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Item No. 15.1.5
Halifax Regional Regional Council
June 18, 2024

TO: Mayor Savage and Members of Halifax Regional Regional Council

SUBMITTED BY: Original Signed

Cathie O'Toole, Chief Administrative Officer

DATE: April 30, 2024

SUBJECT: **Consideration of Active Transportation Facility Across Highway 101 Exit 2**

ORIGIN

May 4, 2021 Regional Council meeting, item **11.3.1 Pedestrian Infrastructure Highway 101 Exit 2**

The following motion was approved as part of the Consent Agenda:

MOVED by Councillor Russell, seconded by Councillor Kent

THAT Halifax Regional Council:

1. Direct the Chief Administrative Officer to conduct functional planning in 2022/23 (pursuant to funding approval in the 2022/23 capital budget) to establish the feasibility of a formal pedestrian crossing from Sackville Manor Mobile Home Park across Highway 101 based on the considerations outlined in the Discussion section of the staff report dated March 22, 2021; and,
2. Direct the Chief Administrative Officer to initiate conversation with NSTIR (Nova Scotia Transportation and Infrastructure Renewal) to request that they consider installing measures (e.g. jersey barriers, fencing) to serve as a deterrent to pedestrian crossing between Sackville Manor Mobile Home Park and Old Sackville Road as an interim measure.

MOTION PUT AND PASSED

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, S.N.S. 2008, c. 39

Section 79(1): Regional Council may expend money required by the Municipality for: (aa) streets, culverts, retaining walls, sidewalks, curbs and gutters.

Section 321(8): The traffic authority for the Municipality has, with respect to highways in the Municipality, excluding those for which the Provincial Traffic Authority has authority, the powers conferred upon a traffic authority by or pursuant to the Motor Vehicle Act. 2008, c. 39, s. 321.

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

RECOMMENDATION ON PAGE 2

RECOMMENDATION

It is recommended that Regional Council:

1. Approve a combination of multi-use pathways and bridges, as further described in the Discussion section of this report as Concept Option 1, as the preferred option for a formal pedestrian and bicycling crossing between Sackville Manor Mobile Home Park and Old Sackville Road.
2. Request the Mayor write a letter to the Province requesting financial support in an amount that addresses all, or a significant percentage of, the capital costs associated with this project.
3. Direct the CAO to bring forward this project for consideration in the 2024/25 capital plan subject to significant Provincial and/or Federal cost sharing agreement that contains terms and conditions satisfactory to the CAO.

EXECUTIVE SUMMARY

There is no legal or safe way for people to walk between the Sackville Manor Mobile Home Park and the Sackville Transit Terminal. Highway 101 and the ramps associated with Exit 2 of the highway are a barrier for pedestrians and people cycling. While pedestrians are prohibited from crossing in this location, a small number do cross as it is the fastest and most direct way for residents of the Sackville Manor Mobile Home Park to access transit, and also the stores and services of the Downsview Mall. Two pedestrians have been hit by cars and died while making this crossing since 2011.

There are no easy or inexpensive ways to add a safe and legal pedestrian crossing. While construction and operation of a pedestrian crossing is a municipal responsibility, it would be on provincial land and require their permission. Any option also needs to consider public access to the facility given the Sackville Manor Mobile Home Park is a private development and the facility would need to have public access on either side.

Three concept options for a legal and safe crossing were developed and shared with the public and stakeholders, particularly the Province. Two options that have been well-received are Concept 1 that involves a combination of a new multi-use pathway and two overpass structures (\$7.6 million) and Concept 3 involving sections of a multi-use- pathway and underpasses (\$5.1 million). While a connection to the Mobile Home Park could be made for its residents, the closest connection to a public road would require the construction of an approximately 800 metre multi-use pathway that adds at least \$1 million to the overall cost.

Justifying this investment in a new crossing needs to consider safety, cost, potential use, and public access to the facility. The fact that the Sackville Manor Mobile Home Park is the only significant destination on one side detracts from the potential use of the facility. Anticipated construction costs of either of the two preferred options are not reflected in the current HRM Ten Year Capital Plan.

The recommended approach is that HRM would oversee design and construction, as well as assume responsibility for ongoing operations and maintenance on the condition that the Province covers most or all of the construction costs. The preferred option that would be advanced for design and construction is Concept 1, a combination of multi-use pathway and two bridges that would provide separation for pedestrians and cyclists from vehicles and the high-speed highway interchange. Another crossing option involving underpasses (Concept 3) has also been determined to be feasible and would be a second choice if necessary.

BACKGROUND

Policy Rationale

This potential project aligns with the following HRM policy priorities:

Strategic Road Safety Framework (2018), which uses a 'towards zero' approach to reduce injuries and fatalities on streets within the Halifax Regional Municipality (HRM).

Integrated Mobility Plan (2017) and the *Making Connections: 2014-19 Halifax Active Transportation Priorities Plan (2014)*, commonly referred to as the AT Plan, aim to reduce barriers in the active transportation network caused by railways, highways, and watercourses. They recommend identifying and implementing solutions to facilitate active transportation links across railways, highways and watercourses, consistent with the Active Transportation Priorities Plan.

Halifax Accessibility Strategy (2021) one of the primary transportation recommendations is to ensure that community infrastructure is connected via sidewalks, transit and crosswalks (2.2).

Halifax Transit's Moving Forward Together Plan (2016) has a focus on improving accessibility to and from transit stops.

Existing Conditions

Highway 101 and Exit 2 are within the provincial Right of Way in the community of Lower Sackville.

Issues Raised:

- The highway and interchange create a barrier that separates the community of Sackville Manor Mobile Home Park from destinations such as stores and services within 1km and is within 400m of Sackville Transit Terminal.
- The current informal, illegal pedestrian route is shown as Path A, in Figure 1. The shortcut, across the interchange reduces trip distance and time by over 50% for people walking to Old Sackville Road, the Sackville Transit Terminal, and the Downsview Plaza Shopping. A 45-minute trip (Route B on Figure 1) turns into a 15-20 minute trip (Figure 1).
- Pedestrian access through the interchange is legally prohibited (Figure 2).
- The informal shortcut starts at the gate that separates the private road of Parklane Drive of the Mobile Home Park and the provincial ROW for Exit 2 interchange and Highway 101 as shown in Figure 4.
- Fire and emergency services are permitted to use the gate, as shown in Figure 4, entrance to reduce response times.

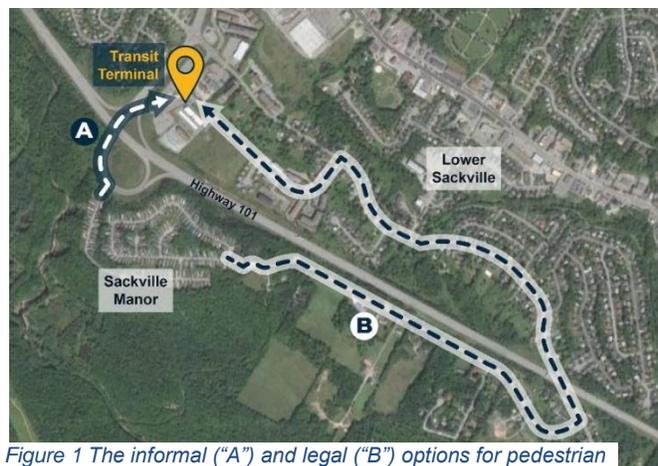


Figure 1 The informal ("A") and legal ("B") options for pedestrian travel between Sackville Manor and Lower Sackville destinations.



Figure 2: Informal crossing under Highway 101

- Vehicle traffic travels at high speeds, especially along the highway on and off-ramps as shown in Figure 3.
- There have been two pedestrian fatalities due to collisions with cars along this route since 2011.
- This context for providing safer pedestrian access is extremely complex and challenging. Any option requires grade separation, physical separation and working within constrained locations.



Figure 3: The informal crossing Beaver Bank Connector and off ramp to Sackville Transit Terminal

Land Ownership

The Sackville Manor Mobile Home Park was built about 50 years ago, after the construction of Highway 101. The only vehicle access to the Park was off Walker Service Road. Eventually, the gate at the end of Parklane Drive was installed to provide emergency entrance into the Park off the interchange.



Figure 4: The locked gate at end of Parklane Drive (private road).

The origin of the pedestrian shortcutting is from Parklane Drive, a private road that is part of the Sackville Manor Mobile Home Park. As such, the Municipality does not own or have jurisdiction over this road. The nearest municipally owned right-of-way is Walker Service Road. The current owner of Sackville Manor Mobile Home Park has indicated that they do not want the public using their land to access any future pedestrian crossing. If the facility is to connect to a municipal road, another portion of the multi-use pathway would have to be built along Highway 101 ROW to Walker Service Road.

As the pedestrian shortcutting is taking place across a 100-series highway and access ramps, land ownership and jurisdiction rests with the Nova Scotia Department of Public Works (NSPW). In fact, this AT route would be almost entirely within the NSPW right of way. Historically, the Province has not provided pedestrian infrastructure through interchanges. The Provincial-Municipal Services Exchange Agreement states that the construction and maintenance of pedestrian facilities (including sidewalks and multi-use pathways) is a municipal responsibility. However, there are many examples of the provincial government cost-sharing the construction of new AT capital.

Pedestrian Counts

Several approaches were used to understand the number of pedestrians crossing Highway 101 in this location. A 12-hour pedestrian volume count was completed using MioVision video data collection between 6:30 AM – 6:30 PM on Tuesday, October 4th, 2022. The data collection was completed for the worn path between the northbound off-ramp and transit terminal sidewalk. There were **nine pedestrians** counted during the twelve-hour period, with the hourly distribution correlating to commuting hours. In addition to the nine pedestrians counted on the pathway, one pedestrian was observed walking along Beaver Bank Connector towards the intersection of Old Sackville Road during a site visit. During a second site visit, two pedestrians were observed at the fire gate within 30 minutes.

These data and observations, along with clear wear paths, support that pedestrians regularly pass through the Exit 2 interchange along the shoulder of the road and cross traffic lanes at multiple locations. It is a relatively low number because of the limited number of destinations on the Sackville Manor Mobile Home Park side and because it is dangerous and illegal.

Municipal AT Planning Process and Capital Prioritization

As was raised in the previous report, Municipal staff have developed an assessment tool for evaluating the pedestrian potential and demand for new pedestrian facilities. The criteria include proximity to schools, daycares, seniors' homes, commercial areas, parks, recreation facilities, high density residential areas, and transit stops. Points are also awarded based on the classification of road, if there are any safety concerns

(e.g. speed or sight lines), or if the sidewalk fills a gap in the network. Since the initial report to Regional Council, the sidewalk criteria was updated to better reflect equity considerations using the Canadian Index of Multiple Deprivation. Each category is then weighted and summed to a cumulative sidewalk score, which is then used to help prioritize which sidewalk projects to build each year. There are currently over 600 sidewalk requests (some of which have significant constructability issues) of which 5-10 projects are built each year.

Staff rated the section between Parklane Drive, in Sackville Manor Mobile Home Park, and the Sackville Transit Terminal parking lot for new sidewalk. Using the updated rating tool; The segment rates **'Average'** for prioritization of new AT capital investment. The primary reason in this case is the low number of residents on one side of the highway. The unique context and history at this location may not be fully factored into the assessment tool and therefore staff do recommend building a new crossing if sufficient funding can be secured.

Summary of Original Municipal Concepts

In May 2021, HRM staff presented to Regional Council three options for an AT facility across Highway 101. An initial evaluation of three routing options can be found in the original staff report. These all included an approximately 800 metre multi-use pathway adjacent to Highway 101 to make a connection to a public street (Walker Service Road). A summary of the three original concepts can be viewed in Attachment 1. The options presented in the previous report were used to develop the concepts in the Discussion Section below.

Consideration of Barriers

In response to the above motion, there was consideration of installing interim measures to serve as a deterrent to pedestrian crossing between Sackville Manor Mobile Home Park and Old Sackville Road. There was no further action on this given the challenges of the area. Any measure to obstruct pedestrian desire lines, even where prohibited, is often overcome and there was a concern that such measures here might result in even riskier behaviours.

Project Objectives and Scope

To support the Regional Council-approved policy direction as described in the "Origin" section of this report, staff initiated a functional planning (30% design) process and retained a consultant to review existing data, engage with public on preferred options, and recommend a preferred design for an Active Transportation facility connecting from Sackville Manor Mobile Home Park to Sackville Transit Terminal.

DISCUSSION

This section describes the updated concepts, public engagement outcomes, and recommended option based on a list of criteria. There will be further refinements as part of further design if Regional Council wishes to proceed.

The consultant, Design Point, reviewed the information, conducted further investigation into other options and considered options for short-term improvements. No improvements that could significantly improve safety using tactical measures was developed as the crossings of highway ramps require grade separation. Design Point then focused on developing three concept options to bring to the public, property owner and provincial staff for feedback. The consultant evaluated and compared many features of each route such as directness, vehicle speed and volume, slope, impacts on Sackville Manor Mobile Home Park owner and residents, utilities, intersection safety, and to existing infrastructure.

In the engagement, community stakeholders and the general public were asked to comment on their preferred routing for the corridor. Please refer to [What We Heard Report](#) on Shape Your City webpage engagement platform for more detail on the public feedback on the three routes. The proposed concept options developed by the consultants included the following:

Updated Concepts for New Crossing

Concept 1 Multi-Use Path and two bridges

This was presented as 'Option 2' in HRM's Regional Council report in 2021 (Attachment 1) and was the preferred concept. The updated concept is a 3.5 m wide multi-use path that begins at the end of Parklane Drive in Sackville Manor Mobile Home Park and ends at the Sackville Transit Terminal. The path is routed along the north side shoulder of the southbound on-ramp and passes through the Exit 2 interchange with a bridge over the southbound on/off ramps and the northbound off-ramp. Retaining walls and handrails may be required along the outer edge of the path.



The path begins ramping up on the west side of the interchange to limit its maximum grade to 5% and reduce the length of the switchback on the east side of the interchange. The path switchbacks on the west side to gain elevation before passing over the Exit 2 ramps towards the transit terminal. The bridge ramps down with another switchback and connects directly to the Sackville Terminal rear sidewalk. The bridge achieves a 5.0 m clearance above vehicle lanes per NSDPW and TAC requirements. The total distance of the path from Sackville Manor Mobile Home Park to Sackville Terminal is approximately 500 m.

Concept 2 Multi-Use Path, Overpass Bridge

This Concept, as shown in Figure 6, is similar to Option 3 of the previous Regional Council report (Attachment 1), but the overpass location and path routing have been modified. The overpass is located approximately 100 m north of the location proposed by HRM staff in the previous Regional Council Report (Attachment 1). A path connecting the end of Parklane Drive and/or Walker Service Road to the overpass location. Similar to Option 1, the path and overpass have a maximum grade of 5%, and a 5 m clearance above Highway 101. After crossing the highway, the path ramps down at a consistent 5% grade within the provincial highway right of way to the transit terminal platform. Land acquisition may be required to connect to Hilltop Drive.



Concept 3 – Multi-Use Path and Two Underpasses

The final concept uses underpasses, as shown in Figure 7, to allow the multi-use path to travel through the Exit 2 interchange. A 3.5 m multi-use path begins at Parklane Drive and crosses the southbound ramps just south of the cul-de-sac using an underpass. The path travels along the southern shoulder of the ramp and passes through the interchange. A second underpass allows the path to pass under the northbound

off-ramp and ramps up to the transit terminal platform. This option also has a maximum slope of 5% for the path but generally has lower grades than Options 1 & 2. The path length for this option is 480 m.

A prefabricated box culvert is expected to be the best method of installing pedestrian underpasses. The box culverts come in sections and are assembled on-site to reduce the duration of construction. These large boxes are commonly used for wildlife, off-road vehicle recreational trails, and active transportation crossings of highways, for example in Cole Harbour under Forest Hill Parkway. The underpasses would have appropriate lighting, and sight lines as well.

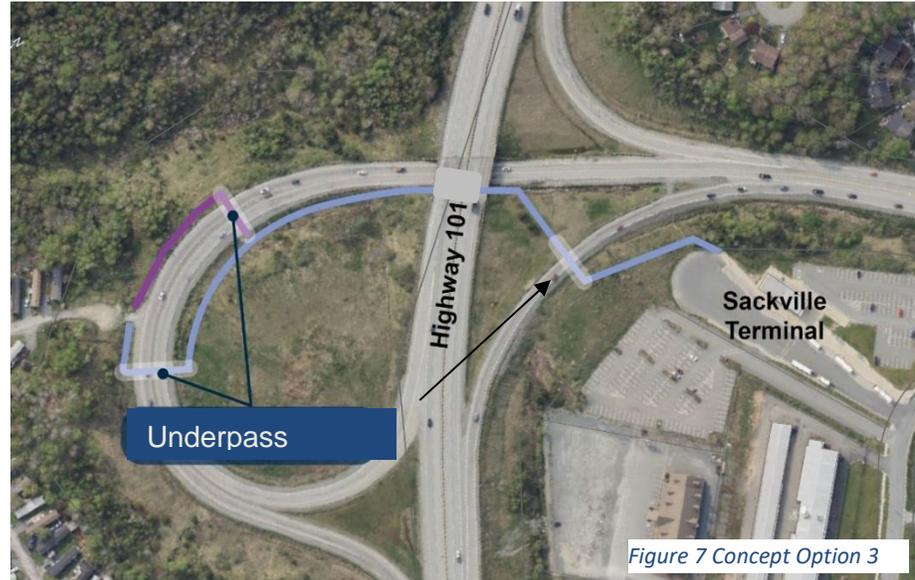


Figure 7 Concept Option 3

Private Property

It is not typical or recommended to build municipal pedestrian infrastructure to dead-end at a private road or community since HRM would not be able to ensure the continued effectiveness of the facility if the route were impeded or the land redeveloped in the future. In addition, the route would not be available for use by the general public without a continuous connection. To create a continuous path for users wishing to use the trail as a thoroughfare, HRM would need to establish an easement through Sackville Manor Mobile Home Park or continue the pathway along

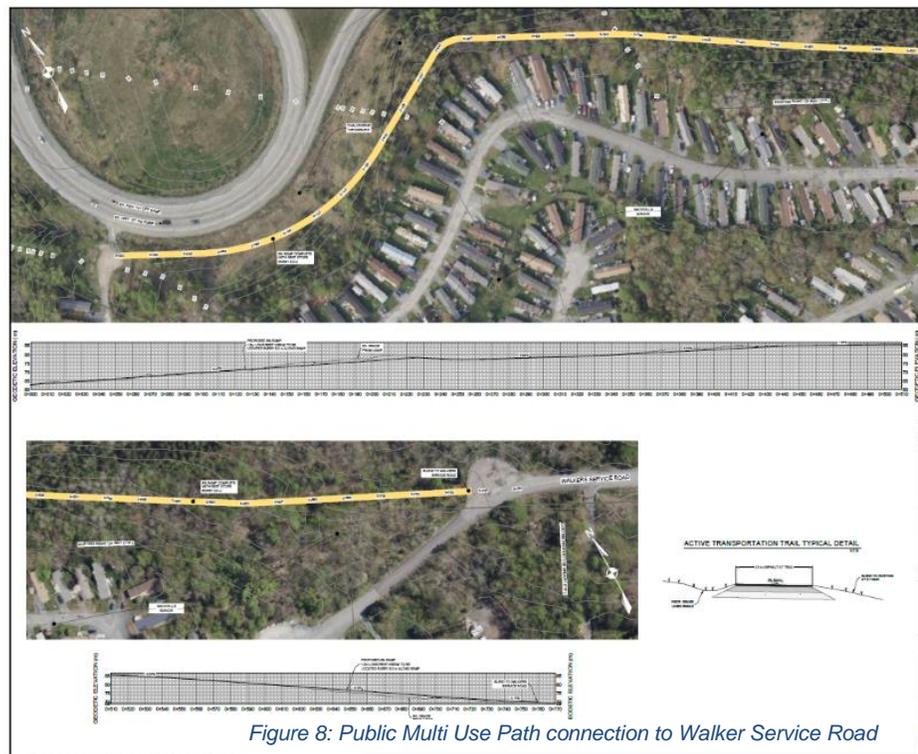


Figure 8: Public Multi Use Path connection to Walker Service Road

Provincial right of way to connect the facility to Walker Service Road. To create a continuous route and avoid dead-ending a municipal facility, an additional approximately 800m long multi-use pathway (Figure 8) would need to be constructed within the provincial right-of-way to connect to Walker Service Road. This would also need signage, careful consideration of erosion and fencing along the route to prevent short cutting onto the homes along Hilltop Drive. This would add a significant cost (at least \$1,000,000).

Selection of Concept

Evaluation of Concepts

In the survey of residents, participants were asked which of the three design concepts they preferred. Respondents could select one or more concepts that they preferred or to select none of the options. Concept 1 was the most popular. This order of preference was consistent among survey respondents, regardless, of whether, they live in Sackville Manor Mobile Home Park. The primary reasons for its popularity were the directness of the route to the transit terminal and it follows the current informal route that residents take. The other preferred concept was Concept 3, with the multi-use path and two underpasses through the Exit 2 interchange. While it was not as popular as Concept 1, it was commonly mentioned as still an acceptable option and a major improvement to the status quo especially if additional features are addressed to increase safety and the level of comfort for women and seniors. This concept was also supported by the Sackville Manor Mobile Home Park property owner.

The table 1 below lists the considerations given to evaluate the concepts.

TABLE 1. Criteria	Concept Option 1 – MUP with overpass (2) through Exit 2	Concept Option 2 – MUP with overpass south of Exit 2	Concept Option 3 – MUP with underpasses through Exit 2
Public opinion	-Highest support -Follows the current route that residents take -women and seniors would be more comfortable with the additional visibility than the underpasses	-Least preferred concept -Generally, <i>not</i> supported by the public. -The indirectness of the route would likely result in many pedestrians continuing to walk along the shoulder of the road through the interchange	-Second highest support -Although not the preferred option, most respondents who preferred Option 1 found this to be an acceptable option -Additional efforts to increase the safety and comfort of users, such as lighting, sightlines would need to be integrated into the design.
Directness	Direct route following existing pedestrian path	-Indirect route that does not follow the existing path -Users may continue to use the existing path	Direct route following existing pedestrian path
Accessibility	• Meets accessibility requirements with max 5% grade • Approx. 200 m of 5% grade	-Meets accessibility requirements with max 5% grade -Approx. 350 m at 5% grade	-Meets accessibility requirements with max 5% grade -Approx. 80 m at 5% grade.
User Comfort/ Safety	Most comfortable option due to increased visibility	Comfortable with additional visibility, but entrance more isolated	-Safety concerns with reduced visibility -acceptable if additional safety features included
Constructability and Maintenance	• Construction of bridge piers outside of the roadway • Prefabricated bridge installation would require short traffic closure • Would require regular inspections and maintenance	-Construction of bridge piers outside of the roadway -Prefabricated bridge installation would require short traffic closure -Would require regular inspections and maintenance -Does not impact existing traffic lanes	-Prefabricated box culverts would likely require 1 to 2-day traffic closure for installation. -Quickest overall construction. -Would require limited inspections and maintenance -Requires modifications and realignment of traffic lanes for the southbound highway ramps.

	<ul style="list-style-type: none"> Requires modifications and realignment of traffic lanes for the southbound highway ramps 		
Cost (Class C)* Spring 2023	\$7.6 million -residents understand the costs could be a major deterrent for municipality	\$9.3 million – most expensive because of the length of the bridge and ramps leading up to bridge -no need lane closers required	\$5.1 million - least expensive however lane closures, and a bypass/alternate road may be required after approval by the province of a Constructability and Phasing Plan

*including the 800m MUP from end of Parklane Dr. (provincial ROW) to Walker Service Road along HWY 101 ROW and the detour road expected to be built for Option 3.

While each route had its merits and challenges, the ultimate decision was based on minimizing slope, maximizing directness, safety, and cost consideration. Based on these primary considerations along with the public and HRM staff feedback, **Concept 2 was eliminated**. Concept 2 is more indirect, requires land acquisition, the removal of 3 or 4 mobile homes sites if the connection to Hilltop Drive was pursued, the need for steps or switch backs and it does not follow the current informal path used by residents. The two options to explore further were Concept 1 (MUP and two bridges) and Concept 3 (MUP and two underpasses) at Exit 2. The comparisons of these options are shown in Table 1. Public feedback and internal review led the project team to proceed with designing an enhanced Active Transportation facility (Options 1 and 3) across Highway 101 at Exit 2 (Table 1).

Based on the comparison of each concept and primarily because of costs, distance, the least 5% grade length, and reduced ongoing maintenance costs, the Concept Option 3 (figure 7) – Multi-Use Path with underpasses was originally recommended to be advanced to 60% functional design. However, after more recent discussions with provincial staff, if Concept Option 3 is recommended, a constructability and phasing plan and potentially a \$1M temporary detour road must be submitted and approved by the Province before proceeding. The underpass concept option can still be constructed at a lower cost by two million than Concept Option 1 (figure 5), however the hesitancy from the provincial staff for Concept Option 3 (figure 7), and the concern that these underpasses could invite vandalism and other safety concerns raised by some residents and staff, no longer make this a recommended concept option. If the province were to review the proposed phasing and constructability plan for Concept Option 3 (figure 7) and were not supportive of the recommended option because of the impact to traffic, HRM would be expected to select another option. In addition, if the underpasses Concept Option 3 (figure 7) proceeds to 60% design due to costs benefits, it is recommended to conduct further engagement on the final design to ensure that the crossing feels safe to all residents, regardless of age, gender, or ability. This may address some of the women and older resident's safety concerns in the community. For these reasons, the more expensive Concept Option 1(figure 5) is recommended to proceed to a 60% design functional plan.

Costs

Needless to say, because of the location and the size of the barrier to cross, all three concept options proposed are very expensive. In 2021, staff estimated that the 3 options proposed would range from 3.5 million to 4.6 million dollars. This estimate did not include fees related to establishing easements within Highway right-of way. In 2023 the consultants updated these costs with more detail. Class 'C' construction cost estimates were developed for each option and meant for high-level planning and budgeting purposes. These costs ranged from \$4.1 million to \$8.3 million. These costs did not include property acquisition or the MUP along Highway 101 ROW. However, a desktop review of the costs for a temporary bypass road for the underpass concept is estimated to be one million dollars. This would increase the costs of the underpass concept by another million dollars. It should also be noted that the 800m MUP that will connect the route on provincial land at the gate at the end of Parklane Dr to publicly owned Walker Service Road has not yet been costed out but would have an approximate cost of \$1 million. This MUP will run along the Highway

101 ROW with approximately half of it being at an 8% grade. This part of the MUP would add a significant cost to both options and is estimated to be another one million dollars.

Since Active Transportation facilities such as sidewalks and MUP are typically built and maintained by HRM, the costs for either the overland facility or underpass facility would allocate a substantial amount of money from HRMs limited Capital budget. To date this project has not yet been included in the Capital Budget. This may be included in the future budget if Regional Council gives direction to HRM staff to pursue the project to 60% design and construction. Another option would be for Regional Council to seek other sources of funding to complete the project.

Provincial Perspective

Initially the province stated they would not permit an at-grade pedestrian crossing along the Highway 101 ramps or mid block along the Beaver Bank Connector based on how the interchange ramps/connector is currently configured. The province's preference was for **Concept 2 (Figure 6)** which included a bridge over Highway 101. However, after sharing the results of the engagement sessions and further discussions, provincial staff is generally supportive of the other two concept options 1 and 3. (Figures 5 & 7) Concept Option 3 was supported, with a request for additional information. This information can be supplied at 60% and 90% design phases if, this option is selected by Regional Council instead of Concept Option 1.

Priority as a Municipal AT Project

As noted above under the background section, based on typical assessment for new sidewalk facilities, building a safer pedestrian crossing at this location rates "**average**" compared to other priorities. As such, it would typically not be recommended for construction if it were being considered for a new sidewalk. While it would serve a valuable function for the residents in the mobile home park, this connection would not be close to the types of origins/destinations we generally consider a high priority for a sidewalk (e.g. commercial areas, schools, libraries, etc.). For this reason, another and separate funding source would have to be pursued to build this pedestrian connection.

Another consideration is, despite the informal path's lack of safety and comfort, many people continue to take this path to cross the Highway. This indicates that —when faced with a trade off—many people prioritize efficiency and directness over safety. Taken together, these findings suggest that a new active transportation connection will not be useful if it is not convenient— no matter how safe it is.

The safety of the residents of Sackville Manor Mobile Home Park was viewed as the primary consideration of the project by HRM and provincial staff, politicians, and residents of Sackville. As noted in the background section, there have been two pedestrian fatalities along this route since 2011 and anecdotally there are a number of close calls of pedestrian and vehicle collisions. Currently, there are approximately ten residents crossing on a daily basis from the mobile home park. This might increase to forty once the infrastructure is built. The crossing may also attract recreational users from the surrounding community.

FINANCIAL IMPLICATIONS

Class "C" construction cost estimates have been developed by Design Point and HRM for the recommended Active Transportation facility across Highway 101 as summarized below. The 800m route along Highway 101 to connect public land at Exit 2 with the public Walker Services Road is estimated to be approximately one million dollars. The cost for Option 3 is also adjusted to include a detour road, as may be required by the province, and other safety features. This was estimated to be close to one million dollars. These costs modifications may change throughout the final design process and depending on internal and provincial decisions. These costs are included in the table 2.

Table 2	Concept Option 1 – MUP with 2 bridges) through Exit 2	Concept Option 2 – MUP with overpass south of Exit 2	Concept Option 3 – MUP with 2 underpasses through Exit 2
Costs (Class C)	\$~7.6M	\$~9.3M	\$~5.1M

The costs to cover some, or all, of this capital are not factored into HRM’s 10-year capital plan. The recommended approach is that other orders of government cover most, or all, of the construction costs. If HRM were to cover a 27% portion of the costs, the total would be between \$1.4 and \$2.1 million. Covering this may require changing other project priorities or increasing the AT Capital budget in the year of construction.

There would be ongoing operations costs for the facility including winter maintenance and bridge inspection and maintenance.

RISK CONSIDERATION

Significant risks related to the recommendations in this report are:

- Overall risk to vulnerable road users: The crossing of the Highway currently poses risks for vulnerable pedestrians, including children, seniors, and the visually impaired. This informal prohibitive crossing through Exit 2 is commonly used by pedestrians, as it is the shortest route to the Sackville Transit Terminal and further on to Sackville Drive. If the Municipality does not proceed, residents living in Sackville Manor will continue to be at high risk of injury or death if they choose to use the informal, direct crossing through Exit 2.
- Risk to relationship with local community: If no further engagement is conducted across highway 101, then there is a risk that HRM is not responding to the deaths that occurred along this informal route and concerns raised by residents during the engagement process. This engagement with the residents in Sackville will help ensure that community concerns are being addressed thereby reducing the risk to the relationship with the local community.
- Risk to safety: If the underpasses Concept Option 3 (figure 7) proceeds to 60% design due to cost benefits, it is recommended to conduct further engagement on the final design to ensure that the crossing feels safe to all residents, regardless of age, gender, or ability. This may address some of the women’s safety concerns in the community.
- Risk with the province: If the province were to review the proposed phasing and constructability plan for Concept Option 3 (figure 7) and were not supportive of the recommended option because of the impact to traffic, HRM would be expected to select another option. This would be Option 1. Therefore, staff is recommending Concept Option 1 (figure 5) as the preferred option.
- Risk with the Province: The majority of the land for this project is on provincial land. If the Province does not contribute to the majority of construction costs, this project will most likely not proceed.

COMMUNITY ENGAGEMENT

Engagement Overview

All residents and property owners within the Sackville Manor Mobile Home Park were notified by mail about the functional planning project and offered opportunity to provide feedback on several occasions.

Through notification letters, a face group page, posters, and social media, residents were provided opportunities to ask questions and provide feedback. There was also an online or hardcopy survey made

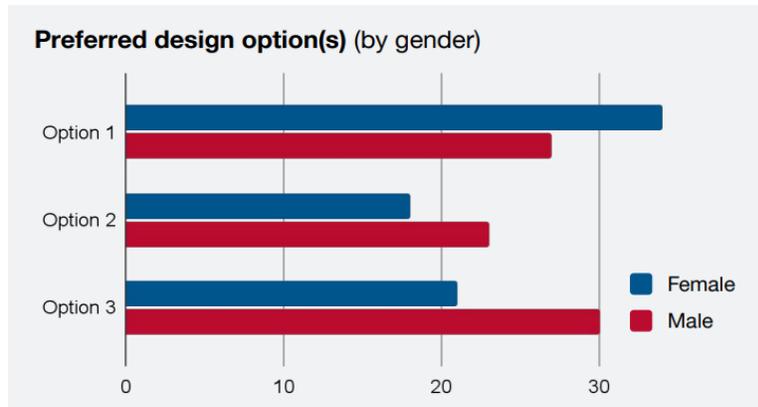
readily available. Feedback was focused primarily on, but not limited to residents of Sackville Manor Mobile Home Park.

An overview of engagement activities included:

- November to December 2022 - Online and hard copy of a survey (161 responses)
- October 2022 – 2 Pop-ups at the gate of the fire road leading to Parkland Dr. (13 participants)
- December 2022 - Open house (11 participants and 2 politicians)
- November 2022 to January 2023 - Shape Your City on-line information (3,000 visits to site)

Please refer to the *What We Heard Report* that summarizes public feedback and the Community Engagement

Throughout the public and stakeholder engagement, residents were invited to learn more about the project and provide their feedback on current barriers to walking and cycling across Highway 101. Information about this Active Transportation Planning Project is available on the [Shape Your City](#) website, including summaries of public input in [What We Heard Report](#).



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Across all participants at each engagement activity, **Option 1 was the most commonly preferred design option**, followed closely by Option 3. The current informal path represents the most direct route between Sackville Manor Mobile Home Park and Lower Sackville, where people travel to access transit, employment, shops, and services. Options 1 and 3 are preferable because they follow this same informal route that people currently take, increasing the likelihood that the new active transportation connection will be well-used. While Option 1 was more popular, many people who selected this option were also comfortable with Option 3 if it became the only feasible option. The highest preference was for using the direct path to the terminal, which both Concept Options 1 and 3 satisfy.

However, if Concept Option 3 is chosen, the Municipality must make safety a top priority. Although both Options 1 and 3 represent promising options, preferences varied significantly by gender. While Option 3 was the most preferred option among male respondents, it was not the most preferred among females, highlighting that safety considerations with a possible tunnel are a greater concern among women.

As such if Option 3 is chosen, a heavy emphasis should be placed on safety. We recommend conducting further engagement on the final design to ensure that the crossing feels safe to all residents, regardless of age, gender, or ability. If safety concerns are addressed, residents highlighted that going with the less expensive Option 3 may be preferable.

ENVIRONMENTAL IMPLICATIONS

No environmental implications were identified during 30% functional planning. However, an AT facility that encourages residents of the Sackville Manor Mobile Home Park will make it easier for people to choose low-polluting transportation options by providing safer roadway crossings and better access to transit.

SOCIAL VALUE

All procurement of services to design and implement this AT facility-will be subject to HRM's Social Value procurement policies.

ALTERNATIVES

Regional Council could choose to:

1. Not proceed with the proposed Active Transportation facility due to the implications described in this report such as costs, and other competing priorities within the Active Transportation Priorities Plan. This is not recommended as safety for residents is a priority for the Municipality. If no option is built, the high risk to residents remains the same.
2. Move forward with Concept Option 3 since it is the least expensive facility to build. This is a viable option and provides a safer connection. However, it should only be pursued if issues arise with the recommended option.
3. Move forward with HRM fully funding Concept Option 1 as part of the proposed 2024/25 capital plan for consideration by Regional Council.

ATTACHMENTS

Attachment 1 Summary of Original Concepts

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.

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Summary of Original Concepts

An initial evaluation of three routing options can be found in the original staff report that was presented to Regional Council in May 2021.

Original Concept 1 (Figure 1)

A multi-use pathway from Parklane Drive gate, along the outside shoulder of the access ramp and beneath the Highway 101 Exit 2 overpass. As well as a pedestrian bridge over the Highway 101 outbound access ramp and then along north side of Beaverbank Connector to Old Sackville Road intersection.

This option was not recommended as it does not serve residents travelling to Sackville Transit Terminal. Residents will likely shortcut across Beaver Bank connector road and the off ramp.



Figure 1 Original Concept Option 1

Original Concept 2 (Figure 2)

A multi-use pathway from Parklane Drive gate along the outside shoulder of the access ramp and beneath the Highway 101 Exit 2 overpass. A pedestrian bridge across the Beaver Bank Connector and the Highway 101 Exit 2 off-ramp and a connection to Sackville Transit Terminal.

This option was recommended as it follows the current informal route that residents use.



Figure 2 Original Concept Option 2

Original Concept 3 (Figure 3)

This option includes a pedestrian bridge across four lanes of Highway 101 with a pedestrian bridge starting at the private Hilltop Drive within the mobile Home Park and connects to existing HRM parkland off Walker Avenue. Switchbacks would be required for the elevation difference. This bridge and multi-use pathway would connect to the existing sidewalk network on Walker Ave. where people can continue northward to reach Sackville Transit Terminal and the Downsview Plaza.

This option was not recommended as it does not follow the current informal shortcutting route that residents use. This option also suggests removing some existing Mobile Home lots to have a direct access to Hilltop Drive.

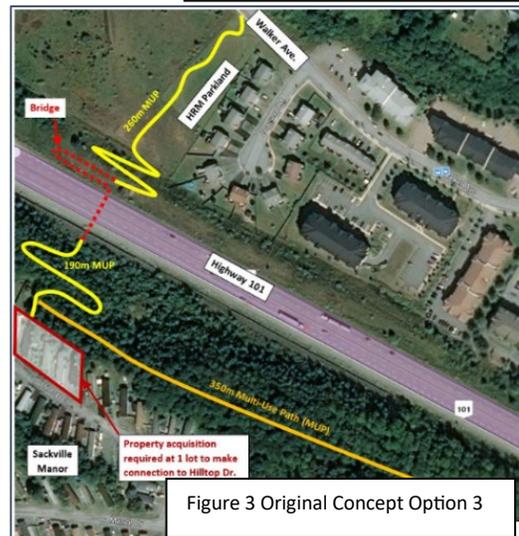


Figure 3 Original Concept Option 3