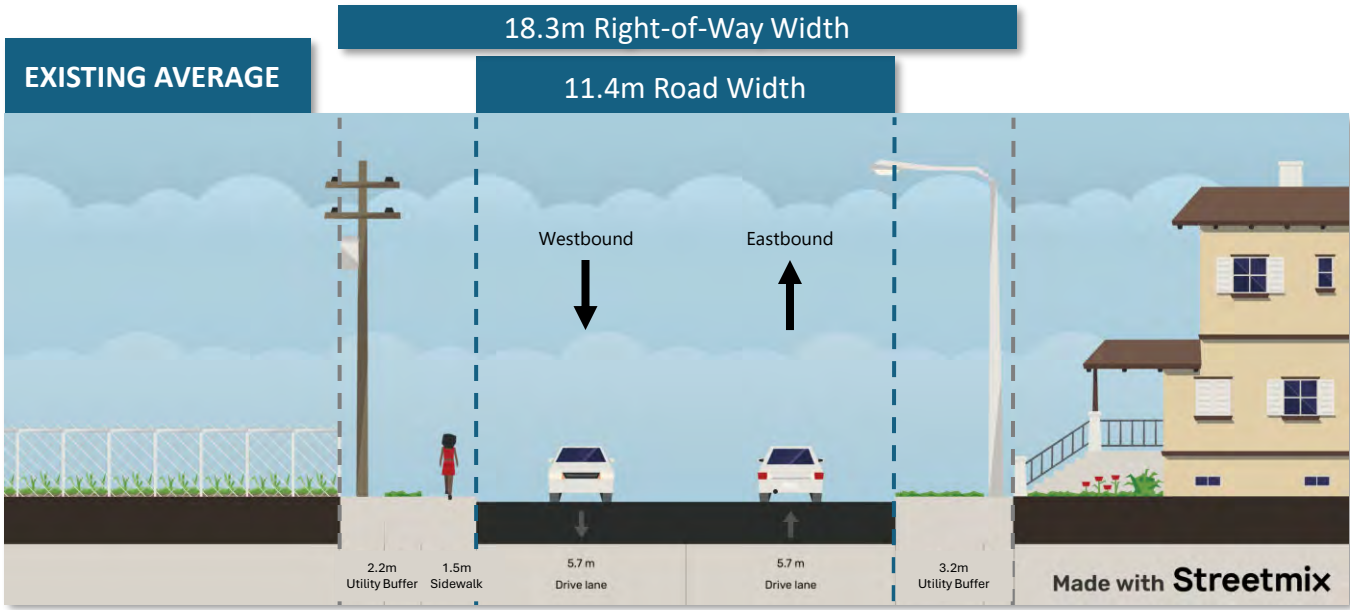
APPENDIX F:

Infrastructure Project Sheets



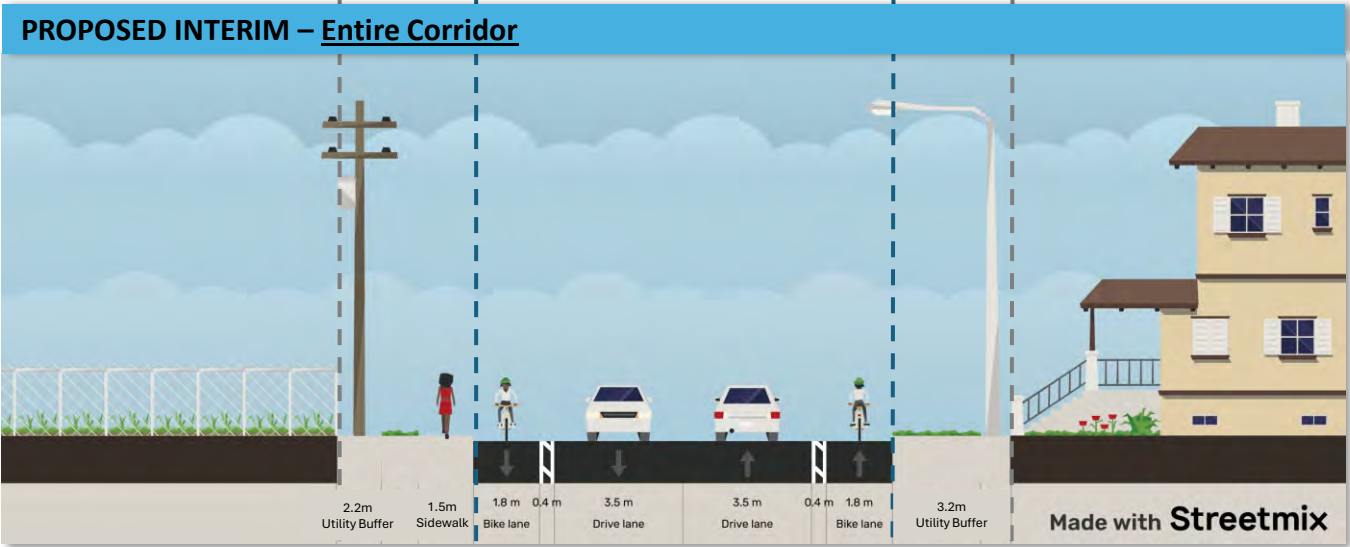
Byrne Road

Woolgar Avenue to Frame Lake Trail



- ### Opportunities

 - Direct connection to Frame Lake Trail
 - One bus stop on south side near Bromley Drive to connect to broader network of accessible pathways
 - Sidewalk missing in some sections on south side
 - Sufficient right-of-way to provide MUP without property acquisition
 - Regular street lighting provided



- ### Interim

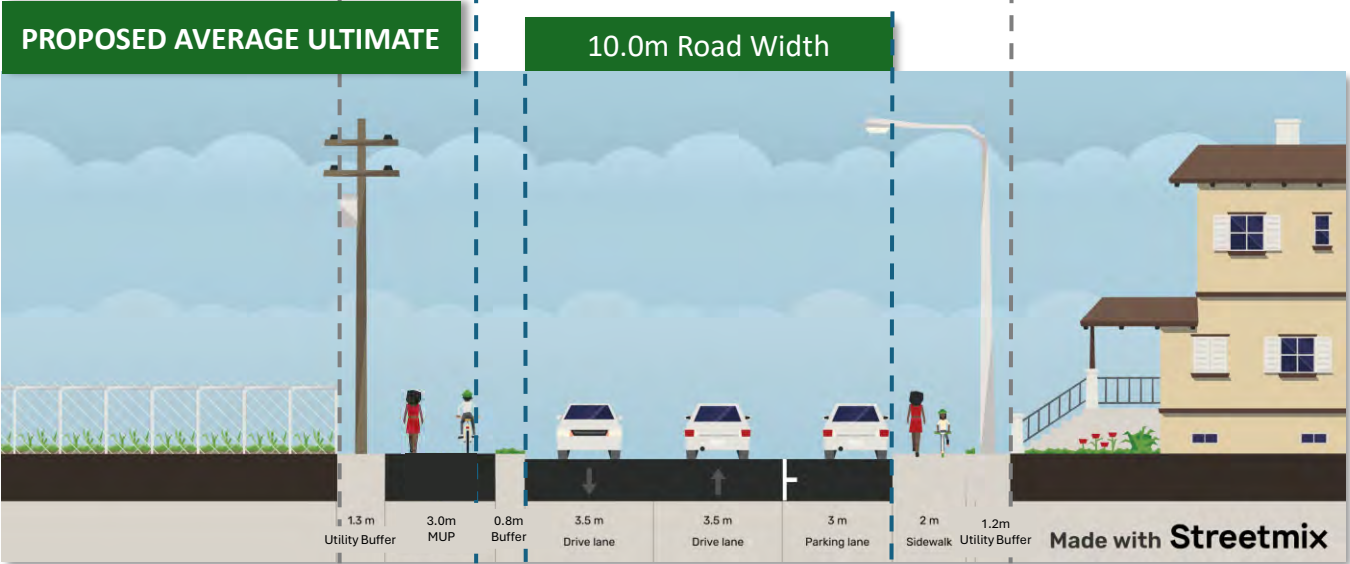
Concept

 - Painted and buffered bike lanes (1.8m + 0.4m)
 - Supplementary signage and pavement markings for bike lanes
 - 3 intersections and 1 midblock crossing

- ### Ultimate

Concept

 - Permanent 3.0m MUP on north side
 - *North side preferred for constructability*
 - Sidewalk on south side to close gap in network
 - Parking on south side reinstated
 - 3 intersections and 1 midblock crossing



*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

- ### Challenges

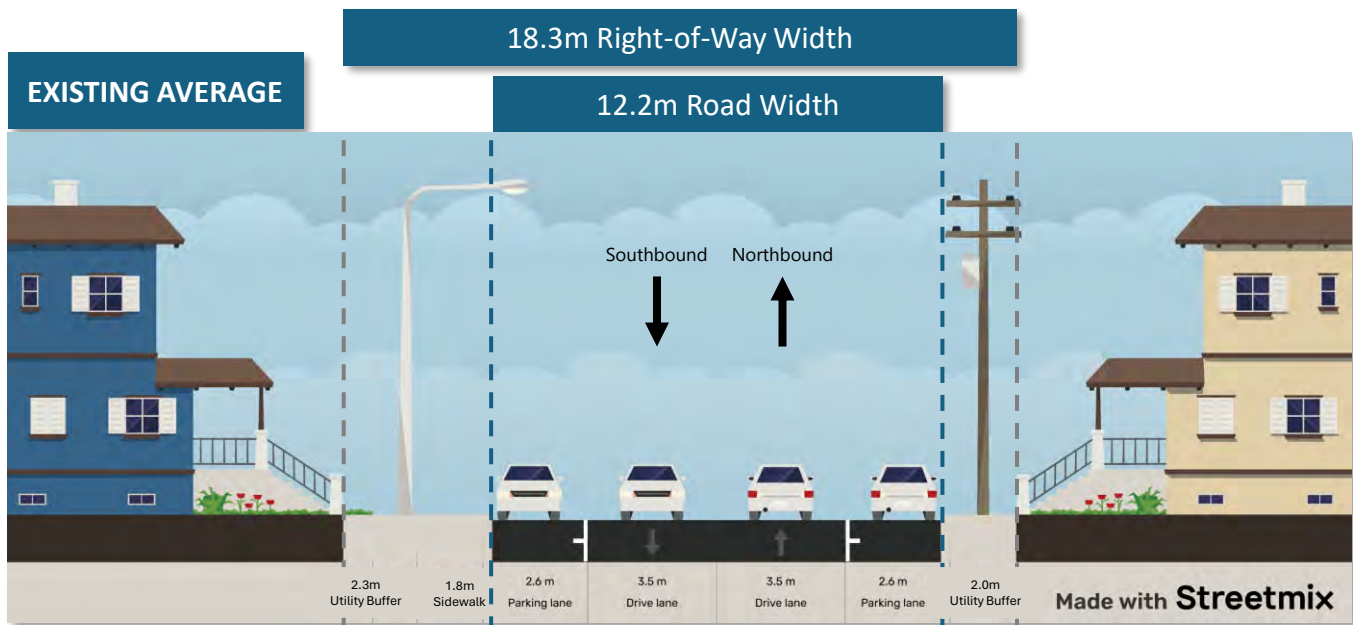
 - Removal of parking lanes on both sides during summer
 - Painted separation does not align with best practice for 45km/h roads, vertical separation preferred
 - 0.6m painted buffer preferred

- ### Challenges

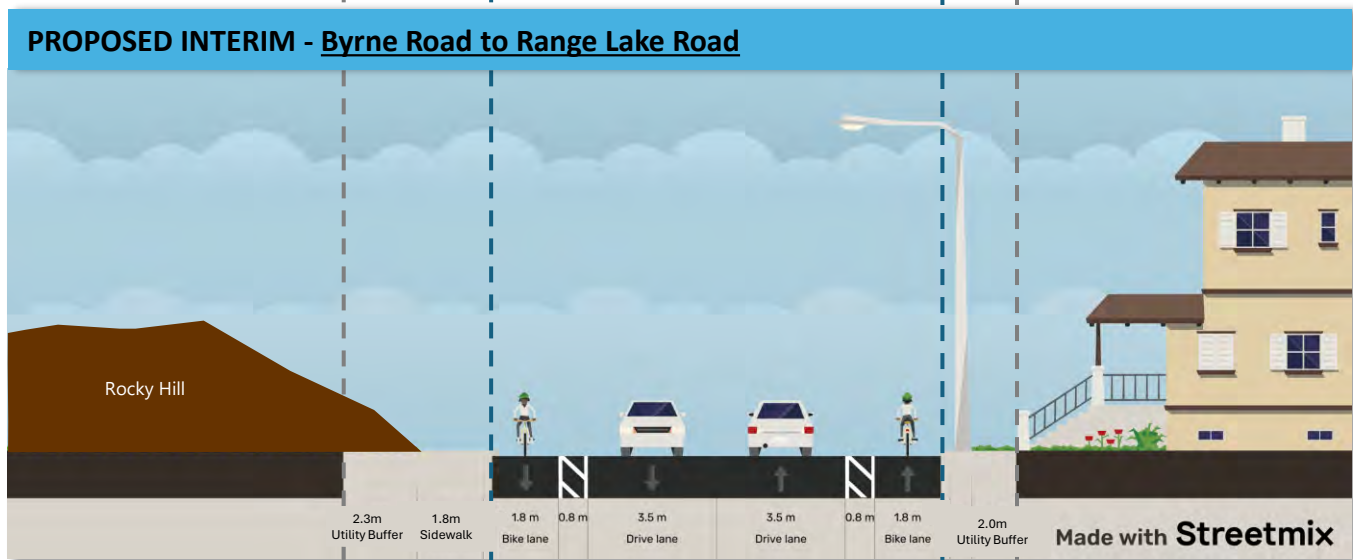
 - ~4 houses on south side of Byrne Road are at a significant elevation and may require substantial driveway restoration
 - Catch basin and utility pole relocation required
 - Additional street lighting may be required

Woolgar Avenue

Range Lake Road to Kam Lake Road



- Opportunities**
 - Direct connection to Range Lake Road bike lanes
 - One bus stop on east side to connect to broader network of accessible pathways
 - No sidewalk on east side north of Bromley Drive
 - Sufficient right-of-way to provide MUP without acquisition
 - Regular street lighting provided, though side of street alternates

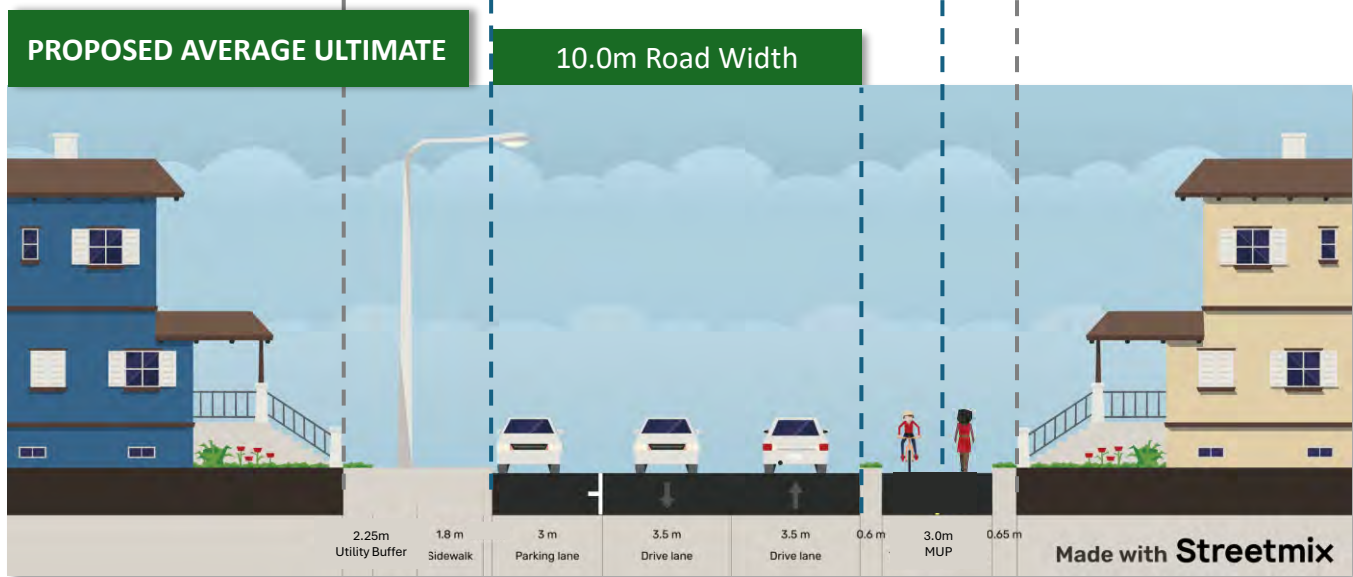


- Interim**

Concept
 - Painted and buffered bike lanes (1.8m + 0.8m)
 - Supplementary signage and pavement markings for bike lanes
 - 5 Intersection crossings

- Ultimate**

Concept
 - Permanent 3.0m MUP on east side
 - *East side preferred due to existing sidewalk on west side*
 - MUP constructed within existing on-street parking and back boulevard
 - 5 Intersection crossings



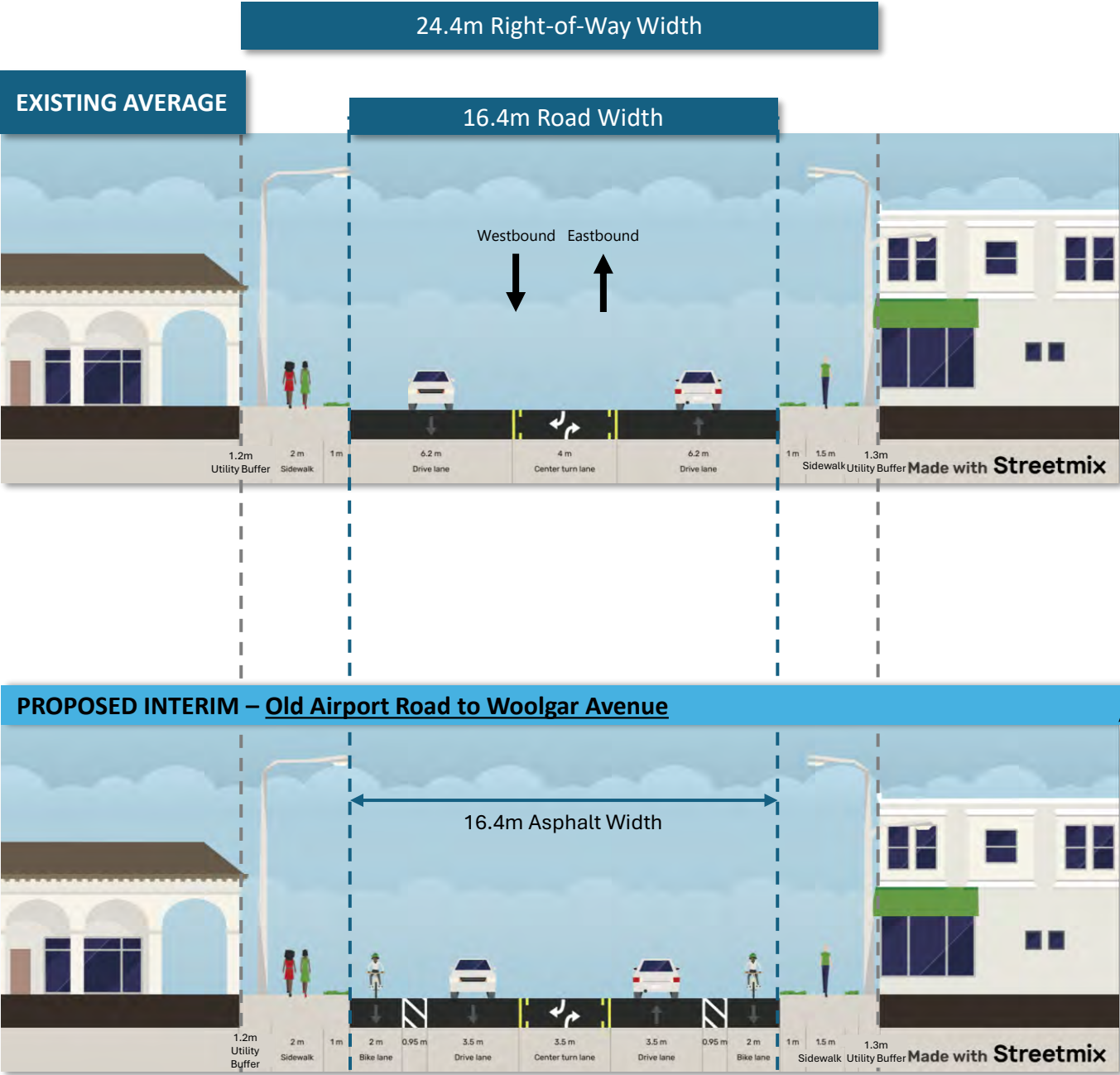
*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

- Challenges**
 - Removal of parking lanes on both sides during summer
 - Vertical separation elements such as concrete curbs or flexible bollards preferred

- Challenges**
 - Requires relocation of utilities and likely streetlights on east side
 - Parking on east side not reinstated unless curb on west side is realigned and utilities are relocated

Range Lake Road

INTERIM - Old Airport Road to Woolgar Avenue



*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.

Opportunities

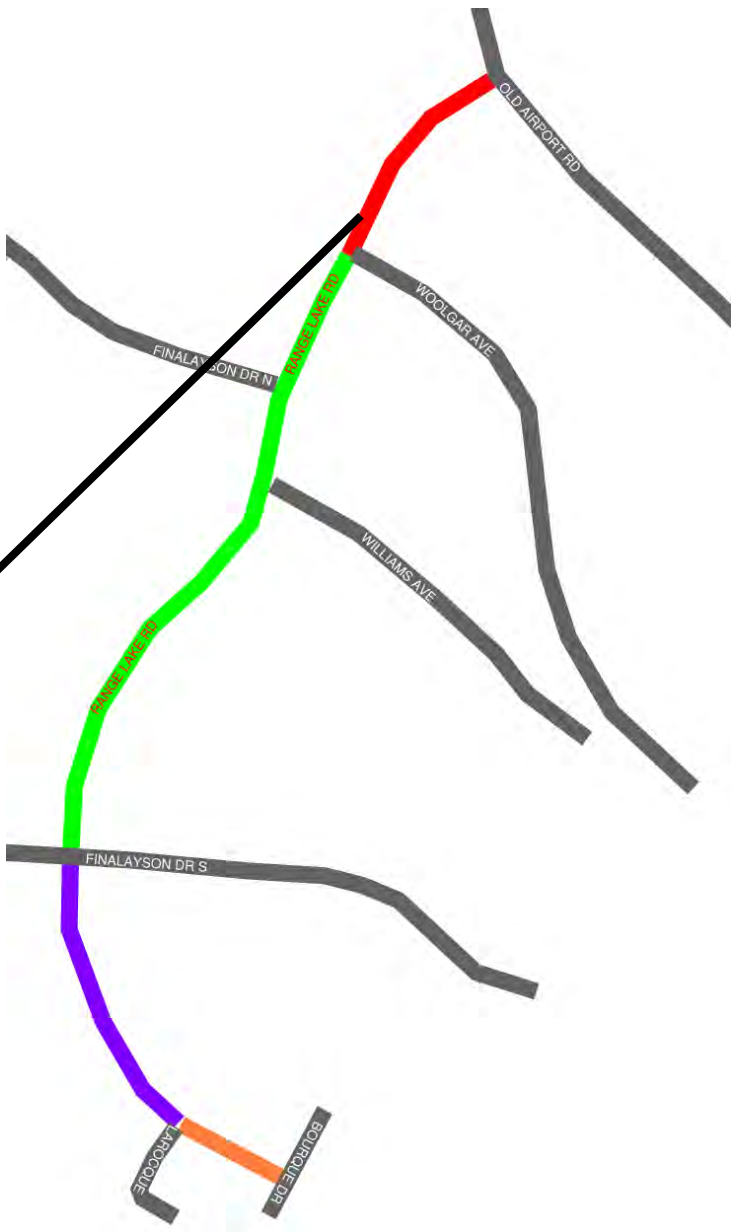
- Wide right-of-way allows for flexibility in improvement options
- Parking is prohibited along most of the section in the existing condition, thus interim bike lanes will have minimal impact

Concept

- Painted and buffered bike lanes
- Supplementary signage and pavement markings for bike lanes
- 2 Intersection crossings total
- Connects to existing unidirectional cyle lanes in interim conditions between Woolgar Avenue and Finlayson Drive South

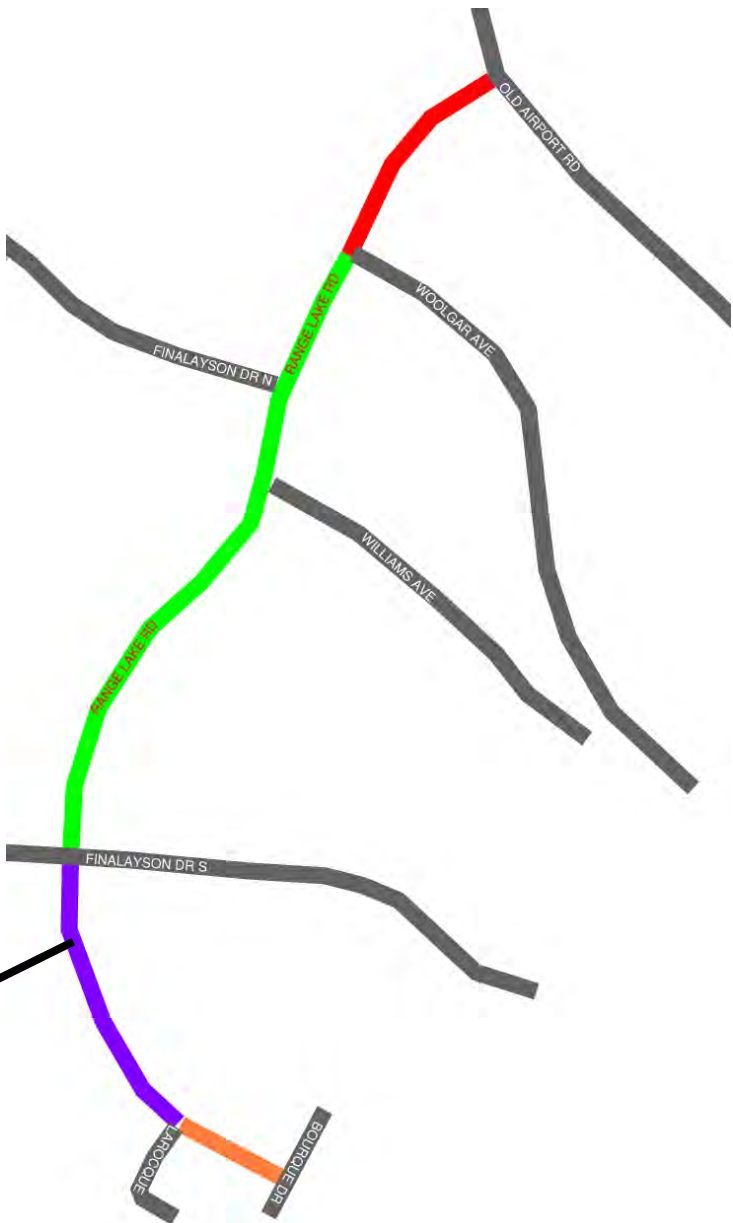
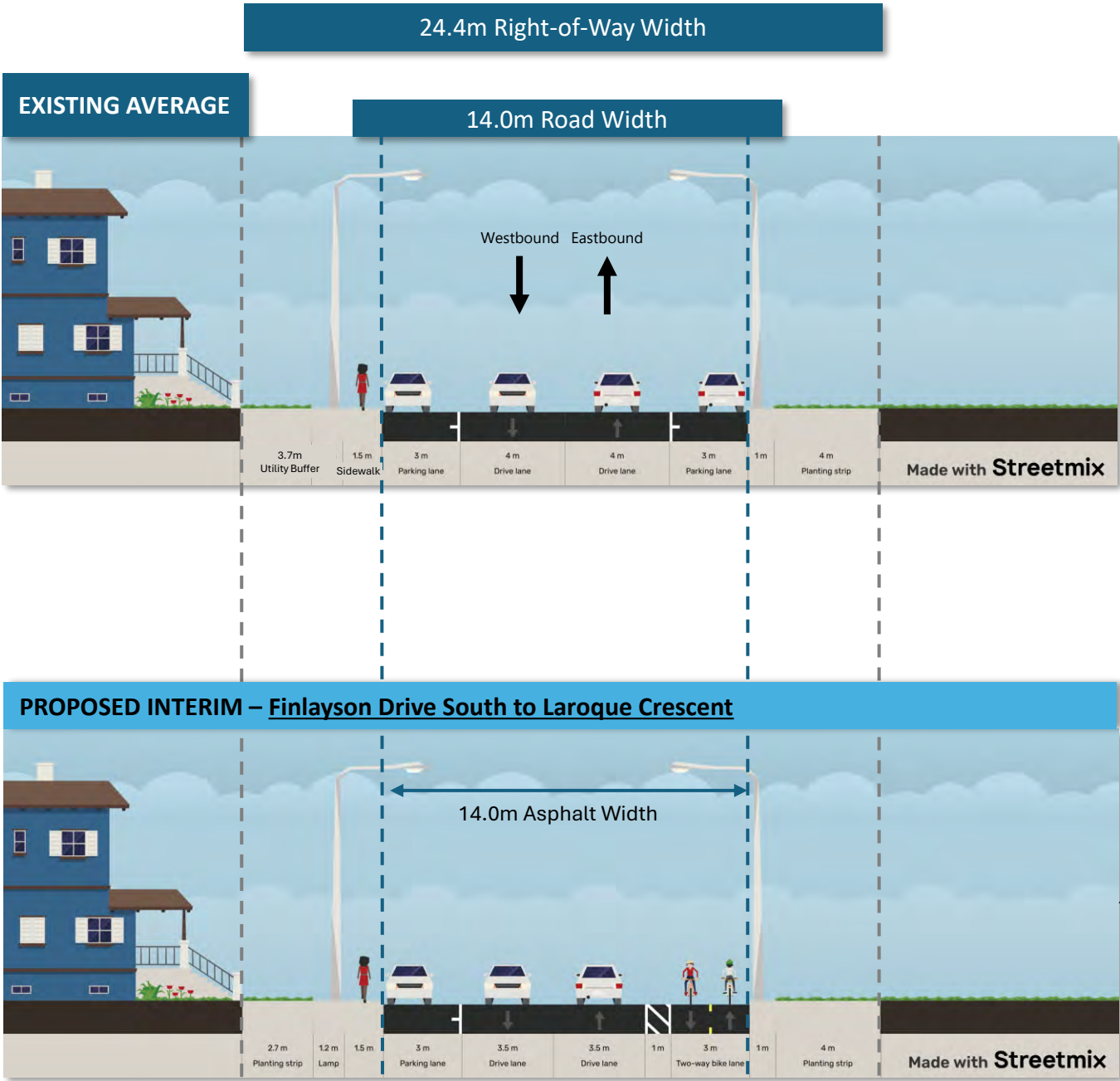
Challenges

- Several driveway crossings that conflict with proposed bike lanes in this section
- Turning lanes likely condensed to shared through/turn lanes
- Wide asphalt width can encourage higher vehicle speeds



Range Lake Road

INTERIM - Finlayson Drive South to Larocque Crescent



Opportunities

- Wide right-of-way allows for flexibility in improvement options
- Absence of buildings on the east side of the section allows for easier, quicker, and less costly implementation.

Concept

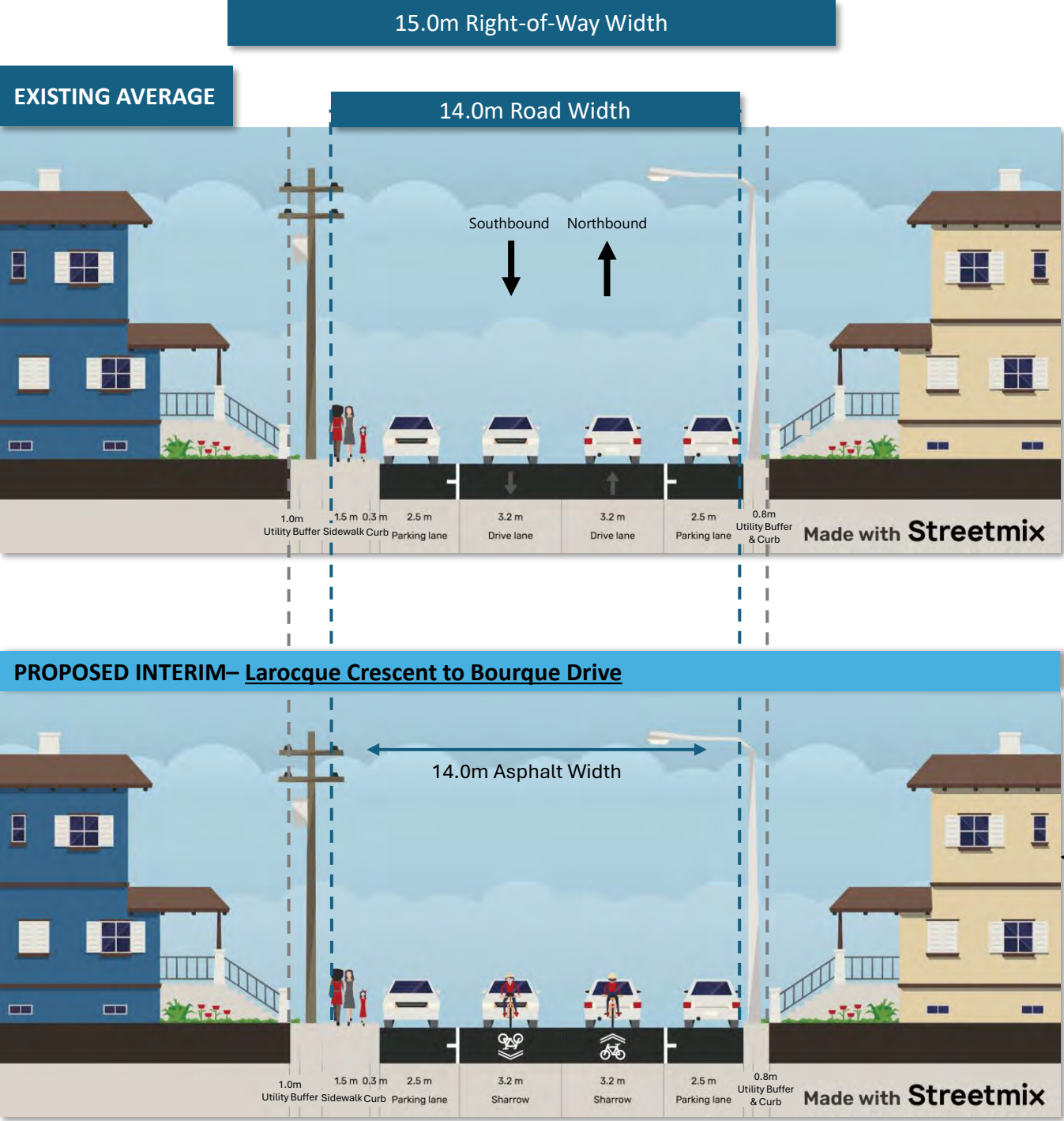
- Painted and buffered bi-direction bike lane on south side
 - *South side preferred for connectivity to school and to avoid driveway crossings*
- Supplementary signage and pavement markings for bike lanes
- 4 Intersection crossings total
- Continues existing unidirectional cycle lanes in interim conditions between Woolgar Avenue and Finlayson Drive South

Challenges

- Asphalt width varies in this section, facility widths may vary
- Removal of parking on the east side
- Southbound cyclists must cross the street at Finlayson Drive / Range Lake Road to access bi-directional bike lanes

Range Lake Road

INTERIM - Larocque Crescent to Bourque Drive



Opportunities

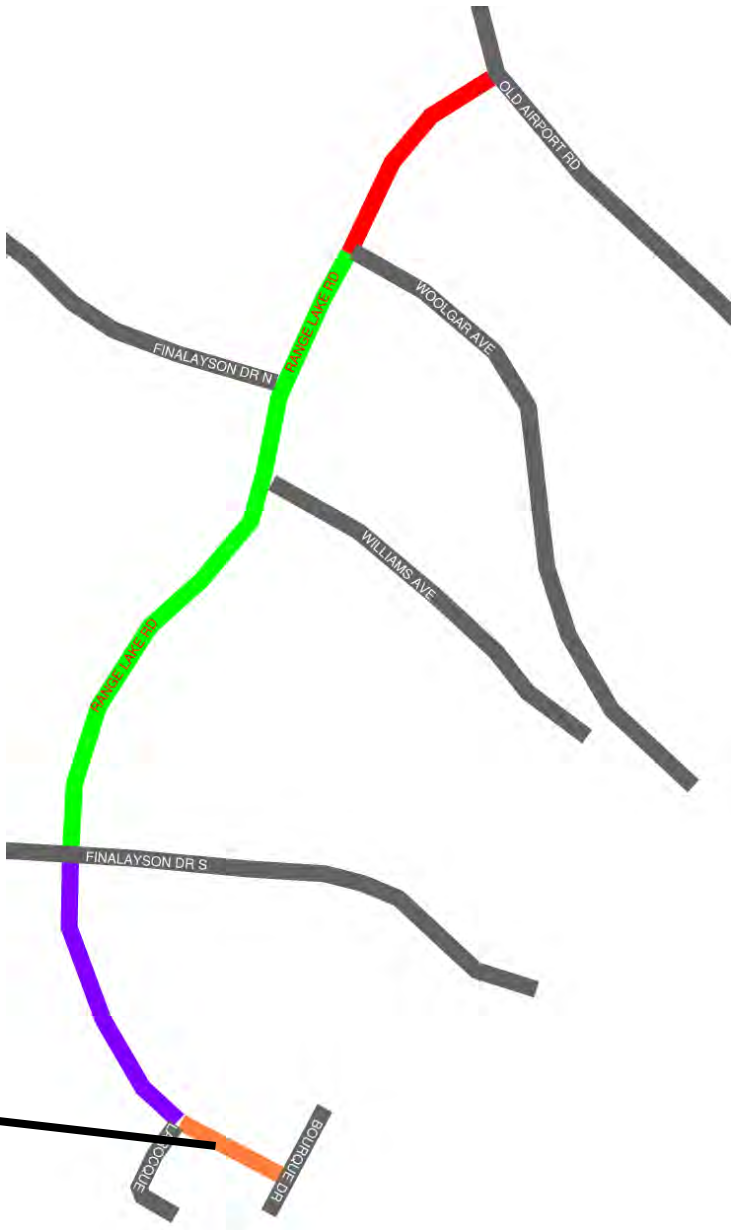
- Existing connection to Kam Lake Road nearby
- Narrow right-of-way supports lower cost bicycle facilities

Concept

- Neighbourhood bikeway
- Supplementary signage and pavement markings
- Interim solution same as ultimate
- 2 Intersection crossings total

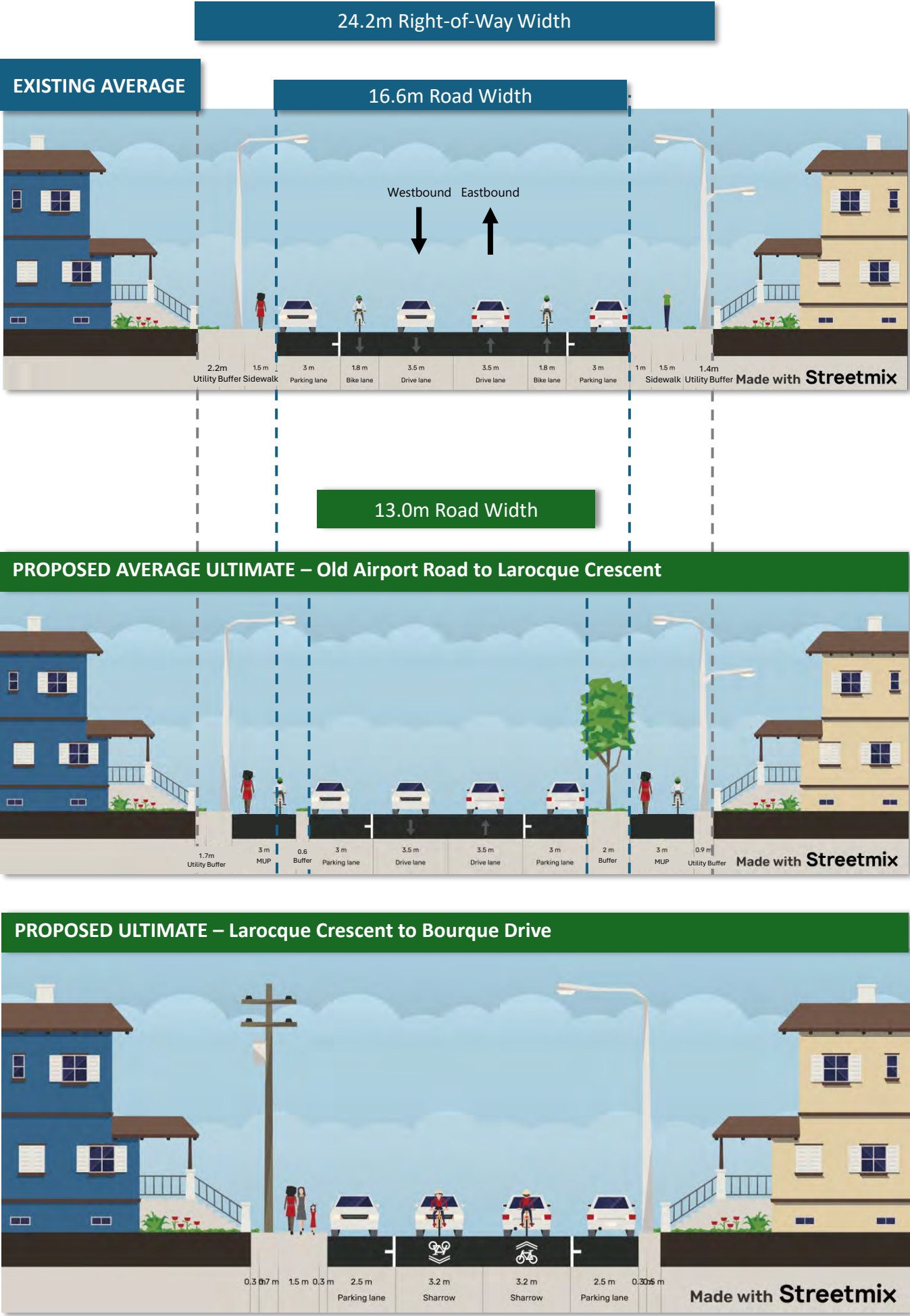
Challenges

- Existing asphalt width is wider than recommended for neighbourhood bikeways. Traffic calming measures such as curb extensions and/or speed humps recommended to improve bicycle safety. Alternatively, the existing sidewalk could be widened to reduce asphalt width.
- Transition to proposed directional facility required



Range Lake Road

ULTIMATE - Old Airport Road to Larocque Crescent



Opportunities

- Wide right-of-way allows for flexibility in improvement options
- Sidewalk alternates from north to south side throughout the corridor, providing opportunity to close the gaps on both sides of Range Lake Road
- Links schools more broadly to surrounding neighbourhoods
- Opportunity to prioritize MUP on one side to provide continuous connection

Ultimate

Concept

- Permanent 3.0m MUP on both sides of the street connecting to shared facility at Larocque Crescent
- Boulevard space for street trees or snow storage
- Road surface width reduced
- Vehicle turn lanes at intersections condensed to share through/turn lanes
- 9 Intersection crossings

Challenges

- Right-of-way varies throughout the corridor, facility widths may vary between Old Airport Road and Larocque Crescent
- Requires relocation of both north and south existing curb lines
- Transition between MUPs and shared street required at Larocque Crescent

*Dimensions noted are approximate and meant to illustrate average conditions. Facility, right-of-way, and buffer widths vary throughout the corridor.