



P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 12.1.1
Transportation Standing Committee
January 27, 2022

TO: Chair and Members of Transportation Standing Committee

Original Signed

SUBMITTED BY:

Jacques Dubé, Chief Administrative Officer

DATE: December 2, 2021

SUBJECT: Rural Active Transportation Program

ORIGIN

Transportation Standing Committee, December 12, 2019, Item 15.1:

Moved by Councillor Mason, seconded by Councillor Austin "THAT the Transportation Standing Committee request a staff report regarding potential to establish a program to improve pedestrian safety in HRM's rural communities. This report shall discuss how actions A71, A81 and A82 within the Integrated Mobility Plan, related to active transportation are being implemented. Specifically, the report should focus on areas of concentrated pedestrian activity, including consideration of services in historically underserved areas, and address how immediate responses to resident concerns can be addressed through tactics including but not limited to paved shoulders, sidewalks, crosswalks, pedestrian islands of refuge, and greenways. The report should also include recommendations on opportunities to present a submission to the Provincial and Federal governments for appropriate funding programs." MOTION PUT AND PASSED;

Making Connections the 2014-2019 Active Transportation Priorities Plan, Recommendation #5: *Halifax needs to develop a comprehensive approach to the delivery of rural active transportation facilities, including criteria for determining the most appropriate active transportation facility type, and consideration of the financial implications (capital and operating) of doing so;*

Integrated Mobility Plan 2019, Action 71: *Update the criteria for selecting new active transportation projects to better respond to equity considerations, demand, future development, coverage, and other factors; and*

Integrated Mobility Plan 2019, Action 81: *Continue to work with other orders of government to implement the rural active transportation network, including along provincial roads.*

Integrated Mobility Plan 2019, Action 82: *Establish a rural pedestrian program, including: a financing mechanism which recognizes that rural pedestrian safety is affected by regional traffic; criteria to prioritize development in village centres, hamlets, or other rural areas of concentrated pedestrian activity; and opportunities for cost sharing with other orders of government.*

RECOMMENDATIONS ON PAGE 3

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, Clause 73 (a):

73 The Municipality may enter into and carry out agreements
(a) for highway construction, improvement and maintenance and other purposes pursuant to the *Public Highways Act*;

Halifax Regional Municipality Charter, Subsections 96 (1),(2),(3), and (4):

96 (1) The Council may spend money in an area, or for the benefit of an area, for any purpose for which the Municipality may expend funds or borrow.

(2) The Council may recover annually from the area the amount required or as much of that sum as the Council considers advisable to collect in any one fiscal year by an area rate of so much on the dollar on the assessed value of the taxable property or occupancy assessments in the area.

(3) The Council may provide
(a) a subsidy for an area rate from the general rate in the amount or proportion approved by the Council;
(b) in the resolution setting the area rate, that the area rate applies only to the assessed value of one or more of the taxable commercial, residential or resource property and occupancy assessments in the area.

(4) The Council may, in lieu of levying an area rate, levy a uniform charge on each
(a) taxable property assessment;
(b) dwelling unit,
in the area.

Halifax Regional Municipality Charter, Subsections 322(1)(3)

322 (1) Council may design, lay out, open, expand, construct, maintain, improve, alter, repair, light, water, clean, and clear streets in the Municipality.

(3) The Council may expend funds for the purpose of clearing snow and ice from the streets, sidewalks and public places in all, or part, of the Municipality. 2008, c. 39, s. 322.

Public Highways Act, Subsections 28(1)(2)

28 (1) A municipality shall not affect improvements of a permanent character on any highway, unless it
(a) submits to the Minister plans, specifications, estimates and other particulars respecting the proposed improvements;
(b) satisfies the Minister that suitable provision will be made for the future maintenance of such highway after it has been so improved; and
(c) obtains the Minister's written consent.

(2) The municipality may, after compliance with the conditions set out in subsection (1), enter into an agreement with the Minister for the carrying out of such improvement by the municipality, the Minister or some other person upon such terms and subject to such conditions as the Minister prescribes and the Governor in Council approves.

Active Transportation Advisory Committee Terms of Reference, section 2 and subsection 2.1

2 The mandate of the Active Transportation Advisory Committee is to advise the Transportation Standing Committee on all matters relating to active transportation in Halifax Regional Municipality, using the Active Transportation Plan as a guide.

2.1 The committee will provide timely advice to the Transportation Standing Committee on matters relating to budget, infrastructure, education, policy and public awareness.

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Halifax Regional Council:

1. Direct the Chief Administrative Officer to create a program to establish a Rural Active Transportation Program that focusses on rural community centre sidewalks and incorporates a prioritization framework, a funding strategy, a ten-year target and an approach for operations and maintenance, as described in the Discussion section on this report;
2. Direct the Chief Administrative Officer to prepare amendments to the Active Transportation Priorities Plan as discussed in the Discussion section of this report to include a list of “Candidate Rural Communities and Spines” to help prioritize rural active transportation infrastructure expansion and return to Council for consideration of the resulting amendments;
3. Direct the Chief Administrative Officer to pursue funding option three (as described in the Discussion section) to cover HRM’s cost of rural sidewalks and, in support of this, return to Council with recommended amendments to the Community Area Rates Administrative Order 2019-005-ADM to allow an area rate to be levied on suburban and rural areas for rural sidewalks (on the entire community). The proposed area rate would not be based on the full operating and capital costs of the proposed project, but rather the difference between the urban general tax rate and the suburban/rural general tax rate; any remaining balance would be funded through the general tax rate;
4. Commission a letter from the Mayor to other orders of government advising of the new Rural Active Transportation Program and requesting opportunities for cost-sharing; and
5. Authorize the Chief Administrative Officer, or their designate, to negotiate and enter into one or more agreements, and any amendments to those agreements, with the Province of Nova Scotia respecting the construction, operation, and maintenance of AT facilities in the provincial right-of-way.

EXECUTIVE SUMMARY

HRM currently has an incomplete approach to building and maintaining walking and bicycling infrastructure in rural parts of the municipality. The existing rural active transportation network consists of a network of multi-use pathways (i.e. “trails” or “greenways”) built and maintained by community associations as well as three segments of sidewalks. There are also several segments of paved shoulders which provide additional space for people walking and bicycling.

This report proposes a program with three elements:

- 1) Sidewalks in rural centres. The report outlines a prioritization and planning approach and recommends an area rate funding mechanism to help pay for construction and maintenance. Such sidewalks could be built as wider multi-use pathways to also enable use by bicycles.
- 2) Longer “spine” connections between rural centres. These are not proposed as priorities, but rather as options to pursue if opportunities for project integration arise or specific Council direction is provided.
- 3) Continued support for community-led multi-use pathway construction, operation, and maintenance in rural areas through HRM’s Active Transportation Grant Program.

Rural community centres that meet criteria related to factors such as population, density of destinations, social equity considerations and others are recommended for addition as candidate locations to the Active Transportation Priorities Plan. “Spine” corridors that connect these communities are also recommended for addition to the Plan.

Several options are analyzed for covering HRM's share of the cost to build and maintain sidewalks in rural centers. The recommended option is to add an area rate to communities with sidewalks that is equal to the difference between the urban general tax rate, and the suburban and rural tax rates. The current difference is 3.3 cents per \$100 of assessed value because the urban and suburban/rural tax rate does not include the provision of sidewalks.

BACKGROUND

Of all the Canadian municipalities with a population of over 250,000, Halifax Regional Municipality (HRM) has the largest proportion of rural residents, estimated at 19.8% of the total population as of 2016. Although amalgamation brought rural communities into one regional municipality in 1996, many residents of present-day rural HRM still identify with the long and proud histories of their individual communities. Fish, forests, farmlands, and mines brought people to settle in these rural areas and continue to sustain them. The natural beauty of HRM's rural communities continue to attract a tourism industry that contributes to the economies of HRM and the province.

One difference between rural and urban HRM is the lack of a comprehensive active transportation (AT) program and funding mechanism for HRM-delivered sidewalks. This is due to historic approaches to planning, transportation infrastructure development and taxation. There has been some progress in building rural AT facilities, particularly community-led trail projects, but not "main street" pedestrian infrastructure in rural communities. This has resulted in continued calls for safer, more accessible and connected walking and bicycling infrastructure in rural HRM.

HRM has been doing more planning and implementation of AT projects in recent years. This shift has been guided by HRM's Integrated Mobility Plan (IMP) and Active Transportation Priorities Plan (ATPP). Currently, HRM has several approaches to guide decision making for HRM-delivered AT projects in urban areas but has no systematic approach to planning, funding, or prioritizing such projects in rural areas aside from proposed greenway network corridors in the ATPP.

Current Situation

This section describes the current lack of existing process and formal funding mechanisms for rural sidewalks while briefly describing HRM's existing rural AT facilities and how they have been implemented.

Process and Financial Context

The few existing rural sidewalks arose due to specific Council direction and were built in conjunction with infrastructure funding opportunities (e.g. sidewalk in Sheet Harbour) or to service new rural schools, transit and/or recreation centres (e.g. sidewalk on Hammonds Plains Road in Upper Tantallon and public facilities on Inspiration Drive in Porters Lake).

Unlike the urban general tax rate, which includes sidewalk provision, the Municipality does not have a funding mechanism for implementing sidewalks in the rural and suburban tax areas as sidewalks are not included in these general tax rates. Rural communities with sidewalks have lobbied for them and agreed to fund them through area rates alone or in combination with discretionary funds, local improvement charges, or cost-sharing agreements with other orders of government. The capital cost of sidewalks may also be funded in part by a Development Charge collected from developers. However, only the growth-related portion of the capital cost can be recovered, and the slow rate of growth in rural areas precludes using development charges as a meaningful funding source. The lack of a strategic approach to planning and building sidewalks in rural HRM has impeded progress.

Some rural communities have already developed or are in the process of developing their own AT plans to improve accessibility and safety of pedestrians and cyclists, including the Hubbards Streetscaping Project, Musquodoboit Harbour Community Development Plan, Lucasville Greenway Concept, East Preston AT Plan, and Porters Lake and Surrounding Communities AT Plan.

The ATPP and the IMP do direct staff to support the implementation of multi-use pathways (i.e. trails or greenways) in rural HRM that are maintained and operated by community groups. Over 100km of these corridors have been planned, built, and operated by community groups. Many of these facilities are on former rail corridors which are now crown land owned by the Province or in Provincial Parks. Since the late 1990's, HRM has granted funds from the general tax rate to these community groups to enable this work. This support continues and was recently renewed in September 2020 as part of the Active Transportation Grant Program.

Existing Rural AT Facilities and Facility Types

AT facilities in rural HRM consist of the following:

Multi-use Pathways (also referred to as “trails” or “greenways”) – These are the most common AT facility in rural HRM and total over 100kms of infrastructure. These facilities are typically 3m wide. Some of them are for walking and bicycling only and others also permit off-highway vehicles and horses through provincial policy. Most are located on provincial crown land or park land but maintained by community groups with financial support from HRM and the Province using a Community Development Model. In rural HRM, these multi-use pathways include St. Margarets Bay Area Rails to Trails, Gaetz Brook Greenway, Musquodoboit Trailways, Beechville Lakeside Timberlea Rails to Trails, Blueberry Run Trail, Atlantic View Trail, Salt Marsh Trail, Mastodon Greenway, and Lake William Trail. HRM provides financial support to the community groups responsible for operating these facilities via the Active Transportation Grant Program.

Sidewalks – These are typically 1.5m wide and permit only walking. The provincial Motor Vehicle Act enables the Municipal or Provincial Traffic Authority to designate a sidewalk for both walking and bicycling and in such cases the municipality would build a multi-use pathway (typically 3m wide). Crossing treatments and other supporting elements may also be part of this infrastructure. There are three existing rural sidewalks in the municipality (Attachment 2). The Sheet Harbour sidewalk was implemented using an area rate, similar to that described in HRM's Administrative Order 2019-005-ADM *Respecting the Establishment and Use of Community Area Rates in the Halifax Regional Municipality* along with federal, provincial, and municipal cost sharing. Another, on Hammonds Plains Road, was developed through negotiation with Halifax Regional Centre for Education when Bay View High School was being built and a pedestrian connection was needed for local connections in Upper Tantallon. The third, in Porters Lake, was also developed in conjunction with the construction of public facilities.

Paved shoulders – These are usually 1.5 m wide and serve to provide additional space for people walking or bicycling. While they provide AT benefits, paved shoulders are not considered an “all ages and abilities” (AAA) AT facility due to the lack of separation and exposure to vehicular traffic. Paved shoulders have been implemented along rural roads in HRM, either directly by HRM on HRM-owned roads (e.g. Hammonds Plains Road) or by the Province (e.g. Sambro Road Loop and Mineville Road).

Policy Direction

As noted in the Origin section of this report, the establishment of a rural AT program directly aligns with IMP and ATPP policy. Such a program would also be consistent with direction from other HRM plans and policies including:

- The Parks and Recreation business unit has been directed to develop a Rural Recreation Strategy which will consider how recreation investments should be made in rural HRM, demonstrating that rural communities do benefit from rural-specific consideration and recommendations when it comes to municipal service provision.
- The framework proposed in this report for evaluating and prioritizing potential rural AT projects includes criteria for vulnerable communities, visible minorities and populations with specific accessibility needs, which aligns with the municipality's recently approved Social Policy and its commitment to accessibility through the Accessibility Strategy.

- The Regional Municipal Planning Strategy (RMPS) identifies various levels of Local and Regional “Rural Growth Centres” which are areas of existing population clusters and recommended services corresponding with the level of growth projected. The proposed rural AT program aligns with the Regional Plan’s direction by prioritizing AT investment in rural areas that have a concentrated population density relative to other rural communities. The RMPS is currently under review and it was noted in the February 2020 Council report¹ that objectives for rural communities will include the adoption of policy supporting rural transportation and the idea of a “complete community” approach as described in the IMP.
- HRM has recognized that streets should be designed for all users and this is reflected through the review of the Municipal Design Guidelines.

Geographic Scope of Proposed Program

In considering how to establish a “rural active transportation program” it is necessary to first confirm which of HRM’s various definitions of rural and urban will be used. A review of the Municipality’s relevant policies reveals that there are multiple definitions of what is considered the boundary between rural and urban. The following describes the various ways rural is defined in HRM and concludes with rationale for using municipal general tax rate boundaries to set the geographic scope of the proposed Rural AT Program.

Regional Plan - In the Regional Plan’s Generalized Future Land Use Map (Map 2), all lands outside of the *Urban Settlement*, *Urban Reserve*, and *Harbour* designations are considered rural or suburban. These rural or suburban land designations include *Rural Commuter*, *Rural Resource*, *Open Space and Natural Resources*, and *Agricultural* and have specific policies to control the type and scale of development permitted in each.

Urban Service Area – Urban and rural applications for planning approval are defined by the Urban Service Area. Lands within the boundary are serviced by both municipal water and sewer services and are considered urban, while lands outside may have only water, only sewer or neither and are considered rural. The service boundary (Schedule B of the *Regional Subdivision Bylaw*) establishes which standards for water and wastewater servicing, as well as street construction, must be used when land is subdivided. Within the urban service area streets have curb and gutter, storm sewers, and lots must connect to municipal water and sanitary sewer, but those standards change outside of the boundary.

Urban Transit Service Boundary – is defined in the Regional Plan and establishes the area in which HRM will direct future investment in public transit services, except for rural commuter express service. Within this boundary, policies permit transit priority measures (e.g. designated transit lanes) and require mixed use “Transit Oriented Development”. Given the name of the boundary and the development patterns within it, lands outside of it may be presumed to be either suburban or rural. The boundary also impacts how conventional and community transit is funded (by a tax levied on properties within one kilometer of a transit stop on such a route).

Tax Policy - HRM has three designated tax areas – urban, suburban, and rural – which pay residential rates of \$0.667, \$0.634, and \$0.634 (per \$100 of assessed value), respectively. The only difference in service provision between these tax areas is that the urban tax rate includes the implementation and upkeep of sidewalks (including snow clearing) and the others do not. Lands within both the rural and suburban tax area designation do not pay for sidewalk implementation or upkeep through their general tax rates. For this reason, area rates have been applied in the past to fund sidewalks in such areas.

The proposed rural AT program will employ the definition of ‘rural’ used in the application of municipal tax rates. The geographic scope of the proposed program will include lands within the rural and suburban tax areas (Attachment 1).

¹ Report available online at <https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/200225rc1511.pdf>

Land Ownership and Jurisdictional Responsibility

Most of the potential corridors for rural AT are owned by the provincial government and administered by the Nova Scotia Department of Public Works. However, responsibility for building and maintaining sidewalks would rest with Halifax Regional Municipality. As such, planning, design, construction, and operation of AT facilities in their right-of-way would require the permission of the Province and the entering into an agreement for the carrying out of such improvement by the Municipality. Implementation and maintenance would be municipal responsibilities, however, options for collaboration with the Province would be pursued.

Research and Analysis to Develop a Program

The following section demonstrates how staff developed a baseline of information to guide the project using best practice research, project scoping and key stakeholder insights.

HRM staff hired WSP to assist with the following work which was then used to develop a proposed Rural AT Program as outlined in the Discussion section of this report. Key elements of this work were:

- Best practice research to understand how other jurisdictions have approached AT in rural settings, specifically:
 - o types of AT networks
 - o types of AT facilities
 - o decision-making frameworks
 - o implementation;
- Project scoping exercise to better understand community context within the designated rural boundary:
 - o Geographic scope confirmed as lands within rural and suburban tax designations (Attachment 1);
 - o 14 communities identified where AT investment may be prioritized in the future based on the following factors:
 - Land Use Planning
 - Existing Infrastructure
 - Equity & Canadian Index of Multiple Deprivation
 - Community Input Data
 - Destinations
 - Population Density
 - Traffic Data
 - Usership Data
- Stakeholder engagement, including HRM staff, elected officials, provincial departments and interests, community groups and trails associations. More details can be found in the Community Engagement section of this report.

Using the information gained from the research and analysis stage, a proposed Rural AT Program has been developed by staff and is detailed in the section below.

DISCUSSION

This section aims to provide Council with an outline of the proposed Rural AT Program for HRM. This includes amending the Active Transportation Priorities Plan to add specific rural community centres and spines. It also includes an implementation approach for community sidewalk projects and a recommended approach to generate revenue for HRM's share of community centre sidewalk construction and maintenance. The proposed approach recommends considering the implementation of spines on a case-by-case basis and also recognizes that HRM will continue to support community associations to build and maintain AT facilities in rural parts of the municipality.

Amendment to the Active Transportation Priorities Plan

Given the vast scope of improving AT in HRM's rural communities, staff recommend amending the ATPP to include a list of "Candidate Rural Communities and Spines" that the program will focus on. Similar to the

candidate corridors currently in the Plan, including them in the ATPP will identify where a future connection may be warranted, allow for flexibility in the exact location and facility type, and allow for additional candidates to be added or removed with Council approval as needed. If Council accepts this recommendation, staff will return to Council with the necessary amendments.

Recommended Candidate Rural Communities for ATPP

The Candidate Rural Communities are areas with concentrated land uses such as small towns, villages, or any area with a concentration of people living, working, shopping, playing, and learning. The goal will be to provide better connections for shorter trips to common destinations within a given area. It is in these clusters of activity, where an AAA-type facility may serve a latent demand for walking, rolling, or cycling due to a combination of reasonable travel distances, higher traffic volumes and speeds, and a lack of AT infrastructure. The goal will not be to provide sidewalks along every street in a rural community, but to focus investment on the main streets.

To generate a preliminary list of fourteen Rural Candidate Communities, staff used the criteria listed in the Background section of this report. Some rural communities without clustered development have been included based on safety and equity considerations.

The Rural Candidate Communities to be recommended for addition to the ATPP are:

- | | |
|--------------------------|-----------------------|
| - Hubbards | - Upper Tantallon |
| - Hatchet Lake/Brookside | - Hammonds Plains |
| - Hubley | - Sambro |
| - Windsor Junction | - Wellington |
| - Cow Bay | - Sheet Harbour |
| - Lake Echo | - Porters Lake |
| - Musquodoboit Harbour | - Middle Musquodoboit |

Lucasville and East Preston are rural communities that are already in the ATPP.

Recommended Candidate Rural Spines to Add to ATPP

Spines are the longer, linear connections between rural communities that service a smaller group of commuters who are comfortable travelling longer distances. They typically come in the form of multi-use pathways (i.e. greenways or trails) or paved shoulders with paint and signage delineating AT use. Paved shoulders are not considered an AAA facility; however, they do provide additional space within the road that benefit people walking and bicycling.

For the purposes of this program, staff are proposing spines that connect the recommended Candidate Rural Communities listed above, creating a regional rural AT network (Attachment 3). These spines would be in addition to existing candidate AT spine routes illustrated in Map 3 of the ATPP, *Vision for a Regional Greenway and Bicycle Network* (Attachment 4).

Proposed Approach to Implementation of Rural AT Facilities

The proposed approach going forward for rural AT is to:

- 1) continue the existing grant support for projects led by community groups,
- 2) expand and fund sidewalks in rural community centres, and
- 3) implement rural AT spines between the Rural Candidate Communities on a case-by-case basis.

Continue HRM Support for Rural AT Projects Led by Community Groups

As described above, this approach has resulted in over 100kms of AT facilities in rural HRM. In 2020, Council agreed to continue to support community associations that are helping to develop AT facilities (e.g. multi-use pathways) in rural HRM. This approach is already part of the ATPP and IMP and will continue.

Expand and Fund Sidewalks in Candidate Rural Communities Centres

The following approach will guide how the municipality implements sidewalks in the Candidate Rural Communities.

With AT connections in Candidate Rural Communities established as the program priority, a prioritization framework is proposed to determine which ones should receive investment first. A set of objectives were established by amalgamating direction from the ATPP, IMP, the motion from Regional Council, best practices research, criteria identified for evaluating AT, and stakeholder insights.

Table 1 lists the objectives developed, categorized as ‘Key’ based on the prominence they had both in research and in speaking with project stakeholders or ‘Secondary’ because they have been identified as critical components when planning for rural AT, but are not as directly aligned with the current broad strategic directions at HRM. Each objective has criteria associated with it to create a scoring tool that will help the evaluator understand whether a community or a specific project meets (or has the *potential* to meet) the stated list of objectives for HRM’s Rural AT network. This framework provides staff with a consistent and fair methodology to evaluate AT requests as well as a process for how to begin planning proactively for AT within rural communities.

The criteria have been coupled with a scoring system to assist with prioritization. Key Objectives will be weighted more heavily than Secondary Objectives.

The purpose of the scoring criteria is not to be the ‘final decision-maker’ but to be used early in the assessment phase as a project planning tool. They are meant to promote consistency and fairness in the decision-making process and allow the evaluator to assess the relative benefits that sidewalks would have in each area.

Table 1: Criteria Proposed to Evaluate and Prioritize Rural AT Opportunities

Type of Objective	Objective	Criteria
Key	Create Connections	Locally Connected: Schools
		Locally Connected: Commercial Areas
		Locally Connected: Libraries and Community Centres
		Locally Connected: Parks and Trails
		Regionally Connected: Bus Stops or Terminals
		Regionally Connected: Regional Trails Network Connections
		Regional Plan Priority
	Improve Safety	Traffic Volume
		Traffic Speed
		Collision Rates
		Truck Collision Rates on Truck Routes
		Surrounding Environment
		Alternative Route Available
		Facility Type
	Foster Equity	Situational Vulnerability
		Economic Disparity
		Ethno-Cultural Composition
		Other Vulnerable Populations
		African Nova Scotian Population
		Mi'kmaq Population
Secondary	Cost Effectiveness	Population Density
		Utilization of Existing Infrastructure

		Funding/Cost Sharing
		Project Integration
	Economic Opportunity	Adjacent to Existing or Planned Blue Route
		Economic Generation Opportunity
		Connects (or is part of) a Culturally Significant Area
	Community Momentum	Existing AT Plan
		Existing Community Groups
	Shift Mode Share	User Travel Perception Survey
		Main Mode of Commuting Census Data

Implement Candidate Spines on a Case-by-Case Basis

Based on best practice research and the motion from Council directing staff to focus on areas of concentrated pedestrian activity, staff recommends prioritizing AT connections within Candidate Rural Communities over spine connections. This will ensure that municipal investment has the potential to benefit the greatest number of rural residents in their daily trips.

While spines are still an important part of an overall rural AT network, staff recommends implementing these facilities as secondary priorities. These could be considered as opportunities to integrate with HRM rehabilitation projects or collaborate with the provincial government on their roads. HRM staff aim to remain in contact with other orders of government to identify these opportunities early on. Should Regional Council direct staff to prioritize implementation of one or more of these spines, they would be incorporated into the capital planning process.

Should Council direct staff to prioritize the construction of spines, the source of HRM's share of the costs would need to be established. The costs could vary significantly depending on the facility-type and context. If the spine were to be a separated sidewalk or multi-use pathway it is expected that an area rate would be required to cover the cost and be implemented through amendments to Administrative Order 2019-005-ADM as described below. Paved shoulders and bike lanes do not fall under the definition of a "sidewalk" and have been funded from general revenue in the past (on HRM streets and roads).

Contributions to new paved shoulders are not being contemplated for funding through area rates. No funding source has been identified for this infrastructure.

Capital Cost Estimates for Rural Sidewalks and Spines

The following section summarizes preliminary capital cost estimates for implementing the program. These are based on best practice research and costs of similar projects recently completed in HRM. The purpose of these estimates is to provide Council with an "order of magnitude" estimate of the Program costs.

Approach to Estimating Costs for Candidate Rural Communities

To estimate potential costs of a rural community centre sidewalk program, staff selected a sample of Candidate Communities consistent with the program target of five community sidewalk projects in ten years. The sample focused on areas with more dense grouping of services, amenities, and/or destinations that are within a reasonable walking distance of one another. The estimate assumed a total of 9.5km of potential main street sidewalks (Attachment 5). Estimates include 'low' and 'high' ranges depending on whether stormwater services would be required should the facility be located in the space currently occupied by the ditch (Table 2).

Approach to Estimating Costs for Candidate Rural Spines

Based on the fourteen Candidate Rural Communities identified, an estimate of the total distance of AT facility required to connect them via "Spines" was also made. Spine distances were calculated using the distance along existing arterial and collector roadways connecting these communities. Estimates have not accounted for spines that already have existing paved shoulders.

The costs of constructing rural spines would vary significantly depending on the desired facility type and existing context. A multi-use pathway would be significantly more costly than paved shoulders. Paved

shoulders where there is already a sufficiently wide gravel shoulder would be significantly less costly than widening the shoulder and re-ditching.

The estimate provided in this report, \$0.8 million per kilometre, is based on historical costs from similar HRM and provincial projects for paving two shoulders along a right-of-way. With a total of 194km in the rural AT spine network, the capital cost to implement could be \$155 million. However, right-of-way widths and surrounding conditions have not been documented for all 194km of the Candidate Spine routes to confirm feasibility or additional costs. As discussed previously, spines are only recommended primarily as integration opportunities arise.

Table 2: Total Capital Cost Estimate for Implementing Candidate Rural Community and Spine AT Connections

AT Investment Type	km	Estimated Cost/km (in millions)	Estimated Cost (low) (in millions)	Estimated Cost (high) (in millions)
Rural Communities sidewalk or multi-use pathway with stormwater services (high) or without (low)	9.5	Ranges \$1.5 - \$3.0	\$14.25	\$28.5
Spine - Paved shoulders (two-way, paint and signage marking AT use)	194	\$0.8	\$155.00	\$155.0
Total			\$169.25	\$183.5

See Attachment 5 for a more detailed breakdown of how these estimates were developed.

Proposed Ten Year Capital Program for Rural Community Sidewalks

Based on preliminary cost estimates, staff recommends a program target of one “main street” type rural AT project in Candidate Rural Communities every 2 years. This target considers the time it will take to integrate the new program into HRM’s existing project planning, design and construction processes. Within a timeline of ten years (2022 – 2032) five AT projects in Candidate Rural Communities could be implemented at an estimated capital cost of \$14.25 million to \$28.5 million.

At this time, staff are not prioritizing the construction of Spines, however, Council could direct otherwise at any time, particularly in conjunction with integration opportunities.

Eligibility for Infrastructure Funding from Other Orders of Government

The estimated costs identified above are significant and could be a challenge for HRM to fund without support from other orders of government. Attachment 6 summarizes the multiple programs and funds which provide opportunities to cost share the funding of rural AT in HRM with other orders of government.

Options to Fund the Construction and Maintenance of Rural Sidewalk Infrastructure

This section describes current municipal policy for area rates and three options for using area rates to fund the construction and maintenance of sidewalks in the suburban and rural tax areas and their cost implications for property owners.

Current Municipal Policy and Local Area Rate History

Section 96 of the HRM Charter provides Regional Council the authority to approve area rates for the funding of municipal expenditures in a set area. Area rates may be created at the request of a community group to fund specific local services or community run programs. The process for the creation and approval of these community-initiated area rates is described in the Community Area Rates Administrative Order (AO 2019-005-ADM).

Regional Council may also create area rates outside of the *Community Area Rates Administrative Order*. This is often done for services that span many communities, but do not extend across the entire Halifax

region. For example, the Fire Protection area rate funds all Halifax Water owned hydrants and is paid by property owners within 1,200 feet of an operational hydrant. The Local Transit and Regional Transportation area rates are two other examples of wide area rates, each of which include most residential property owners across the Halifax region (67% within Local Transit and 94% within Regional Transportation).

Local area rates have been used in rural areas of the Halifax region for decades. The practice was developed well before amalgamation in 1996. Some of those practices have continued, however most area rates in place in 1996 have disappeared, as region-wide planning of services and taxation have become more common, e.g. fire services, street lighting, crossing guards and recreation. The traditional funding approach of each community paying directly for its services is not being proposed as a funding option. The differential cost and equity challenges resulting from this approach would not support the proposed Rural AT Program objectives. (See the range of potential rate impacts of the traditional approach, community by community in Attachment 7). Instead, three funding options are described below that would allow more consistent, predictable, and equitable funding of the Rural AT Program.

In the first two options, the area rates would fully fund the HRM share of project costs and on-going maintenance and depends on net municipal costs (i.e. after cost sharing with other orders of government) and, boundaries selected for the area rate. The third option would use a standard area rate, equivalent to the urban rate for sidewalks (3.3 cents per \$100 of assessed value) which would require additional funds from general revenue.

The following presents the potential area rate implications for two cost scenarios (low and high) for constructing and operating five Rural Community sidewalks. The low-cost estimate is \$14.25 million assuming two-thirds cost sharing and the high-cost estimate is \$28.5 million assuming one-third cost sharing:

1. \$14.25 million capital cost with 2/3 cost sharing (HRM cost = **\$4.75 million**)
2. \$28.5 million capital cost with 1/3 cost sharing (HRM cost = **\$19.0 million**)

The annual municipal revenues required to pay the capital and operating costs were estimated (using a 20-year repayment period for capital). The two scenarios resulted in annual costs ranging from \$385,000 to \$1,255,000 required to fund five Candidate Rural Community sidewalks, as detailed in Table 3.

Table 3: Range of Estimated Annual Program Costs (For All Tax Options)

	# of Clusters	Total kms	Capital Cost (millions)	Cost Sharing (millions)	Annual Capital Costs (thousands)	Annual Operating Costs (thousands)	Total Annual Costs (thousands)
Low Capital Cost with 2/3 Cost Sharing	5	9.5	\$14.25	\$9.5	\$290	\$95	\$385
High Capital Cost with 1/3 Cost Sharing	5	9.5	\$28.5	\$9.5	\$1,160	\$95	\$1,255

Option 1: Rural Sidewalk Area Rate Applies Only to Communities with New Sidewalks and Directly Funds HRM Share of Capital and Operating Costs

Option 1 would apply an area rate to communities with new sidewalks only, to recover HRM's net capital and operating costs for new suburban and rural sidewalks. This is similar in principle to the Sheet Harbour sidewalk funding, although the (same) rate would apply to all communities with new sidewalks, based on the total capital and operating costs in these communities. Based on the analysis below, the rate impact for property owners in suburban/rural communities with a new sidewalk would likely be in the range of **3.1 to 10.2 cents** (per \$100 of assessed value). The rate could be higher if construction costs are high and no cost sharing is available.

In this option, the same area rate would be applied to every Candidate Rural Community that receives a sidewalk, however the rate may change (increase or decrease) as new sidewalks are completed. To reduce the frequency of the area rate change, projects in multiple communities could be bundled and the rate adjusted once all the new infrastructure is completed.

Table 4: Option 1 Estimates (Assessment base of \$1.23 billion for 5,282 total properties)

	Annual Costs (thousands) (low to high estimate)	Estimated Area Rate (on assessment)	Estimated Annual Costs (per property)
With Cost Sharing	\$385 to \$1,255	\$0.031 to \$0.102	\$73 to \$238

Option 2: Rural Sidewalk Rate Across Entire Suburban/Rural Tax Area and Directly Funds HRM Share of Capital and Operating Costs

Option 2 would increase the general tax rate for all properties in the rural and suburban tax areas of HRM, based on the HRM share of actual capital and operating costs of the new rural sidewalks. Based on the analysis detailed below, the impact on rural and suburban taxpayers would likely be in the range of **0.4 to 1.3 cents** on the tax rate (for 9.5km of rural sidewalks). Applying the area rate to all properties in the suburban and rural general tax rates results in significantly lower rates (than other options) due to greater sharing of costs across a larger assessment base. However, all rural and suburban communities would pay the rates, even those without a sidewalk in their community (similar to the urban tax area). With this option, the suburban and rural rates would gradually increase over time, as additional suburban/rural sidewalks were completed, as shown by the detailed rate estimates in Attachment 6.

Table 5: Option 2 Estimates (Assessment base of \$9.82 billion for 55,347 total properties)

	Annual Costs (thousands) (low to high estimate)	Estimated Rate Increase (on assessment)	Estimated Annual Costs (per property)
With Cost Sharing	\$385 to \$1,255	\$0.004 to \$0.013	\$7 to \$23

Option 3: Pre-set Area Rate Applies Only to Communities with New Sidewalks and is Not Linked to Specific Project Costs

In this option, the area rate would be applied only to communities with new sidewalks, with the rate equal to the difference between the urban general tax rate and the suburban/rural tax rate, currently 3.3 cents (per \$100 of assessed property value). The cost for property owners would vary according to the value of their property. For example, property with an assessed value of \$200,000 would have to pay an additional \$66 per year in taxes.

In this approach, the area rate would not be tied to the actual cost of building and maintaining the sidewalks. Any additional funding required for the construction (above what is generated from the additional 3.3 cents) would be recovered from the general tax rate. This approach differs from the current Council policy in that the cost of rural sidewalks would be subsidized in part by all taxpayers. In many rural communities, the regional traffic moving through their main street has an impact on the safety and comfort of pedestrians, justifying a regional approach to funding. This would require amendments to the current administrative order for area rates and should specify a set area rate boundary, which would include the community hosting the sidewalk at a minimum, but possibly nearby communities or residents who would benefit from the new sidewalks.

Comparison of the Three Options

Using area rates is Regional Council's current policy to fund HRM's share of rural sidewalk construction and operation. This has some pros and cons related to equity and overall program administration depending on how it is applied. The table below compares the three area rate options presented above and highlights the key differences and their impacts on property owners in Candidate Rural Communities, staff, and Council.

The use of area rates has implications for the program goal of fostering equity and for the motion directing this report which includes, “consideration of services in historically underserved areas”. Such areas generally have greater economic disparity. To achieve equity objectives there may have to be a wider sharing of sidewalk costs with higher-income communities. The level of equity achieved will depend on the funding option chosen by Council. See column two of Table 6 for a summary of equity implications.

Table 6: Comparison of Rural Sidewalk Funding Options.

Option #	Who Pays	Equity	Ease of Approval & Administration
Option 1	<p>Only those communities with sidewalks would pay. Area rate is applied in each community once the sidewalk is in place.</p> <p>The <u>same</u> area rate is applied to all communities with a sidewalk, but the collective rate may change as new communities get sidewalks.</p>	<p>Fewer properties pay for the sidewalks (than other options), so rates are higher. Could consider extending area rate to neighbouring communities to lower rate and reduce tax burden per property, providing those communities benefit from the sidewalk.</p> <p>Could lead to high area rates, depending on assessment base and boundaries selected for communities with sidewalks.</p>	<p>Area rates are already an enabled funding mechanism for rural sidewalks.</p> <p>Area rate (and cost sharing) would completely fund each project, so projects could be approved and constructed over a fixed period.</p> <p>Would require a consistent approach to area rate boundaries for candidate rural communities receiving new sidewalks.</p> <p>May need to adjust rural sidewalk area rate (as required) as new sidewalks are built.</p>
Option 2	<p>All suburban and rural communities pay. Rate increase starts when first rural sidewalk is completed and increases gradually as more rural sidewalks are put in place.</p>	<p>Maximizing the number of properties paying for the sidewalks – by applying the rate to all suburban and rural properties – tax rates and overall costs are relatively low for all property owners.</p> <p>Numerous communities would be paying the rate even though their community has no sidewalks, similar to the urban tax area.</p>	<p>Rate increase (and cost sharing) would completely fund each project, so projects could be approved and constructed over a fixed period.</p> <p>Less challenging to administer because rate is applied over entire rural and suburban tax areas and area rate boundaries do not need to be created.</p> <p>The rates will incrementally increase over the program’s 10-year timeline as new sidewalks are built and rates are adjusted to reflect additional costs.</p>

<p>Option 3</p>	<p>Only the communities with sidewalks would pay. Area rate is applied in each community once the sidewalk is in place. 3.3 cent area rate is applied (same as urban general tax rate). Any additional funding required would come from the general tax rate.</p>	<p>All property owners within communities with new sidewalks are charged the same rate of 3.3 cents. This creates predictability and limits the cost impact for all property owners.</p> <p>Property owners will essentially pay the equivalent of the urban general tax rate, sharing in the cost of sidewalks just as if they were urban taxpayers.</p>	<p>Would require a consistent approach to area rate boundaries for candidate rural communities.</p> <p>A consistent area rate removes the need to periodically reset rates, as required for options 1 and 2.</p> <p>Unlike options 1 & 2, does not provide a dedicated funding source for rural sidewalk projects so they would have to be prioritized against other candidate projects for capital funding (i.e. will impact capacity of current capital budget). This could extend time required to deliver sidewalks because the portion of funds needed from the capital budget may depend on other priorities.</p> <p>Requires an amendment of the Community Area Rates Administrative Order 2019-005-ADM to implement.</p>
---------------------	---	---	--

Preferred Option

Option 3 is the recommended approach for funding rural sidewalks.

Option 3 addresses equity by limiting the cost of the new sidewalks to the property owners in the communities with those new sidewalks and limits the rate to 3.3 cents (per \$100 of assessed property value), as opposed to an uncertain and variable rate applicable in options 1 and 2. Although, the area rate revenues collected will vary by community depending on their size and property tax base, each community would eventually receive a sidewalk that meets their community’s need.

The primary advantage of this option is predictability for all rural property owners. The property tax impact is not dependent on the type of infrastructure needed, site conditions or available federal/provincial funding. It’s also very transparent and easy to communicate. Property owners will not see a tax (area rate) impact until the infrastructure is built in or near their community, and the precise rate impact will be known in advance.

This option will also be the easiest to implement (once the AO is amended), because it applies a consistent 3.3 cent area rate to the communities receiving sidewalks and does not require recalculating and adjusting area rates as more communities are added to the program (which is the case for Options 1 and 2). One implementation challenge will be confirming common guidelines for the boundaries of the new area rate. The boundary should include property owners deemed to be benefitting from the new sidewalks and the approved guidelines should provide a consistent approach for all Candidate Rural Communities to ensure fairness.

Maintenance and Operations

Operating and maintenance costs have been estimated at \$10,000/km for sidewalks in rural HRM requiring

\$95,000/year to maintain 9.5km of sidewalks once the initial program target is complete. This estimate may be low. While it is consistent with the revenue collected to maintain the Sheet Harbour sidewalk and is also consistent with recent costs in the urban area of between \$8,500-\$11,000 per km, HRM Road Operations do not currently have responsibility for road maintenance in rural communities and it is likely current average costs may be exceeded.

The approach will have to consider discontinuity from the rest of the AT network, considerable distance from other HRM-owned assets, provincial ownership of the road in most cases, and current service boundary limitations. A unique service delivery will need to be developed that could involve contracting out these services (e.g. snow, litter, vegetation management, sweeping, drain clearing,). Other maintenance elements such as signage repair, line painting and related tasks would also have to be factored in.

Next Steps to Implementation

If the program and the Option 3 funding approach is approved, the next step will be for staff to return to Council with proposed amendments which would add the Candidate Rural Communities and Spines to the ATPP. Staff will also return with proposed amendments to the Community Area Rates Administrative Order (AO 2019-005-ADM) which will enable the approved funding approach for rural community centre sidewalks. Amendments would outline the process for implementing the 3.3 cent area rate, including requirements for community consultation.

Following the approval of the amended ATPP and Community Area Rates AO, key next steps will include:

- prioritizing the Candidate Rural Communities using criteria in the scoring tool described above;
- developing a maintenance and operations approach;
- implementing planning processes in the priority communities to determine facility specifications, develop detailed cost estimates, and fulfill of any requirements identified by the amended Community Area Rates AO;
- confirming cost-sharing agreements with other orders of government;
- incorporating projects into the municipality's Capital Budget planning and approvals processes; and,
- conducting detailed design and construction of approved projects.

FINANCIAL IMPLICATIONS

New sidewalks for five Candidate Rural Communities projects are estimated to cost between \$4.75 million and \$19.0 million (after cost sharing). The proposed additional 3.3 cents per \$100 on the suburban and rural communities with new sidewalk infrastructure is anticipated to fund 100% of the operating cost and 25% to 100% of the capital cost of new suburban/rural sidewalks (depending on specific capital costs and cost sharing). The remaining capital costs would need to be funded from the general rate across the region and is dependent on capital funding approval during the annual budgeting process. None of the sidewalk projects in the Candidate Rural Communities are currently funded. These cost estimates do not include the additional staffing resources required to plan, design, construct and maintain additional AT projects.

RISK CONSIDERATION

There are no significant risks associated with the recommended course of action. Potential risks related to AT facility design, construction, and operation, including on land owned by the Province, are typical for HRM and systems are in place to help manage these risks.

COMMUNITY ENGAGEMENT

Given the nature of the project and the large area of land in the rural and suburban tax rate areas, broad

public engagement was not carried out. If the proposed program is approved by Council, the specific projects implemented would have a public engagement component as part of the planning process.

However, targeted stakeholder engagement was carried out as a high level of collaboration and coordination is anticipated to implement the proposed program. Throughout April and May 2020, a series of individuals considered 'stakeholders' were presented the details and objectives of the project, and the work done to date. They were asked about their level of involvement in rural AT and invited to provide input to inform the development of a Rural AT Program for HRM. Table 7 outlines who was engaged and how.

Table 7: Stakeholders Engaged

Category of Stakeholder	Department or Group Engaged	Engagement Format
Internal HRM Staff	Transportation and Public Works (Active Transportation, Public Works, Traffic Authority), Planning and Development (Regional Planning, Rural Planning Applications and Policy, Strategic Transportation Planning), Parks and Recreation, Government Relations and External Affairs, Finance	Phone interviews Two online workshops
Elected Officials	HRM Councillors with rural jurisdiction (Districts 1, 2, 3, 4, 6, 11, 12, 13, 14, 15), Andy Fillmore (MP Halifax)	Phone interview
Provincial Departments and Interests	Department of Public Works, Department of Municipal Affairs, Department of Energy and Mines, Parks and Outreach (Department of Land and Forestry), Department of Communities, Culture, and Heritage, Halifax Regional Centre for Education, Nova Scotia Federation of Municipalities Active Transportation Committee, Bicycle Nova Scotia	Phone interview
Community Groups/Associations	Atlantic View Trail Association, The Lawrencetown-Cole Harbour Trail Connector Association, Carroll's Corner/Mastodon Trail Association, Musquodoboit Trailways Association, Preston & Area Trails Association, SATA Trails Society, Shubenacadie Watershed Environmental Protection Society, St. Margaret's Bay Rails to Trails Association, Cole Harbour Parks and Trails Association, BLT Trails Association, Musquodoboit Harbour Chamber of Commerce and Civic Affairs, All Terrain Vehicle Association of Nova Scotia, Marine Riders ATV Club, Halifax Regional Trails Association, Sheet Harbour Snow Mobile and ATV Club, Sheet Harbour Area Chamber of Commerce and Civic Affairs, Ecology Action Centre, Walk n' Roll Halifax, The Deanery Project, Rural Access to Physical Activity East Preston	Emailed request for brief

The following is a summary of the key insights gathered which informed the development of the prioritization framework:

Internal HRM Staff

- Rural areas need to be treated differently than urban areas and evaluated for AT investment based on rural-specific criteria or those communities will never be able to compete with more densely populated urban areas;
- Nova Scotia Department of Public Works (DPW) manages almost all transportation infrastructure outside of urban core but does not maintain sidewalks or other AT facilities. Maintenance agreements between HRM and DPW exist across region to address case-specific maintenance needs;
- Linking a rural AT prioritization process into the provincial paving program would be beneficial for project integration between orders of government;
- Connections to municipally owned facilities like Park and Rides, recreation centres, and libraries should be priorities;
- Social policy is in place and should be considered in program development; and
- Potential effects on the current trail creation and maintenance process (community development process with trails associations) should be considered.

Elected Officials

- Generally, very supportive of project because so many requests from rural constituents include traffic calming and sidewalks;
- Distinction between rural AT and recreation facilities will be important to consider;
- Specific opportunities for AT connections and intersection improvements were identified in their districts; and
- National AT Strategy is currently on hold due to COVID disruption.

Province Departments and Interests

- Requests for rural road speed limit reductions and paved shoulders are very common;
- Nova Scotia Transportation and Active Transit is open to working with municipalities on traffic calming, AT implementation, and pilot projects;
- Multiple cost sharing opportunities were identified for future rural AT projects;
- Rural schools should be considered as destinations in the prioritization process because the minimum catchment areas disqualifying rural students from bus service are 2.4km or more and these trips could be made by AT; and
- Need to consider the “story” behind each community or project being evaluated. The evaluation tool should have a subjective component that considers why a specific community might not score as high as another.

Community Groups and Trails Associations

- Highway 7 was listed as problematic for AT and community connectivity by multiple groups;
- Safety is mentioned as the biggest concern for many groups; and
- Many opportunities for short trips within rural communities were identified that could be made on foot or bike if infrastructure existed.

ENVIRONMENTAL IMPLICATIONS

This project is supportive of the sustainability objectives of the municipality as it aims to create a program which will allow HRM to consider the implementation of AT services in its rural communities, making it safer and more comfortable for residents to choose sustainable transportation options for everyday transportation purposes. Creating opportunities for residents to make this shift is intended to increase AT mode share, reduce greenhouse gas emissions, and help HRM meet the mode share targets outlined in the Regional Plan and the Integrated Mobility Plan.

ALTERNATIVES

The Transportation Standing Committee could recommend that:

1. Council directs the CAO to continue the existing ad hoc approach to deliver rural community sidewalks to rural HRM;
2. Council directs the CAO to focus on building AT in other areas of the Municipality and not proceed with a Rural AT Program;
3. Council generally supports the Rural AT Program, but directs the CAO to implement funding Options One or Two or a variation of the area rate funding options provided; or,
4. Council generally supports the Rural AT Program, but directs the CAO to explore an alternative funding option outside of the three provided such as covering HRM's rural AT costs within the current general tax rate or increasing the rural and suburban rates to match the urban rate.

ATTACHMENTS

Attachment 1: Map of Proposed Rural AT Program's Geographic Scope

Attachment 2: Map of Existing AT Facilities in Suburban and Rural HRM

Attachment 3: Map of Proposed Candidate Rural Communities and Spines

Attachment 4: Map 3 "Vision for a Regional Greenway & Bicycle Network" from the ATPP

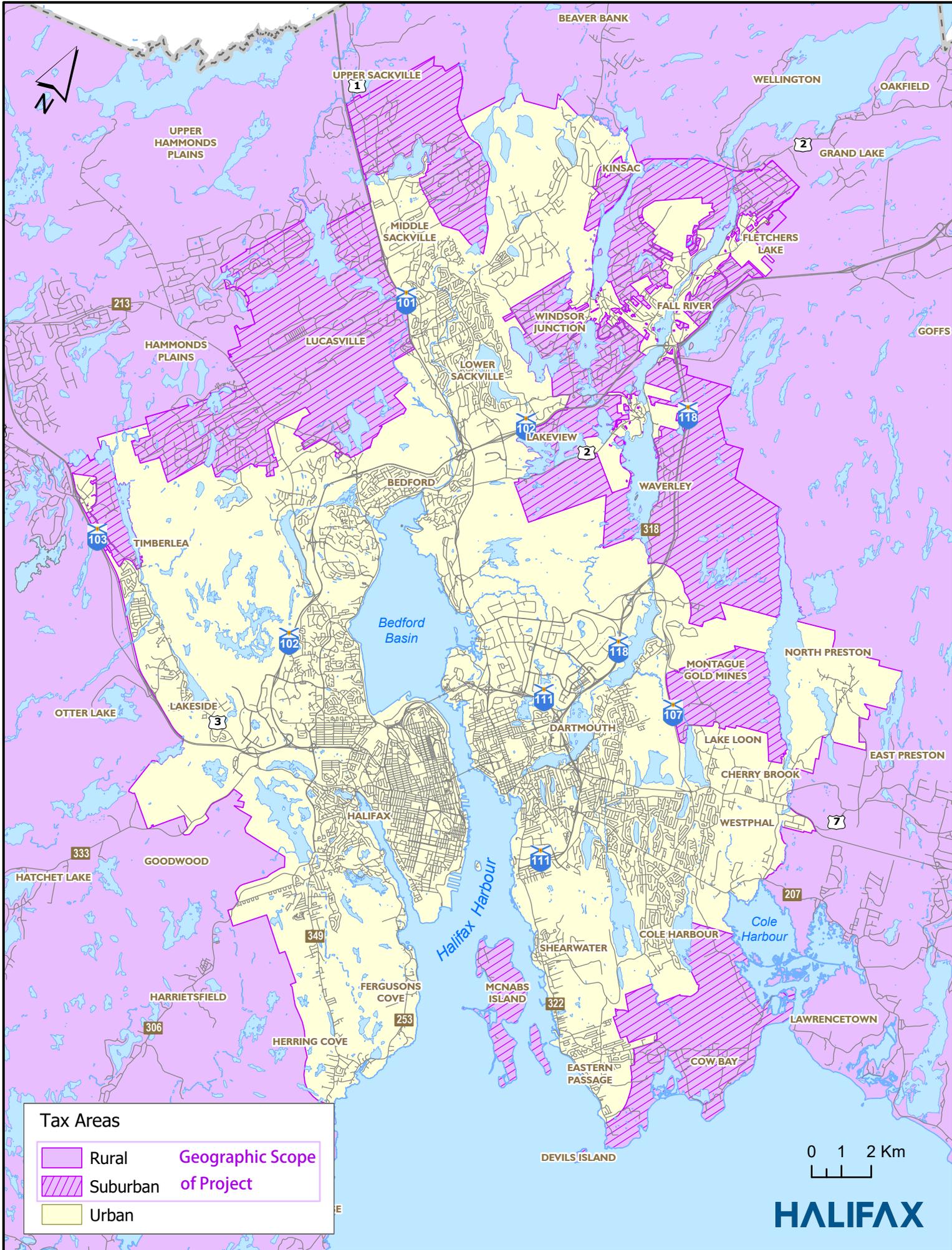
Attachment 5: Methodology for Developing Cost Estimates

Attachment 6: Cost Sharing Opportunities for Infrastructure Funding from Other Orders of Government

Attachment 7: Estimated Community-based Area Rates and Details for Option 2

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Megan Backos, Active Transportation Planner, Transportation and Public Works,
902.478.9725



Tax Areas

- Rural
- Suburban
- Urban

Geographic Scope of Project

0 1 2 Km

HALIFAX

Attachment 2: Map of Existing AT Facilities in Suburban and Rural HRM



Suburban & Rural Active Transportation Infrastructure

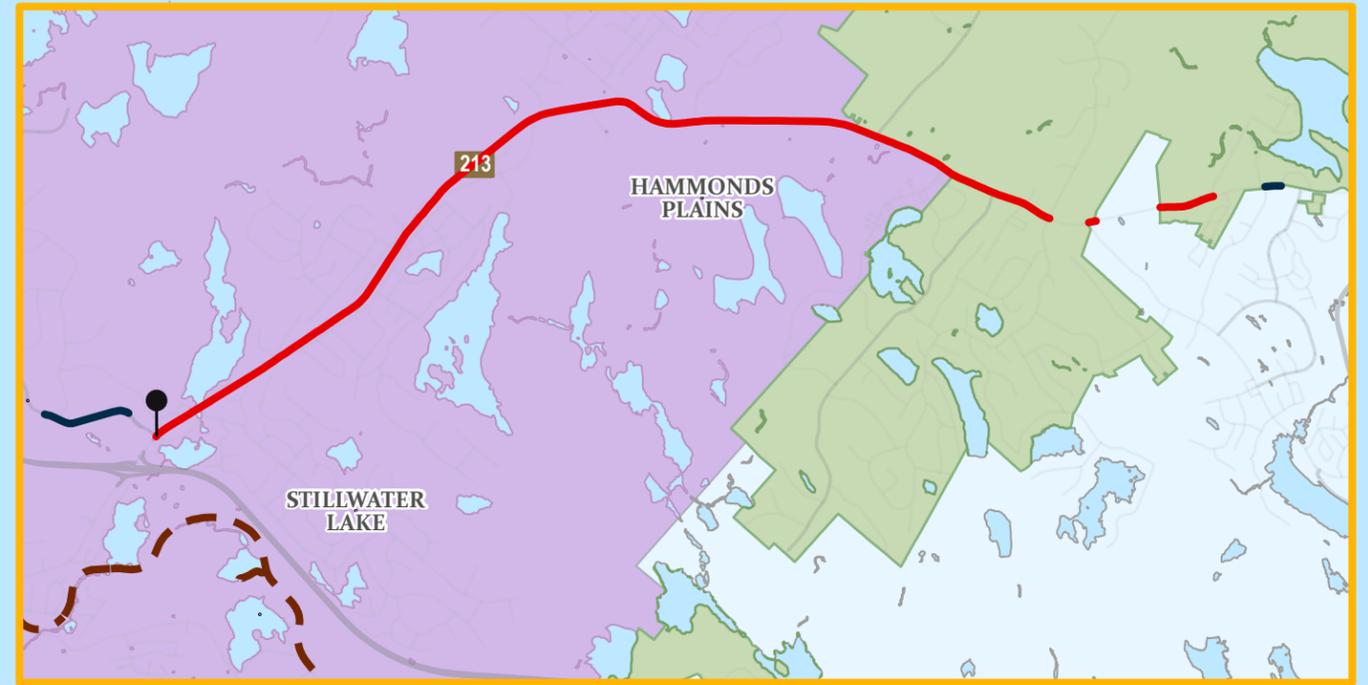
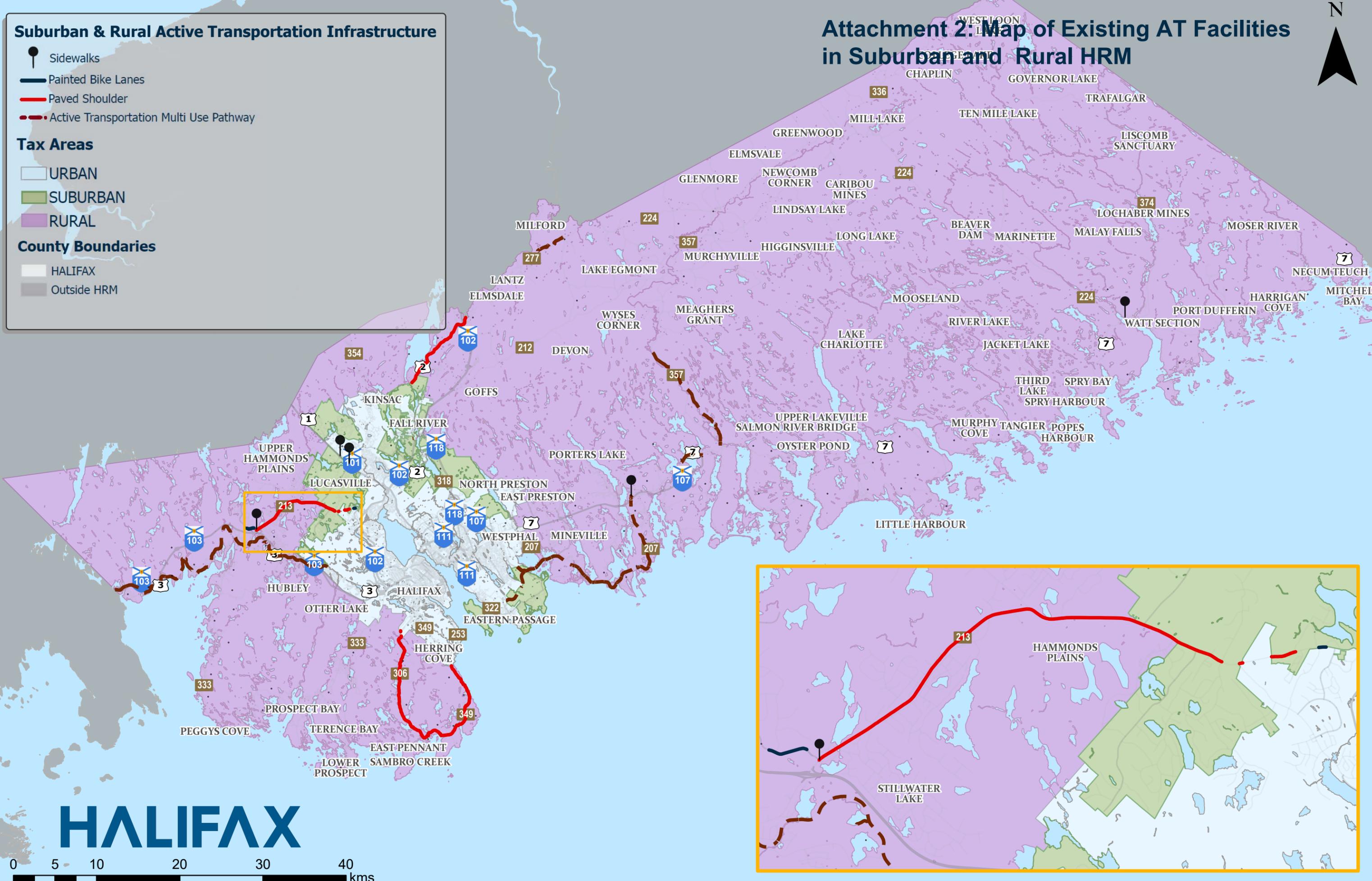
-  Sidewalks
-  Painted Bike Lanes
-  Paved Shoulder
-  Active Transportation Multi Use Pathway

Tax Areas

-  URBAN
-  SUBURBAN
-  RURAL

County Boundaries

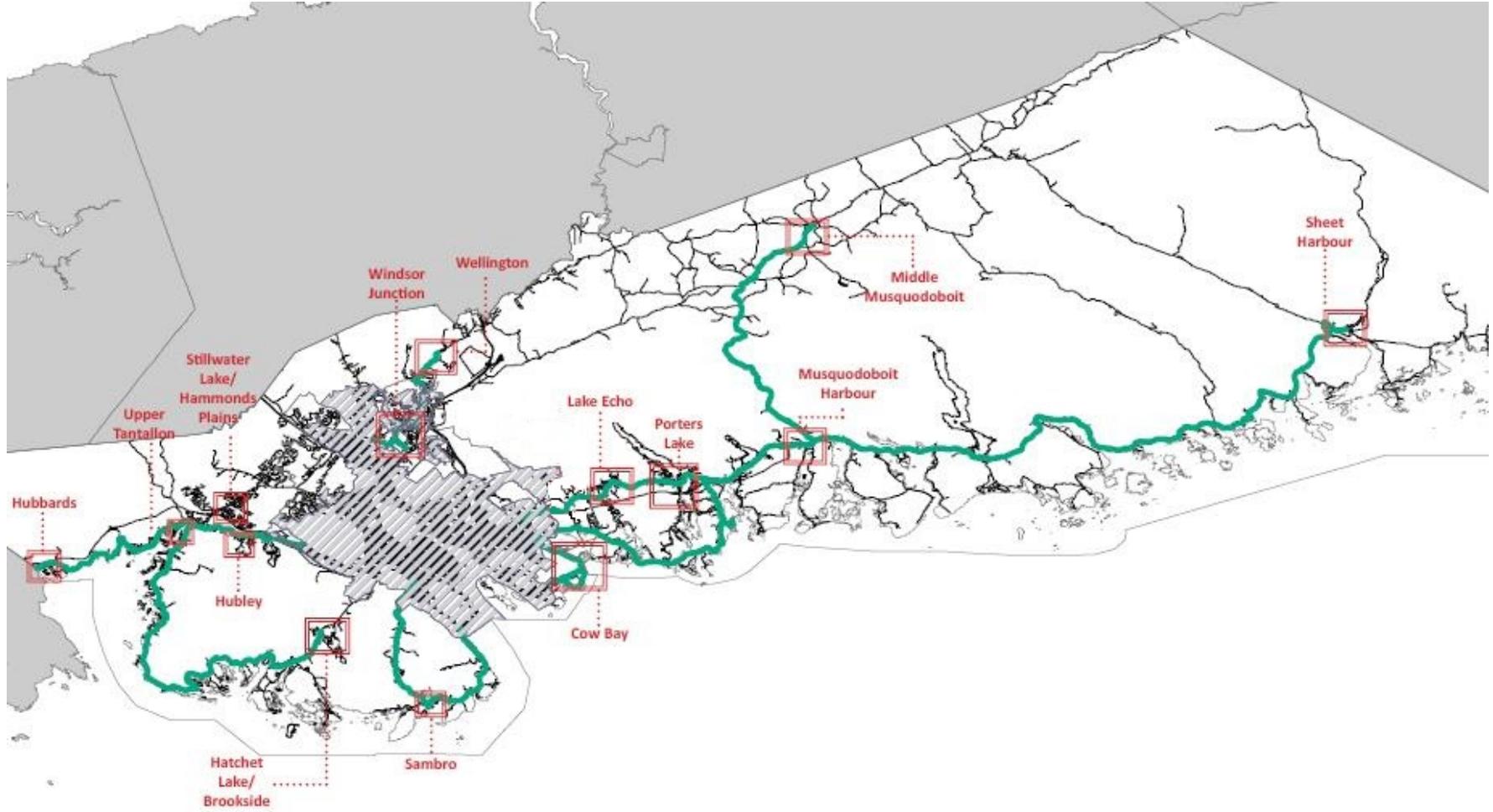
-  HALIFAX
-  Outside HRM

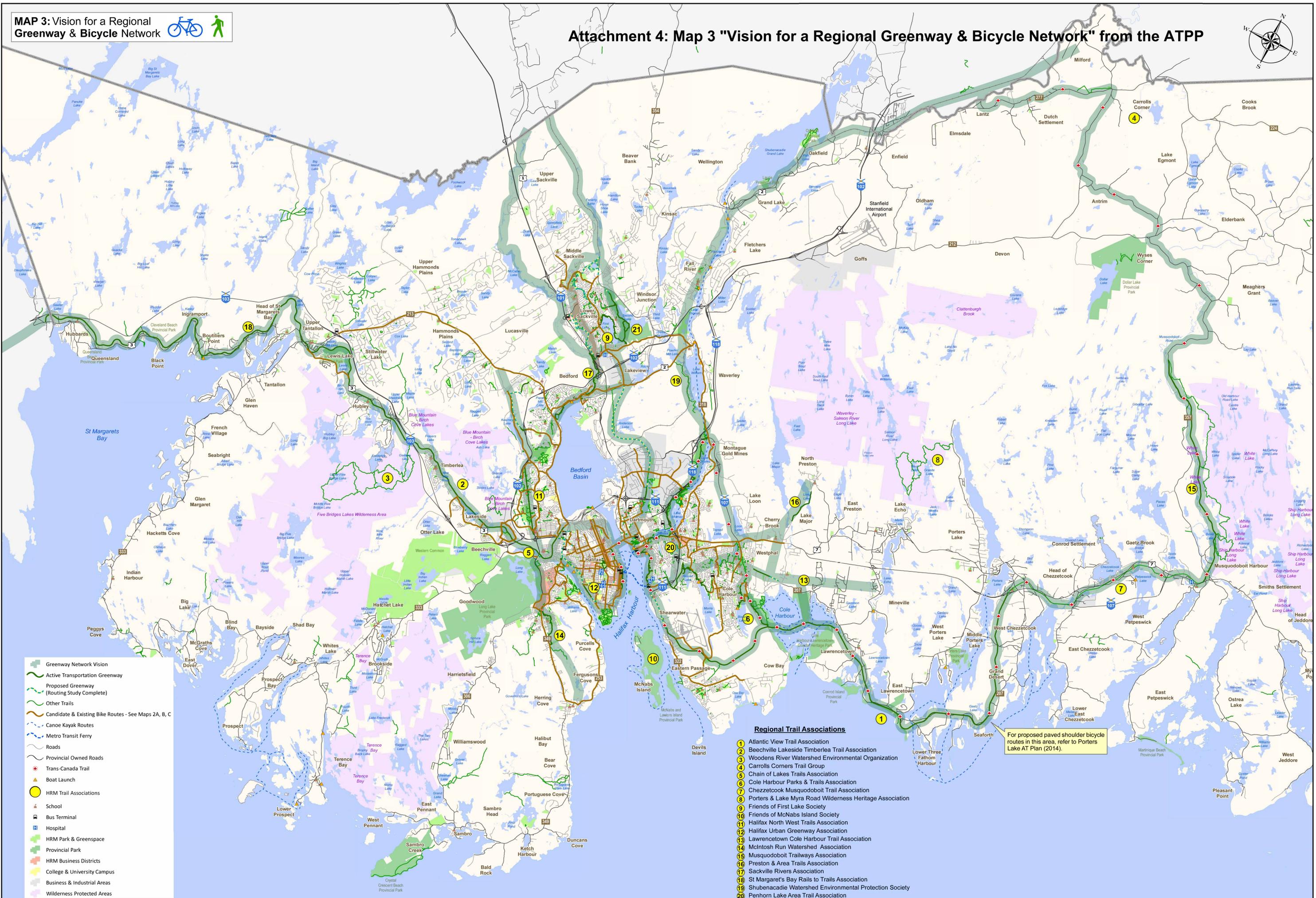
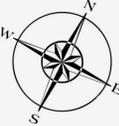


HALIFAX



Attachment 3: Map of Proposed Candidate Rural Communities and Spines





-  Greenway Network Vision
-  Active Transportation Greenway
-  Proposed Greenway (Routing Study Complete)
-  Other Trails
-  Candidate & Existing Bike Routes - See Maps 2A, B, C
-  Canoe Kayak Routes
-  Metro Transit Ferry
-  Roads
-  Provincial Owned Roads
-  Trans-Canada Trail
-  Boat Launch
-  HRM Trail Associations
-  School
-  Bus Terminal
-  Hospital
-  HRM Park & Greenspace
-  Provincial Park
-  HRM Business Districts
-  College & University Campus
-  Business & Industrial Areas
- Wilderness Protected Areas

Regional Trail Associations

- 1 Atlantic View Trail Association
- 2 Beechville Lakeside Timberlea Trail Association
- 3 Woodens River Watershed Environmental Organization
- 4 Carrolls Corners Trail Group
- 5 Chain of Lakes Trails Association
- 6 Cole Harbour Parks & Trails Association
- 7 Chezzetcook Musquodoboit Trail Association
- 8 Porters & Lake Myra Road Wilderness Heritage Association
- 9 Friends of First Lake Society
- 10 Friends of McNabs Island Society
- 11 Halifax North West Trails Association
- 12 Halifax Urban Greenway Association
- 13 Lawrencetown Cole Harbour Trail Association
- 14 McIntosh Run Watershed Association
- 15 Musquodoboit Trailways Association
- 16 Preston & Area Trails Association
- 17 Sackville Rivers Association
- 18 St Margaret's Bay Rails to Trails Association
- 19 Shubenacadie Watershed Environmental Protection Society
- 20 Penhorn Lake Area Trail Association
- 21 Second Lake Regional Park Association

For proposed paved shoulder bicycle routes in this area, refer to Porters Lake AT Plan (2014).

Attachment 5 - Methodology for Developing Capital Cost Estimates

The following information is a breakdown of how cost estimates were developed for the Rural AT Program report. The provided costing estimates are based on the best practice research and costs of similar projects recently completed in HRM.

Candidate Rural Communities with Main Streets

Table 1 outlines the 6 Candidate Rural Communities which were identified as having a “Main Street”, as described in the Discussion section of the report. The length of sidewalk or other AT facility required to service these Main Streets was calculated from aerial imagery and come to a total of 9.5km.

Table 1: Presence of a “Main Street” within HRM’s Rural Clusters

Candidate Rural Community	Existing Main Street	km
Hubbards	Yes	2.6
Upper Tantallon	Yes	1.0
Hatchet Lake/Brookside	Yes	2.7
Porters Lake	Yes	1.8
Musquodoboit Harbour	Yes	1.4
Sheet Harbour	Yes (currently has a sidewalk)	0
Total		9.5

Candidate Rural Communities

Table 2 outlines the estimated length and existing facilities on the Candidate Rural Spines being recommended as an addition to the ATPP.

Table 2: Estimated Distance of AT Spines within Rural HRM

Community	Destination	Spines	
		km	Existing facilities
Hubbards	Upper Tantallon	0	Existing MUP
Upper Tantallon	Hatchet Lake/Brookside	50	“Suggested Bike Route on Main Road”
	Hammonds Plains	9	
	Hubley	0	Existing MUP
Sambro Loop	Harrietsfield to Herring Cove	0	Paved Shoulder
Windsor Junction	Wellington	0	Paved Shoulder
Cow Bay	Lawrencetown	0	Existing MUP
Lawrencetown	Porters Lake	14	Existing MUP
East Preston	Musquodoboit Harbour	30	Existing Trail between Porters Lake and Musquodoboit Harbour
Musquodoboit Harbour	Middle Musquodoboit	18	MUP half way, “Suggested Bike Route on Main Road” on other half
	Sheet Harbour	73	“Suggested Bike Route on Main Road” for sections of route

Total (km)		194	
-------------------	--	------------	--

See Table 3 for a summary of preliminary capital cost estimates based on the

Costing for building out the 9.5km of “Main Street” cluster facilities has been provided as a range based on type of facility (sidewalk or multi-use pathway) as well as whether stormwater services would be required in the absence of a ditch.

Based on historical cost estimates from similar HRM and provincial projects, the cost for paving two shoulders along a right-of-way is \$0.8 million per kilometre.

Table 3: Total Capital Cost Estimate for Implementing Spine and Cluster AT Connections (in millions)

AT Investment Type	# of km	Estimated Cost/km	Estimated Cost (low)	Estimated Cost (high)
Spine Investments - Paved shoulders (two-way, paint and signage marking AT use)	194	\$0.8	\$155	\$155
Main Street Investment - sidewalk or multi-use pathway with (high) or without stormwater services (low)	9.5	Ranges \$1.5 - \$3	\$14.25	\$28.5
Total			\$169.25	\$183.5

Attachment 6: Cost Sharing Opportunities for Infrastructure Funding from Other Levels of Government

The following section outlines and briefly describes multiple programs and funds which provide opportunities to cost share the funding of rural AT in HRM with other levels of government.

Investing in Canada Infrastructure Program (ICIP) Bilateral Agreement – Federal/Provincial

The ICIP bilateral agreement has three funding streams/substreams which may be relevant to active transportation projects in rural communities. Project eligibility is generally determined using outcomes set out in the bilateral agreement:

- **Public Transit Infrastructure Stream:** Focuses on projects that improve the capacity of, and access to, public transit infrastructure as well as the quality or safety of existing or future transit systems.
 - Approximate remaining federal allocation as of early spring 2021: \$217,400,000.
- **Climate Change Mitigation Sub-stream:** Focuses on projects that increase capacity to manage renewable energy, increase access to clean energy transportation, increase energy efficiency of buildings, and increase the generation of clean energy.
 - Approximate remaining federal allocation as of early spring 2021: \$209,745,000.
- **Rural and Northern Communities Stream:** Focuses on projects that improve food security, broadband connectivity, education and health facilities, energy efficiency and reliability, and road, air, and marine infrastructure in rural and northern communities. Note that HRM is generally not eligible for this stream as it is limited to communities with populations under 100,000. However, this limitation has been applied unevenly so may still be worth exploring.
 - Approximate remaining federal allocation as of early spring 2021: \$26,978,000.

Projects approved under these funding streams generally receive a 40% federal cost-share, 33.3% provincial cost-share, and 26.7% municipal cost-share.

Active Transportation Fund – Infrastructure Canada

In early 2021, Infrastructure Canada announced that it would establish a new five-year \$400 million fund dedicated to funding active transportation projects. Many of the details of the new funding are yet to be determined and are currently under development by Infrastructure Canada. However, Infrastructure Canada is seeking to have the program set up for the summer of 2021.

NS Connect2 Program – Province of Nova Scotia

The Connect2 (C2) grant program expands Nova Scotian communities' options for walking, biking, rolling, shared mobility, ZEVs, and transit while reducing GHG emissions. The program supports projects that create or enable clean transportation options and builds infrastructure for short-distance travel and modes of transport using alternative fuel. The program seeks to support projects that test new ideas or best practices that connect destinations, increase equity and access in transportation opportunities, and decrease dependency on personal vehicles by improving transportation hubs and integrated mobility.

The Province has allocated a fund of \$600,000 to the Department of Energy and Mines to advance clean transportation options throughout Nova Scotia for the 2020-2021 fiscal year. C2 grant will cover up to 75% of eligible costs, up to a maximum of \$100,000 for the infrastructure and design projects, up to a maximum of \$75,000 for clean fleets and shared mobility, and up to a maximum of \$50,000 for community building and engagement projects.

There are 3 main project categories under the C2:

1. **Active Transportation Infrastructure & Design Projects** – C2 will provide grants of up to \$100,000 per project in this category.
2. **Clean Fleets and Shared Mobility Projects** - C2 will provide grants of up to \$ \$75,000 per project in this category.
3. **Capacity Building and Community Engagement Projects (Share LLC & C2 Category)** - LCC/C2 will provide grants of up to \$50,000 per project in this category.

Green Municipal Fund (GMF)

GMF is administered by the Federation of Canadian Municipalities with money from the Federal government. It is a broad program with many different funding streams which tend to be either capital grants or low-cost loans. One focus of the GMF is on transportation, particularly funding streams for feasibility studies and capital projects focusing on “transportation networks and commuting options” which appear to be geared towards AT projects.

Informal Cost Sharing Agreements

Although this is not a formal funding program, at the direction of Council, HRM entered into a cost-share agreement with Transportation and Infrastructure Renewal (as it was then called) to make a contribution towards shoulder paving of the provincially-owned Mineville Road in 2020.

To ensure that other levels of government are aware that HRM is implementing a rural AT program and seeking external funding to support these objectives, this report recommends that the Mayor formally advise the Provincial and Federal governments of the program and request funding support.

Attachment 7 - Estimated Community-based Area Rates and Details for Option 2

Estimated Community-based Area Rates <i>(for information only; not a proposed option)</i>			Low Estimate with 2/3 Cost Sharing	High Estimate with 1/3 Cost Sharing
HRM Net Capital Payment (millions per community)			\$0.95	\$3.80
Annual Area Rate Revenue Requirement (per community)			\$77,000	\$251,000
Community	# Accounts	Nominal Length (km)	Estim. Range of Sidewalk Area Rate	
Cow Bay	606	1.9	\$0.065	\$0.211
East Preston	711	1.9	\$0.133	\$0.434
Hammonds Plains	3,887	1.9	\$0.006	\$0.020
Hatchet Lake/Brookside	1,387	1.9	\$0.026	\$0.085
Hubbards	507	1.9	\$0.097	\$0.317
Hubley	949	1.9	\$0.031	\$0.100
Lake Echo	1,003	1.9	\$0.047	\$0.152
Lucasville	582	1.9	\$0.048	\$0.157
Middle Musquodoboit	304	1.9	\$0.275	\$0.898
Musquodoboit Harbour	849	1.9	\$0.073	\$0.237
Porters Lake	1,876	1.9	\$0.022	\$0.071
Sambro	245	1.9	\$0.238	\$0.776
Upper Tantallon	1,545	1.9	\$0.018	\$0.057
Wellington	757	1.9	\$0.046	\$0.149
Windsor Junction	639	1.9	\$0.043	\$0.140
Candidate Community Summary	Total Accts	Total Length (km)	Estim. Range of Sidewalk Area Rate	
All 15 Communities	15,847	28.5	\$0.031	\$0.102
Details for Option 2: Estimated Rates by Number of Sidewalks <i>(for information only; not proposed as an option)</i>			Low Estimate with 2/3 Cost Sharing	High Estimate with 1/3 Cost Sharing
Wide Area Rate	# Sidewalks	Total Length (km)	Estim. Range of Sidewalk Area Rate	
Entire Suburban/Rural Area	1	1.9	\$0.001	\$0.003
Entire Suburban/Rural Area	2	3.8	\$0.002	\$0.005
Entire Suburban/Rural Area	3	5.7	\$0.002	\$0.008
Entire Suburban/Rural Area	4	7.6	\$0.003	\$0.010
Entire Suburban/Rural Area	5	9.5	\$0.004	\$0.013
Entire Suburban/Rural Area	6	11.4	\$0.005	\$0.015
Entire Suburban/Rural Area	7	13.3	\$0.005	\$0.018
Entire Suburban/Rural Area	8	15.2	\$0.006	\$0.020
Entire Suburban/Rural Area	9	17.1	\$0.007	\$0.023
Entire Suburban/Rural Area	10	19.0	\$0.008	\$0.026
Entire Suburban/Rural Area	11	20.9	\$0.009	\$0.028
Entire Suburban/Rural Area	12	22.8	\$0.009	\$0.031
Entire Suburban/Rural Area	13	24.7	\$0.010	\$0.033
Entire Suburban/Rural Area	14	26.6	\$0.011	\$0.036
Entire Suburban/Rural Area	15	28.5	\$0.012	\$0.038