

Town of Bridgewater Public Transit Feasibility Study Final Report

161045.00 • Final Report • February 2017

Prepared for:




Prepared by:



CBCL LIMITED

Consulting Engineers

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<i>Issue or Revision</i>	<i>Reviewed By:</i>	<i>Date</i>	<i>Issued By:</i>
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"[Report: 161045.00]"



CBCL LIMITED

Consulting Engineers

February 21, 2017

Mrs. Jessica McDonald, MCIP, LPP
Director of Planning
Town of Bridgewater
60 Pleasant Street
Bridgewater
Nova Scotia, B4V 3X9

Dear Mrs. McDonald:

RE: Town of Bridgewater Public Transit Feasibility Study – Final Report

Thank you for the opportunity to work with you on this important study for the Town of Bridgewater.

We are pleased to submit the Final Report which sets out the work undertaken to date, including setting the context of the study, research and study preparation, holding the focus group and public meetings, surveying the major employers and stakeholders, and the development of route options from the public feedback. We have undertaken much more detail on the route options and have prepared an evaluation of the routes and services, providing a recommendation on the preferred option.

We hope that this report provides you with all that you need at this stage and we look forward to discussing it with in due course. In the meantime, please do not hesitate to contact us should you have any questions or require any further information.

Yours truly,

CBCL Limited

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EXECUTIVE SUMMARY

Introduction

The Town of Bridgewater is the largest town in the South Shore region and as such plays an important role in the area as a place of employment, schools, hospital and healthcare facilities, shopping and municipal services. With a population of 8,532 in 2016, the number of town residents has increased steadily year on year since the late 1980's. There was a huge surge in population between 1961 and 1981 in particular, due in most part to the arrival of the Michelin Tire plant and the large number of jobs created by this major employer. Recently however, most of the town's growth can be attributed to older people moving there to live in the increasing number of retirement and nursing homes in the town. The Town Council is committed to supporting continued residential growth in Bridgewater where the housing needs of all people can be met. The Council propose to support this by continuing to accommodate a range of housing options and densities which are supported by the town's service infrastructure.

Currently, there is no form of public transportation within the Town of Bridgewater. The town's residents rely heavily on their own vehicles, or there are a number of taxi services that operate within the town. There are however many people who struggle to get around the town because they don't have access to a car, or perhaps the taxi service is too expensive for them. Having a public transit system in the town would provide much needed access for residents to services in the downtown core, as well as the hospital and the leisure centre.

Research and Preparation

The Town of Bridgewater supplied useful information for this study, including a GIS database of street, building, active transportation, parking and land use data. We also had access to key intersections; aerial photos; origin-destination data; traffic counts/intersection turning movements; new developments; specific growth areas; a comprehensive walking and bicycling survey over the phone (travel behaviour); an active transportation survey; and potential origin points/potential transit stop locations. We also made use of available planning documents, and undertook a review of previously conducted transit studies. We undertook a review of existing conditions within the town, including average traffic volumes, the active transportation network and potential connections to a proposed public transit system. We considered the geographic boundaries which the transit system would need to operate within, which for this study are within the limits of the town boundary.

To understand whether there may be demand for transit within the town, we examined where the key activity destinations are within Bridgewater. We also examined the Census 2011 data for the town to understand the population trends and demographics. From the National Household Survey (NHS) 2011, we examined data on mode split patterns in the Town of Bridgewater. The majority of respondents indicated that they drive a car, truck or van (80.80%). We were also aware of a number of existing transit initiatives either within the town, or operating in Lunenburg County, or within Nova Scotia which passed through or close to the town, and which may provide opportunities for

connections to the Town of Bridgewater public transit system in the future. We used the transit system currently operating in the Town of Yarmouth as a case study from which to base various assumptions on to develop the Bridgewater system.

Stakeholder Consultation

To better understand the travel needs of the residents of the Town of Bridgewater, we undertook a Focus Group in November 2016. A total of 33 community members attended and participated in mapping exercises and group discussions, and was separated into two sessions. The first session explored the community's attitudes and aspirations toward public transit, with the second allowing participants to design their own transit service for the Town. The focus group began with a short presentation to introduce the fundamentals of public transit and to outline the goals and objectives of the event. The objectives were to: facilitate interactive and lively conversations about a transit system for the Town of Bridgewater; receive community feedback on the principles, design, and features that should be prioritized; highlight areas that are important to the community; and identify possible route options and features. The major findings from the focus group indicated that a public transit service in the Town of Bridgewater would be desirable and beneficial for the community. Participants identified the benefits of transit, the guiding principles to be applied to the development of the transit system, the service features and service route concepts for the Town of Bridgewater. Participants also responded to a short survey. When asked "How likely are you to ride the public transit bus in the Town of Bridgewater, if available?", 70% of respondents reported that they were likely or extremely likely. The majority (64%) of respondents stated they were willing to pay between \$2-\$3 to ride the bus.

To provide more information on the demand or desire for a public transit system within the town, we undertook a number of stakeholder interviews. These interviews targeted large employers and key organizations within the area, and each stakeholder/organization was contacted via email or by phone call. A wide range of responses was received which helped to inform the development of the transit system. One of the major employers in the town, Millennium 1 Solutions undertook their own employee transit survey, which they kindly provided to us for use in our study. Based on the transit survey, around 60% of respondents said they would be interested in taking transit for commuting if available, whereas 40% of respondents did not choose transit for commuting. The major reason behind not choosing transit is the majority (80%) of the 40% of those respondents live in Lunenburg County, i.e. outside the Town of Bridgewater.

In January 2017, we undertook a community Open House event to discuss the feasibility of a public transit system for the town. Approximately 35 community members attended. Posters were on display of the proposed route designs and service features with participants being able to vote on their preferred options. Community support was focused toward the recommended Loop Design, with the majority of the group respondents voting for this option. Some participants suggested other considerations for the transit system including to the number of buses, the size of bus needed for the town. Other comments included that a \$2 fare was reasonable, based on what people put in the volunteer pay box on the Senior Wheels bus, and that out of town connections should be considered.

Technical Feasibility Assessment

The design criteria for the route options were derived from the guiding principles developed through the community consultation process. We examined the benefits and constraints of four service concepts for a public transit system for the town. **It is recommended that the Town of Bridgewater provides the community a hybrid fixed route service which focuses on all trips (work and non-work).** Based on this recommendation, we have developed two route options which pick up both work locations and activity destinations, the Loop Design, and the Cross Loop Design. The loop design follows a single continuous loop around the town, using both bridges across the river, travelling in one direction, and would use one bus. The cross loop design follows two loops that cross/overlap in the middle, uses both bridges, provides additional functionality through shorter travel times, more frequent services and provides the option for passengers to transfer from one loop to the other. The cross loop would use two buses. Four main vehicle options for a public transit bus for the Town of Bridgewater were explored, identifying their advantages and disadvantages. **It is recommended that the Town of Bridgewater purchase a new gasoline powered Community Bus which holds up to 20 passengers.** If demand grows in the future, the Town could purchase the Small Bus which allows up to 8 additional passengers. We also examined three of the most popular fare technology options mentioned in the focus group. These are cash, bus tickets and smart card. Ideally a combination of two or more of these technologies would suit the community's preference, therefore **we recommended that the Town of Bridgewater begin with a cash and ticket service, selling the tickets through local employers and key destinations,** and upgrading to a smart card service if demand and additional funding becomes available.

There were specific locations, determined through the focus group and stakeholder consultations, that the community felt there should be permanent bus stops. Similar to the Town of Yarmouth transit, **a flag stop service should be considered for at least the first year.** A flag stop service allows residents to wave the bus down for pick up at any location along the designated route. These unmarked stops should be recorded to determine trends, make bus stop adjustments and route changes in the future. Certain streets will not allow flag stops, such as Aberdeen Road and Victoria Road, due to safety concerns and congestion. **We recommend that all flag stops are within the 200m buffer along the both routes of Loop Design and Cross Loop Design.**

Most participants from the focus group stated that buses should be scheduled between 7am-7pm weekdays with reduced hours on weekends. However, when reviewing employee scheduling of Michelin Tire and South Shore Regional Hospital, and the hours of operation of locations such as the Lunenburg County Lifestyle Centre, the hours could be adjusted to accommodate more of the town's population. Therefore, **it could be suggested that for the first couple of months, the Town of Bridgewater bus service begin at 6am on weekdays and run until 9pm.** Also, a Sunday service could be offered to accommodate seniors and young people that do not drive. Hours of service and weekend service can be adjusted according to demand. Buses should run frequently during morning peak hours between 6am-9am and also during evening peak hours between 4pm-6pm. All other times the bus could run less frequently. **There should be a designated parking space allocated in the town for overnight bus parking,** either in one of the large shopping parking lots or near the

exhibition grounds. **All buses must be wheelchair accessible and be able to accommodate passengers with strollers or larger items, including bike racks** on the front of vehicle.

In order to compare each of the route options, we undertook an evaluation of routes and services provided. The evaluation criteria are based on guiding. A number of maps and figures were created to assist with the evaluation process, including origin and destination coverage, active transportation coverage, and affordable housing location coverage. Based on the evaluation undertaken above, we believe that **a fixed-route public transit system is feasible for the Town of Bridgewater**. Furthermore, **we recommend that the Town consider the proposed Loop Option**. The reasons for this recommendation are related to origin and destination coverage; route length and travel time; active transportation connectivity; cost of providing the service.

Financial Feasibility Assessment

The regulatory environment for transit was considered, and based on the policy framework which was guided by public and stakeholder input from the focus group, a number of route options and service concepts have been suggested. The Town of Bridgewater specified that we explore fixed route transit options for the geographic area of the town and its edges within the Municipality of the District of Lunenburg (MODL). Based on the above, the Municipal Government Act (MGA) will apply to the recommended transit service as the route is wholly within the Municipal boundary.

A number of business models could be adopted for the town's public transit service. Although, some participants of the focus group suggested that the service be managed by non-profit or by a community/government/private board, **it is recommended that the Town of Bridgewater use a public municipal transit governance model to operate the transit service**. We considered the costs of a fixed route public transit system in the town. The operating budget takes into consideration the number of service hours, operational expenses such as driver's salaries, fuel for the vehicle, licence and administrative fees etc. The anticipated revenue from the service is based on the level of ridership and fare amount. Capital costs (Start-up costs) include the purchase of the bus or transit vehicles, as well as any infrastructure such as bus stops and shelters, fare box, advertising and marketing costs.

Given that the funding of the transit service will fall to the Town of Bridgewater, hopefully with additional funding from the Province of Nova Scotia or the federal government's infrastructure bank, there are a number of responsibilities that will need to be adopted, including applying for applicable funding or grants; setting policies; determining bus routes and stops in consultation with the service provider; determining fares; revenue risk; public accountability; service planning; meeting accessibility act relative to transit services; liaison with other local transit systems/organizations. To ensure the investment in transit is protected, **the Town of Bridgewater will require a "champion"** from within the existing staff organization. The staff member would liaise with the service provider and be the point of contact for Council members and the public. In terms of governance, Council is ultimately responsible, and as such, **it is recommended that the Town of Bridgewater establish a Transit Advisory Committee**.

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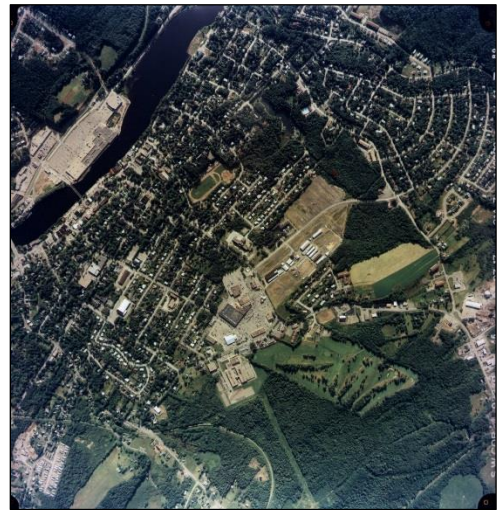
Appendices

A	Focus Group Invitation and Materials Focus Group Photos Focus Group Responses
B	Millennium 1 Solutions Transit Survey

CHAPTER 1 INTRODUCTION

1.1 Background

The Town of Bridgewater is the largest town in the South Shore region and as such plays an important role in the area as a place of employment, schools, hospital and healthcare facilities, shopping and municipal services, to name but a few of the essential services located in the town. Historically, the town was more industrial, however, nowadays most employment in the town is in the service sector, although tire-manufacturer Michelin remains by far the single largest employer. The town's second largest employer is Millennium 1 Solutions, which is a call-centre. Other major employers in Bridgewater are Atlantic Superstore, Sobeys, Walmart, Canadian Tire, and South Shore Regional Hospital.



With a population of 8,532 in 2016, the number of town residents has increased steadily year on year since the late 1980's. Bridgewater is one of the only locations in Nova Scotia, outside of HRM, that showed consistent population growth over the past few decades. There was a huge surge in population between 1961 and 1981 in particular, due in most part to the arrival of the Michelin Tire plant and the large number of jobs created by this major employer. Recently however, most of the town's growth can be attributed to older people moving there to live in the increasing number of retirement and nursing homes in the town. Bridgewater also benefits from its proximity to Halifax and as such there are town residents who commute to Halifax on a daily or weekly basis.



The Town Council is committed to supporting continued residential growth in Bridgewater where the housing needs of all people can be met. The Council propose to support this by continuing to accommodate a range of housing options and densities which are supported by the town's service infrastructure.

A general location plan for the study, including the town boundary limits is shown in **Figure 1.1**.

1.1.1 Rural Transit in Nova Scotia

Currently, there is no form of public transportation within the Town of Bridgewater, which is much the same as many other small towns and municipalities within rural Nova Scotia. The town's residents rely heavily on their own vehicles, or there are a number of taxi services that operate within the town, with rates set at a fixed price of \$6 for travel between any two points within town limits. There are however many people who struggle to get around the town because they don't have access to a car, or perhaps the taxi service is too expensive for them. Having a public transit system in the town would provide much needed access for residents to services in the downtown core, or perhaps to the hospital or the leisure centre for example.



There are a number of independent travel initiatives, such as the Senior Wheels, that operate around or through the town and in the wider municipality, and even across the Province. These are described in more detail later in this report to provide context to the requirement for a public transit system within Bridgewater.

1.2 Project Understanding

Public transit is a hot topic these days as towns and municipalities look for ways of reducing resident's reliance on private vehicle trips and to make a move towards a more sustainable transportation system for the future. People in Nova Scotia, especially those in smaller towns and rural areas have to rely heavily on private vehicles as there are very few alternatives and choices for travel.

A major factor that makes a good quality of life possible is the availability of affordable public transportation, in particular to enable those without access to a private car, to access goods, services, jobs and social connectedness. Employees' ability to get to and from work is a key factor considered when potential employers relocate or expand their business. Taking this philosophy one step further, if there are residents within the public transit catchment area who currently use their own vehicle to travel around town, they may be encouraged to start using public transit which would have a number of direct and indirect benefits for the individual, the town and the environment.



For almost 10 years now, the Town of Bridgewater, Council and staff, have been engaged in investigating the possibility of developing a public transit system in Lunenburg County. A number of key initiatives have been undertaken to engage communities and to develop planning strategies with the goal of assessing general interest and support for public transit in the area. It is now at the point where sufficient support has been indicated and so the feasibility of providing a public transport system is now being researched. The considerable amount of work undertaken by the Joint Transportation Committee (JTC) has led to this milestone, which other Towns within the Province have already reached and have gone on to establish their own fixed route public transit system. We are aware of the Integrated Community Sustainability Plan (2010) which contains “Public Transit” as a top sustainability recommendation for the community. We recommend that the Town considers this plan which needs to be developed in consultation with community members, to help the community realize sustainability objectives within environmental, cultural, social and economic dimensions of its identity.

A good example of this is within the Town of Yarmouth which has a smaller population than the Town of Bridgewater, in fact the population has been decreasing. The public transit system became operational in February 2016 with the route following a loop around the town centre, stopping at designated stops like the hospital and popular shopping destinations. This example provides hope for the Town of Bridgewater as they could possibly implement a similar system. The feasibility study for the Town can highlight options for Bridgewater, as well as looking at other systems and adopting lessons learned through experience. Although a fixed route system may have been ruled out for the Town in the past, a number of options have been explored during this study, including a fixed route. During this study, we used the Town of Yarmouth as a case study to base some of our transit system assumptions and components on.

1.3 Project Goals

Our consulting team understood this study to have a number of project goals and three main phases, A, B and C. There is currently no form of public transportation within the Town of Bridgewater. There have been recent feasibility studies into public transit between Bridgewater, Lunenburg and Mahone Bay but the project remained in limbo as of early 2015. In this context, the Town of Bridgewater is looking at the feasibility of providing public transit within the town which may have the potential to connect to a wider, regional transit system in the future. The ultimate goal and challenge of this study was to provide a feasible strategy for the Town that meets the needs of the community in a fiscally responsible manner and is in line with the mandate of the Town Council.

CHAPTER 2 RESEARCH AND PREPARATION

2.1 Research

The Town of Bridgewater supplied the following information for use on this study:

- GIS database (including street network, activity locations, building footprints, active transportation line, sidewalks, parking information, land use information, map of study area, possible transit routes within a 200 m buffer);
- Key intersections;
- Aerial photos;
- Origin-destination data;
- Traffic counts/intersection turning movements;
- New developments;
- Specific growth areas;
- Comprehensive walking and bicycling survey over the phone (travel behaviour);
- Active Transportation survey;
- Potential origin points/potential transit stop locations.

The available information on land use from the GIS database is shown in the figures at the end of this chapter, **Figures 2.1 and 2.2**.

2.1.1 Planning Documents

There are a number of key planning documents which we are reviewing to understand the current and future vision for the Town of Bridgewater. These documents include:

- The Municipal Planning Strategy (MPS);
- Land Use By-law & Zoning Map; and
- Subdivision By-law.

An review of these documents revealed a number of important guidelines and policies for working with the town's infrastructure and includes topics such as transportation, future municipal projects, existing and future land use, active transportation and open space and sections on the various types of development within the town such as residential, commercial, institutional and industrial.

One of the key points to note from the MPS is that the Town staff and Council believe that “A sustainable transportation system must also include public transportation services.” With that in

mind and considering a more regional transit system, the Town of Bridgewater is continuing to explore the possibility of initiating a public transportation system with the support of the Province and the other participating municipal units. The Town wishes to concentrate on a system within town limits initially, and then may look to expand this to the wider region if successful.

2.1.2 Review of Previously Conducted Transit Studies

In March 2016, the Sustainability Solutions Group (SSG) published a report with the results of a **review of taxi-bus systems** for the Town of Bridgewater. The report set out how such a system could work based on a literature review of 3 specific case studies, namely;

- Rimouski, Quebec;
- Conseil Intermunicipal de Transport du Sud-Ouest (CITSO); and
- Peace River, Alberta.

This type of service involves passengers registering with the city or organization providing the service who reserve a ride by phone and are carried by taxi between numerous fixed stop locations in the community. Some services also offer a door-to-door drop off service, and the taxi can pick up other passengers who share the ride to the same, or a different destination. The report suggests that this type of system can be very effective in bringing passengers from areas of low population densities to urban core areas. The costs for the local municipality are lower than those for operating a bus system because transport occurs on demand. This type of system could be beneficial to the Town of Bridgewater in addition to a public transit system as it may bring passengers just outside of the town boundary to transit stops within the transit route system.

2.2 Existing Conditions

Figure 2.3 shows the locations of traffic counts which were made available by Town staff. The counts had been undertaken by Nova Scotia Department of Transportation and Infrastructure within the town over a period of 7 years from 2011 to 2016. All usable count data were recorded as 24-hour counts and ranged from 2011 to 2016. For consistency, we looked at a typical weekday, in this case a Wednesday, where we took one day or an average of available data by direction. **Table 2.1** shows the count number and location as well as the daily (24 hour) traffic volume by direction.

Table 2.1 – Daily (24 Hour) Traffic Volume from NSTIR

Site Number	Intersection Name	Daily (24-Hr) Traffic Volume- Wednesday		Data Collection Time
		Direction	Volume	
2	North St - at Town Boundary	SB	3993 *	Jul, 2013
		NB	5248 *	
14	Dufferin St - between Alexander Ave & St. Andrews St	EB	1843 *	Nov, 2015
		WB	1876 *	
16	LaHave St – at Town Boundary	EB	3085	Aug, 2014
		WB	3005	
22	King St - Just North of Logan Rd	NB	1547	Aug, 2014
		SB	1501	

Table 2.1 – Daily (24 Hour) Traffic Volume from NSTIR (continued)

Site Number	Intersection Name	Daily (24-Hr) Traffic Volume- Wednesday		Data Collection Time
24	ST Phillips St - 100 m West of HWY 103	WB	1136	Oct, 2016
		EB	1130	
25	LaHave St - at Town Boundary near Civic 915	NB	1167 *	Nov, 2015
		SB	2105 *	
31	King St - Between Empire St and Dominion St	NB	3366	Nov, 2015
		SB	3243	
34	Victoria Rd - at Civic 361 (Town Boundary)	EB	3723	Jun, 2011
		WB	4058	
43	Glen Allan Drive - Near Sports field Entrance	SB	1190 *	Jun, 2011
		NB	1325*	
44	Dufferin St - at Town Boundary	7581		Aug, 2014

Note: * indicates multiple Wednesdays available where average was calculated.

2.2.1 Existing Active Transportation Network Opportunities for linking to Public Transit

There are a number of well-established Active Transportation (AT) trails within Bridgewater, including the Centennial Trail, which provides non-vehicular access along the north bank of the La Have River, and also through the Bridgewater Business Park to the former Olde Town Golf Course which is soon to become a residential development, the “Olde Town Hills” south of the river. These are shown in **Figure 2.4**. This trail circumvents the town centre and the downtown core area to the south of the river and keeps to the west of the town. There are other trails identified across the town and within the town limits which are used for leisure purposes.

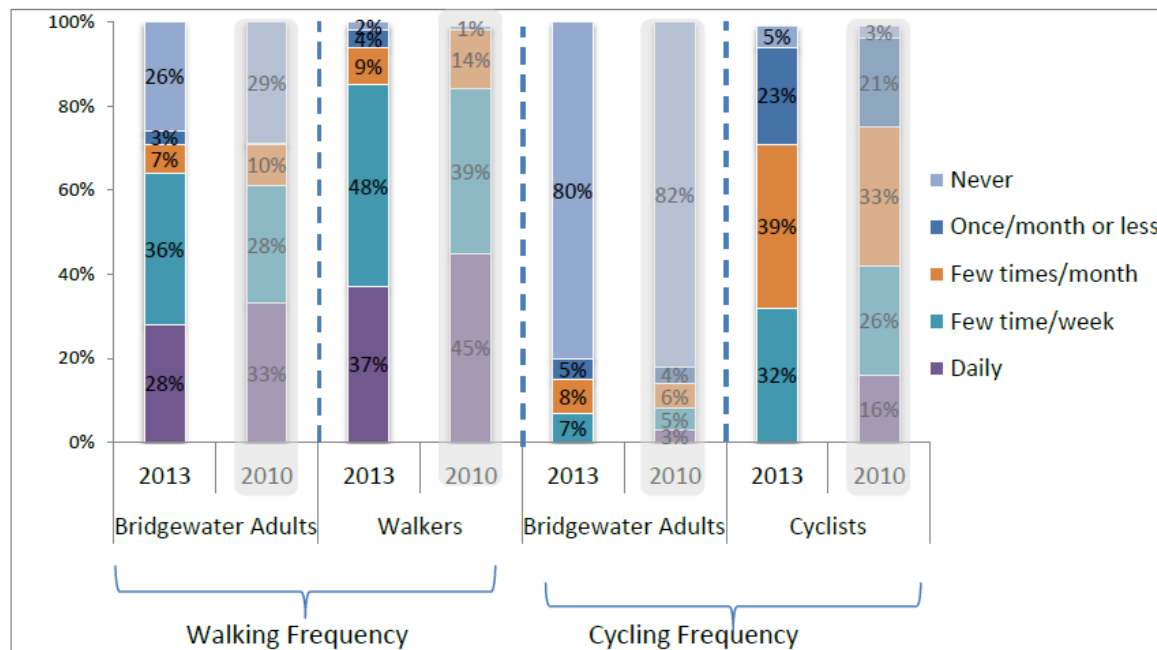
In terms of linking AT trails and facilities to a public transit system within the town, there are key locations where the public transport route could overlap or come close to an AT trail where bus stops could be located, such as the shopping centres/plazas near La Have Street, and the NSCC Lunenburg Campus on High Street. Now that the route options have been defined, key locations where AT and public transit can merge have been examined in more detail.



In 2010 and again in 2013, the Town undertook an Active Transportation Community Survey. The survey was funded entirely by the Department of Health Promotion and Protection, and was carried out by Nova Insights Market Research & Consulting. The Town Planning Department managed the implementation of the survey. The results of the survey showed some interesting facts, including that between 2010 and 2013 there was a 2% increase in the proportion of Bridgewater residents walking for at least 10 minutes. The number of people cycling remained constant at 21%, and the average time spent walking decreased by 2 minutes to 42 minutes, whereas the average time spent

bicycling had increased by 5 minutes to 51 minutes between 2010 and 2013. More details on the results of the survey are shown in **Figures 2.5 to 2.7** below.

Figure 2.5 - Overall Frequency of Walking and Cycling (Bridgewater AT Survey Report-2013)



The chart above demonstrates that nearly two-thirds (64%) of citizens walk at least a few times per week in Bridgewater, up 3% since 2010. In 2013, the percentage of people cycling a few times per week increased by 2% compared 2010. However, the frequency of people cycling daily decreased by up to 3% compared to 2010.

Figure 2.6 - Overall Walkability of Bridgewater (Bridgewater AT Survey Report-2013)

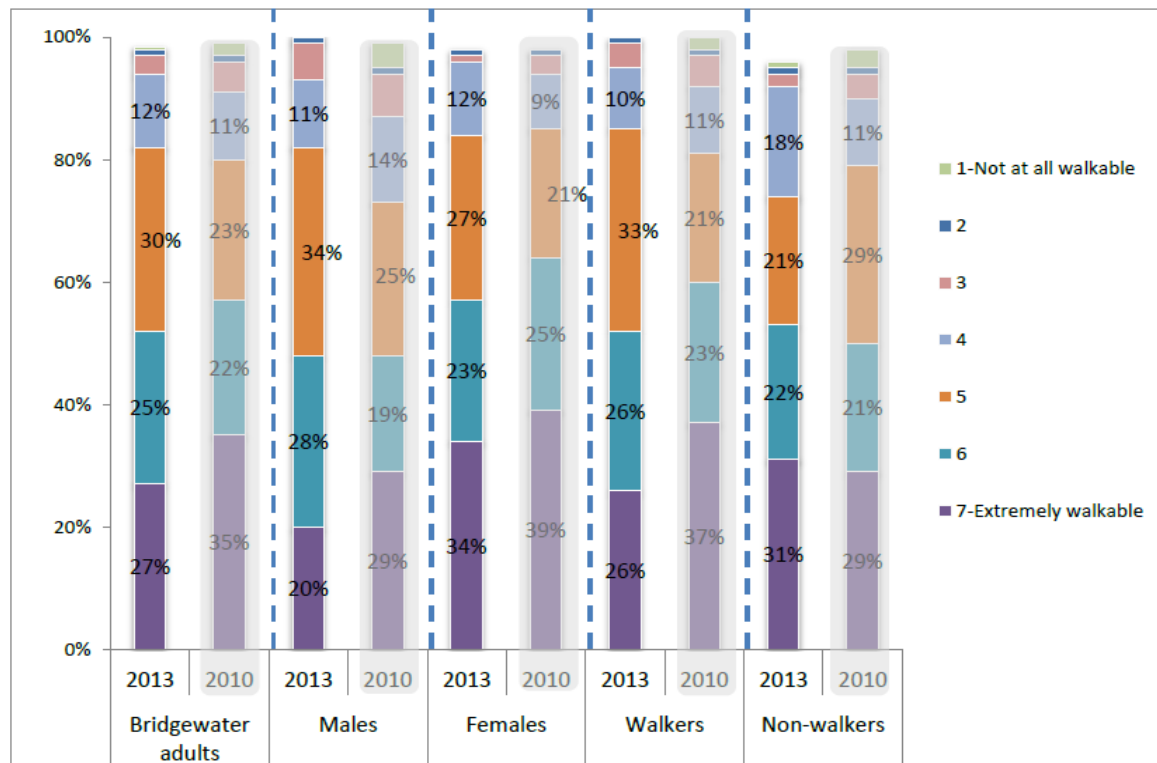
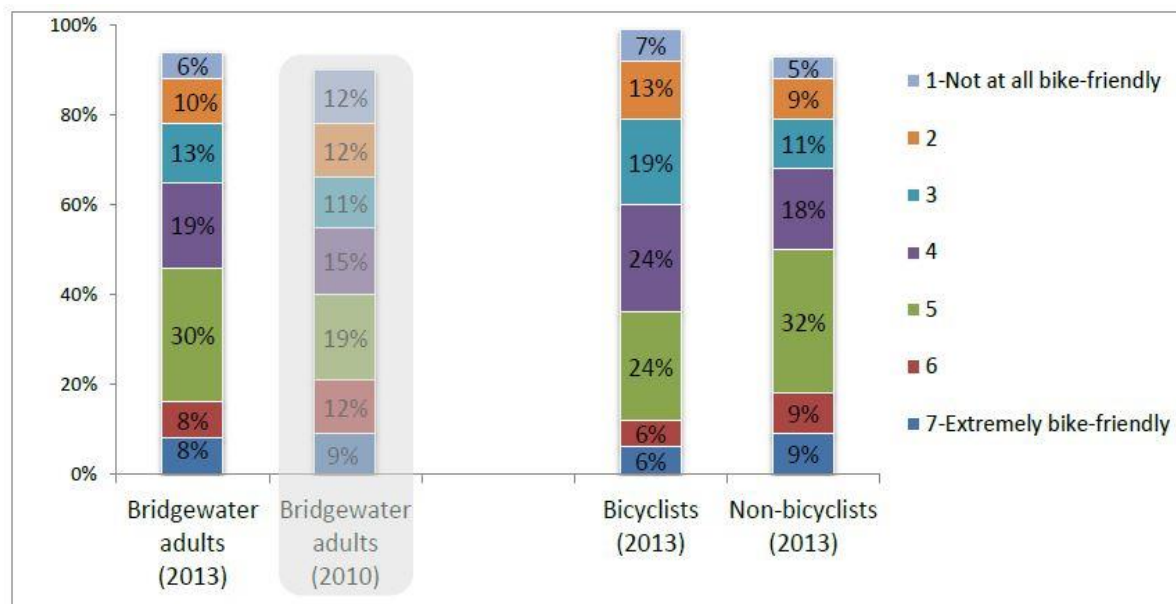


Figure 2.6 shows that more than 27% find the Town extremely walkable, and more than 82% rate it with a top three score.

Figure 2.7 - Overall Bike Friendliness of Bridgewater (Bridgewater AT Survey Report-2013)



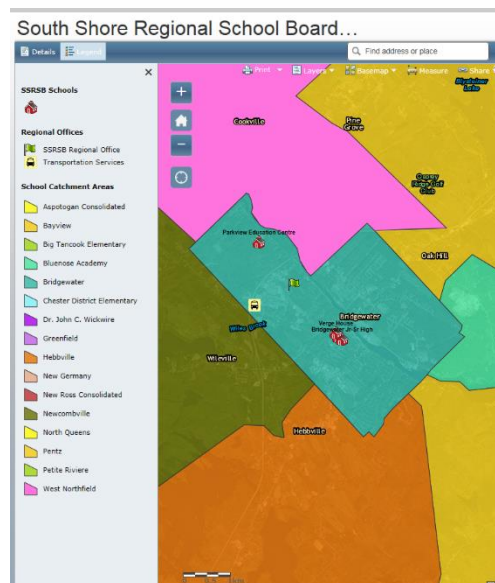
The chart in Figure 2.7 demonstrates that in 2013 8% of adults in Bridgewater rate the town as extremely bike-friendly, and around 46% rate the town with the top three scores.

More information on the surveys can be found in the published reports supplied by Town staff.

2.2.2 Geographic Boundaries and Potential Route Limitations

As defined in the scope of work for this study, we have defined route options within the limits of the Town of Bridgewater. We are aware that there is support from some town residents and stakeholders to extend the public transit system outside of the town limits to make connections with other transit initiatives within the region.

There are three schools located in the town, the Bridgewater Elementary School, the Bridgewater Junior and Senior High School, and Park View Education Centre (PVEC). Both of the elementary, Junior and Senior schools are located adjacent to each other on York Street. The Park View Education Centre is located on King Street, past Highway 103. The catchment area for the schools is broadly within the town limits and the boundary of the Lunenburg Municipal District. During the feasibility study, we became aware that there is a proposal to transfer the pupils of the Bridgewater Junior Senior High School in the town centre to the Park View Education Centre on King Street to the west of the town centre. It is possible that the public transit routes could overlap with the school bus routes which may provide more flexibility for students, parents and staff. The geographic boundaries will continue to be reviewed as the study progresses.



2.3 Transit Demand

2.3.1 Trip Generators

Figure 2.8 demonstrates that major activity locations are concentrated at the downtown core of the town. The activity locations serve as major trip generators in the town which represents potential transit stop locations.

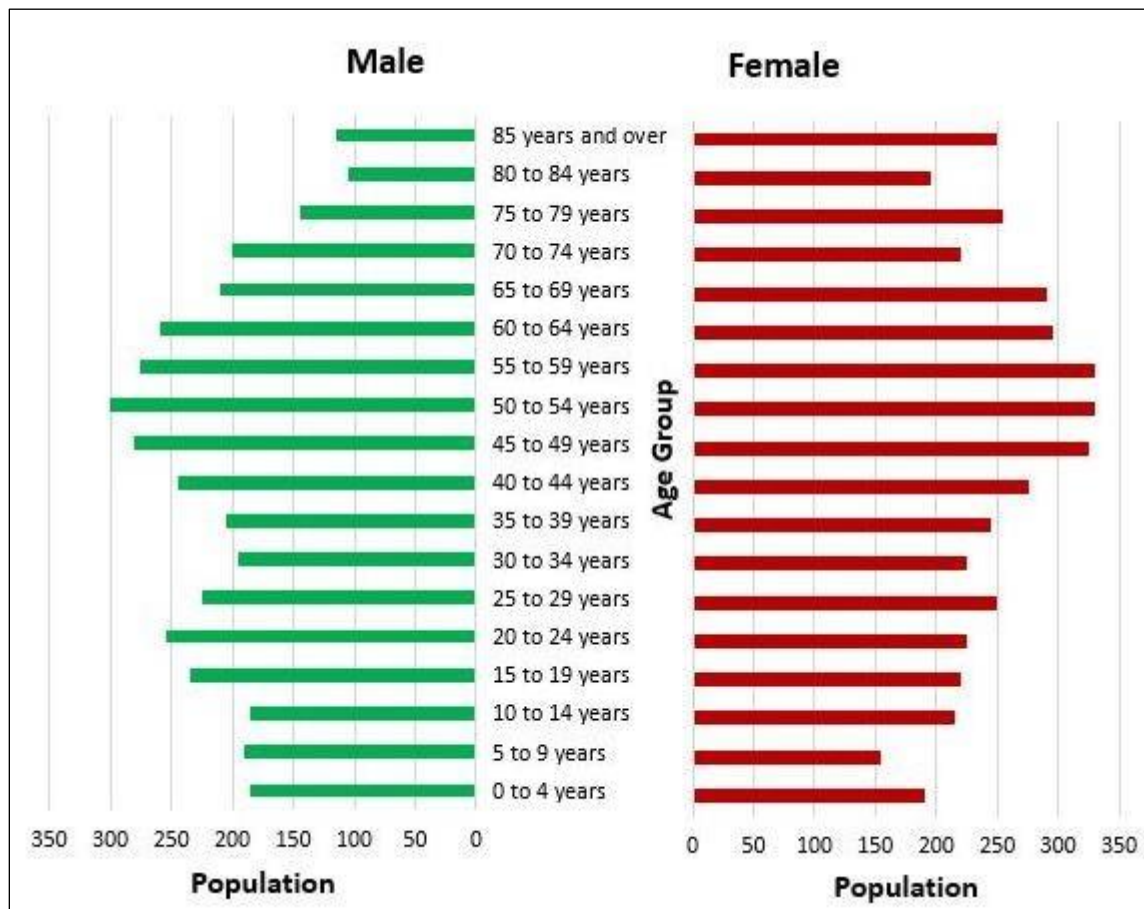
2.3.2 Population/Demographics

The population for the Town of Bridgewater was 8,532 in 2016, which is an increase of 3.5% from the 2011 census. The population pyramid shown in **Figure 2.9** below comes from data obtained during the Statistics Canada Census 2011 for the Town as the demographic breakdown is not available yet for 2016.

The age pattern is similar for both male and female and the majority of the population falls between 45 to 69 years, which represents approximately 35% of the town's population. The population of the Town of Bridgewater appears to be aging, which corresponds with statistics for the Province of Nova Scotia as a whole.

Population growth has remained positive since the 1970's, and while the town's population statistics are similar to other rural communities in Nova Scotia, continued migration and population growth is anticipated until 2030. This is due to the aging population and number of seniors increasing along with demands on healthcare services and seniors housing, all of which is available and being expanded within the town.

Figure 2.9 – Census 2011 data highlighting population make-up in the Town of Bridgewater



2.3.3 Mode Split

The chart below in **Figure 2.10** shows the mode split pattern in the Town of Bridgewater based on the National Household Survey (NHS) 2011.

The majority of respondents indicated that they drive a car, truck or van (80.80%). There was 8.20% of respondents travel as a car, truck or van passenger.

For modes that were non-car based, there was 0.5% of respondents using public transit. We have assumed that this is for those using the Senior Wheels transit initiative around the town. People who walked around the town made up 9.0% of respondents, while there was 0.5% of people who cycled. Other methods made up the remaining 1.10%.

Figure 2.10 – Mode Split in the Town of Bridgewater Based on National Household Survey (NHS)

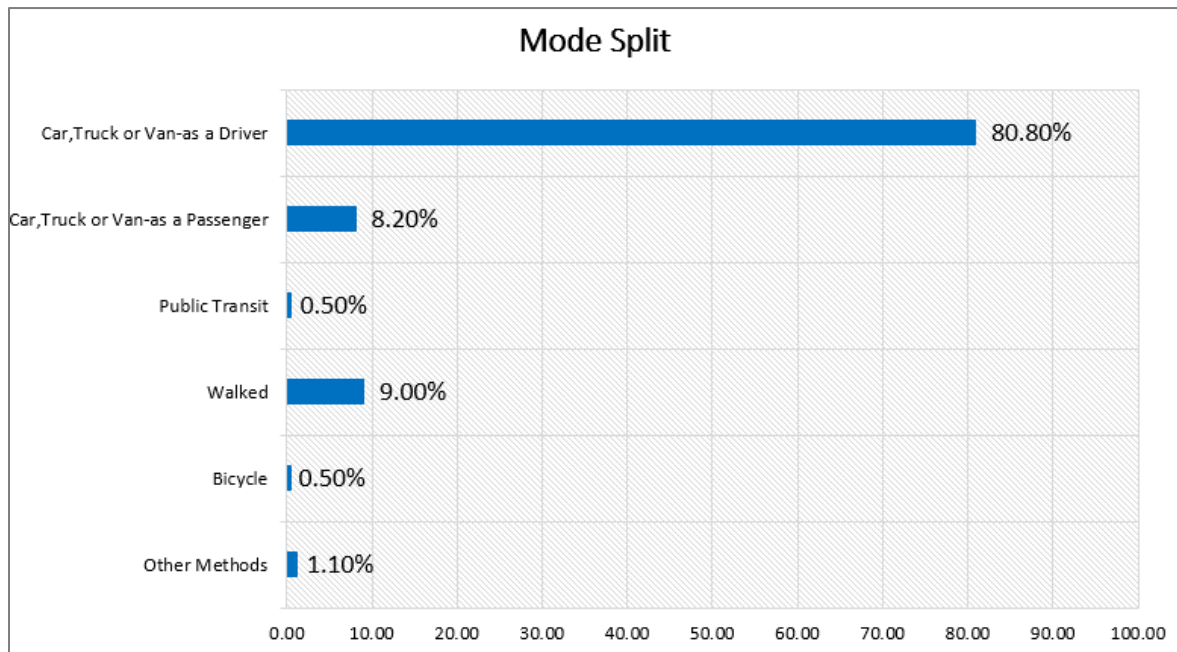


Figure 2.11 shows the time of leaving for work in the Town of Bridgewater based on the National Household Survey (NHS) 2011. The majority of the commuters (56.9%) indicated that they leave for work between 7am and 9am, while there was 14.6% people who commute between 6am and 7am. Only 4.8% people leave for work before 6am which is comparatively low. Therefore, transit services scheduled to commence at 7am could assist those leaving for work earlier than the typical peak hour.

Figure 2.11 – Employed Labour Force by Time of Leaving for Work in the Town of Bridgewater Based on National Household Survey (NHS)

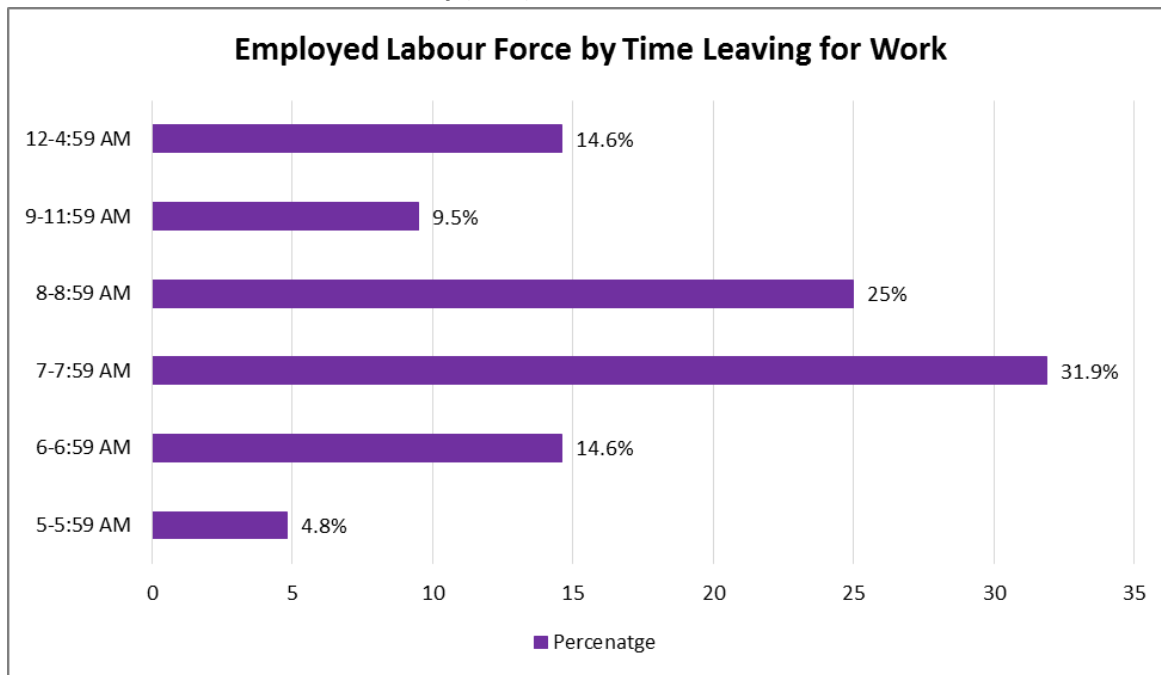
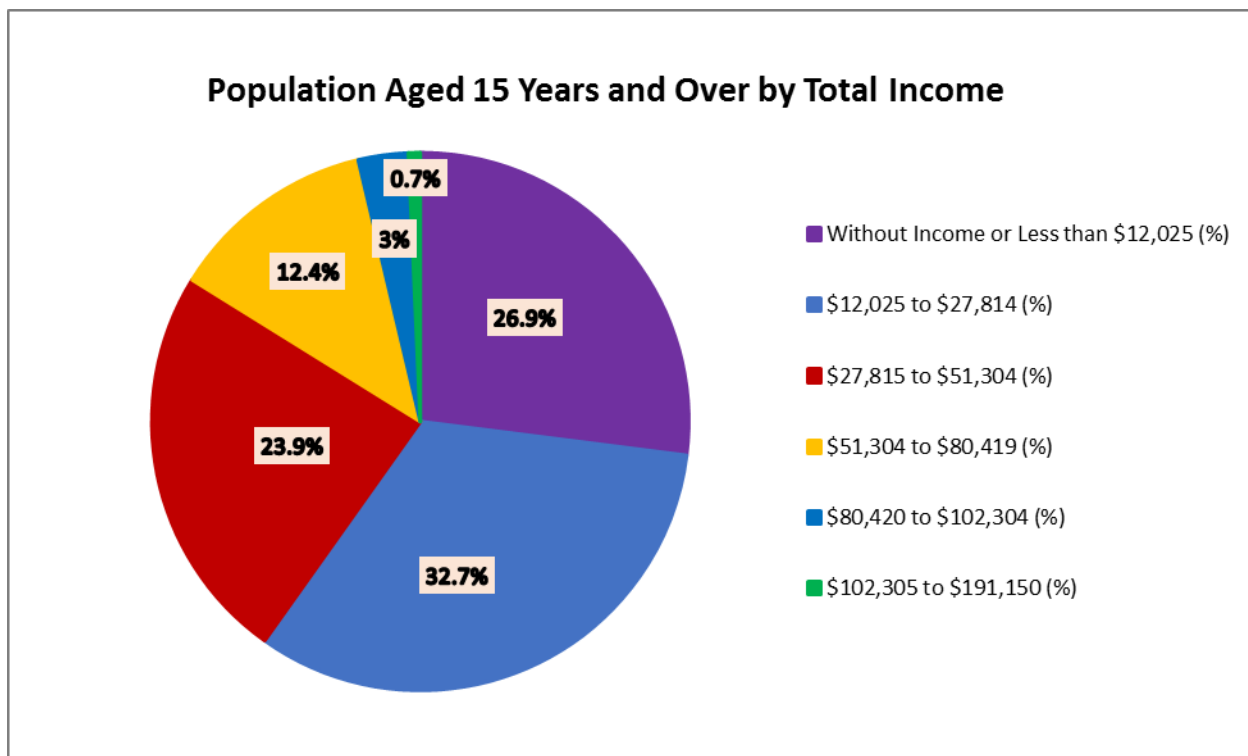


Figure 2.12 shows total annual income in the town of Bridgewater. It demonstrates that around 59.6% of respondents have an annual income less than \$28,000, whereas 26.9% of this percentage have an annual income less than \$12,000. This group of lower income individuals could potentially make up a significant percentage of transit riders in the town.

Figure 2.12 – Population Aged 15 Years and Over by Total Income in the Town of Bridgewater Based on National Household Survey (NHS)



2.4 Existing Transit Initiatives

As mentioned in the introduction, there are a number of independent travel initiatives that operate around or through the town and in the wider municipality, and across the Province. These are described in more detail below. It is our intention to investigate these initiatives further to see if and how they could compliment a public transit system within the Town of Bridgewater.

The **Senior Wheels** initiative has been operating in Bridgewater since 1991. The facility serves the Town of Bridgewater and the area of the Municipality of the District of Lunenburg within a seven kilometer radius from the Town of Bridgewater boundaries. Senior Wheels provides a free transportation service for seniors 60 years of age and over and persons of all ages with disabilities and/or handicaps. The bus is equipped with a wheelchair lift. The service operates using drivers that are fully trained volunteers. While on a no-charge basis, the service is expensive to provide, so Senior Wheels relies on donations to fund their much needed bus service. The hours of operation are Monday - Saturday 8am until 12pm, and 1pm until 5pm.



The **Cloud Nine Shuttle** service has been operating for more than 10 years. This shuttle bus service serves travelers journeying between Yarmouth and Halifax with the most affordable ground transportation services. Based in Arcadia, Nova Scotia, the fleet of shuttle vans provide for a safe, inexpensive traveling option, with each driver being licensed and insured. The journey to Yarmouth from Halifax is around four hours long, during which the shuttle buses pick up clients from other routes and destinations, sometimes offering a door-to-door service. A one-way ticket in one of the minivans is only \$75, including tax, and only \$80 to the Halifax airport.

Citizens for Public Transport (CPT) formed in 2006 to promote a Cost-effective, Safe, Affordable, Accessible and Inclusive Public Transit System in the County of Lunenburg. At that time Public Transit was a non-issue – nobody ever thought about it. It is now a pressing civic need in the eyes of many. Its importance rests on three main pillars: Social Benefits, Economic Benefits, and Environmental Responsibility. CPT have a proposal for **TransitLunenburg** which is a scheduled, fixed-route public bus system within Lunenburg County. Based on the conclusions of a 2014 consultant’s report, in the first year of operation a very simple pilot system will connect Bridgewater and Lunenburg via Dayspring, with numerous stops in each town. This short 52 km route provides access to about 10,000 residents, about one quarter of the population of the entire District. In the second year Mahone Bay will be added to the core route and twice weekly service will be provided to New Germany and to Riverport/Petite Riviere.

Citizens for Public Transit (CPT), a group of Lunenburg County citizens, is recommending the system to the Municipality of the District of Lunenburg (MODL) and the three Town Councils of Bridgewater, Lunenburg and Mahone Bay. It is hoped that eventually the District system will inter-connect to a Provincial network that links many other local transit systems. It is expected that the fixed route fixed schedule plans will complement door-to-door reservations systems already in place in Lunenburg County.

Alternative Routes is a hop-on hop-off shuttle bus service that offers economical and flexible travel to backpackers, outdoor enthusiasts, or any other person who wants a hassle free ride around the beautiful province of Nova Scotia. The service is operated from Halifax and runs every day of the week, except Wednesday. The route that the shuttle service takes starts in Halifax in the morning just before 9am, and travels from there to Peggy’s Cove and along the South Shore to Lunenburg, then inland to Bridgewater, then cross-country to Kentville. From there the service goes to Wolfville, Windsor, then returns to Halifax before 6pm each day. The tickets are offered on the number of days pass required or can be bought for single and return trips, and cost between \$70 for a single trip and \$500 for a 21-day pass or a booking of 10 trips. The service is reasonably flexible, and while recommending making a booking, can often accommodate people who arrive at the pick-up point without booking, providing there is space for them on the bus.

These existing services could provide options for additional functionality and connectivity with the Town of Bridgewater public transit system, which would provide many more benefits to the town and the surrounding communities in the future.

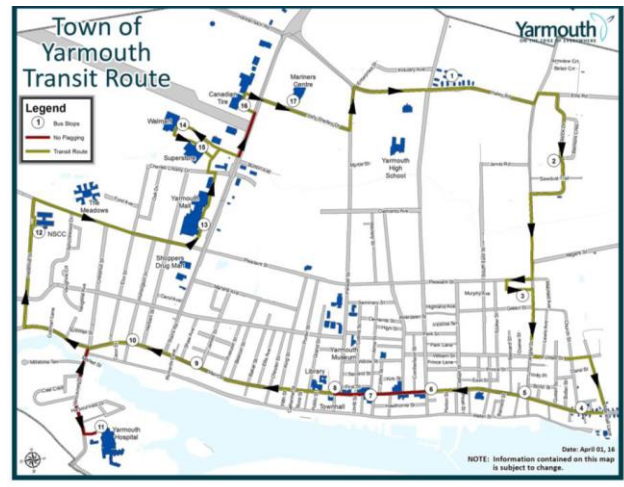
2.5 Case Study on the Town of Yarmouth Transit Service

To provide a starting point for the Town of Bridgewater public transit system, we looked at the Town of Yarmouth as a case study, as they launched a public transit system on February 1st, 2016. Both towns have similar population and demographic trends, although the population of Yarmouth has been decreasing, while the population of Bridgewater is increasing.

There are a number of key comparisons that can be made, as well as lessons learned from the Town of Yarmouth's experience.

The public transit system route follows a loop around the town centre, stopping at designated stops like the hospital and popular shopping destinations. A flag stop system is also in place where passengers wishing to travel on the bus can wave for the driver to stop at almost anywhere along the route. There are some exceptions of course where stopping could be dangerous or could incur unnecessary delays to other road users. Recently, in August 2016, the Province of Nova Scotia announced that it was providing \$25,000 via a provincial grant (Public Transport Assistance Program) to the Yarmouth public transit system. This money will be used to upgrade the buses, bus shelters and more.

More detail on the comparison of the two systems is shown later in this report.



CHAPTER 3 STAKEHOLDER CONSULTATION

3.1 Focus Group

A community focus group entitled “Want a bus for Bridgewater?” was held on November 30, 2016 at the NSCC Lunenburg campus. A total of 33 community members attended the focus group and participated in mapping exercises and group discussions (see **Appendix A: Focus Group materials and photo gallery**). The focus group event was separated into two sessions. The first session was to explore the community’s attitudes and aspirations toward public transit, with the second session allowing participants to design their own transit service for the Town of Bridgewater.



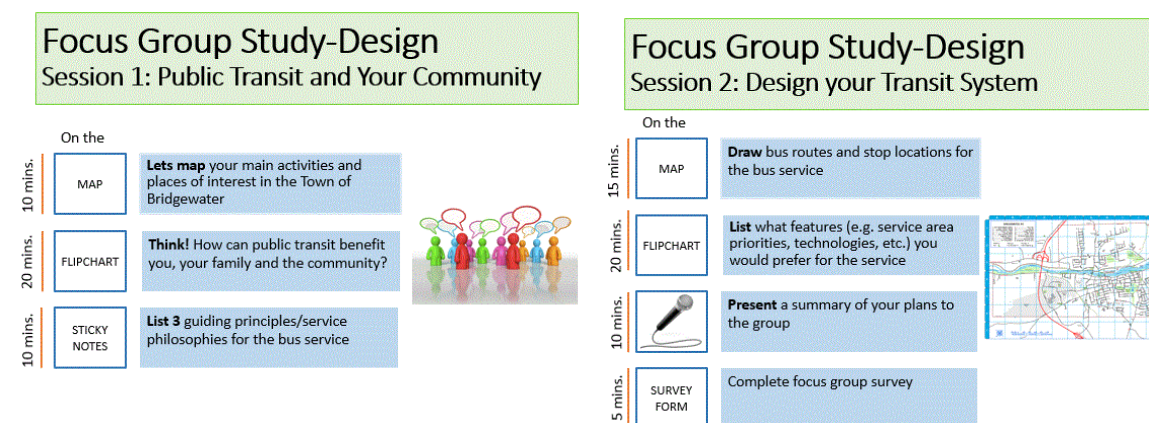
3.1.1 Goals

The focus group began with a short presentation from Dr. Ahsan Habib that introduced the fundamentals of public transit and outlined the goals and objectives of the focus group event. The objectives of the event were to: facilitate interactive and lively conversations about a transit system for the Town of Bridgewater; receive community feedback on the principles, design, and features that should be prioritized; highlight areas that are important to the community; and identify possible route options and features.

3.1.2 Process

The focus group consisted of two sessions. During the first session, the focus group participants individually mapped where they regularly travel to satisfy the needs of daily activities within the town. They then discussed as a group how public transit could benefit them, their families and the community, and what guiding principles they would like to see for the Town of Bridgewater transit service. In the second session, the participants were asked to draw transit routes and stops throughout the town, and discuss what features and attributes they would like to see for a public transit service within the town. Following the focus group tasks, participants completed a short survey (see Appendix A). **Figure 3.1** displays the study-design of the community focus group).

Figure 3.1 – Study Design of Community Focus Group



3.2 Major Findings

A consensus emerged from the focus group participants that a public transit service in the Town of Bridgewater would be desirable and beneficial for the community. During the focus group the participants identified the benefits of transit, guiding principles, service features, service route concepts for the Town of Bridgewater, and responded to a short survey. An analysis of all the responses from the focus group are summarized in this section. All responses can be found in Appendix A: Focus Group Responses.

3.2.1 Benefits of Transit

The participants were asked to discuss “how can public transit can benefit you, your family and the community?”. Six common themes emerged from the discussion. The participants indicated that public transit for Bridgewater will:

- Create mobility opportunities for seniors, people with disabilities, and all community members;
- Provide access to services (medical, financial, etc.) and employment;
- Reduce the need for two cars per family;
- Bring positive impacts for business owners on the transit route;
- Increase the number of people on the street, developing a sense of community and safety;
- Be less expensive for users than other alternative (i.e. taxi).

3.2.2 Guiding Principles

The Town of Bridgewater’s transit service should be...

1. **Accessible, safe** and **dependable** for all ages and abilities
2. **Affordable** for all income levels
3. Easy to navigate, **frequent, efficient** and **reliable**
4. **Connect** key destinations and active modes of travel
5. **Adaptable** to accommodate future growth

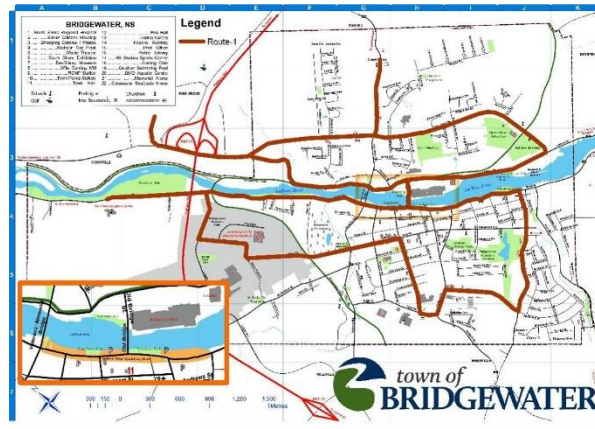
Participants were asked to identify the guiding principles and/or service philosophies for the public transit system for the town. Some common themes emerged from the group discussion and brainstorming session, which informed the development of these guiding principles. These principles will be used to direct the quality and type of transit service the town needs during service initiation and beyond.

3.2.3 Service Route Concepts

These concepts were derived from the focus group consultation. Each group was asked to draw a transit service for their community. Interestingly, over half the service concepts had a route that ventured out to Exit 12, which is outside the town limits.

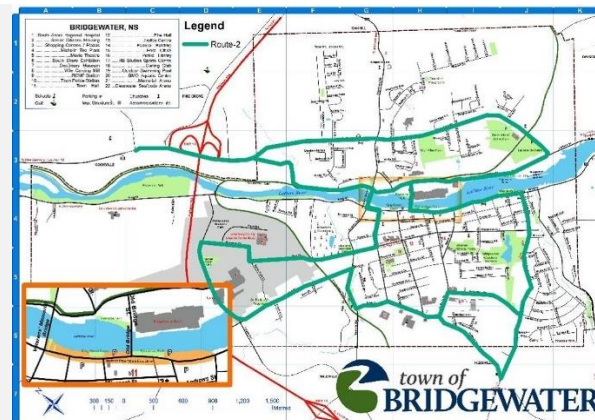
Service Concept 1

- Two route service, crossing the old bridge
- Total length: 19.022km
- Route 1 would service destinations such as LCLC, Parkview Education Centre, Curling Rink and Fire Hall, Post Office, Library, Bridgewater Shopping Plaza and Exhibition Grounds
- Route 2 would service destinations such as the South Shore Regional Hospital, Eastside Plaza, Senior Citizen Housing and Exit 12



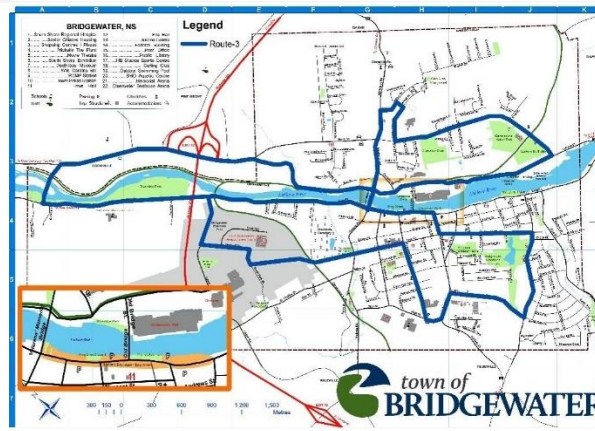
Service Concept 2

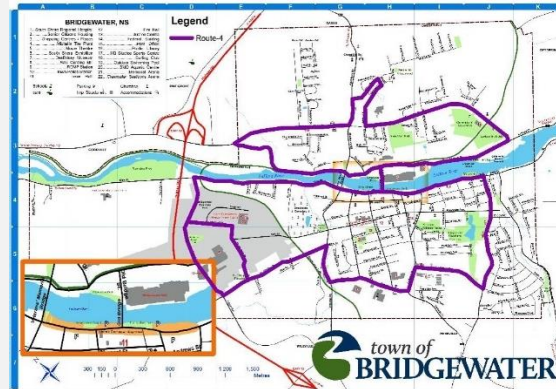
- One route service, crossing both bridges
- Total length: 19.735km
- This route services destinations such as Exhibition Grounds, NSCC, Michelin Tire, LCLC, South Shore Regional Hospital, HB Studios, Bridgewater Mall, and Exit 12



Service Concept 3

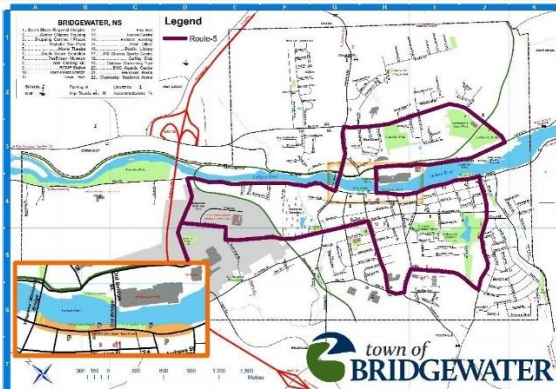
- Two route service, crossing new bridge
- Total length: 19.781km
- The major design difference between this concept and all other concepts is that it has a secondary crossing at North King Street
- The second route would also service senior citizen housing, which the second concept did not





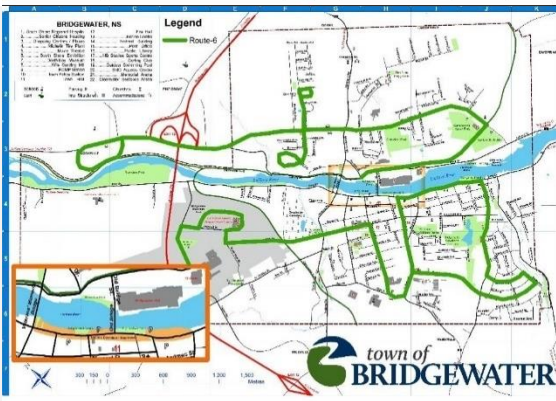
Service Concept 4

- One route service, crossing old bridge
- Total length: 18.596km
- This route services destinations such as Exhibition Grounds, NSCC, Michelin Tire, LCLC, South Shore Regional Hospital, HB Studios, and Bridgewater Mall
- The group specified that it was “okay to walk to get to a bus stop as it promotes active transportation”



Service Concept 5

- One route service, crossing both bridges
- Total length: 13.643km
- This concept is the shortest length of all others
- This route would service destinations such as Exhibition Grounds, LCLC, Michelin Tire, Post Office, Library, Bridgewater Mall, South Shore Regional Hospital and HB Studios



Service Concept 6

- Two separate routes
- Total length: 18.019km
- This is the only concept which does not cross the LaHave River
- It services more specific residential areas than all other concepts
- It would service Michelin Tire, LCLC, Bridgewater Shopping Plaza, Exit 12, South Shore Regional Hospital, HB Studios and Bridgewater Mall

3.2.4 Service Features

Certain service features were identified when the groups discussed the route concepts, including fares, technology and infrastructure. The participants suggested a \$2 fare per ride and \$3 charge per day. They were interested in a separate family rate and discount for seniors, students, children and military personnel. The discussion of smart card payment was well accepted with the idea that employers could reload for staff, or parents for students. However, the traditional change fare should also be accepted.

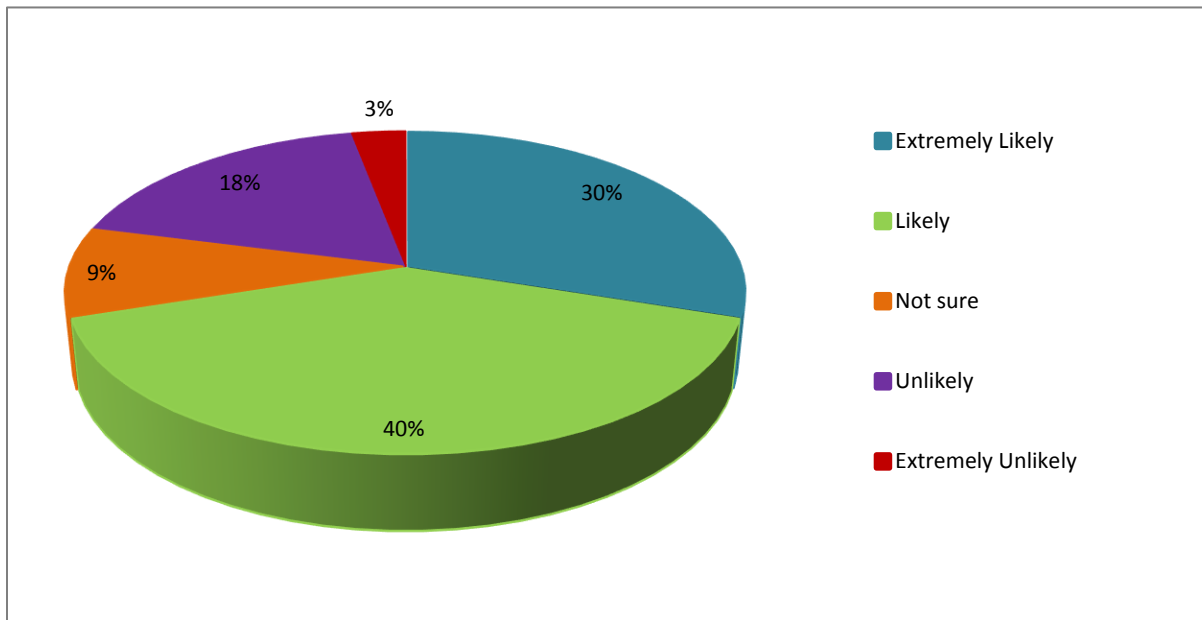
As for technology and infrastructure, participants were interested in Wi-Fi and GPS tracking for the buses, with the possibility of a bus time display at major stops or a mobile app. All buses should be accessible, ideally with enough room for strollers and wheelchairs. Also bike racks on the front of

buses was a common preference. For safety reasons some participants suggested that all buses should have video surveillance, especially if children are traveling alone, but also for driver safety. The focus group participants expressed their interest in a flag stop service, where stops would be recorded for the first year and modified from then on. The frequency was determined to be no more than a 30-minute wait at any bus stop location.

3.2.5 Focus Group Survey Summary

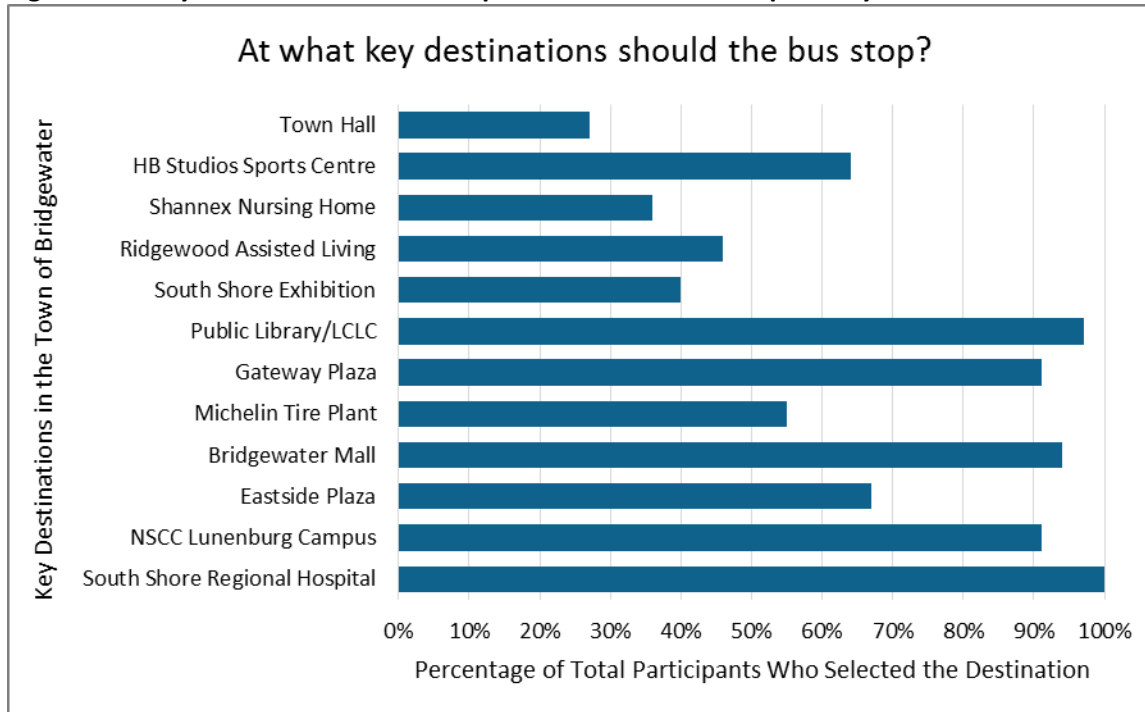
When asked “How likely are you to ride the public transit bus in the Town of Bridgewater, if available?” 70% of respondents reported that they were likely or extremely likely (shown in **Figure 3.2**). The majority (64%) of respondents stated they were willing to pay between \$2-\$3 to ride the bus.

Figure 3.2 : Willingness to Ride Transit based on Focus Group Survey



All of the respondents stated they would want the bus to stop at the South Shore Regional Hospital (Shown in **Figure 3.3**). The Public Library/LCLC, Bridgewater Mall, NSCC Lunenburg campus and Gateway Plaza were also popular destination choices, all gaining 90% of votes or above. All service concepts reflect this vote.

Figure 3.3 : Key Destinations as Bus Stops based on Focus Group Survey



Other destinations that the respondents identified as places they would like to see the bus stop included: Walmart/Canadian Tire (33%), Jubilee Street (24%), King Street (24%), Schools (27%) and Drumlin Hills (15%). The Walmart/Canadian Tire destination preference may be the reason over half of the service concepts traveled past Exit 12.

3.3 Stakeholder Interviews

Following the focus group, the project team identified key stakeholders and employers within the town that should be contacted to gauge their thoughts on a possible public transit service. These local employers and organizations included: Michelin Tire, Millennium 1 Solutions, South Shore Regional Hospital, NSCC Lunenburg campus, Senior Wheels, Canadian Tire, Walmart and taxi service providers. Each stakeholder was contacted via email or phone call. Highlights of the responses are provided as follows:

- The majority of shift work takes place from 7:30am-8am and ends between 4pm-9pm. SSRH and Canadian Tire employees would need services 7-days a week;
- Employees commute from areas such as Lunenburg county, Queen’s county, HRM;
- Michelin, Millennium 1 Solutions and SSRH employ 1200 people each, NSCC employs 75 and hosts 400 students, Canadian Tire employs 100 people;
- One employer stated that people find it difficult to get around Town without a vehicle, and if they are working on minimum wage it is difficult to afford the taxi service;
- Another employer commented that a bus for the town would help reduce the unemployment rate, broaden their employment pool and allow them to expand. Providing a great service to the people who would otherwise have no access to certain employment opportunities;

- Consensus that a transit service in the Town of Bridgewater would be beneficial:
 - Benefit to retired and lower income population to get them to appointments, healthcare, programs, etc.
 - Benefits would be seen by students attending NSCC
 - Benefits to employees of Michelin, Millennium 1 Solutions, South Shore Regional Hospital and Canadian Tire/Walmart, as long as it was reliable and suited employee work schedule;
- The cost, availability, reliability and stop placement were seen as determining factors to taking the transit service;
- General accessibility features were seen as a necessary addition to be included on the buses;
- Some employers identified schedules and display screens at bus stops as a service feature that should be included to allow employees to determine if they will be at work on time;
- The employers seen the following locations as key destinations for the bus to stop:
 - South Shore Regional Hospital
 - Public Library/LCLC
 - Michelin Tire Plant
 - Ridgewood Assisted Living and Shannex Nursing Home
 - Eastside Plaza, Bridgewater Mall, Gateway Plaza
 - NSCC Lunenburg Campus
 - HB Studios Sports Centre
 - Canadian Tire/Walmart
 - King Street
- Senior Wheels commented that they do not see any change to their service if the Town of Bridgewater implements a public transit bus. As they provide a free door-to-door service to seniors, which other services could not match. They did state that Bridgewater does need a public bus system for other residents;
- There was some reservation from taxi drivers regarding a bus service, however the taxi services were seen as irreplaceable as they provide a door-to-door service and are more reliable in inclement weather. Consensus from taxi providers suggested a bus should start with a small reliable service which benefits all populations, not just elderly.

3.3.1 Millennium 1 Solutions Transit Survey

Millennium 1 Solutions undertook a transit survey for their local employees, and they kindly provided the results of the survey to us for use in our study (see **Appendix B: Millennium 1 Solutions Transit Survey**). There are approximately 240 employees and working hours start from approximately 7am to 3pm. Based on the transit survey, around 60% of respondents said they would be interested to take transit for commuting if available, whereas 40% of respondents did not choose transit for commuting. The major reason behind not choosing transit is the majority (80%) of the 40% of respondents live in Lunenburg County, i.e. outside the Town of Bridgewater. The figures below show the results of the Millennium 1 Solutions employee survey. **Figure 3.4** shows the reasons associated with not choosing transit for commuting into Bridgewater.

Figure 3.4: Reason behind not Choosing Transit for Commuting (Results of Employee Survey)

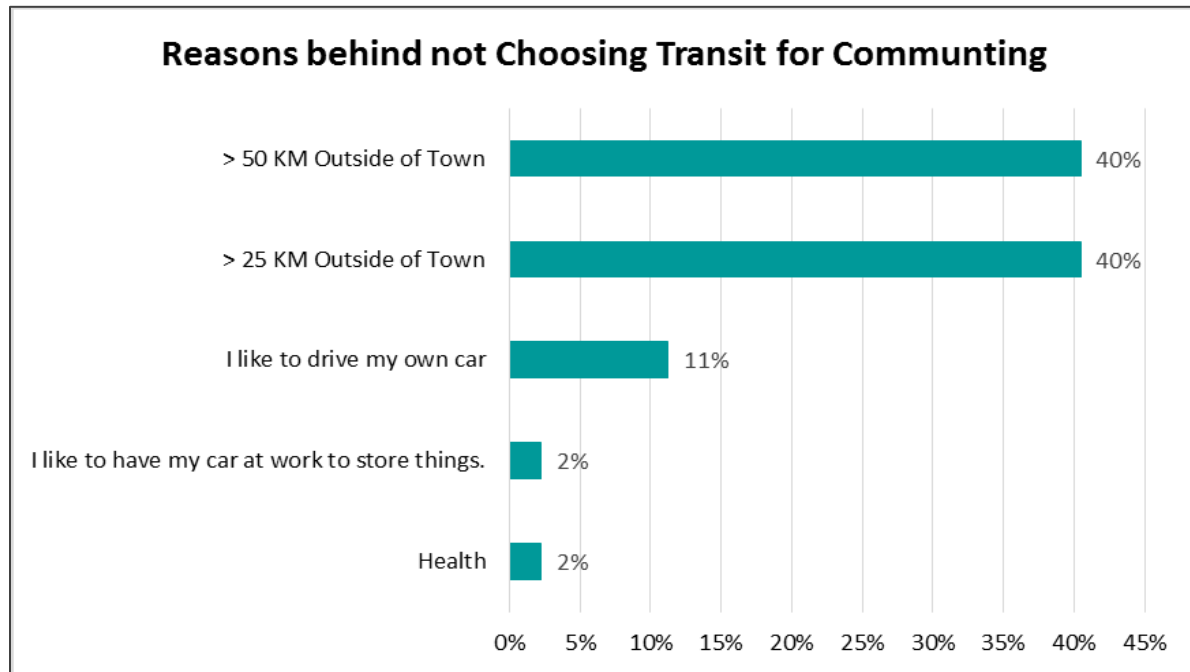


Figure 3.5 shows that 27% of the respondents prefer a transit frequency of every 30 minutes, and around 21% of respondents reported that having transit frequency every hour would work for them as well.

Figure 3.5: Transit Frequency Suggested by Respondents (Results of Employee Survey)

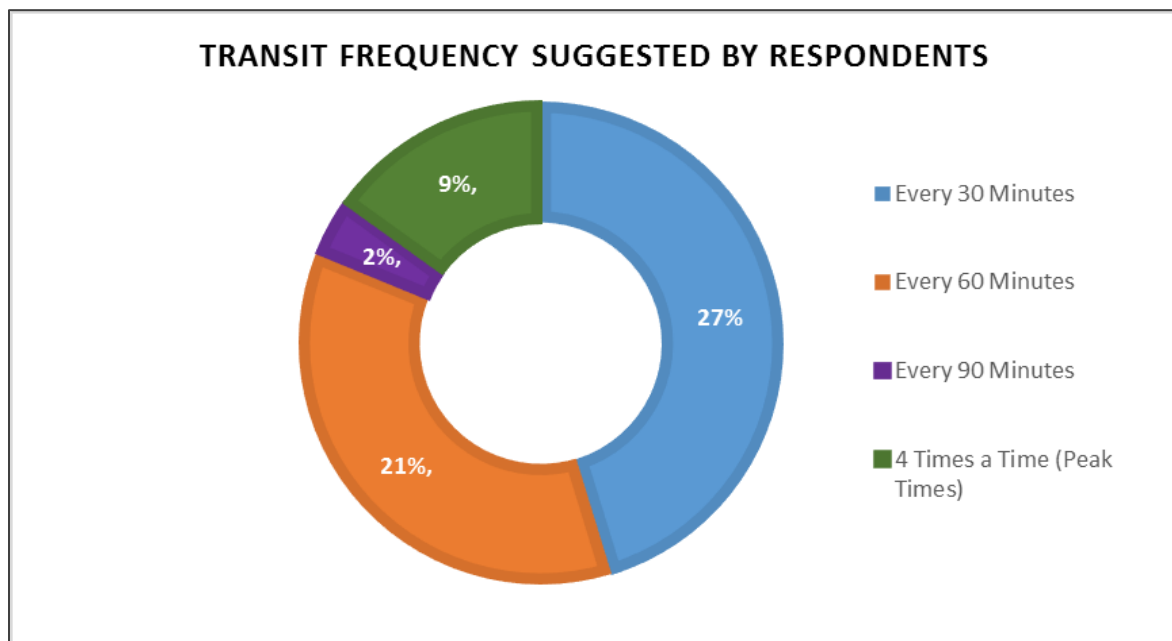


Figure 3.6 demonstrates the preferred cost option for a single ride using transit given by the survey respondents. A combined 33% of the respondents stated that they are willing to pay around \$2-\$3 for a single ride.

Figure 3.6: Preferred Cost for Single Ride in Transit (Results of Employee Survey)

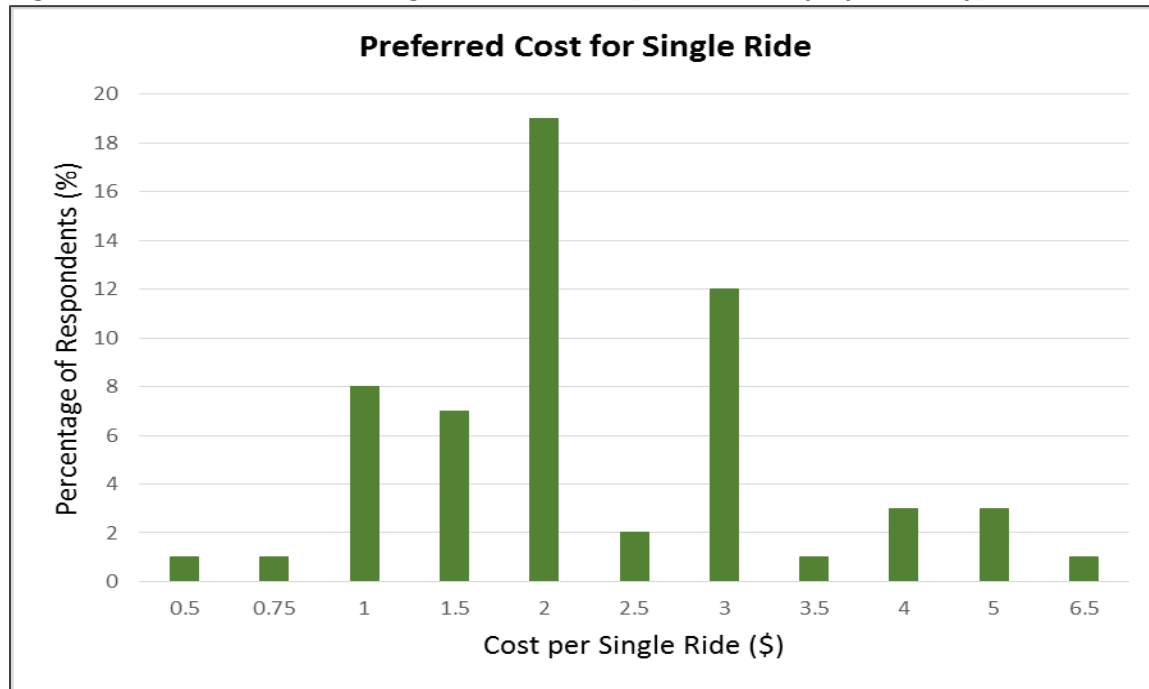
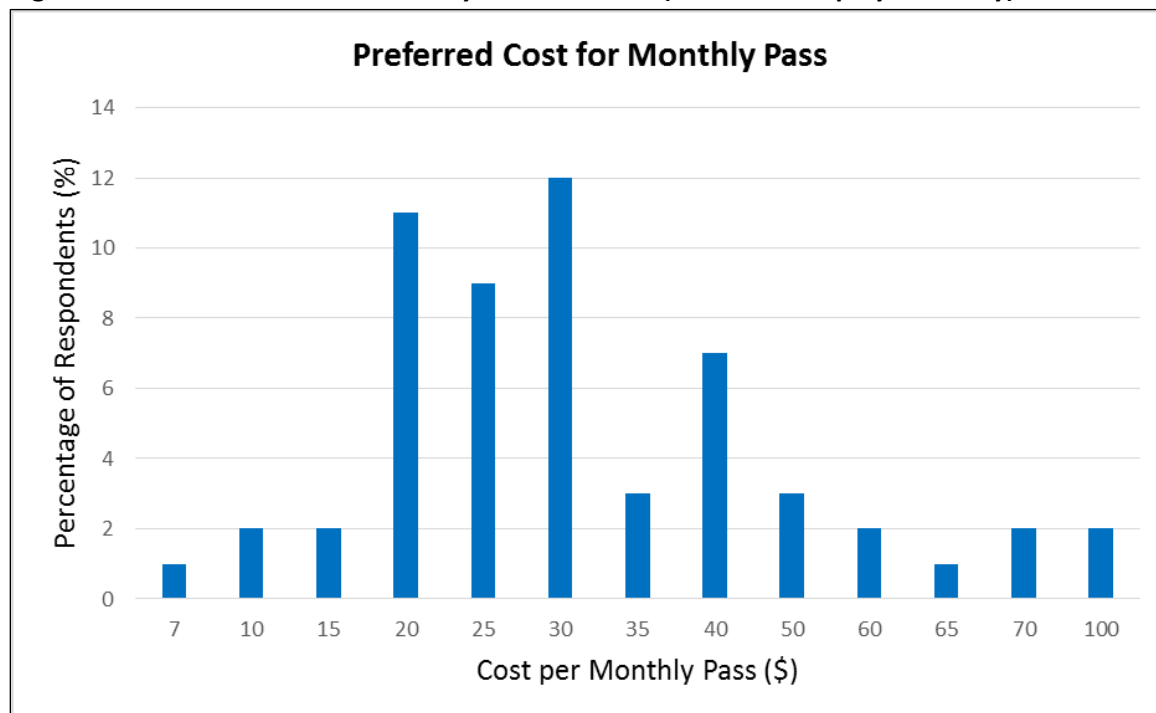


Figure 3.7 indicates that the majority (33%) of the respondents prefer to pay between \$20 - \$30 to buy a monthly transit pass.

Figure 3.7: Preferred Cost for Monthly Pass in Transit (Results of Employee Survey)



3.4 Open House Summary

A community open house was held on January 23, 2017 in Bridgewater Town Hall to discuss the feasibility of a public transit system for the town. Approximately 35 community members attended. Dr. Habib began with a short presentation identifying the study process and findings thus far. Posters were on display of the proposed route designs and service features with participants being able to vote on their preferred options.

Community support was focused toward the recommended Loop Design. The majority of the focus group respondents voted for the Loop Design. Some participants suggested having two buses, one going in either direction on the loop service, and others said it was a good place to start with opportunities to expand. There were alternative views on the size of bus needed for the town, with some suggesting a larger bus as there will be higher ridership, and others suggesting a smaller bus as ridership may be low in off-peak periods. Other comments included that a \$2 fare was reasonable, based on what people put in the volunteer pay box on Senior Wheels, and that out of town connections should be considered. Some members of the public had inquiries into contingency plans for the one bus transit option, and also wondered what funding opportunities were available.



CHAPTER 4 TECHNICAL FEASIBILITY ASSESSMENT

4.1 Service Concepts

The design criteria for the route options were derived from the guiding principles developed through the community consultation process. **Table 4.1** explains the benefits and constraints of the four service concepts for a public transit system for the town. It is recommended that the Town of Bridgewater provides the community a hybrid fixed route service which focuses on all trips (work and non-work). A fixed route shared-ride taxi service could be organized as a feeder system for the town bus service, to provide access to communities and services outside town limits.

Table 4.1 – Service Concepts

Concepts	1. Fixed Route Conventional Transit	2. Fixed Route Community Bus	3. Fixed Route Shared-Ride Taxis	4. Dial-a-Ride
Merits	<ul style="list-style-type: none"> ✓ Highest capacity ✓ Services all markets ✓ Accessible 	<ul style="list-style-type: none"> ✓ Serves more origins and destinations ✓ Accessible 	<ul style="list-style-type: none"> ✓ Ideal feeder service for remote areas ✓ Groups pay a reduced, shared cost 	<ul style="list-style-type: none"> ✓ Applicable to more remote areas ✓ Flexible hours of operation
Demerits	<ul style="list-style-type: none"> ✗ Highest capital and operating costs ✗ Buses would be underutilized in off peak periods 	<ul style="list-style-type: none"> ✗ Not designed for work/school trips 	<ul style="list-style-type: none"> ✗ Minimum capacity 	<ul style="list-style-type: none"> ✗ Lack of frequent daily service ✗ Availability issues could arise

4.2 Route Determination

A fixed route conventional transit system mainly serves the work trips, while the fixed route community transit system mainly prioritize on non-work trips during a day. For this study, we are recommending a hybrid fixed route transit service, which focusses on work and non-work trips.

Based on this recommendation, we have developed two route options which picks up both work locations and activity destinations.

4.2.1 Route Option 1 – Loop Design

As part of the study scope, the Town asked us to develop a number of options. Our first option, which was based on the key destinations identified by the focus group, forms a loop design around the town which uses both bridges. The loop configuration is shown in **Figure 4.1**. This route option has a common start and end point, and would always circulate in one direction, which we are proposing as clockwise at this time.

4.2.2 Route Option 2 – Cross Loop Design

Our second route option, is a cross loop design, which was also based on the key destinations identified by the focus group. This option uses two overlapping routes which cross in the downtown core, using both bridges and a common start and end point. This option provides additional functionality in that it allows for shorter travel times, more frequent services and provides the option for passengers to transfer from one loop to the other. The cross loop design option is shown in **Figure 4.2**.

4.3 Vehicle Options

Table 4.2 explains the four main vehicle options for a public transit bus for the Town of Bridgewater, and their advantages and disadvantages. It is recommended that the Town of Bridgewater purchase a new gasoline powered Community Bus which holds up to 20 passengers. If demand grows in the future, the Town could purchase the Small Bus which allows up to 8 additional passengers.

Table 4.2: Vehicle Options









Type	1. Conventional	2. Small Bus	3. Community Bus	4. Large Van
				
Length	9.3 or 12.2 meter	8.8 – 9.2 meter	5.9 - 6.7 meter	5.9 meter
Seats	26 or 42 + standees	16-28 passengers	10-20 passengers	Up to 10 passengers
Examples in Nova Scotia	Kings Transit Halifax Transit	Halifax Metro X	Town of Yarmouth Senior Wheels	Transport de Clare
Driver's License Type	Class 2	Class 5 (standard)	Class 5 (standard)	Class 5 (standard)
Capital Cost	New: \$535,000 Used: \$45,000- \$65,000	New: \$220,000 Used: \$18,000- \$40,000	New: \$90,000 Used: \$16,000- \$32,000	New: \$50,000 Used: \$16,000- \$18,000




Table 4.2: Vehicle Options (continued)

Type	1. Conventional	2. Small Bus	3. Community Bus	4. Large Van
				
Operating Cost	High	Medium	Low	Lowest
Merits	<ul style="list-style-type: none"> ✓ Medium to high demand routes ✓ Low-floor ✓ Wheelchair accessible ✓ 12+ year life cycle 	<ul style="list-style-type: none"> ✓ Low-floor ✓ Wheelchair accessible ✓ Can be maintained locally ✓ More versatile than bigger models ✓ Drivers do not need a higher license to operate bus ✓ 7-10 year life cycle 	<ul style="list-style-type: none"> ✓ Ideal for low demand areas ✓ Wheelchair accessible ✓ Can be maintained locally 	<ul style="list-style-type: none"> ✓ Ideal for low demand areas ✓ Wheelchair accessible ✓ Can be maintained locally
Demerits	<ul style="list-style-type: none"> ✗ Longer bus may have issues turning on narrow streets ✗ Higher initial and operating costs ✗ Would need a maintenance depot close by ✗ Driver needs a Class 2 license 	<ul style="list-style-type: none"> ✗ Holds a smaller number of passengers 	<ul style="list-style-type: none"> ✗ 5-7 year life cycle 	<ul style="list-style-type: none"> ✗ Only 5 year life cycle ✗ Minimum capacity

4.4 Fare Technology Options

Table 4.3 demonstrates the three most popular fare technology options that were mentioned in the focus group were cash, bus tickets and smart card. Ideally a combination of two or more of these technologies would suit community preference. It is recommended that the Town of Bridgewater begin with a cash and ticket service, selling the tickets through local employers and key destinations, and upgrading to a smart card service if demand and additional funding becomes available.

Table 4.3: Fare Technology Options

Type	1. Cash	2. Bus Tickets	3. Smart Card
			
Examples in Nova Scotia	Halifax Transit Kings Transit	Halifax Transit Kings Transit Town of Yarmouth	Town of Yarmouth
Merits	<ul style="list-style-type: none"> ✓ Easier for younger and older populations ✓ Beneficial for tourists or people from out of town 	<ul style="list-style-type: none"> ✓ No need to carry cash ✓ Buying weekly or month tickets may be less expensive over longer term 	<ul style="list-style-type: none"> ✓ Parents or employers can prepay and reload cards for children or staff
Demerits	<ul style="list-style-type: none"> ✗ Only exact change is accepted ✗ Less commitment for long term ridership 	<ul style="list-style-type: none"> ✗ Have to pick up at a specific location before getting on bus (possibly town hall or other public location) 	<ul style="list-style-type: none"> ✗ Not everyone has access to the internet to reload card ✗ Charge for card replacement if lost ✗ May be more expensive initially to have the technology implemented in the bus

4.5 Bus Stop Options

There were specific locations, determined through the focus group and stakeholder consultations, that the community felt there should be permanent bus stops. These locations include the South Shore Regional Hospital, Lunenburg County Lifestyle Centre (LCLC), NSCC Lunenburg Campus and Bridgewater Mall. Similar to the Town of Yarmouth transit, a flag stop service should be considered for at least the first year. A flag stop service allows residents to wave the bus down for pick up at any location along the designated route. To get off at an unmarked stop the resident would notify the driver of their desired stop location, allowing the driver to find a safe place nearby to stop. These unmarked stops should be recorded to determine trends, make bus stop adjustments and route changes in the future. Certain streets will not allow flag stop, such as Aberdeen Road and Victoria Road, due to safety concerns and congestion. We recommend that all flag stops are within the 200m buffer along the both routes of Loop Design and Cross Loop Design. The preferred stop locations for the Loop Design and the Cross Loop Design are shown in **Figures 4.3 and 4.4**. A list of potential bus stops are also given below:

1. Bridgewater Mall and Eastside Plaza;
2. King Street & Dufferin Street;
3. DesBrisay Museum;
4. Jubilee Road & Exhibition Drive;
5. Hillside Pines, close to Dufferin Street;
6. Gateway Plaza (near Pharmasave);
7. Churchill Street & Empire Street (in front of the arena);
8. York Street & the Centennial Trail;
9. Lunenburg County Lifestyle Centre;
10. Michelin Tire Plant on Logan Road (to accommodate shift changes);
11. King Street & Logan Road;
12. King Street & Victoria Road;
13. Davison Drive & Aberdeen Road;
14. Canada Post on North Street;
15. South Shore Regional Hospital;
16. Glen Allan Drive & Hollingsworth Drive;
17. Glen Allan Drive & HB Studios Sports Centre.

4.6 Service Options

Most participants from the focus group stated that buses should be scheduled between 7am-7pm weekdays with reduced hours on weekends. However, when reviewing employee scheduling of Michelin Tire and South Shore Regional Hospital, and the hours of operation of locations such as the Lunenburg County Lifestyle Centre, the hours could be adjusted to accommodate more of the population. Certain employees are scheduled to start work at 7am and work until 7pm or 8pm at night. The lifestyle centre opens early at 6:30am, and does not close until 9pm on weekdays. Therefore, it could be suggested that for the first couple of months, the Town of Bridgewater bus service begin at 6am on weekdays and run until 9pm (shown in **Table 4.4**). Also, a Sunday service could be offered to accommodate seniors and young people that do not drive. Hours of service and weekend service can be adjusted according to demand. Buses should run frequently during morning peak hours between 6am-9am and also during evening peak hours between 4pm-6pm. All other times the bus could run less frequently.

Table 4.4: Service Hour Options

<i>Bus Service</i>	<i>Town of Yarmouth</i>	<i>Kings Transit</i>	<i>Options for Town of Bridgewater</i>
<i>Hours of Operation</i>	7am – 7pm	7am – 9pm	6am - 9pm
<i>Weekdays</i>			
<i>Saturday</i>	8am – 6pm	9am – 7pm	8am – 7pm
		*select routes	
<i>Sunday</i>	No Service	No Service	9am – 5pm

There should be a designated parking space allocated in the town for overnight bus parking, either in one of the large shopping parking lots or near the exhibition grounds. All buses must be wheelchair accessible and be able to accommodate passengers with strollers or larger items, including bike racks on the front of vehicle.

4.7 Alternative Route Option

4.7.1 Route Option 3 – Cross Loop (Alternative)

In response to additional feedback, we have looked at an alternative route design to the cross loop design described above. This suggested route serves more of the lower income residential areas, and also uses a less congested section of road, which would be beneficial particularly during identified peak periods. This route would also allow for a time specific service to the Michelin tire plant at shift change, and also potentially to the Park View Education Centre for pupils who stay beyond the regular school hours for extracurricular activities. This alternative cross loop option is shown in **Figure 4.5**.

4.8 Route and Service Evaluation

In order to compare each of the route options, we undertook an evaluation of routes and services provided. **Table 4.5** highlights the key focus areas to be considered when providing a transit service, and compares each of the options against specific evaluation criteria. The evaluation criteria are based on guiding principles developed during the focus group and stakeholder consultations, described earlier in section 3.2.2. A number of maps and figures were created to assist with the evaluation process, including origin and destination coverage, active transportation coverage, affordable housing location coverage. All figures used in this analysis are shown in **Figures 4.6 to 4.20** and are shown overleaf.

Table 4.5: Route and Service Evaluation

Focus Areas	Evaluation Parameters	Loop Design	Cross Loop Design	Cross Loop Design (Alternative)
Coverage	Origin (Residential) Coverage (%) - within 200 m Buffer	50.74	46.67	53.75
	Origin (Residential) Coverage (%) - within 400 m Buffer	83.77	79.97	83.90
	Destination (Activity) Coverage (%) - within 200 m Buffer	76.20	75.40	72.46
	Destination (Activity) Coverage (%) - within 400 m Buffer	92.78	90.64	85.03

Table 4.5: Route and Service Evaluation (continued)

Focus Areas	Evaluation Parameters	Loop Design	Cross Loop Design	Cross Loop Design (Alternative)
Efficiency	Route Length (Kilometer)	15.4	(Loop 1 + Loop 2) = 11.98 + 6.49= 18.47	(Loop 1 + Loop 2) = 10.30 + 6.49= 16.79
	Travel Time (minutes)	42	(Loop 1 + Loop 2) = 33 + 18 = 51	(Loop 1 + Loop 2) = 28 + 18 = 46
	Transferred Required	None	2--3	2--3
	Headway (minutes)	42	33 18	28 18
Availability	Daily Hours of Service (hour) 6 am – 9 pm	15	30	30
Connectivity	Existing Active Transportation Network Opportunities for Linking to Public Transit Route	Yes	Yes	Yes
	Active Transportation Line Coverage (%) - within 200 m Buffer	71.83	58.72	62.89
	Active Transportation Line Coverage (%) - within 400 m Buffer	88.41	77.98	80.41
	Sidewalk Coverage (%) - within 200 m Buffer	71.13	66.40	82.94
	Sidewalk Coverage (%) - within 400 m Buffer	92.36	86.75	90.19
Cost	Operating Cost	Low	High	High
	Number of Bus	1	2	2

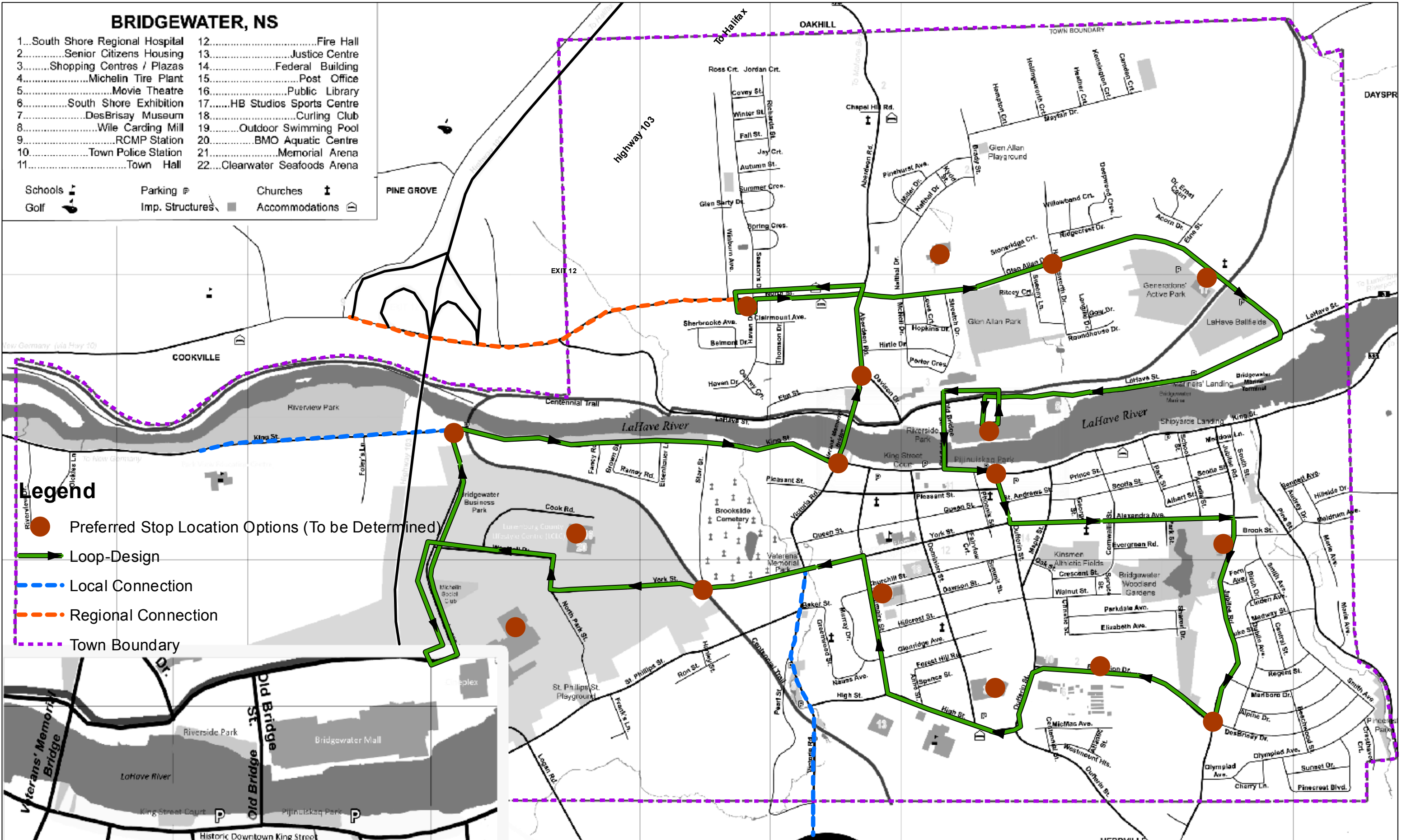
Based on the above evaluation, our recommended option for the Town is the Loop Design. The reasons for this recommendation are:

- In terms of origin and destination coverage, this option covers more residential and activity locations than the cross loop design;
- The route length and travel time still provide an efficient service, less than an hour between services, although is less frequent than the cross loop;
- Active transportation connectivity is higher for the loop design;
- The cost of providing this service is much less than the cross loop option as the loop design uses one bus instead of two buses.

BRIDGEWATER, NS

- | | |
|-----------------------------------|----------------------------------|
| 1...South Shore Regional Hospital | 12.....Fire Hall |
| 2.....Senior Citizens Housing | 13.....Justice Centre |
| 3.....Shopping Centres / Plazas | 14.....Federal Building |
| 4.....Michelin Tire Plant | 15.....Post Office |
| 5.....Movie Theatre | 16.....Public Library |
| 6.....South Shore Exhibition | 17.....HB Studios Sports Centre |
| 7.....DesBrisay Museum | 18.....Curling Club |
| 8.....Wile Carding Mill | 19.....Outdoor Swimming Pool |
| 9.....RCMP Station | 20.....BMO Aquatic Centre |
| 10.....Town Police Station | 21.....Memorial Arena |
| 11.....Town Hall | 22.....Clearwater Seafoods Arena |

- | | | |
|---------|-----------------|----------------|
| Schools | Parking | Churches |
| Golf | Imp. Structures | Accommodations |



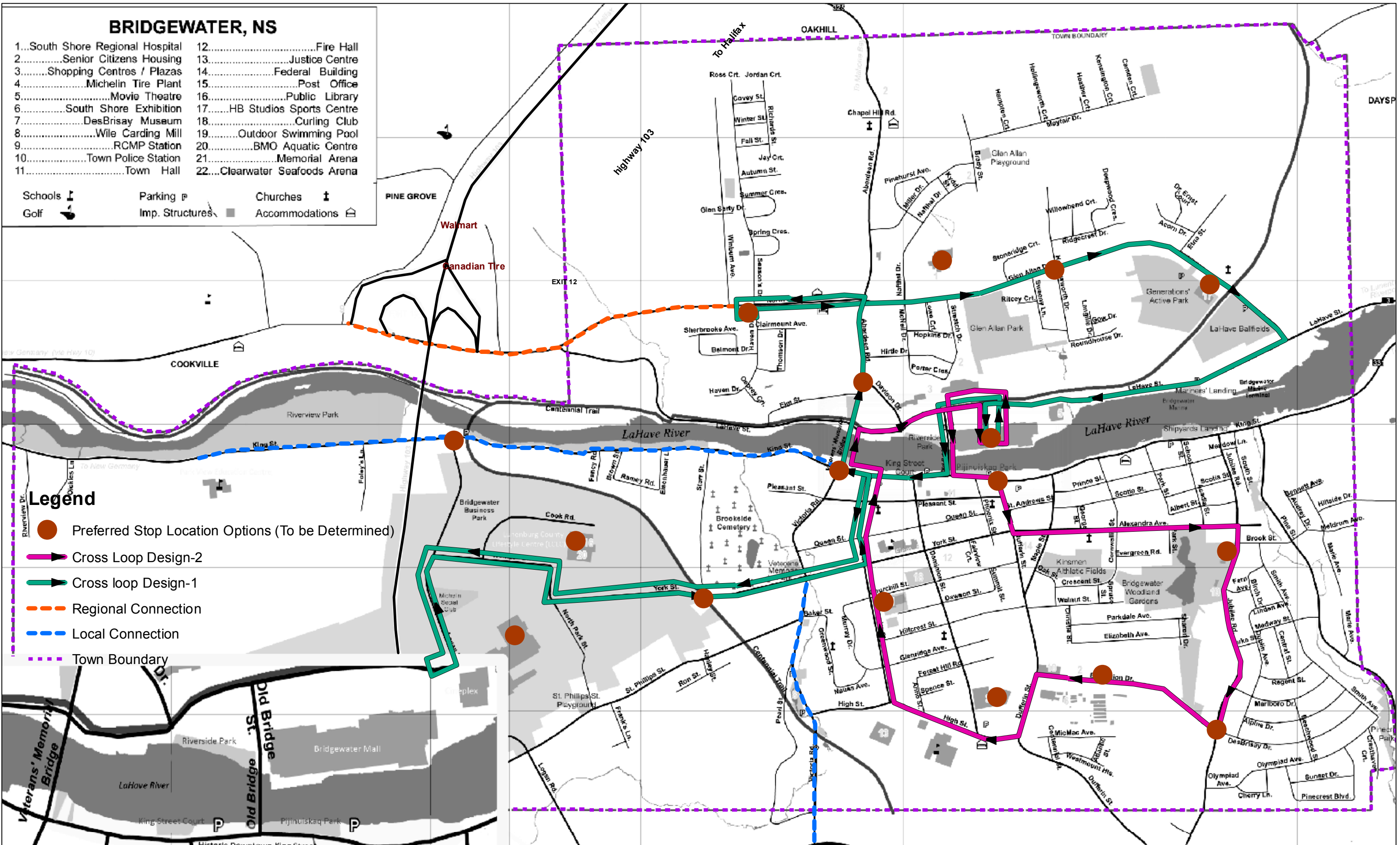
Legend

- Preferred Stop Location Options (To be Determined)
- Loop-Design
- Local Connection
- Regional Connection
- Town Boundary

BRIDGEWATER, NS

- | | |
|-----------------------------------|----------------------------------|
| 1...South Shore Regional Hospital | 12.....Fire Hall |
| 2.....Senior Citizens Housing | 13.....Justice Centre |
| 3.....Shopping Centres / Plazas | 14.....Federal Building |
| 4.....Michelin Tire Plant | 15.....Post Office |
| 5.....Movie Theatre | 16.....Public Library |
| 6.....South Shore Exhibition | 17.....HB Studios Sports Centre |
| 7.....DesBrisay Museum | 18.....Curling Club |
| 8.....Wile Carding Mill | 19.....Outdoor Swimming Pool |
| 9.....RCMP Station | 20.....BMO Aquatic Centre |
| 10.....Town Police Station | 21.....Memorial Arena |
| 11.....Town Hall | 22.....Clearwater Seafoods Arena |

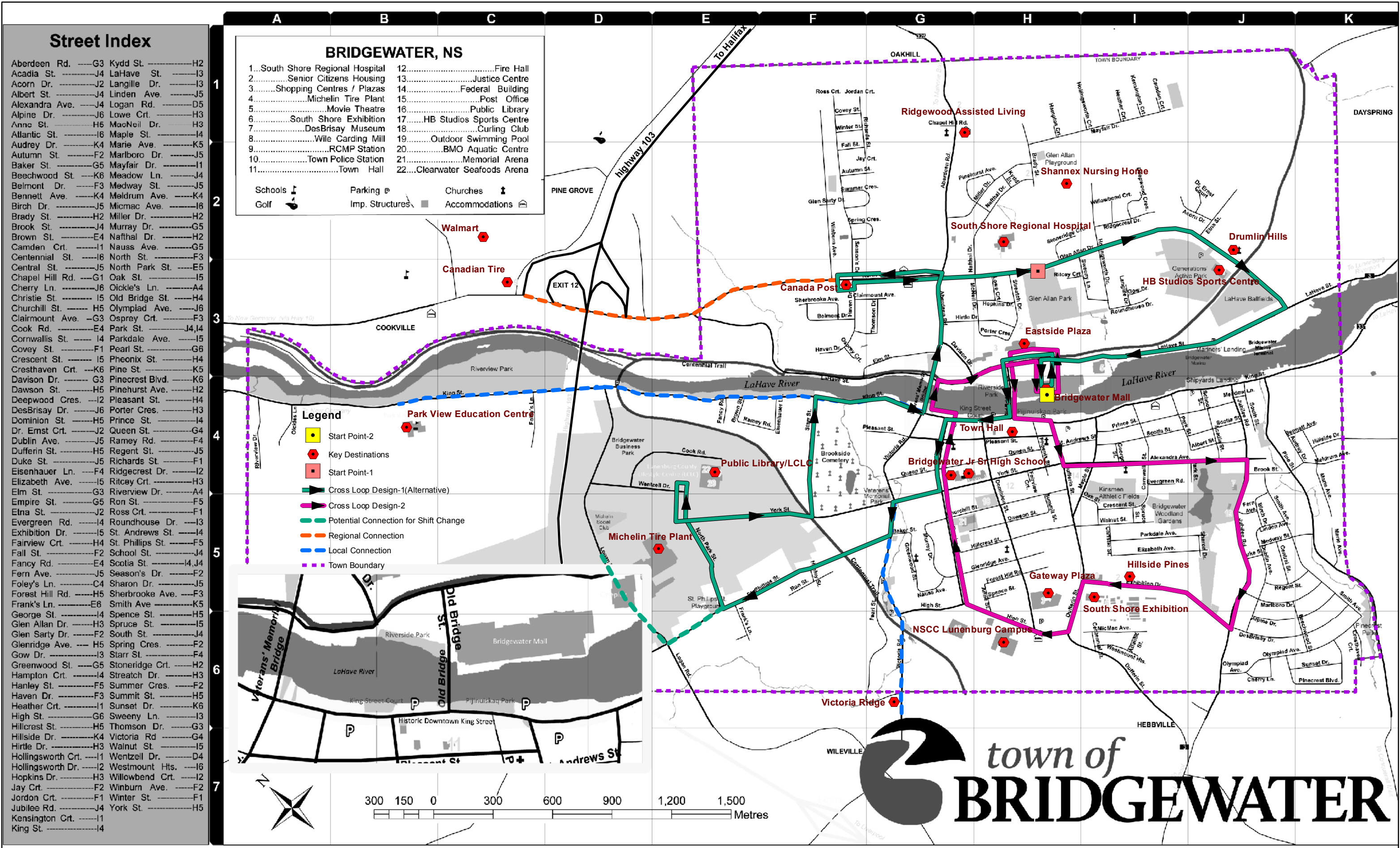
- | | | |
|---------|-----------------|----------------|
| Schools | Parking | Churches |
| Golf | Imp. Structures | Accommodations |



Legend

- Preferred Stop Location Options (To be Determined)
- Cross Loop Design-2
- Cross loop Design-1
- Regional Connection
- Local Connection
- Town Boundary





CHAPTER 5 FINANCIAL FEASIBILITY ASSESSMENT

5.1 Regulatory Environment for Transit

Based on the policy framework which is being guided by public and stakeholder input from the public meeting undertaken on Wednesday November 30th, 2016, a number of route options and service concepts have been suggested. Conceptual design consisted of preparing preliminary route maps and service plans to estimate potential ridership. The preliminary concepts for ongoing analysis include the following:

- Transit route concepts;
- Service concepts;
- Service level;
- Vehicles.

The Town of Bridgewater have already specified that they wish us to explore fixed route transit options for the geographic area of the town and its edges within the Municipality of the District of Lunenburg (MODL). Although previous studies have indicated that a fixed route would be too expensive and there were no government funding programs to support it, recently the Town of Yarmouth were successful in establishing a fixed route public transit system which began providing services in February 2016. This success has encouraged the Town of Bridgewater to re-visit a fixed route system in the hope that they can achieve the same results in similar geographical and demographic circumstances.

Based on the above, the Municipal Government Act (MGA) Section 55 will apply to the recommended transit service as the route is wholly within the Municipal boundary.

5.2 Business Model

Table 5.1 describes the type of business models that could be adopted for the town's public transit service. Although, some participants of the focus group suggested that the service be managed by non-profit or by a community/government/private board, it is recommended that the Town of Bridgewater use a public municipal transit governance model to operate the transit service.

Table 5.1: Types of Business Models

Type	1. Delegated Private Management and Operations/ Maintenance	2. Public Management and Private Operations/ Maintenance	3. Public Municipal Transit
Description	<ul style="list-style-type: none"> The municipality owns and is responsible to ensure the transit service is provided. The management, maintenance and operation of the vehicles is delegated to a third party service provider. 	<ul style="list-style-type: none"> The municipality is responsible for subsidizing all operating losses. Governance is often the responsibility of the municipal council, or publicly appointed board. 	<ul style="list-style-type: none"> All aspects of the transit service are a public responsibility, including maintenance and operation being provided by public sector employees.

5.3 Costing

Although we were conducting a feasibility study, we have considered the costs of a fixed route public transit system in the town. There are two key financial components to such a system:

- Operating budget; and
- Capital budget (Start-up Cost).

The operating budget takes into consideration the number of service hours, operational expenses such as driver’s salaries, fuel for the vehicle, licence and administrative fees etc. The anticipated revenue from the service is based on the level of ridership and fare amount.

Capital costs include the purchase of the bus or transit vehicles, as well as any infrastructure such as bus stops and shelters, fare box, advertising and marketing costs. These are generally referred to as Start-up Cost.

As the study progressed, we looked into the necessary components of both budgets for the Town of Bridgewater public transit system. **Tables 5.2a to 5.2c** below set out the various costs associated with implementing a public transit system, and also identifies the potential ridership and revenue obtained through operating the service.

The formulae for calculating the estimated costs are shown below, and are based on assumptions derived from the Town of Yarmouth’s public transit system.

Cost Estimation Methodology:

- Vehicle Purchase Cost = \$160,000 per Bus (based on Yarmouth)
- Fare Box Cost = \$5,000 for each Fare Box
- Bus Stops and Signs Cost = \$500 Per Bus Stop (based on Yarmouth) X Total Number of Stops
- First Aid Training Cost = \$300 for each Driver (Based on Yarmouth)
- Bus Driver Salary, Wages, and Benefits Cost = Total Service Hour per Year X \$18.63 per hour (based on Yarmouth)
- Fuel Cost per year = Total VKT per Year X Fuel consumption Rate(l/km) X Fuel Cost per Litre

Note that 7 mile / gallon (33.6 liter/100km) is used as a fuel consumption rate for gasoline and 104.9 cent is used as a fuel cost per litre.

- Bus Maintenance Cost = \$5,000 for each Bus (Based on Yarmouth)
- Ridership per Year in Bridgewater = Ridership per Year in Yarmouth X Population in Bridgewater / Population in Yarmouth
= 12,500 X 8241/6700

Note that transit ridership for Bridgewater is calculated based on the mode split ratio in the Town of Yarmouth. Transit ridership for Yarmouth is observed as lower than anticipated. However, Town of Bridgewater can expect higher transit ridership by ensuring effective transit service in town.

- Total revenue from Fare per Year = Ridership per Year X Fare for each Ride (\$2)

Table 5.2a: Capital Cost (Start-up Cost)

	Loop Option	Cross Loop Option
Number of Bus Required	1	2
Number of Stops	17	16
Vehicle Purchase Cost	\$160,000	\$320,000
Bus Stops and Signs Cost	\$8,500	\$8,000
Advertising, Marketing, and Information Cost	\$15,000	\$15,000
Fare Box Cost	\$5,000	\$10,000
Total Start-up Cost	\$188,500	\$353,000

Table 5.2b: Operating Cost (based on first year of Operating costs)

	Loop Option	Cross Loop Option
Total Service Hour per year	4,888	9,776
Total operating Hour per Year (Includes 1.5 Hour Break per day)	4,342	8,684
Total vehicle Kilometer Travelled (VKT) per Year	95,524	188,509
Number of Bus Driver Required	2	4
Bus Driver Salary, Wages, and Benefits Cost per Year	\$91,063	\$182,127
Fuel (Gasoline) Cost per Year	\$33,669	\$66,442
Bus Maintenance Cost per Year	\$5,000	\$10,000
Bus Inspection and Insurance Cost per Year	\$15,000	\$30,000
Advertising, Marketing, and Information Cost	\$15,000	\$15,000
First Aid Training Cost	\$300	\$600
Total Operating Cost per Year	\$160,032	\$304,169

Table 5.2c: Anticipated Revenue Per Year

	Loop Option	Cross Loop Option
Ridership per Year	15,375	15,375
Total Revenue from fare (\$2/Ride) per Year	\$30,750	\$30,750

5.4 Conclusions

Given that the funding of the transit services will fall to the Town of Bridgewater, it is hoped that additional funding will be provided by the Province of Nova Scotia or the federal government's infrastructure bank. For the Town to initiate the public transit system, the following responsibilities will need to be adopted:

- Applying for applicable funding or grants;
- Setting policies;
- Determining bus routes and bus stops in consultation with the service provider;
- Determining fares;
- Revenue risk;
- Public accountability;
- Service planning;
- Meeting accessibility act relative to transit services;
- Liaison with other local transit systems/organizations (Senior Wheels, Cloud Nine Shuttle, Citizens for Public Transit, Transit Lunenburg, Alternative Routes etc.)

Based on the evaluation undertaken above, we believe that a fixed-route public transit system is feasible for the Town of Bridgewater. Furthermore, we recommend that the Town consider the proposed Loop Option. This recommendation is due to the following influencing factors:

- The Loop design includes one bus, therefore the cost of the transit system is lower than the Cross Loop with two buses;
- The Loop option allows for the service to be explored within a conservative budget and schedule, and can be expanded later depending on demand;
- The coverage of origin and activity destinations is higher with the Loop option than the Cross Loop;
- Adopting a two bus option for the Loop design is not as efficient as using the two buses for the Cross loop design, as the Cross loop allows for less travel time and more direct access and reliability to both the work and non-work trip market;
- Should the Loop option be successful and attract a sustainable level of demand, then this design can be expanded to add additional vehicles, connections with local and regional services, and adopting Smart Card fare technology.

Based on our evaluation, the start-up cost (Capital Cost) is estimated to be \$188,500, and the operational cost is estimated to be \$160,032, both for the Loop option.

We also recommend that the Town adopts a cash and tickets fare system versus a Smart Card for the fare technology, at least to start with. This maintains simplicity of operation and understanding of the service for passengers, and the system can embrace more advanced fare technology in the future if demand indicates a change.

To ensure the investment in transit is protected, the Town of Bridgewater will require a “champion” from within the existing staff organization. The staff member would liaise with the service provider and be the point of contact for Council members and the public. In terms of governance, Council is ultimately responsible, and as such, it is recommended that the Town of Bridgewater establish a Transit Advisory Committee. If this is not an option, then the Transit mandate could be added to an existing committee, say one that is responsible for Active Transportation.

5.5 Comparison with the Town of Yarmouth Transit Service

Table 5.3 displays a comparison between transit system in the Town of Bridgewater and Town of Yarmouth. Table 5.3 demonstrates that the proposed transit service for the Town of Bridgewater is very similar compared to the existing transit service in the Town of Yarmouth.

Table 5.3: Comparison of Transit Service between Bridgewater and Yarmouth

Components	Town of Bridgewater	Town of Yarmouth
Route Type	1 Loop Design	1 Loop Design
Route length (km)	15.40	14.10
Number of Stops	17	17
Frequency	42 Minutes	45 Minutes
Bus Capacity	14-20 Passenger-Community Bus	14 Passenger-Community Bus
Fuel Type	Gasoline	Gasoline
Service Hour - Weekday	6am - 9pm	7 am - 7 pm
Service Hour - Saturday	8am - 7pm	8am - 6pm
Service Hour - Sunday	9am - 5pm	No service
Fare Technology	Cash and Tickets	Cash, Tickets, and Reloadable Pass

Table 5.3: Comparison of Transit Service between Bridgewater and Yarmouth (continued)

Fare Technology	Cash and Tickets	Cash, Tickets, and Reloadable Pass
Components	Town of Bridgewater	Town of Yarmouth
Flag Stop Service	Allowed	Allowed
Wheelchair Ramp	Available	Available
Front Load Bicycle Rack	Available	Available
Fare Per Ride	\$2	\$2

The reasons for the level of similarity are that the towns are approximately the same size in terms of population and core town centre area, as demonstrated by the similar length of route and the number of stops identified to provide an efficient service.

There is a good level of similarity between the two towns which would indicate that based on the success of the Town of Yarmouth's system, the Town of Bridgewater could see a similar level of success, or better.

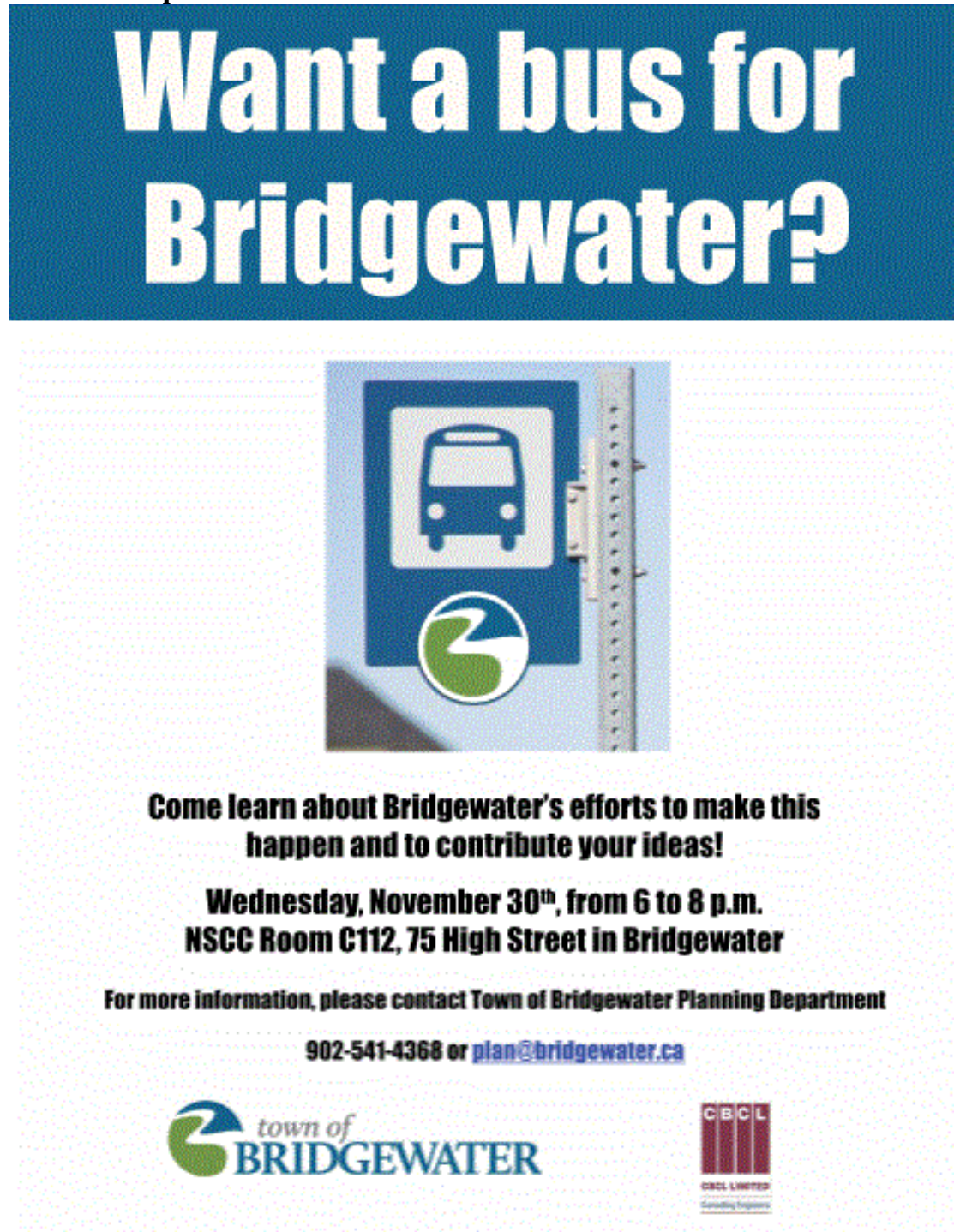
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Focus Group Invitation and Materials

Focus Group Invitation Poster



The poster features a dark blue header with the text "Want a bus for Bridgewater?" in large white font. Below this is a photograph of a blue sign with a white bus icon and a green circular logo. The sign is mounted on a wall. The main body of the poster is white with a light blue dotted background. It contains the following text: "Come learn about Bridgewater's efforts to make this happen and to contribute your ideas!", "Wednesday, November 30th, from 6 to 8 p.m.", "NSCC Room C112, 75 High Street in Bridgewater", "For more information, please contact Town of Bridgewater Planning Department", and "902-541-4368 or plan@bridgewater.ca". At the bottom, there are two logos: the Town of Bridgewater logo on the left and the CBCL Limited logo on the right.



Want a bus for Bridgewater?



Come learn about Bridgewater's efforts to make this happen and to contribute your ideas!

Wednesday, November 30th, from 6 to 8 p.m.
NSCC Room C112, 75 High Street in Bridgewater

For more information, please contact Town of Bridgewater Planning Department
902-541-4368 or plan@bridgewater.ca



Focus Group Participant Package



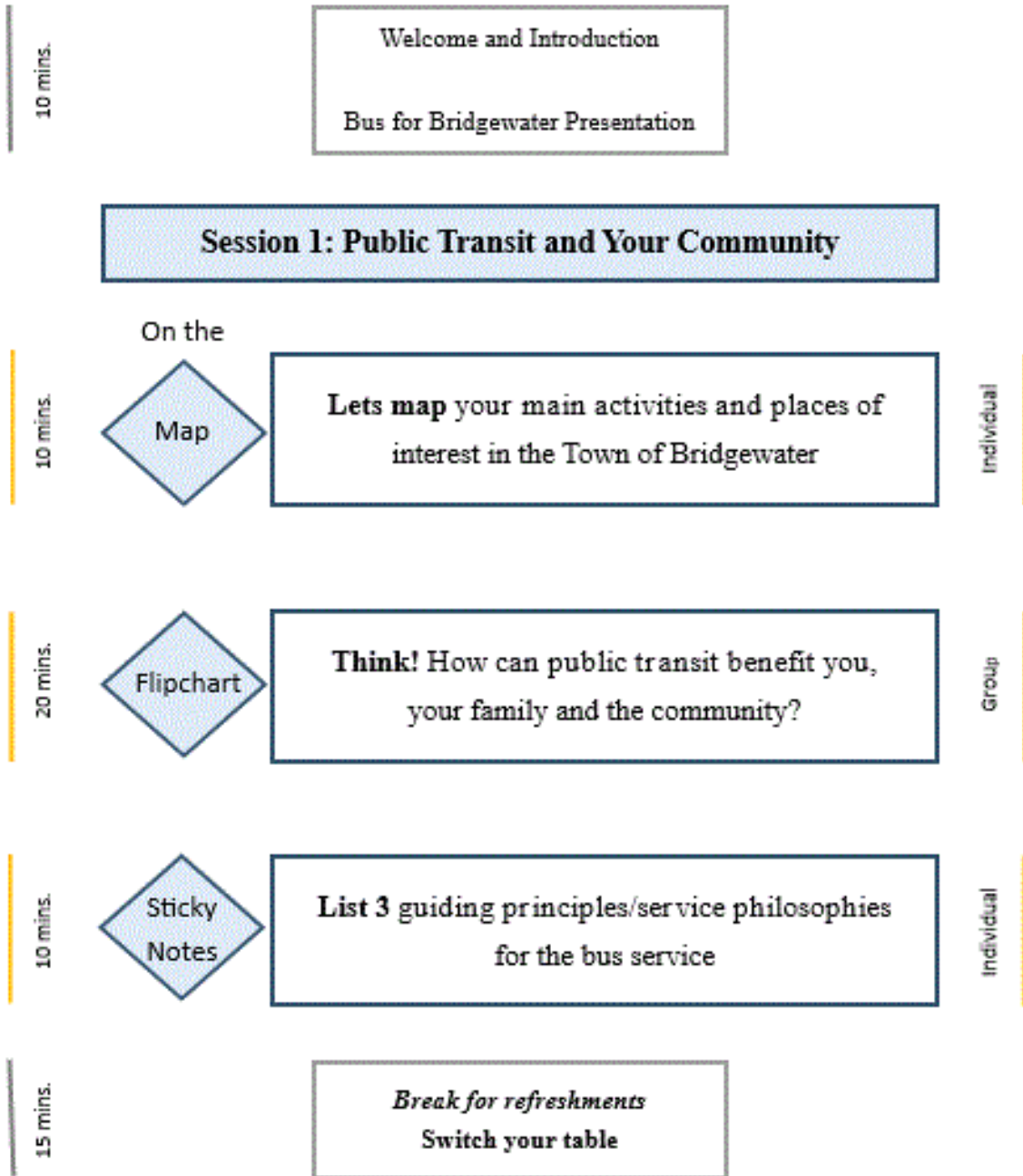
Date & Time: 6pm-8pm, November 30, 2016
Location: NSCC Room C112, 75 High Street, Bridgewater

Focus Group Description





This focus group will facilitate interactive and lively conversations about a fixed route transit system for the Town of Bridgewater. The main objective of the focus group is to receive community feedback on the principles, design, and features that should be prioritized in this proposed transit system. Community members will be asked to participate in mapping exercises, discussion and planning. From these conversations, a collective story will begin to emerge identifying the communities view on transit for the Town of Bridgewater. It is expected that the focus group will establish a general level of understanding for public transit in the Town, highlight areas that are important to community members, and identify possible route options.

In Session 1, individuals will map their main activities and places of interest in the Town of Bridgewater, including, home, work, education, shopping, recreation, etc. As a group, they will discuss how transit could benefit them, their families and the community. From this discussion each individual will list at least three guiding principles for the Town of Bridgewater bus service. In Session 2, in groups the participants will be asked to design a transit system for the Town. After mapping the system, they will be asked to discuss the features (e.g. bus types, bike racks, technology, flag stop, etc.) they would prefer to see for the town service. A volunteer from each group will summarize and present the findings to the entire group.

At the end, participants will be asked to complete a short survey (5 questions). The project team will analyse all information collected through the focus group and use ideas generated by the community in the transit feasibility study.



Session 2: Design your transit system

15 mins.	On the  Map	Draw bus routes and stop locations for the bus service	Group
20 mins.	 Flipchart	Discuss what features (e.g. service area priorities, market segments, technologies, governance model, etc.) you would prefer for the service	Group
10 mins.		Present a summary of your plans to the group	Group
5 mins.	 Survey Form	Complete the Focus Group Survey	Individual

Thank you for your participation in the Bus for Bridgewater Focus Group



Focus Group Survey

1. How likely are you to ride a public transit bus in the Town of Bridgewater, if available?

- Extremely likely Likely Not Sure Unlikely Extremely unlikely

2. How much are you willing to pay to ride the bus?

- Less than \$1 \$1 - \$2 \$2 - \$3 \$3 - \$4 \$4+

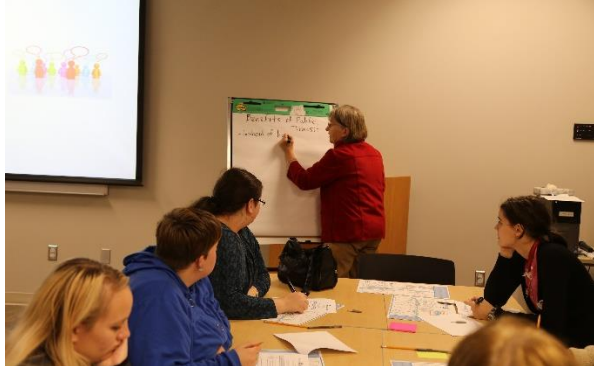
3. At what key destinations should the bus stop?

- | | |
|--|---|
| <input type="checkbox"/> South Shore Regional Hospital | <input type="checkbox"/> NSCC Lunenburg Campus |
| <input type="checkbox"/> Eastside Plaza | <input type="checkbox"/> Bridgewater Mall |
| <input type="checkbox"/> Michelin Tire Plant | <input type="checkbox"/> Gateway Plaza (No Frills/Pharmasave) |
| <input type="checkbox"/> Public Library/LCLC | <input type="checkbox"/> South Shore Exhibition |
| <input type="checkbox"/> Ridgewood Assisted Living | <input type="checkbox"/> Shannex Nursing Home |
| <input type="checkbox"/> HB Studios Sports Centre | <input type="checkbox"/> Town Hall |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

4. What attributes (e.g. bus types, bike racks, technology, flag stop, etc.) would you like to see in the service?

5. What is missing in the community discussion? Any additional comments please

Focus Group Photos



Focus Group Responses

Feedback from Focus Group

November 30, 2016

Session 1: Public Transit and Your Community

How can public transit benefit you, your family and your community?

Table 1

- Improve attendance of public events (\$\$)
- Attract and keep younger people/families in the area
- Reduce the need for 2 cars/family
- Reduces emissions (environmentally friendly)
- Makes locations more accessible
- Creates mobility for seniors and people with disabilities
- Aids in access to workplaces to allow people the opportunity to work
- Don't have to worry about parking
- Could be beneficial for tourism
- Reduce traffic
- Positive impacts for business owners on transit routes
- Possible impacts of use for public places like LCLC, outdoor parks, mall, etc.
- Help create a better standard of living
- Allows people to get out to socialize or volunteer
- Could help maintain/improve infrastructure

Table 2

- Freedom to move within community
- Access to services and employment
- Fitness/health benefits
- Safety (those who don't drive)
- Youth independence and opportunities
- Costs (don't have to pay for fuel/insurance, etc.)
- Reduce discrimination as it is available to everyone
- Option that reduces the stress of parking
- Social benefits
- Economic benefits
- People on the street which creates a sense of community/safety
- Good for the environment - decrease the need for vehicles
- If accessible to everyone
- Bus as source of freedom and well-being (all ages, all weather, all abilities, multimodal)
- Coburg, Ontario bus system worth a look

Table 3

- Instead of having a car/cab
- Less pollution
- Save \$\$
- Cheaper than a cab/car
- Gas \$\$ going up

- Not everyone can walk
- Get to the LCLC – won't have to "whether the weather"
- Get to work
- Get to school/college
- Get to stores
- Save money
- Better times
- Don't have to 'beg' for rides
- Access health care (Dr., hospital, dentist, mental health programs, physio, etc.)
- Safer than walking – weather and dangers
- Better relationships/ social contact – friends, relatives, join groups
- Help low income people help themselves
- Faster than walking – more opportunities, save time and energy
- Help parents get children to programs and activities
- Seniors more outgoing, less shut-ins/self sufficient
- Help build community (e.g. breakfasts church activities, sessions like this)
- Connect to other transit systems (i.e. go the Lunenburg, etc.)
- Help people stay out of trouble (i.e. license expired, court orders/appearances, prevent DUI (drinking & driving), keep appointments i.e. custody

Table 4

- Can attend events
- Benefits to aging community
- Able to get to work/school and return (by schedule)
- Access to services in town
- Access to lifestyle centre, courthouse, NSCC
- Inexpensive and reliable
- Decrease the number of cars on the road
- People can volunteer when they have access
- People can find work and go to work
- Students can get to high school or junior school without parents (e.g. on rainy days)
- Access to hospital (appointments), shopping, etc.
- People of low income can get to work, services, etc.
- People need to access a scheduled system
- ? # of buses
- ? frequency

Table 5

- Medical and family appointments
- Sporting activities (LCLC)
- Proximity of services (shopping, schools)
- Hotel connections (tourists!)
- Wherever people gather
- Drop off points (external parking/carpool)
- Links to other public services
- Reduce isolation (social impact)
- Timely/Efficient/Reliable
- On time/Fixed schedule
- One route to begin with

- Transfers at no charge

Table 6

- Access/ mobility
- Getting to work
- Programs, services (grocery, medical, financial)
- Increase opportunities
- Low-income; food banks
- Seniors
- Youth
- Caregivers
- Congestion (traffic)
- Strengthens ties – socialization, decrease isolation
- Connections
- Financial gains – reduce cost (no more need for car...)
- Employment
- Health

What are the guiding principles for the Bridgewater bus service?

- Reliable
- Affordable
- Safe
- Accessible including bikes
- Affordable – enough for everyone to feel that they can “just get on”
- Practical – enough to hit a useful route that doesn’t take too long to go through
- Frequent – enough to make it practical to “just show up”
- Affordability
- Convenience
- Snow days
- Accessible
- Efficiency
- Affordable
- Affordable
- Easy to navigate (routes, maps, connected to social media)
- Dependable (on time)
- All year
- Cheap
- Timely
- Accessible
- Reliable
- Reliable
- Constant
- Reliable
- Economical
- Affordable
- Reliability
- Covers all areas of the Town
- Reasonable bus fares
- Access to work

- Access to Dr. offices
- Access to Hospital
- Inexpensive
- Meaningful/useful schedule with sufficient coverage during the day
- Reliable, efficient service
- Safe
- Reliable
- Timely route
- Affordable (for Town and users)
- Reliable schedule
- Clean buses
- Well trained drivers
- Reasonable fares
- Inclusive
- Cost per rider
- Regular stops
- Route
- Affordable for all users
- Timely and reliable with a central route
- Accessible for seniors and the disabled
- Reliable transit with meeting places on King Street, High Street, Aberdeen Street, Jubilee Road, to hospital
- For all ages
- Affordable
- Sustainable
- Efficient
- Accessible to meet all needs
- Efficient
- Reliable
- Cost effective
- Time effective (< 30 min)
- Accessible – roll on, roll off
- Reliable
- Affordable
- Strategic stops (most vulnerable)
- Equitable
- Affordability
- Accessibility
- On time maintained schedule
- Accessible
- Affordable
- Reliable
- Peak times of day
- Timely stops
- Reliable
- Convenient
- Physically accessible

- Low cost
- Reliable and affordable bus service for the community
- Affordable
- Accessible
- Affordable
- Timely schedule
- Low, reasonable fares
- Clean and low breakdown
- Follows routes to relevant places
- Reliable
- Affordable
- Efficient – on time
- Cost efficient
- Affordable
- Depots
- Far reaching
- Affordable
- 7 days continuous, including nights
- A loop
- Cheap
- Need two buses
- Good hours
- Cheap
- Reliable
- More than one bus
- Extra service for special events
- Main stops
- Affordability – we already pay for public transit whether we have/use it or not. We subsidize getting people around now.
- Accessible for all – students with PT jobs or for extracurricular activities; seniors: poor, disabled, homeless; middle class: reduce car!
- Cheap
- Useful routes
- Frequent
- Saves on traffic, less congestion to mall, on King Street, and LaHave Street Plaza area
- Service for elderly
- Giving freedom to get out of the house

Session 2: Design Your Transit System

Where will the bus routes be for the Town? (notes from table presentations)

Table 1

- Dead end on either side of the river (2 routes)
- Seniors + school children priority
- Cross old bridge
- Main route + station at mall (lots of room)
- Similar to Yarmouth - \$3 a day

- Schedule around medical, school, recreation
- Wheelchair accessible
- Flag and stop service
- Technology – ramp or lift, smart card
- Accessible stops
- Government coalition (private, municipal, etc.)

Table 2

- Smart cards (employer reloadable) – tourists pay with cash
- Accessible
- Bus shelters or seating for waiting
- Solar powered bus shelters
- GPS and app location
- Flag and stop
- Automate time at shelter
- No wait longer than 30 minutes
- 7am-7pm
- \$2 per ride, \$3 per day

Table 3

- 2 bus/2 routes
- Terminal at the car wash
- 1 bus crosses at Cookville bridge
- Other bus – old bridge to Bridgewood and back across new bridge
- Video surveillance for safety
- Wheelchair accessible
- 7 days a week (less hours on weekend)
- Non-profit
- Discount for military, seniors and students
- Bike racks
- GPS location (call at stops for bus time)
- Buses are social space, should have limited rules

Table 4

- 1 bus route – key locations via old bridge
- Walk a little to get to a stop is okay, promotes active transportation
- LCLC and Michelin KEY
- Service lower income pockets of people
- All ages, Wi-Fi, accessibility, bike racks, GPS app to track bus, charging stations
- Managed by non profit

Table 5

- 1 bus, 1 route across old bridge
- HB studios, LCLC, schools, food bank, etc.
- Storage, wheelchair/stroller accessible
- 7am start – 7pm end
- Contract the service
- Not everyone has access to internet so make payment cash and/or card

Table 6

- 2 bus routes in circle with the river as the divide
- 2nd route makes the service more reliable

- Michelin, York street daycare, LCLC crossover at old bridge, Glenn Alan Drive, hospital, end at Walmart/big box stores at exit 12 of the 103
- Run peak service (6am-10am and 2:30pm-6pm) and 6am-2am standard
- Scent free, no smoking
- 16-18 seater with space for parcels, groceries
- \$2-\$3

What service features would you prefer?

Table 1

- Fares = adopt Yarmouth of like fares (e.g. \$3.00/day)
- Service Area Priorities:
 - Government offices
 - Medical/Dental (+ hospital)
 - Education (schools, NSCC, etc.)
 - Shopping
 - Recreation (flag + stop service)
 - Employment (flag + stop service)
 - Technologies
 - Accessibility tech. (e.g. ramp, kneeling feature)
 - Smart card
 - Governance with Community/Gov't/Private representation
 - Accessibility should be a priority

Table 2

- What type of bus?
 - Accessible for wheelchairs and strollers (roll on, roll off)
- Technology?
 - Smart cards (people can recharge them online, give a recharge as a gift, employers can recharge them)
 - Tourists and non-locals can also pay cash
 - Mobile Wi-Fi (incl. bus app)
 - Bus tracked – where is it?
- Bus infrastructure?
 - Display at bus stop that indicate how long bus will take to get there
 - Solar powered bus shelters
 - Safe place to wait (sitting and standing) – adequate room for wheelchairs
- Schedule?
 - Covers full work day (7am-7pm) minimum
 - No wait longer than 30 minutes - makes a big difference to whether people will use it
- Route/Stops?
 - Flag stops is important (flexibility, learning where people want to get on + off)
 - Bus going both ways on route – shortest travel time
- Fee?
 - \$2 per ride, \$3 for the day (with smart pass) – keep it affordable
 - Family rate
 - Free tickets if you shop local (incentive for tourists and visitors too)
 - Bundle with facility use e.g. LCLC

Table 3

- Has to be wheelchair accessible

- 7 days/week – lower weekend hours
- Senior + children + student + military discounts
- Not for profit
- No need for Wi-Fi
- Monthly and yearly passes
- GPS system for bus location notifications
- Video surveillance for security/safety
- Bike racks

Table 4

- All age groups
- Hospital/Dr./Medical
- Schools
- Athletic facilities
- Commercial areas (business)
- Wi-Fi
- Free service on holidays ☺
- Low ride/accessible
- Limited stops
- Bike racks
- Tokens + cards + cash
- GPS app.
- Charging stations
- Usage data
- Non-profit managed

Table 5

- Storage
- Wheelchairs
- Walkers
- Strollers
- Bike racks
- Fares cash (correct) and cards
- Start time 7am, end time 7pm (reality) or 9:30pm (perfect world) Monday – Friday
- Weekend Saturday only 9am-5pm
- Contract service out

Table 6

- Accessible
- Inclusive to everyone i.e. Park and Fly
- Place for a bike
- Different methods of payment (passes, cash, debit, etc.)
- Monthly passes
- Reduce fares for kids + seniors
- 6:30am-10:00am - peak morning run
- 2:30pm-6:00pm – peak evening run
- 14-18 seater
- Wi-Fi availability
- Advertisement space (above everyone)
- First aid kit + driver training

- CB radio
- Low floor
- Runs consistently from 1:30am – 6:00am
- Space between seats
- \$2-\$3 without a pass
- Scent free + no smoking
- No food + beverages
- More than one bus

What's missing?

- Carpool area
- Box stores, Walmart, etc.
- Linkage to other systems, i.e. dial-a-ride, senior wheels
- Safe transportation for kids 10-15. No taxis
- Sources of revenue

Focus group survey

1. How likely are you to ride a public transit bus in the Town of Bridgewater, if available?

Response	Number	Percentage
Extremely likely	10	30%
Likely	13	40%
Not sure	3	9%
Unlikely	6	18%
Extremely unlikely	1	3%

2. How much are you willing to pay to ride the bus?

Response	Number	Percentage
Less than \$1	0	0%
\$1-\$2	7	21%
\$2-\$3	21	64%
\$3-\$4	2	6%
\$4+	1	3%
No response	2	6%

3. At what key destinations should the bus stop?

Response	Number	Percentage
South Shore Regional Hospital	33	100%
NSCC Lunenburg Campus	30	91%
Eastside Plaza	22	67%
Bridgewater Mall	31	94%
Michelin Tire Plant	18	55%
Gateway Plaza (No Frills/Pharmasave)	30	91%
Public Library/LCLC	32	97%
South Shore Exhibition	13	40%
Ridgewood Assisted Living	15	46%
Shannex Nursing Home	12	36%

HB Studios Sports Centre	21	64%
Town Hall	9	27%
Other:		
Walmart/Canadian Tire area	11	33%
Schools (Parkview HS, Bridgewater JH and HS, Ecole de la Rive Sud)	9	27%
Jubilee Street (outdoor pool, museum, trails)	8	24%
King Street (business and shopping area)	8	24%
Drumlin Hills	5	15%
Residential Areas (high density housing)	4	12%
Dufferin Street (Dawson Centre, Federal Government Building)	3	9%
Museum (DesBrisay)	3	9%
Medical/Dental offices	3	9%
Post Office	2	6%
Parks	2	6%
Shipyards Landing	2	6%
Auto Row (Hebbsville)	2	6%
Court house/Social services	2	6%
Legion/Curling Club	1	3%
Cookville Plaza	1	3%
Military	1	3%
YMCA Youth Centre	1	3%
Call Centre	1	3%
Food bank	1	3%
Senior apartments	1	3%
Field House	1	3%
Hillside Drive	1	3%
LaHave ball field	1	3%
Communities near edge of town	1	3%
Exit 12	1	3%
Chester	1	3%
Mahone Bay	1	3%
Halifax?	1	3%

4. What attributes (e.g. bus types, bike racks, technology, flag stop, etc.) would you like to see in the service?
- 14-18 seater have a bike rack and have bus stop like in Halifax
 - Any, 7 days a week, all year
 - GPS, security cameras for safety of bus drivers and public. Cash and monthly/yearly passes
 - Wheelchair accessibility
 - Kneeling bus for easy access, space to put parcels and strollers, bike racks, 2-way radio/surveillance camera, well-lit shelters, more frequent service at peak hours.
 - Front of the bus loaded bike racks, 14-18 seater, low floor for accessibility; double rack behind driver (as with Park n Fly buses at the airport); Wi-Fi capacity; space above for ads
 - 2 buses going constantly on same route, OPPOSITE directions meeting at start point again for participants on way home

- Flag stop 2. low income access #1 (families, seniors, students, challenged) 3. late honks for workers, e.g. Walmart, merchandisers. 4. GPS service
- Bike racks would help for people who live farther off a bus route
- Medium size to start with
- Wheelchairs, walkers, fares, the start and end times
- Wheelchair lift, Accessible to all
- Weatherproof depots
- Stroller access, storage. Make it accessible for all.
- Wheelchair accessible, bike rack, fixed stops
- Roll on/Roll off (for wheelchairs, carts, strollers), flag stops, shelters (solar powered with info screens), Wi-Fi service/smart cards, connections with major hotels for tourist and temporary workers
- App for tracking, bike rack, seating for waiting at stops
- Ability to bring on strollers, standing and sitting room
- Wi-Fi, Wheelchair, 18-24 pass. Flag stop, record stops to determine permanent bus stops.
- Bike and stroller racks; wheelchair accessible, flag stop, \$3 max., monthly passes/yearly if possible, bus shelters for inclement weather
- Accessible buses with ramps/lifts, kneeling, etc., smart card, GPS, Wi-Fi, bike racks, flag stop.
- Roll on/roll off, bike racks, smart cards, self-driving bus, GPS, Wi-Fi, Flag stop, parcel/stroller/wheelchair storage
- Physical accessible, convenient, frequent, affordable.
- Barrier-free
- Wi-Fi, bike racks, low rider bus, wheelchair access, charging station, card access
- Flag stop, technologies relative to accessibility and GPS/phone app with scheduling, etc., bus shelters, accessible for people with disabilities/people with strollers/bikes, etc.
- Wi-Fi, debit/credit card acceptance, waste disposal
- Accessible for mobility aids, wheelchairs, strollers
- Fixed stops and flag stops (Fixed with seating)
- Smart cards for convenience and gather data, and cash option = flexibility
- GPS and stop/locations
- Must be reliable

5. What is missing in the community discussion? Any additional comments please

- How late will it run?
- Bus size, fuel bio fuel buses - take fryer waste to fuel the buses. The weight restriction on the old bridge do not use this bridge, use cook bridge and new bridge only
- Hours, every day?
- Older children and young teens need safe transportation to sports, etc. No to taxi service.
- All friends and children, elderly, with no cars, all year round, need transportation to move around whenever we need it.
- After hour/late service for night workers (medical, security, merchandisers, call centre, care workers, etc.). 2. Community end user input and review. If it doesn't work for the vulnerable, then it doesn't work. 24/7.
- Please take into consideration future development plans where French school is. There needs to be a stop there for students now, but especially for future subdivision and commercial zones.
- Who will be running the buses????
- Town of Lunenburg, Town of Mahone Bay, Municipality of Lunenburg

- Ability to respect all users of the transit system. Who is exactly using it? Peak times.
- Some sort of speaker system
- Measuring to see differences in opinions expressed between younger bus riders and older
- Carpool locations, local business offering free bus riders with purchase, inter-city connectivity (inter-town)
- Needs to be realistic, people need to be willing to walk. What happens if the bus breaks down? Back-up plan. Remember that although there are a lot of seniors in the community that there are many other populations who will use the service (i.e. youth).
- "Out of the box" thinking, our community is too hung up on what was vs. what could be.
- More discussion about accessibility
- Who funds this? SSRSB/MODL/Other orgs? - expectation that the bus will go outside of Town, when does that conversation begin with MODL? - True understanding of demand
- Not a lot of talk about funding yet. Is it possible to partner with businesses who would benefit from this service (e.g. major employers, those who would benefit from increased foot traffic near stops, etc.)? Even if it is heavily subsidized it is a necessary service
- I also think it is important to focus on those who will use public transit, not only those who have no other option - including amenities like Wi-Fi would help attract those people

Stakeholder Interviews

	Major Employers (Michelin, Millennium 1 Solutions, Canadian Tire, NSCC Lunenburg, South Shore Regional Hospital)
How many people do you employ?	<ul style="list-style-type: none"> • Approximately 1200 • Approximately 240 • 100 employees • Approximately 400 students, 75 employees • About 1200 people
What hours do employees work?	<ul style="list-style-type: none"> • Some employees work 12 hour shifts starting at 7:00 am and ending at 7:00 pm OR starting at 8:00 and ending at 8:00 pm. Approximately 450 employees are day-based and commence work as early as 5:00 am, or as late as 7:45 am. • Vary, 7am-3am • 40 hours per week: 3 days working 8am-6pm and 2 days working 12pm-9pm. Hours of operation are 8am-9pm Monday to Saturday and 8am-10pm Sunday. • Campus is open from 7:30am – 10:00pm Mon-Fri, Hours of operation 8:00am – 5:00pm Mon-Fri • It is a 24/7 operation with varying hours of work, and various shifts - typically 8 and 12-hour shifts, days, evening, and night shifts.
Where do employees commute from?	<ul style="list-style-type: none"> • We have employees who commute from as far as Barrington and Halifax. The vast majority of employees commute from within Lunenburg and Queens Counties. • All areas of the South Shore • 50% within town limits, 50% within the municipality • Lunenburg County, Queens County, HRM

	<ul style="list-style-type: none"> • Commuting from the Town of Bridgewater, Lunenburg, Liverpool and surrounding rural areas (Lunenburg and Queens County); employees also commute from Chester and area, Halifax, etc.
What are your thoughts on possible transit service?	<ul style="list-style-type: none"> • I believe that a transit service would be a benefit to some employees, provided the hours of operation met their needs to be at work on time. Timeliness and reliability will be a major issue; as an employer we expect our employees to be at their post at the start of their shift, so reliability of service will be very important to our employees. • We are 100% in support of this project! We would love to have a stop close to the call centre. • A transit service would be amazing! 72% of Canadian Tires customer base is retired, if there was a bus service available there would be a greater opportunity for these customers to travel around Town more often. • A sustainable public transit service would be a huge asset to the community
Do you think employees would take transit, if available?	<ul style="list-style-type: none"> • It is difficult to predict what employees might do. Usage will definitely depend on the availability of the service, the timeliness of stops at their workplace and homes along with the cost of such service. A significant portion of the Michelin population would see transit service as a good thing for the environment and would be willing to use the service. • Yes! • Yes. I have seen employees walking 20 minutes to work in snow storms instead of paying for a taxi because they can't afford it. A bus for the Town would be especially beneficial to employees. • I am sure some students would take advantage of this service • That would depend on employee personal choice and circumstances, but could be a good option for employees. However, shift work would need to be considered in scheduling. Public transit would certainly support the population we serve, particularly the older population living in this area, assisting in getting them to appointments, programs, healthcare, supporting health promotion and prevention.
At what key destinations should the bus stop?	<ul style="list-style-type: none"> • South Shore Regional Hospital • NSCC Lunenburg • Eastside Plaza • Bridgewater Mall • Michelin Tire Plant • Gateway Plaza • Public Library/LCLC • HB Studios • South Shore Exhibition • Canadian Tire/Walmart • Call Centre • Ridgewood Assisted Living • Shannex Nursing home • King Street

	<ul style="list-style-type: none"> • HB Studios • YMCA • Residential centres (apartments, etc.)
What service features should the bus include?	<ul style="list-style-type: none"> • From the perspective of a large employer, the service will need to be widespread and extremely reliable for our employees to be in regular attendance at work. There are probably logical pick-up points to service the optimal number of passengers to the Michelin plant. A flag stop service is probably not the most efficient or effective service type. If the technology exists, the display of the ETA for the next bus would be good to have at bus stops so that people can judge whether they will be at work on time. • Bike racks • Accessibility features would be enough • The service should have regular hours allowing individuals the ability to make plans and appointments knowing a regular bus schedule is in place.
Additional comments	<ul style="list-style-type: none"> • Comments from employees include: <ul style="list-style-type: none"> ○ Would be beneficial to some of our employees. ○ Great idea I hope it happens. ○ Great idea. ○ Have designated routes, stops at Hospital, Library, Shopping Mall, Walmart, Grocery Stores, etc. ○ How far out of town limits would this go? For example to the Carpool lots outside in Wileville and Cookville? This could really reduce the traffic issues in town. ○ I hope the public transit will bring us to neighboring towns as well. ○ I never use it ○ I think it is a great idea for those who live in town, it gives people an alternative instead of walking or taking a cab. ○ I think it is a great idea though ○ I think it is a great idea to have public transit for those individuals who do not have access to a car. ○ I think the cost should depend on the distance traveled, and instead of a monthly pass, a punch pass would be more efficient, as some may use it more frequently. ○ I would imagine that the bus could run to our town's more out-of-the-way areas as well: The LCLC, Michelin, Wal-Mart, and the DMV to make it easier for those who're less mobile than others. ○ if it is going to be just within Bridgewater town limits, I would probably not use it as I live outside of town; but I think it would be a great idea for those living in town and having to bum a ride or take a taxi ○ It is not reliable form of transit in regards of timing ○ It would be a great thing for people that don't have cars, or for people who can't afford a car. Don't make the fare too expensive, and don't make it go all over creation, or it won't be beneficial to anyone.

	<ul style="list-style-type: none"> ○ It would be beneficial to anyone living in town or the surrounding areas. I believe this would be a great service to the older individuals in this area as well. ○ It's desperately needed and highly beneficial to people that work in town. ○ It's not what I would like you to know but what I would like to know about possible transit in the Bridgewater area. Depending on the route and the areas the buses go would depend on how much one would be willing to pay. Are the possible routes just in town limits? Are they in surrounding community's like the routes in and around Halifax? What are the options for people living outside town limits who could take advantage of the buses? Is the possibility of community stops being considered as well? ○ Public transit would be great for people who really do need it. ○ So it would just travel the Bridgewater roads, not outside town? ○ The bus should cover areas of town where folks would financially benefit from low-income transportation, including to and from shopping "hot spots" ○ There are a lot of people that don't have access to a vehicle and also the LCLC is out of town and has no way to get there would be very beneficial to our community ○ This would be a good idea ○ Transit is a wonderful idea. A positive change for Bridgewater ○ Transit should cover main route/loop Dufferin/High St/King but also include other routes Walmart to LCLC ○ What would be the possible bus routes/stops? ○ Where would the transit go around town? Would it drop you off at any place you wanted or just certain designated stops? ○ Would be a fantastic idea for everyone who walks to work especially in nasty weather as long as it's not expensive ● The complex where Canadian Tire, Walmart and Boston Pizza are located was originally built about 10 years ago with the promise of many more stores also arriving there, however they were never built. If a bus service was available, then we could get more customers to this location – driving up sales and hopefully showing incentive for more businesses to move to this location. ● I am not sure if having a bus stop at Lunenburg Campus is essential BUT it is essential to have bus service in the High Street area.
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Existing Transportation Service Senior Wheels	
<p>Do you have a bus depot where the bus is parked overnight? Who provides the maintenance on the bus?</p>	<ul style="list-style-type: none"> ● Yes, we have a bus 'parking area' at La Have St. Auto Clinic. The owner does the maintenance on our bus. He also puts the bus in his garage when a snowstorm is pending.

<p>It states on the website that the program is now on its fourth bus in twenty years. Why is this?</p>	<ul style="list-style-type: none"> • We have been operating for 28 years and yes, we are on our fourth bus. The driving our buses do is very hard on motors, brakes, transmission, etc. A lot of stopping, starting and idling. All our buses have been new - with no exception! We had one diesel bus but found the maintenance costs far outweighed a gas system. We now operate a gas bus
<p>How does insurance work on a volunteer run service?</p>	<ul style="list-style-type: none"> • The insurance costs are about 1/2 the costs of a commercial bus. Our drivers are able to use their regular driver's licence. A commercial line would require the drivers to have an annual medical (I believe) and an upgrade to their driver's licence.
<p>How do you see integration between a public transit service for the Town of Bridgewater and your Senior Wheels service?</p>	<ul style="list-style-type: none"> • In all honesty, and this is the opinion of my 13-member Board of Directors -- we see no change in the use of our bus by our current clients. They get picked up at their door, taken to their destination, returned home to their door and the service is free to our clients. We do have a free will donation box on board and the majority of clients appreciate the service and place a donation in the box as a thank you.
<p>Additional Comments</p>	<ul style="list-style-type: none"> • Bridgewater definitely needs some form of bus system, so does Lunenburg County and the Province of Nova Scotia. The need is critical for some form of transportation to take our ageing population out into the community for medical, social and emotional purposes. I refer to 'emotional' in the sense that there are far too many 'couples' separated because one must go to a Long Term Care Facility and the other remains at home. (This is another service our bus system provides in delivering clients to the Facility's door for visitation with their loved ones). What is required is funding from the Federal and Provincial Governments before this is ever likely to happen.

	Existing Transportation Providers Taxi Services
<p>General Comments</p>	<ul style="list-style-type: none"> • Some reservation from taxi drivers on bus service, however: <ul style="list-style-type: none"> ○ Taxi is easier and convenient whereas bus takes too long for customers. People in the Town have no patience to wait on the bus – they want an immediate service. ○ Taxi is not replaceable, they are always needed especially in the snow • There could be negative impacts for the taxi service however the taxi service provides a door-to-door service which the elderly prefer and the bus will not offer • Taxis could be (good possibility) a feeder service however some companies may not want to <ul style="list-style-type: none"> ○ Taxi services in the town do not get along ○ Taxis are usually busier during the middle of the month • If a bus service is to start it should be small as the previous bus service had no scheduled stops and became unsuccessful

-
- Transit service should benefit all populations not just elderly, it should have a maintained, convenient schedule
 - Bus should go beyond Exit 12 or it could fail
 - Unsure whether people will give up their single occupant vehicle to take the bus, however elderly population may give up their vehicles
-

Feedback from Open House

January 23, 2017

1. What are your thoughts on the recommended vehicle options? (i.e. community bus, 5.9-6.7m with seating for 10-20 passengers)
 - 20-24 passenger, accessible with bike racks
 - Large van would be better as ridership will be low and seeing the large bus empty or near empty will look bad to taxpayers – better to be too small than too big when launching the system. Also lower capital cost is a clear advantage.
 - Good for practicality assessment and as a first stage to see if usage is under or over-capacity.
 - Community bus is a good idea to start
 - Best option
 - Agree with this style of bus
2. Which route design do you prefer and why? (i.e. Loop Design (1 bus / 1 route) or Cross Loop Design (2 bus / 2 route))
 - Cross loop, extended to include Asprey Village and Auto Row
 - Cross loop design with small buses
 - Cross-loop design would allow more flexibility. The total duration of the Loop design might be too long if bus frequency is too low.
 - Loop route design simple, good coverage, easy to understand
 - Would prefer one route
 - Loop is more likely
 - Starting with one bus and a single route keeps the cost at a level that council can agree to
3. What is your opinion on the recommended route option? (i.e. Loop Design)
 - A plan to fail, build a system that people will use
 - Too long between pick-up and return, like the cross loop design but to keep cost down use the small buses
 - Loop design might be acceptable at the beginning, so long as to assess bus capacity and travel time. If demand is high, then a cross loop design may need to be considered.
 - Recommend considering 2 buses, running in opposite directions, makes it more convenient to go to and from work, etc. Good contingency in case of breakdown.
 - Goes to most places id go
 - One route; 2 buses travelling in opposite directions
 - Add St Phillips instead of going down York
 - Think about going all the way up Jubilee to apartments at top, more people than going across exhibition
 - Left turn out of mall is a safety concern
4. Any additional comments please

- We all pay for public transit whether we have it or not. How much do we pay now for NOT having public transit; taxis for low income, medical for elderly, etc., etc.
- \$2 fare is appropriate based on what people put in the volunteer to pay box on Senior wheels.
- Small bus that occasionally too small is better than a near empty bus driving around town. Tax payers will not like that. Better to have a couple of complaints about too small a bus than complaints about empty buses driving around town.
- Bus should go to Canadian Tire (Walmart, etc.). Merchants out there should be approached to pay for that.
- Please consider out-of-town connections such as the Best Western hotel or the tourism office. The hotel connection may benefit tourists while the tourism office may enable out-of-towners (Mahone Bay/Lunenburg) to park their cars and take the community transit to reach Bridgewater.
- Must be reliable, even if a simple route.
- Bus time table: running times i.e. start of service, 7 days a week??
- MODL might op in about Exit 12, Victoria Ridge
- Cash and tickets – need to add online purchasing
- Bus stops – Drumlin across street from HB Studios stop – Hillside Pines apartments (seniors)

Bus for town of BRIDGEWATER

Open House Survey

1. What are your thoughts on the **recommended vehicle option?** (i.e. community bus, 5.9-6.7m with seating for 10-20 passengers)

2. Which route design do you prefer and why? (i.e. **Loop Design** (1 bus / 1 route) or **Cross Loop Design** (2 bus / 2 route))

3. What is your opinion on the **recommended route option?** (i.e. Loop Design)

4. Any additional comments please

Feedback from Open House

January 23, 2017

Open House Survey

1. What are your thoughts on the recommended vehicle options? (i.e. community bus, 5.9-6.7m with seating for 10-20 passengers)

- 20-24 passenger, accessible with bike racks
- Large van would be better as ridership will be low and seeing the large bus empty or near empty will look bad to taxpayers – better to be too small than too big when launching the system. Also lower capital cost is a clear advantage.
- Good for practicality assessment and as a first stage to see if usage is under or over-capacity.
- Community bus is a good idea to start
- Best option
- Agree with this style of bus

2. Which route design do you prefer and why? (i.e. Loop Design (1 bus / 1 route) or Cross Loop Design (2 bus / 2 route))

- Cross loop, extended to include Asprey Village and Auto Row
- Cross loop design with small buses
- Cross-loop design would allow more flexibility. The total duration of the Loop design might be too long if bus frequency is too low.
- Loop route design simple, good coverage, easy to understand
- Would prefer one route
- Loop is more likely
- Starting with one bus and a single route keeps the cost at a level that council can agree to

3. What is your opinion on the recommended route option? (i.e. Loop Design)

- A plan to fail, build a system that people will use
- Too long between pick-up and return, like the cross loop design but to keep cost down use the small buses
- Loop design might be acceptable at the beginning, so long as to assess bus capacity and travel time. If demand is high then a cross loop design may need to be considered.
- Recommend considering 2 buses, running in opposite directions, makes it more convenient to go to and from work, etc. Good contingency in case of breakdown.
- Goes to most places id go
- One route; 2 buses travelling in opposite directions
- Add St Phillips instead of going down York
- Think about going all the way up Jubilee to apartments at top, more people than going across exhibition
- Left turn out of mall is a safety concern

4. Any additional comments please

- We all pay for public transit whether we have it or not. How much do we pay now for NOT having public transit; taxis for low income, medical for elderly, etc., etc.
- \$2 fare is appropriate based on what people put in the volunteer to pay box on Senior Wheels.
- Small bus that occasionally too small is better than a near empty bus driving around town. Tax payers will not like that. Better to have a couple of complaints about too small a bus than complaints about empty buses driving around town.
- Bus should go to Canadian Tire (Walmart, etc.). Merchants out there should be approached to pay for that.
- Please consider out-of-town connections such as the Best Western hotel or the tourism office. The hotel connection may benefit tourists while the tourism office may enable out-of-towners (Mahone Bay/Lunenburg) to park their cars and take the community transit to reach Bridgewater.
- Must be reliable, even if a simple route.
- Bus time table: running times i.e. start of service, 7 days a week??
- MODL might op in about Exit 12, Victoria Ridge
- Cash and tickets – need to add online purchasing
- Bus stops – Drumlin across street from HB Studios stop – Hillside Pines apartments (seniors)

Millennium 1 Solutions Transit Survey



Local Employer and Organization Questions

Millennium 1 Solutions

1. Please provide background information about Millennium 1 solutions in Bridgewater, specifically:

- a. How many people do you employ?
Approximately 240 employees
- b. What hours do they work? What hours of operation do you have?
7 am to 3 am
- c. Where do employees commute from?
Lunenburg County

2. What are your thoughts about a possible transit service for the Town of Bridgewater?
Positive for community and our employees

3. Do you think employees would take transit, if available?
Yes, 60 % of employees said they would be interested

4. At what key destinations should the bus stop?

- | | |
|---|--|
| <input checked="" type="checkbox"/> South Shore Regional Hospital | <input checked="" type="checkbox"/> NSCC Lunenburg Campus |
| <input checked="" type="checkbox"/> Eastside Plaza | <input checked="" type="checkbox"/> Bridgewater Mall |
| <input checked="" type="checkbox"/> Michelin Tire Plant | <input checked="" type="checkbox"/> Gateway Plaza (No Frills/Pharmasave) |
| <input checked="" type="checkbox"/> Public Library/LCLC | <input checked="" type="checkbox"/> South Shore Exhibition |
| <input checked="" type="checkbox"/> Ridgewood Assisted Living | <input checked="" type="checkbox"/> Shannex Nursing Home |
| <input checked="" type="checkbox"/> HB Studios Sports Centre | <input checked="" type="checkbox"/> Town Hall |
| <input checked="" type="checkbox"/> Other Millennium1 Solutions | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Other WalMart | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

5. What service features should the bus include (e.g. bus types, bike racks, technology, flag stop, etc.)?

6. Would you like to provide any additional comments?
See comments attached from employees

Other Comments from the Millennium 1 Solutions Survey:

- Would be beneficial to some of our employees.
- Great idea I hope it happens.
- Great Idea.
- Have Designated Routes, Stops At Hospital, Library, Shopping Mall, Walmart, Grocery Stores, Etc.
- "How far out of town limits would this go? For example to the Carpool lots outside in Wileville and Cookville?"
- This could really reduce the traffic issues in town."
- I hope the public transit will bring us to neighboring towns as well.
- I never use it
- I think it is a great idea for those who live in town, it gives people an alternative instead of walking or taking a cab.
- I think it is a great idea though
- I think it is a great idea to have public transit for those individuals who do not have access to a car.
- I think the cost should depend on the distance traveled, and instead of a monthly pass, a punch pass would be more efficient, as some may use it more frequently.
- I would imagine that the bus could run to our town's more out-of-the-way areas as well: The LCLC, Michelin, Wal-Mart, the DMV to make it easier for those who're less mobile than others.
- if it is going to be just within Bridgewater town limits, I would probably not use it as I live outside of town; but I think it would be a great idea for those living in town and having to bum a ride or take a taxi
- It is not reliable form of transit in regards of timing
- It would be a great thing for people that don't have cars, or for people who can't afford a car. Don't make the fare too expensive, and don't make it go all over creation, or it won't be beneficial to anyone.
- It would be beneficial to anyone living in town or the surrounding areas. I believe this would be a great service to the older individuals in this area as well.
- It's desperately needed and highly beneficial to people that work in town.
- "Its not what I would like you to know but what I would like to know about possible transit in the Bridgewater area. Depending on the route and the areas the buses go would depend on

how much one would be willing to pay. Are the possible routes just in town limits? Are they in surrounding community's like the routes in and around Halifax?

- What are the options for people living outside town limits who could take advantage of the buses? Is the possibility of community stops being considered as well? "
- Public Transit would be great for people who really do need it.
- So would just travel the Bridgewater roads, not outside town?
- The bus should cover areas of town where folks would financially benefit from low-income transportation; including to and from shopping "hot spots".
- there are a lot of people that don't have access to a vehicle and also the LCLC is out of town and has no way to get there would be very beneficial to our community
- this would be a good idea
- Transit is a wonderful idea. A positive change for Bridgewater
- Transit should cover main route/loop dufferin/high st/king but also include other routes Walmart to LCLC
- What would be the possible bus routes/stops?
- Where would the transit go around town? would it drop you off at any place you wanted or just certain designated stops
- Would be a fantastic idea for everyone who walks to work especially in nasty weather as long as its not expensive