



WOLFVILLE COMPREHENSIVE ACTIVE TRANSPORTATION NETWORK

INVESTMENT STRATEGY

ICIP FUNDING APPLICATION

May 2022

Key implementation goals ...

Build a culture of activity around our AT investments.



Socialize projects early and make people feel part of the process as we move forward.



Create a community component (e.g. volunteer implementation group, bike Mayor) that can help with public education and outreach.





FUNDING AND INVESTMENT OPPORTUNITY



INVESTING IN CANADA INFRASTRUCTURE PROGRAM (ICIP)

Green Infrastructure

Overview

- ▶ 45% of Green Infrastructure Stream is allocated to **Climate Change Mitigation** Sub Stream
- ▶ **Energy and Mines is lead** on Climate Change Mitigation (CCM) Sub Stream
 - ▶ TIR is overall lead (holds Integrated Bilateral Agreement (IBA) with GOC)
- ▶ \$172M Fed \$ over 10 years for Climate Change Mitigation Sub Stream
- ▶ **Cost sharing of projects;** federal government will pay up to:
 - ▶ 50% for projects led by Province
 - ▶ 40% for projects led by Municipalities and Not-for-Profits
 - ▶ 75% for projects led by First Nations
 - ▶ 25% for projects led by Businesses



Partnership Focus

Green Infrastructure is about building strong partnerships - to design, develop, and execute excellent projects

Climate Change Mitigation Sub Stream

Eligible Ultimate Recipients

- ▶ **Municipalities**
 - ▶ Up to 73.33% of eligible project costs (40% Canada, 33.33% Nova Scotia)

Our currently budgeted AT Capital dollars could turn into \$3 million+ with this opportunity

Budget & Scope



\$887,212 Town investment (this is in our current Capital Budget)
\$2,439,419 Provincial and Federal Investment (ICIP application)
\$3,326,632 in AT Improvements for Wolfville from '23 to '27

PROJECT	LENGTH
Main Street (east and west) AAA bi-directional AT lane – 3m asphalt with barriers	3,140m
Skyway/Pleasant AAA bi-directional AT lane – 3m asphalt separated with curb	2,370m
Harvest Moon Trail AAA bi-directional AT lane – 3.2m asphalt and intersection improvements	470m
Connectors Cherry Lane to Harvest Moon Trail; Main Street at Oak Avenue extension to Harvest Moon Trail; Highland to Harvest Moon Trail; Highland to Wolfville School; East End Gateway to Harvest Moon Trail; Reservoir Park to Maple Avenue.	1,180m
Shared Streets Kent Avenue; Gaspereau Avenue; Sherwood Avenue; Downtown Main Street (TBD)	2,960m
New Sidewalk Front and Harbourside; Victoria Avenue to Recreation Centre	230m
TOTAL	10,350m

This package of improvements will build most of our network and improve service levels – other AT / crosswalk/ safety investments will also happen as part of annual budget process.

Council Motion (passed June 21, 2022 see here: www.wolfville.ca/town-council-meetings.html)

That Council approves applying for the Investing in Canada Infrastructure (ICIP) and if that if the ICIP application is to be successful, the Town of Wolfville:

- supports the ICIP-CCM application and commits to the municipal contributions for the outlined projects (26.67%)
- finances the total project costs upfront (including any borrowing required and submits claims throughout the year)
- commits to any land purchases or easements to implement the project (these costs are not eligible under the ICIP program)



BACKGROUND + RATIONALE

How did we get here?



September 2015 – Council Adopted the AT Plan prepared by WSP Engineering

April 2019 – Town adopts Accessibility Plan

September 2020 – Council approves new Planning documents with improved Mobility policies

May 2020 – Council directed Staff to focus on meaningful Active Transportation improvements in the budget process.

April 2021 – Council considered a grant application to improve Active Transportation in the Town.

June 2021 – Council received an information report outlining the work on the AT network, committee and public feedback and the design/costing that was ongoing with consultants.

November 2021 – Council received an information report on the Active Transportation network and an update on Highland Avenue

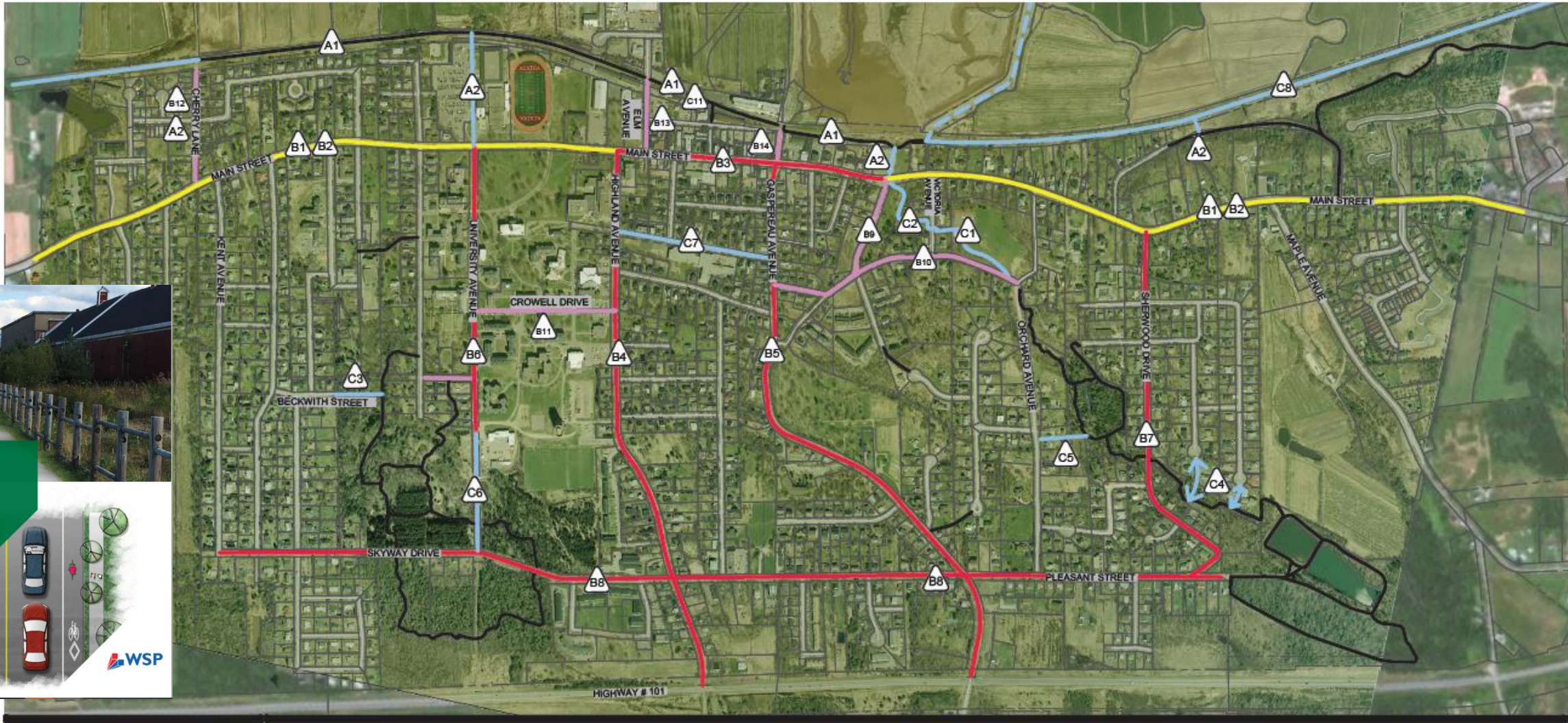
December 2021 – Council adopted the Town's first Climate Action Plan

Early 2022 – Staff continue to work with the Province on submitting an ICIP funding application and have the 2022-23 budget reflect enhanced AT investments

June 2022 – Council considers and approves motion for the ICIP funding application.

- Only 2% of Wolfville residents commute by Bike and 22% by walking
- 44% of working residents in Wolfville work within Wolfville.
- Wolfville should explore a goal of 50% walking/cycling/transit by 2030.

2015 AT Plan Recommendations



TOWN OF WOLFVILLE
ACTIVE TRANSPORTATION PLAN
141-22664-00 SEPTEMBER, 2015

1 SPECTACLE LAKE DRIVE
DARTMOUTH, NOVA SCOTIA CANADA, B3B 1X7
PHONE: 902 835-6655 - FAX: 902 835-1845 - WWW.WSPGROUP.COM

1 : 9,000

LEGEND:

- Existing Trails
- Proposed Trail Connection
- Reserved Bicycle Lane
- Proposed Shared Use Lanes
- Proposed Signed Bicycle Route

Recommendation Number

ACTIVE TRANSPORTATION PLAN
FIGURE: 6 - 1 RECOMMENDED ACTIVE TRANSPORTATION NETWORK

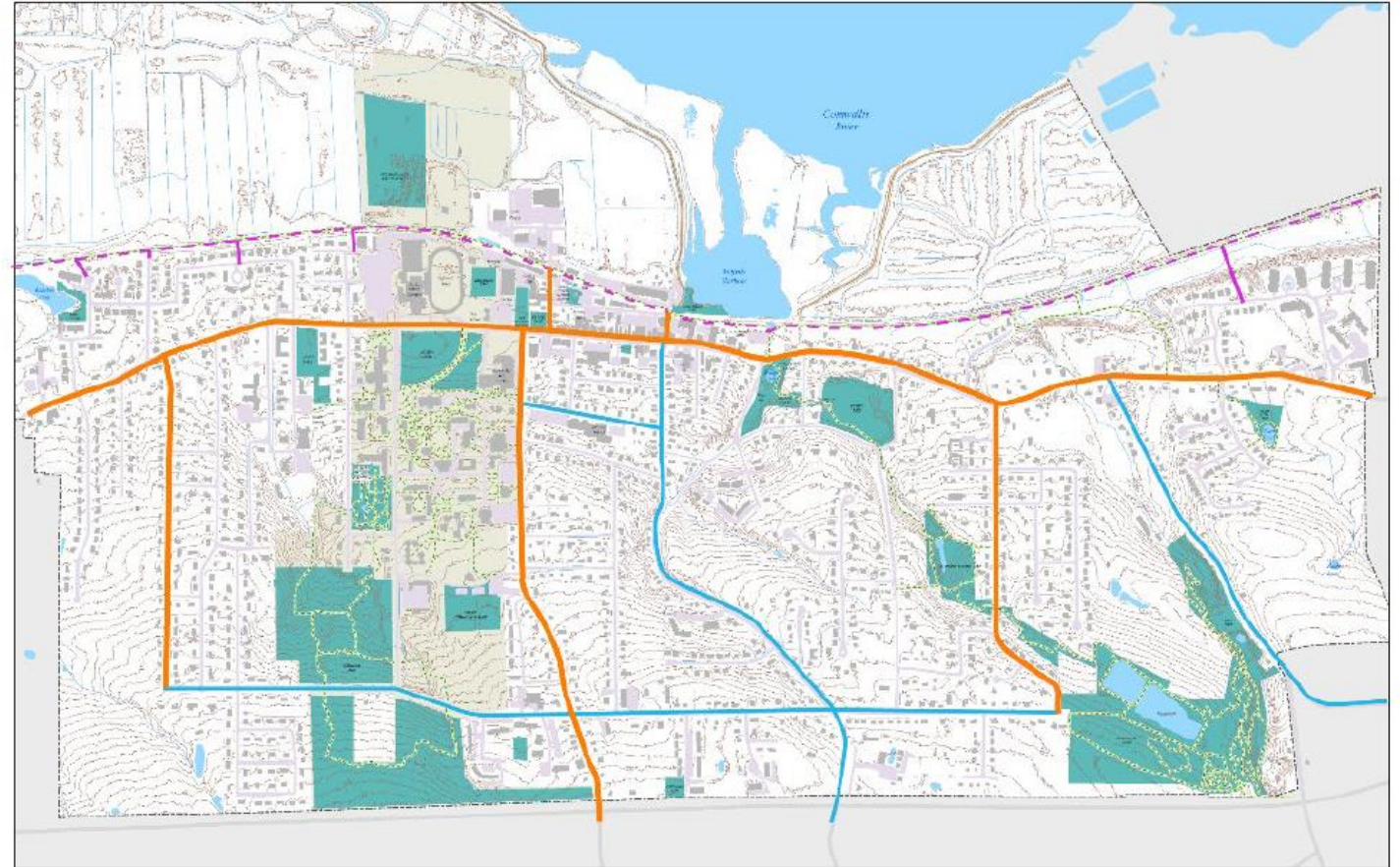
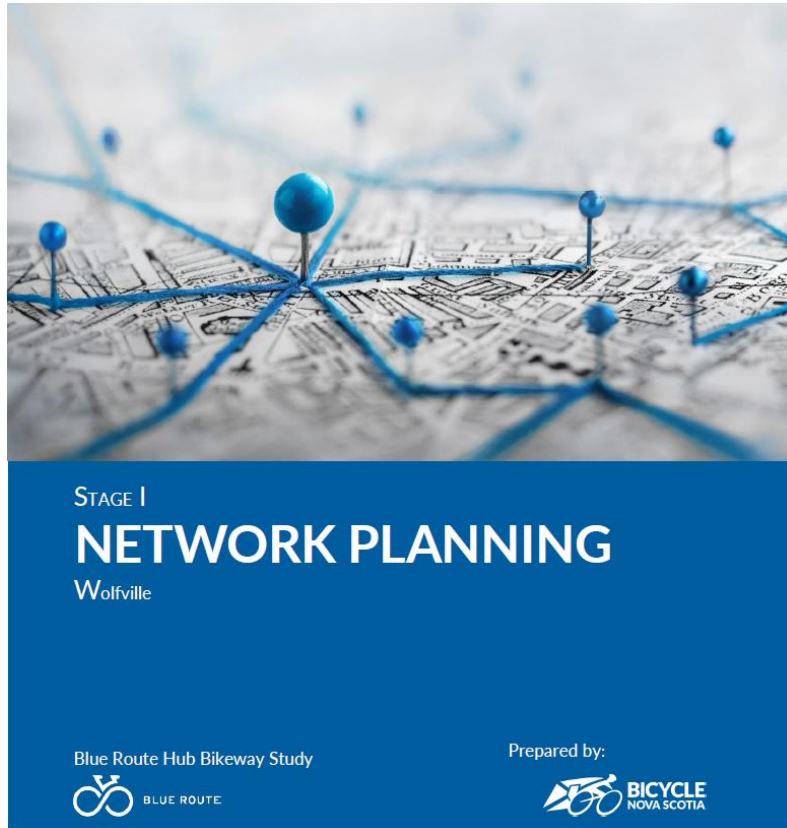


Figure 29* - Complete network (concept)

To ensure that new bicycle infrastructure will accommodate the broadest spectrum of users, facilities should be designed to meet **All Ages and Abilities** (AAA) best practices.

2020-21 AT Work with Bicycle NS



Table 1 - Common themes of comments received during the consultation process

Accessibility	<ul style="list-style-type: none"> Greater consideration needs to be given to people with differing abilities. Better provision of space is required to accommodate mobility aids such as wheeled walkers, wheelchairs, adult tricycles, etc. Ensure that ample parking options are provided for people with limited mobility.
Connectivity	<ul style="list-style-type: none"> Increase the connection between streets and neighbourhoods (i.e., connector paths), as well as to nearby communities (e.g., New Minas, Grand Pré, Gaspereau).
Education	<ul style="list-style-type: none"> More education regarding roadway safety and procedures is needed for all road users to improve safety and flow of traffic. More signage is needed to explain the intended use and flow of the ROW.
Hill	<ul style="list-style-type: none"> Cycling as a viable option requires solutions to assist people climbing the hill.
Infrastructure	<ul style="list-style-type: none"> Main Street bike lanes are currently unsafe and need improvements. A solution is needed to improve traffic congestion caused by the 4-way stop at Main Street and Gaspereau Avenue. Better crossing treatments are required along the length of Main Street.
Maintenance	<ul style="list-style-type: none"> Improvements are needed to maintenance practices throughout the year to provide suitable conditions for all users.
Safety	<ul style="list-style-type: none"> Current cycling infrastructure is seen as unsafe due to proximity to motor vehicles (speed & volume) and the physical conditions of the facilities. Separation between motor vehicles, cyclists and pedestrians is desired. Improvements are needed to increase visibility of vulnerable road users.
Parking	<ul style="list-style-type: none"> Better parking solutions are needed near Downtown.

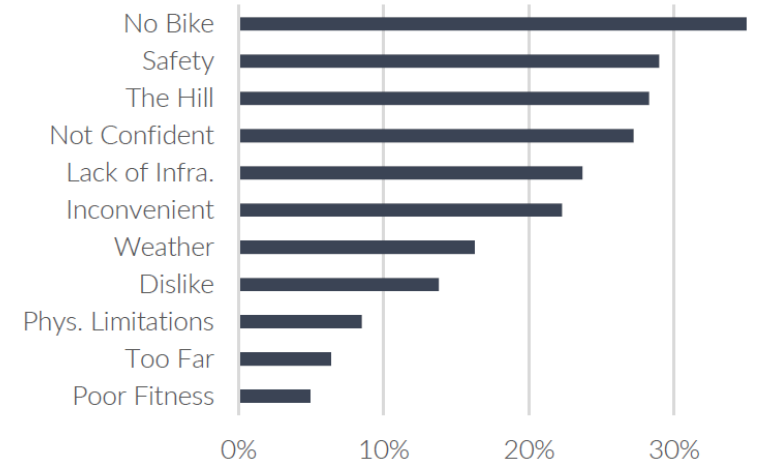


Figure 12 - Deterrents to cycling in Wolfville

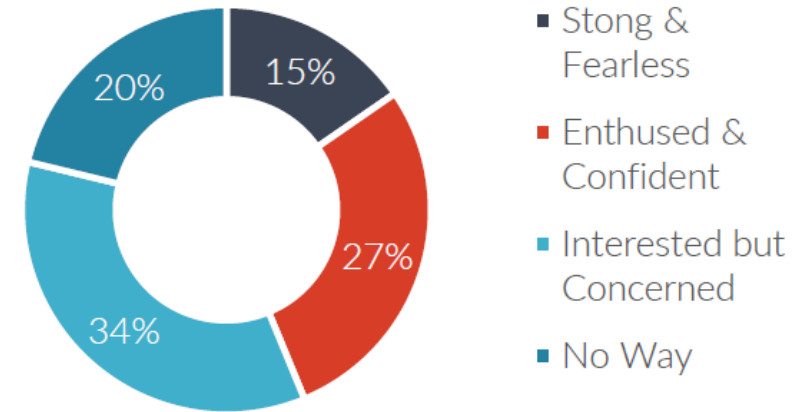
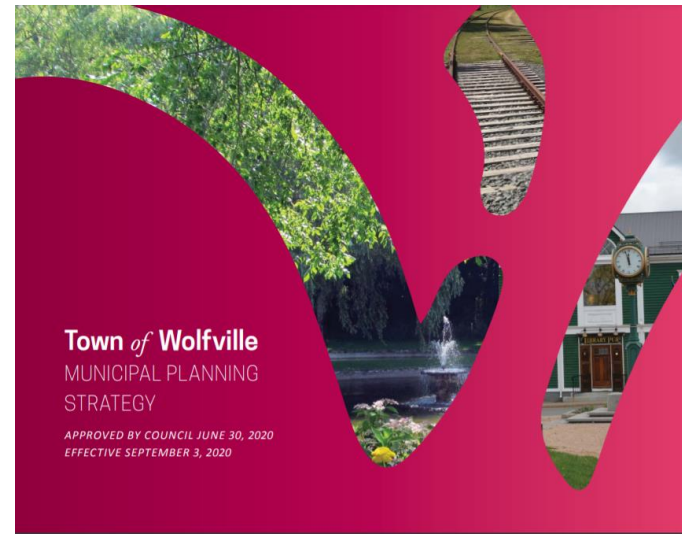
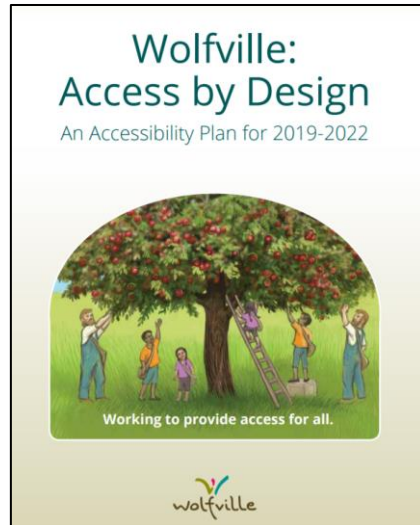


Figure 10 - Type of Cyclist

Policy and Strategy Support for AT Investment



There is a clear desire for improved active transportation in the Town.

- 1. Wolfville: Access by Design (2019).** The Town adopted an Accessibility plan to ensure equitable access to community life and participation in society for all people regardless of their abilities. The plan has 5 areas of focus: the built environment, information on and communication on, transportation on, goods and services, employment.
- 2. Municipal Planning Strategy (2020).** After a substantial process, Council's Municipal Planning Strategy clearly articulates directions related to Active Transportation in part 5 (Mobility) of the plan.
- 3. Council Strategic Plan (2021-2024).** Council's recently adopted strategic plan outlines priorities and initiatives which include:
 - Clear plan to address, in a timely manner, the revitalization and maintenance of road, sidewalk, crosswalk infrastructure and traffic management including addressing the issue of the 4-way stop
 - Climate management related initiatives to reduce carbon emissions, support local transportation, local food security and environmental protection.



Wolfville's Low Carbon Pathway

Actions that would achieve net-zero GHG emissions by 2050 were explored using energy and emissions modelling. Assumptions were developed for each action and they were modelled as a low-carbon scenario to demonstrate their emissions reductions potentials compared to current emissions and those projected under the BAU scenario. The collection of actions that will reach the target are summarized here:

Transportation and Transit

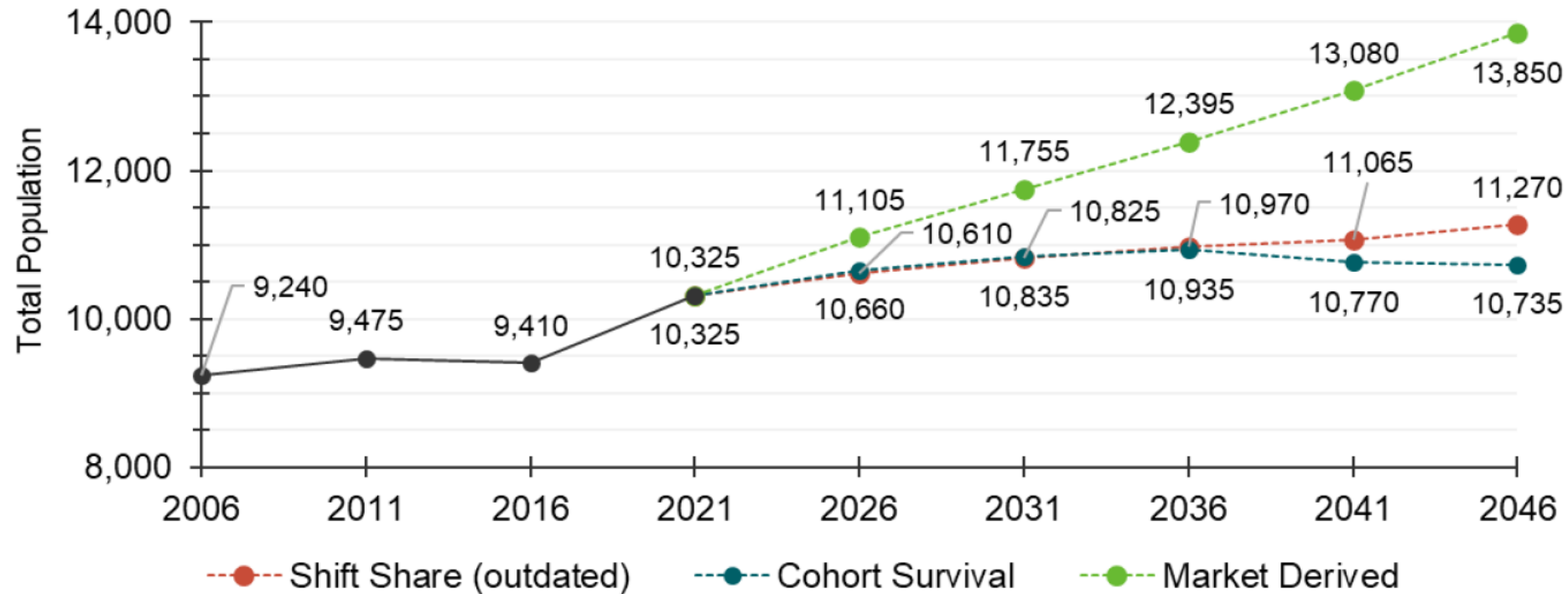
- 30% of new personal vehicles are electric by 2030, 60% by 2035, and 100% by 2040;
- 30% of new commercial vehicles are electric by 2030, 50% by 2035, and 80% by 2040;
- Transit fleet is 100% electric and right sized by 2035;
- Municipal vehicle fleet is 100% electric by 2030;
- Increase transit frequency;
- Transit use increases to 25% by 2030; and
- 40% of shorter trips are made by walking or biking by 2030, 50% by 2050.

Recommended Actions

Action 8: Allocate capital budget to continued improvement of Active Transportation Infrastructure (e.g. sidewalks, trails, bike lanes, bike parking, etc.) to achieve 40% mode share by 2040 and 50% by 2050

Wolfville is growing!

Town of Wolfville and Kings Subd. D (combined) - Population forecast models (2022)



Source: derived from Statistics Canada 2006, 2011, 2016, and 2021 Census & Local Development Info

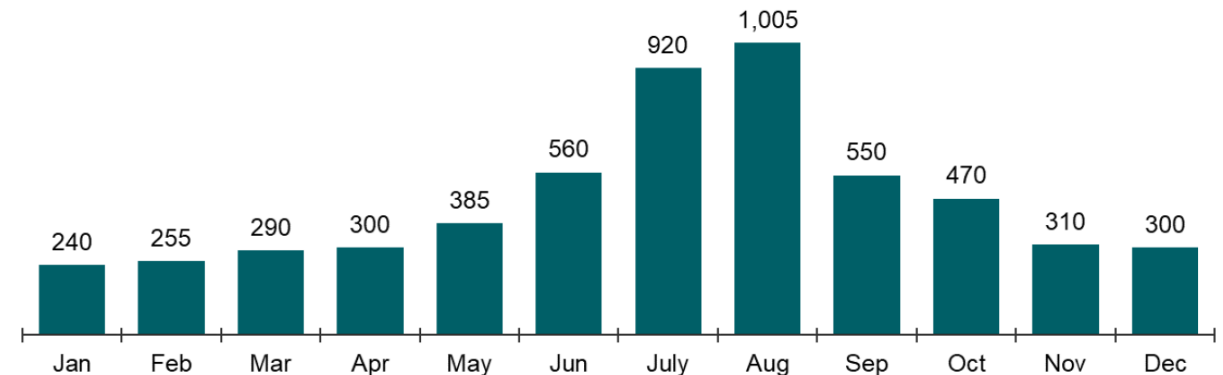
Many visitors are coming to our region (and bringing their bikes!).

Figure 6.1: Visitation Statistics by Visit Type, 2019

	Pleasure	Visit Friends / Relatives	Total
Total Tourists	1,142,000	736,000	1,878,000
Visited Bay of Fundy / Annapolis Valley	37%	27%	33%
Visited the Town of Wolfville	24%	35%	28%
Estimated Annual Wolfville Tourists	101,410	69,550	170,960

Source: derived from Tourism Nova Scotia

Figure 6.2: Estimated Average Visitors per Day by Month, 2019



Source: derived from Tourism Nova Scotia









OVERVIEW OF PROPOSED NETWORK

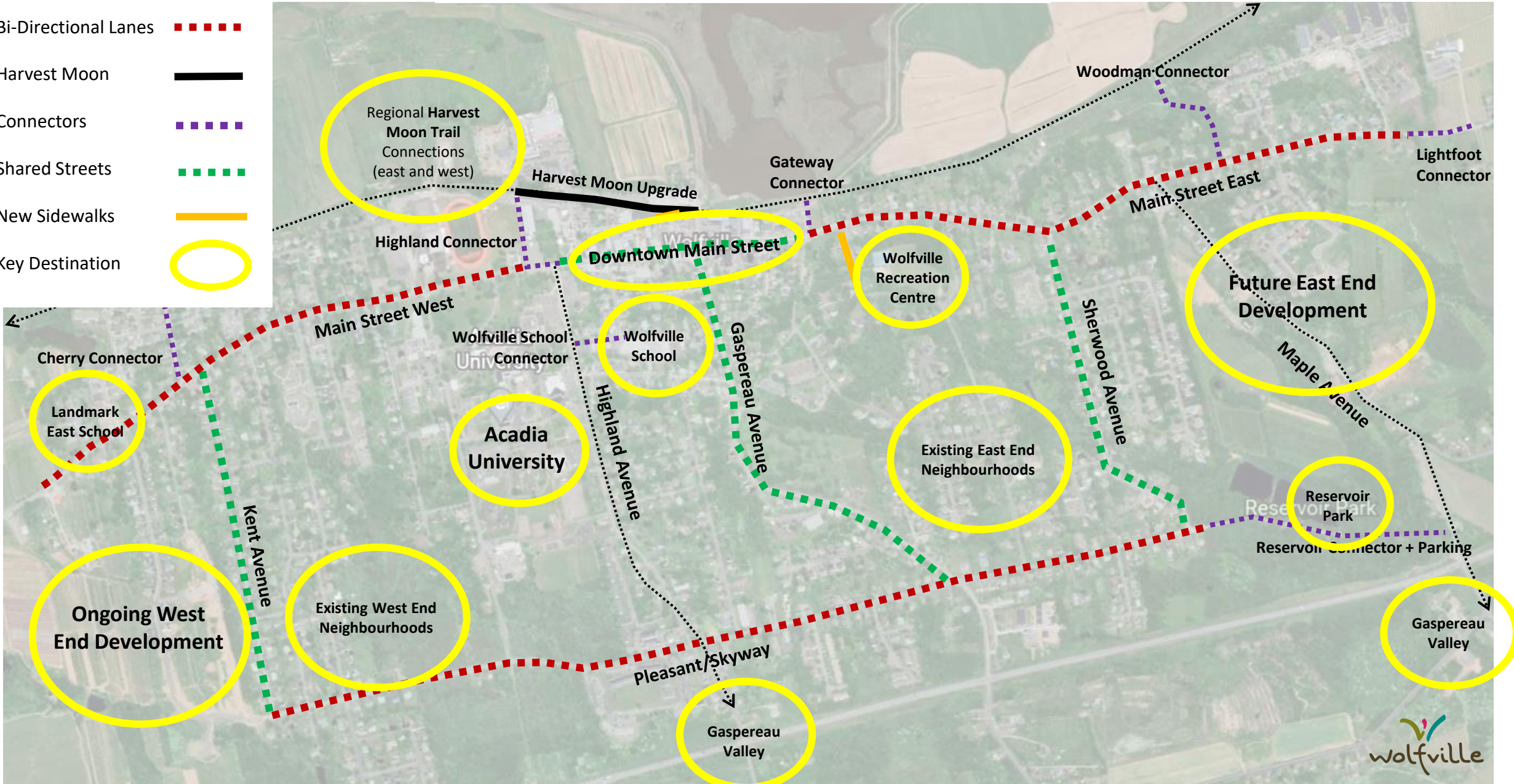
Existing Conditions + Ongoing and Future Projects of-note for overall Network








ICIP PROJECTS

- Bi-Directional Lanes 
- Harvest Moon 
- Connectors 
- Shared Streets 
- New Sidewalks 
- Key Destination 

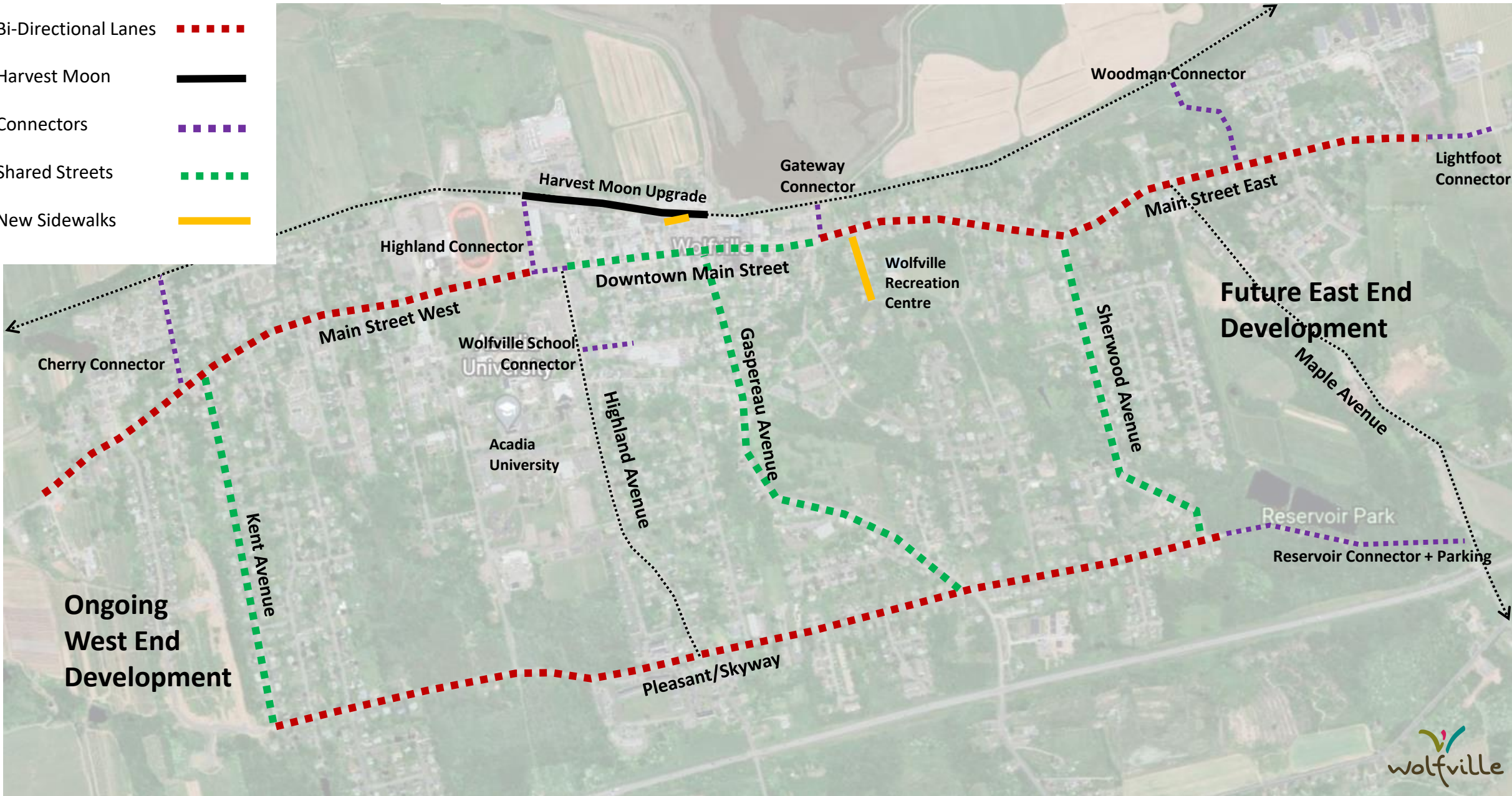
Key Destinations



ICIP PROJECTS

- Bi-Directional Lanes 
- Harvest Moon 
- Connectors 
- Shared Streets 
- New Sidewalks 

Proposed ICIP AT Network Projects



Summary of AT Network – ICIP Projects



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TOTAL	10,350m



ICIP Specifications Overview (general)



- This application outlines essential projects to complete a high service level AT network in the Town of Wolfville. Other projects (ongoing or future) will further enhance the network outlined in this application. Implementing a town-wide AT network and enhanced mobility in the Town has been a long-standing aspiration of the community, reflected through the planning processes, policy and strategy undertaken to-date.
- The aspects of the AT network outside of this funding opportunity have been included at the end of this document for context. The Town took part in a NS Blue Route process with Bicycle NS as part of our AT planning. The Harvest Moon Trail and enhanced Main Street AT corridor proposed will improve the NS blue route and regional/provincial connectivity through Wolfville.
- The proposed facilities will connect a diversity of users (students, residents, visitors, etc) to key destinations in the Town and beyond. A key destinations map has been included in this package for further context.
- We have been guided by All Ages and Abilities (AAA) guidelines from NACTO throughout our process. We have had to iterate design ideas based on local conditions, constraints and context along each project route.
- The specifications for each project are included in the next section of this document.

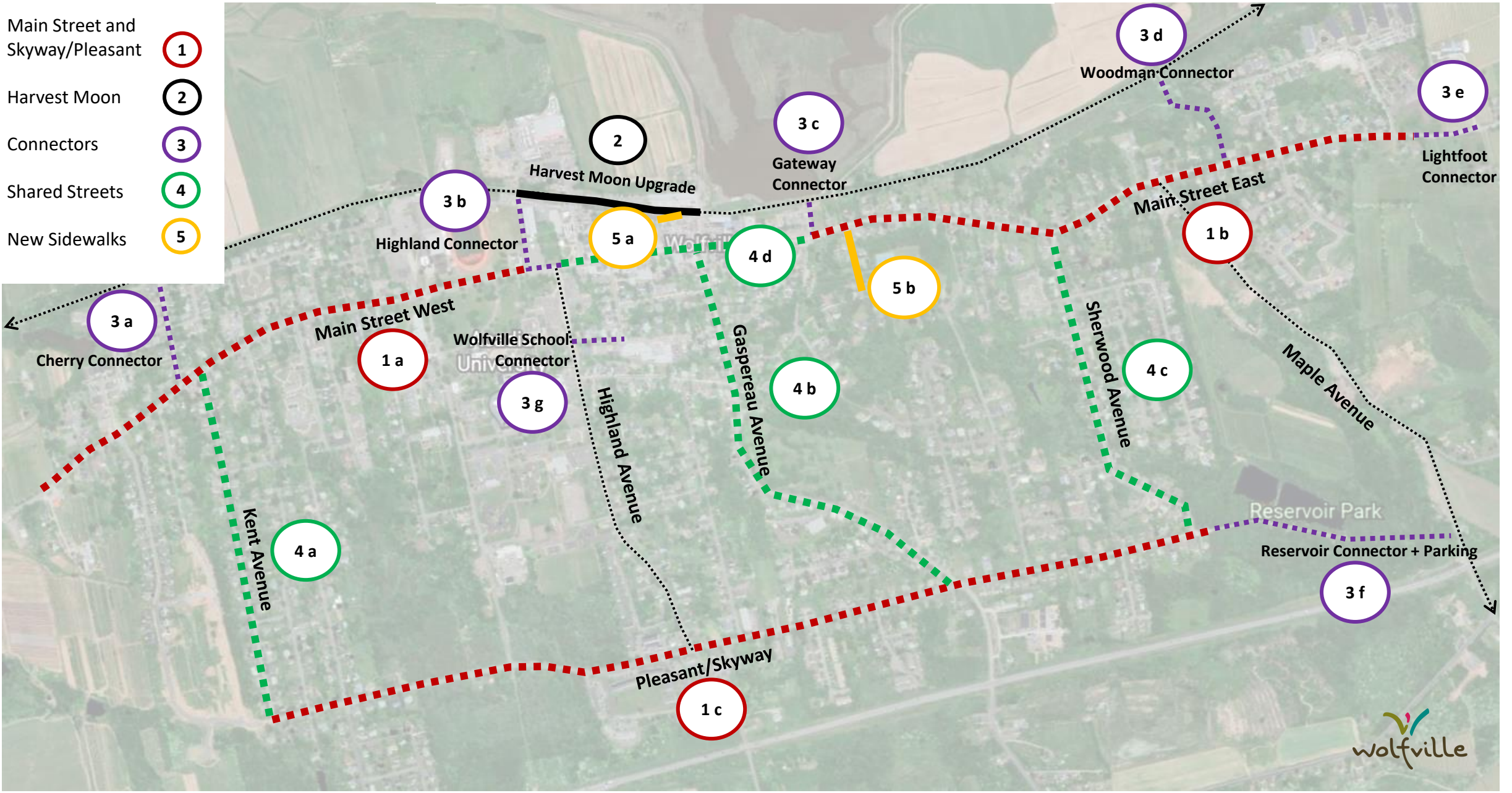


INDIVIDUAL PROJECT DETAILS

ICIP PROJECT NUMBERS

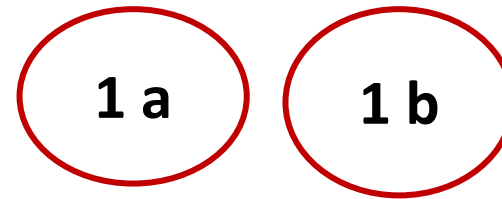
- Main Street and Skyway/Pleasant **1**
- Harvest Moon **2**
- Connectors **3**
- Shared Streets **4**
- New Sidewalks **5**

ICIP Project Reference Map





Main Street



See Project Reference Map

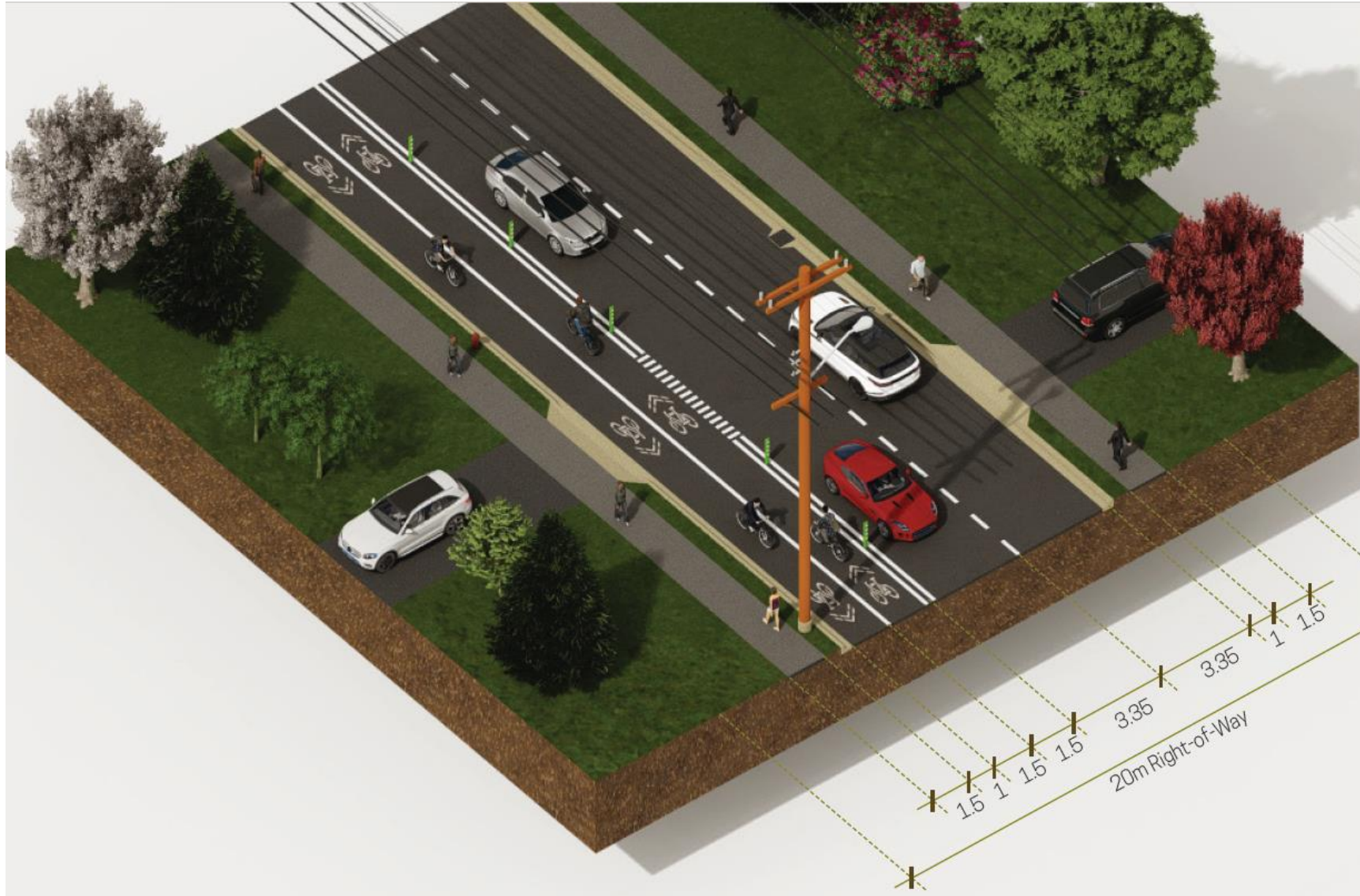
Main Street – East and West



See Project Map:

1 a

1 b



Project Details:

1,760m East End and 1,380m West End = 3,140m total

West = Town Boundary to East End Gateway; West = Town Boundary to Highland Avenue

Separated, AAA asphalt multi-use pathway on south side of roadway.

Separated by bollards and some concrete barriers - subject to detailed design (we have many barriers from our one-way Main Street pilot). Sidewalks maintained.

Involves new surface and bike friendly catch basins, signage, curb repair, crossings, painting and line marking.

Main Street – East and West



See Project Map:

1 a

1 b



East and West Existing Conditions



Proposed "AAA" Conversion

Project Details:

Before and after conceptual rendering of Main Street East and West shown here for context.

A much safer, All Ages and Abilities (AAA), condition is proposed.

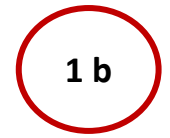
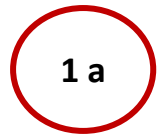
Note:

The Town currently owns a large quantity of concrete curb stops that will be used to increase the separation along the corridor (e.g. the bollards would be mounted on the curb stops).

Main Street – East and West



See Project Map:



Project Details:

Conceptual rendering entering Town on west end next to Landmark East School showing and proposed transition condition at crosswalk.

There is a rapid flashing beacon crossing (not shown in this concept) that has been installed at this crossing in 2022.

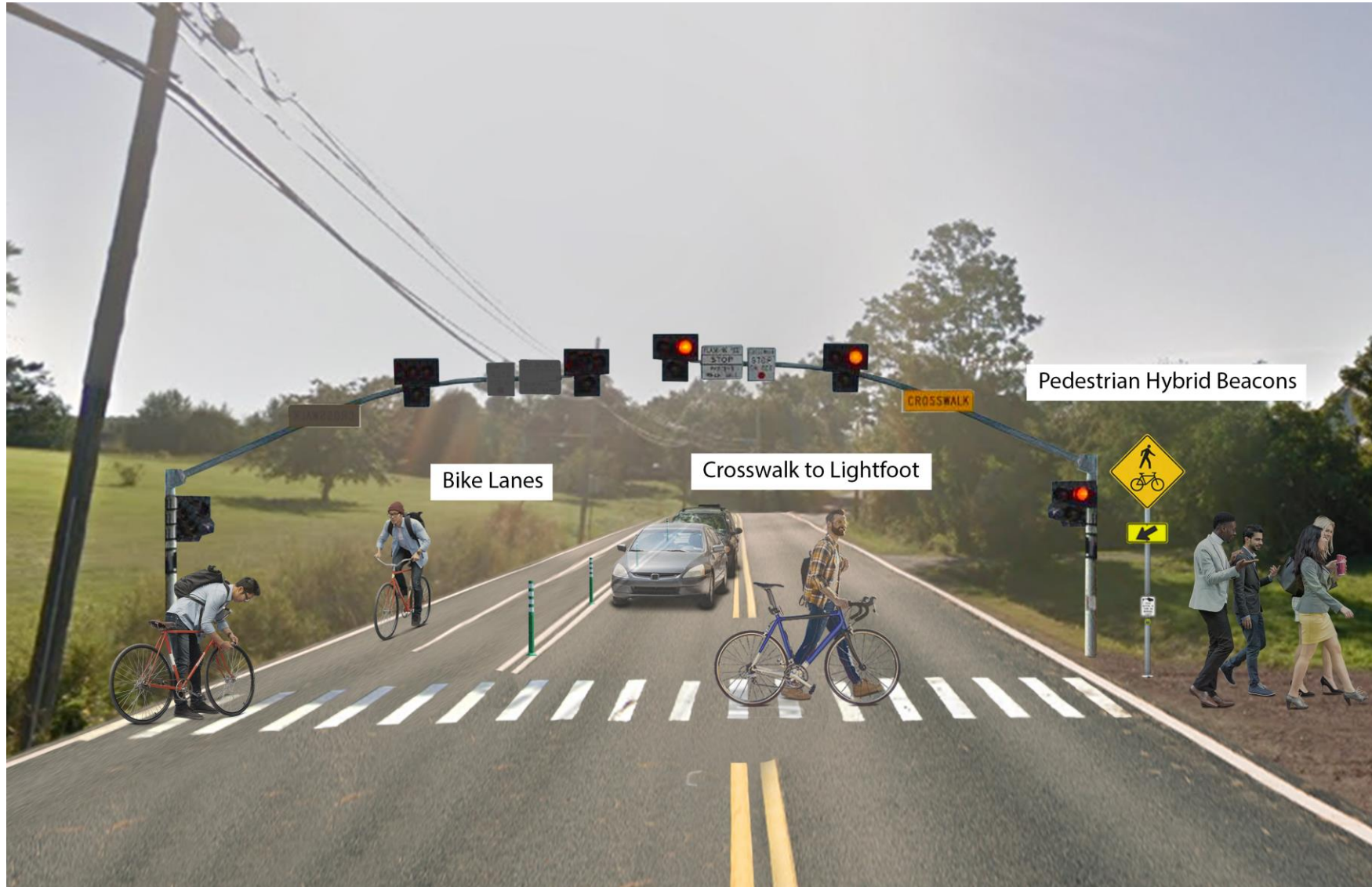
Main Street – East and West



See Project Map:

1 a

1 b

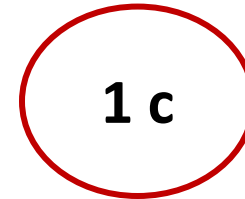


Project Details:

Conceptual rendering of the Main Street transition in the east end, looking west, showing the start of the lanes at Lightfoot&Wolfville winery (or at the town boundary, TBD) with an added overhead crossing (shown here) or rapid flashing beacon and the beginning of the AT lanes at the crosswalk.



Skyway/Pleasant

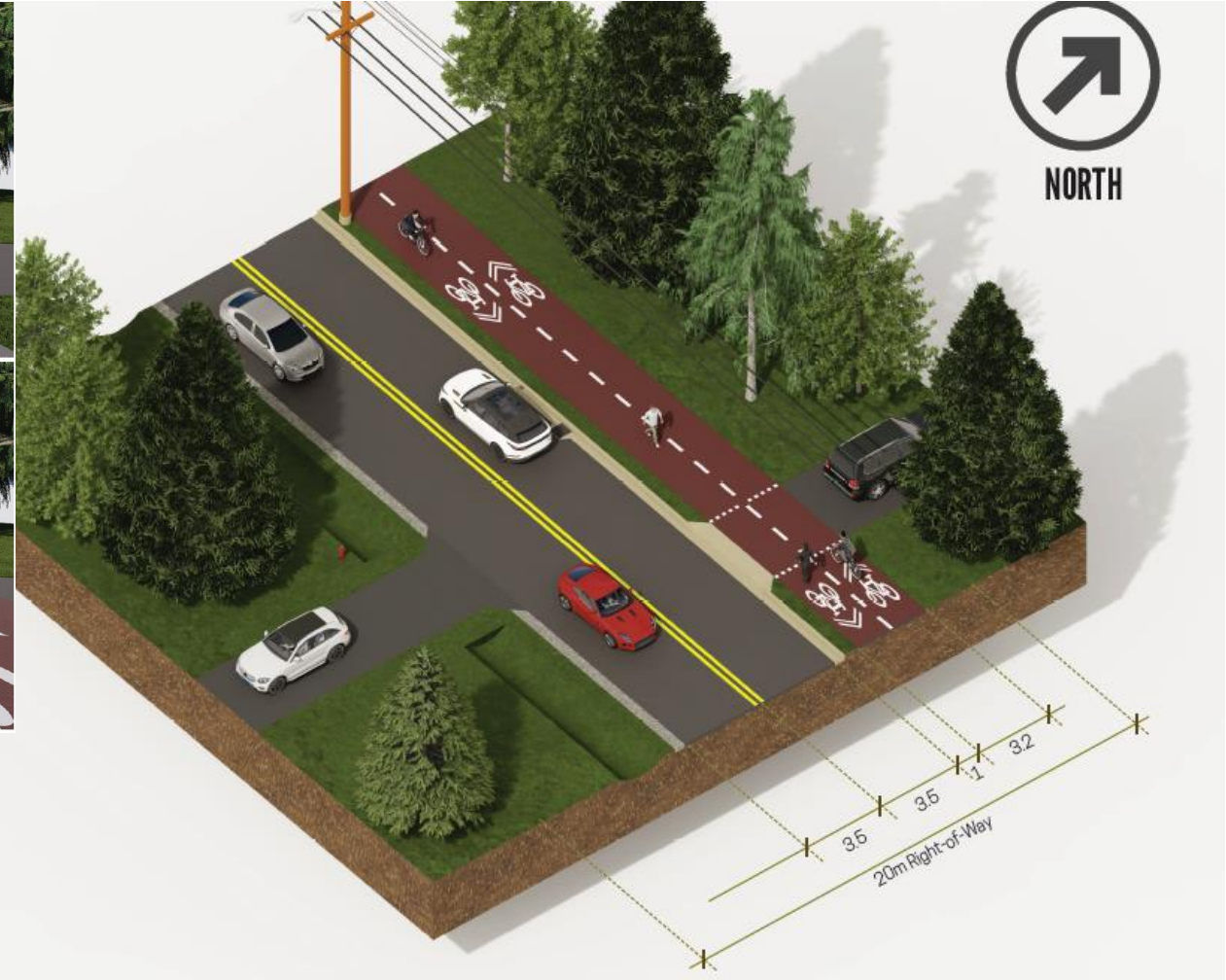
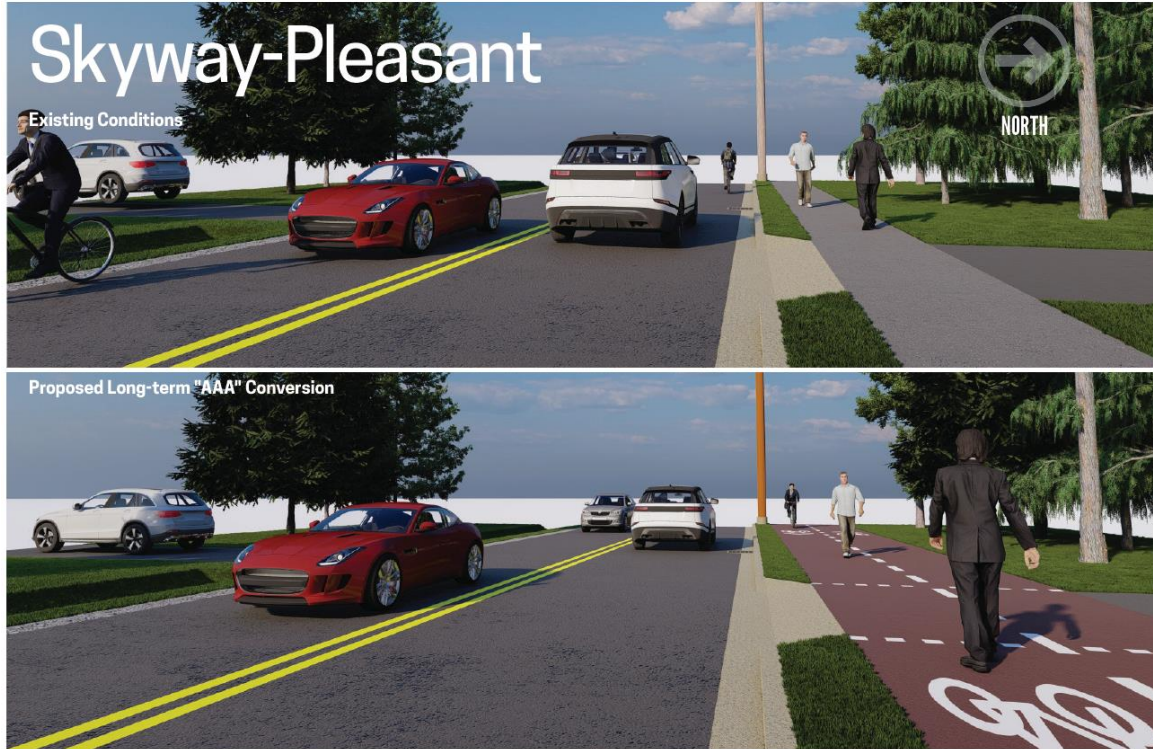
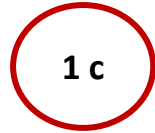


See Project Reference Map

Skyway/Pleasant Corridor



See Project Map:



Project Details: Widen sidewalk to a 3m+ AAA standard along the entire corridor. Separated by the existing curb. 2,370m connecting the West End to the East End in a linear corridor.

Skyway/Pleasant Corridor



See Project Map:

1 c



Shown here is a functional layout of Skyway/Pleasant corridor.

Project would include an asphalt 3m corridor, driveway repairs, retaining walls, signage, paint and other details.

Skyway/Pleasant Corridor



See Project Map:

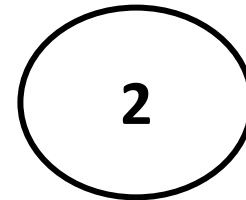
1 c



Functional layout of Skyway/Pleasant (cont'd)



Harvest Moon



See Project Reference Map

Harvest Moon Trail and Intersections



See Project Map:

2

Project Details:

Improving safety through paint and signage at the Harbourside Dr/Harvest Moon intersection and the Elm Ave/Harvest Moon intersections.

Paving an asphalt 3-3.2m corridor from Harbourside Drive to the Wolfville Farmer's Market.

Relocating the existing fence, landscaping and signage would be part of this project scope.

The Town is doing a Capital Project (underground infrastructure) on Harbourside Drive in 2023-24 that this project will be planned and tendered with.

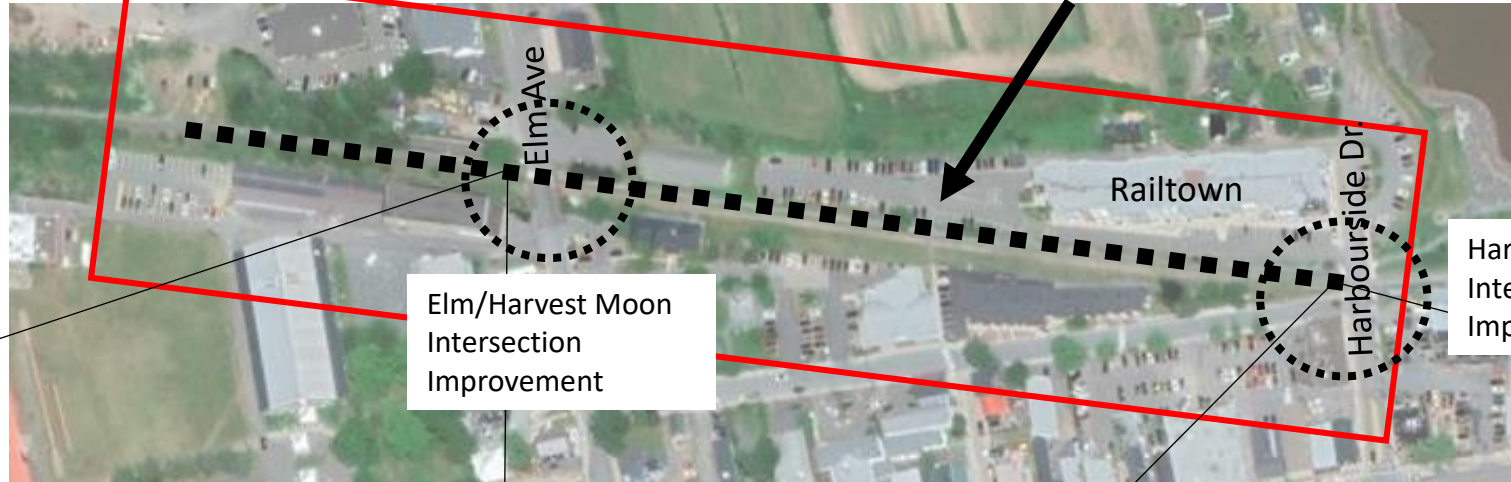


Harvest Moon Trail and Intersections



See Project Map:

Harbourside to Farmer's Market 3+m asphalt multi-use trail



Elm/Harvest Moon Intersection Improvement

Harbourside/Front Intersection Improvement

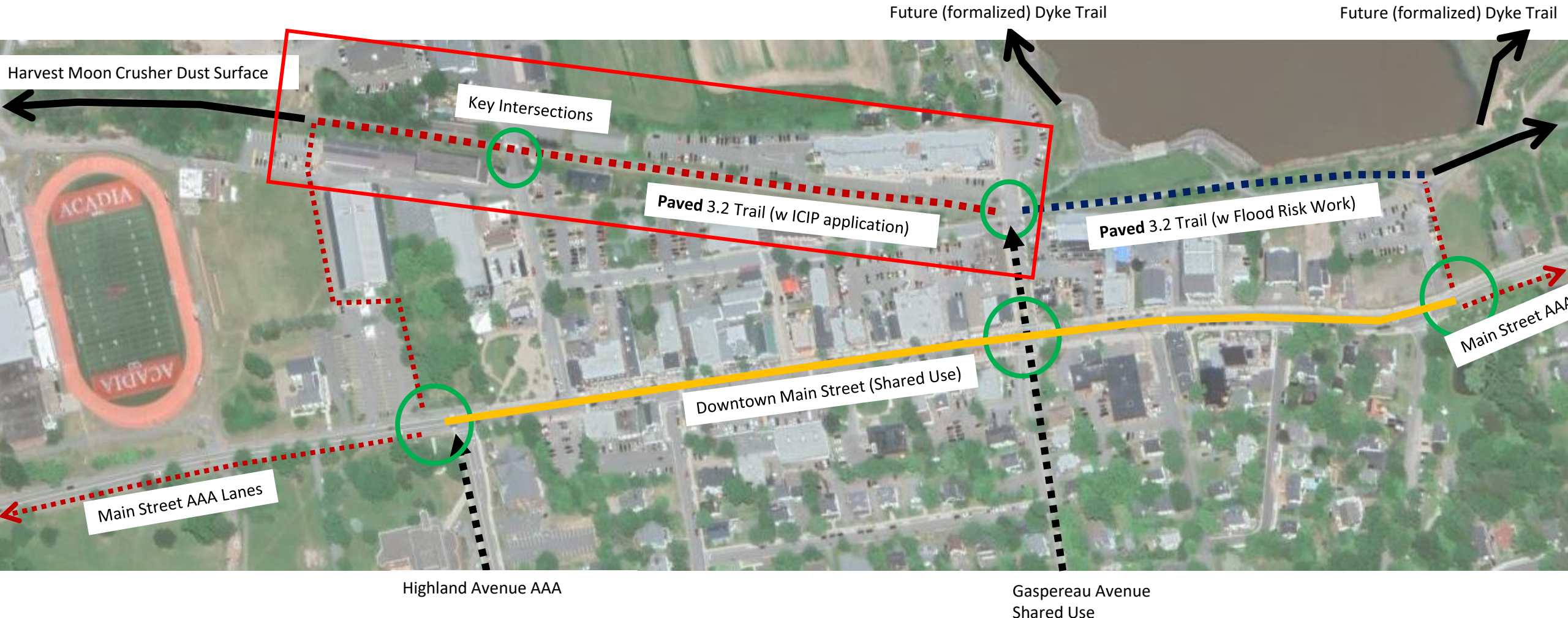


Conceptual Renderings of Intersection areas



Harvest Moon Trail and Downtown Context

See Project Map:

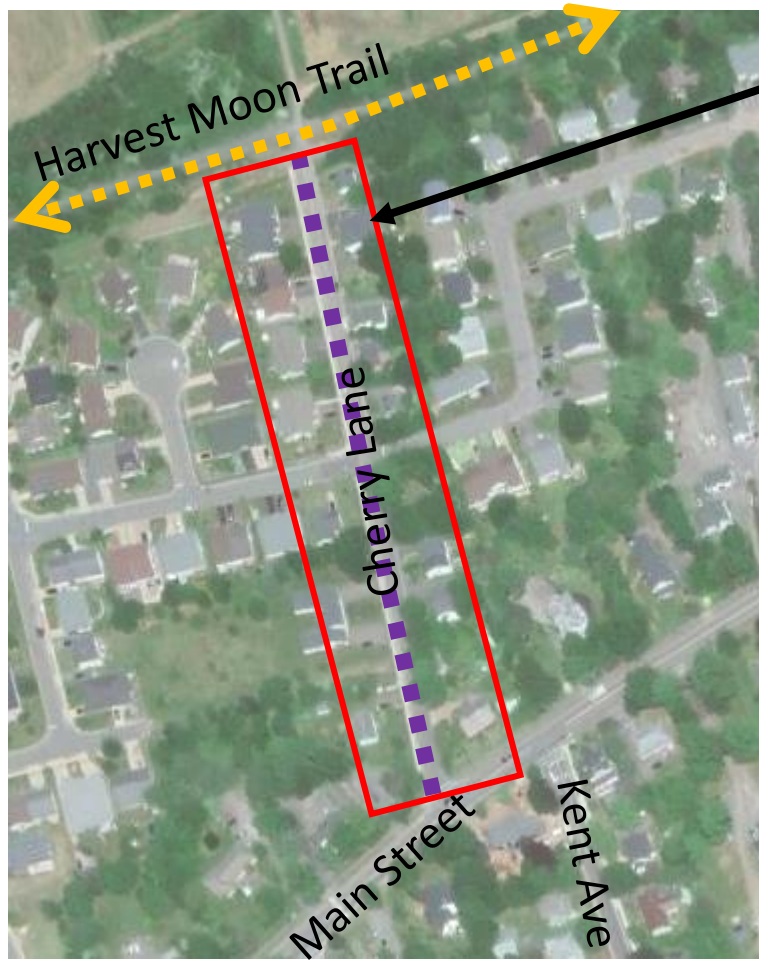




Connectors

- 3 a
- 3 b
- 3 c
- 3 d
- 3 e
- 3 f
- 3 g

See Project Reference Map



Project Details:

Bike Boulevard/Shared Street. Line Painting, Signage, Traffic Calming (e.g. speed hump)



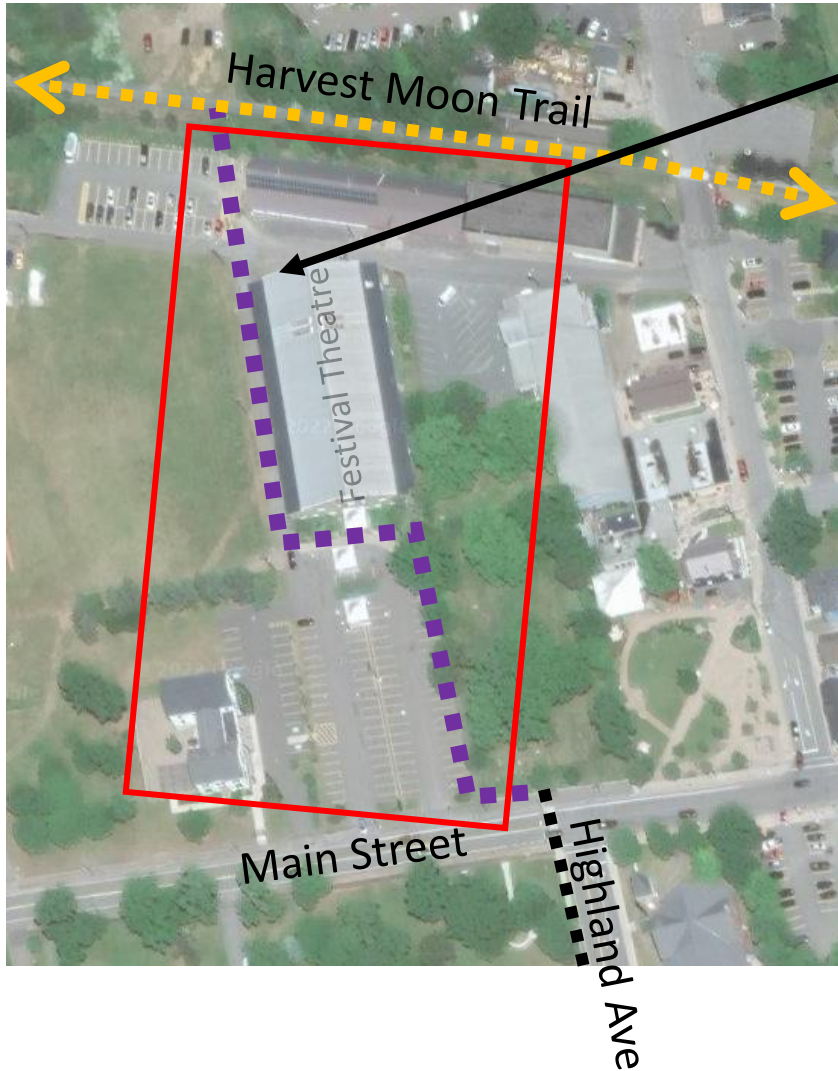
Conceptual rendering of proposed condition at Cherry Lane looking south.

Connector Highland Avenue to Harvest Moon Trail



See Project Map:

3 b

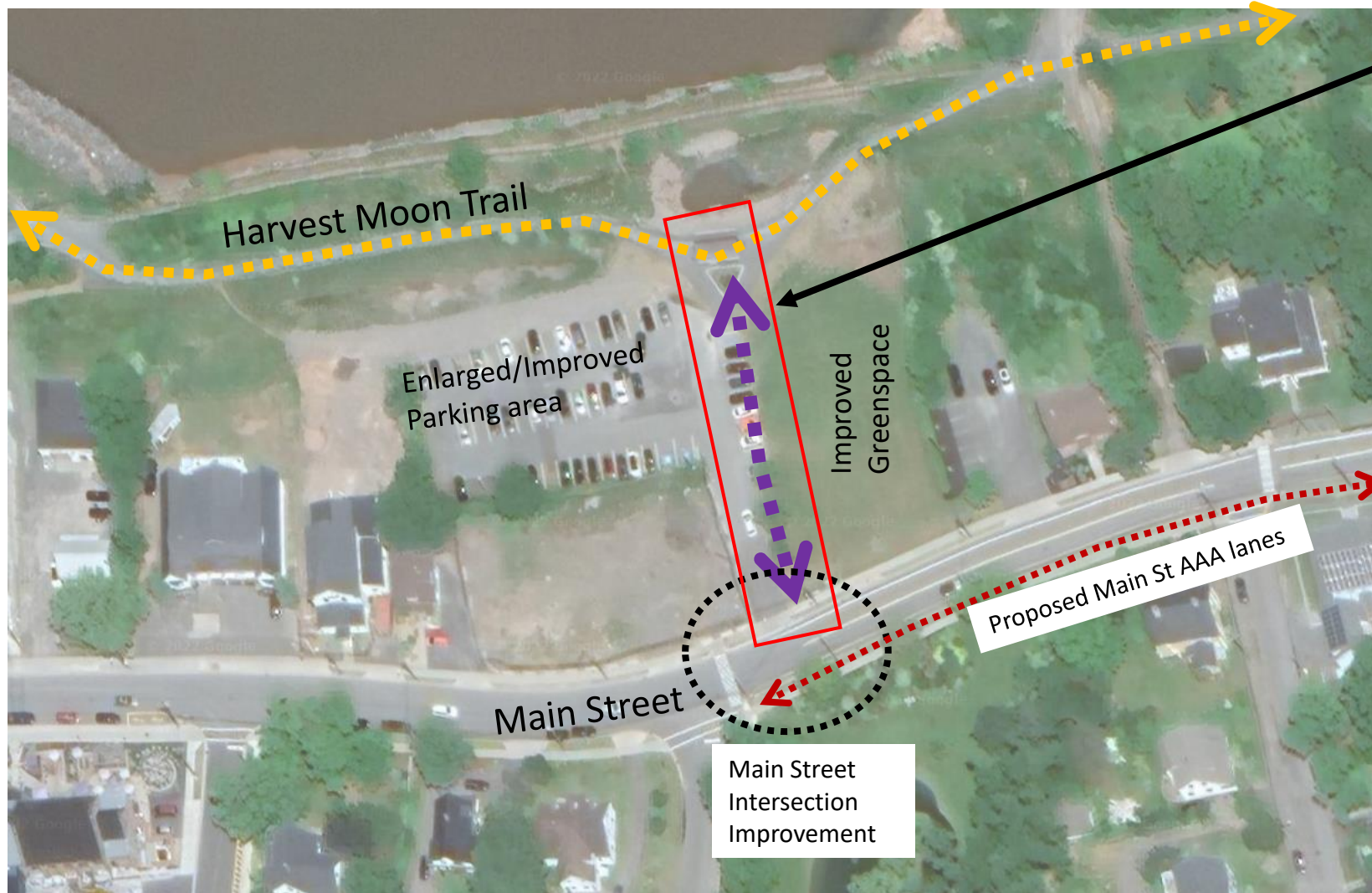


Project Details:

3.2m asphalt multi-use path, paint, signage through fire lane along Festival Theatre and on to Harvest Moon trail.



Conceptual rendering of proposed condition at Main Street looking north.



Project Details:

3.2m asphalt multi-use path connecting Main Street through the East End Gateway to the Harvest Moon Trail (shown in purple).

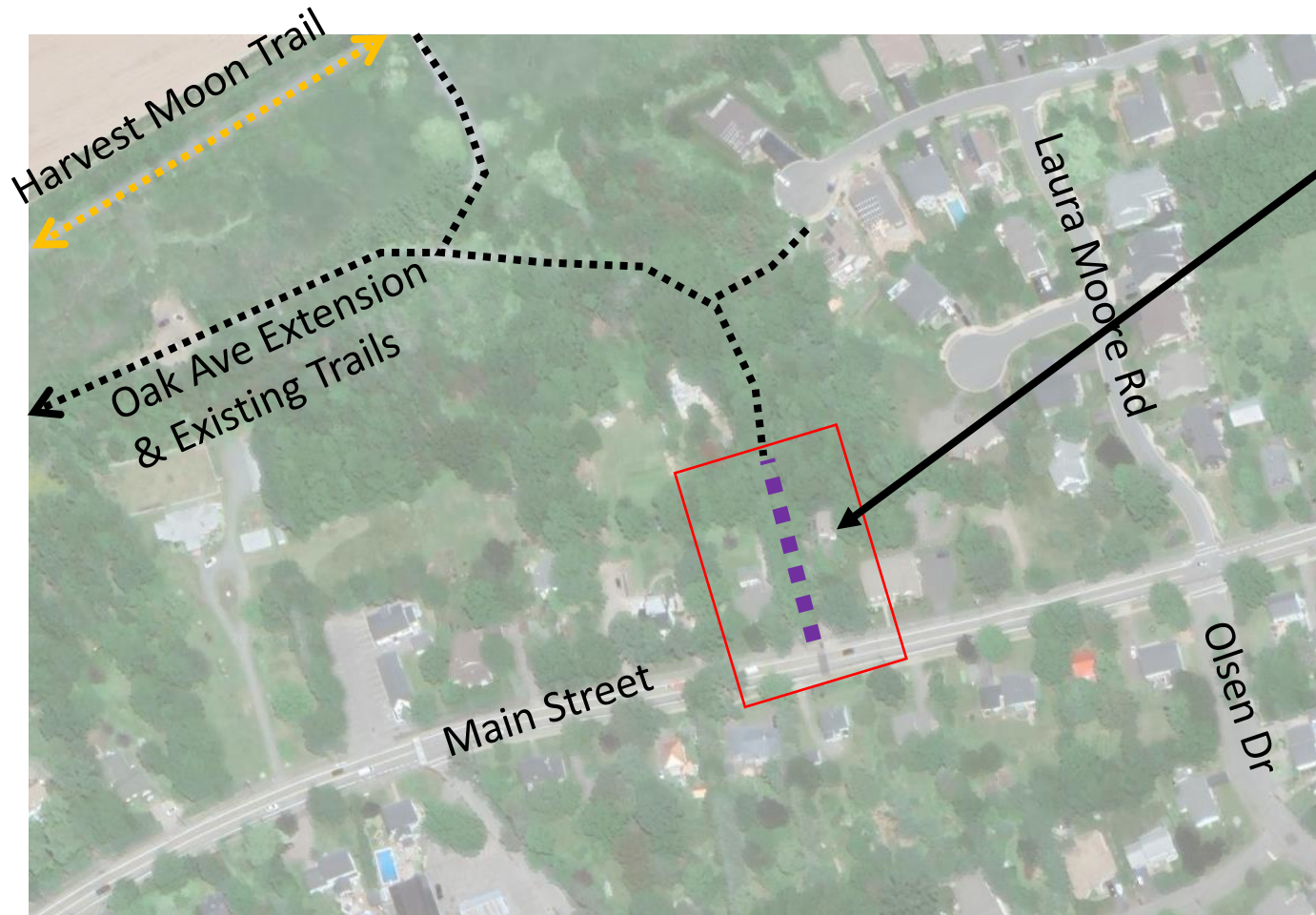
Connector

Oak Avenue Extension to Harvest Moon



See Project Map:

3 d



Project Details:

3.2m crusher dust or asphalt multi-use path, paint, signage.



Conceptual rendering of proposed condition at Main Street looking north (using asphalt).

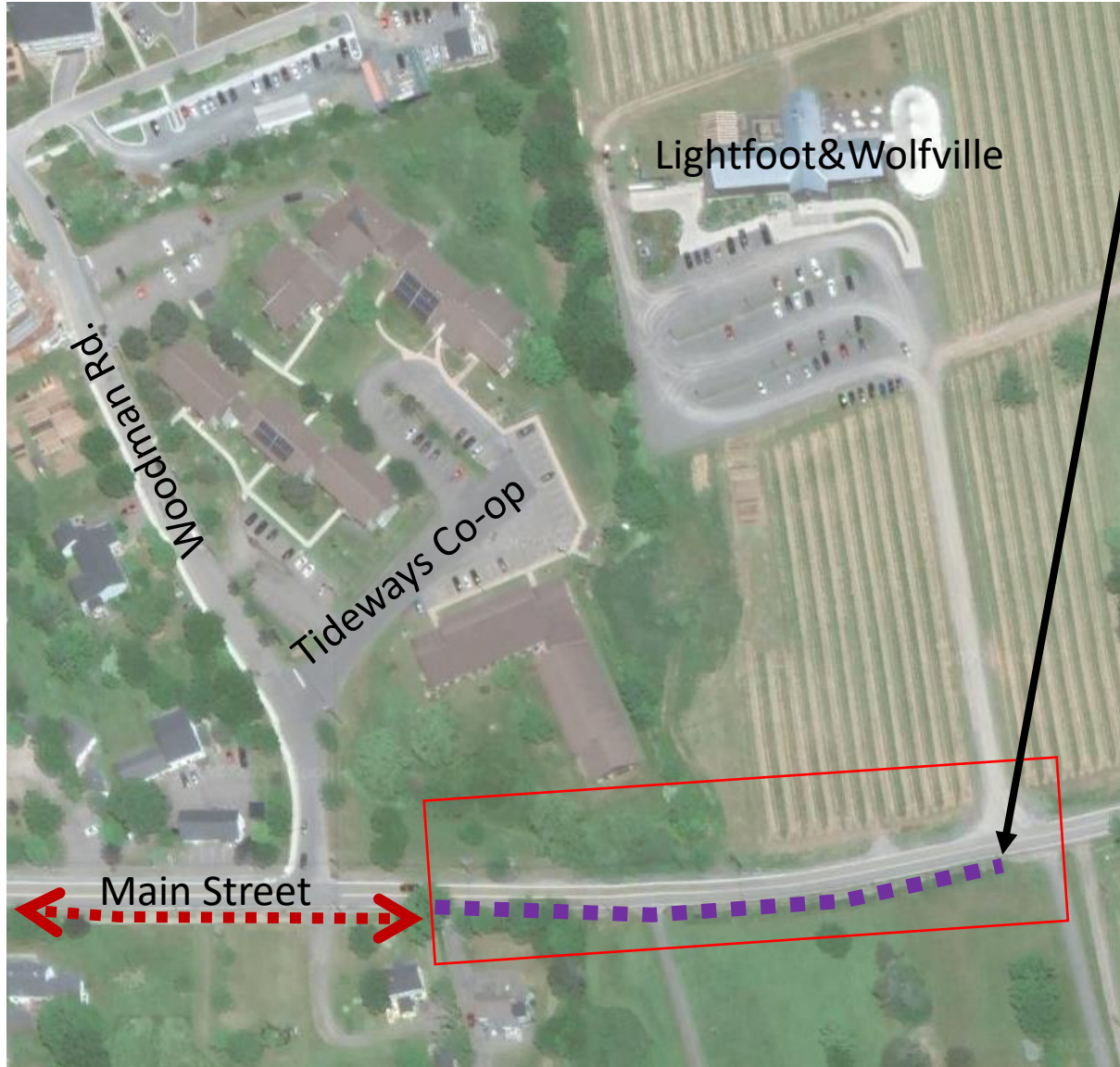
Connector

Town Boundary to Lightfoot&Wolfville



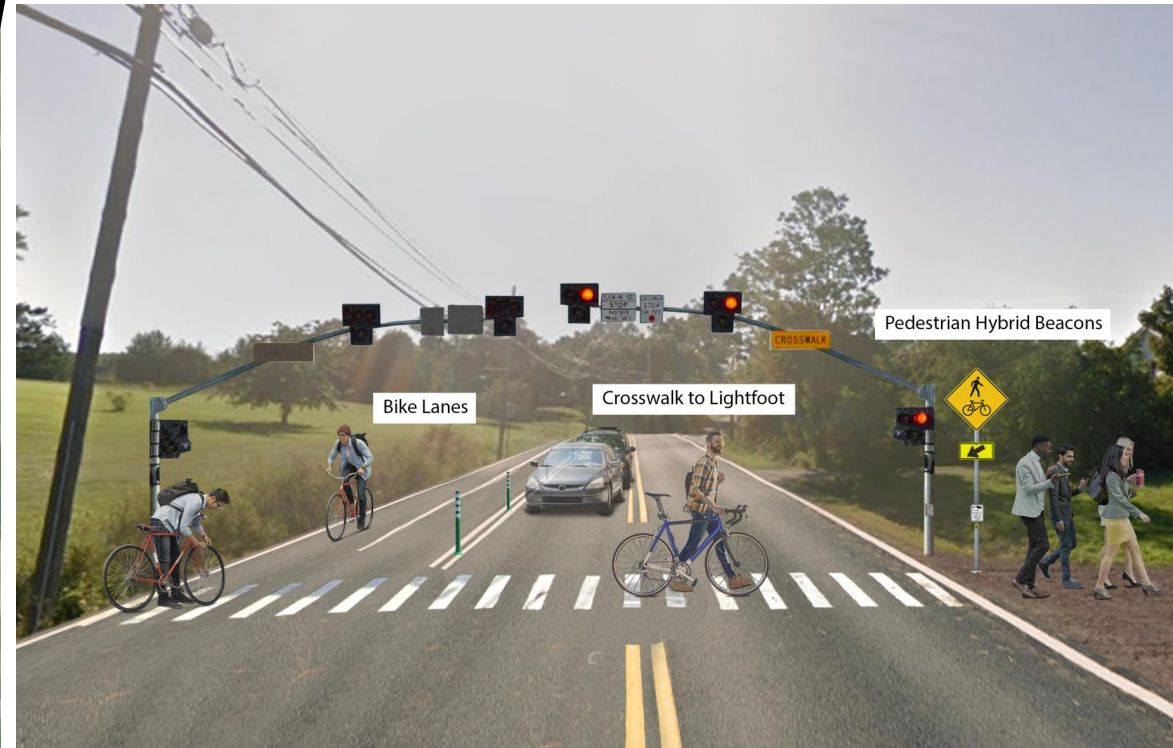
See Project Map:

3 e



Project Details:

3m asphalt bi-directional multi-use pathway, paint, bollards, signage. A safe crossing (TBD with overhead lights) would also be involved.



Conceptual rendering of proposed condition at Main Street looking west with the Lightfoot&Wolfville driveway to the right.

NOTE: This project will connect to the town boundary if regional partners (e.g. Lightfoot&Wolfville and/or County of Kings are not contributing)

Connector + Parking

Reservoir Park to Maple Ave



Connector

Highland Avenue to Wolfville School



See Project Map:

3 g



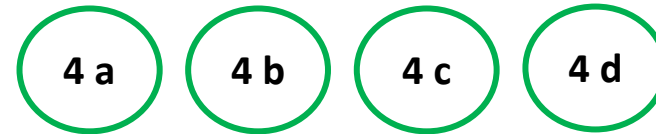
Project Details:

3+m asphalt bi-directional multi-use pathway, paint, signage.

Detailed design required.



Shared Streets



See Project Reference Map



Project Details:

Shared Street treatments are proposed for Kent Avenue, Gaspereau Avenue, Sherwood Drive and for the Downtown of Main Street.

These treatments do not separate vehicles and bicycles and operate on roadways with existing sidewalks, relatively low volumes and speeds. The treatments involve paint, signage, and traffic calming (e.g. speed humps).

The proposed conditions would increase the safety of our streets from what we have today and improve AT culture in the Town. Some of these treatments have been proposed since the 2015 AT plan was adopted but have not been implemented.

Shared Streets

Project locations



See Project Map:

4

ICIP PROPOSAL

Shared Streets

4



Project Details: 2,960m of shared street treatment, including paint, signage and traffic calming (e.g. speed humps).



The downtown part of our Main Street was presented to Town Council as two options. The painting of the street option was recommended in our 2015 AT Plan (shown to the right). This is a very low cost option we have accounted for in this application. The narrow width and activity on the street creates for traffic calming but this is not an environment or solution that meets All Ages and Abilities (AAA) guidance. Because of this, we have proposed a high service level connection that gets users to the Harvest Moon Trail through the downtown (see previous page on downtown context).

Note: we have a functional design and renderings to extend the east and west Main Street projects through the downtown with a separated lane by taking over the south on-street parking spaces (drawings included later in this document). Once we get closer to the east and west Main Street projects becoming a reality, and have a chance to consult our downtown businesses more on issues like on-street parking, this solution may become a reality. It has not been included in the application but is without question a much safer solution for AT and mobility options moving forward.

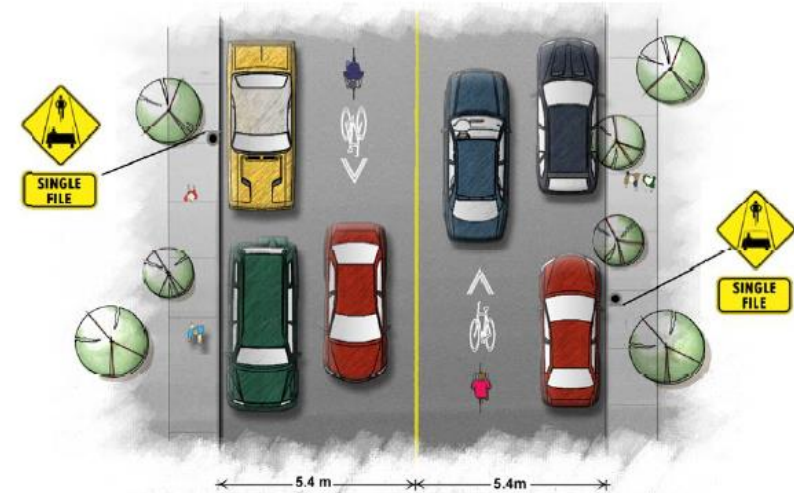


Figure 7-3: Typical Cross Section with Sharrows (Single File Application)



WC-19 / WC-19S Sign



Sharrows Marking



Examples of Single File Sharrows



Sidewalks

5 a

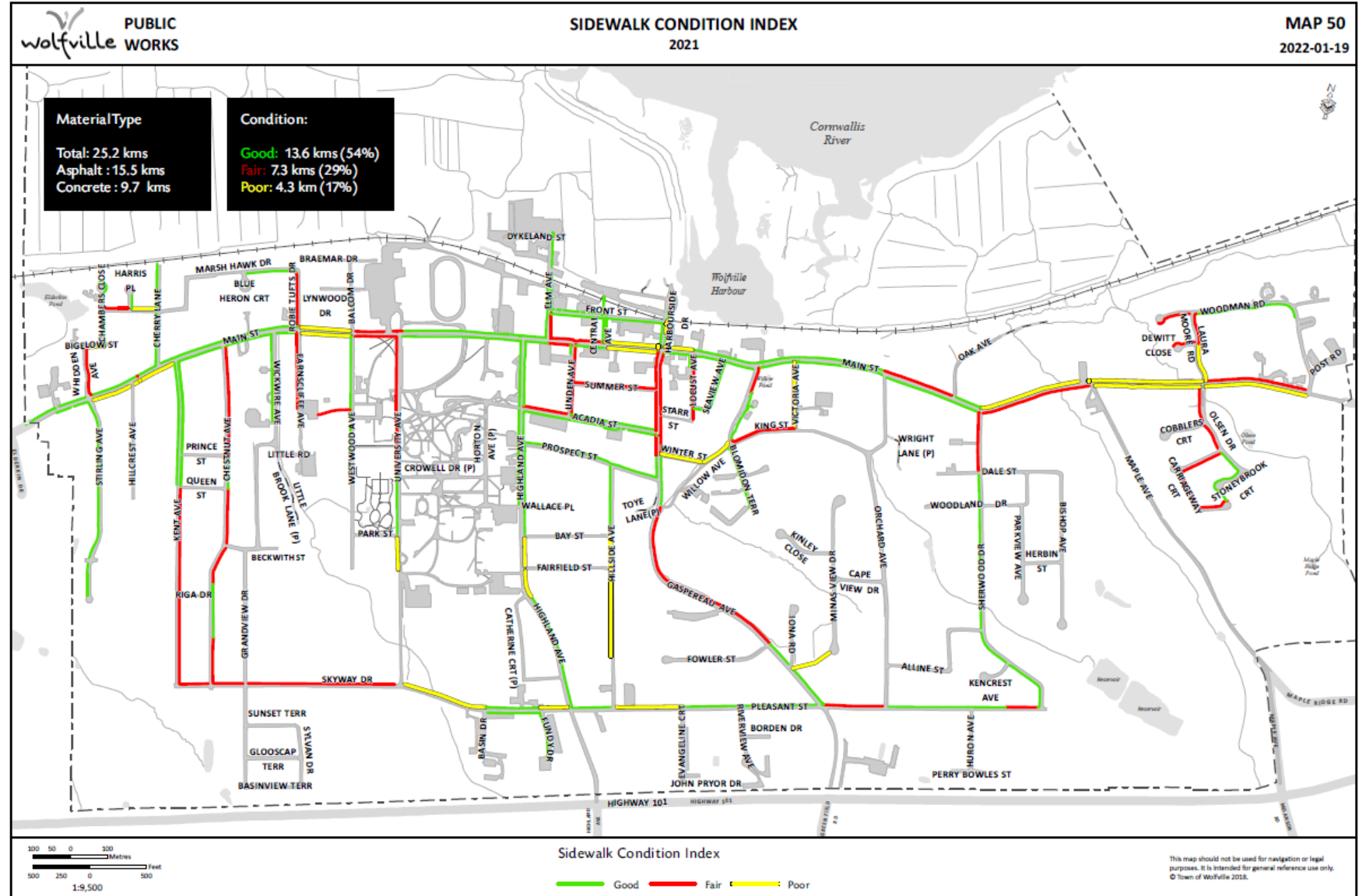
5 b

Project Details:

The Town maintains a condition assessment of sidewalks in the Town as part of our Asset Management program. This application proposes to create 2 new sidewalks in key areas of Town.

Victoria Avenue connects Main Street to our Recreation Centre, Playground, Rotary Fields and Tennis Courts.

Front St and Harbourside Drive sidewalk connection creates a safer connection for the various users of this busy intersection.



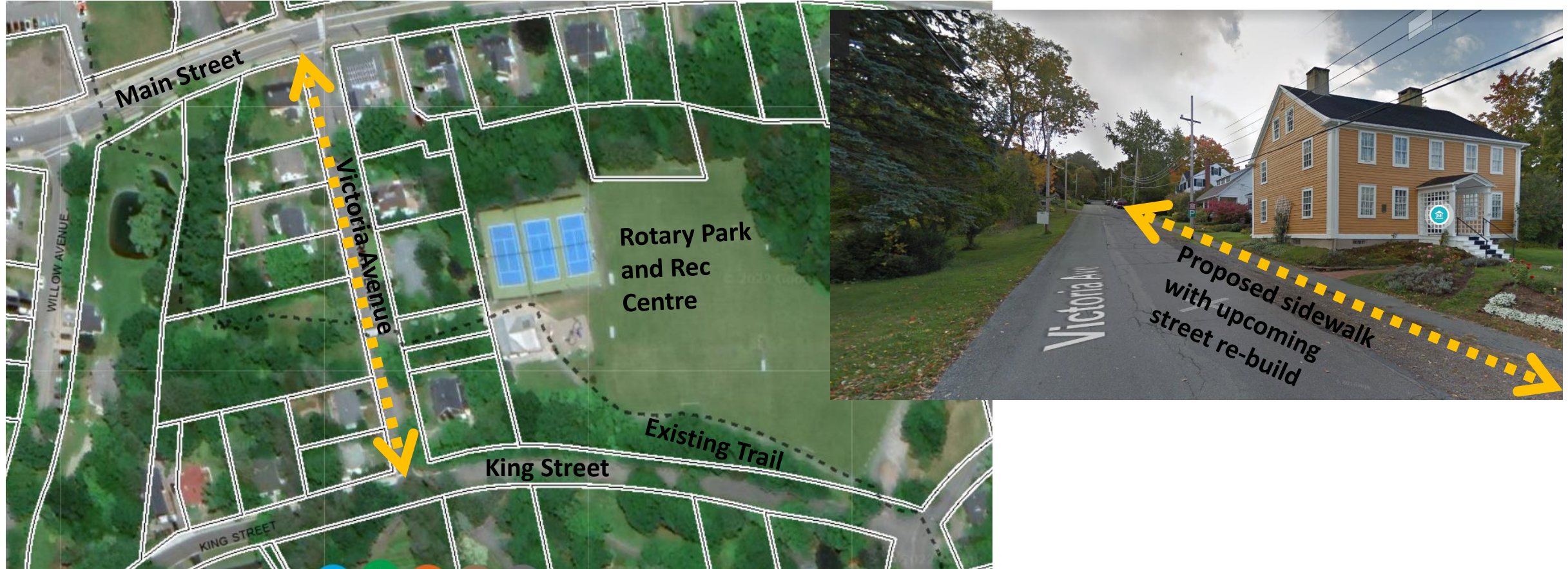
Sidewalks

Victoria Avenue



See Project Map:

5



Project Details: The Town is planning to re-build Victoria Avenue (underground). We would look to put in a concrete sidewalk or a multi-use asphalt, bi-directional pathway. Enhancing the intersection safety at the Recreation Centre where the Millennium Trail Crosses Victoria Avenue is also part of this project scope. Victoria Avenue is 190m in length.

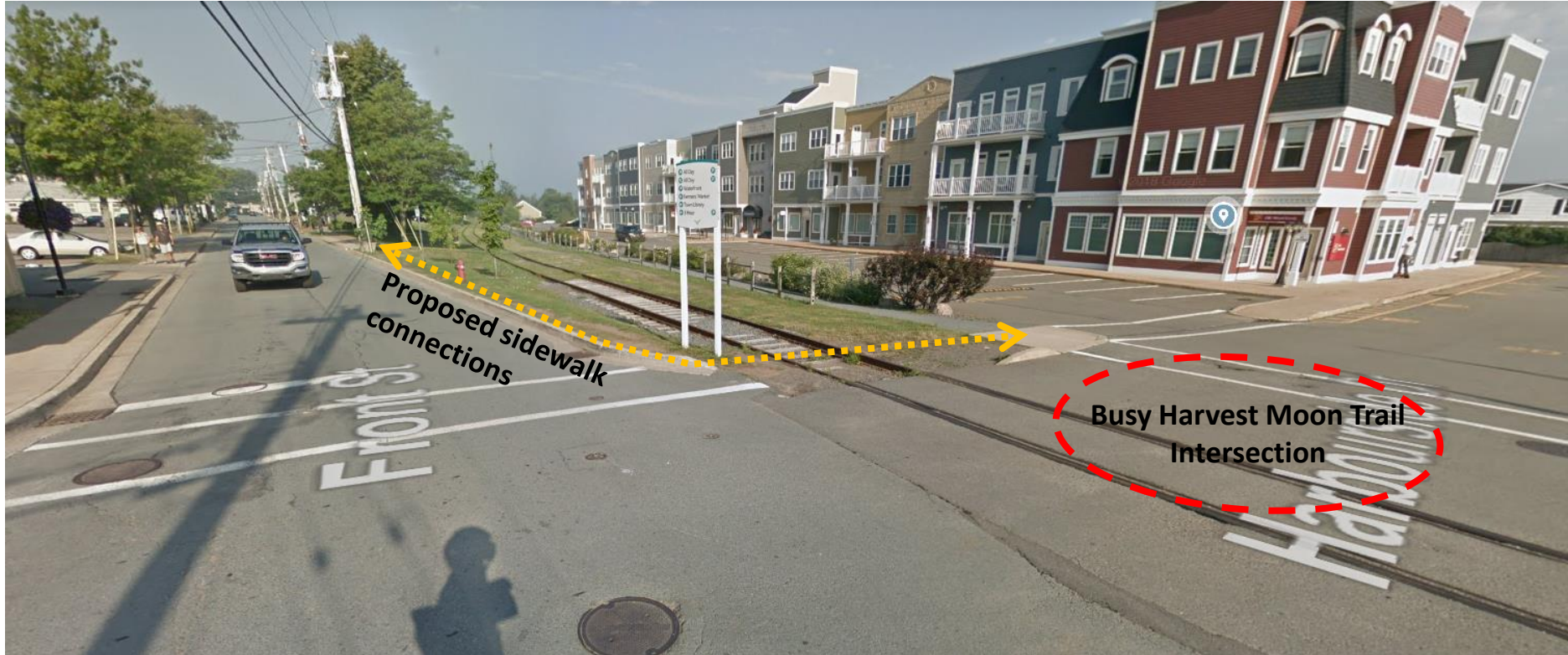
Sidewalks

Front Street and Harbourside Sidewalk



See Project Map:

5



Project Details: The Town is planning to re-build Harbourside Drive (underground). We are proposing to connect the (missing) concrete sidewalks in this area to improve safety. This is 40m of concrete sidewalk and would be packaged with the Harvest Moon Trail paving and intersection improvements scheduled with the Harbourside Capital Project.

Conclusion

- Community engagement and education is needed.
- Class D costing/Budget estimates have been completed. Detailed designs required and budgeted for. All of these projects fit. Executed from '23-24 to '26-27 budget years with our \$800,000.
- Flexibility in execution (may want to prioritize certain projects or do 1 or 2 large tenders for the work)
- Need motion to get the process moving – Provincial + Federal Reviews (20+ weeks). Will form part of 23-24 budget.
- Still a lot of work for Staff to pull full application together.
- These are not our only AT investments – just a package of them!





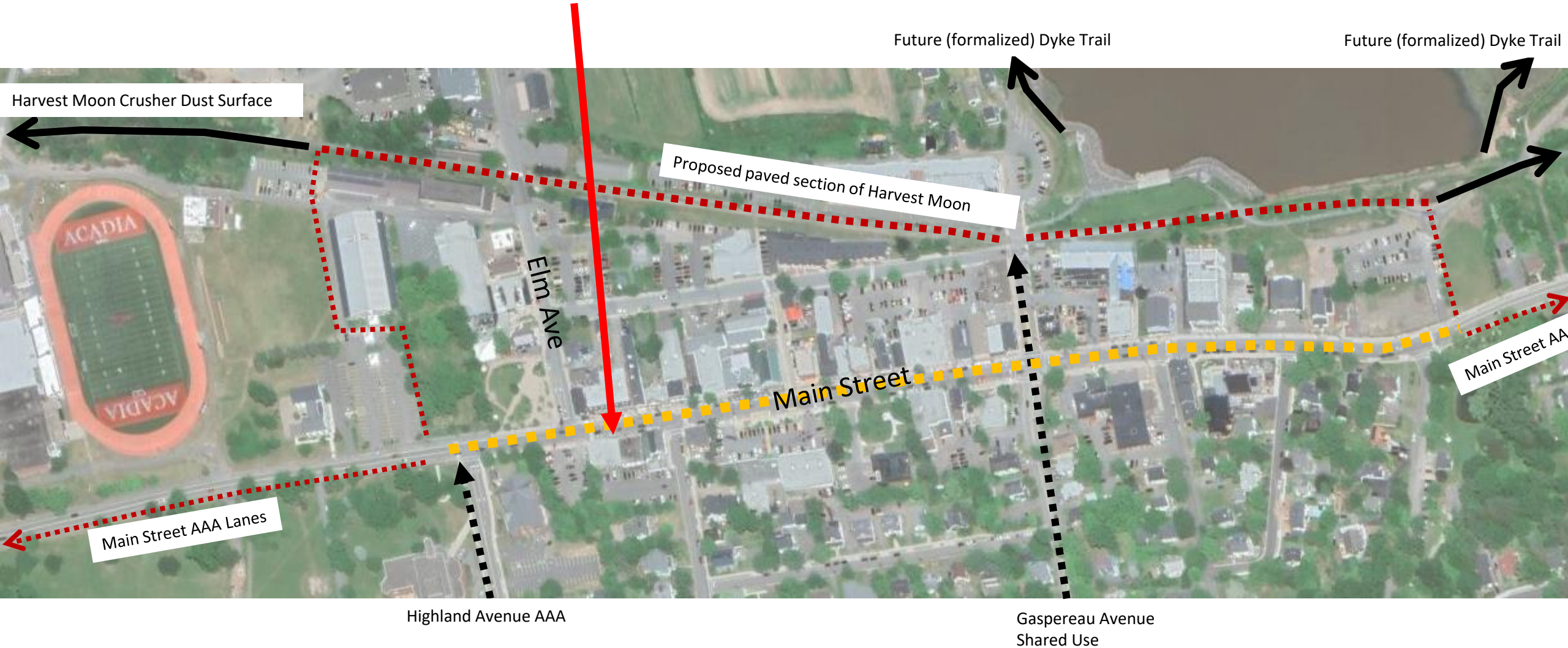
Related AT Projects (not in ICIP application)

Existing Conditions + Ongoing and Future Projects of-note for overall Network



Downtown Main Street Option

Option presented to Town Council at June 14th meeting. Not included in application.



Downtown Main Street Option



~28 parking stalls
(would need parking
plan with detailed
design).

Can be seasonal.

Slightly more narrow
- 8-9' (2.75m-3m).
Subject to detailed
design.

Bus stop, bump outs,
other details.

Downtown Main Street Option



~28 parking stalls
(would need parking
plan with detailed
design).

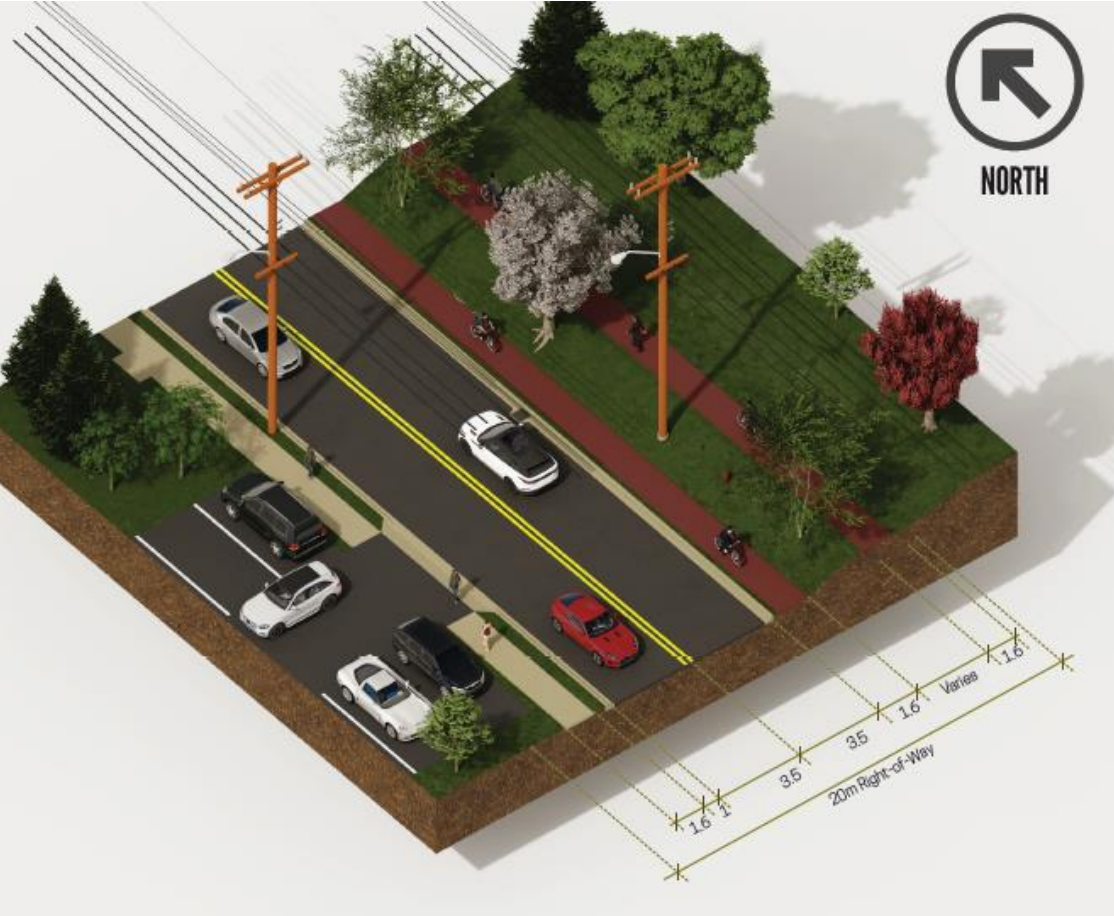
Can be seasonal.

Bit more narrow - 8-
9' (2.75m) than the
3.3m striving for
along rest of corridor.

Downtown Main Street Option



Ongoing AT Project with Capital re-build



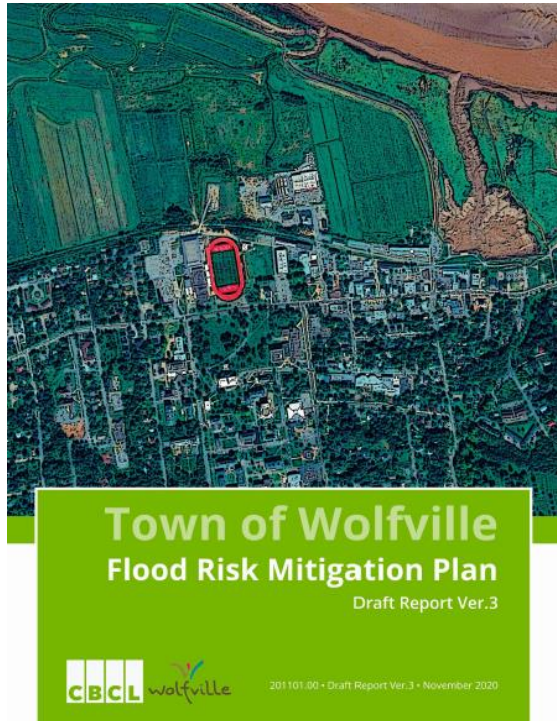
Highland Avenue

Long-term AT Projects with Capital re-builds



Main Street

Flood Risk along Harvest Moon Trail



Trail Connection along Harvest Moon Trail will happen from East End Gateway to Harbourside with Flood Risk work (budgeted).

Dept of Ag also considering dyke trails in both directions with upgrades.



Flood Risk along Harvest Moon Trail

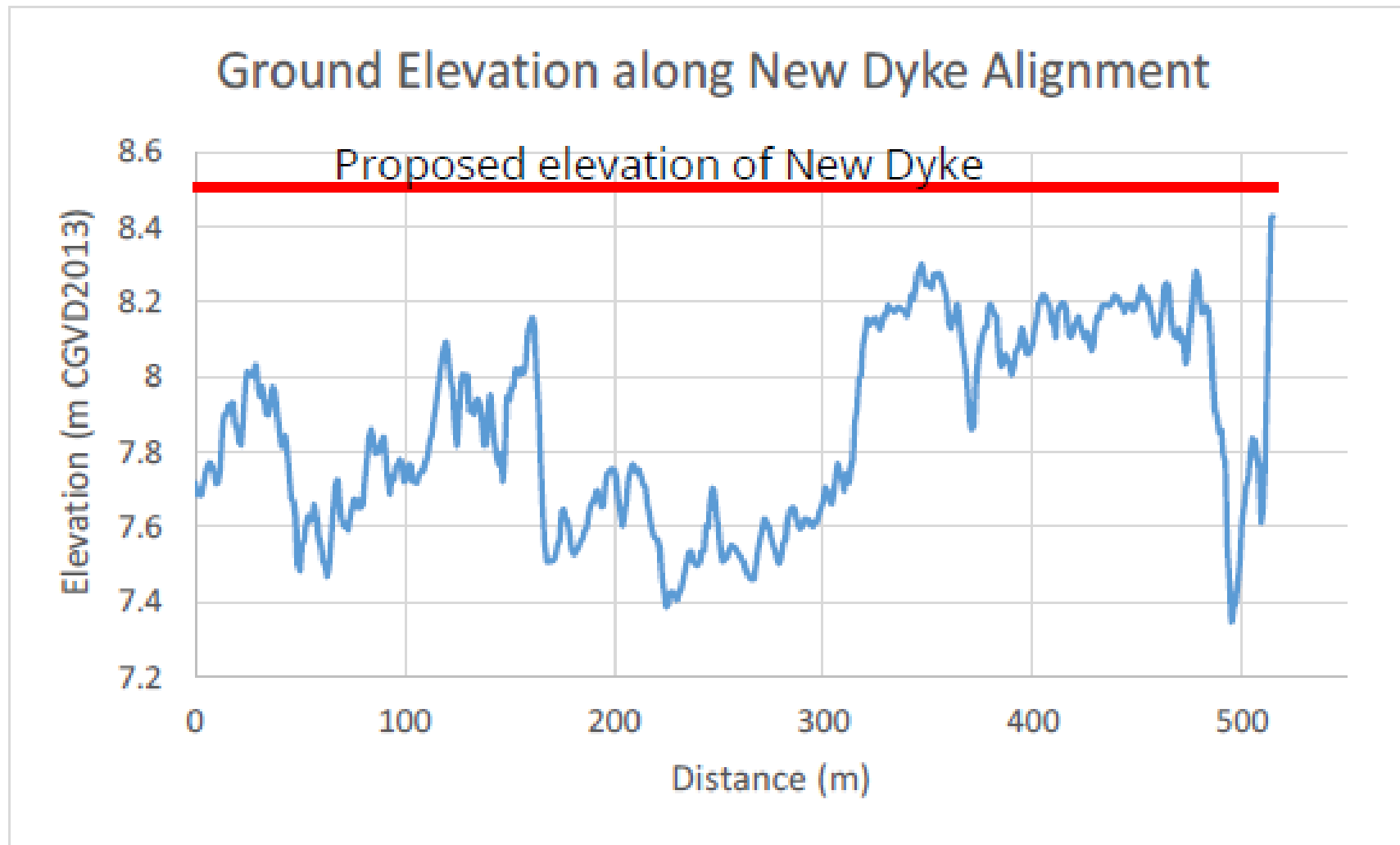


Figure 4.10: Ground Elevation along Potential New Dyke Alignment



wolfville