



City of  
**Pitt Meadows**  
THE *Natural* PLACE

# ACTIVE TRANSPORTATION PLAN

DRAFT  
MARCH 2023

**ISL**





# TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>EXECUTIVE SUMMARY</b> .....                            | <b>7</b>  |
| <b>1. INTRODUCTION</b> .....                              | <b>9</b>  |
| 1.1. WHAT IS ACTIVE TRANSPORTATION PLAN? .....            | 9         |
| 1.2. WHAT ARE THE BENEFITS OF ACTIVE TRANSPORTATION ..... | 9         |
| 1.3. BACKGROUND DOCUMENTS .....                           | 9         |
| <b>2. COMMUNITY PROFILE</b> .....                         | <b>21</b> |
| 2.1. LOCATION .....                                       | 21        |
| 2.2. LAND USE.....  | 21        |
| 2.3. DEMOGRAPHICS .....                                   | 21        |
| 2.4. TRIP MODE SHARE.....                                 | 24        |
| 2.5. TRIP LENGTH.....                                     | 25        |
| 2.6. TRIP ORIGINS AND DESTINATIONS .....                  | 26        |
| <b>3. EXISTING CONDITIONS</b> .....                       | <b>29</b> |
| 3.1. OVERVIEW .....                                       | 29        |
| 3.2. VEHICLE VOLUMES AND SPEEDS.....                      | 31        |
| 3.2. ACTIVE MODES COLLISIONS .....                        | 33        |
| 3.3. EXISTING PEDESTRIAN NETWORK .....                    | 35        |
| 3.4. EXISTING BICYCLE AND ROLLING NETWORK.....            | 41        |
| 3.5. ACCESS TO TRANSIT .....                              | 51        |
| <b>4. PLAN DIRECTION</b> .....                            | <b>55</b> |
| 4.1. KEY ISSUES .....                                     | 55        |
| 4.2. VISION.....  | 56        |
| 4.3. GOALS AND OBJECTIVES .....                           | 56        |
| <b>5. PLAN RECOMMENDATIONS</b> .....                      | <b>61</b> |
| 5.1. ACTIVE TRANSPORTATION PRINCIPLES .....               | 61        |
| 5.2. PEDESTRIAN INFRASTRUCTURE RECOMMENDATIONS .....      | 63        |
| 5.3. PROTECTED BIKE LANE RECOMMENDATIONS.....             | 71        |
| 5.4. NEIGHBOURHOOD BIKEWAY RECOMMENDATIONS .....          | 75        |
| 5.5. MULTI-USE PATHWAY RECOMMENDATIONS.....               | 81        |
| 5.6. OTHER INFRASTRUCTURE UPGRADES .....                  | 87        |
| 5.7. PLAN COST ESTIMATE .....                             | 91        |
| 5.8. POLICY RECOMMENDATIONS.....                          | 92        |
| <b>6. IMPLEMENTATION</b> .....                            | <b>95</b> |
| 6.1. PRIORITIES.....                                      | 95        |
| 6.2. IMPLEMENTATION PLAN .....                            | 96        |
| 6.2.3. REGIONAL FUNDING OPPORTUNITIES.....                | 97        |
| 6.3. MONITORING.....                                      | 98        |
| 6.4. BEYOND THE PLAN .....                                | 98        |



**A. WHAT WE HEARD .....A1**  
 A.1. PUBLIC ENGAGEMENT OVERVIEW ..... A1  
 A.2. SUMMARY OF SURVEY RESPONSES..... A1  
 A.3. DETAILED SURVEY RESPONSES..... A4  
 A.4. IDEAS..... A21  
 A.5. PLACES TOOL..... A24

**FIGURES**

FIGURE 3.1: BC ATDG RECOMMENDED FACILITY BY VOLUMES & SPEED ..... 30  
 FIGURE 3.2 BC ATDG THRESHOLDS FOR FACILITY TYPE SELECTION ..... 31  
 FIGURE 3.3: PEDESTRIAN COLLISION MAP (ICBC, 2016 - 2020)..... 33  
 FIGURE 3.4: CYCLIST COLLISION MAP (ICBC, 2016 - 2020)..... 33  
 FIGURE 3.5: EXISTING PEDESTRIAN NETWORK..... 38  
 FIGURE 3.6: EXISTING BIKE INFRASTRUCTURE..... 44  
 FIGURE 3.7: CYCLING NETWORK COMFORTABLE FOR ALL ..... 46  
 FIGURE 3.8: CYCLING NETWORK COMFORTABLE FOR SOME ..... 46  
 FIGURE 3.9: CYCLIST NETWORK COMFORTABLE FOR MOST..... 46  
 FIGURE 3.10: CYCLIST NETWORK COMFORTABLE FOR FEW ..... 46  
 FIGURE 3.11: CYCLING NETWORK FOR STRONG AND FEARLESS ..... 48  
 FIGURE 3.12: CYCLING NETWORK FOR INTERESTED BUT CONCERNED ..... 48  
 FIGURE 3.13: CYCLIST NETWORK FOR CONFIDENT AND ENTHUSED ..... 48  
 FIGURE 3.14: PITT MEADOWS TRANSIT SERVICE ..... 50  
 FIGURE 3.15: BUS ROUTING SERVICE CHANGES ..... 52  
 FIGURE 5.1: PROPOSED PITT MEADOWS PEDESTRIAN NETWORK..... 68  
 FIGURE 5.2: PROPOSED HIGHLAND PEDESTRIAN NETWORK..... 69  
 FIGURE 5.3: PROPOSED PITT MEADOWS BICYCLE NETWORK ..... 88  
 FIGURE 5.4: PROPOSED HIGHLAND BICYCLE NETWORK..... 89  
 FIGURE 5.5: PROPOSED WAYFINDING SIGNAGE..... 90  
 FIGURE A1: PINS PLACED DURING PUBLIC ENGAGEMENT (ENTIRE CITY) ... A25  
 FIGURE A2: PINS PLACED DURING PUBLIC ENGAGEMENT (URBAN CORE).. A27

**TABLES**

TABLE 1.1: PREVIOUS SIDEWALK RECOMMENDATIONS..... 12  
 TABLE 1.2: PREVIOUS BICYCLE RECOMMENDATIONS..... 13  
 TABLE 1.3: PREVIOUS CROSSWALK RECOMMENDATIONS ..... 14  
 TABLE 2.1: 2016 AND 2021 CENSUS POPULATION OF AGE..... 22  
 TABLE 2.2: 2016 AND 2021 CENSUS INCOME BANDS ..... 23  
 TABLE 2.3: 2016 AND 2021 CENSUS MODE SHARE TO WORK ..... 24  
 TABLE 2.4: 2017 TRANSLINK TRIP DIARY MODE SHARE FOR ALL TRIPS ..... 25  
 TABLE 2.5: 2016 AND 2021 CENSUS COMMUTE DURATION ..... 25  
 TABLE 2.6: 2016 CENSUS RESIDENTS COMMUTE DESTINATIONS ..... 26  
 TABLE 2.7: 2016 CENSUS EMPLOYEE COMMUTE ORIGINS..... 26  
 TABLE 5.1: ACTIVE TRANSPORTATION PLAN CAPITAL COST ..... 91  
 TABLE 6.1: ACTIVE TRANSPORTATION PLAN MAJOR PROJECT PRIORITIES 95





Mitchell Trail

## EXECUTIVE SUMMARY

### PLAN PURPOSE

Active transportation is any way of travelling using your own power to get from one place to another. Walking and cycling are the most common, but running, scootering, skateboarding, in-line skating, using a wheelchair, paddling, skiing, snowshoeing, horseback riding could all be considered forms of active transportation, and the electrically assisted equivalents such as electric bicycles or electric scooters are also considered active transportation.

Making it safer, easier, and more comfortable to travel by active transportation enables more people to travel this way, which has numerous benefits both individually and at the community level, including: improvements in health, climate, and the environment; reductions in congestion and costs; transportation choice; and improved equity of the transportation system.

### EXISTING CONDITIONS

The pedestrian network is well established in the urban core of the community with sidewalks typically on both sides on all major roadways and at least one side on most local streets. There are a few paved multi-use trails such as the Loughheed Highway Trail, the Wildwood Trail, and the Trans-Canada Trail south of Airport Way. There are a few unpaved trails in the urban core including the Airport Trail, Parkside Trail, and various other trails through parks. In the rural areas of the City, typically north of Loughheed Highway or west of Baynes Road, there are limited facilities on roadways and pedestrians generally have to share the roadway.

The City's existing active transportation network has been built out to historic standards which in some cases no longer meet current best practices for facility types suitable for all ages and abilities. These pieces of legacy infrastructure include painted facilities, door-zone bicycle lanes, and inappropriately designed neighbourhood bikeways. In the community's rural areas, active travel is unsuitable for all ages and abilities due to the lack of separation from traffic typically travelling at higher speeds. There are some missing links in the City; for instance, Pitt Meadows has an excellent network of trails along dikes which make many rural areas accessible, but there is no safe connection to Pitt Lake. In the urban core, missing links (including existing infrastructure unsuitable for all ages and abilities) are present on Ford Road, Harris Road, and Airport Way. Furthermore, existing facilities would benefit from additional maintenance to prevent, for instance, the build-up of debris on rural roadways and sidewalk damage from root heaving in the urban core.

Facility types that would be considered suitable for all ages and abilities primarily include protected bike lanes, which could be uni- or bi-directional, and provided on-street between existing curbs (if space is available) or can be raised behind curbs. Although the City does indicate several routes as neighbourhood bikeways, vehicle speeds and volumes along some of these routes are higher than levels comfortable for most users. To create facilities comfortable for all ages and abilities, some neighbourhood bikeways could be replaced with separated facilities. On other routes, it may be appropriate to better match road design with the posted speed limit; increased traffic calming, and a wider assortment of measures, could be considered to manage traffic volumes and speeds to a level comfortable for most users. Additionally, there are small sections of existing routes that could be removed as facilities elsewhere are upgraded over time.

### RECOMMENDATIONS

The City strives to build an all ages and abilities active transportation network that can reduce conflicts with vehicles, manage conflicts between active modes, provide space to pass safely, and be accessible after dark and in poor weather. Over time and as funding allows, the City aims to build a network that connects all neighbourhoods and key amenities in the urban core while completing missing links and providing spot improvements in rural areas.

The plan would work toward providing safe protected bike facilities along the key urban corridors in the City, that is Harris Road, Hammond Road and Airport Way that are each identified as key regional cycling routes. These key routes will be accessed from within each Neighbourhood via a number of multi-use pathways and neighbourhood bikeways focused on providing safer and more comfortable routes to schools and community amenities.





# 1. INTRODUCTION

## 1.1. WHAT IS ACTIVE TRANSPORTATION PLAN?

Active transportation is any way of travelling using your own power to get from one place to another. Walking and cycling are the most common, but running, scootering, skateboarding, in-line skating, using a wheelchair, paddling, skiing, snowshoeing, horseback riding could all be considered forms of active transportation, and the electrically assisted equivalents such as electric bicycles or electric scooters are also considered active transportation.

This plan replaces the 2012 Pedestrian and Cycling Master Plan to reflect evolving guidance on the design and planning for active modes. The development of the plan included site visits, background information reviews, and reviews of existing conditions combined with public feedback. This information helped the City to understand the issues and inform the development of a proposed active transportation network and the infrastructure types that form that network. The plan identifies areas for improvement and proposes an implementation strategy to upgrade the network over time through capital projects and developer led improvements.

The Active Transportation Plan supports future grant applications for regional, provincial, or federal cost sharing programs that can provide substantial funding contributions towards capital projects that are being implemented as part of a coordinated plan.

## 1.2. WHAT ARE THE BENEFITS OF ACTIVE TRANSPORTATION

Making it safer and easier to travel by active transportation enables more people to travel this way which has numerous benefits both individually and at the community level:

- **Health Benefits:** People that get around actively benefit from the physical and mental health benefits it provides. Furthermore, as more individuals get around by active transportation, the community becomes healthier as a whole. Enhanced active transportation infrastructure improves safety for all road users because there are fewer collisions.
- **Environmental Benefits:** If more people choose active transportation for more trips, this reduces both their and the community's carbon footprint and improves local air quality.
- **Congestion Reduction Benefits:** As the community grows, enabling more people to make short trips on foot or by bicycle can reduce strain on existing roadways and free up parking for others. It is not the intent of the plan to make everybody walk or ride a bike, but to enable those that do want to, the opportunity to do it safely.
- **Transportation Cost Savings:** Making it easier to travel actively reduces reliance on the automobile for some and can reduce individual transportation costs, whether simply saving a small amount on gas, going from two cars to one, or completely car free.
- **Equity Benefits:** Providing options other than the automobile makes the transportation system more equitable. The network works well for those that drive, but those that don't, whether through choice or circumstance, must navigate a disconnected network of active transportation infrastructure. Providing a safe connected active transportation network allows everyone to navigate the city safely.

## 1.3. BACKGROUND DOCUMENTS

The following pages provide a summary of relevant background documents that provide additional active transportation direction at a local, provincial and national level. Aligning with these documents supports desirable regional, provincial and national outcomes which is key to successful grant funding applications. These documents specifically identify corridors that should enable everyone in the community to comfortably travel by active transportation. In addition to technical analysis, they form part of the rationale for the recommendation in this Plan.





## OFFICIAL COMMUNITY PLAN

The Official Community Plan (OCP) is a long-range plan that sets out the community's long-term vision, goals and objectives. In **I see Pitt Meadows 2040**, the OCP is updated to plan the community's vision for 2040.

Pitt Meadows OCP was created in 2008. Changes were made to this plan to strengthen policies regarding greenhouse gas emissions in 2011, and for affordable housing in 2013. In the decade since the adoption of the OCP, the community continues to grow and there are increasing concerns around climate change and the environment. Recent changes to transportation in the region have both a positive and negative impact on Pitt Meadows. This section provides an overview of transportation related direction in the OCP document.

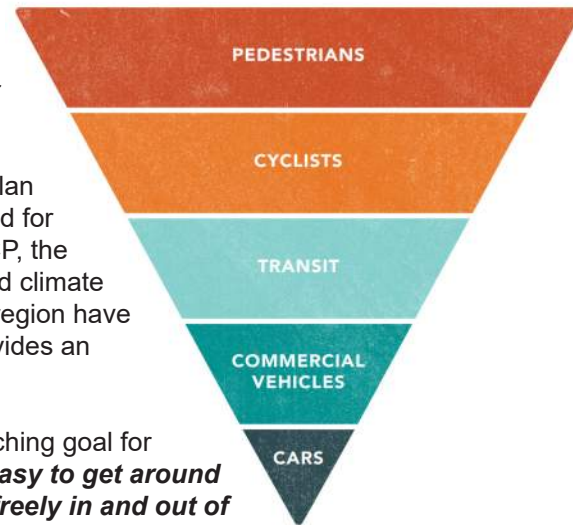
Chapter 9 provides direction with respect to Transportation, the overarching goal for transportation is ***“Pitt Meadows is a connected community that is easy to get around by all modes of transportation, and commercial transport moves freely in and out of the community.”***

The OCP highlights a number of transportation issues which provide some context to this plan, most issues related to traffic and congestion as well as the at-grade rail crossings and increasing lengths of trains causing greater delays. Connectivity is limited through local streets which is cited as an issue but can be a positive for active transportation where walking and cycling connections are available. Like most communities, transportation related greenhouse gas emissions are an issue in the city, and whilst electrification will help over time, reducing reliance on internal combustion engine vehicles will support climate objectives. The elderly population is also expected to grow during the duration of the plan and the OCP notes that they will require safe and comfortable alternatives to driving personal vehicles to get around.

The OCP references the Transportation Master Plan, adopted in 2014, and the transportation hierarchy contained within. Generally, policies are framed to consider the needs of pedestrians, cyclists, public transit and the movement of goods — in that order — before considering the needs of private automobile users. This means that, in planning for Pitt Meadows transportation system, sustainable transportation options will be prioritized over general-purpose transportation. However, this transportation hierarchy may not be suitable in certain parts of the community, such as in rural/agricultural areas and on truck routes, where goods movement is a priority to support the local economy.

The OCP notes that the cost of paving roads has increased over time and as a result, the City's goal is to utilize existing infrastructure to the maximum extent possible and, as much as possible, limit the construction of new roads, particularly roads that are outside of the Urban Containment Boundary.

In the context of this plan, it is possible that improvements to active transportation may impact other existing



functions for general purpose vehicles such as on-street parking or excess general purpose travel lanes. Furthermore, where road widths can be narrowed to include active transportation facilities behind the curb, these can reduce the long-term maintenance burden by reducing the extent of full depth pavement structure for motor vehicles, instead replacing it with shallower pathway facilities behind the curb that use less material and require lower maintenance over time.

There are some specific objectives related to active transportation in the OCP:

- **Objective 9.3. Design an environment where people are less dependent on automobiles.**
  - 9.3.1. Encourage people to walk or bike to local destinations
  - 9.3.2. Ensure alternative transportation modes are convenient, comfortable and attractive transportation choices for people of all ages and abilities
- **Objective 9.4. Create a safe, beautiful and accessible walking and cycling environment.**
  - 9.4.1. Design streets to be used by everyone
  - 9.4.2. Maintain and add to the Pitt Meadows trail network
  - 9.4.3. Ensure private development adds to and enhances the walking and cycling environment
- **Objective 9.7. Maximise the utility of the existing road network**
  - 9.7.4. Maximize the efficiency of the existing street network, including promoting walking, cycling and transit use, before expanding the road network.



## 2012 PEDESTRIAN & CYCLING MASTER PLAN

This 2012 Pedestrian and Cycling Master Plan is the predecessor to this 2022 Active Transportation Plan document. The City has been proactive in implementing many of the recommendations from the previous plan, which has made it easier and safer to walk and cycle throughout the City over the past 10 years.

In the past five years, however, considerable changes to design standards have been introduced by both the Transportation Association of Canada via its updated Geometric Design Guide in 2017 and the BC Ministry of Transportation and Infrastructure via its BC Active Transportation Design Guide in 2019.

As a result, many of the recommendations in the 2012 plan, particularly those relating to cycling facilities, no longer meet best practice and the City should review and update these recommendations to meet new guidance, as well as meet new needs driven by changes in community demographics and transportation choice preferences.

For sidewalks, current guidance from both TAC and the BC ATDG recommend a minimum sidewalk width of 1.8m which is the minimum that would allow two wheel chairs or mobility devices to pass. More width may be appropriate on busier streets. Narrower widths are only advised for short distances. Boulevards are preferable to provide shade and separation, especially along roadways with higher volumes and speeds.

Table 1.1 provides an overview of the previous recommendations, their status regarding completion and need for inclusion in the updated plan.

**Table 1.1: Previous Sidewalk Recommendations**

| RECOMMENDATION  | IMPLEMENTED   |
|---|---|
| Harris Road: Airport Way to South of Hammond Rd             | Through DCC program, anticipated 2021/2022            |
| Harris Road: Airport Way to Fieldstone Walk                 | Through DCC program, anticipated 2024                 |
| North Bonson Road: 118B Ave to 120 B Ave                    | <i>Sidewalk already exists on east side</i>           |
| North Bonson Road: Somerset Drive to North end of Bonson Rd | <i>Sidewalk already exists on east side</i>           |
| Somerset Drive: North Bonson Rd to Park Rd                  | <i>Sidewalk already exists on north and west side</i> |
| South Bonson Road: Hammond Rd to 116a Ave                   | Complete  |
| Wildwood Crescent: South Bonson Rd to Hammond Rd            | <i>Sidewalk already exists on north and west side</i> |
| South Bonson Road: Fraser Way to Sutton Ave                 | <i>Sidewalk already exists on west side</i>           |
| Sutton Ave: South Bonson Rd to Lasser Rd                    | Complete  |
| Harris Road: Airport Way to Fraser Way                      | Through DCC program, anticipated 2024                 |
| Fraser Way: Harris Rd to dike entrance trail                | Project underway                                      |
| Fraser Way: Harris Rd to West of traffic circle             | Through DCC program, anticipated 2024                 |
| Mitchell Road: 191A St. to east of 190 St                   | Complete  |
| 190A Street: 119 Ave to Ford Rd                             | <i>Sidewalk already exists on east side</i>           |
| 191 Street: 124 Ave to McMyn Rd                             | Complete  |
| McMyn Road: 191 St. to west of 191B Street                  | Complete  |
| 124 Avenue/192A Street: Harris Rd to Davison Rd             | <i>Sidewalk already exists on north and east side</i> |
| 189 A Street: Advent Rd to 124 Ave.                         | <i>Sidewalk already exists on west side</i>           |
| Nikola Street: Advent Rd to end of Nikola Rd                | <i>Sidewalk already exists on east side</i>           |
| 119B Avenue: 190A Street to civic centre                    | Complete  |
| 118B Avenue: 190 St. to 189A St.                            | <i>Sidewalk already exists on north side</i>          |
| 189A Street: 118B Ave. to Mitchell Park Trail               | <i>Sidewalk already exists on east side</i>           |
| 120B Avenue: Blakely Rd to 193 St.                          | <i>Sidewalk already exists on north side</i>          |
| Chestnut Crescent: Somerset Drive to Cedar Lane             | <i>Sidewalk already exists on south and east side</i> |
| 194B Street: 119B Ave to 120B St                            | Complete  |

Note that where sidewalk already exists on one side of the street, the provision of sidewalk on the other side has not been considered a priority in this plan as there are other elements that can better enable more people in the community to travel by active transportation.

For bicycle facilities, guidance has changed considerably in recent years, and with a largely complete sidewalk network, even if on just one side of the street. The plan focuses on facilities for bicycles, which in some cases also includes multi-use pathways that benefit pedestrians also. There are many ways to provide safe infrastructure for bicycles and this is typically selected based on vehicle volume and speed thresholds. Table 1.2 provides an overview of the previous recommendations, their status regarding completion and need for inclusion in the updated plan.

**Table 1.2: Previous Bicycle Recommendations**

| RECOMMENDATION   | IMPLEMENTED  |
|--|--|
| Ford Road: Harris Rd to Baynes Rd bicycle L=lane                                   | Complete, door zone bike lanes no longer meet best practice  |
| South Bonson Road: Hammond Rd to Fraser Way bicycle lane                           | Planned for 2023, consider volume and speed checks to confirm design                                       |
| Ford Road: Baynes Rd to dike trail paved shoulder                                  | Potential with repaving in 2028, not budgeted, not suitable for all ages and abilities                     |
| Harris Road: Alouette River to dike trail (north) paved shoulder                   | Not suitable for all ages and abilities  |
| McNeil Road: Harris Rd to Neaves Rd paved shoulder                                 | Not suitable for all ages and abilities  |
| Neaves Road: Dike trail (north) to south Alouette River paved shoulder             | Planned for 2024/2025  |
| Advent Road (122nd): Harris Rd to 188 St. local bikeway                            | Complete   |
| 189A Street: Ford Rd to Advent Rd local bikeway                                    | Review vehicle volume and speed and connectivity   |
| 191 Street: McMyn Rd to 124 Ave local bikeway                                      | Complete   |
| 124 Ave: 191 St. to 192 Ave local bikeway  | Complete (to Harris Rd)  |
| 192A Street/Park Rd: 124 Ave to North Bonson Rd. local bikeway                     | Review vehicle volume and speed and connectivity   |
| Park Rd: North Bonson Rd to Lougheed Hwy local bikeway                             | Trial being removed, recommendation needs updating   |
| Somerset Drive/Cedar Lane: Park Rd to north Bonson Rd. local bikeway               | Review vehicle volume and speed and connectivity   |
| North Bonson Road: Lougheed Hwy to rail overpass local bikeway                     | Review vehicle volume and speed and connectivity   |
| Rail overpass to Hammond Rd local bikeway  | Review vehicle volume and speed and connectivity   |
| Blakely Rd: 120B Ave to 116B Ave local bikeway                                     | Complete   |
| 119 Avenue: Harris Rd to Blakely Rd local bikeway                                  | Deferred   |
| 120 B Avenue: Blakely Rd to 193 St. local bikeway                                  | Complete   |
| 193 Street: 120B Ave to 122A Ave local bikeway                                     | Complete   |
| 122A Avenue: 193 St. to Harris Rd local bikeway                                    | Complete   |
| 116B Avenue: Blakely Rd to South Bonson Rd local bikeway                           | Potential with repaving, not scheduled or budgeted   |
| Wildwood Crescent: South Bonson Rd to Hammond Rd local bikeway                     | Deferred   |
| 116A Ave: South Bonson Rd to Wildwood Cres local bikeway                           | Review vehicle volume and speed and connectivity   |
| Harris Road/Fraser Way: Airport Way to South Bonson Rd local bikeway               | By development by 2024   |
| Harris Road: Advent Rd to Fraser Way cycle track                                   | Bike lanes being installed by development 2023, consider upgrading to protected lanes rather than buffered |
| Airport Way: Baynes Rd to South Bonson Rd off-street pathway                       | By development by 2024   |
| Off-street pathway: Fraser Way to Pitt Meadows Secondary Parkside Trail extension  | By development by 2024   |
| Off-street pathway: Harris Road to Pitt Meadows Secondary Parkside Trail extension | By development by 2024   |
| Off-street pathway: Existing trail to South Bonson Road east of community garden   | By future development  |
| Lougheed Hwy: Meadowntown to Maple Ridge off-street pathway                        | MOTI/Private   |



Crosswalk guidance hasn't changed considerably in recent years, although the use of Rapid Rectangular Flashing Beacons (RRFB's) and Leading Pedestrian Intervals (LPI's) has become more common. Continuous sidewalks are also gaining popularity in Canada and it is recommended that those locations identified for curb extensions could also include a continuous sidewalk trial. Table 1.3 provides an overview of the previous recommendations, their status regarding completion and need for inclusion in the updated plan.

**Table 1.3: Previous Crosswalk Recommendations**

| RECOMMENDATION  | IMPLEMENTED   |
|---|---|
| Harris Rd & Lougheed Hwy: Pedestrian Countdown Timers (all), Audible Pedestrian Signals, Bicycle Pushbutton                 | Complete, follow up with MOTI re. audible signals   |
| Harris Rd & McMyn Rd: Pedestrian Countdown Timers (N-S McMyn), Bicycle Pushbutton   | Complete, bike network moved to 124th   |
| Harris Rd & 124 Ave: Pedestrian Countdown Timers (N-S 124 Ave Required), Audible Pedestrian Signals, Bicycle Pushbutton     | Complete  |
| Harris Rd & 122 Ave: Pedestrian Countdown Timers (N-S 122 Ave), Bicycle Pushbutton  | Complete  |
| Harris Rd & Ford Rd: Pedestrian Countdown Timers (N-S Ford Road), Audible Pedestrian Signals, Bicycle Pushbutton            | Complete except bicycle push buttons  |
| Harris Rd & 119 Ave: Pedestrian Countdown Timers (N-S 119 Ave), Audible Pedestrian Signals, Bicycle Pushbutton              | Countdown timer complete  |
| Harris & Hammond Rd: Pedestrian Countdown Timers (all), Audible Pedestrian Signals, Bicycle Pushbutton                      | Complete except bicycle push buttons  |
| Hammond Rd & Blakely Rd: Pedestrian Countdown Timers (all), Audible Pedestrian Signals, Curb extensions, Bicycle Pushbutton | Complete except curb extensions   |
| Hammond Rd & Bonson Rd: Pedestrian Countdown Timers (all), Audible Pedestrian Signals, Curb extensions, Bicycle Pushbutton  | Audible ped signals complete  |
| Harris & CP Rail Crossing: Crossing/Safety Improvements   | Being addressed via underpass project   |
| Ford Road & 189A Street: Marked Pedestrian Crosswalk  | Complete  |
| Lougheed Highway & Harris Road: Overpass  | <i>Would be future MOTI project</i>   |
| Lougheed Highway & Bonson Road: Overpass  | <i>Would be future MOTI project</i>   |
| 119 Ave & 190A Street: Curb extensions at existing e-w crosswalk  | <i>Complete under annual active transportation (AT) budget, consider continuous sidewalks pilot project</i> |
| 119 Ave & 190A Street: Curb extensions at existing n-s crosswalk  | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| 116B Avenue (crosswalk in front of Pitt Meadows Secondary): Curb extensions at existing crosswalk                           | Consider with repaving in 2029  |
| Blakely Rd & 120B Avenue: Curb extensions at existing crosswalks  | Complete  |
| North Bonson Road & Somerset Dr: Curb extensions at existing crosswalk  | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| North Bonson Road & Park Road: Curb extensions at existing crosswalks   | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| North Bonson Road & 120b: Curb extensions at existing crosswalk   | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| Advent Road & 189A Street: Curb extensions at existing crosswalk  | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| Advent Road & 188 Street: Curb extensions at existing crosswalk   | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| 122 Ave & 189A Street: Curb extensions at existing crosswalk  | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| 122 Ave & 191B Street: Curb extensions at existing crosswalk  | <i>Complete under annual AT budget, consider continuous sidewalks pilot project</i>                         |
| 191 B Street & Ford Rd: Curb extensions at existing crosswalk   | Complete  |

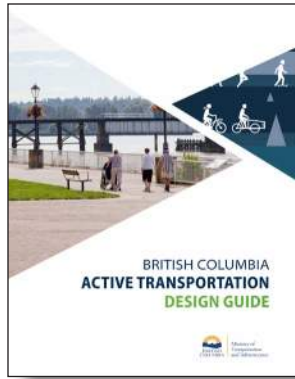


## BC ACTIVE TRANSPORTATION STRATEGY

In mid 2019, the Provincial government introduced two key documents relating to active transportation. The Provincial Active Transportation Strategy 'Move, Commute, Connect' is part of the CleanBC plan to build a stronger, brighter future for British Columbia. The strategy will help reinforce the importance of making our communities cleaner, healthier, and more sustainable. The Province is focused on working in partnership with communities to improve our province-wide walking, cycling, and other active networks. At the same time, the Province aims to create community specific active transportation networks that are safe, accessible, and convenient for pedestrians, cyclists, transit riders, and motorists of all ages and abilities. Goals of the Provincial Active Transportation Strategy include:

- Double the percentage of trips taken with active transportation by 2030.
- Inspire British Columbians of all ages and abilities to choose active transportation with incentives that encourage active transportation use, such as the Scrap-It e-bike rebate, Learn to Ride programs, and Active and Safe Routes to School.
- Build on the success of the BikeBC grant program so that communities can build integrated and accessible active transportation systems that work for all active transportation users.
- Work together with communities to create policies and plans that enable and support complete active transportation networks across the province.



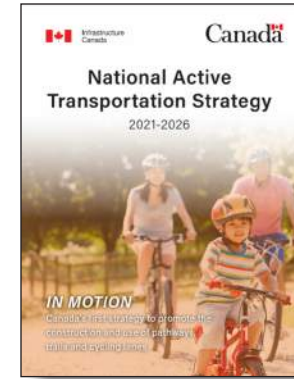


## BC ACTIVE TRANSPORTATION DESIGN GUIDE

The Design Guide developed in parallel with the strategy draws on best practice and generally aligns with the recently updated Transportation Association of Canada Geometric Design Guide for Canadian Roads. The guideline provides facility selection advice and design guidance for active transportation infrastructure and specifically provides recommendations on facility types for urban and rural contexts.

For pedestrians guidance is given with respect to the type of facility. For urban roads with a posted speed of 30 km/h a non separated sidewalk is acceptable, but when speeds increase beyond this, a separated sidewalk (i.e., with boulevard) is recommended. In school zones, a separated sidewalk is also recommended. Enhanced separated sidewalks with wider through zones and/or furnishing areas are recommended on main streets or commercial streets. Adjacent to freeways or expressways, off-street pathways are recommended. In rural areas, shared space is acceptable where the posted speed is 30 km/h, a walkable shoulder is acceptable up to 65 km/h and off-street pathway is recommended beyond this. Design elements that contribute to good pedestrian design include: Physical separation from other road users; Adequate clear width to allow more than one person walking or using a mobility device to pass each other; Firm, smooth, and even surfaces; Sufficient pedestrian crossing opportunities; Continuous and direct routes between destinations that reflect pedestrian desire lines; Wayfinding that makes it easy to navigate between destinations; Street trees and other vegetation; Weather protection elements to provide refuge from rain or snow; Adequate lighting for safety, security, and visibility; Sufficient benches and rest areas; Pedestrian amenities including landscaping, water fountains, washrooms, garbage and recycling receptacles, public art, and street furniture; and well-maintained pedestrian facilities in all seasons.

In terms of facility selection for bike facilities in urban areas, neighbourhood bikeways are recommended for streets with a traffic volume of less than 1,000 vehicles per day and speeds under 30 km/h. Protected bike lanes are recommended where volumes are higher than 4,000 vehicles per day and speeds are 50 km/h or higher. Between these lower and upper thresholds depends on the context. The keys to enabling more people to ride a bicycle is dedicated separated facilities or appropriately calmed and signed local streets forming a cohesive network. In rural areas an off road facility is recommended on any roads with a traffic volume higher than 10,500 vehicles per day or a posted speed of 75 km/h or greater. Less than this and a bicycle accessible shoulder may be sufficient for many and is recommended recognizing the need to balance costs over greater distances, but it will never be truly suitable for all ages and abilities. In terms of design elements that make it comfortable for people riding bicycles, these include: Separation between active modes, especially where speed differentials are higher or volumes are higher; Space to pass accounting for various micro-mobility modes and their speed differentials, shallow grades where possible, and on shared streets, slowing down traffic and discouraging through traffic. Many of the design elements noted for pedestrians are also beneficial to all active modes also.



## NATIONAL ACTIVE TRANSPORTATION STRATEGY

Announced in March 2021, Canada's National Active Transportation Strategy provides a merit-based Active Transportation Fund to support projects that improve active transportation infrastructure across Canada. The fund makes available \$400 million over five years to promote new and expanded active transportation networks, as well as active transportation planning and stakeholder engagement activities. The National Active Transportation Strategy framework has several components, including:

- **Awareness:** Raise public awareness about the benefits of active transportation and promote its use, including by launching an online website to share best practices, relevant government programs, and project success stories. Benefits are felt personally through enhanced safety, accessibility, health, and well-being, and felt communally by reducing traffic congestion, promoting job creation, and reducing carbon emissions and air pollution.
- **Coordination:** Coordinate active transportation investments that reflect best practice planning, design, regulations, and standards across levels of government, Indigenous communities, not-for-profit organizations, and the private sector.
- **Targets:** Support the adoption of targets and data collection while mobilizing existing data to inform an evidence-based approach to active transportation policy-making and investments.
- **Investments:** Guide the investment of the \$400 million fund and other incentives for active transportation projects, and identify areas for financial collaboration with other government departments, other levels of government, and other funders to support good projects in communities across the country.
- **Value:** Ensure that all active transportation investments and policies deliver social, economic, and environmental benefits, maximizing the value and benefit to all Canadians.
- **Experience:** Support active transportation as a positive experience, particularly for vulnerable communities, by promoting safe and accessible project designs and supporting connections between existing transportation, active transportation, or public transit networks.

Goals of the National Active Transportation Strategy include:

- Improve community connections and promote social equity amongst vulnerable Canadians.
- Make travel by active transportation easier, more convenient and enjoyable, and enhance user safety and security.
- Encourage people to choose active transportation over personal vehicles (including supporting walking and cycling to access transit.)
- Reduce GHG emissions in the transportation sector, supporting the goals of the Strengthened Climate Plan.
- Support the Canadian economy through a reduction in congestion, the creation of construction jobs and enhanced access via active transportation modes to businesses.





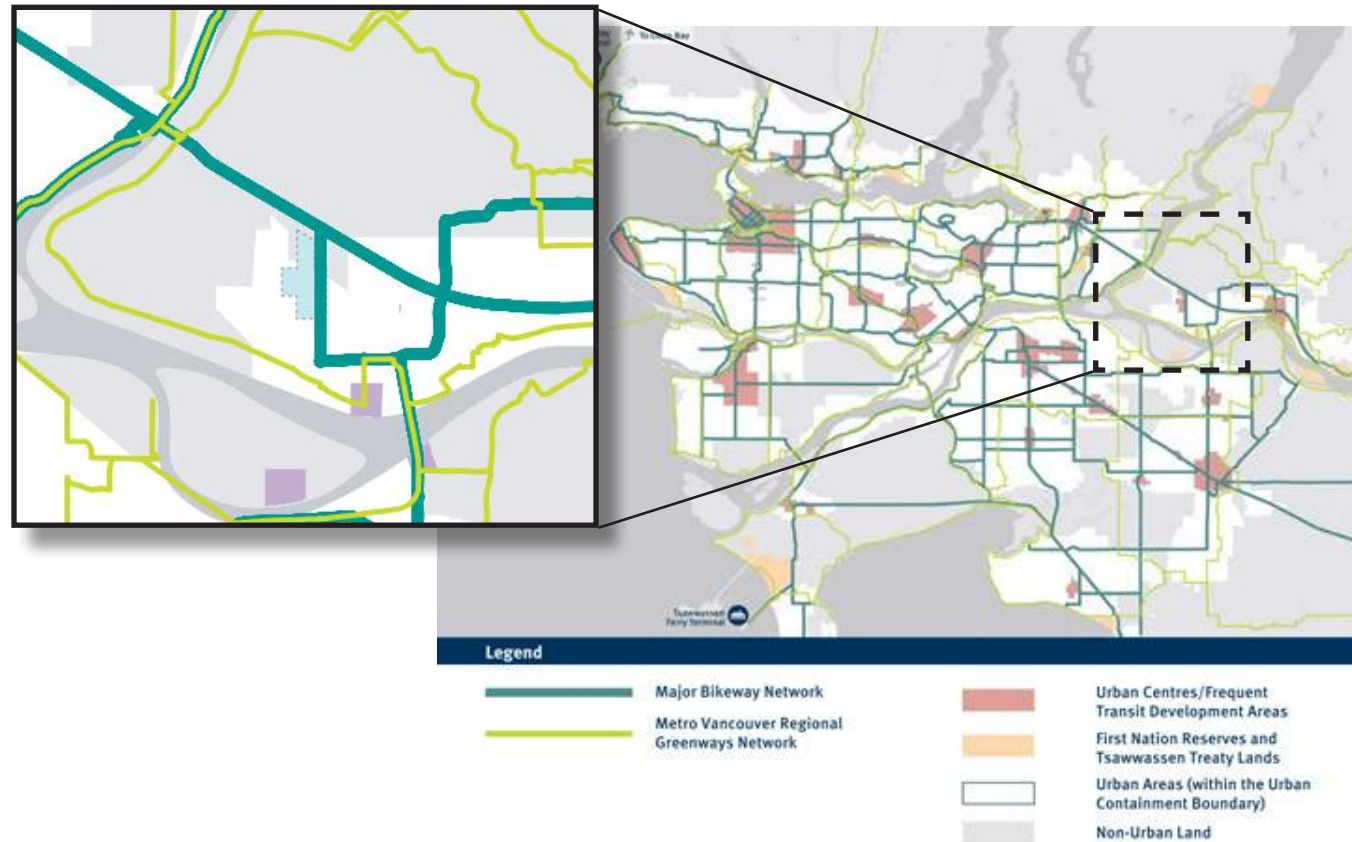
## TRANSPORT 2050 PLAN (TRANSLINK)

Supported by reports such as the Maple Ridge – Pitt Meadows Area Transport Plan, TransLink’s Transport 2050 Plan is a visionary document that establishes the region’s long-term transportation vision, overall goals, targets, policy direction, and investment priorities.

Major transportation investments outlined in the plan for the Pitt Meadows area include rapid transit expansion, additional West Coast Express service with capacity scaled to meet demand, and a Lougheed Corridor Long-Term Transit Study.

Transport 2050 outlines 10-year priorities for transit and shared mobility, streets, infrastructure and asset resilience, and technology. Stated priorities include bus stop improvements, transit exchange upgrades, station upgrades, station area and corridor planning. Priorities also include safer streets and expanded walking and bicycle networks, including implementing transformations of urban streets to reduce design vehicle speeds to 30 km/hr or slower, increase the physical separation of different modes and speeds, and improve the public realm to support more walking.

The Transport 2050 Regional Cycling Network is shown below and includes Lougheed Highway, Harris Road and Airport Way as part of the Major Bikeway Network intended as routes that are safe, comfortable and convenient.



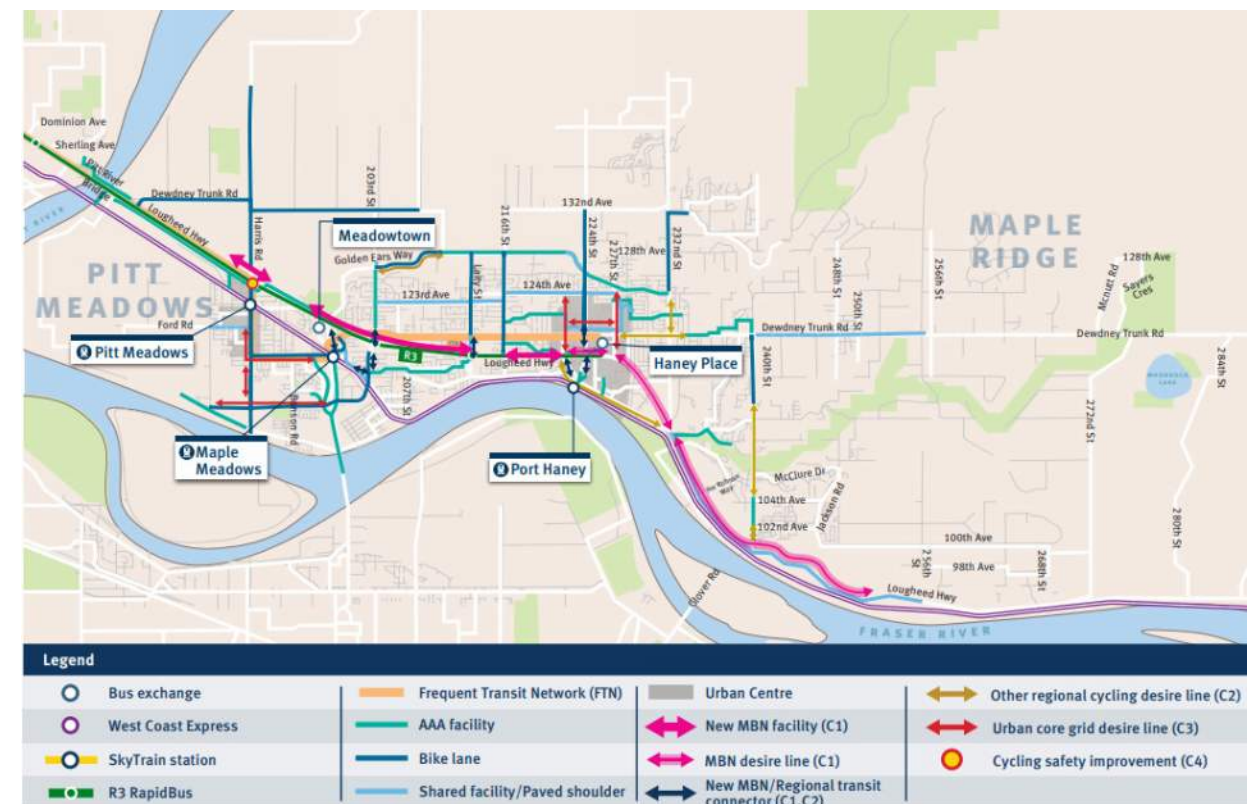
## MAPLE RIDGE – PITT MEADOWS AREA TRANSPORT PLAN (TRANSLINK)

The TransLink Maple Ridge - Pitt Meadows Area Transport Plan published in May 2021 establishes a ‘blueprint’ for how resources can be allocated over the next ten to fifteen years to improve transit and transportation in the sub-region in a way that is responsive to local needs and consistent with regional objectives as outlines in Metro Vancouver’s Regional Growth Strategy.

The plan identifies several gaps in the existing pedestrian and cycling networks, including opportunity to address gaps in the multi-use pathway along Lougheed Highway, limited pedestrian crossing opportunities along Lougheed Highway and Dewdney Trunk Road, opportunities for expanded bicycle parking at transit exchanges, improving cycling connections from Pitt Meadows through the Mary Hill Bypass, and potential future separated bike lanes. The plan also identifies Harris Road and Hammond Road and Airport Way as core grid desire lines, being the only roadways that connect north-south and east-west.

The Area Transport Plan includes five strategies and related recommended actions for transit service:

1. Expanded transit service frequency, span, and days of operation;
2. More direct and functional transit routes via bus routing changes;
3. Improve transit speed and reliability by developing, funding, and delivering expanded bus priority lanes;
4. Connect to regional destinations by implementing new routes; and,
5. Improve access to the transit system, including improving amenities at stations, stops, and stations.







Pitt River Bridge Multi-Use Pathway

## 2. COMMUNITY PROFILE

### 2.1. LOCATION

The City of Pitt Meadows is located at the confluence of the Fraser and Pitt Rivers with the City of Maple Ridge bordering its eastern boundary and ḱíçəy̓ (Katzie) First Nation located at the southeast end of the City.

The rivers on the west and south sides are crossed via the Pitt River Bridge that connects to Port Coquitlam in the west and the Golder Ears Bridge that connects to the Township of Langley in the south. Both have separate active modes pathways. For travel east to Maple Ridge, there are several possible roadways providing access along the eastern boundary.

### 2.2. LAND USE

The urban core of the City lies on what is often referred to as the Highlands and covers an area of a few square kilometres, this is surrounded by the lowlands, a primarily rural agricultural land. Most amenities are located within the urban core, but there is an airport located in the lowlands and the rural area provides valuable recreational opportunities via the rivers and associated dike trail system.

### 2.3. DEMOGRAPHICS

#### 2.3.1. OVERVIEW

Community demographics describe the community the plan must serve and provide insight into how the community compares with others. This section provides a summary of key demographics in the City of Pitt Meadows that relate to the community or how they travel.



### 2.3.2. POPULATION AND DWELLINGS

There were 19,146 residents in the City of Pitt Meadows in the 2021 Canadian Census. The population grew 3.1% since 2016, less than the regional average of 7.3% for Greater Vancouver and 7.6% for British Columbia.

The City occupies 86.3 square kilometres and has a population density of 221.7 people per square kilometre, much less than the 918 people per square kilometre average in Greater Vancouver, and much more than the 5 people per square kilometre average for British Columbia. However, the urban core of the City likely has similar densities to that of Greater Vancouver, with much lower densities in the rural agricultural areas.

There are 7,404 private dwellings with an average household size of 2.6 people per household, which is slightly greater than the Greater Vancouver and provincial average of 2.5.

The age profile in Pitt Meadows is shown in Table 2.1. It demonstrates that the City of Pitt Meadows has a higher percentage of young people under the age of 20 than the region or province, an age group that could be more reliant on active transportation to get around, and possibly indicative of young families moving east where homes are somewhat more affordable. Conversely, the City has a lower percentage of people between 20 and 39, possibly as this age group tends to be more mobile and may accept smaller accommodation sizes elsewhere. Of those of retirement age, the City has generally slightly more than the regional average but less than the provincial average. Again, as people age, the automobile isn't always a feasible option for some, and making it safer and easier to get around by active modes can support people aging in place.

Since 2016, the City appears to be aging with the percentage of young people reducing or staying around the same, while the percentage of older people is increasing faster than the regional or provincial average.

**Table 2.1: 2016 and 2021 Census Population of Age**

| AGE GROUP | PITT MEADOWS |       | GREATER VANCOUVER |       | BRITISH COLUMBIA |       |
|-----------|--------------|-------|-------------------|-------|------------------|-------|
|           | 2016         | 2021  | 2016              | 2021  | 2016             | 2021  |
| 0-19      | 22.8%        | 22.2% | 20.5%             | 19.3% | 20.5%            | 19.4% |
| 20-29     | 11.0%        | 9.9%  | 14.1%             | 14.2% | 12.7%            | 12.6% |
| 30-39     | 13.0%        | 13.4% | 14.2%             | 15.5% | 13.1%            | 14.2% |
| 40-49     | 14.3%        | 13.6% | 14.3%             | 13.3% | 13.2%            | 12.6% |
| 50-59     | 16.9%        | 15.0% | 15.0%             | 13.9% | 15.2%            | 13.7% |
| 60-69     | 11.6%        | 13.5% | 11.5%             | 11.8% | 13.2%            | 13.5% |
| 70-79     | 6.9%         | 8.4%  | 6.3%              | 7.6%  | 7.4%             | 9.1%  |
| 80+       | 3.4%         | 4.1%  | 4.1%              | 4.4%  | 4.6%             | 4.9%  |

### 2.3.3. INCOME

Income can be one indicator of people's transportation needs with those on lower incomes being more reliant on active transportation and transit. In Pitt Meadows, those on lower incomes could include the unemployed, underemployed, retired, or in low-income employment. Based on the 2016 Census, the median total income in Pitt Meadows is \$37,819, higher than the provincial average of \$33,012. In the 2021 Census, the median total income in Pitt Meadows was \$46,800, still higher than the provincial average of \$40,800.

Table 2.2 provides total income by band. A living wage in Metro Vancouver was defined as \$20.52/hour in 2021 and is now \$24.08 in 2022 ([livingwageforfamilies.ca](http://livingwageforfamilies.ca)). For a 35-hour work week this equates to an annual salary of \$43,825. Approximately 47% of people in Pitt Meadows declared they earn less than a living wage, compared with approximately 52% for the province, which would indicate that there is a smaller proportion of people of low income in Electoral Area G.

With the aging population, it is possible that many of those declaring a lower income are retired and have lower expenses than the average Canadian. Still, with auto ownership often consuming a large part of available income, reducing people's need to travel by motor vehicle can support improved livability, regardless of a person's circumstances.

**Table 2.2: 2016 and 2021 Census Income Bands**

| INCOME               | PITT MEADOWS |       | GREATER VANCOUVER |       | BRITISH COLUMBIA |       |
|----------------------|--------------|-------|-------------------|-------|------------------|-------|
|                      | 2016         | 2021  | 2016              | 2021  | 2016             | 2021  |
| Under \$10,000       | 12.7%        | 8.0%  | 17.1%             | 10.6% | 15.4%            | 9.5%  |
| \$10,000 to \$19,999 | 14.7%        | 10.0% | 17.5%             | 11.5% | 17.5%            | 11.6% |
| \$20,000 to \$29,999 | 12.1%        | 13.0% | 12.6%             | 15.1% | 13.5%            | 15.4% |
| \$30,000 to \$39,999 | 10.8%        | 11.8% | 10.7%             | 12.0% | 11.4%            | 12.7% |
| \$40,000 to \$49,999 | 10.3%        | 10.7% | 9.5%              | 10.3% | 9.8%             | 10.8% |
| \$50,000 to \$59,999 | 9.0%         | 9.4%  | 7.6%              | 8.6%  | 7.7%             | 8.9%  |
| \$60,000 to \$69,999 | 7.4%         | 8.0%  | 5.9%              | 6.8%  | 6.0%             | 7.0%  |
| \$70,000 to \$79,999 | 5.9%         | 6.5%  | 4.5%              | 5.4%  | 4.6%             | 5.4%  |
| \$80,000 to \$89,999 | 5.0%         | 5.4%  | 3.6%              | 4.2%  | 3.6%             | 4.2%  |
| \$90,000 to \$99,999 | 3.1%         | 4.5%  | 2.6%              | 3.4%  | 2.6%             | 3.3%  |
| \$100,000 and over   | 8.9%         | 12.9% | 8.6%              | 12.1% | 7.9%             | 11.1% |



## 2.4. TRIP MODE SHARE

Existing mode share is an indicator of the existing infrastructure for active transportation, but is also subject to land use and as we've seen in the last years during the COVID-19 pandemic new work from home patterns. Compact mixed-use development has greater potential for shorter active trips than more rural areas. In Pitt Meadows, the overall land area within the urban core is relatively small and reasonably flat meaning internal trips can be made quite easily by active modes if there are safe routes, particularly with the increasing popularity of electric micro-mobility modes.

In the Lower Mainland there are two sources of trip data, the Canadian Census and the TransLink Trip Diary. Table 2.3 provides a breakdown of the 2016 and 2021 Census mode share for travel to work. It shows that Pitt Meadows has a higher percentage of car drivers than the Greater Vancouver and British Columbia average, and subsequently lower percentages of people travel on foot, by bicycle or by bus.

The release of the 2021 Census data has provided some intriguing insights into the effects of COVID-19 on peoples travel habits. With less preference to be in close proximity to other people we see more people driving and less taking transit which is consistent trend in Pitt Meadows, Greater Vancouver and British Columbia as a whole. Trips to work on foot declined slightly in all three geographic areas, but Pitt Meadows actually bucked the trend of lower bicycle trips between 2016 and 2021, increasing by 50%, albeit from a relatively low baseline, but this is very different than the trends in the region and the province as a whole.

Considering the number of commuters, there were 7,790 commuters in Pitt Meadows with a regular place of work in 2021, down considerably from 9,390 in 2016, thus 1,600 fewer commuters in 2021. Related to this, the number of people working from home in Pitt Meadows increased from 635 in 2016 to 2,160 in 2021, or 1,525 people no longer commuting.

**Table 2.3: 2016 and 2021 Census Mode Share to Work**

| MODE             | PITT MEADOWS |       | GREATER VANCOUVER |       | BRITISH COLUMBIA |       |
|------------------|--------------|-------|-------------------|-------|------------------|-------|
|                  | 2016         | 2021  | 2016              | 2021  | 2016             | 2021  |
| Car as driver    | 78.5%        | 82.9% | 64.3%             | 68.1% | 70.5%            | 73.5% |
| Car as passenger | 4.7%         | 5.3%  | 5.0%              | 6.6%  | 5.5%             | 6.5%  |
| Transit          | 11.5%        | 5.5%  | 20.4%             | 14.9% | 13.1%            | 9.3%  |
| Walk             | 3.4%         | 3.3%  | 6.7%              | 6.4%  | 6.8%             | 6.5%  |
| Bicycle          | 0.6%         | 0.9%  | 2.3%              | 1.9%  | 2.5%             | 2.0%  |
| Other            | 1.2%         | 2.1%  | 1.2%              | 2.1%  | 1.7%             | 2.3%  |

The 2017 TransLink trip diary also provides mode share data but for all trips by a household over the survey period, this includes trips for escorting, to grade school, for shopping or personal business, social, recreation or dining, work or university or to home. When all trips are considered people in Pitt Meadows appear to make fewer single occupancy vehicle trips, likely as a result of social trip purposes being more family orientated than commute trips. However these trips also appear less likely to be made by transit or cycling, possibly due to convenience and the benefits of the car for multi-person trips. Walking does increase when all trips are included which could be due to grade school trips and people walking for social, recreation and dining trip purposes which in the urban core can easily be made on foot for many.

**Table 2.4: 2017 TransLink Trip Diary Mode Share for all Trips**

| MODE             | PITT MEADOWS | GREATER VANCOUVER |
|------------------|--------------|-------------------|
| Car as driver    | 70.0%        | 55.3%             |
| Car as passenger | 18.8%        | 16.6%             |
| Transit          | 4.3%         | 11.6%             |
| Walk             | 6.8%         | 13.9%             |
| Bicycle          | 0.0%         | 1.6%              |

In terms of active modes, cycling is the most under represented which could be a combination of factors. Possible reasons include the small urban core being accessible on foot, the lack of dedicated cycling infrastructure generally within the City and also the lack of safe routes for trips outside of the City.

## 2.5. TRIP LENGTH

Short trips have the greatest potential for conversion to active transportation. Table 2.5 shows that in the 2021 Census, Pitt Meadows residents had a lower percentage of trips under 15 minutes and under 30 minutes compared with the provincial average, but short trips did increase from 2016, likely as a result of those with long commutes opting to work from home if they could. These shorter trips have a greater likelihood of being converted to active modes if safe connections are provided.

**Table 2.5: 2016 and 2021 Census Commute Duration**

| DURATION             | PITT MEADOWS |       | GREATER VANCOUVER |       | BRITISH COLUMBIA |       |
|----------------------|--------------|-------|-------------------|-------|------------------|-------|
|                      | 2016         | 2021  | 2016              | 2021  | 2016             | 2021  |
| Less than 15 minutes | 21.6%        | 24.1% | 17.9%             | 20.7% | 28.8%            | 31.8% |
| 15 to 29 minutes     | 27.7%        | 31.1% | 32.4%             | 34.9% | 32.9%            | 34.0% |
| 30 to 44 minutes     | 22.0%        | 24.8% | 26.4%             | 26.4% | 20.3%            | 19.7% |
| 45 to 59 minutes     | 12.4%        | 10.5% | 12.0%             | 9.9%  | 8.8%             | 7.3%  |
| 60 minutes and over  | 16.3%        | 9.6%  | 11.2%             | 8.2%  | 9.1%             | 7.2%  |



## 2.6. TRIP ORIGINS AND DESTINATIONS

There were 7,910 Pitt Meadows residents that commuted to a usual place of work in the 2016 Census broken out as shown in Table 2.6. With the correct infrastructure in place, it is possible that those some of those commutes that remain within Pitt Meadows (14.9%) or adjacent municipalities of Maple Ridge (14.3%), Port Coquitlam (10.7%) or Langley Township (2%) could be made by active modes.

**Table 2.6: 2016 Census Residents Commute Destinations**

| COMMUTE DESTINATION      | TRIPS | PERCENTAGE TRIPS |
|--------------------------|-------|------------------|
| Pitt Meadows, CY         | 1180  | 14.9%            |
| Maple Ridge, CY          | 1130  | 14.3%            |
| Vancouver, CY            | 1100  | 13.9%            |
| Coquitlam, CY            | 900   | 11.4%            |
| Burnaby, CY              | 875   | 11.1%            |
| Port Coquitlam, CY       | 850   | 10.7%            |
| Surrey, CY               | 555   | 7.0%             |
| New Westminster, CY      | 295   | 3.7%             |
| Richmond, CY             | 170   | 2.1%             |
| Langley, DM              | 155   | 2.0%             |
| Port Moody, CY           | 155   | 2.0%             |
| Abbotsford, CY           | 135   | 1.7%             |
| Delta, DM                | 105   | 1.3%             |
| North Vancouver, DM      | 80    | 1.0%             |
| North Vancouver, CY      | 75    | 0.9%             |
| Mission, DM              | 60    | 0.8%             |
| Langley, CY              | 60    | 0.8%             |
| Greater Vancouver A, RDA | 30    | 0.4%             |

This page is intentionally blank

There were 4,490 people employed in Pitt Meadows with a usual place of work in the 2016 Census (Table 2.7). The same 1,180 people noted above represent 26.3% of employees. Most employees in the City, however, actually commute in from Maple Ridge (39.3%) while there are 7.7% from the adjacent municipalities of Port Coquitlam and 1.9% from Langley Township. Some of these trips from these adjacent municipalities could feasibly be made by active transportation if safe connections were available.

**Table 2.7: 2016 Census Employee Commute Origins**

| COMMUTE ORIGIN      | TRIPS | PERCENTAGE TRIPS |
|---------------------|-------|------------------|
| Maple Ridge, CY     | 1765  | 39.3%            |
| Pitt Meadows, CY    | 1180  | 26.3%            |
| Port Coquitlam, CY  | 345   | 7.7%             |
| Coquitlam, CY       | 335   | 7.5%             |
| Surrey, CY          | 280   | 6.2%             |
| Mission, DM         | 165   | 3.7%             |
| Abbotsford, CY      | 95    | 2.1%             |
| Langley, DM         | 85    | 1.9%             |
| Vancouver, CY       | 85    | 1.9%             |
| Burnaby, CY         | 50    | 1.1%             |
| New Westminster, CY | 45    | 1.0%             |
| Port Moody, CY      | 40    | 0.9%             |
| Delta, DM           | 20    | 0.4%             |





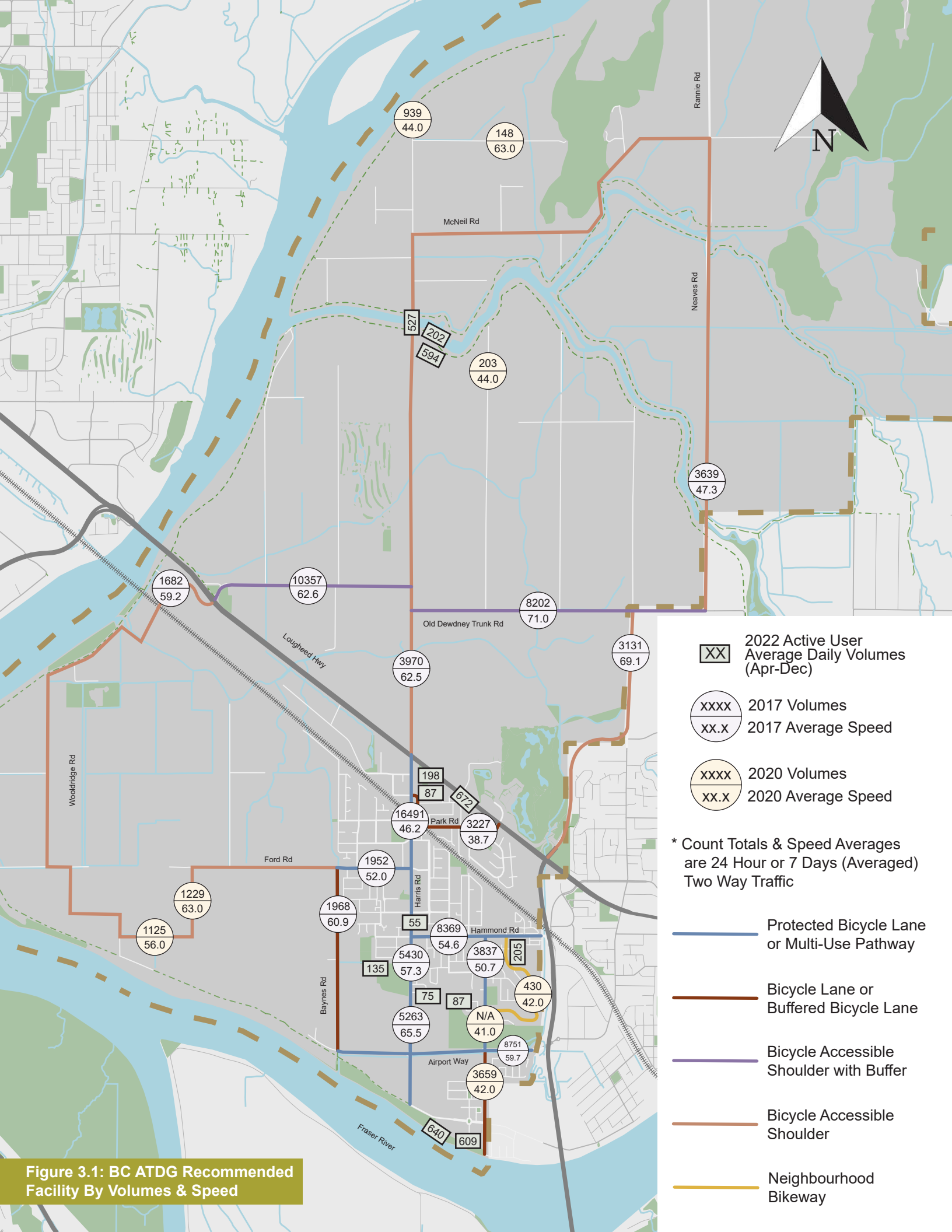
Ford Road Painted Bike Lane in the Vehicle Door Zone

## 3. EXISTING CONDITIONS

### 3.1. OVERVIEW

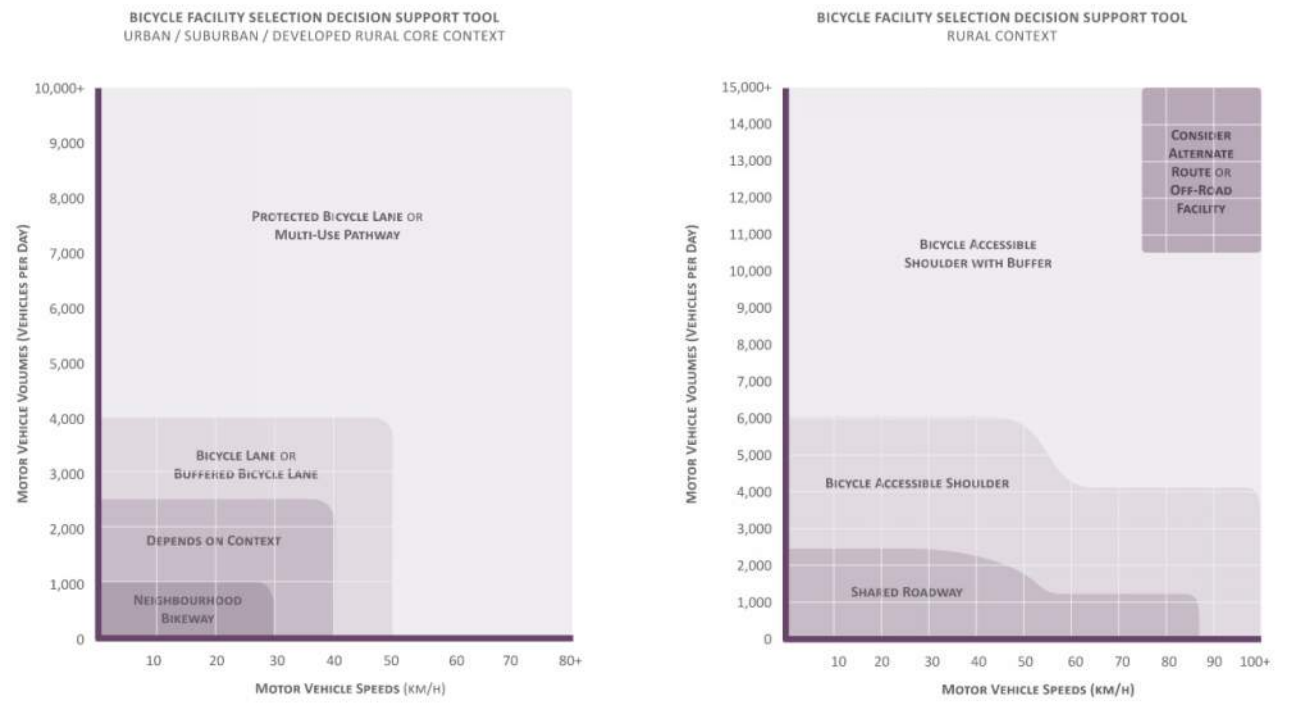
The City of Pitt Meadows is located at the confluence of the Fraser and Pitt Rivers and reliant on the Golden Ears Bridge to the south and Pitt River Bridge to the west for access to neighbouring communities. To the north there is little in the way of origins or destinations, but the dike system and Pitt Lake are two attractions. The City of Maple Ridge lies to the east with several possible routes to and from.





### 3.2. VEHICLE VOLUMES AND SPEEDS

The BC Active Transportation Design Guide (2019 Edition) provides guidance on the selection of bicycle facilities. Safety is prioritized over existing active user volumes in decision criteria for determining appropriate bicycle facilities and is expressed as a function of adjacent roadways' motor vehicle speeds and volumes. These are shown below for both rural and urban contexts.



The City was able to provide motor vehicle speeds and volumes collected on key roadways in 2017 and 2020 to support the determination of suitable facility types, and the following conclusions were drawn:

- Roadways where protected or buffered facilities are recommended are Harris Road (south of Loughheed Highway), Hammond Road, Airport Way, Baynes Road, Bonson Road, and Park Road.
- Roadways where a bicycle accessible shoulder is acceptable are Ford Road (rural section), Wooldridge Road, Kennedy Road, Old Dewdney Trunk Road (Requires Buffer), Harris Road (north of Loughheed Highway), McNeil Road, and Neaves Road. Note that while acceptable for rural contexts it does not enable access for all ages and abilities.
- Only Wildwood Crescent was identified as being suitable for a neighbourhood bikeway; albeit, few counts were available on streets typically suitable for such facilities.

Figure 3.1 also includes information regarding active user volumes along several roadways and off-street pathways. Although this information highlights existing travel patterns, it is not a useful measure of where improvements to the future all ages and abilities (AAA) active transportation network should be prioritized. This is because existing travel patterns are influenced by both the quality and location of available infrastructure, as well as the overall connectiveness of the existing network. Although it is difficult to predict future travel patterns once improvements have been implemented, the intention of providing a AAA network is that more users will be attracted and choose to travel by active modes. This supports the implementation of several visionary plans:

- City OCP: Objective 9.3: Design an Environment Where People are Less Dependent on Automobiles;
- City OCP: Objective 9.4: Create a Safe, Beautiful, and Accessible Walking and Cycling Environment;
- TransLink: *Transport 2050 Regional Transportation Strategy*
- Metro Vancouver Regional District: *Metro 2050 Regional Growth Strategy*
- Provincial Government: *Active Transportation Strategy: Move, Commute, Connect*
- Federal Government: *Active Transportation Strategy: In Motion*





### 3.2. ACTIVE MODES COLLISIONS

There have been a number of fatal collisions in the city involving active modes which are highlighted by several ghost bikes left as memorials to those people killed while riding their bikes in the City. It is important to acknowledge these unfortunate events and work to prevent further deaths through safe active modes planning and infrastructure design.

In the years 2016 through 2020, there have been 23 collisions between motor vehicles and pedestrians in Pitt Meadows. The majority of these incidents have occurred within the Highlands, particularly along Harris Road. The intersections of Harris Road & Ford Road, Harris Road & McMyn Road, and Harris Road & 122 Avenue have the highest incidence of collisions at five, four, and three collisions during this time frame, respectively.

Legend:

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4 Collisions
- 5 Collisions

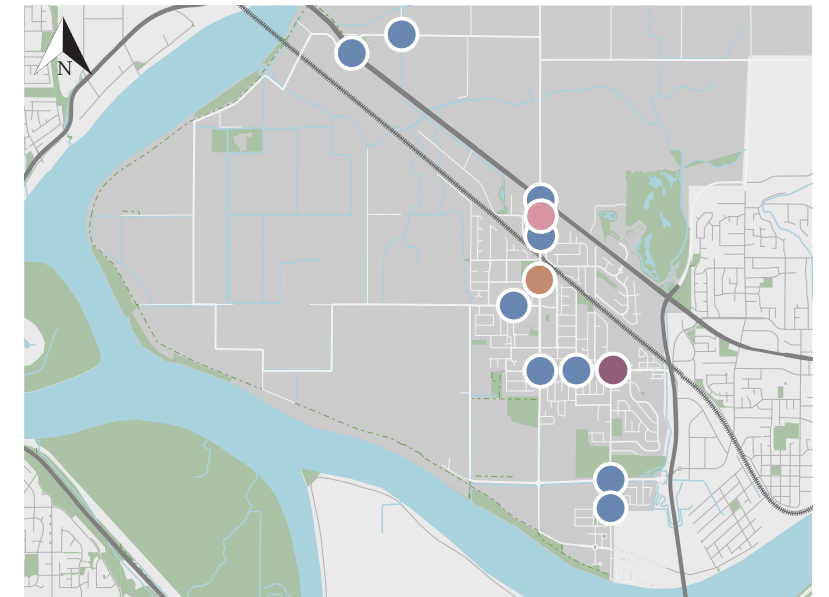


Figure 3.3: Pedestrian Collision Map (ICBC, 2016 - 2020)

In the years 2016 through 2020, there have been 11 collisions between motor vehicles and those on bicycles in Pitt Meadows. The majority of these incidents have occurred within the Highlands, particularly along Harris Road. The intersections of Harris Road & Lougheed Highway, Harris Road & Ford Road, and Harris Road & Airport Way have the highest incidence of collisions at two collisions during this time frame each.

Legend:

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4 Collisions
- 5 Collisions

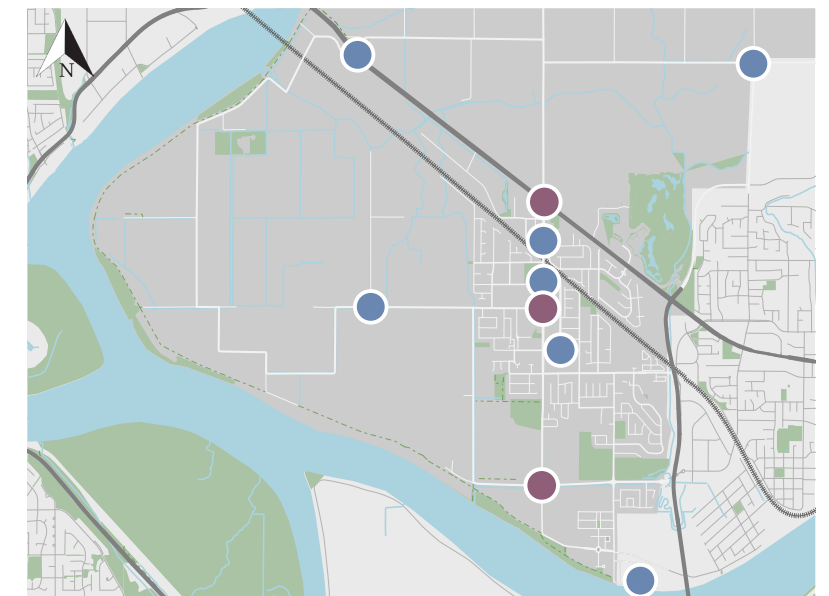


Figure 3.4: Cyclist Collision Map (ICBC, 2016 - 2020)





Signalized Crosswalk at Harris Road and Hammond Road Intersection

### 3.3. EXISTING PEDESTRIAN NETWORK

#### 3.3.1. WHO WE ARE DESIGNING FOR

The active transportation plan considers pedestrians of all abilities and the different needs they may have. The design user could be any of the following:

- **Able Bodied:** Able-bodied pedestrians can generally negotiate most conditions but still prefer to be safely separated from vehicles and ideally cyclists and other micro-mobility devices.
- **Physically Disabled:** Physical disabilities can vary but this plan generally refers to those using a wheelchair or mobility scooter for transportation. Being often lower down, visibility can be an issue, separation is often preferred, appropriate curb ramps and building access is essential, while steep slopes may be problematic for those using their own power. Good signing and wayfinding is also important, including braille and tactile warning devices. Crossings can include audible sounds to indicate activation.
- **Elderly and/or Infirm:** The elderly or infirm benefit from the same measures as the physically disabled, and may suffer some physical or cognitive decline, avoidance of steep slopes may be preferable or where possible landings at regular intervals with places to rest are often valued. If such landings can incorporate shade, this also helps provide weather protection.
- **Children:** Children are often less aware and less predictable as they move along the road, often not appreciating the danger posed by other modes. Where children are likely to be present (i.e. schools or parks), more emphasis should be placed on separate pedestrian facilities or traffic calming to reduce the likelihood and severity of a collision.

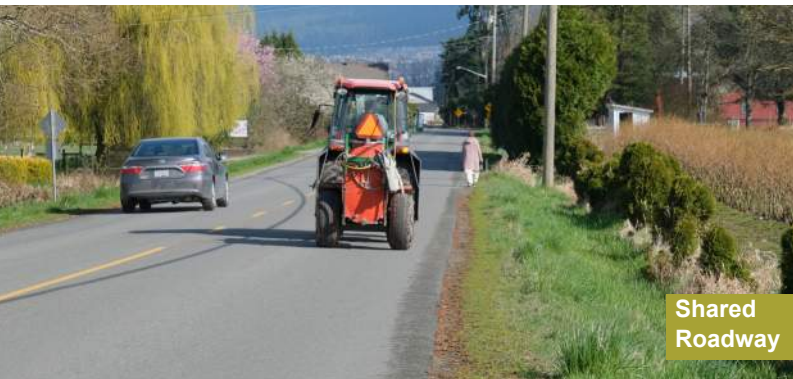




Sidewalk with Tree Boulevard



Marked Crosswalk



Shared Roadway



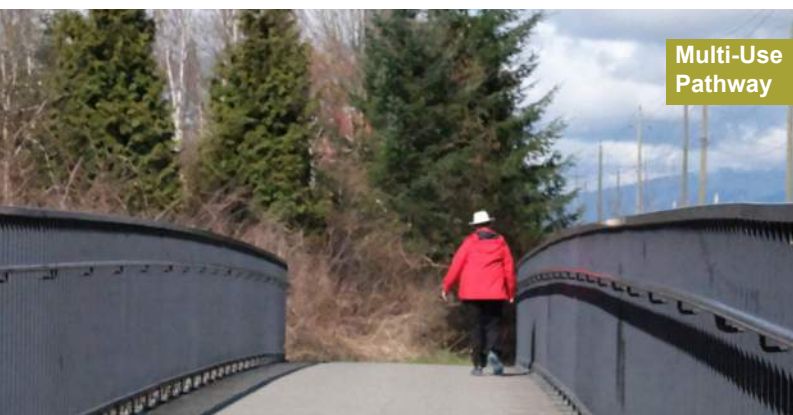
Stop Controlled Intersection



Unpaved Trail



Roundabout Crossing



Multi-Use Pathway



Signal Controlled Intersection



Rural Shoulder



### 3.3.2. PEDESTRIAN FACILITY TYPES

Five different facility types exist for pedestrians in Pitt Meadows, with higher quality facilities being more present in the urban core. Facility types include:

- **Sidewalks:** Sidewalks are comfortable for most and are common throughout the urban core, becoming less common in the rural parts of the city. They are generally suitable for all ages and abilities, but subject to their design, they can present accessibility challenges if curb ramps are designed or placed incorrectly and if there are obstructions that restrict the width, a common requirement is space for two wheelchairs to pass.
- **Multi-Use Pathways:** There are a few paved multi-use pathways which provide safe and comfortable connections separate from traffic for people walking and using various forms of micro-mobility device. They are suitable for all ages and abilities, however subject to volumes of people and the modes they use, there can be conflicts between those walking and rolling, particularly as electrically assisted devices become more common. Pedestrians often feel more vulnerable on such facilities as those rolling often travel at higher speeds.
- **Shared Roadway:** Many rural roads in the study area do not provide any pedestrian provision and while pedestrian volumes may be low, some do utilize these roadways on foot, either walking on the roadway, or the grass or gravel adjacent.
- **Bicycle Accessible Shoulders:** Bicycle accessible shoulders are intended primarily for people cycling, given that they are generally provided on rural roads and cover larger distances. On some roads in Pitt Meadows, however, they are also utilized by pedestrians.
- **Unpaved Trails:** Unpaved trails, particularly the dike system provides many kilometres of pathway for use by those walking and rolling via various forms of micro-mobility device. They tend to be viewed as a recreational facility and for the most part that is how the dike system is used in the City. Due to the gravel surface, unpaved trails are not suitable for all ages and abilities, given some devices or those with mobility challenges may find them difficult to walk on, the weather may result in surface deterioration, and the lack of lighting after dark may limit use to those less concerned about personal safety. Like multi-use pathways, sharing such facilities with those rolling at higher speeds can be uncomfortable for pedestrians.

### 3.3.3. PEDESTRIAN CROSSING FACILITY TYPES

Crosswalks provide priority and increase safety for people to cross the road. There are four types of roadway crossing in Pitt Meadows:

- **Marked Crosswalk:** These crosswalks feature zebra markings and crosswalk signage. Several marked crosswalks are accompanied by conventional or Rapid Rectangular Flashing Beacons (RRFB) to increase the visibility of pedestrians and improve driver compliance.
- **Stop Controlled Intersection Crosswalk:** At stop-controlled intersections, crosswalks are often marked with parallel white lines. Pedestrians have priority over vehicles even where crosswalk markings are not present.
- **Signalized Crossing:** There are many signalized intersections in the City that feature push-button crosswalk activation. In most cases, pedestrians walk with traffic and thus encounter conflicts with left or right turning traffic, unless otherwise separated through signal phasing.
- **Unmarked Crossing:** All intersections permit pedestrians to cross the road, regardless of the presence of any crosswalk marking, and pedestrians always have priority over motor vehicles.



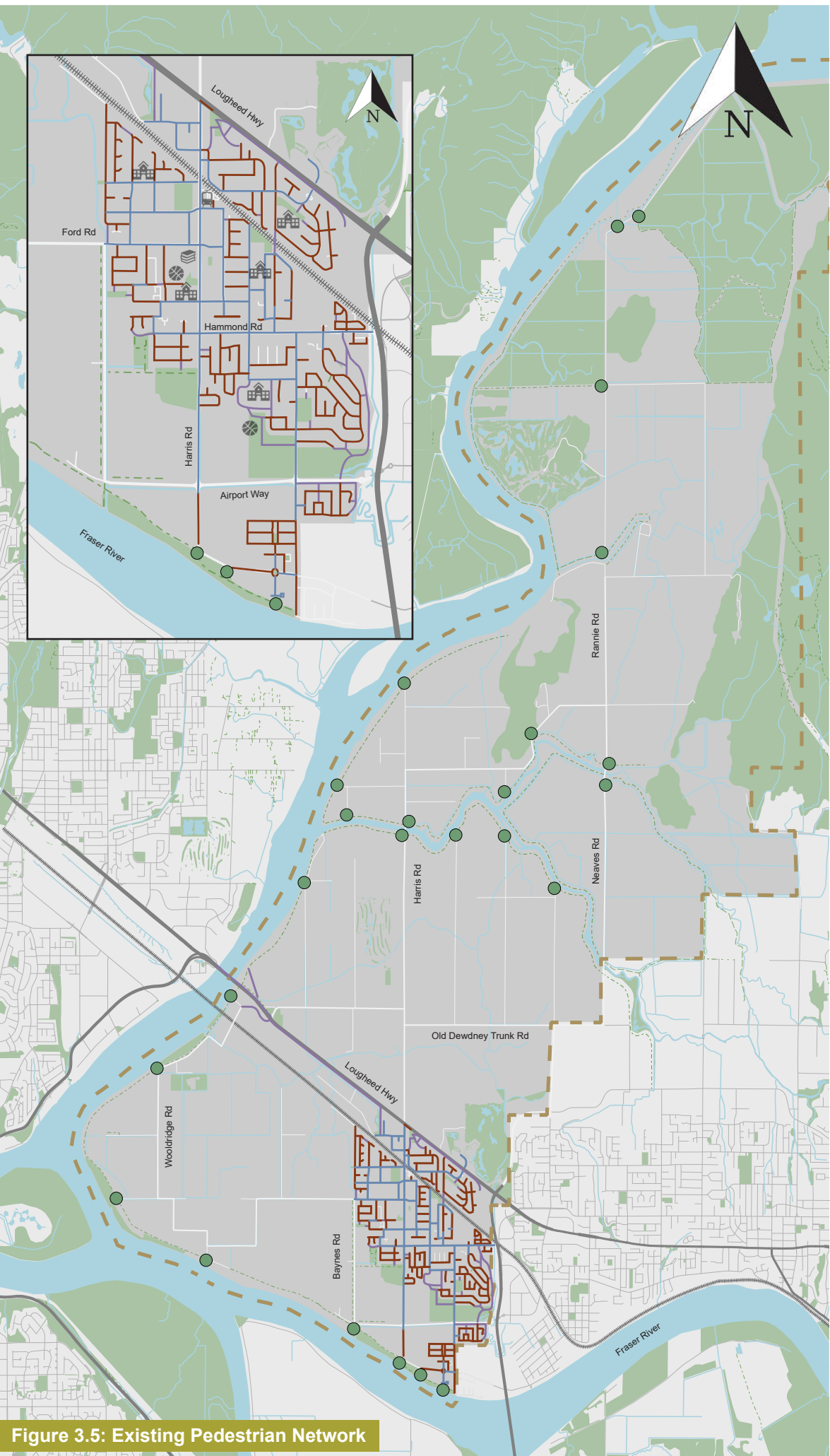


Figure 3.5: Existing Pedestrian Network

### 3.3.4. PEDESTRIAN NETWORK

The pedestrian network is well established in the urban core of the community with sidewalks typically on both sides on all major roadways and at least one side on most local streets.

There are a few paved multi-use trails including the Lougheed Highway trail, the Wildwood Trail and the Trans-Canada Trail south of Airport Way. In most cases most paved trail are unlit with the exception of Harris Road Park, but lighting is only activated via a push button and turns off after 10pm.

There are a few unpaved trails in the urban core, including the Airport Trail, Parkside Trail, and various trails through parks. These trails are unlit and the Parkside Trail also has steep grades relative to the others.

In the rural areas of the City, typically north of Lougheed Highway or west of Baynes Road, there are limited facilities on roadways and pedestrians generally share the roadway with motor vehicles or use a paved (bicycle accessible) or unpaved shoulder. The dike trail network is extensive in the rural areas but primarily used for recreational purposes, rather than as a transportation corridor.

Crosswalks are present at signalized intersections on major roadways and strategically located at mid-block locations to accommodate pedestrian desire lines. Mid-block crossings can be accompanied by conventional or Rapid Rectangular Flashing Beacons (RRFB) to increase the visibility of pedestrians and improve driver compliance.

The railway tracks are a major source of severance in the community which especially impacts pedestrians due to the time required to find a way across the tracks. Pedestrian may cross the railway via the dike trail underpass at the western extents of the City, at Kennedy Road and Harris Road grade crossings, via a pedestrian overpass at Bonson Road and via a grade crossing at Maple Meadows Way at the eastern border with Maple Ridge.





People Riding Bicycles for Recreation Along the Dike Trail



People Riding Bicycles for Exercise along Harris Road Painted Bike Lanes

### 3.4. EXISTING BICYCLE AND ROLLING NETWORK

#### 3.4.1. WHO ARE WE DESIGN FOR

The design user on a bicycle is typically categorized into four primary groups based on their level of comfort mixing with traffic. These are:

- **Strong and Fearless:** Strong and fearless cyclists will cycle anywhere on any facility type. The entire network is available to them and thus connectivity is good. They will often prefer to share with vehicles rather than pedestrians, preferring speed over safety. These people often represent the few percent already cycling as they are the only people that will cycle without safe infrastructure.
- **Confident and Enthused:** The confident and enthused cyclist will also be prepared to use most facility types, but would prefer not to share the road with vehicles, potentially seeking alternative safer routes if available. Major roads with painted bicycle lanes may be OK, but where vehicle speeds increase, the level of comfort greatly reduces.
- **Interested but Concerned:** The interested but concerned cyclist represents the latent demand for cycling if sufficiently safe routes and facilities can be provided. They want to cycle, but the risk to their safety is preventing them on all but the safest routes. They may be OK using local streets and separated facilities such as multi-use pathways but if such networks are limited in terms of connectivity to key origins and destinations, the demand will not be realized. Speed may be less of a priority for these cyclists.
- **No Way, No How:** These people are not cyclists and never will be. They often represent a relatively small percentage of the population. They will not cycle and that is OK. A transportation network must work for everyone including those that wish to cycle and those that don't.

#### 3.4.2. BICYCLE OR ROLLING DESIGN VEHICLE

Bicycle infrastructure must consider a number of different bicycle types and in today's evolving micro-mobility world, bicycle infrastructure is often becoming mobility infrastructure. When thinking about the design user, many different vehicle options must be considered. Design vehicles may include:

- **Bicycles:** Bicycles come in many shapes and forms and all can be self-propelled "conventional" bicycles, may be electrically assisted, or may have throttle control. Some bicycle types include:
  - **Conventional Bicycles:** Used for over a century, the conventional bicycle comes in many shapes and forms. As it is self-propelled, the rider's physical ability will dictate speed on flat or uphill grades and comfort with speed on downhill grades. As people have varying levels of fitness, space to pass on any facility should be provided.
  - **Electric Bicycles:** Also available in many shapes or forms, electric bicycles enable users to maintain their speed with less effort, more so on flat or uphill grades and/or into a headwind. As most electrically assisted bicycles have a limited top assisted speed, they are little different from a conventional bicycle downhill if speeds typically exceed the assist limit. Because people on electric bicycles share space with those on conventional bicycles, the speed differential between users is increased, and space to pass becomes even more important.
- **Cargo Bicycles and Trailers:** Cargo bicycles can come in a few varieties. They may have a load area in the front or the back, the cargo component may be integrated into the bicycle between the wheels or may be a trailer pulled behind. These can be used for transporting cargo, but are also often used for transporting children too young to cycle themselves
- **Other Types of Bicycles:** Other types of bicycles that should be considered include recumbent bicycles that allow the user to sit back as if they are sitting in a chair. For this reason, they will be lower than someone using an upright bicycle, and this should be considered when reviewing sightlines for example. Tandem bicycles are longer than conventional bicycles, while tricycles are slightly wider than regular bicycles but often not much wider than the total space of rider and bicycle.
- **Other Wheeled Modes:** Other modes that should be considered include stand-up scooters, skateboards, rollerblades, and one-wheeled devices. These additional users emphasize the potential for different speed differentials possible on a facility. They don't require additional space over and above that required for bicycles; however, many feature smaller wheels and are more sensitive to poor surface conditions or larger control joints in the surface.

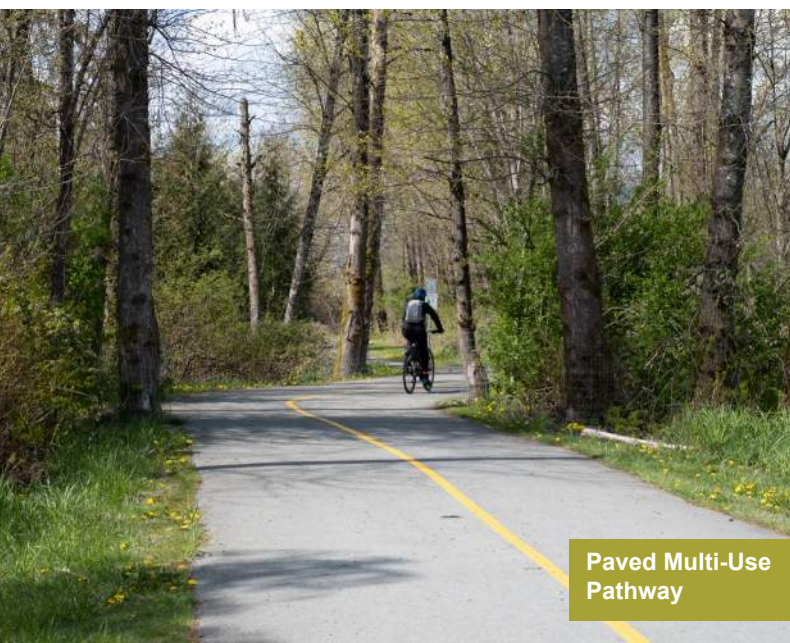




Painted Bike Lane  
(in the Door Zone)



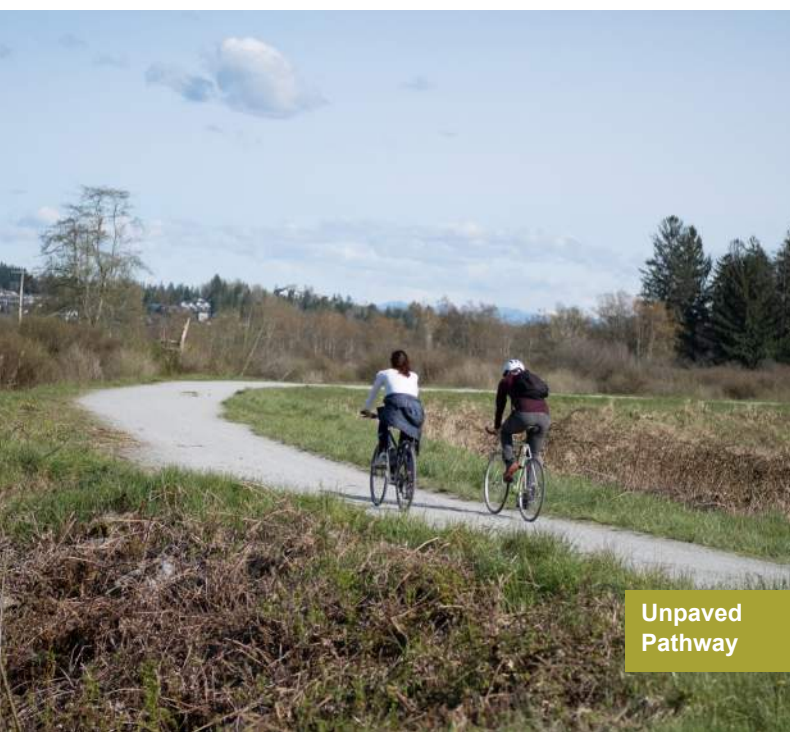
Bicycle Accessible  
Shoulder



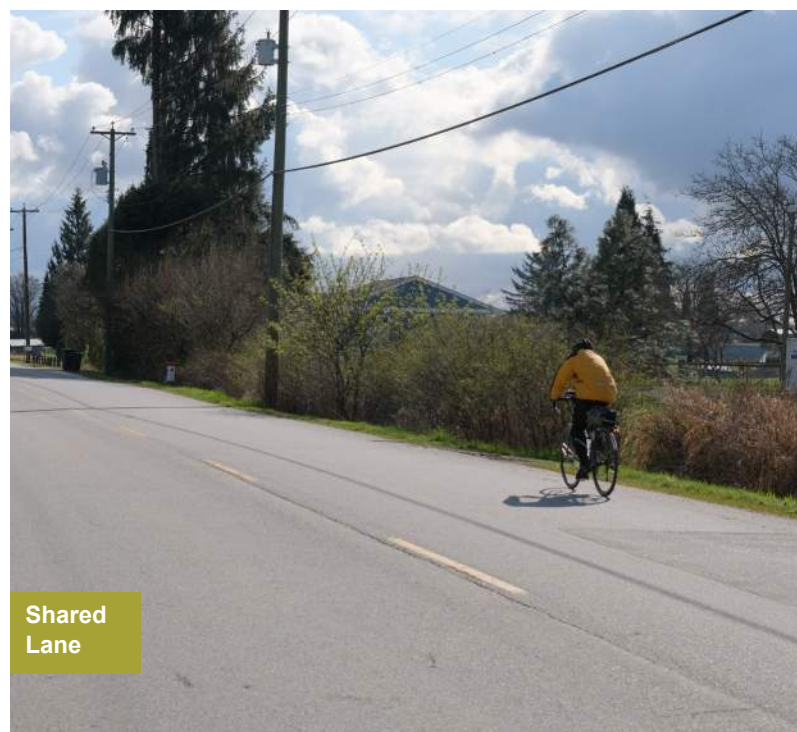
Paved Multi-Use  
Pathway



Neighbourhood  
Bikeway



Unpaved  
Pathway



Shared  
Lane

### 3.4.3. BICYCLE AND ROLLING FACILITY TYPES

There are six facility types in the City currently that people may use for riding bicycles and/or other micro-mobility devices as follows:

- **Painted Bike Lanes:** Painted bike lanes are provided on roadways typically between vehicle lanes and the curb or between vehicle lanes and a parking lane. These are both quite common in Pitt Meadows and at one time were considered as a suitable facility types for people on bicycles. Today they are not considered suitable for all ages and abilities as they do not offer sufficient safety to encourage more people to cycle for transportation. Particularly problematic in Pitt Meadows is the fact that the bicycle lanes adjacent to parking do not include a door zone buffer; therefore, anyone opening their car door without looking first could open their door into an oncoming cyclist, which could prove fatal.
- **Bicycle Accessible Shoulders:** Bicycle accessible shoulders are similar to painted bike lanes but are typically located on rural and often higher speed roadways. They are often legacy infrastructure or a lower cost alternative to a separated facility. Bicycle accessible shoulders provide several functions, such as reducing the consequences to motor vehicle drivers of driving out of the lane; this is particularly pronounced in Pitt Meadows where large drainage ditches are present. This facility also provides a place for those walking or riding a bicycle (hence bicycle accessible rather than bicycle exclusive.) Given that this facility type provides two conflicting functions, few people feel comfortable on bicycle accessible shoulders and, similar to painted bike lanes, they are not considered as a suitable bicycle facility type for all ages and abilities.
- **Neighbourhood Bikeways:** The City includes many streets designated as neighbourhood bikeways -- perhaps too many, as neighbourhood bikeways should be specially selected routes along local roadways that connect to destinations or protected facilities. Most existing neighbourhood bikeways include little to no traffic calming despite it typically being a key feature of these facilities in order to reduce vehicle volumes and speeds to a level that make roadways feel safe enough for active users to comfortably share with motor vehicles.
- **Paved Multi-Use Pathways:** There are a few paved multi-use pathways which provide safe and comfortable connections separate from traffic for people walking and using various forms of micro-mobility device. They are suitable for all ages and abilities; however, suitability is subject to user volumes and modes as there can be conflicts between those walking and rolling, particularly as electrically assisted devices become more common.
- **Unpaved Trails:** Unpaved trails, particularly the dike system provides many kilometres of pathway for use by those walking and rolling via various forms of micro-mobility device. They tend to be viewed as a recreational facility and for the most part that is how the dike systems is used in the City, but a small percentage of people do use this for transportation. Due to the gravel surface, unpaved trails are not suitable for all ages and abilities, given some devices or those with mobility challenges may find them difficult to walk on, the weather may result in surface deterioration, and the lack of lighting after dark may limit use to those less concerned about personal safety.
- **Shared lanes:** Finally, shared lanes refers to any other local street where someone walking or cycling has no other option but to use the vehicle lane. This would often be on roadways with no traffic calming and posted speeds above what is considered comfortable for sharing with motor vehicle traffic. This is also not an all ages and abilities facility type.

The City has to date been built out to historic standards for cycling which no longer meet current best practices for facility types that are suitable for all ages and abilities. Other facility types that would be considered suitable for all ages and abilities primarily include protected bike lanes, which could be uni-directional on each side of the roadway or bi-directional on one side of the roadway, and provided on-street between existing curbs if space is available or raised behind curbs if there is sufficient right-of-way. Furthermore, while the City does indicate several routes as neighbourhood bikeways, vehicle speeds and volumes along these routes are generally higher than levels comfortable for most users. To create facilities comfortable for all ages and abilities, some neighbourhood bikeways could be replaced with separated facilities. On other routes, it may be appropriate to better match road design with the posted speed limit; increased traffic calming, and a wider assortment of measures, could be considered to manage traffic volumes and speeds to a level comfortable for most users.



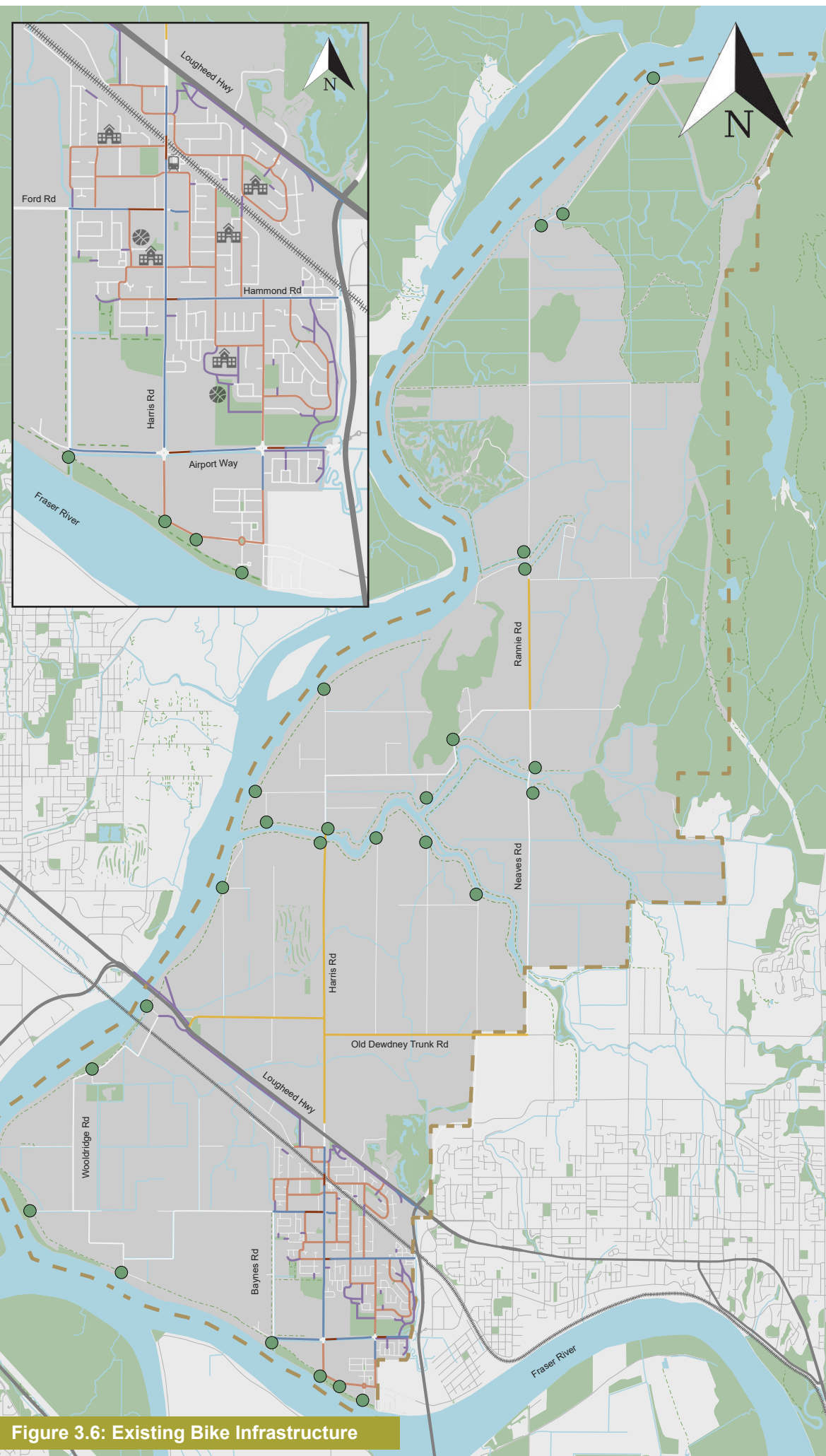


Figure 3.6: Existing Bike Infrastructure

### 3.4.4. EXISTING BICYCLE INFRASTRUCTURE

The six facility types which people may use for riding bicycles and/or other micro-mobility devices that currently exist in the City are primarily concentrated in the Highlands, with more rural areas of Pitt Meadows being serviced with a narrower range of facility types. The extents of each facility type are illustrated on Figure 3.6 and are described below.

- Painted Bike Lanes:** Painted bike lanes, either on one side of the roadway or both, are provided on sections of Harris Road, Ford Road, Hammond Road, and Airport Way. Bike lanes are discontinued at particular locations along the routes; namely, where Harris Road intersects the Canadian Pacific Railway, where Airport Way intersects with both Harris Road and Bonson Road, and on Ford and Hammond Roads near Harris Road. Furthermore, no door-zone buffers or separation from adjacent vehicle travel lanes are provided on any existing infrastructure.
- Bicycle Accessible Shoulders:** Bicycle accessible shoulders exist north of Lougheed Highway on sections of Harris Road, Old Dewdney Trunk Road, and Rennie Road. Bicycle accessible shoulders are discontinued on Neaves Road north of Old Dewdney Trunk Road until McNeil Road and as such, there is limited comfort for active travel between the existing bike accessible shoulders on Old Dewdney Trunk Road and Rennie Road.
- Neighbourhood Bikeways:** Neighbourhood bikeways exist on several local streets, especially on those close to schools, parks, and recreation facilities, but are also present on collector roadways with higher vehicle volumes and speeds (e.g., sections of Ford Road, Bonson Road, Harris Road, and Fraser Way). Generally, existing neighbourhood bikeways are complete with painted sharrow markings and signage. Posted speed limits along existing neighbourhood bikeways are 50km/hr, except at school zones during school days between the hours of 8:00am and 5:00pm.
- Paved Multi-Use Pathways:** Paved multi-use trails, either on one side of the roadway or both, are provided in several locations throughout Pitt Meadows. This includes as connections both between local streets and to nearby parks, as longer connections that do not use roadway alignments (i.e., Wildwood Trail), and along sections of Lougheed Highway. The multi-use pathway along Lougheed Highway connects the Meadowtown Shopping Centre with the Pitt River Bridge and nearby dike but is discontinued near the intersection of Lougheed Highway and Harris Road. Paved multi-use pathways do not currently contain lighting, which limits the accessibility and comfort of such routes.
- Unpaved Trails:** The network of unpaved trails within Pitt Meadows includes the dike trails and urban trails. Although the dike trail network is primarily a recreational network due to its circuitous nature, it does provide some value for active transportation, especially at the north end of Pitt Meadows. Urban trails include Baynes Road Trail, which connects Ford Road and Airport Way, as well as Airport Trail, which connects Harris Road with Baynes Road. Together, the network of unpaved trails provide important connections for active modes but trail material and lack of lighting limit the accessibility and comfort of these routes.
- Shared lanes:** Shared lanes exist on sections of Ford Road, Woodridge Road, and Kennedy Road. Signage indicating a bicycle route are generally present; however, no designated facilities or painted road markings indicating a shared roadway are provided.



### 3.4.5. BICYCLE NETWORK BY LEVEL OF COMFORT

The cycling network available to people varies based on their level of comfort using different types of facility and their proximity to high volumes and speeds of traffic. To enable more people to get around by bicycle or other wheeled mode, the network needs to be accessible to as many people as possible, often referred to as all ages and abilities or AAA. The Pitt Meadows Official Community Plan notes that a network for all ages and abilities is a goal of the City.

Strong and fearless cyclists have access to the entire road network, but account for a relatively small percentage of the population. Less confident cyclists have much fewer routes on which they feel sufficiently safe to use and if these do not provide meaningful connectivity, they'll simply choose another mode of transportation.

Classifying the cycling network by level of comfort and creating separate maps of the network available to people of differing levels of confidence reveals gaps in the network for each.

The cycling network was broken down into four classifications based on the level of comfort each facility type provides:

- Comfortable for all
- Comfortable for most
- Comfortable for some
- Comfortable for few

The **'comfortable for all'** routes were identified as cycling facilities that are fully separated from traffic. In the City, this comprises only the paved multi-use pathway network.

The **'comfortable for most'** network is comprised of roads that have low vehicle volumes and low speeds, identified as those with no painted centreline and therefore primarily local roads. Unpaved multi-use trails were also included in this category as they provide a safe facility with no motor vehicle traffic but lighting conditions and a surface that may be limiting for some users.

The **'comfortable for some'** routes were classified as painted bike lanes or local roads with a painted centreline and sharrows.

The **'comfortable for few'** routes were identified as roadways containing bike accessible shoulders and remaining roadways without facilities for those riding bikes.

These maps, when compared with how people classified themselves in the first phase of public engagement, demonstrate how many people each variation of the network provides for. Of the people that responded to the survey, 22% considered themselves strong and fearless (will ride anywhere), 61% confident and enthused (will tolerate painted shoulders or bike lanes but prefer protected facilities), and 17% interested but concerned (will only ride on protected facilities separate from traffic).

Legend for Figures 3.6 - 3.9:

- One Side
- Both Sides
- Unpaved Trail

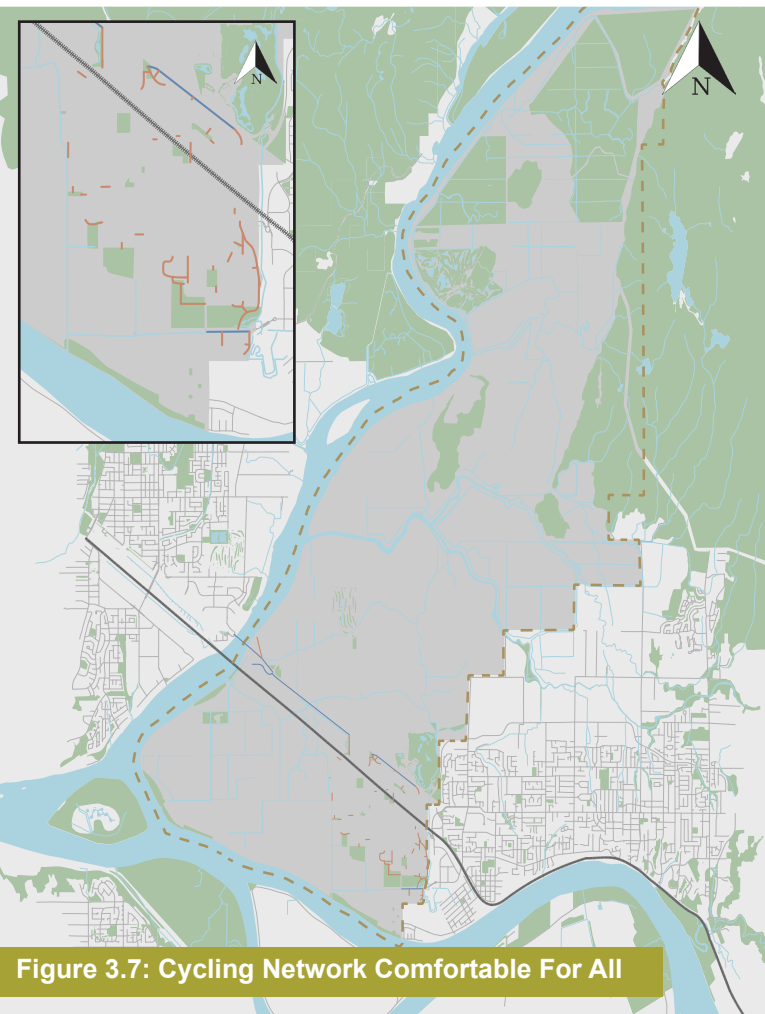


Figure 3.7: Cycling Network Comfortable For All

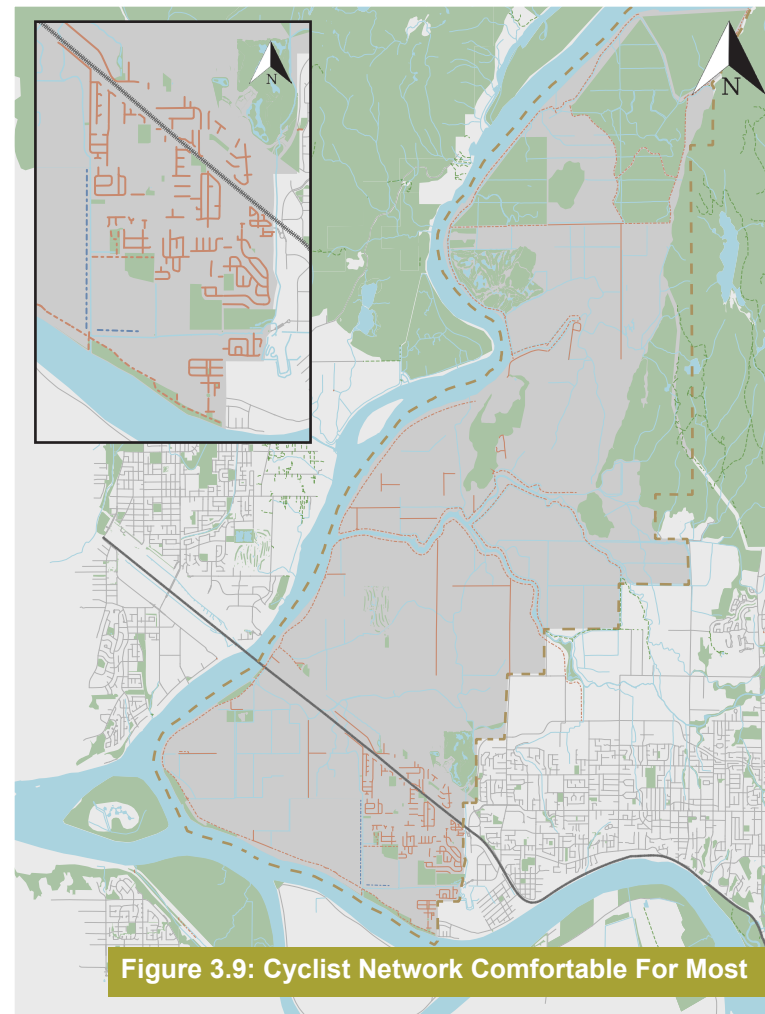


Figure 3.9: Cyclist Network Comfortable For Most

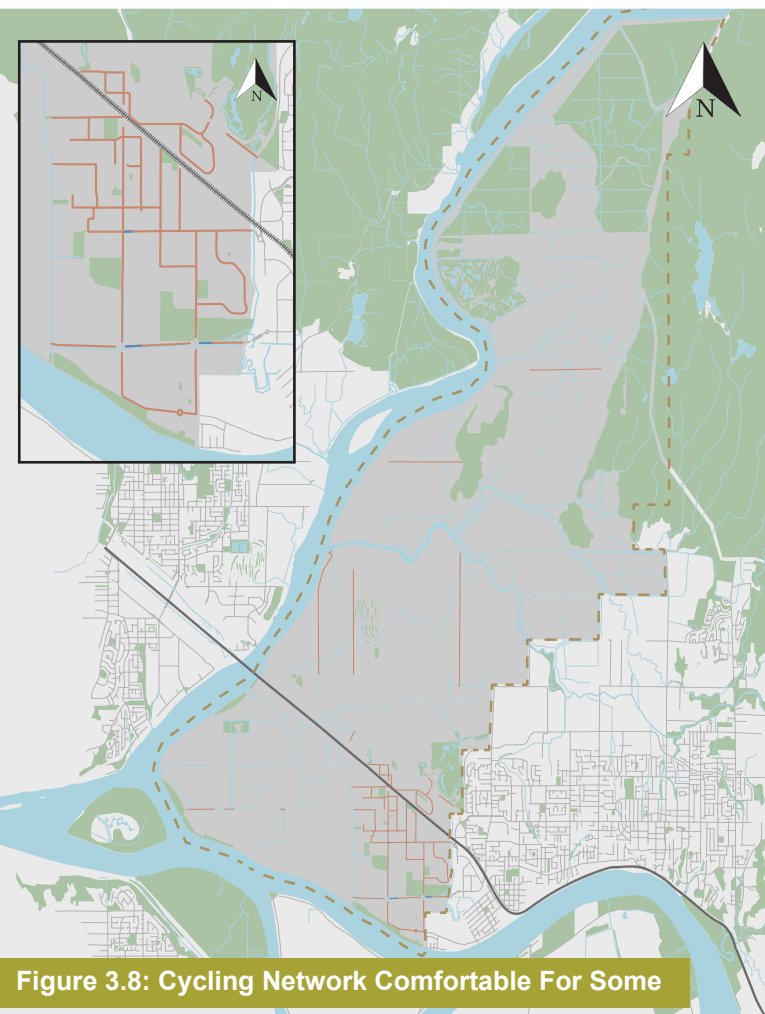


Figure 3.8: Cycling Network Comfortable For Some

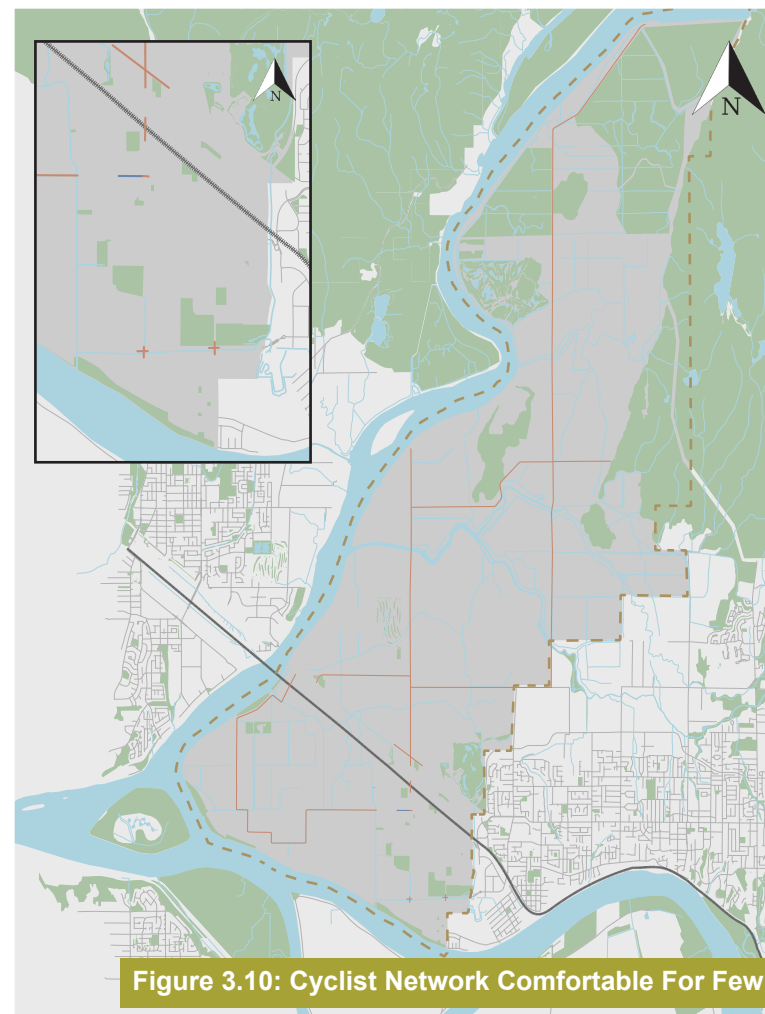


Figure 3.10: Cyclist Network Comfortable For Few



### 3.4.6. BICYCLE NETWORK ACCESSIBLE TO DIFFERENT CYCLIST TYPES

The bicycle networks for each level of comfort can be combined to illustrate the extent of the bicycle network available to each of the different cyclist confidence levels. These are illustrated in Figures 3.11 to 3.13, as well as described below.

#### Network Available to the Strong and Fearless

The strong and fearless cyclists (will ride anywhere) are comfortable without dedicated bicycle facilities. They have the entire road and pathway network available to them.

In Pitt Meadows, 22% of people surveyed consider themselves strong and fearless. Of course this means that the entire network, as it stands is less accessible to 78% of the population, based on the survey sample.

#### Network Available to the Enthused and Confident

The enthused and confident cyclist will tolerate painted bike lanes, but prefers to avoid major roads with no facilities or high-speed. They can get around most parts of the network but may have to take a circuitous and less convenient route to avoid those roads with no bike facilities. They prefer safer facilities though.

In Pitt Meadows, 61% of people consider themselves as confident and enthused (will tolerate painted shoulders or bike lanes but prefer protected facilities). They have access to multi-use pathways, local roads, and major roads with a bike lane. These facility types are also available to the strong and fearless cyclists; therefore, this network is available to 83% of the population, based on the survey sample.

#### Network Available to the Interested but Concerned

The interested but concerned cyclist (will only ride on protected facilities separate from traffic) will ideally not use busier and higher speed roadways whether there are painted bike lanes or not. They prefer separated facilities or local roads. For these cyclists, the existing network is quite limiting and includes several 'islands' of neighbourhoods with no connectivity to each other.

In Pitt Meadows, 17% consider themselves interested but concerned. This network demonstrates the limitations of the overall active transportation network for those not confident enough to use unprotected bike facilities such as painted bike lanes, which limit the interested but concerned cyclist to local roads and multi-use pathways. This network is available to 100% of the cycling population.

#### Summary of Network Cycling Comfort

These maps, when compared with how Pitt Meadows residents classified themselves during the first phase of this plan's public engagement, help to demonstrate the proportion of people each variation of the network provides. Furthermore, they help to identify gaps in the active transportation network that, if addressed, could improve users' comfort and encourage greater use by tapping into the latent demand for cycling in the community.

In summary, riding a bicycle within neighbourhoods in Pitt Meadows is reasonably comfortable for most. To travel between neighbourhoods and to key destinations within the community, however, is challenging due to the lack of safe and comfortable routes along major transportation corridors, including Harris Road, Airport Way, and Hammond Road. Together, this suppresses travel by bicycle, particularly among those who are less confident, or travelling with less confident users, such as younger or older family members.

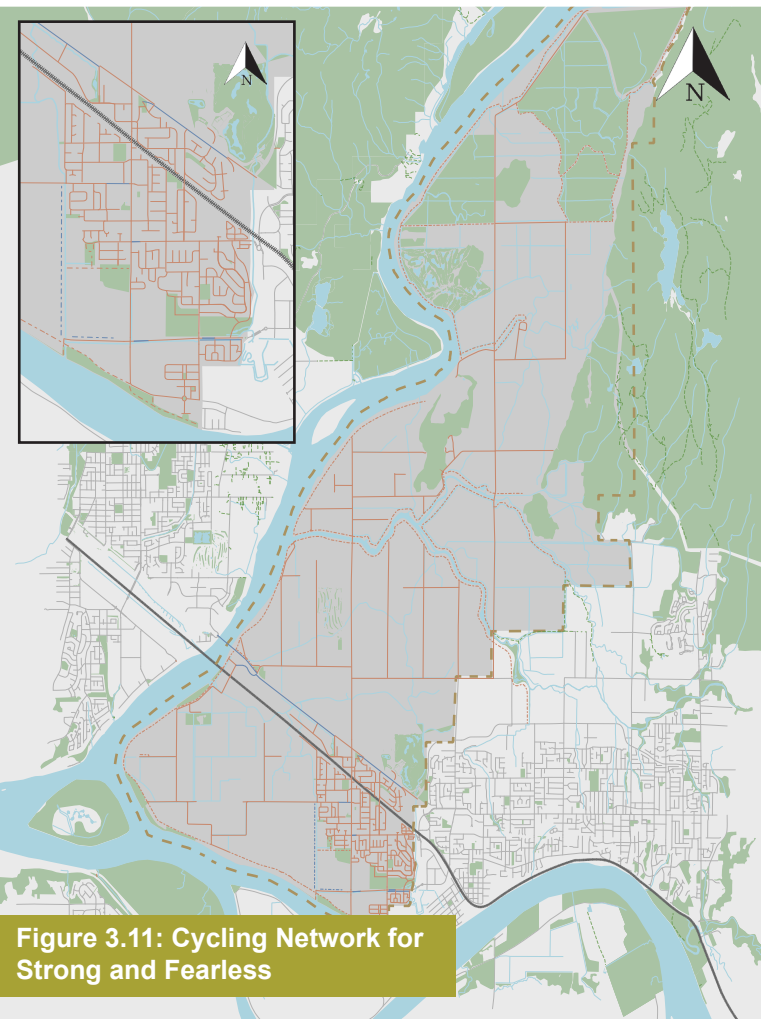


Figure 3.11: Cycling Network for Strong and Fearless

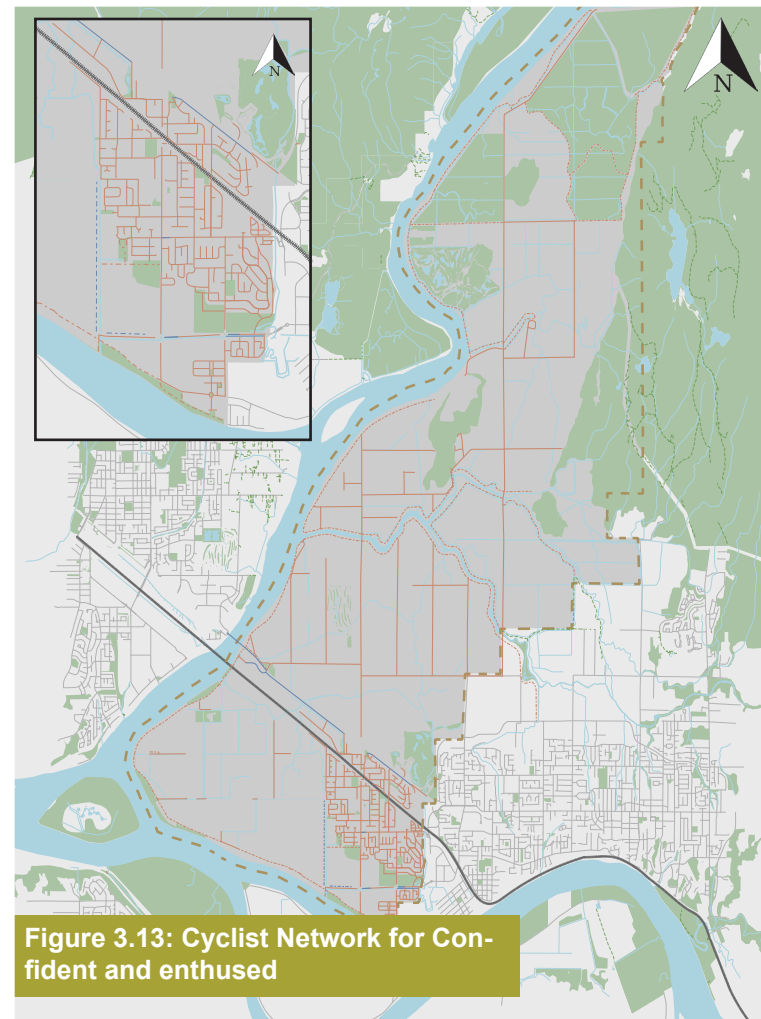


Figure 3.13: Cyclist Network for Confident and enthused

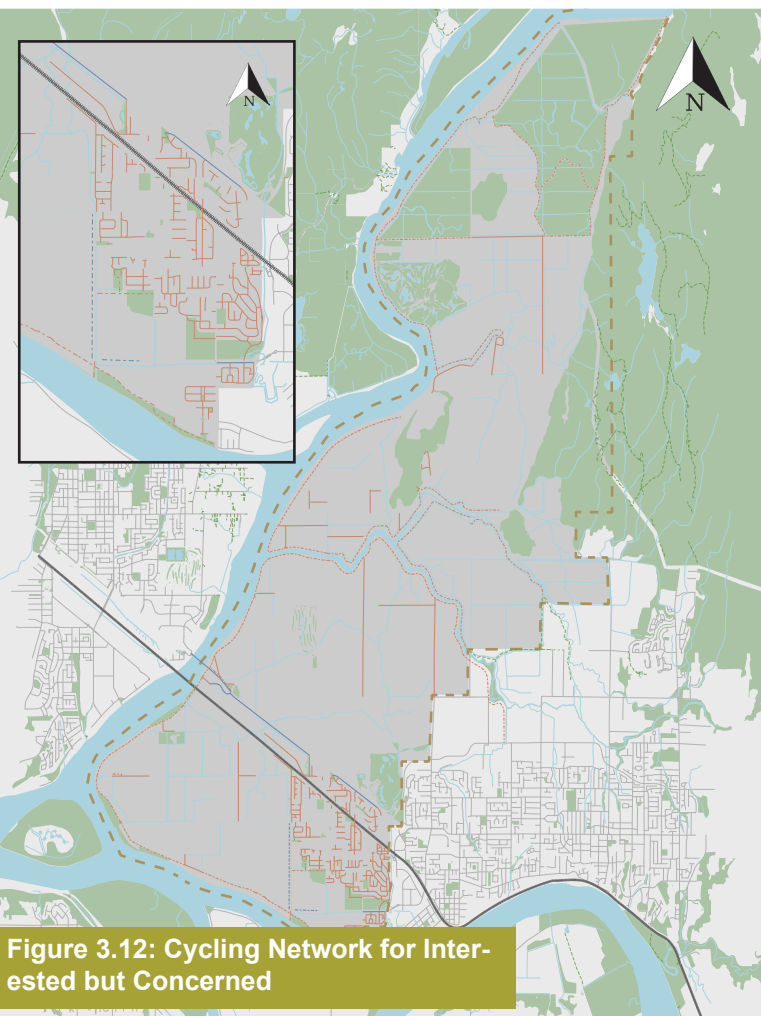


Figure 3.12: Cycling Network for Interested but Concerned

- One Side
- Both Sides
- - - Unpaved Trail



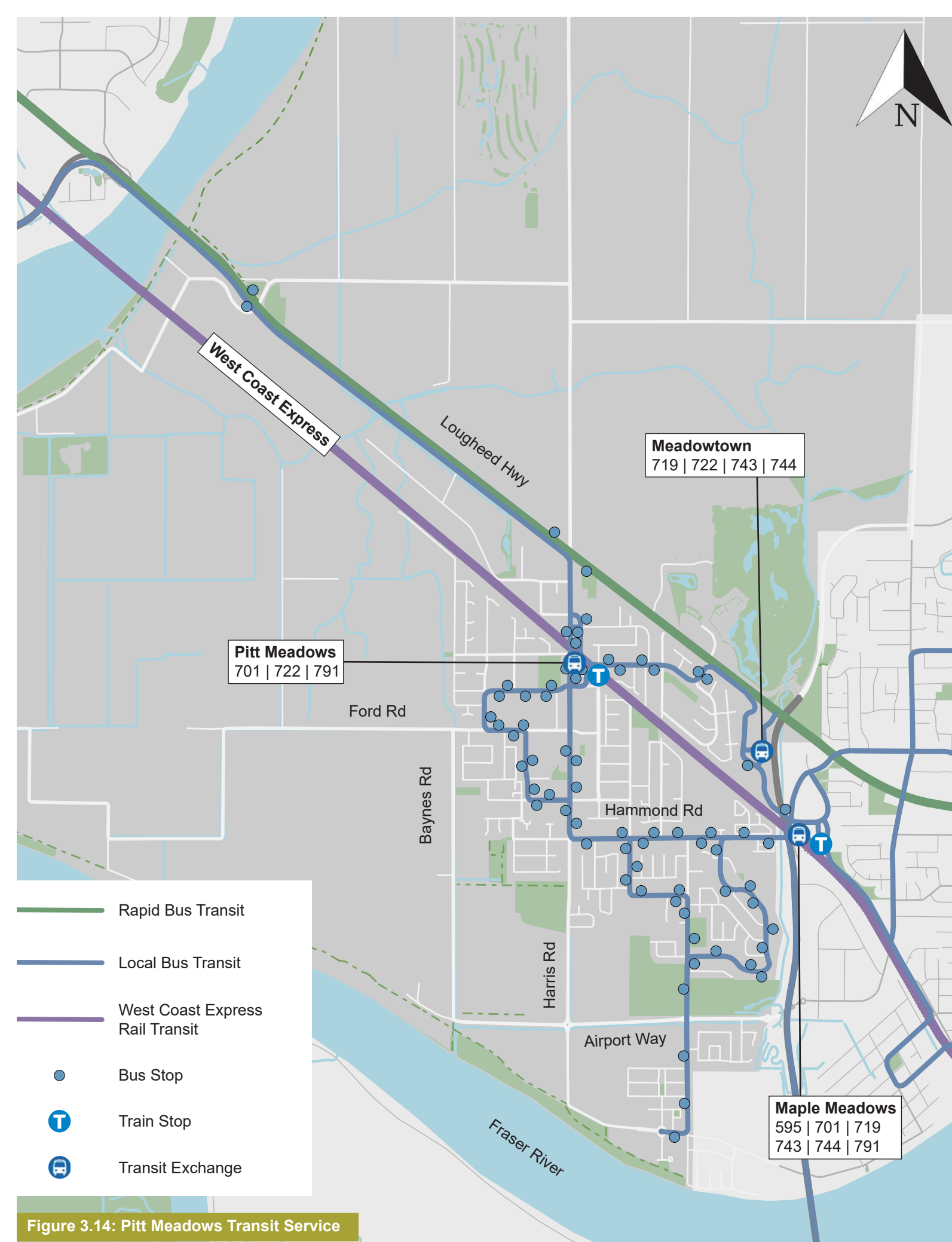


Figure 3.14: Pitt Meadows Transit Service

### 3.5. ACCESS TO TRANSIT

While transit is not a mode of active transportation, people must travel by active modes to access transit services. There are two primary areas of importance. The facilities on-route to the transit stop and the waiting conditions at the stop must each be safe and comfortable. Existing transit stop facilities include:

**Bus Shelter with Real-Time Arrival Signage:** Provided along RapidBus routes, these bus shelters are illuminated and give users real-time bus arrival timing

**Bus Shelter with Flag & Pole:** Generally provided at busy bus stop locations along collector roadways, these shelters provide seating for a few people, while also providing some covered standing room.

**Flag & Pole without Seating:** Provided throughout Pitt Meadows, these bus stop locations may or may not provide widened sidewalks, trash receptacles, or transit schedules.

**Flag & Pole with Seating:** Provided along several bus routes within Pitt Meadows, flag and pole bus stops without bus shelters are common on collector and local roads. Trash receptacles and/or transit schedules may be provided at some locations.

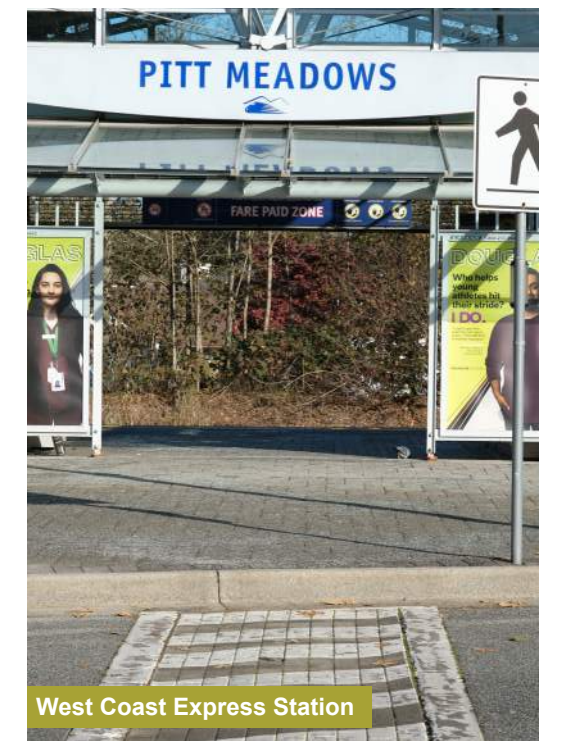
**Train Station:** Located near Harris Road and 122a Avenue, the Pitt Meadows train station services the West Coast Express and contains trash receptacles, train schedules, and secure bike parking on-site.



Typical Bus Stop with Pole and Flag



Typical Bus Stop with Shelter



West Coast Express Station



Pitt Meadows existing transit service is illustrated in Figure 3.14 and includes bus rapid transit along Lougheed Highway, local bus service throughout Pitt Meadows' urban core, and the West Coast Express train service operating along the Canadian Pacific railway. In addition to the existing transit network, improvement to transit accessibility should consider future changes to the transit network. TransLink's Maple Ridge - Pitt Meadows Area Transport Plan (May 2021) provides several recommendations for the region's future transit network, namely:

**719/722/743/744 Bus Service Routing Changes:**

- Extend existing routing to provide a connection from the 722 to the new R3 RapidBus service at Harris and Lougheed. Service along Park Road will be maintained by an extension of the 743 and/or 744 routes. See Figure 3.15 for illustrated changes.
- The other recommended change is for the 722 to continue along Harris Road past Hammond Road and to introduce service to the Golden Ears Business Park. In order to maintain service along Bonson Road between Fraser Way and Hammond Road, the 719 would no longer serve Wildwood Crescent. See Figure 3.15 for illustrated changes.
- Considerations for implementation: new service to sections of Harris Road will require new bus stops.

**Improved Bus Speed and Reliability:**

- Expanded bus priority lanes along the Lougheed Highway corridor.
- Other priority corridors include Dewdney Trunk Road and Harris Road.

**Future Investment Planning:**

- New direct connection between Pitt Meadows and Surrey Metro Centre.

**Improved Access to the System:**

- Work with Pitt Meadows to identify high performing stops with below standard amenities.
- Work with TransLink Facilities to increase amenities at TransLink owned/operated facilities with below standard amenities, including updated shelters, secure bicycle parking, and real-time arrival signage.



Figure 3.15: Bus Routing Service Changes



Bus Traveling Along Harris Road Next to Door Zone Bike Lanes





Multi-Use Pathway Adjacent to Lougheed Highway

## 4. PLAN DIRECTION

### 4.1. KEY ISSUES

#### MISSING LINKS IN THE NETWORK

There are a few locations where missing links could improve access to major destinations in the City. For example the excellent network of trails along the dikes can take you to many of the rural areas, but there is no safe connection to Pitt Lake. In the urban core, links are missing along sections of Lougheed Highway, Ford Road, and Airport Way.

#### TOO MANY NEIGHBOURHOOD BIKEWAYS WITH NOT ENOUGH TRAFFIC CALMING

The City cycling map identifies almost all local streets as neighbourhood bikeways, but few have any form of traffic calming, be that speed or volume reduction measures. While many of these routes are relatively low volume and suitable for cycling, it may be prudent to create some highly calmed corridors as true neighbourhood bikeways that provide meaningful connections between key origins and destinations in the City.

#### PAINTED & DOOR-ZONE BIKE LANES DO NOT MEET BEST PRACTICE

The largest issue identified in the City is the prevalence of painted bike lanes. Given adjacent vehicle speeds and volumes, these are no longer considered suitable for all ages and abilities. In many cases, painted bike lanes are also immediately adjacent to a parking lane, situating those on bicycles in the door-zone of vehicles and creating a potential risk to their safety. Ideally, facilities should be redesigned to be physically separated from motor vehicles.

#### LACK OF MAINTENANCE IN PLACES

Maintaining the rural shoulders with more frequent sweeping would improve the experience of people walking and riding along these corridors, albeit not reducing the risk from passing vehicles.

#### RURAL AREAS ARE LESS COMFORTABLE

There is less comfortable active transportation infrastructure in the rural areas. Due to the longer distances and lower volume of users, the rural areas may be prioritized less than urban areas when considering where to invest in the active transportation network.



## 4.2. VISION

The City of Pitt Meadows strives to build an all ages and abilities active transportation network that can reduce conflicts with vehicles, manage conflicts between active modes, provide space to pass safely, and be accessible after dark and in poor weather. By around 2040 the network intends to connect all neighbourhoods and key amenities in the urban core while completing missing links and providing spot improvements in rural areas.

## 4.3. GOALS AND OBJECTIVES

The following goals are identified to provide direction to the plan, support the vision, and will be used in the evaluation and prioritization of options.

### GOAL 1: ALIGN WITH OTHER CITY, REGIONAL AND PROVINCIAL PLANS

**Objective 1.1:** Active transportation plans and infrastructure will consider other local plans including the Official Community Plan and the transportation objectives within.

**Objective 1.2:** Active transportation plans and infrastructure will consider other regional planning documents including those created by TransLink to improve regional connectivity by active transportation and transit.

**Objective 1.3:** Active transportation plans and infrastructure will consider the BC Active Transportation Strategy Move Commute Connect and the BC Active Transportation Design Guide

**Objective 1.4:** Active transportation plans and infrastructure will consider Canada's Active Transportation Strategy

### GOAL 2: CONNECT KEY DESTINATIONS IN THE CITY

**Objective 2.1:** Major transit destinations to be connected by active transportation include the West Coast Express station and bus stops along major corridors.

**Objective 2.2:** Schools to be connected by active transportation include Highland Park Elementary, Edith McDermott Elementary, Pitt Meadows Elementary, Davie Jones Elementary, and Pitt Meadows Secondary Schools

**Objective 2.3:** Community Centres to be connected by active transportation include the Pitt Meadows Family Recreation Centre, Seniors Activity Center, and South Bonson Community Centre.

**Objective 2.4:** Major commercial centres to be connected by active transportation include the Meadowtown Shopping centre.

**Objective 2.5:** The ᑭᓴᑭᓴ (Katzie) First Nation will be connected to the active transportation network

**Objective 2.6:** Provide a connection separated from traffic from the dike trails to Pitt Lake.

### GOAL 3: UPGRADE DOOR-ZONE BIKE LANES

**Objective 3.1:** Notwithstanding upgrades made as part of Goal 4, upgrades will be determined to remove any door zone bike lanes, and replace with a safer configuration.

**Objective 3.2:** The Subdivision and Development Servicing Bylaw will be updated to remove door-zone bike lanes from the guidance and replace them with a safer design.

### GOAL 4: ADD PROTECTED MOBILITY LANES ON KEY ROUTES

**Objective 4.1:** Uni-directional mobility lanes are preferred over bi-directional mobility lanes. Bi-directional facilities should only be considered where available right-of-way is constrained and a bi-directional facility reduces the width dedicated to micro-mobility as the lanes can be narrower with passing in the opposing lane and only one barrier is required between the facility and motor vehicles.

**Objective 4.2:** New facilities should consider space to pass, which can be achieved through sufficient width and favourable edge conditions. Designs should consider the BC Active Transportation Design Guide.

**Objective 4.3:** Intersections should consider including protected corners or bicycle turn boxes to facilitate two stage left turns, or otherwise dedicated bicycle phases to allow left turns in one phase.

**Objective 4.4:** Where multi-lane vehicle approaches are present, signal phasing should consider protected left and right turn phases to separate vehicles turning from the bicycle through phase.

### GOAL 5: CREATE NEIGHBOURHOOD BIKEWAYS WITH ENHANCED TRAFFIC CALMING

**Objective 5.1:** Identified routes will have a posted speed limit of 30 km/h.

**Objective 5.2:** Routes may include additional traffic calming to physically enforce the speed and reduce the likelihood of anyone exceeding that speed. Preferred treatments for speed control include speed cushions and curb extensions.

**Objective 5.3:** Crossings of roadways with higher classification may include upgraded crossing treatments such as Rapid Rectangular Flashing Beacons on roads with just one lane in each direction, or half signals for any roadways with more than one lane in each direction.

### GOAL 6: MAKE ROUTES ACCESSIBLE AFTER DARK AND IN ALL WEATHER

**Objective 6.1:** Adequate street or pathway lighting will be considered where routes are intended to be used by all ages and abilities.

**Objective 6.2:** Paved surfaces will be considered where intended to be used by all ages and abilities.

**Objective 6.3:** The City will endeavour to check active transportation routes on a regular basis for issues such as water pooling, cracks, root heave and debris and plan to address through the annual active transportation allowance where feasible.

### GOAL 7: IMPROVE CROSSING SAFETY

**Objective 7.1:** Where a route connects to facilities on either side of the roadway, no warrant calculations will be required to justify a crossing. An appropriate facility will be provided providing a safe design can be achieved.

**Objective 7.2:** Where applicable, i.e. crossing local streets, continuous sidewalks (and bike paths if present) should be considered to further provide pedestrians and those travelling actively, greater priority over turning traffic.

**Objective 7.3:** At signalized intersections crossing should be considered across all approaches with safety and convenience for active modes being prioritized over motor vehicle delay.

**Objective 7.4:** Leading pedestrian and bike intervals should be considered at all signalized intersections.



## GOAL 8: IMPROVE BICYCLE PARKING AVAILABILITY

**Objective 8.1:** The City will aim to work with businesses to determine suitable bicycle parking improvements that could be funded through the annual active transportation allowance.

**Objective 8.2:** Where new bicycle parking is added, consideration should be given to lighting, easy to use racks, covered structures, and ability to accommodate a wide variety of bicycles.

## GOAL 9: IMPLEMENT POLICIES TO COMPLIMENT PLANNED INFRASTRUCTURE

**Objective 9.1:** Consider amending the Zoning Bylaw to (a) increase bicycle parking requirements per residential dwelling unit, and (b) remove Class 1 maximum parking limits for storage facilities.

**Objective 9.2:** Consider adopting a Vision Zero policy to pro-actively identify collision hot spots and reduce collision risk via design and policy measures.

**Objective 9.3:** Consider creating new complete street design standards to address the safety issues inherent with current street cross-sections, i.e., door zone bike lanes. Furthermore, include safe facilities for all modes in the cross-section and utilize to leverage additional right-of-way if necessary.

**Objective 9.4:** Consider adopting an E-bike incentive program to provide those on lower incomes with increased ability to choose active modes and reduce reliance on the automobile.

**Objective 9.5:** Consider creating a wayfinding strategy by developing branding, placement, and sign typologies to be located throughout the City, such that as the network expands, it is easily navigable by everybody in the community.

**Objective 9.6:** Consider continued support for education programs run by Hub Cycling such as 'Bike to School'.



Inspiration: The City of North Vancouver Recently Rebuilt Esplanade as a Complete Street Following the Death of a Cyclist in the Previous Door Zone Bike Lanes





Inspiration: Metral Drive in Nanaimo Used to Have Intermittent Sidewalks and No Bicycle Infrastructure. Today, Children Can Walk and Roll to School Along the Corridor

## 5. PLAN RECOMMENDATIONS

### 5.1. ACTIVE TRANSPORTATION PRINCIPLES

It is important that future infrastructure is designed with principles that support the whole community and align with other documents such as the Official Community Plan. With that in mind, streets that accommodate everyone, no matter what mode of transportation they chose, are more equitable. Active transportation upgrades can improve connectivity to local destinations, be convenient, comfortable, and attractive for all ages and abilities, be safe, beautiful and accessible. Principles that should be considered when planning or designing active transportation infrastructure are highlighted below.

#### USER NEEDS

**Facilities for Everyone:** It's easy to say all ages and abilities, but what does that mean and how do we apply it? It is for both young and old. It includes the confident cyclists, but what they find comfortable is often not comfortable for most. To be comfortable for all, we often think about those not currently cycling, but interested in doing so. It's often best to personalize it: what would we be comfortable with our own children, nephews or nieces walking or rolling along? If we wouldn't be comfortable with our own family using a facility, it's probably not going to attract many others. For those rolling, designing for emerging micro-mobility modes is critical, with different speeds of travel and different space requirements. Of course, active transportation also includes those travelling on foot, and care is required to provide facilities that are comfortable for pedestrians also.

**Safe Facilities:** Guideline thresholds still include facilities where painted or buffered lanes are still acceptable. However, if the goal is to get more people making active trips, painted bike lanes will not encourage this. They are simply not seen as a safe route option by most, and even on streets with lower volumes, the risks from vehicles are still present. In addition to the threat from vehicle traffic, the risk of crime also impacts people's perception of safety and routes should, where possible, consider crime prevention principles, such as having eyes on the facility, free of blind corners, or blank walls, good lighting and sight lines.

**Accessible Facilities:** Active transportation facilities should be accessible for everyone, including pedestrians who are infirm or have mobility impairments. Minor inconveniences to the able bodied can be barriers to access for others, such as slopes, stairs, or curb ramps, while lack of some elements, such as handrails or resting spots can also show lack of consideration for everybody's needs. For visual impairments, appropriate wayfinding and warning devices can help guide them to crosswalks or acknowledge the presence of bike lanes. If we prioritize pedestrians and the most vulnerable, the City will work for everyone.

**Comfortable Accessories:** Sharing the roadway with vehicles can be relatively comfortable if vehicle volumes and speeds are low, though risk is never removed entirely. Facilities separate from traffic will always be the most comfortable for everyone. Multi-use pathways may be feasible where active transportation volumes are lower, but separation is preferred as active transportation demand increases. With increasing use of electrically assisted micro-mobility devices, separation between active modes is becoming increasingly important on all facilities, regardless of grade or activity level. Multi-use pathways are now commonly used where space is constrained, or cost is a constraint, but where possible, separate walking and rolling facilities are preferred.

#### INFRASTRUCTURE RECOMMENDATIONS

The infrastructure recommendations follow the principles outlined above and are anticipated to require many years to implement. The intent is to over-time make the City increasingly accessible by active modes and all ages and abilities. For the most part, pedestrians are well catered for in the urban core with sidewalks on most streets, therefore, most infrastructure recommendations are intended to improve safety and comfort and connectivity for those rolling by various forms of micro-mobility. Infrastructure recommendations are numbered by category including Pedestrian (PED), Protected Bike Lanes (PB), Multi-Use Pathways (MUP), Neighbourhood Bikeways (NB) and Other (OT) for ease of reference. Costs for recommended infrastructure is inclusive of planning and design.





Sidewalk Adjacent to Bonson Road

## 5.2 PEDESTRIAN INFRASTRUCTURE RECOMMENDATIONS

### PEDESTRIAN REALM DESIGN PRINCIPLES

The pedestrian realm upgrades primarily focus on the pedestrian only sidewalk network. Multi-use pathways are addressed separately.

**Facility Width:** Minimum sidewalk width is ideally 1.8 metres, sufficient for two wheelchairs or mobility devices to pass each other. Lower widths may be acceptable for very short distances to pass obstructions such as signs or signal poles, but should be avoided where possible.

**Separation from Traffic:** Walking next to traffic, even on an elevated sidewalk can often be uncomfortable where traffic volumes or speeds are high, especially where large vehicles such as buses or trucks are passing. Ideally sidewalks would be separated from vehicle travel lanes by a boulevard with landscaping and/or street trees. Such boulevards can also be utilized to control and manage stormwater.

**Grade:** While sidewalk grade will typically follow that of the adjacent roadway, there are recommendations for accessible grades. The longitudinal grade should ideally be less than 5%. Between 5% and 8.3%, landings should be provided every nine metres. Grades above 8.3% should typically be avoided where possible.

**Accessibility:** It is important that the city be accessible to everyone in the community. People have many different disabilities that affect how they navigate the city such as mobility challenges and sight loss. Important infrastructure elements that can provide accessibility for different groups include: curb ramps, wheelchair ramps, disabled parking stalls, both directional and warning Tactile Warning Surface Indicators (TWSI's), braille information on wayfinding signage, streets signs, and bus stops, and audible pedestrian crossings.

**Crosswalks:** Crosswalks connect the sidewalk and pathway network. While TAC warrants exist and should be followed, connectivity forms part of the warrant process and therefore logical desire lines should be served by a crosswalk of some form without the need for further study. Crosswalks may be part of a signalized intersection, and should be provided on all legs of an intersection. At mid-block locations, pedestrian signals or Rapid Rectangular Flashing Beacons (RRFB's) can be considered based on engineering judgement. Typically a multi-lane road would require a pedestrian signal, while RRFB's may be suitable for two lane roadways. In addition to the crossing type, curb extensions should be implemented on any new or retrofit projects to reduce crossing distances and improve safety and continuous sidewalks should be considered at the same time.

### PEDESTRIAN INFRASTRUCTURE IMPROVEMENT FUND

Several types of improvements to pedestrian infrastructure are proposed throughout Pitt Meadows. These improvements are intended to improve the accessibility of the network, as well as enhance its safety and connectivity. As pedestrian improvements are more often considered spot improvements, it is recommended that they be funded under an annual allowance of \$200,000 for active transportation small projects, repair and maintenance. Other upgrades that could be considered under this fund but are of a lesser priority, include items such as waste receptacles, seating along active transportation routes, wayfinding and placemaking features.





**Example: Continuous Sidewalk from Metral Drive, City of Nanaimo**



**Example: Modern Accessible and Audible Push Button**

## PED1 - CONTINUOUS SIDEWALKS TRIAL

Continuous sidewalks are an emerging practice in Canada that prioritize more vulnerable transportation modes. In Pitt Meadows, continuous sidewalks will be prioritized near schools and areas of high pedestrian activity, as well as along key bicycle routes and it is recommended they be trialled at locations previously identified for curb extensions. Continuous sidewalks are generally constructed across local road intersections (parallel to adjacent collector or arterial roadways.)

**Reason proposed:** Protects most vulnerable road users through design, enforcing slow turning speeds and pedestrian priority at intersections.

**Locations:** Previous plan locations for curb extensions

**Estimated cost - Class D (each):** \$100,000 (\$3.7M Total - \$0.5M initially for trial at 5 locations)



**Local School Streets Would be Safer Closed at School Start and Finish Times**



**Example: Root Heave that Creates a Trip Hazard and Accessibility Issue**

## PED2 - CROSSWALK UPGRADES

This category includes entirely new crosswalks where there are desire lines present but no safe crossing facility, or upgrades such as flashing beacons to increase driver compliance at existing crosswalks where pedestrian visibility may be poor. Could include solar or hardwired flashing beacons and paved waiting areas on either side of the road as appropriate, and push button upgrades.

**Reason proposed:** To improve pedestrian safety across major roadways.

**Locations:**

- Upgrade crosswalk on Baynes Road at Airport Trail to include flashing beacons
- Upgrade crosswalk on Harris Road south of Alouette River to include flashing beacons and supporting infrastructure to accommodate safe crossings (i.e., curb extensions)
- Upgrade push buttons at intersection of Harris Road and Hammond Road

**Estimated cost - Class D (each):** \$40,000 (\$120,000 Total)



**Example: Leading Pedestrian Interval**



**Example Curb Ramp Upgrade**



**Example: Crosswalk that Would Benefit from RRFB Upgrade**

## PED3 - LEADING PEDESTRIAN INTERVALS

Leading Pedestrian Intervals (LPI's) provide pedestrians with a head start at traffic signals where pedestrians walk with traffic. By providing a head start, their visibility is increased to any drivers that could potential conflict with them. They further benefit from no right-turn-on-red restrictions. In Pitt Meadows, they are recommended initially at traffic signals in close proximity to schools but could be rolled out further across the City in the future.

**Reason proposed:** To improve pedestrian safety at signalised intersections.

**Locations:**

- Review further locations based on success of Harris Road implementations

**Estimated cost - Class D (each):** \$5,000 (\$30,000 included for further locations TBD)



**Athletic Park Used for Recreation but Not Accessible from All Sides**



## PED4 - ACCESSIBILITY IMPROVEMENTS

The City should be accessible to everyone, often simple infrastructure issues prevent access by those who are infirm or use a mobility device. Accessibility issues include sidewalk repairs to address issues such as root heaving or cracking, curb ramps, and wheelchair ramps.

**Reason proposed:** Improves accessibility of the City.

**Locations:**

- Park Road Sidewalk Repairs
- Bonson Road Sidewalk Repairs
- Designated disabled parking stall/s and curb ramp at the on-street parking on Bonson Road opposite Pitt Meadows Athletic Park
- Curb ramp at the West Coast Express Station crosswalk immediately outside of the station (by TransLink)
- Wheelchair ramps to Pitt Meadows Athletic Park from Bonson Road

**Estimated cost - Class D (each):**

- Sidewalk Repairs \$400 per square metre, but price subject to quantity, and other improvements proposed.
- Curb ramps \$15,000 per ramp
- Wheelchair Ramps \$10,000 per ramp

## PED5 - PATHWAY LIGHTING

Lighting improves safety for people walking after dark. This is especially important during winter months where morning and evening commutes can often be made after dark. Such improvements would require a service level change to install, and maintain.

**Reason proposed:** To improve pedestrian safety after dark.

**Locations:**

- Wildwood multi-use pathway ~1.3km
- Trans Canada Trail multi-use pathway from Bonson Road to Alouette Blvd ~700m
- MacLean Park multi-use pathway ~300m

**Estimated cost - Class D (each):** \$300,000 per kilometre (\$690,000 Total)

## PED6 - SCHOOL STREET TRIAL PROJECT

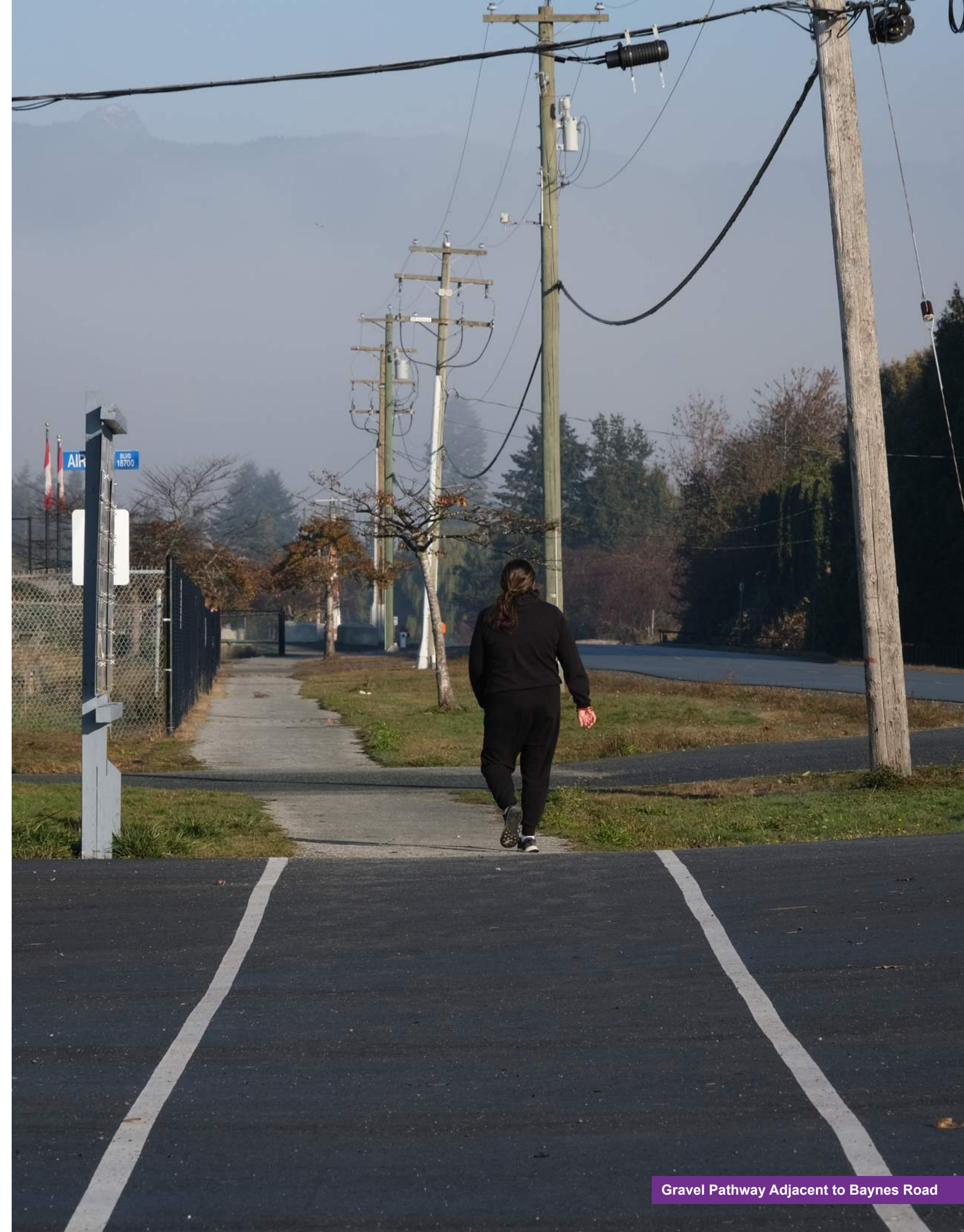
School streets improve the comfort and safety of elementary schools during drop-off and pick-up hours by restricting vehicle through traffic during these hours and slowing local traffic. It is anticipated that trial projects could use movable temporary barriers to narrow the street and discourage through traffic. Discussion would be required with the school district who would need to be on-board and be responsible for moving barriers into place.

**Reason proposed:** To improve school student safety at drop-off and pick-up times, subject to agreement with school and must be able to accommodate local access.

**Locations:**

- Advent Road
- Blakely Road
- Bonson Road
- 119 Avenue
- 116b Avenue

**Estimated cost - Class D (each):** up to \$5,000 for temporary barriers (\$25,000 Total)



Gravel Pathway Adjacent to Baynes Road



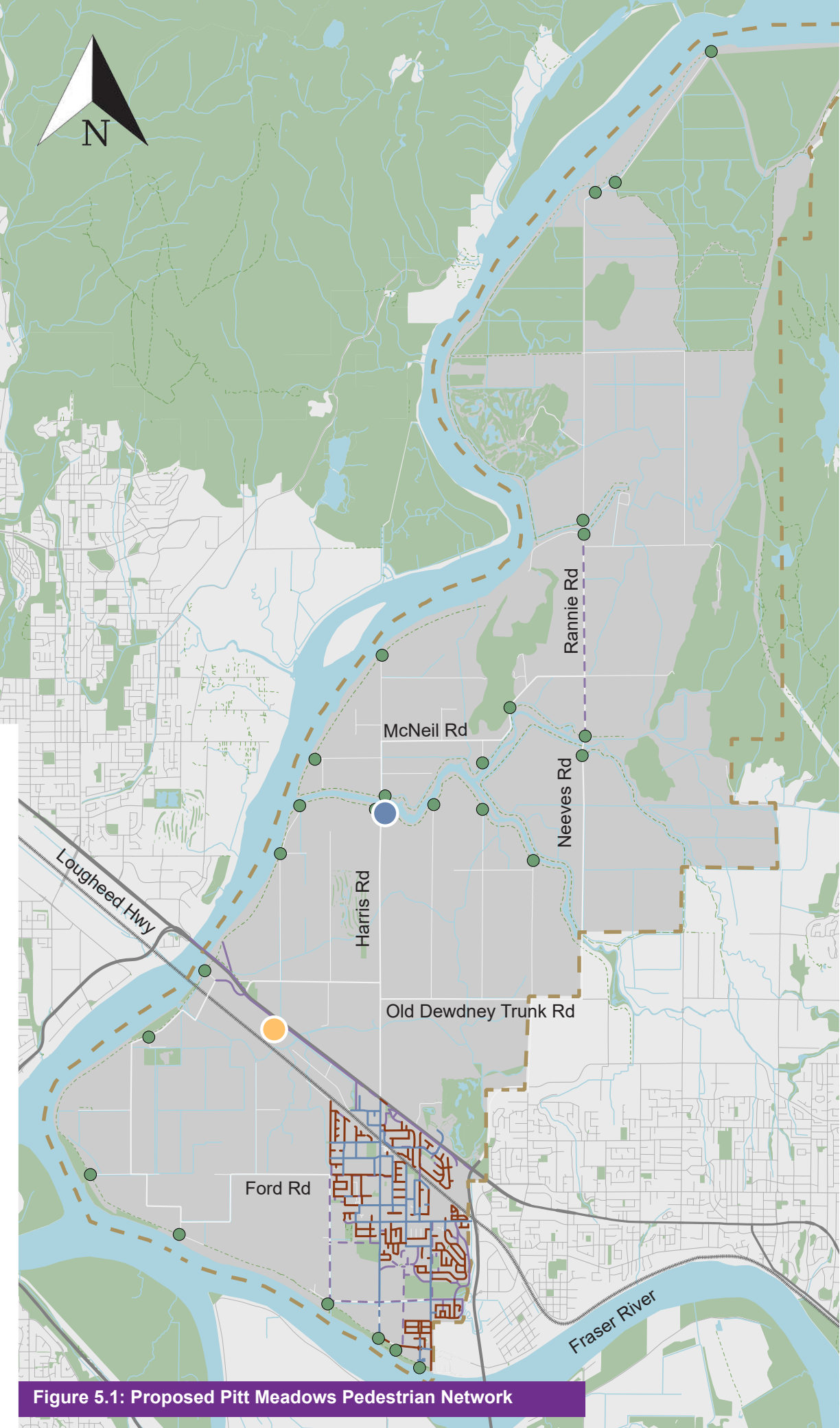


Figure 5.1: Proposed Pitt Meadows Pedestrian Network

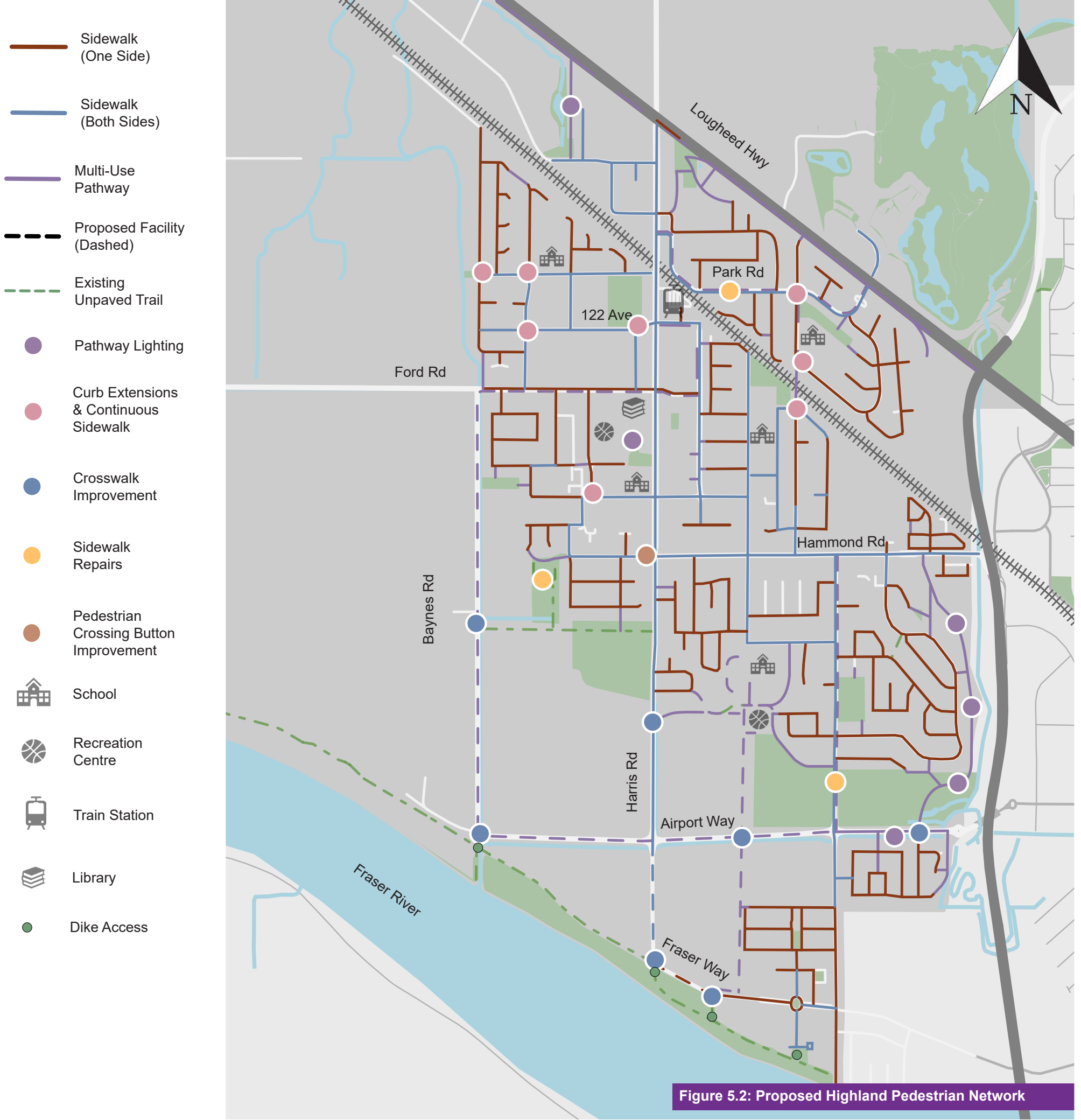


Figure 5.2: Proposed Highland Pedestrian Network





Inspiration: Burrard Street, City of Vancouver

## 5.3. PROTECTED BIKE LANE RECOMMENDATIONS

### BIKE LANE DESIGN PRINCIPLES

Protected bike lanes offer comfort and safety to users of all ages and abilities (AAA). Protected bike lanes may be raised behind curbs or at-grade on the street, but in both cases, protection is provided to separate motor vehicles from the more vulnerable modes of transportation using the bike lane. As part of a larger AAA bicycle and micro-mobility network, protected bike lanes have the capacity to encourage those interested but concerned about active transportation to use the network. In Pitt Meadows, protected bike lanes are proposed on two of the City's major roadways Harris Road and Hammond Road.

**Bike Lanes or Bike Paths:** Bike lanes are typically constructed on existing roadways by re-purposing space currently utilized for parking or travel lanes, or possibly through lane narrowing where they are overly wide. This can be low cost, requiring only changes to pavement markings and/or pre-cast or cast-in-place concrete barrier, flex posts, or planters to provide protection. Bike paths are typically located behind the curb, with the curb and often landscaping providing protection from vehicles. These paths require less pavement structure and lower rehabilitation costs compared with on-street facilities, which typically have full pavement structure.

**Uni-Directional or Bi-Directional:** Uni-directional facilities are most often preferred as they provide people using them with access to both sides of the street, place people in a conventional position in the street, and can operate with the vehicle traffic signals on-street or pedestrian signals off-street. The biggest issue with uni-directional lanes is the continued possibility of right-hooks; albeit they can be managed through the signal phasing. Bi-directional facilities have benefits in certain circumstances. They take up less space, requiring only one buffer from traffic and often utilizing narrower lanes, as passing can be done in the opposing lane. When connecting to multi-use pathways at either end on the same side of the street, a bi-directional facility might reduce the need to cross the roadway.

**Space to Pass and Edge Conditions:** With different physical abilities and increasing use of electrically assisted modes, the range of speeds people travel on protected facilities varies considerably and space to pass becomes a more important consideration. Where previously in a 1.5 metre bike lane, someone could pass in the adjacent vehicle lane, now the facility must be wide enough to pass within the facility. That plus the protective barrier adds extra width.

**Buffers:** Buffers can take many forms, be located between active modes or between active modes and motor vehicles, if not both. It could be pre-cast concrete in many shapes and forms, it could be planters that can add beautification in concrete, plastic, or wood. It can be landscaping including green stormwater infrastructure. Where conflicting volumes are lower, there could be very little buffer space required.

**Major Intersections:** Intersections experience the most potential for conflict, and even protected intersections can still suffer from issues such as right-hook challenges, which if cycling and turning volumes exceed thresholds, should be separated in time. Where there are additional vehicle turn lanes, this often helps reduce conflicts by providing turning traffic with its own signal phase. Combined with no right-on-red, this can remove right-hook conflicts. Space is often a concern, and to provide protected intersections, larger corner cuts help considerably.

**Local Street Intersections:** At minor intersections, such as those providing access to local streets, continuous sidewalk designs, such as those implemented in Nanaimo, have won a number of awards for their design and how that design prioritizes vulnerable modes. Rather than pedestrians dropping down onto the roadway via curb ramps, their pathway remains uninterrupted and drivers cross the pedestrian and bicycle realm rather than people walking and cycling having to cross the vehicle realm.

**Bicycle Signals:** Bicycle signals are becoming more common on some bike routes but they are not always necessary, they provide most benefit where a two-way bicycle facility is provided on a one-way street or where there are complex movements or phasing to manage conflicts.

**Bus Stops:** Bus stops adjacent to protected cycling facilities have become a hot topic due to the Human Rights Tribunal in Victoria. Designs that reduce the need to cross the bike path are preferred. For example a continuous sidewalk to the bus stop and slow roll zone for anybody rolling through. Placing the emphasis on the higher speed modes to take greater care.



## PB1 - HARRIS ROAD COMPLETE STREET

Harris Road is the primary north-south corridor through the urban core and provides direct access to some of the primary commercial and community amenities in the City. It is the most direct route for people traveling by any mode of transportation, including active modes. The existing corridor, however, has narrow painted bike lanes that do not meet best practices and are missing in some locations. The Harris Road underpass project is anticipated to upgrade active transportation facilities where there are currently none, but upgrades are recommended along the remainder of the corridor to accommodate all ages and abilities.

In line with the previous 2012 Pedestrian and Cycling Master Plan, protected bike lanes are recommended on Harris Road. The available right-of-way is approximately 30 metres where there are two lanes and 26 metres where there is one lane in either direction. Furthermore, the section south of Lougheed Highway will require coordination with BC MOTI who are understood to be pursuing upgrades to the Lougheed Highway/Harris Road intersection. It is recommended a feasibility study, i.e., topographical survey and concept design, be undertaken to determine suitable facilities, impacts and costs.

### Route Selection:

Most direct and continuous north-south route through the city, aligns with planned underpass, northernmost section subject to MOTI upgrades.

### Facility Type Selection:

Uni-Directional Bike Lanes to provide AAA facility adjacent to high traffic volumes and speeds

Facility Length: Approx. 2,200m

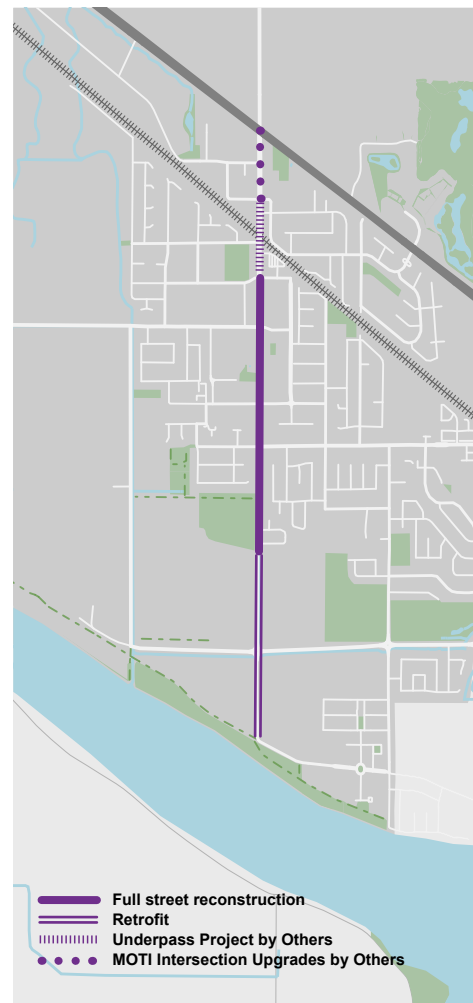
Cost Estimate - Class D: 1.3km at \$6M/km full reconstruction + 0.90km at \$300k to \$500k/km retrofit (\$8.2M Total)



Inspiration: Esplanade, City of North Vancouver



Inspiration: Metral Drive, City of Nanaimo



— Full street reconstruction  
- - - Retrofit  
. . . Underpass Project by Others  
● ● ● MOTI Intersection Upgrades by Others

## PB2 - HAMMOND ROAD PROTECTED BIKE LANES

Hammond Road is one of the primary east-west corridors in the City connecting to Maple Ridge, it is an important route for people traveling by all modes. It currently features painted bike lanes in the door zone of parked vehicles for approximately half of the corridor which are present on both sides west of Bonson Road. Based on the volume and speed of traffic and the inherent safety issues of door zone bike lanes, it is recommended that Hammond Road be upgraded to protected bike lanes. Two potential cross-section are suggested for consideration during the design phase of such upgrades.

### Recommended Option: Uni-Directional Protected Bike Lanes

Option 1 would remove on-street parking to accommodate wide uni-directional bike lanes with space to ride side-by-side or to pass west of Bonson Road. While on-street parking would be lost for residents, most have driveways for parking. East of Bonson Road there is reduced width, thus protected bike lanes would require either removal of the left turn lanes or relocation of curb and gutter with impacts to the existing boulevard and street trees.

### Alternate Option: Bi-directional Protected Bike Lane

With a connection at the east end to Maple Meadows Way multi-use path on the north side, Option 2 recommends a bi-directional protected bike lane be added to Hammond Road on the north side. Existing curb and gutter would be retained and width would be achieved through the removal of parking on the north side and the painted bike lanes on both sides to accommodate a wide bi-directional bike lane with substantial landscaped buffer from traffic west of Bonson Road. East of Bonson Road the facility would reduce in width as would the buffer to reflect the narrower roadway. Bi-directional lanes do create more unexpected conflicts at intersections, thus while this makes more efficient use of space, conflicts would be higher with turning traffic both to local streets and driveways.

### Route Selection:

Northernmost direct and continuous east-west route through the urban core of the city.

### Facility Type Selection:

Recommended: Uni-directional protected bike lanes retaining curbs and removing both parking lanes

Alternate Option: Bi-directional protected bike lanes retaining curbs and removing one parking lane

Facility Length: Approx. 3,000m

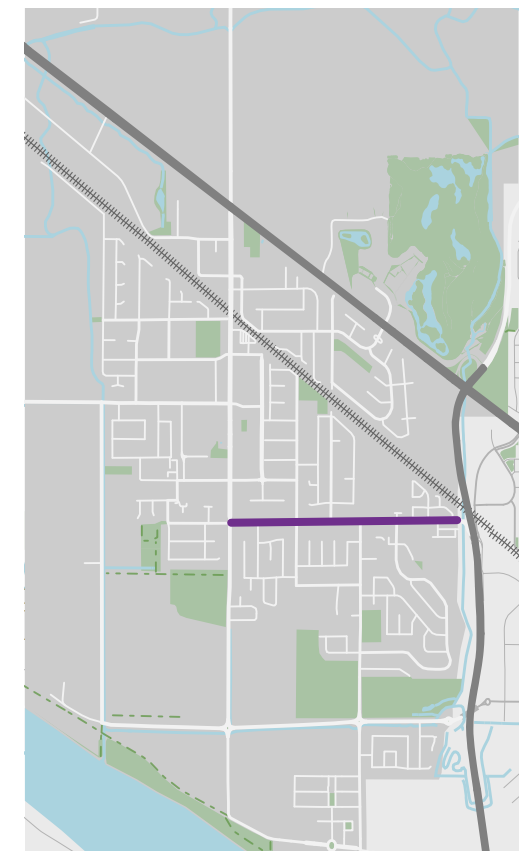
Cost Estimate - Class D: \$1M per kilometre (\$3M Total)



Inspiration: 1st Street, City of North Vancouver



Inspiration: Harbour Road, City of Victoria







## 5.4. NEIGHBOURHOOD BIKEWAY RECOMMENDATIONS

### NEIGHBOURHOOD BIKEWAY DESIGN PRINCIPLES

Neighbourhood bikeways are designated bicycle routes with appropriate traffic calming to reduce vehicle volumes and speeds to a level that is comfortable for most. They may be preferable where there is insufficient space to add separated bicycle facilities. Traffic calming most often includes speed humps or cushions to slow vehicles and make the route less desirable to short cut through, and modal filters restrict vehicle through movement entirely in strategic locations to reduce volumes to a level suitable for sharing the road. While this can reduce access for residents, it also reduces vehicle volumes past homes.

**Pick the Right Route:** A neighbourhood bikeway is not a substitute for protected facilities along commercial corridors, access to the busiest streets should be safe and easy for everybody in the community, no matter how they travel. Without safe facilities people may just ride on the sidewalk. Where neighbourhood bikeways parallel a major arterial, care should be taken to stop short-cutting when that arterial becomes congested. Grades are important, but sometimes unavoidable, but where possible, streets with lesser grades should be used for designated bicycle routes.

**Remove Through Traffic:** Neighbourhood bikeways are more comfortable the less traffic there is. Targets vary from 500 vehicles per day up to 2,500 vehicles per day, but lower is always preferable. Modal filters are the best tool to reduce traffic volumes and can take many forms. they can be design to remove through traffic and/or turning traffic. Care is required to maintain resident access, but they may accept their route becomes slightly more circuitous as it also reduces through traffic passed their homes.

**Slow Drivers Down:** Neighbourhood bikeways should be posted at 30 km/h all day every day, not just in school zones or adjacent to parks. Signage, however, is not enough; the best way to reduce vehicle speeds is vertical deflection in the form of speed cushions that can allow people riding bicycles, emergency vehicles, and even transit to pass along the street without disruption while those driving conventional cars will have to negotiate the hump.

**Make Passing Comfortable:** The width of the street is rarely a design decision if the route make sense. However it's important to understand that certain widths create uncomfortable passing conditions for someone cycling or rolling if the driver is aggressive. Widths of 5.5m between parked vehicles and above are preferred with appropriate speed reduction measures. Lesser widths may be possible for cars and people riding bicycles to pass, but to varying levels of comfort. Consider parking removal where widths are less than 5.5m.

**Mark the Route:** Sharrows should only be used on designated neighbourhood bikeways and should be used to guide position on the roadway and for wayfinding. Sharrows should be positioned out of the door zone of parked vehicles and the arrow section of the stencil may be used to guide people along the route where turns are necessary.

**Get People Across Busy Streets:** Where neighbourhood bikeways cross major streets, people should be provided with some form of safe crossing, likely RRFB's on single lane collector roadways, and pedestrian or half signals on busier or multi-lane roadways.

**Create Nice Places:** Lastly, the creation of neighbourhood bikeways can sometimes create opportunities to improve the public realm. Where modal filters are placed they can be simple concrete islands or bollards, but they can also be opportunities to create pedestrian plazas, say where there are schools or commercial frontages along a route.

Many of the typical elements that contribute to creating a safe and comfortable neighbourhood bikeway are outlined on the following page including speed limit reductions, speed cushions, sharrow pavement markings, pedestrian signals and Rapid Rectangular Flashing Beacons, and modal filters including placemaking elements.





Inspiration: Speed Cushions, City of Port Moody



Inspiration: Directional Sharrows, City of Victoria



Inspiration: 30 km/h Signage, City of Vancouver

## NB1 - SECONDARY SCHOOL NEIGHBOURHOOD BIKEWAY

This neighbourhood bikeway would facilitate trips to Pitt Meadows Secondary School as well as provide connections to the Hammond Road protected bike lanes and the Bonson Road and Wildwood Trail multi-use pathways. The neighbourhood bikeway includes sections of Blakely Road, 116b Avenue, and Wildwood Crescent.

**Route Selection:** Supports travel to and from the Secondary School

**Facility Type:** Neighbourhood Bikeway

- Reclassification of street to Minor Collector
- 30 km/h posted speed
- Speed cushions to enforce the posted speed
- Sharrow pavement markings
- Eradication of the centre line
- If volumes found to be too high, modal filter on Blakely Road between 116b Avenue and 117 Avenue to reduce traffic volumes (design to maintain bus access and driveway access to 19391 116b Avenue)

**Facility Length:** Approx. 2,200m

**Cost Estimate - Class D:** \$300,000 per kilometre + \$250,000 for modal filter/plaza (\$910,000 Total - \$660,000 initially)



## NB2 - HIGHLAND PARK NEIGHBOURHOOD BIKEWAY

This neighbourhood bikeway would facilitate trips to Highland Park Elementary School, MacLean Park, and the nearby West Coast Express Pitt Meadows Station. It would provide connections to the Harris Road protected bike lanes, as well as the MacLean Park, Park Road, Ford Road, and 193 Street / 122a Avenue multi-use pathways. The neighbourhood bikeway includes sections of McMyn Road, 191 Street, 124 Avenue, 122 Avenue, 190 Street, Advent Road, and 189a Street include:

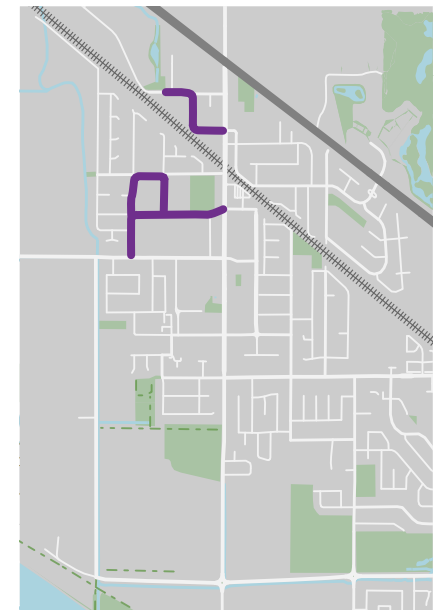
**Route Selection:** Supports travel to and from Highland Elementary School and the Lougheed Multi-Use Pathway

**Facility Selection:** Neighbourhood Bikeway

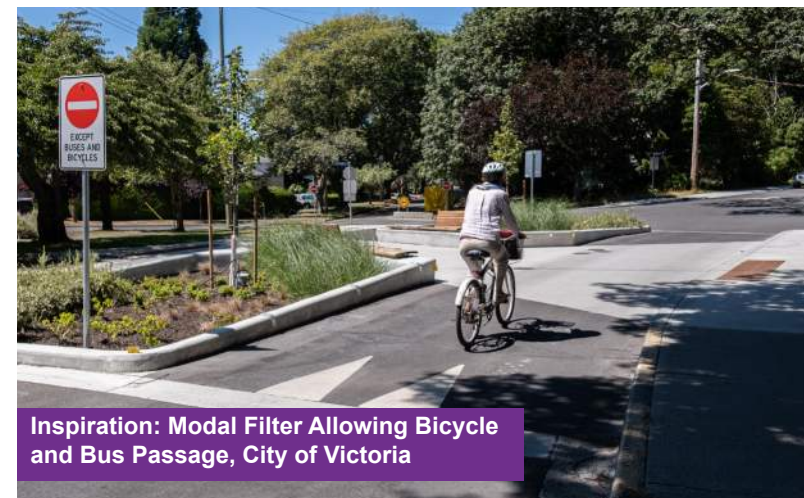
- Reclassification of street to Minor Collector
- 30 km/h posted speed
- Speed cushions to enforce the posted speed
- Sharrow pavement markings
- Eradication of the centre line
- All-way stop control at McMyn Road/191 Street

**Facility Length:** Approx. 1,950m

**Cost Estimate - Class D:** \$300,000 per kilometre (\$585,000 total)



Inspiration: RRFB Bikeway Crossing, City of Victoria



Inspiration: Modal Filter Allowing Bicycle and Bus Passage, City of Victoria



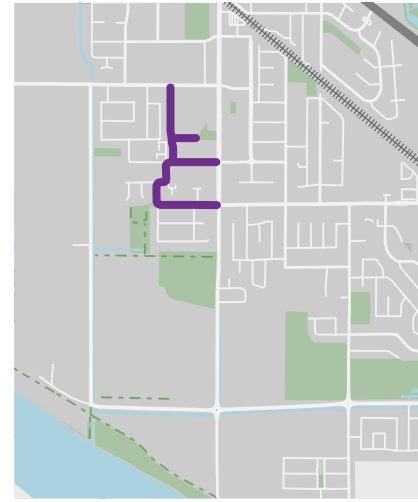
Inspiration: Pedestrian Signal Bikeway Crossing, City of Vancouver



### NB3 - RECREATION CENTRE NEIGHBOURHOOD BIKEWAY

This neighbourhood bikeway would facilitate trips to the Pitt Meadows Elementary School and Recreation Centre, as well as provide connections to the Harris Road and Hammond Road protected bike lanes, and the Ford Road multi-use pathway. The neighbourhood bikeway includes sections of 190 Street, 119b Avenue, 119 Avenue, 190a Street, 118b Avenue, 190 Street, and Mitchell Road include.

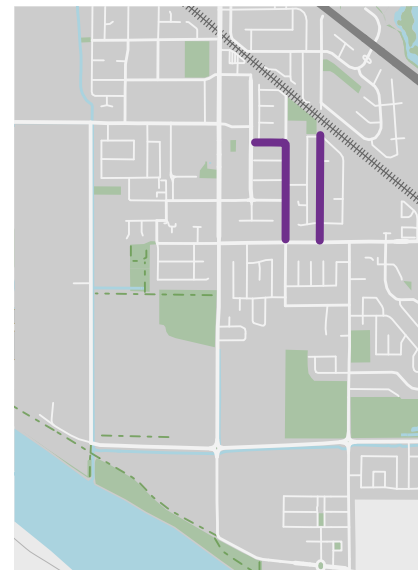
- Route Selection:** Supports travel to and from Pitt Meadows Elementary School
- Facility Type:** Neighbourhood Bikeway
- Reclassification of street to Minor Collector
  - 30 km/h posted speed
  - Speed cushions to enforce the posted speed
  - Sharrow pavement markings
  - Eradication of the centre line
- Facility Length:** Approx. 1,350m
- Cost Estimate - Class D:** \$300,000 per kilometre (\$405,000 Total)



### NB4 - DAVIE JONES NEIGHBOURHOOD BIKEWAY

This neighbourhood bikeway would facilitate trips to Davie Jones Elementary School and provide connections to the Hammond Road and the 193 Avenue / 122a Avenue protected bike lanes, the Bonson Road multi-use pathway, and the Secondary School neighbourhood bikeway. The neighbourhood bikeway includes sections of 120b Avenue, Blakely Road, and Bonson Road include.

- Route Selection:** Supports travel to and from the Davie Jones Elementary School
- Facility Type:** Neighbourhood Bikeway
- Reclassification of street to Minor Collector
  - 30 km/h posted speed
  - Speed cushions to enforce the posted speed
  - Sharrow pavement markings
  - Eradication of the centre line
  - If volumes found to be too high, modal filter on 193 Avenue between Ford Road and 120b Avenue with park upgrade
- Facility Length:** Approx. 1,300m
- Cost Estimate - Class D:** \$300,000 per kilometre + \$250,000 for modal filter/plaza (\$640,000 Total - \$390,000 initially)



Inspiration: Vancouver Street Modal Filter, City of Victoria





Inspiration: Spirit Trail Multi-Use Pathway, District of North Vancouver

## 5.5. MULTI-USE PATHWAY RECOMMENDATIONS

### MULTI-USE PATHWAY DESIGN PRINCIPLES

Multi-Use Pathways (MUPs) offer comfort and safety to active users due to their physical separation from motor vehicle traffic. As MUPs are shared between both pedestrians and higher speed users, conflicts between the two are possible, but can be somewhat mitigated by use of pavement markings, signage, and wider pathways. Although separated facilities for pedestrians and other active modes are generally preferred, MUPs can be useful in areas with space is constrained or where active modes volumes are anticipated to be lower.

**Paved or Unpaved Trails:** For an active transportation network to be accessible to everyone, paved trails are essential as they better accommodate people with mobility impairments using wheelchairs or mobility devices. Furthermore, they are less impacted by changing surface conditions during bad weather. Unpaved trails do provide value for many, providing access to nature and a more natural experience. However, they should not be the only route option in an active transportation network for all ages and abilities.

**Grades:** Similar guidance is recommended as is provided for sidewalks, i.e., less than 5% is preferred. Because there are many different types of users on multi-use pathways, grades can greatly affect travel speeds with those rolling picking up speed on downhill grades. Where a pathway is constructed along steeper grades, additional width should be considered to reduce the likelihood of close passes. Furthermore, localized separation of modes could be considered, especially where there may be issues with sight lines, i.e. horizontal and vertical curves in close proximity.

**Widths:** A pathway should be able to accommodate passing while people are walking side by side. The recommended minimum width for a pathway is 4 metres to allow two people walking side by side to pass in each direction without having to resort to single file. An absolute minimum pathway width of 3 metres is only recommended in constrained conditions. As noted above on steeper grades, pathway widths of up to 5 metres should be considered to increase passing space.

**Lighting:** Lighting makes a pathway feel more comfortable for more people after dark. Given typical commute times can be after dark during the winter months, lighting greatly increases the comfort and safety of those travelling by active modes after dark.

**Safe Crossings:** As is the case with the pedestrian and cycling network, multi-use pathways also require safe crossings at intersections and mid-block where there are desire lines.

**Crime Prevention:** The location of many pathways in the city are such that there may be few eyes on the pathway. This can lead to feelings of a potential or perceived threat to safety. Where possible pathways should be designed with adequate sight lines along the pathway, and ideally eyes on the pathway from adjacent homes or businesses if possible.

**Pathway Etiquette:** As stated above, because multiple active modes share the same space, pathway etiquette can help reduce conflicts. Combined with wayfinding signage, additional messaging can encourage people to keep to the right to allow people to pass, and further more, messaging can encourage those moving faster to pass slowly and with care.

In Pitt Meadows, multi-use pathways are proposed along roadways where challenges such as space constraints prevented separate pedestrian and bicycle facilities from being proposed and where volumes of active users were anticipated to be low enough that a shared facility was considered sufficient.

With micro-mobility evolving, more and more devices with varying speed capabilities are being introduced to the market and will be used on shared facilities. It is recommended that these devices be permitted on multi-use pathways providing they are limited to 32 km/h as e-bikes are today. Again, on steeper grades, all micro-mobility devices including regular bicycles may far exceed this in the downhill direction and design should consider this and how conflicts can be mitigated.



### MUP1 - BONSON ROAD MULTI-USE PATHWAY

Bonson Road is currently posted at either 30 km/h or 50 km/h and people riding bicycles must share the road with motor vehicles. Vehicle speeds and volumes are above acceptable thresholds for a shared facility, thus to provide safe connections between the Secondary School and Arena Complex a multi-use pathway is proposed along this corridor to connect the proposed protected bike lanes on Hammond Road with the proposed neighbourhood bikeway on 116b Avenue, Bonson Park, and the Arena Complex, and planned bike lanes to Osprey Village.

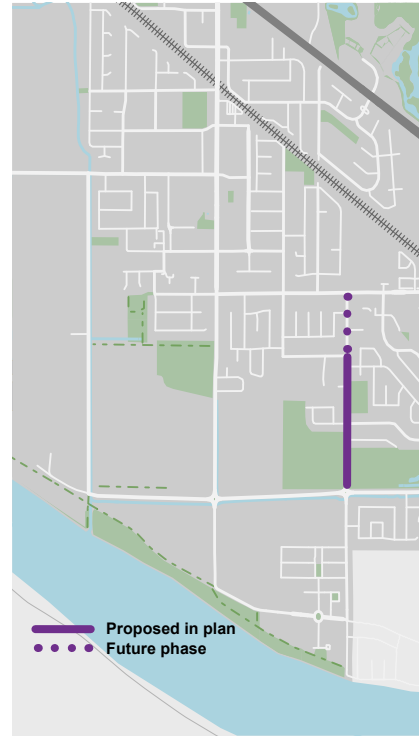
**Route Selection:** Connects Osprey Village, Athletic Park and Secondary School to other proposed facilities.

**Facility Type:** Multi-Use Pathway

- Pathway would extend from 116b Ave to the Airport Way (Future phase to Hammond Road)
- Pathway to be located on the west side that better connects more of the above amenities.
- Would utilize existing sidewalk space and on-street parking, requiring new curb and gutter.
- May include a small boulevard between pathway and travel lanes for low level vegetation
- Pathway width prioritized over landscaping between 115b Avenue and Aljumaili Avenue, where downhill speeds will be higher.
- Could include continuous crossings at 117b Avenue, 116b Avenue, 115b Avenue, 114b Avenue and Aljumaili Avenue.

**Facility Length:** Approx. 650m

**Cost Estimate - Class D:** \$2,000,000 per km (\$1.3M total)



### MUP2 - FORD ROAD MULTI-USE PATHWAY

Ford Road currently features painted bike lanes on both sides of the roadway that are within the door zone of adjacent parking lanes. These are not considered best practice and should be upgraded. Various options were considered, including the removal of on-street parking altogether. Ultimately, a multi-use pathway was deemed to have the lowest overall impact while accommodating people traveling actively.

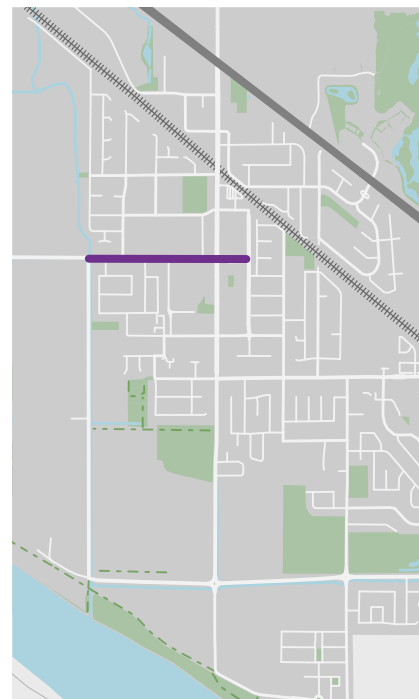
**Route Selection:** Replaces existing door zone bike lanes and provides a connection between Baynes Road pathway and proposed Davie Jones Neighbourhood Bikeway.

**Facility Type:** Multi-Use Pathway

- Pathway would extend from Baynes Road to 193 Street
- Pathway to be located on the south side that better connects the Baynes Road pathway, the Library and the proposed neighbourhood bikeway upgrade at 193 Avenue.
- Would utilize existing sidewalk and on-street bike lane space.
- May include a small boulevard between pathway and travel lanes for low level vegetation
- Could include continuous crossings at Baynes Road, 188b Street, 189b Street, and 190a Street.

**Facility Length:** Approx. 1,000m

**Cost Estimate - Class D:** \$2,000,000 per km (\$2M Total)



### MUP3 - AIRPORT WAY MULTI-USE PATHWAY

This path would connect the existing Trans Canada Trail multi-use pathway on Airport Way (between Bonson Road and Alouette Place) and the Wildwood Trail with the proposed Baynes Road pathway.

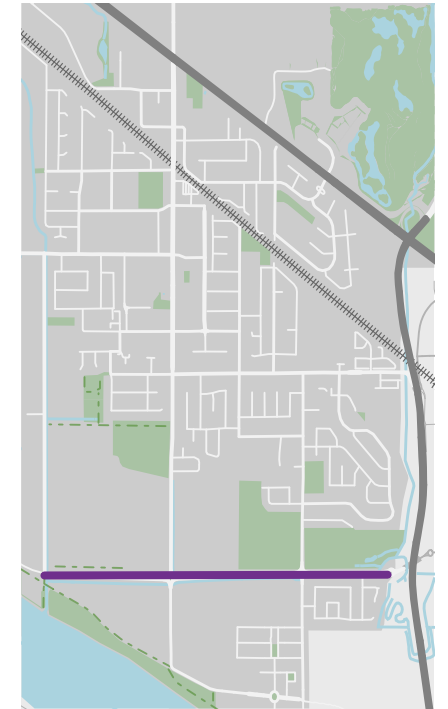
**Route Selection:** Connects Osprey Village, Athletic Park and to other proposed north-south facilities and Golden Ears Bridge.

**Facility Type:** Multi-Use Pathway

- A new paved pathway between Bonson Road and Baynes Road (side of roadway to be determined in concept design);
- An improved connection to Golden Ears Way; and,
- Upgraded lighting for proposed sections as well as the existing section east of Bonson Road.

**Facility Length:** Approx. 2,100m

**Cost Estimate - Class D:** Mostly by developer - \$500,000 for improved connection to Golden Ears Way and lighting



### MUP4 - PARKSIDE TRAIL MULTI-USE PATHWAY

This direct connection does not exist at present, but would connect the planned Multi-Use Pathway through the adjacent development to Harris Road.

**Route Selection:** Provides improved connection between future north-south MUP and recommended Harris Road improvements.

**Facility Type:** Multi-Use Pathway

- Paved pathway along existing gravel trail and more direct route connected to future north-south MUP.
- Upgraded lighting

**Facility Type:** Multi-Use Pathway

**Facility Length:** Approx. 400m

**Cost Estimate - Class D:** \$1,000,000 per km (\$400,000 total)





### MUP5 - LOUGHEED HIGHWAY MULTI-USE PATHWAY (EAST OF HARRIS ROAD)

This pathway would connect the existing multi-use pathway east of Harris Road Park with the intersection of Harris Road and Lougheed Highway, providing a direct route to the proposed pathway west of this intersection and the proposed Harris Road protected bike lanes. This pathway would also connect to a future multi-use pathway along Park Road, as well as both the existing Harris Road bike accessible shoulder north of Lougheed Highway and provide a direct connection to RapidBus transit stops at this intersection.

**Route Selection:** Completes missing link in the Lougheed Highway multi-use pathway, but requires major intersection upgrades led by BC MOTI. Ensure future projects include active modes accommodation.

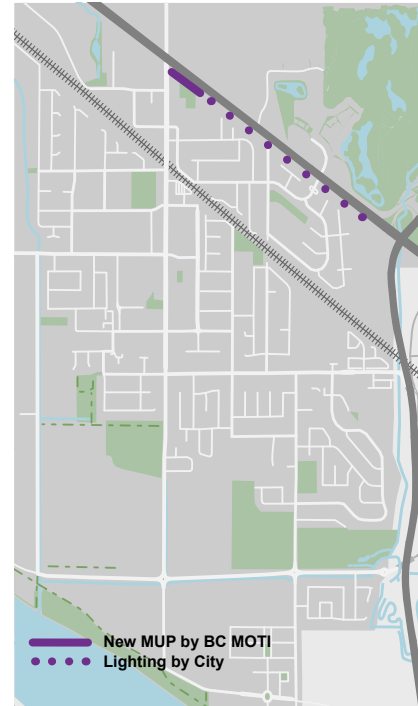
**Facility Type:** Multi-Use Pathway

- A new paved connection between the existing pathway and the Harris Road & Lougheed Highway intersection.
- Upgraded lighting along the pathway's alignment.

**Facility Type:** Multi-Use Pathway

**Facility Length:** Approx. 1,650m

**Cost Estimate - Class D:** BC MOTI Cost (Lighting by City)



### MUP6 - LOUGHEED HIGHWAY MULTI-USE PATHWAY (WEST OF HARRIS ROAD)

This pathway would connect the existing multi-use pathway west of MacLean Park with the intersection of Harris Road and Lougheed Highway, providing a direct route to the both proposed pathway east of this intersection and the proposed Harris Road protected bike lanes. This pathway would also connect to the existing Harris Road bike accessible shoulder north of Lougheed Highway and provide a direct connection to RapidBus transit stops at this intersection.

**Route Selection:** Completes missing link in the Lougheed Highway multi-use pathway, but requires major intersection upgrades led by BC MOTI. Ensure future projects include active modes accommodation.

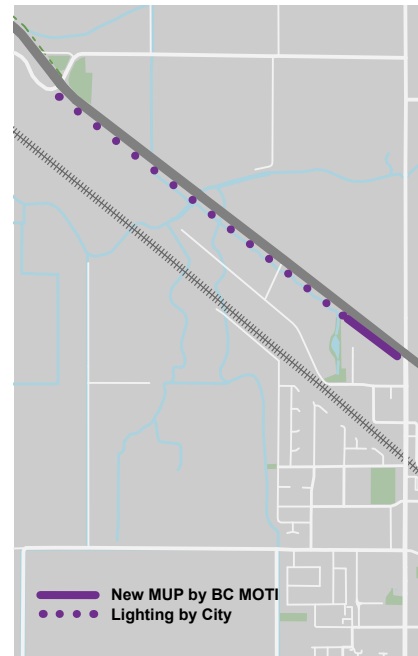
**Facility Type:** Multi-Use Pathway

- A new paved connection between the existing pathway and the Harris Road & Lougheed Highway intersection.
- Upgraded lighting along the pathway's alignment.

**Facility Type:** Multi-Use Pathway

**Facility Length:** Approx. 2,600m

**Cost Estimate - Class D:** BC MOTI Cost (Lighting by City)



### MUP7 - BAYNES ROAD MULTI-USE PATHWAY

This pathway is primarily a gravel pathway running north-south, it provides a useful connection to the airport, for recreation and provides access to the Airport Trail and Dike Trail system.

**Route Selection:** Provides north-south connection on west side of Urban boundary, connects airport and dike trail.

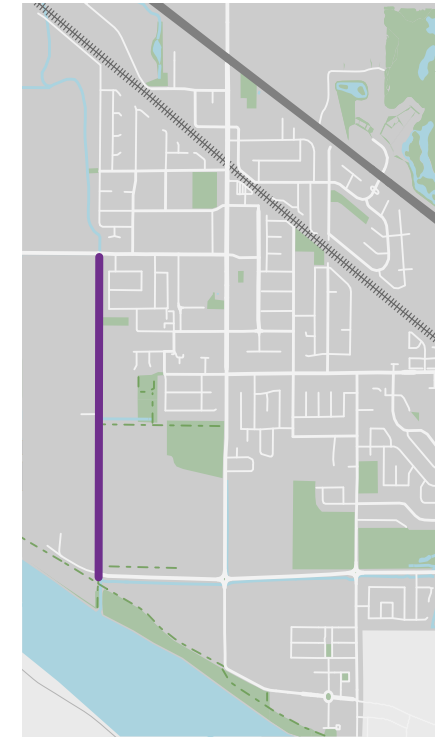
**Facility Type:** Multi-Use Pathway

- Paved pathway between Ford Road and Airport Way in place of the existing gravel pathway
- Upgraded lighting (subject to airport regulations)

**Facility Type:** Multi-Use Pathway

**Facility Length:** Approx. 1,550m

**Cost Estimate - Class D:** \$1,000,000 per km (\$1.55M total)



### MUP8 - PARK ROAD MULTI-USE PATHWAY

This multi-use pathway would upgrade an existing neighbourhood bikeway due to the route's high motor vehicle volume and speeds. It would connect the existing pathway along Lougheed Highway to the proposed Harris Road protected bike lanes and the existing 124 Avenue neighbourhood bikeway west of Harris Road. This proposed pathway would also extend on Bonson Road, connecting Park Road with Edith McDermott Elementary, the pedestrian and bicycle overpass further south, and by extension the Bonson Road neighbourhood bikeway.

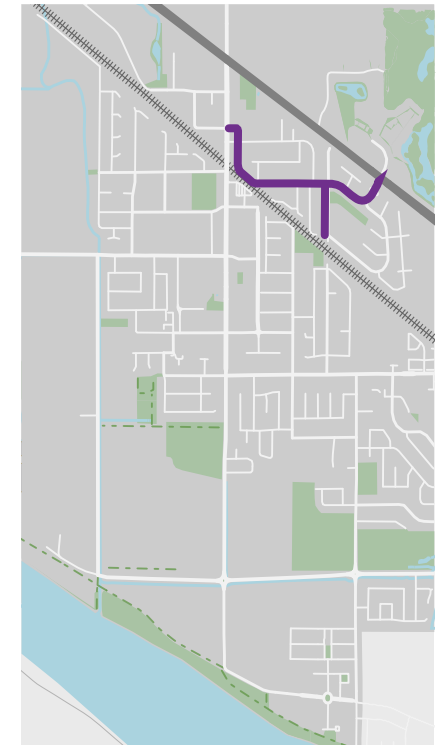
**Route Selection:** Connects neighbourhood to destinations to the east and west and supports trip to Edith McDermott Elementary School.

**Facility Type:** Multi-Use Pathway or Protected Bike Lane

- The existing sidewalks are experiencing considerable root heave along this section. As a collector street to carry traffic between Lougheed Highway and Harris Road, this street is not suitable as a neighbourhood bikeway. There are two ways to make it safer for cycling and rolling:
- Recommended Option: Remove south side parking lane and construct a new boulevard with new street trees in the location of the existing parking lane, and replace the sidewalk with a new multi-use pathway.
- Alternative Option: Remove south side parking lane, and add a constrained bi-directional protected bike lane where the parking lane is currently located. Lane would be 2.4m width with flex posts on the paint line.

**Facility Length:** Approx. 1,250m

**Cost Estimate - Class D:** \$2M per kilometre (\$2.5M total)







Inspiration: Covered Bicycle Parking, City of North Vancouver

## 5.6. OTHER INFRASTRUCTURE UPGRADES

### OT1. WAYFINDING STRATEGY

As the network of all ages and abilities facilities expands, wayfinding will help understanding of the network and connectivity it provides as well as providing opportunities to improve pathway etiquette and provide reassurance. A formal wayfinding strategy should be undertaken to develop appropriate branding, however it is anticipated it would include the following key elements:

- **Map Signage:** Placed at key amenities such as parks; features a network map with 'You Are Here' confirmation; includes branding; includes etiquette information; includes facility type level of comfort information.
- **Decision Signage:** Placed at locations where facilities cross or connect; features directional signs pointing to destinations; includes branding; includes distance confirmation to each destination; includes travel time estimate to each destination.
- **Reassurance Signage:** Placed at regular intervals along pathways where no decision making is required; features branding; features etiquette advice, (i.e., 'Keep Right' or 'Pass With Care'.)

Proposed locations for each sign typology are shown in Figure 5.5. Signage should be added as and when facilities are upgraded to all ages and abilities standards.

### OT2. ACTIVE MODES COUNTER/S

Eco (bicycle) counters make real-time counts of active transportation users publicly available at select locations throughout a City and provide long-term data collection to understand trends. Counters are proposed wherever substantial active transportation upgrades are made, furthermore, data should be collected wherever possible from signals with video detection rather than the induction loops.

### OT3. BICYCLE STORAGE FACILITIES

To make it easier for people to cycle to commercial areas of the City, short-term bicycle storage should be provided in highly visible locations. This could include additional bike racks, but ideally the use of one or two parking stalls where a covered structure could be added to provide weather protection at the following locations:

- New bicycle storage: Meadowtown Shopping Centre
- New bicycle storage: Meadow Vale Shopping Centre
- New bicycle storage: Public Library and Recreation Centre
- Upgraded bicycle storage: Arena Complex
- New bicycle storage: West Coast Express Station (close to entrance)

Note that while the City can provide bicycle parking infrastructure in many areas, the City should work with public and private partners to upgrade, provide, or incentivize bicycle parking on their properties.

**Estimated cost - Class D (each):** up to \$100,000



Inspiration: Signage and Distance to Key Destinations, City of Victoria



Inspiration: Galloping Goose Regional Trail, Capital Regional District



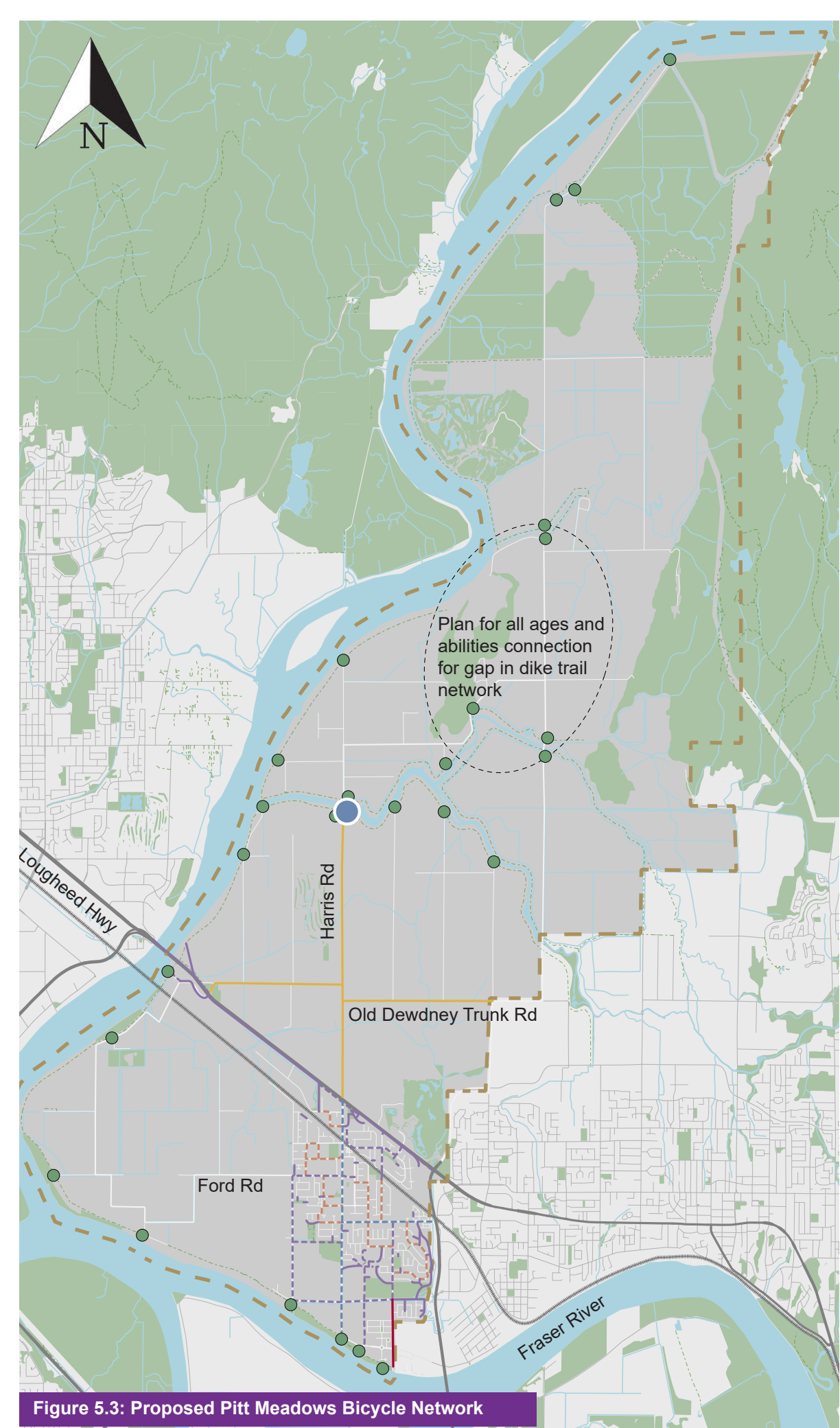



















Figure 5.3: Proposed Pitt Meadows Bicycle Network

-  Protected Bike Lane
-  Multi-Use Pathway
-  Neighbourhood Bikeway
-  Bike Accessible Shoulder
-  Painted Bike Lane
-  Proposed Facility (Dashed)
-  Unpaved Trail
-  Pathway Lighting
-  Modal Filter
-  Eco-Counter
-  Crossing Upgrade
-  Bicycle Parking
-  School
-  Recreation Centre
-  Train Station
-  Library
-  Dike Access

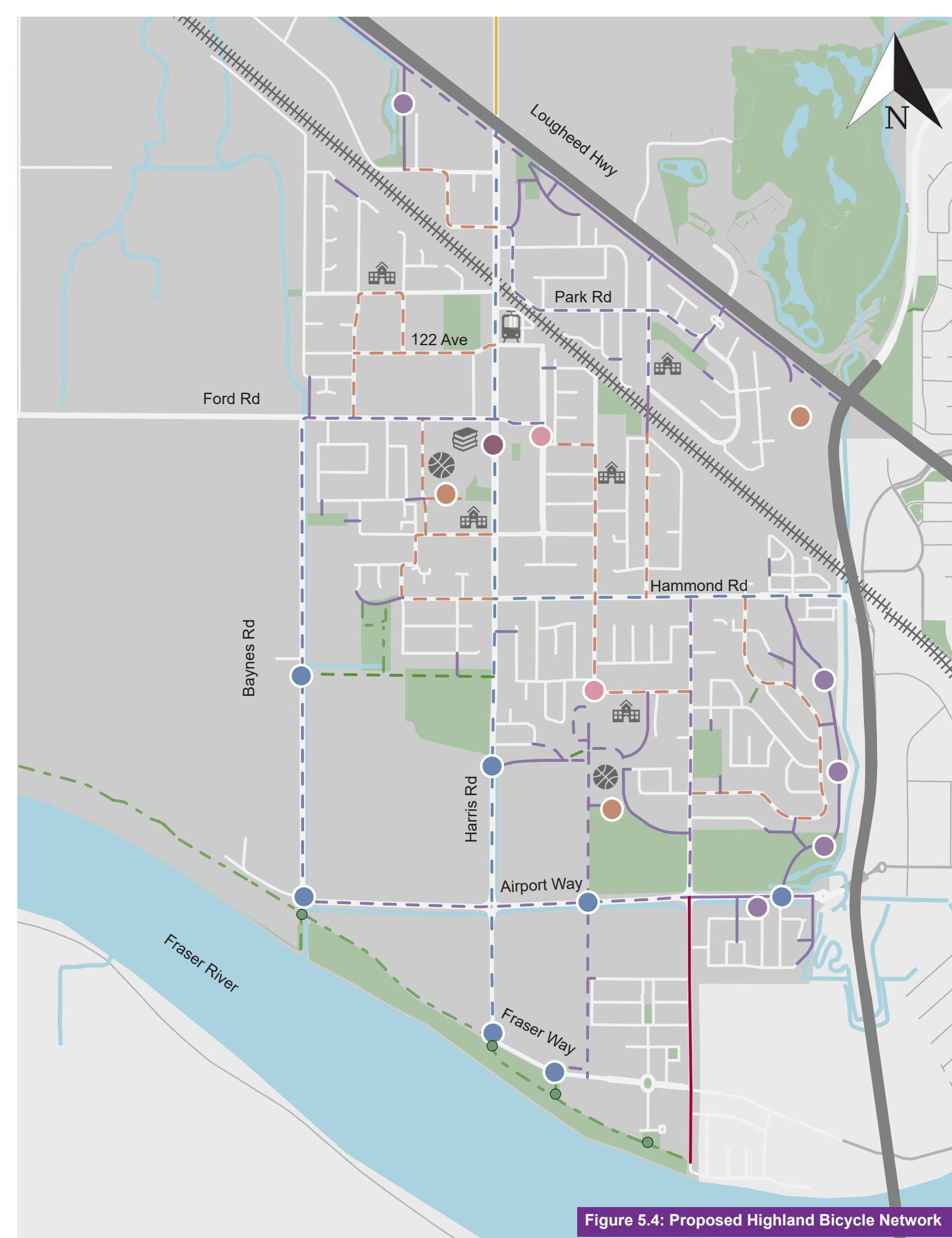


Figure 5.4: Proposed Highland Bicycle Network



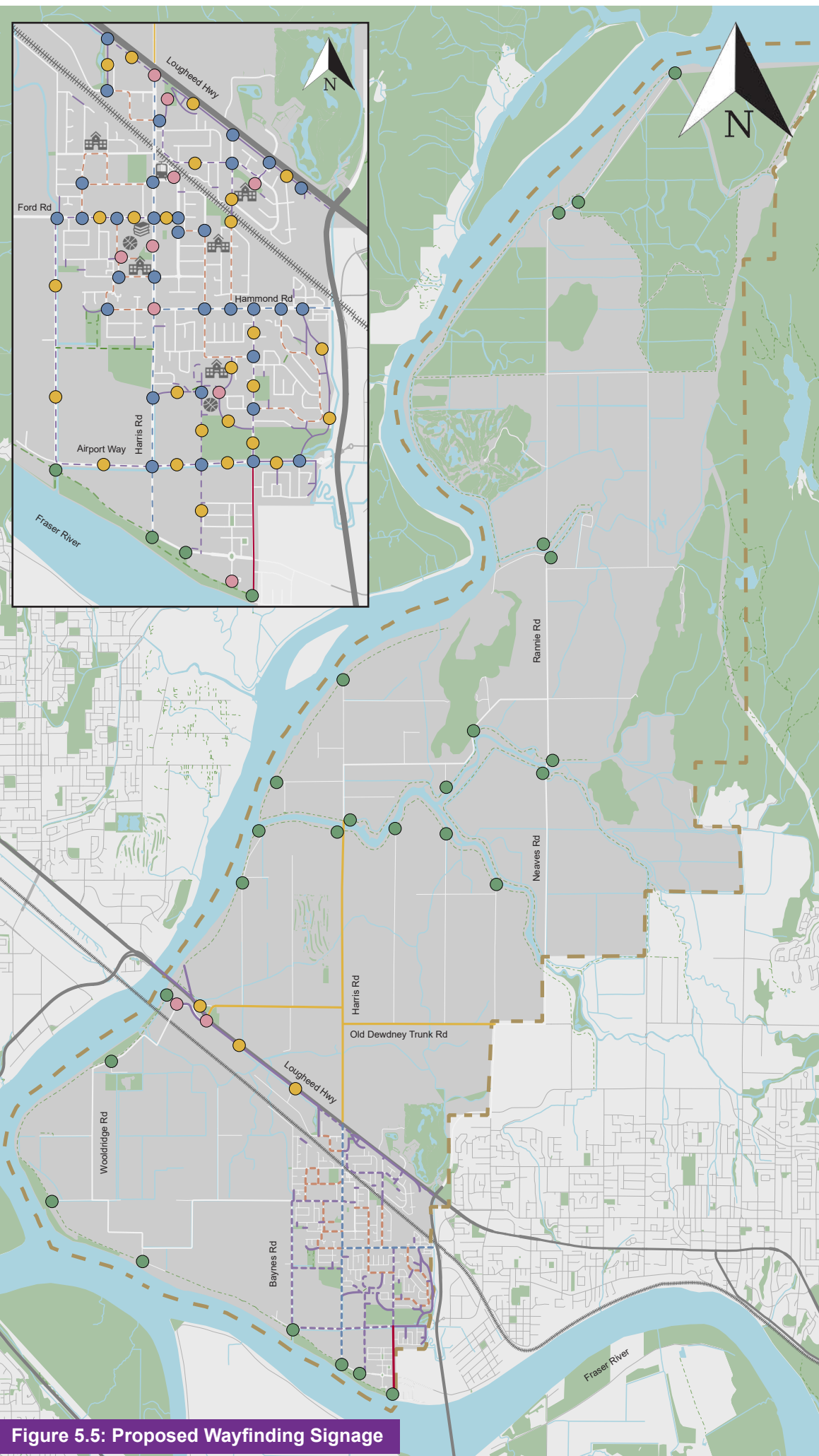

















Figure 5.5: Proposed Wayfinding Signage

-  Protected Bike Lane
-  Multi-Use Pathway
-  Neighbourhood Bikeway
-  Bike Accessible Shoulder
-  Painted Bike Lane
-  Proposed Facility (Dashed)
-  Unpaved Trail
-  Map Signage
-  Decision Signage
-  Reassurance Signage
-  School
-  Recreation Centre
-  Train Station
-  Library
-  Dike Access

### 5.7. PLAN COST ESTIMATE

Costs for the plan elements are Class D estimates (±50%) and indicate the approximate magnitude of cost of the proposed project based on broad requirements. This overall cost estimate is derived from lump sum or unit costs for similar projects completed by ISL in recent years. It is intended to be used in developing long term capital plans and for preliminary discussion of proposed capital projects. The total budget includes design effort between 10% and 20% in the year prior to construction and is subject to budget availability, priorities at the time, and available grant funding opportunities.

The total investment to build this plan is estimated to be \$23.5M in 2022 dollars broken down as shown in Table 5.1.

Table 5.1: Active Transportation Plan Capital Cost

| PLAN ELEMENT CODE                | PLAN ELEMENT                           | CLASS D COST ESTIMATE |
|----------------------------------|--|-----------------------|
| PED1                             | Continuous Sidewalks Trial             | \$0.5M                |
| PED2                             | Crosswalk Upgrades                     | \$0.12M               |
| PED3                             | Leading Pedestrian Intervals           | \$0.03M               |
| PED4                             | Accessibility Improvements             | \$0.08M               |
| PED5                             | Pathway Lighting                       | \$0.69M               |
| PED6                             | School Street Trial Project            | \$0.025M              |
| PB1                              | Harris Road Complete Street            | \$8.2M                |
| PB2                              | Hammond Road Protected Bike Lanes      | \$3.0M                |
| NB1                              | Secondary School Neighbourhood Bikeway | \$0.66M               |
| NB2                              | Highland Park Neighbourhood Bikeway    | \$0.585M              |
| NB3                              | Rec Centre Neighbourhood Bikeway       | \$0.405M              |
| NB4                              | Davie Jones Neighbourhood Bikeway      | \$0.39M               |
| MUP1                             | Bonson Road Multi-Use Pathway          | \$1.3M                |
| MUP2                             | Ford Road Multi-Use Pathway            | \$2M                  |
| MUP3                             | Airport Way Multi-Use Pathway          | Developer + \$0.5M    |
| MUP4                             | Parkside Trail Multi-Use Pathway       | \$0.4M                |
| MUP5                             | Lougheed Highway Multi-Use Pathway     | BC MOTI               |
| MUP6                             | Lougheed Highway Multi-Use Pathway     | BC MOTI               |
| MUP7                             | Baynes Road Multi-Use Pathway          | \$1.55M               |
| MUP 8                            | Park Road Multi-Use Pathway            | \$2.5M                |
| OT                               | Bike Parking                           | \$0.5M                |
| <b>Total Plan Cost</b>           |  | <b>\$23.5M</b>        |
| <b>Assumed 50% Grant Funding</b> |  | <b>\$11.5M</b>        |
| <b>Assumed 50% City Funding</b>  |  | <b>\$11.5M</b>        |



## 5.8 POLICY RECOMMENDATIONS

### PR1. UPDATE THE SUBDIVISION AND DEVELOPMENT SERVICING BYLAW NO. 2589, 2013

This bylaw provides design requirements for road construction in the City, some sections of the bylaw are no longer in keeping with best practice. It is recommended a thorough review of the bylaw is undertaken and it is updated to reflect best practices for active transportation infrastructure. For example Drawing Number 101D suggests a narrow 1.5m bike lane is provided between a narrow 2.2m parking lane (including gutter) and 3.3m travel lane.

Such designs exist in a few locations in the city and this plan includes recommendations to upgrade such streets as they place someone riding a bicycle at significant risk of dooring.

### PR2. UPDATE PARKS AND COMMUNITY FACILITIES REGULATIONS BYLAW NO. 2651, 2014

This bylaws prohibit anyone to use city parks between the hours of 10pm and 6am. Where parks provide critical traffic-free connections, this limits use by some using the pathways for transportation who may start or finish work outside of conventional office hours.

### PR3. AMEND BYLAWS FOR ACTIVE MODES

Per the BC Active Transportation Design Guide “B.C. MVA enables local and regional governments to regulate the operation of roads and road users through local bylaws. They may use these powers to allow new and emerging technologies or design elements on roads under their jurisdiction. Local governments (and road users) shall still abide by the B.C. MVA on roadways under MOTI jurisdiction within their communities.

Many municipalities are considering reducing the default speed on municipal streets to 30 km/h to improve road safety. The City could do similar to support active modes and general road safety objectives. Note that even with the default speed reduce, designated neighbourhood bikeways will still require physical traffic calming measures to enforce the lower speeds.

Another example of a local government using this power is the City of Vancouver, which amended its Road & Traffic Bylaw 2849 in 2017 to allow people cycling to ride in a crosswalk without dismounting, as long as the crosswalk is marked with elephant’s feet cross-ride pavement markings – something that is not currently covered in the B.C. MVA. Local governments may also enact bylaws and regulations beyond the roadway, governing parks, pathways, and other areas that are not under the jurisdiction of the B.C. MVA.”

Many communities are using elephants feet, including the City of Pitt Meadows. While this is common, it is recommended that the City’s Highway and Traffic Bylaw No. 2836 be amended to govern the use of elephant feet pavement markings and define right-of-way for users, per the Vancouver example above.

This page is intentionally blank





## 6. IMPLEMENTATION

### 6.1. PRIORITIES

The pedestrian infrastructure upgrades are all small capital cost projects and would be addressed through the City's annual allowance for active transportation improvements. Larger improvements are prioritized based on a number of factors. Improvements are typically focused on critical routes where there is either no infrastructure or the existing infrastructure does not meet a standard that enables everyone in the community to use it. Upgrading routes that already experience higher levels of use is less likely to attract new trips compared with upgrades to critical routes with no infrastructure or infrastructure that is not suitable for all ages and abilities. The scoring rationale, therefore, prioritizes the recommended projects in a manner that utilizes capital budget to address the most critical missing links in the network and has the greatest potential to induce active transportation demand.

It should be noted that priorities may change over time due to political will, alignment with other projects, and opportunities that may arise.

**Table 6.1: Active Transportation Plan Major Project Priorities**

| PLAN CODE | PLAN ELEMENT                                  | HUB CYCLING PRIORITY | PROXIMITY TO SCHOOL | TRAFFIC CONFLICTS | EXISTING UNSUITABILITY FOR AAA | CONSTRUCTIBILITY | POTENTIAL OPPOSITION | TOTAL |
|-----------|---|----------------------|---------------------|-------------------|--------------------------------|------------------|----------------------|-------|
| PB1.1     | Harris Road Complete Street Retrofit          | 5                    | 3                   | 5                 | 4                              | 5                | 5                    | 27    |
| PB1.2     | Harris Road Complete Street Full Construction | 5                    | 5                   | 5                 | 5                              | 1                | 3                    | 24    |
| PB2       | Hammond Road Protected Bike Lanes             | 4                    | 3                   | 5                 | 4                              | 4                | 1                    | 21    |
| MUP4      | Parkside Trail Multi-Use Pathway              | 5                    | 3                   | 0                 | 5                              | 4                | 4                    | 21    |
| NB1       | Secondary School Neighbourhood Bikeway        | 0                    | 5                   | 1                 | 2                              | 5                | 4                    | 17    |
| NB2       | Highland Park Neighbourhood Bikeway           | 0                    | 5                   | 1                 | 2                              | 5                | 4                    | 17    |
| NB3       | Rec Centre Neighbourhood Bikeway              | 0                    | 5                   | 1                 | 2                              | 5                | 4                    | 17    |
| NB4       | Davie Jones Neighbourhood Bikeway             | 0                    | 5                   | 1                 | 2                              | 5                | 4                    | 17    |
| MUP1      | Bonson Road Multi-Use Pathway                 | 2                    | 3                   | 3                 | 4                              | 3                | 1                    | 16    |
| MUP7      | Baynes Road Multi-Use Pathway                 | 2                    | 0                   | 1                 | 1                              | 5                | 5                    | 14    |
| MUP8      | Park Road Multi-Use Pathway                   | 0                    | 3                   | 4                 | 4                              | 2                | 1                    | 14    |
| MUP2      | Ford Road Multi-Use Pathway                   | 2                    | 0                   | 3                 | 4                              | 3                | 1                    | 13    |

#### SCORING RATIONALE (ALL CATEGORIES SCORED OUT OF 5)

##### Hub Cycling Priority Scoring

Hub priority list score above 7 = 5  
 Hub priority list score above 6 = 4  
 Hub priority list score above 5 = 3  
 Hub priority list score above 4 = 2  
 Hub priority list score above 3 = 1  
 Not Hub Cycling Priority = 0

##### Proximity to School Scoring

Immediately adjacent = 5  
 Likely route to school = 3  
 Not a common route to school = 0

##### Traffic Conflicts

High speed and/or volume along route = 5  
 Middle ground relative to high/low scores  
 Low volume and speed = 0

##### Existing Unsuitability for AAA Scoring

Unsuitable for AAA = 5  
 Middle ground relative to high/low scores  
 Suitable for AAA = 0

##### Constructibility

Simple constructibility = 5  
 Middle ground relative to high/low  
 Complex constructibility = 0

##### Potential for Opposition

Low potential = 5  
 Middle ground relative to high/low  
 High potential = 0



## 6.2. IMPLEMENTATION PLAN

Funding is available for active transportation from various sources including municipal property taxes, developer cost charges, and development frontage improvements. These capital costs are often supplemented with provincial or federal grant funding opportunities. While opportunities and grant funding amounts can change from time to time, those most common sources available at the time of writing are identified below:

### 6.2.1. FEDERAL FUNDING OPPORTUNITIES

#### FCM Green Municipal Fund

The Green Municipal Fund helps local governments switch to sustainable practices faster. Our unique mix of funding, resources and training gives municipalities the tools they need to build resiliency — and create better lives for Canadians. GMF is a \$1.6 billion program funded by the Government of Canada.

#### Government of Canada Active Transportation Fund

The first-ever Active Transportation Fund will provide \$400 million over five years to support a modal shift away from cars and toward active transportation, in support of Canada's National Active Transportation Strategy. The Active Transportation Fund will invest in projects that build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges, in addition to supporting active transportation planning and stakeholder engagement activities.

Funding is available for planning and capital projects. For planning projects, grants of up to \$50,000 are available for successful applicants who wish to undertake planning, design or stakeholder engagement activities. Funding can cover up to 100% of eligible costs. Moreover, 3% of the Active Transportation Fund has been notionally allocated for planning projects. For capital projects, contributions of up to \$50 million are available for capital projects that build new or enhance existing active transportation infrastructure, or which provide ancillary features and facilities that promote active transportation or enhance user safety and security. The maximum program contribution rate from the Federal Government for municipal projects is 60%. The website currently refers to applications for the 2022 calendar year.

### 6.2.2. PROVINCIAL FUNDING OPPORTUNITIES

#### BC MOTI Active Transportation Infrastructure Grants

The B.C. Active Transportation Infrastructure Grants Program provides cost-sharing opportunities for network planning grants and infrastructure grants. Funding from these grant programs support the development of active transportation infrastructure for all ages and abilities. For example, infrastructure grants fund: Multi-use protected travel lanes; Pedestrian and cycling safety improvements; End-of-trip facilities and other amenities; and lighting and way-finding. BC Active Transportation Infrastructure projects are eligible for funding up to a total of \$500,000 per project and the grant can fund up to 60% for a local government with community population between 15,000 and 25,000.

#### ICBC Road Improvement Program

Since 1990, ICBC have invested approximately \$225 million in over 8,300 road improvement projects across B.C., and are committed to continuing to making roads safer for drivers, cyclists and pedestrians. ICBC works with a variety of stakeholders and experts on road improvements, including engineers, municipalities around the province and the Ministry of Transportation to implement technologies and initiatives that can prevent crashes. Funding availability for road improvement projects are not publicly available, but there are likely opportunities to support active transportation projects in the community.

#### UBCM Community Works Fund

The Community Works Fund (CWF) is one of the funding streams of the Canada Community-Building Fund. The CWF allocates funding to all local governments in BC based on a per capita formula that includes a funding floor. Local governments may direct the funding towards eligible costs of eligible projects as set out in the CWF agreement and report annually on these projects and their outcomes. The CWF program will deliver an estimated \$1.3 billion over ten years to local governments.

The eligible categories for capital infrastructure include: Drinking Water Wastewater; Local Roads, Active Transportation, Bridges; Solid Waste; Recreation and Sport Infrastructure; Tourism and Cultural Infrastructure; Public Transit; Community Energy Systems; Disaster Mitigation; Fire Hall Infrastructure; Short-sea Shipping and

Short-line Rail; Broadband Connectivity; Regional and Local Airports; and Brownfield Redevelopment.

The eligible categories for capacity building include: Asset Management; Integrated Community Sustainability Plans; and Long-term Infrastructure Plans.

### 6.2.3. REGIONAL FUNDING OPPORTUNITIES

#### TransLink MRNB (Major Road Network and Bike) Program

MRNB Upgrade funding is an annual allocation of TransLink capital funds dedicated to managing and improving the capacity, efficiency and safety of the MRN network as well as to encouraging the construction of more bicycle routes or related facilities to remove barriers to cyclists across the region. The MRNB Upgrade fund is intended to fund smaller scale projects that are ready for implementation, can be completed within a short time frame, and will forestall the need for larger capital investments in the network.

TransLink will fund up to 50% of eligible costs for approved MRNB Upgrade projects and up to 75% for Class 1 facilities on the Major Bike Network (MBN) or within Urban Centres in accordance with eligibility criteria set out in the BICCS Program Description and Guidelines. There are no funding caps on the projects other than the allocated funds cannot contribute to more than 50% or 75% (as noted above) of the eligible project funds.

#### TransLink BICCS (Bicycle Infrastructure Capital Cost Sharing) Program

BICCS funding is intended for new or significantly improved facilities that are categorized as Class 1 (Comfortable for All) or Class 2 (Comfortable for Most). Funding is available up to \$1M per project with Class 1 facilities eligible for funding up to 75% and Class 2 projects eligible for up to 50%. Importantly, the program does allow other funding sources to count towards the municipal share, thus if appropriate grant stacking can be secured, there is potential to substantially reduce the municipal contribution.

BICCS is intended to fund projects located within Urban Centres or FTDA's (from Regional Growth Strategy), that contribute to the Major Bikeway Network (from Transport 2050), that are located in areas of "high cycling potential" (top 20% region-wide, plus top 20% in each local government; see online eligibility map), and for projects developed collaboratively by TransLink and a municipal partner (Local governments are to contact TransLink prior to project application submission).

#### TransLink WITT (Walking Infrastructure to Transit) Program

In order to improve pedestrian access to transit, WITT funding is available to local governments to provide new or enhanced walking infrastructure to transit through a cost sharing partnership. Available WITT funding is distributed to projects through both an allocated local fund and a competitive process. Funding up to 50% is available for projects meeting program eligibility, and up to 75% is available for improvements in Urban Centres or Frequent Transit Development Areas (FTDA's)

WITT funding is intended for new or significantly improved sidewalks, pedestrian crossings, and other pedestrian safety improvements that are within 800m of a rapid transit station, including SeaBus terminals, B-Line bus stops, West Coast Express (WCE) stations and future committed projects identified in an approved TransLink Investment Plan, within 400m of the existing Frequent Transit Network, within 400m of transit stops with highest existing ridership (top 20% of bus stops in each local government), and projects developed collaboratively by TransLink and a local government partner (Local governments are to contact TransLink prior to project application submission).

### 6.2.4. POSSIBLE FUNDING SCENARIOS

Several scenarios exist for funding recommendations of this Plan. Possible timelines and approximate annual budgets, assuming 50% of costs are funded via grants, include:

- 20 Years -- \$1.2M per year (\$600,000 Capital Costs)
- 30 Years -- \$800,000 per year (\$400,000 Capital Costs)
- 40 Years -- \$600,000 per year (\$300,000 Capital Costs)

More than 50% grant funding may be achievable for some projects; however, grant stacking eligibility should be reviewed.



While major projects are dependent on available grant funding and capital planning, small projects would be funded through the City's annual active transportation budget. This budget is currently \$100,000 and this Plan recommends increasing the amount per annum to complete more improvements, more quickly. Small projects are to be prioritized at the City's discretion; these include:

- Crosswalk Upgrades;
- Continuous Sidewalk Trail;
- Leading Pedestrian Intervals;
- Accessibility Improvements;
- Wildwood Trail Lighting;
- Trans-Canada Trail Lighting;
- MacLean Park Pathway Lighting;
- School Street Trial Project; and,
- Bicycle Parking.

### 6.3. MONITORING

Monitoring of active transportation trends can help confirm project successes and inform any adaptations or corrections that may be necessary on past or future projects. Examples of potential monitoring strategies are identified below:

- **Readily Available Data:** This includes census travel to work metrics which are updated every five years. An increasing trend towards active modes can highlight the success of the plan and its implementation. It should, however, be noted that other factors can affect mode share such as gas prices.
- **Project Specific Active Modes Counts:** These counts which may be manual or automatic using various technologies, count the number of people walking, cycling, or moving along the corridor by various means. Often done before and after a project to understand if it increases usage, care must be taken to count on similar days, similar time of the year, with similar weather, and it's important to understand that counts on one improved corridor may be simply attracting trips from other corridors rather than creating new trips. This can be better understood by undertaking screenline surveys.
- **Facility Type Vehicle Surveys:** Over time it may be necessary to adjust facility types or increase the extent of traffic calming if traffic volumes and/or speeds increase. It is recommended that occasional checks are undertaken of vehicle volumes and speeds, particularly where people traveling actively share the road with motor vehicles.
- **Intercept or Interview Surveys:** Intercept surveys provide a valuable source of user opinion and can be undertaken directly on a corridor or in a neutral location, potentially before and after project implementation for a specific project. Examples of information that cannot be collected by simple counts include the feeling of safety or happiness using a new facility and previous condition. Interview surveys or panels surveys are another tool that can be scheduled annually to gauge the state of public opinion about topics in the community including active transportation, and over time can build a picture of changing trends.
- **Observational Surveys:** These surveys require a suitably experienced person to observe the corridor either before or after improvements to gauge how people are using it, if there are conflicts between user groups, and to help identify if specific interventions will be appropriate, or if after implementation, if they are working as intended. Examples include conflicts on multi-use pathways or at crosswalks.

### 6.4. BEYOND THE PLAN

The Pitt Meadows Active Transportation Plan provides a strategy to improve the safety and comfort of people in the City traveling to key destinations by active modes. Funding assumptions are made in the plan to set out one potential path of how the proposed active transportation network could be implemented, but the implementation plan is intended to be flexible and adapt to local priorities. As such, other priorities from time to time may take precedence over those outlined in this plan. Furthermore, this plan should be reviewed every five to ten years to confirm the recommendations within still meet best practice and evolving standards and updated as necessary.

This page is intentionally blank



# ACTIVE TRANSPORTATION PLAN

PUBLIC ENGAGEMENT: WHAT WE HEARD  
JULY, 2022

## A. WHAT WE HEARD

### A.1. PUBLIC ENGAGEMENT OVERVIEW

Public engagement for the Active Transportation Plan was undertaken entirely online using the 'Have Your Say Pitt Meadows' platform with responses collected between May 19, 2022 and June 23, 2022. Three tools were utilized to collect feedback on existing conditions and ideas for the plan. They included:

- **Survey Tool:** The survey tool received 87 responses and included questions about demographics, peoples current travel habits, perceptions of safety using different modes and types of infrastructure, frequency of active trips and key corridors used.
- **Ideas Tool:** The ideas tool received 30 ideas from 13 different contributors. In addition, the ideas received 43 likes and 6 additional comments on the ideas submitted.
- **Map Tool:** The map tool received 50 pins from 11 different contributors identifying location specific issues that will be considered in the plan. Only two pins were located north of Lougheed Highway, while the other 48 pins were located within the urban core of the City. Pins were categorized into several elements of active transportation and broken down as follows:
  - 6 (12%) pedestrian related
  - 12 (24%) cycling related
  - 6 (12%) accessibility related
  - 10 (20%) crosswalk related
  - 4 (8%) lighting related
  - 5 (10%) bicycle parking related
  - 7 (14%) noted as 'Other'

The information provided will be used directly by the project team to improve the understanding of existing conditions, understand the types of improvements that people would like to see recommended in the plan and specific locations that could benefit from improvements.

### A.2. SUMMARY OF SURVEY RESPONSES

#### DEMOGRAPHICS

84% of people live in the City of Pitt Meadows with 10% in Maple Ridge, and the remainder across the bridges in either the Tri-Cities or South of the Fraser. There was a reasonably good spread of ages between 30 and 59, with age groups outside of this having lesser representation. The primary missing demographic were the very young or very old. With respect to gender, females were slightly over represented. A small percentage of people reported various disabilities that impact their ability to travel by active transportation in some way. 1% noted mobility, hearing or cognitive impairments, while visual impairments represented 3% of the responses. A wide range of household formations were represented in the City with the most common being a two adult and two child household.

#### ACCESS TO TRANSPORTATION

92% of people noted that they had good access to transit, likely reflecting most people living in the compact core of the City. Like the household demographics, it was most common that people would have two regular bicycles and two children's bicycles, however there are many households with more bicycles and the type of bicycles included electric bicycles, cargo bicycles, tandem bicycles, and recumbent bicycles. Other micro-mobility modes note included roller-skates or in-line skates, skateboards, scooters, one-wheels and wheelchairs or mobility devices. 17% of people noted they already had an electric bicycle, while 26% were thinking about buying one, and likewise with respect to electric micro-mobility, 7% of people already own some form of electric micro-mobility device and 9% are thinking about buying one. It was most common for people to have two cars in their household and only 1% of households did not have access to a car. This is an important metric in interpreting the result of the survey. The responses provided are largely made by people who drive cars, not just cyclists. The people responding are truly multi-modal.



## TRIP FREQUENCY AND PATTERNS

People were asked how often they make trips by each mode. It was most common to see daily trips made by car, albeit people were most likely to make trips by car a few times per week rather than every day. With respect to active transportation most people walk or bike one or two days per week. In total, 80% of people stated that they cycle at least once per week and 91% walk at least once per week. 6% use a wheelchair or mobility device one or two days per week.

The main reasons people make trips by active transportation in Pitt Meadows are for fun, recreation and fitness. Only 39% stated that they commute by active transportation which could speak to the type of infrastructure provided leaning toward recreational facilities and that of adjacent communities. This is somewhat supported by the reasons for choosing active transportation with the benefits it provides to physical and mental health and fun being the top three responses. The next top reasons were then that active transportation is environmentally friendly, low cost and quick. Poor weather was the number one reason for not choosing active transportation, followed by long distances and safety in third, closely followed by time constraints.

Importantly, 85% of people were interested in making more trips by active transportation, representing the latent demand if the network were to better meet people's needs. When asked how confident people were cycling, 22% considered themselves strong and fearless and comfortable riding anywhere. This group was overwhelmingly male who represented 75% of those responses. This is higher than typically found in most cases and could speak to the type of people currently cycling and interested in responding to the survey. 61% considered themselves confident and enthused, defined as willing to tolerate painted bike lanes but would prefer protected facilities, and these were split relatively evenly between male and female responses. 17% classified themselves as interested but concerned and would only ride on facilities separate from traffic. Opposite to the strong and fearless, this group was overrepresented with females accounting for 85% of responses. Combined, the interested but concerned and confident and enthused which totals 78% of responses would like to see more facilities separate from traffic, which correlates closely to that 85% that were interested in making more trips by active transportation.

People were asked how often they used different facilities in the City. Local streets and the Dike trails saw the most daily users, with rural roadways and paved pathways being the next most utilized. Interestingly some of the main routes including the Airport Way bike lanes, Harris Road bike lanes saw less use, perhaps indicating that people seek out alternative local routes and pathways that feel safer. The two main bridges into the city, the Pitt River and Golden Ears Bridges saw the least amount of use, perhaps reflecting that most people stay within the city limits, or trips out of the city are further, and perhaps connect to less safe routes on the other side of the bridges.

The Dike trail system is an extensive active transportation amenity in the City. People were asked what they use it for and 97% noted the use it for recreation, while only 9% noted they use it for commuting. Only 2% noted they did not use the trail system.

## EQUITY

An equitable transportation network would make it possible for everybody in the community to get around easily and safely no matter their mode of transportation. People were asked how safe they feel travelling by different modes of transportation in Pitt Meadows. Cycling overwhelmingly provides the least feeling of safety, with only 4 people noting they felt very safe cycling, compared with 26 riding the bus, 32 walking, or 42 traveling in a car. Getting more people cycling will require considerable improvements to make more people feel very safe.

People were asked to check various statements they associated with respect to equity or reliance on different transportation modes. There were three responses that over 60% of people associated with. 68% stated they would like to make fewer trips by car, 63% stated they need their car for road trips, and 61% stated they need their car because distances are too long to cycle. Some other statements of note showed that 36% feel the cost of car ownership is a burden, 29% take the car because it isn't safe enough to cycle, 25% would like to reduce the number of cars in their household, 20% would like to be car free.

With respect to concerns travelling by active transportation, 75% worry about being struck by a vehicle (split relatively evenly between male and female responses), while 74% worry about leaving their bike locked up in public (split relatively evenly between male and female responses). 66% feel less safe traveling after dark (58% female v 42% male), and 56% plan circuitous routes to avoid conflicts with traffic (slightly more males doing so). 58% stated the active transportation network prevents them traveling by active transportation as much as they'd like to (68% female v 32% male).

## INFRASTRUCTURE

People were asked to rate how comfortable they felt using different types of bicycle infrastructure. Over 60% of people noted they felt very safe cycling on protected bike lanes, paved pathways and unpaved trails, far beyond any other facility types, with most of the remaining responses noting they feel somewhat safe on those facility types. At the other end of the spectrum less than 3% felt safe using the painted bike lanes or rural shoulders, which are the predominant facility type along major corridors in the city today. With respect to local streets 18% felt very safe which increased to 30% when adding traffic calming. When including the somewhat safe category, 60 and 71% felt at least somewhat safe on local streets and local streets with traffic calming respectively.

Pedestrians felt most safe on sidewalks with boulevard to add separation from traffic. The percentage that felt safe on the paved and unpaved trails dropped from those that use the facility for cycling, reflecting the fact that pedestrians are more vulnerable on such pathways. Flashing beacons and signalized crosswalks helped improve comfort when pedestrians had to cross the road.

30% stated that wayfinding was insufficient to navigate around the City, 56% noted that bike parking was insufficient, 30% noted that lighting was insufficient, and 73% noted that there are locations that would benefit from crosswalk upgrades. People were asked to add such locations to the map tool.



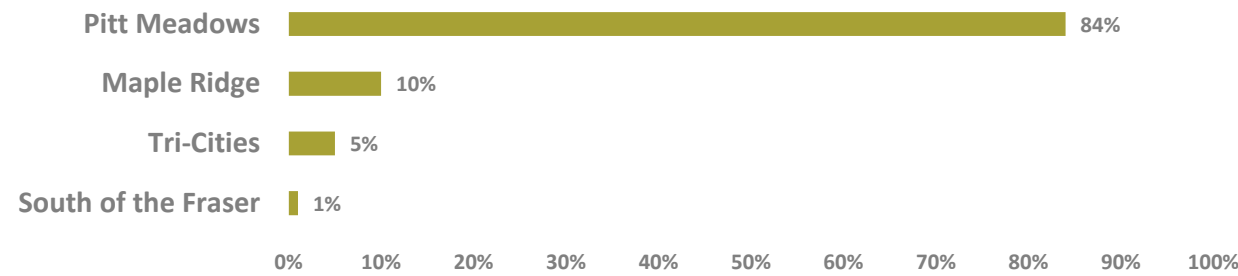
### A.3. DETAILED SURVEY RESPONSES

The survey asked for feedback across several themes including demographics, access to each mode of transportation, trip patterns, and infrastructure preferences. The responses received are provided on the following pages.

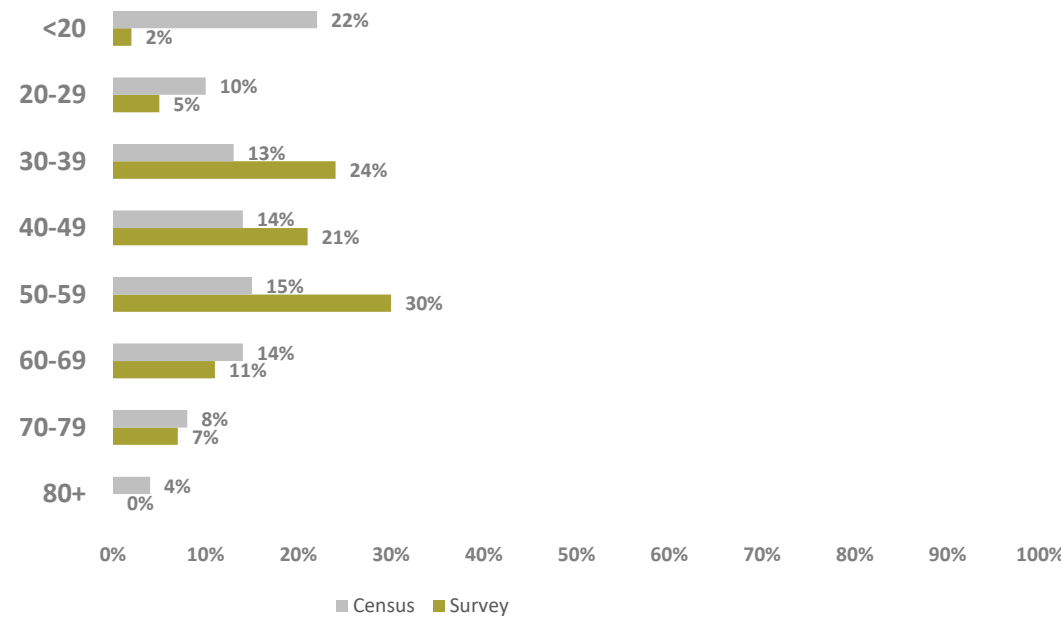
#### A.3.1. DEMOGRAPHICS

Demographic questions help us understand who is responding to the survey and if it provides a typical representation of the demographics in the entire city. Responses to each question are provided below.

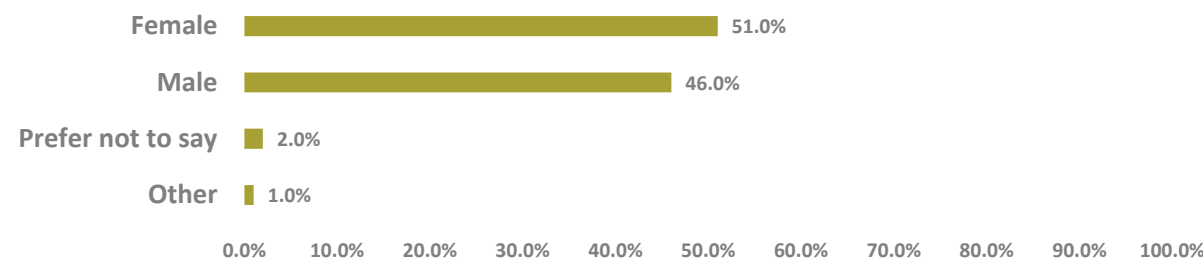
##### Q1: Where do you live?



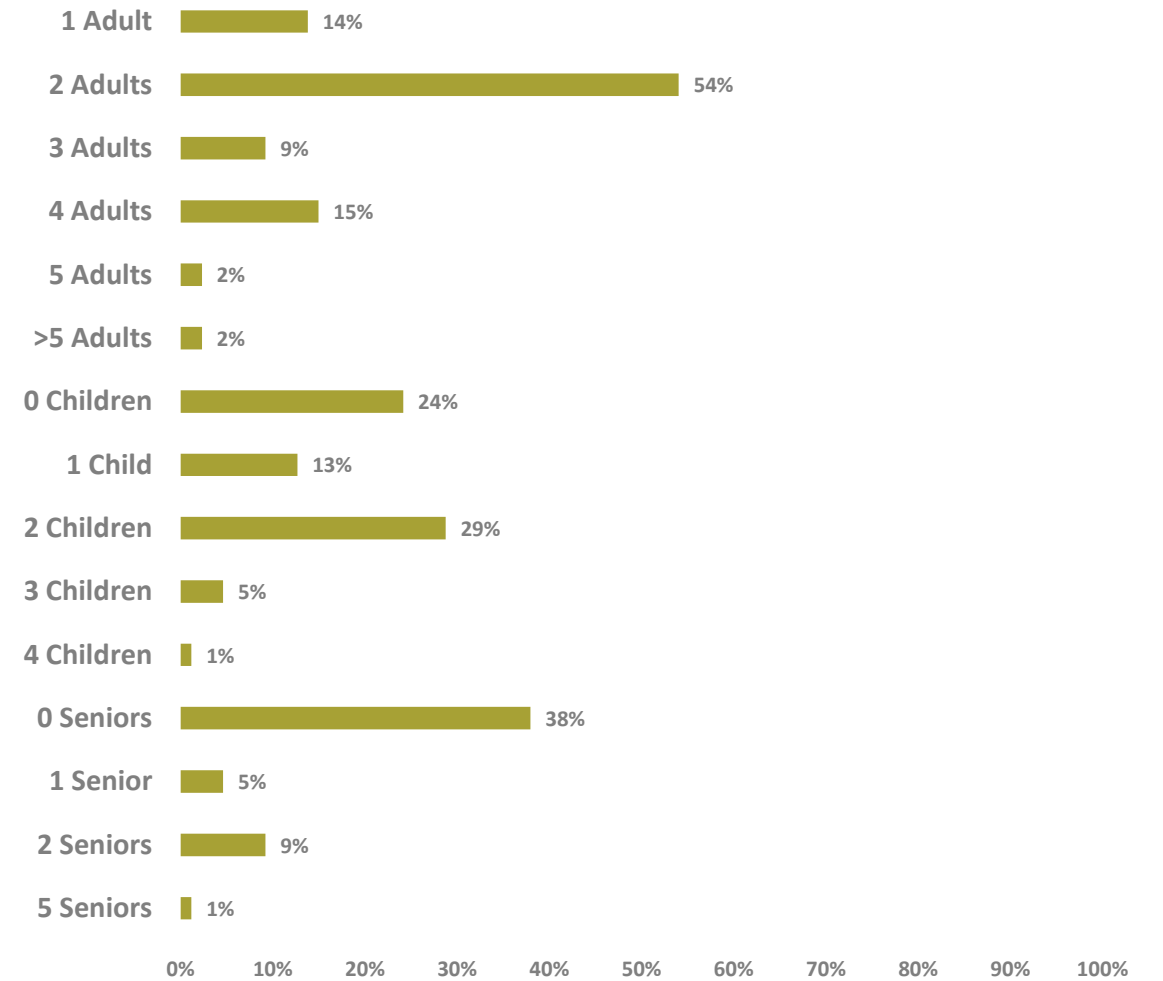
##### Q2: Which age group do you belong to?



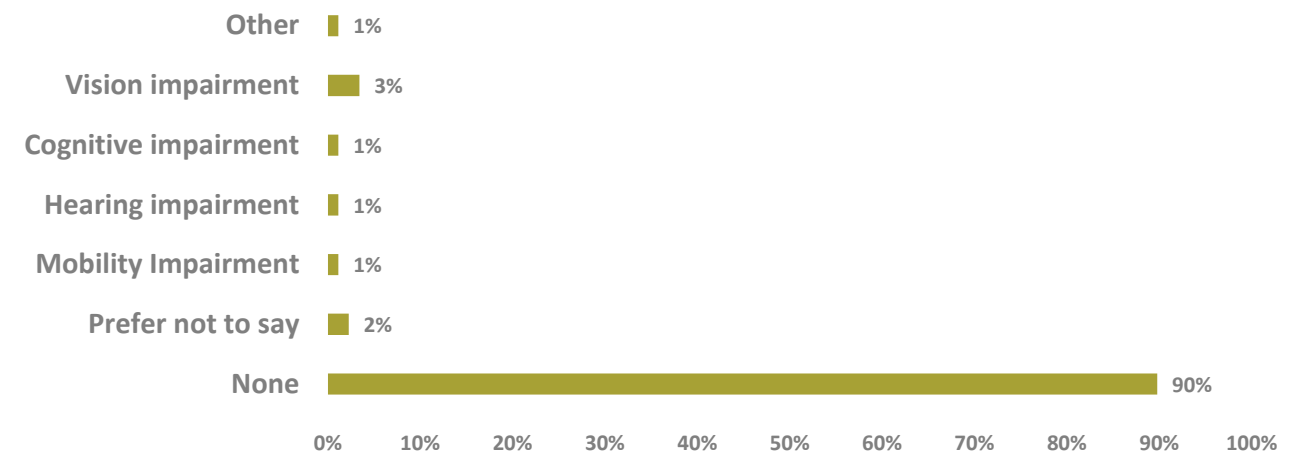
##### Q3: With which gender do you identify?



##### Q4: How many adults, children and seniors live in your household?



##### Q5: Do you have any disabilities that create challenges traveling by active transportation?

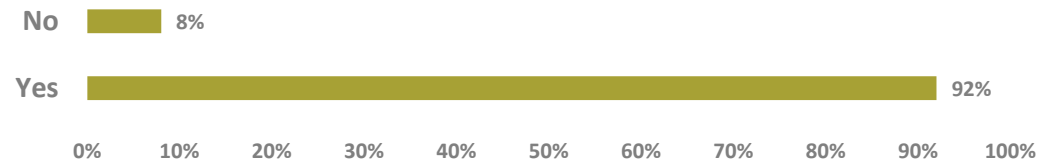




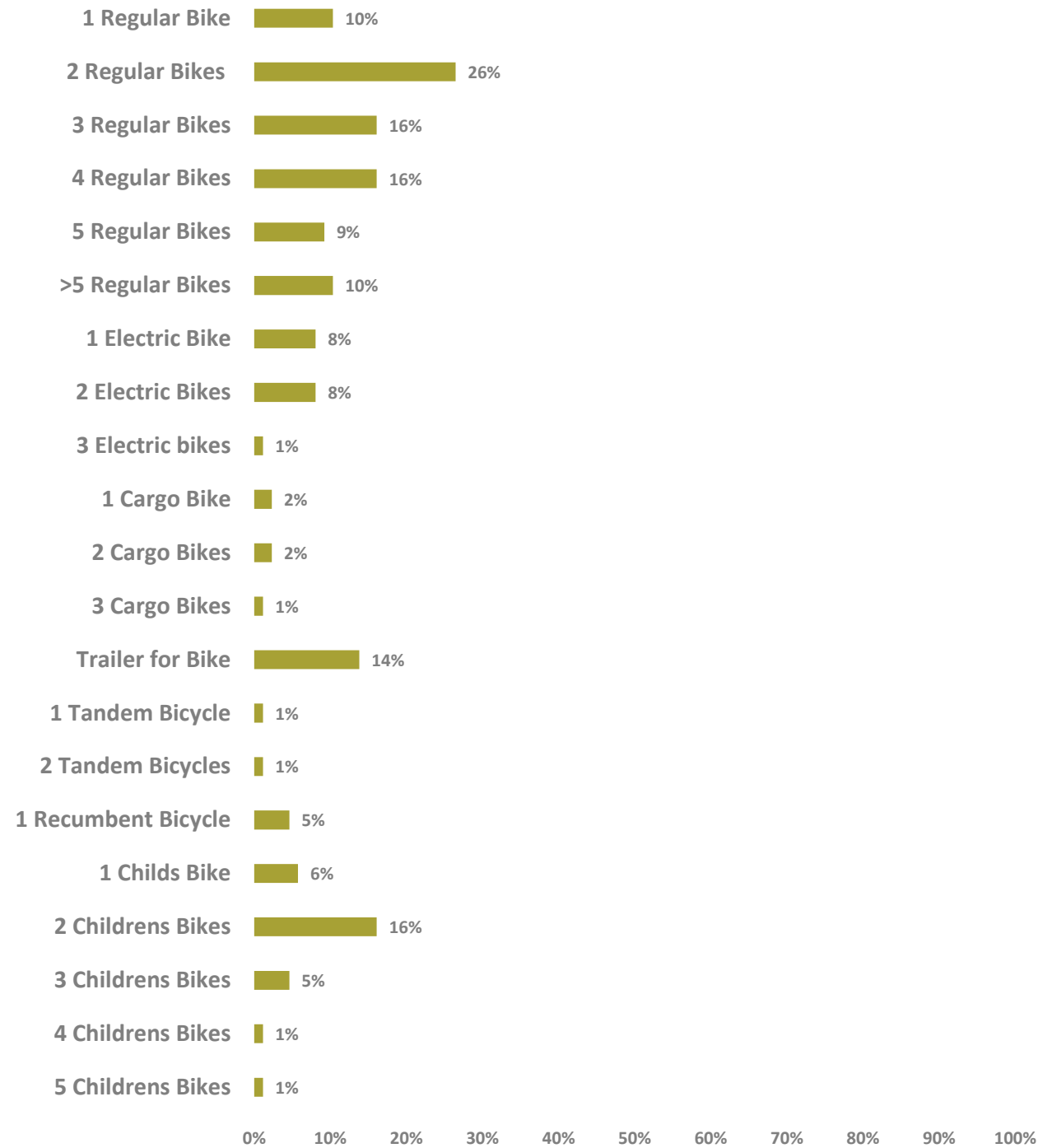
## A.2.2. ACCESS TO TRANSPORTATION

These questions help us understand how many people have access to different modes of transportation.

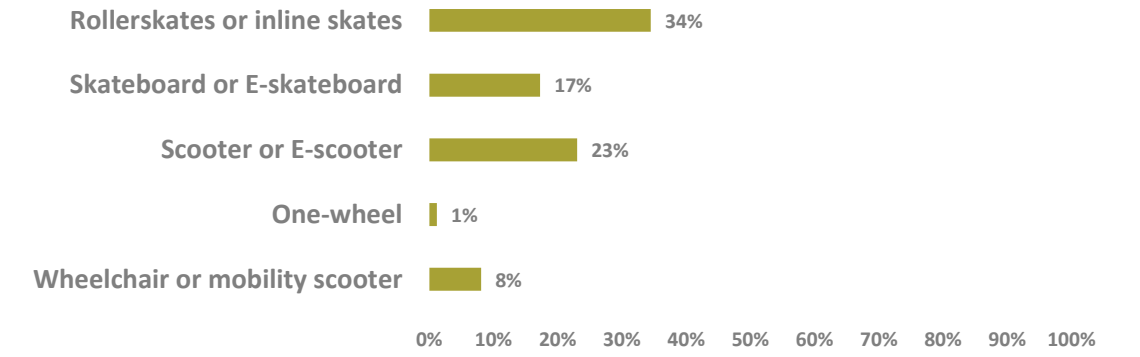
**Q6: Do you have access to transit within a reasonable walking distance of your home?**



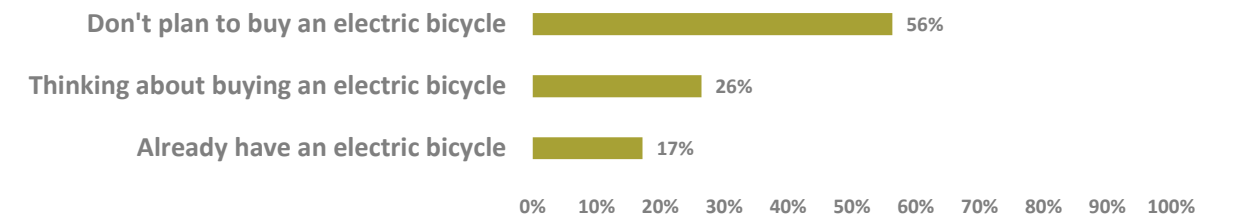
**Q7: How many bicycles of different types do you have in your household?**



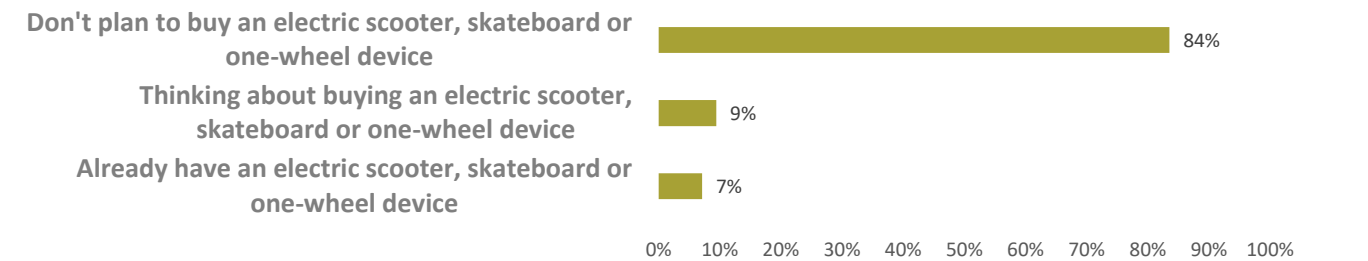
**Q8: What other micro-mobility devices do you have in your household?**



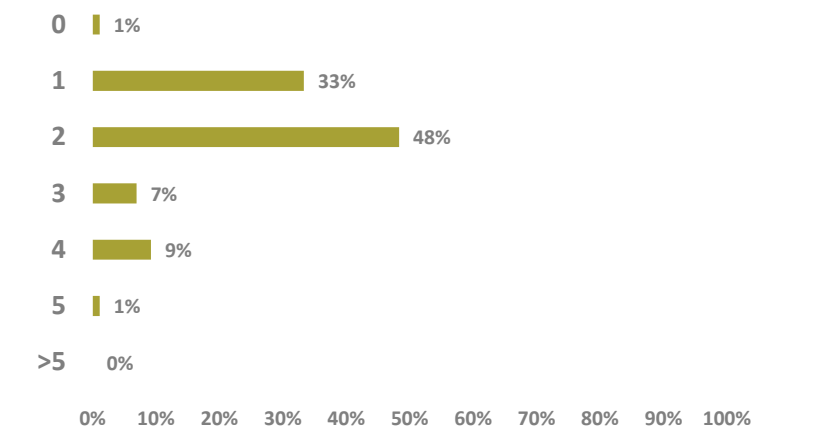
**Q9: Which of the following statements applies to you with respect to electric bicycles?**



**Q10: Which of the following statements applies to you with respect to electric scooters, skateboards or one-wheel devices?**



**Q11: How many cars are there in your household?**

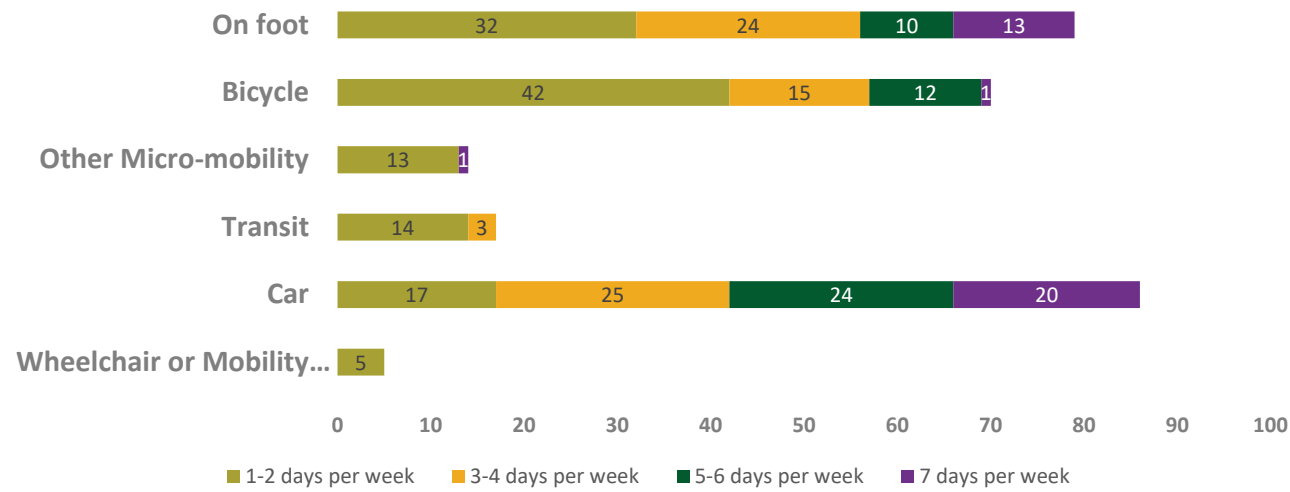




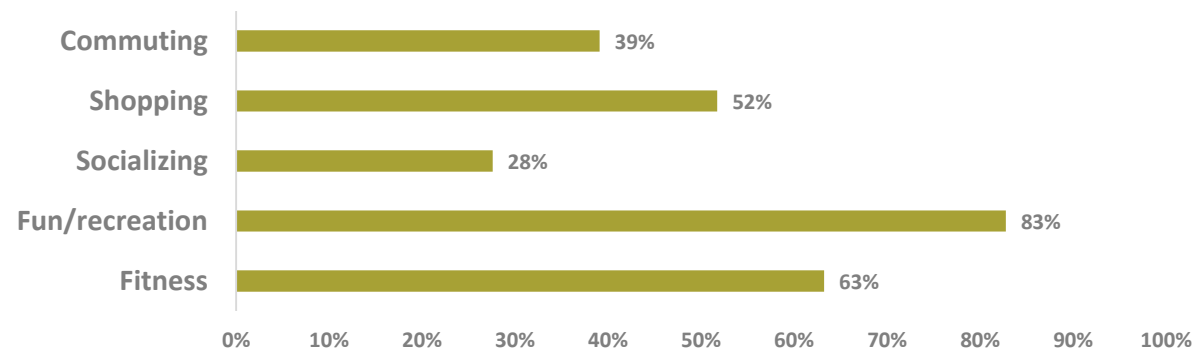
### A.2.3. TRIP FREQUENCY

These questions help us understand how frequently people make trips by different modes of transportation and how often they use different active transportation routes within Pitt Meadows.

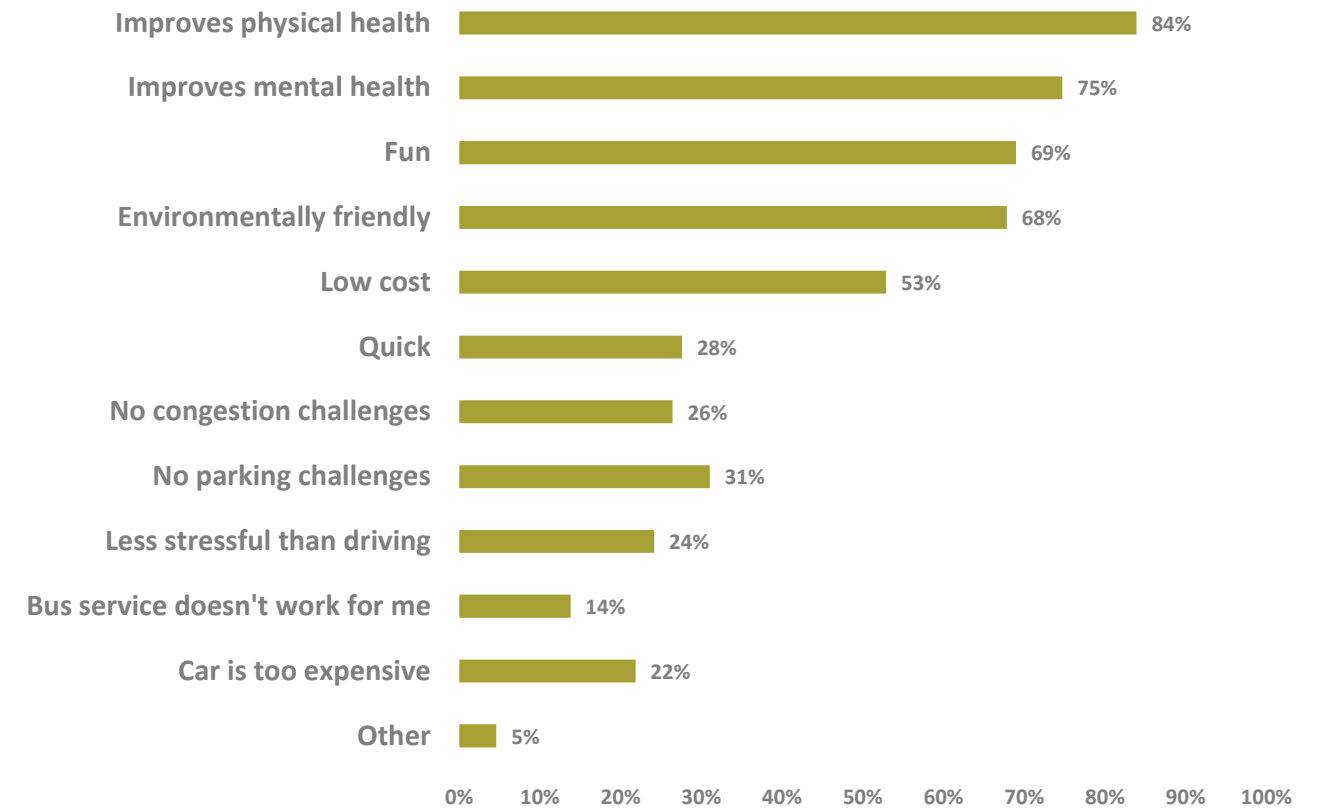
**Q12: In a typical week, how often do you make trips by each mode of transportation?**



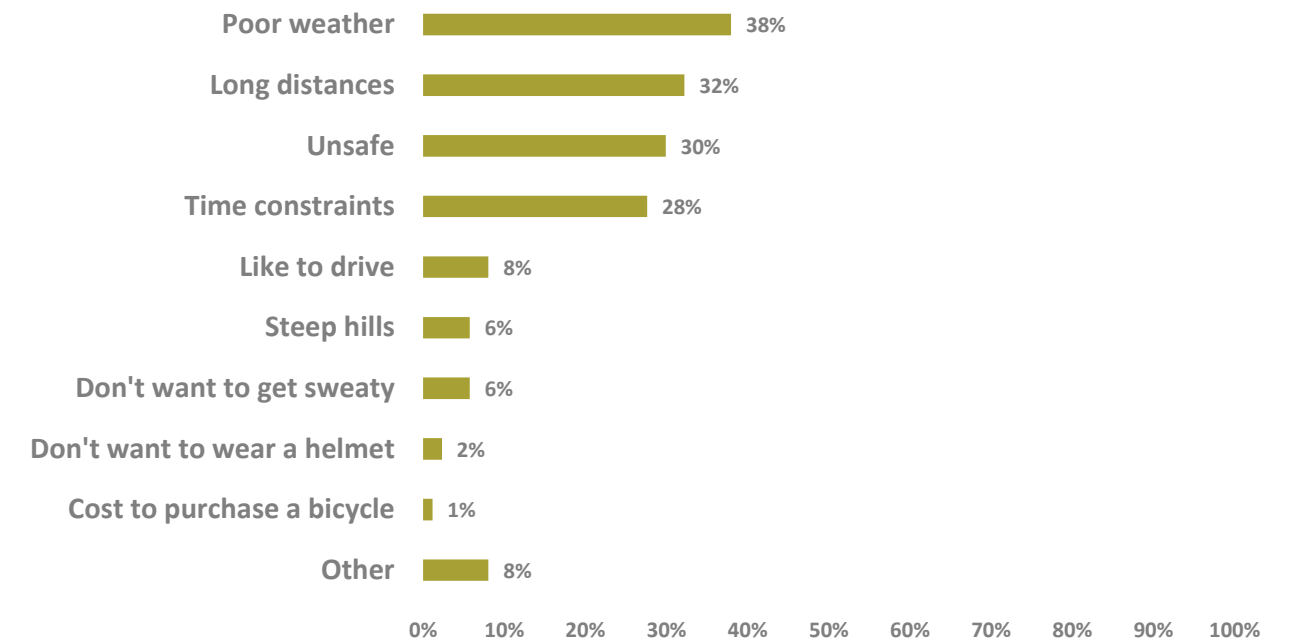
**Q13: Thinking specifically about trips made by active transportation, what are the primary purposes of your trips?**



**Q14: If you DO travel by active transportation, what are the primary reasons for doing so?**

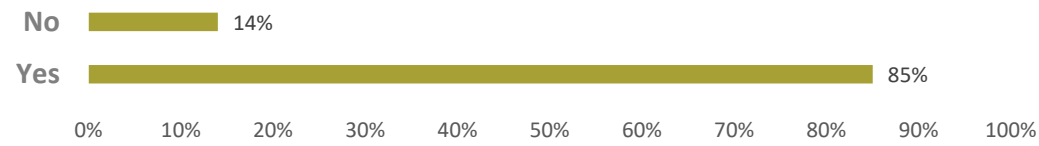


**Q15: If you DO NOT travel by active transportation, what are the primary reasons?**

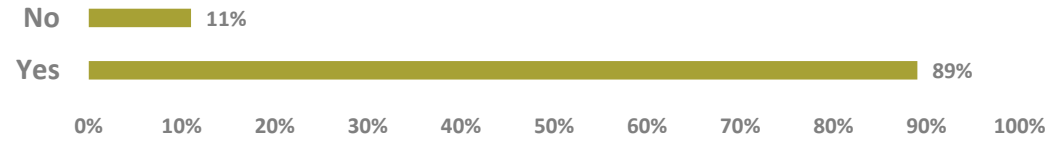




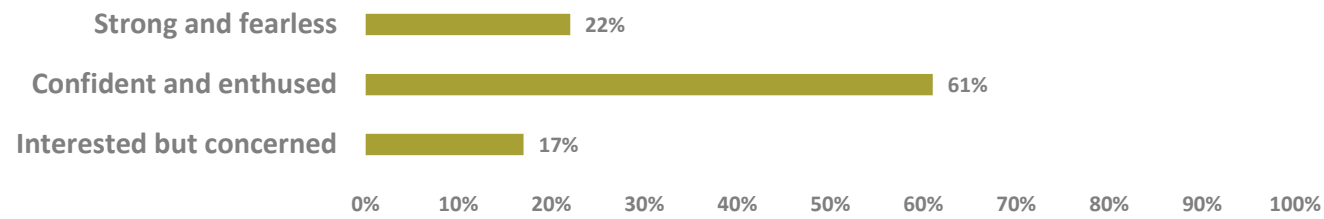
**Q16: If you currently make trips by transit or motor vehicle, are you interested in making some of these trips by active transportation if the network better met your needs?**



**Q17: Do you currently cycle or would like to?**



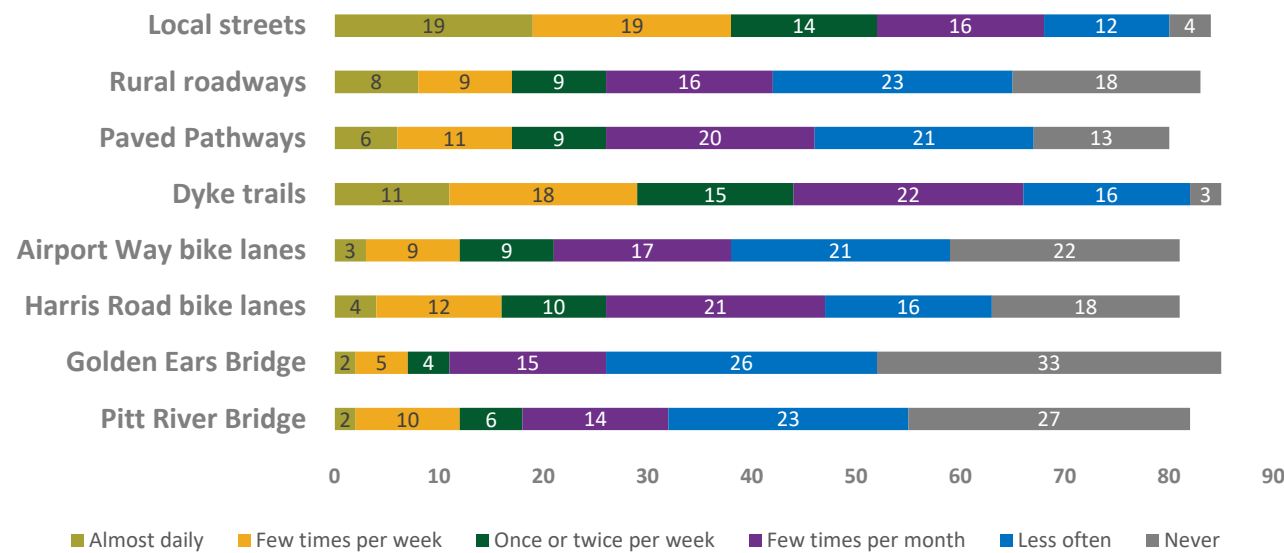
**Q18: If, you do cycle or would like to, How would you classify your level of comfort riding a bicycle??**



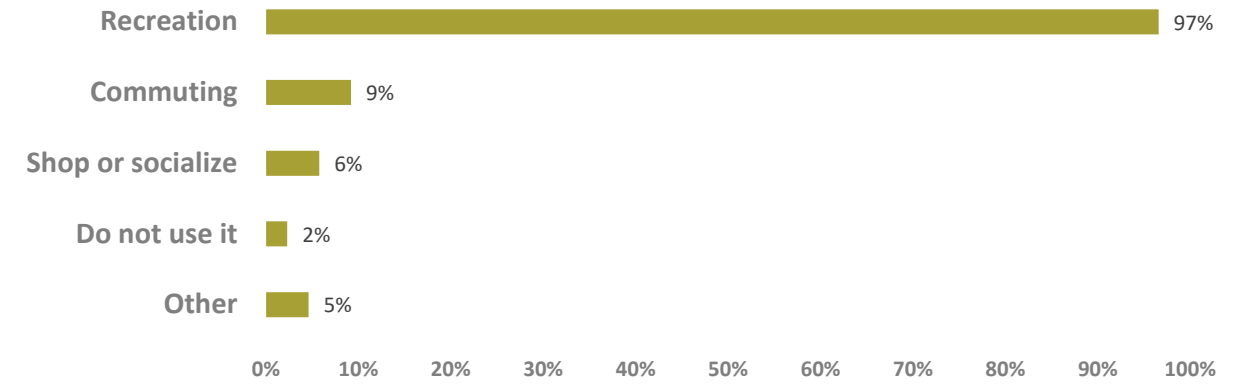
Definitions provided in survey:

- Interested but concerned: Will only ride on protected facilities separate from traffic
- Confident and enthused: Will tolerate painted shoulders or bike lanes but prefer protected facilities
- Strong and fearless: Will ride anywhere

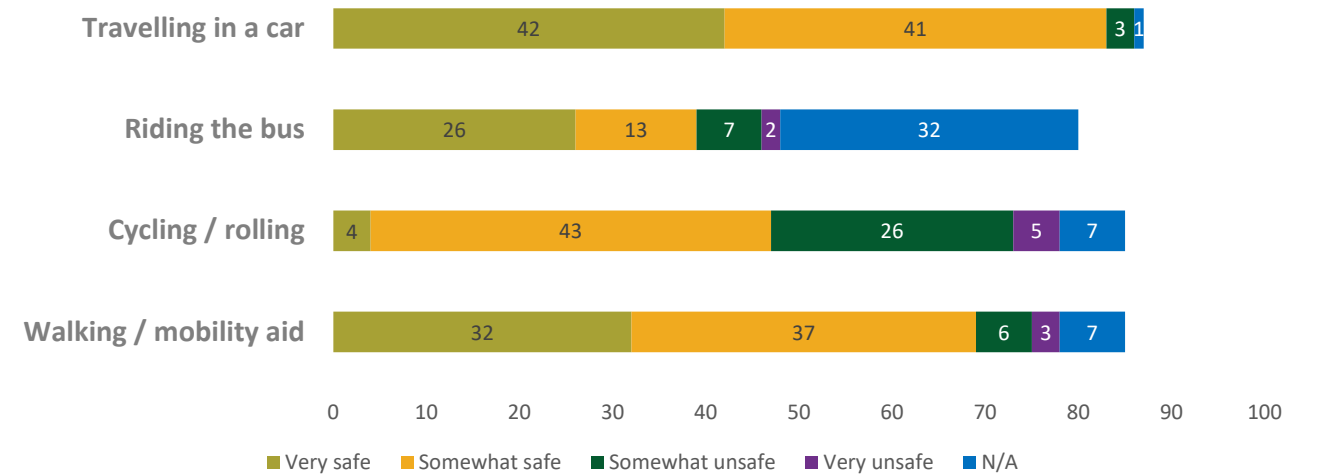
**Q19: How frequently do you use active transportation to travel on these key routes?**



**Q20: With respect to the dike trail system, for what purposes do you use it?**

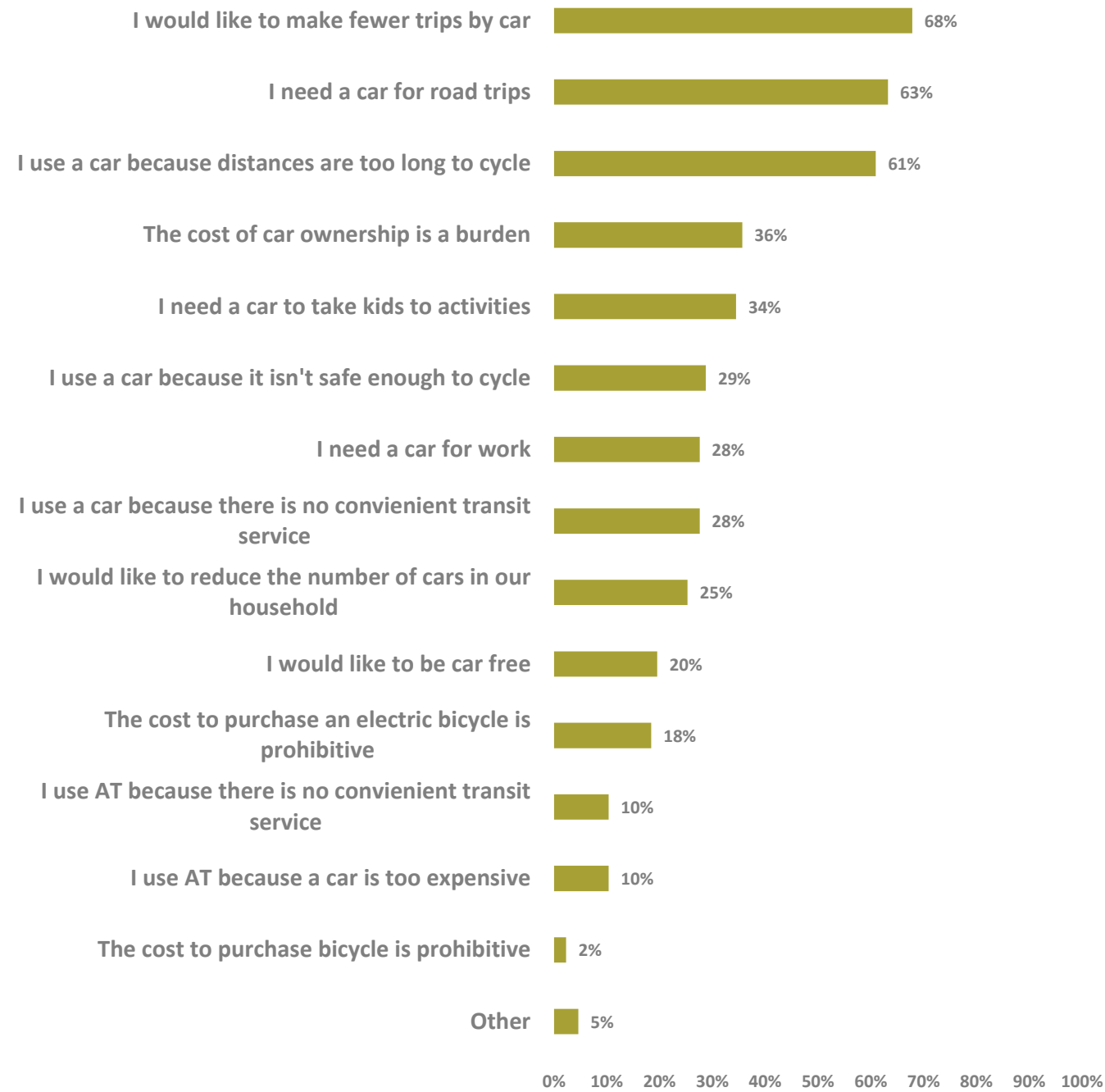


**Q21: How safe do you feel traveling by each mode of transportation in Pitt Meadows??**

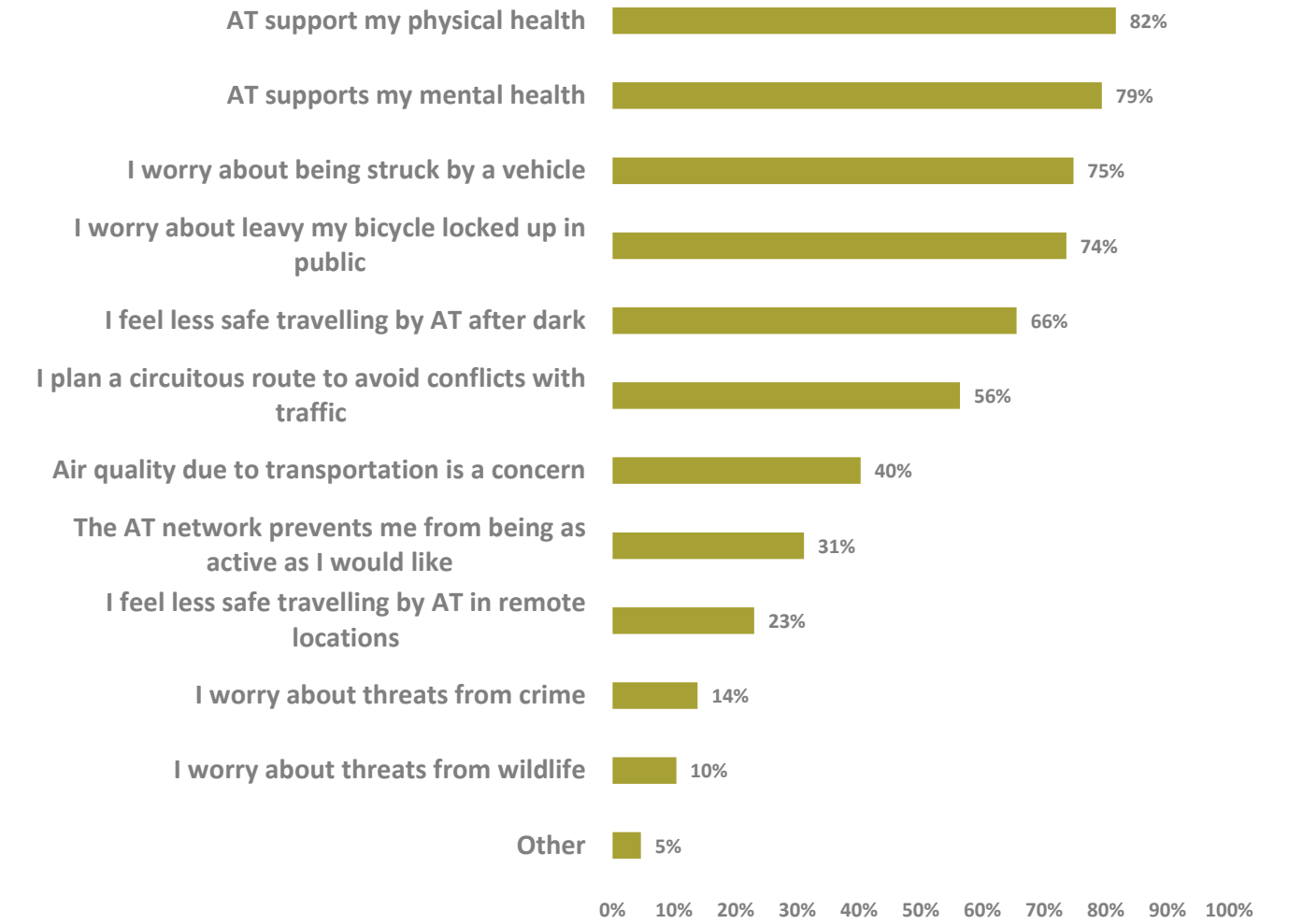




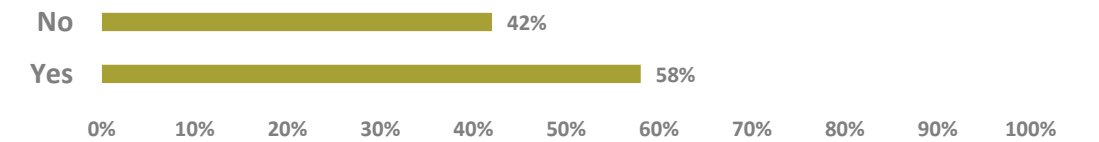
**Q22: With respect to reliance on different modes of transportation, do any of the following statements apply?**



**Q23: With respect to health and safety, do any of the following statements apply?**

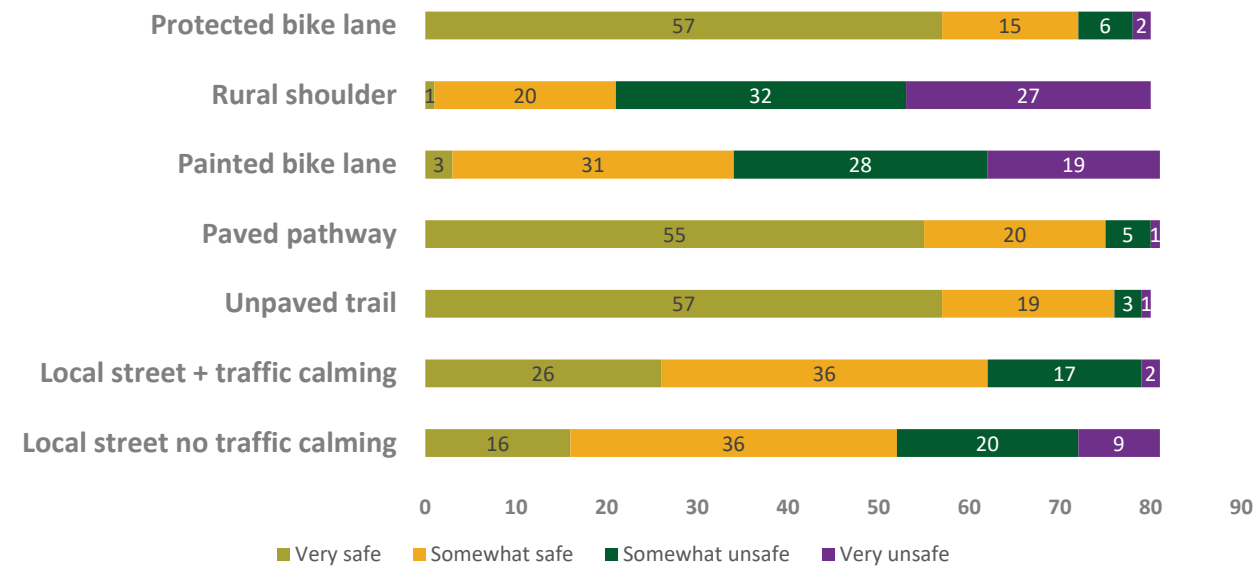


**Q24: Does the existing active transportation network and infrastructure prevent or reduce the extent to which you travel actively?**

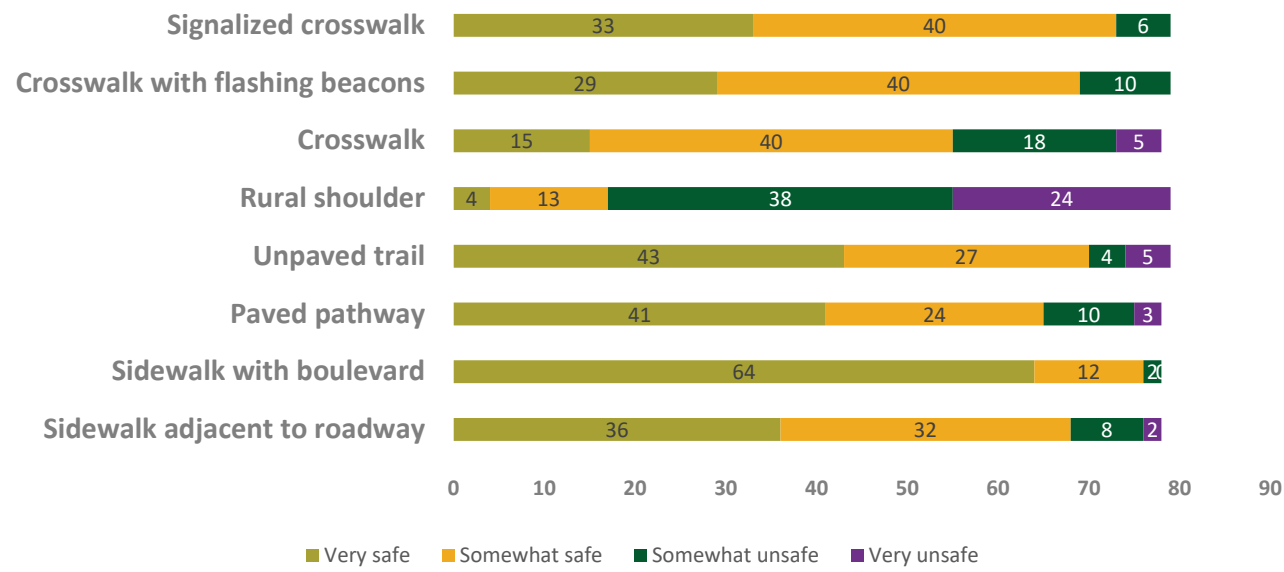




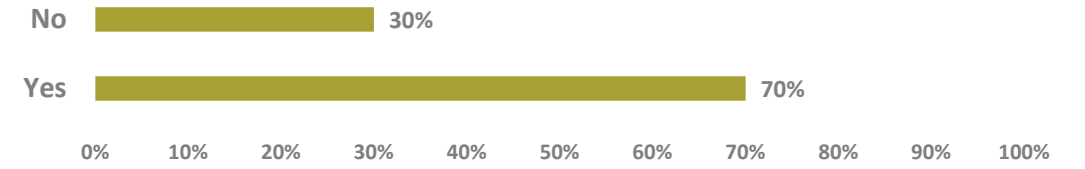
**Q25: If you cycle, how comfortable do you feel riding a bicycle on the following types of active transportation infrastructure?**



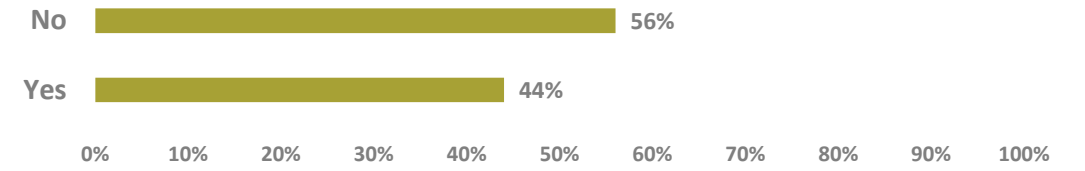
**Q26: If you walk, or use a mobility device to get around, how comfortable do you feel using the following types of active transportation infrastructure intended for pedestrians?**



**Q27: Is wayfinding sufficient to help you navigate around Pitt Meadows?**

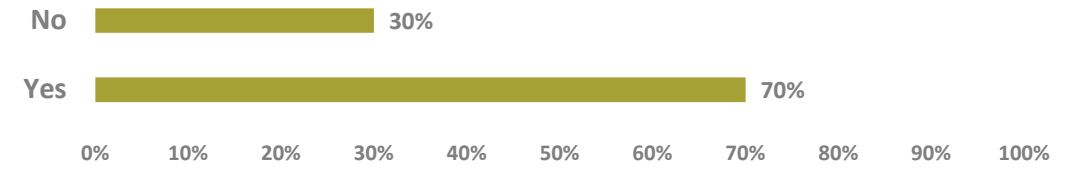


**Q28: Is bicycle parking sufficient in the places you need to park your bicycle?**



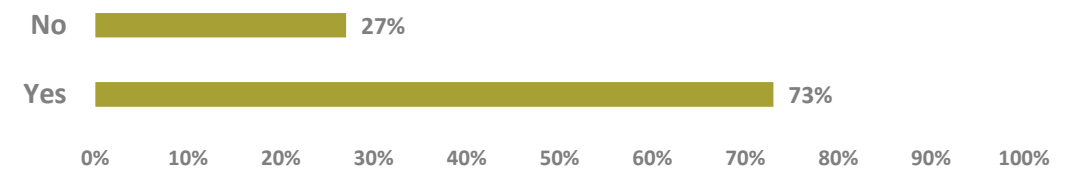
Note: People were asked to highlight specific locations using the places tool

**Q29: Is street lighting sufficient where you walk or roll?**



Note: People were asked to highlight specific locations using the places tool

**Q30: Are there locations that require crosswalk upgrades?**



Note: People were asked to highlight specific locations using the places tool



**Q31: Do you have any other comments on active transportation in Pitt Meadows?**

The following comments were provided. They are unedited, but user names have been removed:

- Safer cycling routes on main routes (Harris Rd, Hammond Rd) would really help, such as separated bike lanes. It feels unsafe to cycle on Harris and Hammond Rds currently, given the bike lanes are narrow and not separated from traffic whatsoever. When sidewalks are replaced or for new ones, wider sidewalks than 1.5 m would also be appreciated going forward.
- The section of the Trans-Canada trail from Harris Rd & Fraser Way to Baynes Rd & airport Way gets extremely muddy whenever it rains. The rest of the trail is fine but this part needs leveling and sand as it is awful after the slightest bit of rain - crosswalk buttons are not placed conveniently for bikers in multiple spots of the city (airport way & southgate, harris & hammond, harris & ford, harris & 122A) - Fraser way needs a bike lane
- Baynes Rd, Airport Rd and Ford Detour network can be terrifying on a bike when encountering traffic
- Make Harris Rd 30 km the whole way through downtown. Make the focus pedestrians and bikes. Too many people are almost hit in crosswalks because people are speeding. The winters are particularly bad. Slow the traffic coming up Harris from the industrial park. Upgrade the crosswalks on Ford; my daycare provider and a child were hit there this week by a vehicle. Coordinate more multi use pathways that connect to places where people go for errands. Make the path that connects out to Golden Ears wider and coordinate with Langley/ Surrey for protected bike routes down 200th/192nd. Widen the shoulder or make a bike path on the farm roads out by the dikes - a car almost hit my child while we were riding our bikes this summer because the car cut too close to us (we were on the shoulder with adults in front and behind the child).
- Love the fact we're discussing improvements and focusing to active transportation! Wouldn't it be great if we could close off a couple lanes on Harris from Lougheed/McMyn down to Hammond? It would be nice to upgrade some of the shoulders on the roads north of Lougheed. There's a lot of great places to access, but it's unfortunate that you feel like you need to pack up your bikes to drive up to the dikes/parks. Having separated bike paths or multi-use paths in the core areas of Pitt Meadows would be a great goal. Harris, Hammond, Airport way are all roads that could use separated paths. Additionally, upgrading the shops, commercial spaces would help. It would be great to upgrade the whole complex where 7-Eleven is - have it feel more like Osprey village. This would make the downtown area more walkable.
- From a cycling and safety perspective, roundabouts pose a problem for cyclists. Drivers often race into the intersection to beat or pass me and often cut me off. Also have had drivers "not see me" often in these areas. I use daytime running lights on my bicycle at all times and a bright coloured helmet
- Airport way is our main concern - we are south of it and it is a barrier to our travelling anywhere north via bicycle, scooter, etc - HUGE amt of truck traffic and vehicle traffic, often distracted. We were horrified but not surprised when death resulted from a cyclist/truck conflict, as it seemed inevitable. We would like a safe way for our kids to get to school (Davie Jones) from South Meadows, and we can't trust vehicle-operator judgment on that road
- Thank you for looking to improve the current system. Designated path for active pathway, if possible away from noisy and active roads is a nice way to encourage people to use them as they are more enjoyable.
- There are no walking paths on the Lougheed Highway from Meadow Gardens Way to be able to walk up to 200th to the shopping centre. There needs to be a pathway for walking from Meadowntown area up to 200th along the Lougheed Highway. Also there are no seats or benches for people who are elderly to stop and rest. We also do not have a bus stop on Northside on Meadow Gardens Way. The walk down to the current fast bus is too far for the elderly.
- Need a cross walk along Harris to walk across to McDonald ( same side of road). People park to close to corners.
- The painted roadways on Harris, especially around the hill down to the industrial park are brutal to cycle with a kid in a trailer. Someone's car door could open at anytime from the parked cars on one side, and many vehicles, including Amazon vans and heavy trucks are constantly on the other side. Get rid of street parking and out in a separated multiuse pathway! A city that prioritizes parking for cars is a city of the past.
- Thank you very much for this survey. It is deeply necessary. I fully believe AT can't happen, safely, without a reduction in vehicle speed; for in-city driving. Many cities are reducing speed. With the influx of heavy warehouse traffic, the whole dynamic has shifted in our city for those doing AT. I have move hundreds of kilometres each week, for two decades; and the last year was an intense increase in uncivil road behaviour. Impossible to report it all. It would be a full time job. Virtually every intersection is fraught with danger: people

will not stop their vehicle, just very, very rarely. Vehicles are always moving, incrementally; in places they should STOP. The laws are clear. I would love to see the City posting some bits and pieces of driving safety messaging (that doesn't blame the pedestrian). Simple things like how to stop at stop signs and stop lines and red lights. This is a good example but wordy <https://www.drivesmartbc.ca/intersections/where-stop-stop-sign>. I have asked ICBC to infographic it. Or we could get school kids to do pics. Something eye catching. Recently saw a cool sign in PortMoody "Watch for Children". Randomly near a school, but not in conjunction with a marked crossing. Just there. In the world of those who dig into Active Transport (Brent Toderian, Jennifer Keesmaat, Tim Gill, and all the groups, like HubCity, WarOnCars, ...) there are so, so many options. I also think of other safety issues: Dogs on leash, cyclists yield to pedestrians (MetroVan has good signs for this), options for garbage disposal (frequently), upkeep of spaces (just off the top of my head, trails get updated, but there are roots and soft spots left that take months to resolve. Those putting in pathways must finish the job.) I would particularly LOVE educational opportunities, even if just through posted QR code, for people to learn about respecting natural environments. The QR could identify species in area, and also things like don't leave food (and why), or not to leave shamrocks and glitter spread out all over the forest floor & trail (and why), Please don't pick all the blossoms off the trees, then we won't get the berries that follow, or "the tulips are planted for all citizens to enjoy, please don't pull the flower heads off and toss them around." [You would not believe what we see in a day.] Possibly maps or a florescent post to mark garbage cans and other particulars.

- I feel unsafe walking with electric bikes flying by me on trails. Most of those have a significant weight and speed and can really harm someone. They should be kept in streets not walking trails
- I wish there was more respect for cyclists as a whole. I commute 70km to and from work on an ebike and the number of times the bike lanes get closed or blocked for every silly reason is ridiculous. Also, many bike lanes and shoulders are covered with stones and debris which make riding dangerous. I wish lanes could be closed along major roads at peak hours for ebikes and scooters to ride safely. Too few are riding because there are too many trucks and SUVs haranguing cyclists, so what do people do? Drive trucks and SUVs that harangue cyclists. We need to break this endless cycle and move ahead. Ebikes and micro-vehicles are the future if we want to be green. Anything else is hot air, literally. There is no need to expend so much energy to drive what resembles a living room to go to work.
- Speed limits on mixed use trails ( dikes,paved,trails ) rather than restricting type of bikes. Ebikes need to be accommodated. Speed is the risk factor not type of bike. Commuting cyclists need routes that are direct . Bells should be mandatory and enforced.
- Please work with Maple Ridge for a comprehensive and safe cycling infrastructure that allows both communities to access each other and get around. Painted shoulders beside roads aren't safe for anyone.
- The extreme amounts of additional truck traffic due to ONNIs industrial warehouse development is one of the biggest deterrents and sources of danger to active transportation in areas of Pitt Meadows that were traditionally very attractive and save areas to do so.
- More boat launches in Pitt Meadows would be desirable
- I (maybe a bit more biased than usual because Pitt Meadows day is coming up) think that Pitt Meadows has SO much potential. However, it's disheartening to see the city so void of life due to the domination of cars over the people who live here-- especially when compared to the Netherlands. With the rising cost of living, the urgent need to address the environmental crisis, and a mental and physical health epidemic so evident to the people in my life, it feels regressive to increase our reliance on cars. I am passionately in favour of a car free city (though realistically car reduced city) and I hope that Pitt Meadows leads the province in sustainable transportation safety. [I also think it's worth considering that people might not be drawn only to the parade on Pitt Meadows day, but to engage with their community and experience the opportunity to inhabit the city without feeling like they are expected to operate and exist at the mercy of the cars around them. That's always been the case for me, anyways.].
- If there were bike lanes separated from the road by a boulevard everywhere my entire family would bike rather than drive.
- Mixing bicycles and vehicles in roundabouts seems dangerous. Please consider adding multi-use pathways that orbit the roundabouts. Similar to dutch infrastructure. (See Not Just Bikes youtube channel for good ideas.)
- Please control the traffic on Harris road in front of PME. It's not enough for RCMP to do traffic patrol once a month. Children play beside the road where dump trucks are doing well over 60 km/h!!! Put in some sort of traffic control!
- Need more flashing lights at crosswalks



- I would like to have a flashing light crosswalk at the intersection of Ford Road and 191 Street. There was an accident there recently involving a stroller full of pre-school aged children, and often cars go right through the crosswalk even if we are standing right there in plain sight.
- Experienced cyclist do not necessarily want separated dedicated bike paths. These can be problematic for road cyclists especially whom maintain a speed too high for these paths. These separated lanes are also dangerous when meeting up with traffic crossings for vehicles that do not realize these is a bike crossing. Widening of bike shoulder lanes, regular maintenance of road markings including shoulder lines... coloured bike crossing lanes, elephant feet, sharrows etc. all needed. Motorist education needed on what a cyclists rights are on the motorway. Ticketing of drivers that block cycling lanes by parking vehicles in them is needed. Sweeping bridge decks and road shoulders is needed on a more frequent basis to clear debris that cause puncture and can damage rims.
- All crosswalks for multi-use paths should have elephant feet and signage indicating to motorists that cyclists and pedestrians will be crossing at those locations. The bike lane on Old Dewdney and Harris Rd are too narrow and feel very unsafe. The bike lane on Airport way is pretty much non-existent, the paint has worn away and it's often so dirty the line is pretty much invisible. Roundabouts suck for cyclists, the merging of cyclists into vehicle traffic when entering the roundabouts is difficult and dangerous. Multi-use paths lead to an increase in the number of collisions between people travelling at different speeds, separating active transportation based on the speed of travel is better.
- Attracting cyclists of all ages is good for business. We're hungry and like a good coffee! Even better if the roads are safe enough as we'll bring the whole family then!
- I like the bike trails that have a little strip of pavement separating the road. We get scared riding our bikes with our kids on the road. Especially since a biker was hit last year on airport way. Also because there is a flock of Amazon vans always charging down Harris road now.
- Would like to see a bike/walk lane available along Ford Road - West of Baynes Road where it becomes farm/rural land. "Ford Detour Road"
- Bike lanes need to be continuous, not stop and restart.
- Harris Road is the main artery to connect in the city but there are either no bike lanes or very narrow painted bike lanes in the door zone which feels incredibly dangerous. This must be fixed - this is the main corridor people use to get to local destinations. Wayfinding for cycling would help a lot! For example, connecting from the Lougheed-parallel path, through the neighbourhood, across Harris, through Harris park and back onto the Lougheed-parallel path. Right now it is not obvious a connection exists at all. You should work with TransLink to install on-demand bike lockers at the westbound rapid bus stop at Lougheed and Harris. Would be great to have bike lanes the full length of Bonson. Work with the airport to pave and widen the MUP along Baynes - this route is flatter and quieter than alternatives and would be a relative quick fix for people of all ages and abilities, including mobility devices. The paved path on Wildwood Trail is a great example - so nice to have this. Could use better lighting though for use throughout the year. Paving the Parkside Trail would help the upcoming warehouse MUP be used more.
- Please make sure there is accessible trails for horse riding. Get rid of the off leash open area on reichenbach road as the dogs attack the horses and people. This is the most dangerous part of the dyke because of loose dogs.
- Harris road silver bridge parking lot needs better water access for kayak & canoe launching.
- Pitt Meadows feels reasonably safe for cycling. Just don't like Harris Road at the railroad crossing. I also think there should be more education for drivers about sharing with cyclists in the round-about.
- 1) There is excellent evidence regarding the health (physical and mental) of time spent in nature (see PaRX website). I strongly endorse efforts to facilitate time in nature which is easily found on our dykes and somewhat on the sidewalk systems. Planting more trees along sidewalks, in our parks and schoolyards is important. 2) As an avid cyclist, I love the idea of more dedicated and safer pathways BUT please do not create more impermeable surfaces. This would not be a benefit to our local ecology.
- Harris road train crossing is a huge pain and has been in bureaucratic limbo since long before I was interested in Pitt meadows. While not an easy fix every day that passes without an underpass just makes it harder for all forms of traffic
- I love being active in Pitt Meadows and I feel there is more we can do to support active transportation.

- The painted bike lanes on Harris road (from Fraser Way to Lougheed hwy) are not safe for AAA users. Alternate north/south AAA routes should be established. One of these routes could use the new to be built MUP alongside the eastern edge of Golden Ears business park phases 3 and 4 and then use the Parkside trail (with improvements) to Harris and north on Harris on a new MUP on the west side to the Airport trail and a connecting path to 117A ave which could become part of a new neighbourhood bikeway heading north on 190 st etc. to the town centre. The painted bike lanes on Ford road and parts of Hammond road have "dooring" hazards and would need to be improved to become AAA friendly. Possibly alternate east/west routes should be established. The proposed underpass under the CP tracks on Harris road should have a 3.5m MUP on each side for the full length of the structure. The neighbourhood bikeway going north on Blakely should continue to head west on 121B ave and then go through the connecting path to 193 st where a new MUP should be constructed on the east side of 193 st heading north to 122A ave and then continuing west on the north side of 122A ave to both the West Coast express station and the entrance at 122A st and Harris rd to the proposed CP underpass. This MUP may have to be narrower than ideal in places but will provide a much needed AAA connection. (A MUP on the south side if 122A would interfere with the firehall) Any dike re-surfacing or topping up should use a type of aggregate that is good for cycling as well as walking/running. This is an issue on the dike adjacent to Kennedy rd between the Katzie slough and Woolridge rd. Our local HUB Cycling local committee would be happy to provide input to this plan at any stage. Please contact me at the e-mail address below or at 604 465-4342. We want to get more people cycling more often.
- Airport Way is high truck usage and needs a sidewalk and lighting. I walk to work daily from Ford, down Bayes and then down Airport Way. Bicycle traffic on the trail on Baynes is increasing understandably as riding on the narrow road with the increased truck traffic is very dangerous. The high density industrial has many employees that could opt to walk or cycle if it was safer. Also a bus route from Harris down Airport Way would also be a bonus.
- 1. The Dyke trail past Harris rd is always full of mud and potholes. The alternative to it is biking along the river, however, since Covid, this is no longer allowed and we bike through warehouse parking lots instead. This is unsafe. 2. The crosswalk on airport way and Southgate rd need to be better lit for nighttime as cars speed down airport way all the time and cannot see the crosswalk well coming through the round-a-bout. The button for the crosswalk lights are too far from the actual crosswalk which deters people from using them. 3. Amazon drivers are consistently speeding down airport way as well as the increased truck traffic on this road makes it very dangerous to use it on a bike or by foot, a bike lane and a sidewalk are needed for the full length of airport way.
- The ATAC committee has really improved active transportation and the park & city signage way finding with their initiatives — even if the new Parks Dept and Communications Dept completed the final steps.
- Need more of a defined or separate shoulder on Ford Rd. farm roads for bikes. Dangerous with the speeding cars; need more traffic police presence in these areas! Cars don't always respect the bike lanes on Harris, Hammond being as far out from curb as they are, can be quite dangerous. Barriers (even slight ones) may be useful. Bike lanes in roundabouts! A defined, understood bike trail system through streets of Pitt Meadows. Blown pathways/bike lanes (esp on Golden Ears bridge) free of debris, bits of glass, etc. More police presence overall to discourage speeders and encourage space and respect given to pedestrians and cyclists.
- More bike lanes or protected bike lanes.
- The trail beside Kennedy Road gravel is prohibitively large and sharp. I've popped two innertubes on this stretch and chatted the city about it. I also have bad luck with the stretch at the end of Harris Rd south and towards airport, these sections could use some love. Otherwise, I love the dyke trail system. I ride about 15km a day. Compared to upper Pitt Meadows, Fort Langley trails and Poco Trail, these two sections in Pitt Meadows are not as good and I usually avoid them.
- Around the rotaries, I am concerned there is not enough protective measures in place for pedestrians and bicycles trying to cross or use it.
- No option in this survey to add the pins - feature isn't working. There aren't safe (safe enough for children) active transportation lanes/spaces to each of the schools in Pitt Meadows. There are places where bike lanes simply vanish frequently forcing them directly into traffic - as if the cyclist (or other active transport mode) can disappear and re-appear elsewhere. Thinking about creating spaces that separate pedestrians and more active modes would likely reduce issues/confrontation. Physical barriers between cars and other active modes of transportation will create safer spaces for active transportation for those that feel more nervous around vehicles. The path along Lougheed is in disrepair and requires maintenance - it is sloping significantly (following the BChydro project) and frequently floods in certain points making it impassible for walkers/joggers (unless you brave walking into prickly bush). Bike lanes that can support 2 abreast supports more social riding and safety. Connect the Harris Road dyke system to Swan-e-set dyke system.



- I would like to see more painted or separate bike lanes. We should also allow kids to bike on side walks in our bylaws. I don't like the curb extentions when riding a bike as it causes dangers when cars are passing at the same time. I would like to see raised intersections Adding raised sidewalks, so the sidewalk works as a speed hump when cars are turning onto a side street
- Pitt Meadows is great for cycling and a model for many other communities. My only negative comments are that I find some hostility from other users (mostly dog walkers) when cycling on dykes.
- Pedestrian and Biking crosswalk upgrade suggested for the Golden Ears Way roundabout, and for the entrance to Meadowtown shopping center. Example: imagine biking from Hammond Rd to Superstore. The crosswalks you are supposed to use are not great, especially crossing Hammond and Dunn Ave.
- I'm a motorist and cyclist that commutes and races, so I am extremely respectful of both perspectives. As a cyclist I can reach speeds of 40km/hr non electric. Some electric bikes can sustain 60km/hr and most of these are ridden by pedestrians with helmets. These are the dangerous people who give proper road rule abiding cyclists a bad name. Widening corners at crosswalks DOES NOT contribute to safety of pedestrians. It angers motorists who develop tunnel vision and speed through the smaller openings. Wide speed bumps are preferred. Lighted crosswalks work as long as the lights are at drivers eye level. Lights up near lamp post heights are not visible enough. Segregated bike lanes such as used along 203rd street in Maple Ridge also do not work. Most of the time they just end abruptly causing the cyclist to be stuck back on the road or having to navigate traffic anyways. Plus these congest motor ways for motorists. Rather than paint lines which wear away on a season, reflective "cat-eyes" in pavement would be preferred. Clearing of debris, rocks etc of the cycling lanes regularly/monthly is requested. Most street sweepers just sweep the road debris INTO the cycling lanes causing tire punctures and mechanical failures. If you want more use of the bike lanes, please keep them clean so that they can be used, otherwise cyclists ride outside the lane in the motorist lane causing increased risk to both motorist and cyclist. Most cyclists are also motorists and acknowledge there is no easy solution for each to live with each other on the same road. Both respect each other and obey the rod rules. There are bad drivers and bad cyclists. The difference is that drivers are protected by 2000lbs of steel, while cyclists are completely exposed. Cyclists also need to take their own safety in their own hands and make sure they are easily seen and obey the road rules.
- Daily cyclist here. It's not bad. The trails are great. Most of the challenges are roundabouts (cars cutting me off), and from having the ride along roads with no clearly marked bike lanes.
- Cyclists need to be educated on sharing roads. Ex. Not traveling 2 or 3 across. And the use of roundabouts. It is terrifying watching them rip into one and expecting the vehicle to just stop.
- My biggest concern is the train crossing on Harris road, it feels very unsafe for both walking and cycling. My children regularly veer towards oncoming traffic when crossing heading south on the east side of the road, as the sidewalk and train tracks naturally direct you into the street... I realize the underpass may change this, but that is going to take a long time, and it is a daily hazard for children and people with disabilities. With the underpass or other barriers that might be considered to solve this, it is also important to retain a direct crossing for west coast express commuters and to keep the neighbourhood north-east of the track "connected" to the city centre. My other main concern is to have child safe bike barriers all the way from Osprey Village, up Harris road, and over to Harris Road Park. There are so many children travelling this route daily, either to get to school, sports, or visit friends. While as an adult I am somewhat comfortable cycling this route, I would not be comfortable for my children to do so... the drivers on Harris Road are not at all aware of or considering cyclists.
- None for now
- No
- No more bike lanes! The ones we have already are barely used. It's a waste of tax payer dollars.
- Maintenance and clearing of bike lanes throughout the year (during fall with leaves, winter with snow, etc.) would help me feel much safer in the bike lanes.

## A.4. IDEAS

The following ideas were provided. They are unedited, but user names have been removed:

### 1: Implementation of Dutch Style Continuous Sidewalks

As opposed to sidewalks ending and turning into roadways with crosswalks, continuous sidewalks maintain the same height and use different materials over the roadway. This forces cars to slow down (especially around corners) as a method of traffic calming, while being especially valuable in those danger zones where the reinforced pillars are constantly being knocked down. It also creates an environment that empowers the pedestrian as opposed to the drivers. ["Not Just Bikes" has a great, short video about it on Youtube.]  
VOTES - 6

### 2: Trails For All Users

Trails For All Users > <https://www.audubon.org/news/how-do-you-blaze-trail-everyone-can-enjoy>  
VOTES - 2

### 3: School Streets starting on the corner of 119 & Harris, by PME

<https://www.mississauga.ca/city-of-mississauga-news/news/safer-streets-less-noise-more-fun-mississaugas-school-streets-pilot-delivers-it-all/>  
VOTES - 3

### 4: Make Pitt Meadows a 15 minute city and encourage that!

<https://www.cbc.ca/news/canada/british-columbia/vancouver-15-minute-city-1.6463022>  
VOTES - 3

### 5: Lower Speed Limits.

<https://www.vancouverisawesome.com/opinion/bc-public-continues-to-embrace-lower-residential-speed-limits-poll-finds-3868222> AND <https://twitter.com/brenttoderian/status/1412821985143390208?lang=en...> goes with pic.  
VOTES - 3

### 6: Parachute Canada: Vulnerable Road User Safety Resources Repository

<https://parachute.ca/en/professional-resource/vision-zero-collection/vulnerable-road-user-safety-resources-repository/> Safety measures for cyclists and pedestrians around heavy vehicles. <https://parachute.ca/en/programs/> Programs for education, including those for road safety  
VOTES - 1

### 7: Urban Playground: Child Friendly Planning and Design

I will gladly lend this book to anyone at CityHall. Some of the concepts in the book are on this page <https://rethinkingchildhood.com/2020/12/14/urban-playground-new-book-sneak-peek-seasonal-discounted-price/>  
VOTES - 2

### 8: What if we designed our city so accidents did not happen?

<https://washingtonmonthly.com/2022/01/17/accidents-waiting-to-happen/> Book: "There Are No Accidents" - Jessie Singer BC Injury Research and Prevention Unit (BCIRPU) <https://www.injuryresearch.bc.ca>  
VOTES - 1

### 9: Restructuring Roads [& Cycle Tracks rather than Bike Lanes]

<https://www.metrojacksonville.com/article/2015-aug-why-kings-road-is-ready-for-a-road-diet/page/> The redesign decreased both bike and pedestrian crashes while increasing transit ridership by almost double. This link has a valuable video on page two.  
VOTES - 2

### 10: Curbless Streets

This document for Philadelphia is interesting and provides lots of valuable ideas for redesigning a more people-centric Pitt Meadows by reducing/eliminate the use of curbs. <https://www.dvrpc.org/Reports/16044.pdf>  
VOTES - 0



**11: Active Transport decreases our reliance on vehicles. Here is a news story on the effect of tires on environment (that includes humans)**

Local News story: <https://www.surreynowleader.com/news/tire-residue-chemical-in-rain-runoff-kills-fish-in-urban-streams-research-finds/> Study news release: <https://news.usask.ca/media-release-pages/2022/usask-research-finds-substance-derived-from-tire-debris-is-toxic-to-two-trout-species.php> Alternate study on plastics (including tires) found in spider webs: [https://www.technologynetworks.com/applied-sciences/news/using-cobwebs-to-monitor-airborne-microplastics-362349?utm\\_content=210807224&utm\\_medium=social&utm\\_source=twitter&hss\\_channel=tw-174683705](https://www.technologynetworks.com/applied-sciences/news/using-cobwebs-to-monitor-airborne-microplastics-362349?utm_content=210807224&utm_medium=social&utm_source=twitter&hss_channel=tw-174683705)

VOTES - 1

**12: Lots of research on the use of public space by people. This is a very important concept I see often: Gender inequity. (Includes cultural)**

Offers past and present research, a breakdown of issues, and solutions: <https://urbanspringtime.blogspot.com/2022/05/girls-in-public-space.html> Received via Outdoor Play Canada

VOTES - 2

**13: If you could experience the city from 95cm - the height of a healthy 3-year-old - what would you change?**

<https://bernardvanleer.org/solutions/urban95/> This is a well recognized organization working to address necessary changes for our youngest citizens and their caregivers.

VOTES - 1

**14: 880 Cities: Canadian site <https://www.880cities.org>**

"If everything we do in our cities is great for an 8 year old and an 80 year old, then it will be great for all people." Here is a story they recently promoted <https://www.newstalk.com/news/children-spending-more-time-indoor-than-prisoners-1352734>

VOTES - 2

**15: World Health Organization article out of Europe has great Active Transport ideas, in short article**

See article here: <https://www.who.int/europe/news/item/07-06-2022-cycling-and-walking-can-help-reduce-physical-inactivity-and-air-pollution--save-lives-and-mitigate-climate-change> It is difficult to find Annual Pedestrian Injury Profiles, but this report review death rate in BC, including those skateboards, longboards, and rollerblades: [https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/pedestrian\\_deaths\\_2012-2021.pdf](https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/pedestrian_deaths_2012-2021.pdf)

VOTES - 1

**16: Sounds: Pedestrians must know when bikes, scooters, vehicles are around them.**

Transport Canada regulating Electric Vehicle sounds. City of Ottawa mandating sounds from e-scooters. We have bike bell/horn bylaw...rarely used, so awesome when it is. <https://www.cbc.ca/news/canada/ottawa/electric-vehicles-sound-blind-pedestrians-1.6484154>

VOTES - 1

**17: On demand bike lockers at the Harris Road rapid bus stop**

Support our city's one rapid transit stop by providing safe and weather-protected way bicycle parking. Often, cycling to transit is twice as fast as taking shuttles or feeder buses.

VOTES - 2

**18: Better signage and wayfinding so people know how to connect by foot and bike**

Signage telling people how to get to destinations will help them feel confident walking and cycling for transportation, and reduce getting lost or frustrated. For example, right now, it is confusing to know how to connect from the protected bike path parallel to Lougheed from one side of Harris to the other.

VOTES - 1

**19: Protected bike lanes for Harris Road**

Harris Road is the heart of our city. It allows us to access city hall, the library, the rec centre, groceries, pharmacies, health services, restaurants, parks and more. Building a protected bike lane along the spine of Pitt Meadows would allow people of all ages and abilities to use active transportation to get to all these amenities in a healthy, pollution-free way that helps build our local economy and community connections.

VOTES - 3

**20: Pave and widen the path beside Baynes (the airport) so that everyone can use it**

Right now, the north-south path beside the airport, along Baynes, is gravel, and is too narrow to comfortably pass others on the path. Paving, lighting and widening this path would allow parents with strollers, people in wheelchairs and mobility devices, kids learning to ride, and others with diverse mobility needs to use this path to get around any time of year.

VOTES - 1

**21: "Road-traffic noise significantly slows the development of crucial memory and attention skills in primary school children"**

Add this to the School Street idea for Pitt Meadows Elementary & Lowering of Speed Limit, already on this Idea page: <https://www.theguardian.com/environment/2022/jun/02/traffic-noise-slows-childrens-memory-development-study-finds>

VOTES - 1

**22: PROTECTED bike lane on Harris Road**

Have a protected bike lane down Harris Rd (both sides) from Lougheed hwy to Fraser Way connecting community members to shopping centres and schools.

VOTES - 1

**23: Idaho Stops/Colorado Safety Stops**

Legislating that bikes follow the same rules of traffic as cars, even when it puts them at a greater risk of injury is irresponsible. "The Idaho Stop" refers to a change to Idaho law that gave cyclists fifteen years and older "two new options when an intersection is clear, and they have the right of way: to treat stop signs as yield signs; to treat stop lights as stop signs." (Coloradoan, 2022). "If all this sounds far-fetched to you, look at the data. Public health researcher Jason Meggs found that after Idaho started allowing bikers to do this in 1982, injuries resulting from bicycle accidents dropped." (Vox, 2014). <https://www.coloradoan.com/story/sponsor-story/hsd-law/2022/05/16/new-law-increase-safety-drivers-and-cyclists-alike/9664491002/> <https://www.vox.com/2014/5/9/5691098/why-cyclists-should-be-able-to-roll-through-stop-signs-and-ride>

VOTES - 1

**24: 30km/h speed limits on all neighbourhood streets**

Make 30km/h a default for all neighbourhood streets (usually those without centre lines) as well as neighbourhood bike routes that don't have designated space for cycling. Lower neighbourhood speed limits are widely recommended by health agencies, including the World Health Organization and BC's Provincial Health Officer. Most people want slower speeds in their neighbourhoods: in a 2013 survey by the Canadian Automobile Association, 94% of respondents reported that speeding on residential streets was a serious threat to their personal safety. In London, the introduction of 20 miles/h (32km/h) zones was associated with a 42% reduction in road casualties. There was no evidence of casualty migration to areas adjacent; in fact, casualties also fell there, by an average of 8%. Similar benefits have been found in Denmark, Germany, and the Netherlands for people walking and cycling. In a Vancouver and Toronto cycling safety study the injury risk at intersections with traffic speeds up to 30 km/h was half that at higher speed intersections. <https://bikehub.ca/get-involved/bc-motor-vehicle-act-improvements>

VOTES - 1

**25: Build a bike traffic skills park**

Kids can learn rules of the road, rights, responsibilities, and the joy of cycling for transportation from an early age, in a safe environment. Bike traffic skills parks are found in many parts of the world and help everyone build the skills and confidence to cycle for all sorts of every day trips. <https://www.seattlebikeblog.com/2016/10/03/white-centers-newest-playground-also-helps-kids-learn-to-bike-safely/>

VOTES - 1

**26: Definitely protected bike lanes**

VOTES - 0

**27: sidewalks that done dip down into driveways makes it much easier for strollers wheel chairs and electric scooters.**

VOTES - 0



**28: 10 Day Temporary Bike Lane Network Implementation**

Friedrichshain-Kreuzberg, Berlin (with sufficient planning and resource acquisition) set up temporary bike lanes all over the city over a span of ten days during the pandemic. The rapid creation of a network allowed them to not only support active transportation immediately, but understand the demand and level of use that they could anticipate for permanent installations. This document was composed to explain how it was done to serve as a model for other cities. [https://mobycon.com/wp-content/uploads/2020/05/FrKr-Berlin\\_Guide-EN.pdf](https://mobycon.com/wp-content/uploads/2020/05/FrKr-Berlin_Guide-EN.pdf) According to an interview on the fascinating non-profit Strong Towns website, this worked well in Calgary too, so it's certainly possible for Canada. <https://www.strongtowns.org/journal/2018/10/24/can-the-dutch-strategy-for-cycling-work-in-north-america-a-conversation-with-author-chris-bruntlett?rq=cycling>

VOTES - 0

**29: Reconsider On-Street Parking on Hammond Road**

Reconsider on-street parking on Hammond Road which decreases usable public space and increases level of risk for cyclists who are forced closer to cars. This would create a lot of extra space for cycling on a road that could really, really benefit from protected bike lanes and could lead onto Harris Road protected bike lanes.

VOTES - 0

**30: "People Hate The Idea of Car-Free Cities -- Until They Live In One"**

Great read, looks at London's changes (they kept cars): [https://www.wired.co.uk/article/car-free-cities-opposition?utm\\_source=twitter&utm\\_medium=social&utm\\_campaign=onsite-share&utm\\_brand=wired-uk&utm\\_social-type=earned](https://www.wired.co.uk/article/car-free-cities-opposition?utm_source=twitter&utm_medium=social&utm_campaign=onsite-share&utm_brand=wired-uk&utm_social-type=earned)

VOTES - 0

**A.5. PLACES TOOL**

Figure A1 provides an overview of the pins placed on the map broken down by category for the entire City of Pitt Meadows while Figure A2 provides a closer look at the urban core of the City.

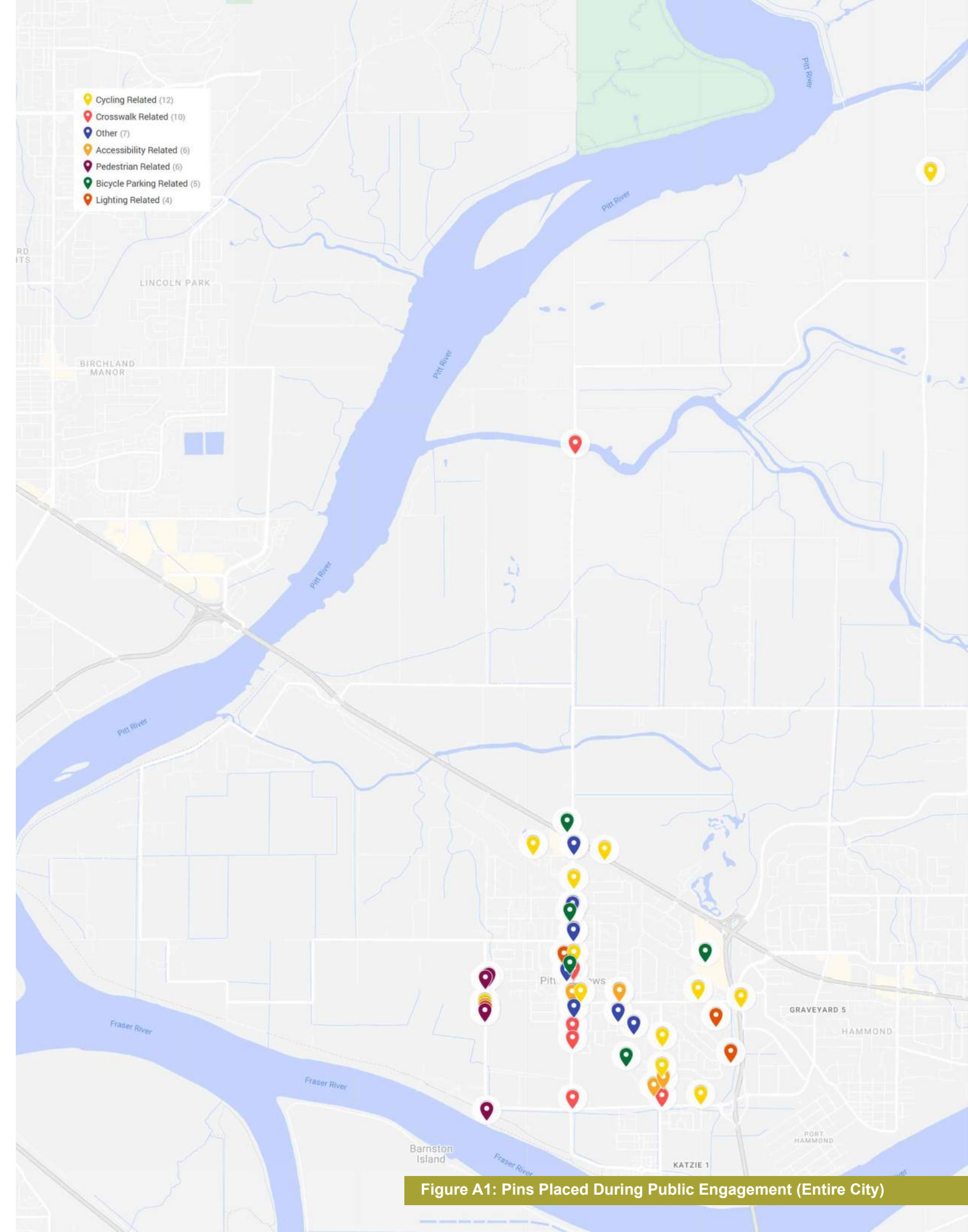


Figure A1: Pins Placed During Public Engagement (Entire City)



- 📍 Cycling Related (12)
- 📍 Crosswalk Related (10)
- 📍 Other (7)
- 📍 Accessibility Related (6)
- 📍 Pedestrian Related (6)
- 📍 Bicycle Parking Related (5)
- 📍 Lighting Related (4)

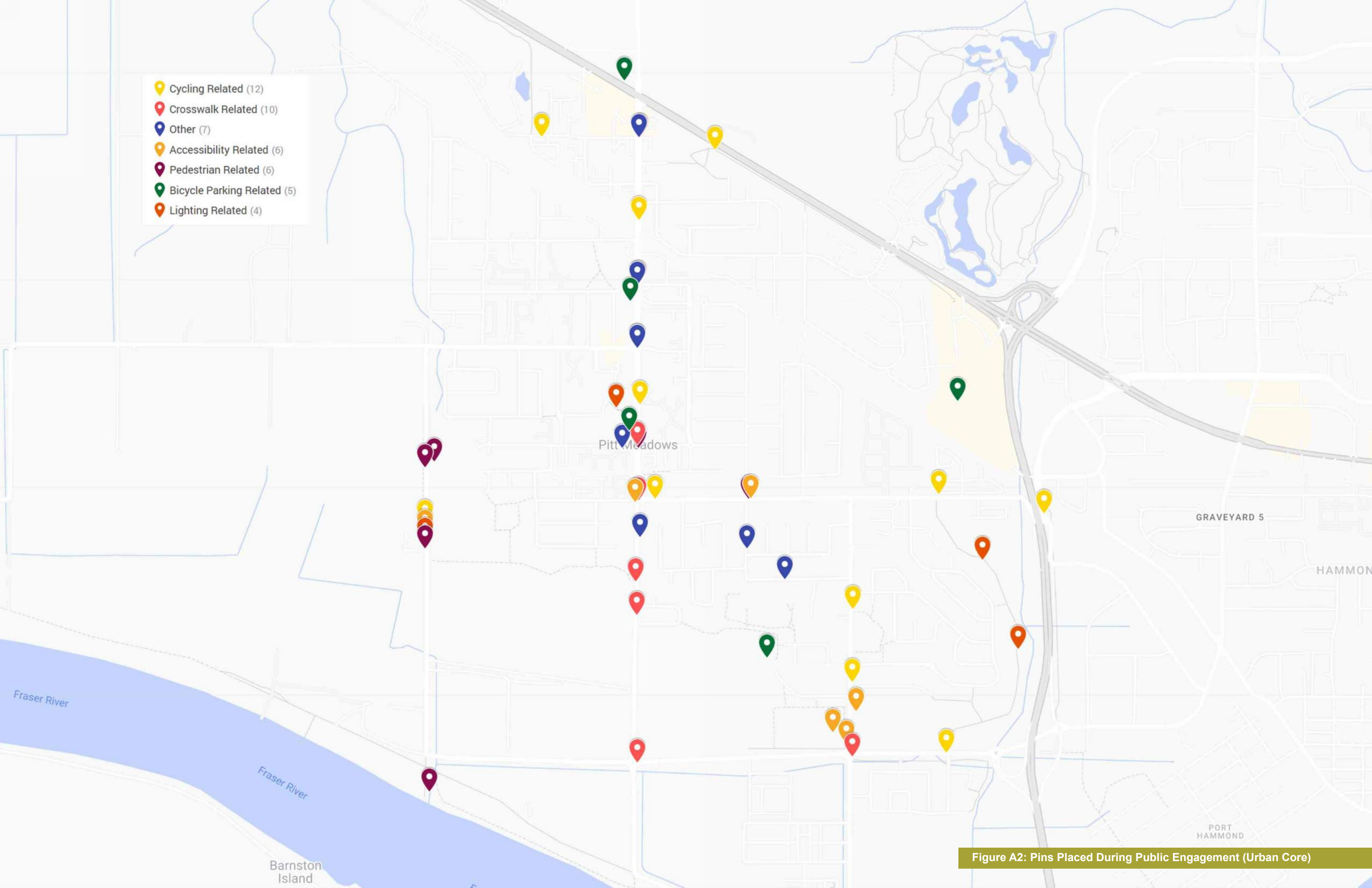


Figure A2: Pins Placed During Public Engagement (Urban Core)





City of  
**Pitt Meadows**  
THE *Natural* PLACE



**ISL**