

Senior-Friendly Public Transportation in Winnipeg: Towards a Comprehensive Strategy



**Karina Cardona Claros
Daniel Powell
Lydia Carpenter
Arthur Ladd
Gina Sylvestre**



2009

Transportation Options Network for Seniors (TONS) and the Institute of Urban Studies (IUS) acknowledges and thanks the contributions of many stakeholders and members of the community in the research:

Age & Opportunity
City of Winnipeg Public Works
City of Winnipeg Streets and Maintenance
Good Neighbours Senior Centre
Gwen Sectar Creative Living Centre
Handi-Transit
Partners Seeking Solutions with Seniors
Senior participants of personal interviews and surveys
St. James-Assiniboia Senior Centre
University of Winnipeg, Department of Geography, Map Library
West Broadway Senior Centre
West End Senior Centre
Winnipeg Regional Health Authority
Winnipeg Transit

As well as the funding agency that made this investigation possible:

Public Health Agency of Canada



Gwen Sector Creative Living Centre's Shuttle Bus

Senior-Friendly Public Transportation in Winnipeg: Towards a Comprehensive Strategy 2009



ABOUT THE TRANSPORTATION OPTIONS NETWORK FOR SENIORS

The Transportation Options Network for Seniors (TONS) is a community coalition of multi-sectoral stakeholders involved in ensuring that seniors in Winnipeg can access affordable, accessible and appropriate transportation when they need it. The coalition was formed in 2000 in response to the serious difficulties experienced by older adults in accessing mobility resources. TONS formerly operated under the name Seniors Transportation Working Group. TONS currently focuses upon public transportation, rural transportation and private transportation.



ABOUT THE INSTITUTE OF URBAN STUDIES

Founded in 1969 by the University of Winnipeg, the Institute of Urban Studies (IUS) was created at a time when the city's "urban university" recognized a need to address the problems and concerns of the inner city. From the outset, IUS has been both an educational and an applied research centre. The Institute has remained committed to examining urban development issues in a broad, non-partisan context and has never lost sight of the demands of applied research aimed at practical, often novel, solutions to urban problems and issues.

**Karina Cardona Claros
Daniel Powell
Lydia Carpenter
Arthur Ladd
Gina Sylvestre**

Design and layout by Karina Cardona
Photography by Daniel Powell, Lydia Carpenter and Karina Cardona

Table of Contents

Executive Summary.....	6
1. Introduction.....	9
2. Methodology.....	11
3. Challenges to Using Public Transportation for Seniors	15
3.1 Effects of aging that affect transportation behaviour.....	15
3.1.1 Personal Circumstances.....	15
3.1.2 Social Circumstances.....	21
3.2 Gaps in Public Transportation Services	25
3.2.1 Awareness, Planning and Education.....	25
3.2.2 The Route, The Wait, The Ride	29
3.3 Handi-Transit: The Alternative for Mobility Challenged Persons	42
3.3.1 Snapshot of Handi-Transit and Seniors	42
3.3.2 Limitations to the Usefulness of Handi-Transit as a Service for Seniors ..	44
4. Opportunities: Senior-Friendly Public Transportation.....	45
4.1 Senior-friendly Public Transportation Services: Guiding Principles, Actions and Features	45
Principle 1: Acknowledge and support the needs of older adults.....	48
Principle 2: Build confidence in ridership by seniors	48
Principle 3: Reduce risks to health and safety of older pedestrians	51
Principle 4: Ensure comfort and security of older riders.....	54
Principle 5: Improve accessibility for isolated and/or vulnerable seniors	56
Principle 6: Foster inclusion and independence of older adults	63
Conclusion.....	64
References.....	65
Appendix A - Survey	- 68 -
Appendix B - Survey Results.....	76
Appendix C – Maps.....	77

Executive Summary

Healthy aging requires a safe and convenient method of connecting to life outside of the home. Public transportation can fulfill this essential role in assisting people to conduct both instrumental activities of daily life, such as grocery shopping, and social activities of daily life, such as visiting with family and friends. Senior-friendly public transportation in Winnipeg has never before been considered by relevant stakeholders through a sustained and coordinated effort. The Public Transportation Sub-committee of the Transportation Options Network for Seniors (TONS) is a multi-stakeholder community coalition that focuses on the importance of addressing this issue. During the fall and winter of 2008/09, TONS undertook an examination to identify and report upon the opportunities and challenges in existing public transportation systems and services for seniors in the city of Winnipeg. The research was conducted through the Institute of Urban Studies and done in collaboration with seniors in the community as well as relevant stakeholders so as to develop practical solutions to the problems. This position paper is intended to inform the various parties responsible for the provision of public transportation about the gaps in knowledge about seniors as clients. This document should also serve useful to seniors and other members of the public interested in this issue-area.

The findings of surveys, focus groups, personal interviews, GIS analysis and a literature review show that the current gaps in public transportation for seniors fit into three main categories.

1. **The process of aging has many effects that result in consequences upon transportation behaviour. These include physical, social and psychological dimensions to a person's well-being.** The anecdotes provided by seniors shed light on the impact of physical declines such as losses to hearing and sight, mobility and reaction times, increased susceptibility to injury and their associated psychological implications upon transportation. Furthermore, a person's transportation requirements such as times of usage and destinations of importance were also reported as changing with age. This is impacted by levels of independence work life/retirement, income, living alone, cessation of driving, and the availability of support from social networks. Because these issues are somewhat invariable, the development and provision of services for seniors ought to take these important factors into consideration.
2. **The use of public transportation is a multi-step engagement and its usefulness for seniors can be evaluated by how well the steps of usage can be conducted by an elderly client. It begins with awareness and education and is followed by the practice of using the system. This involves a combination of trip planning, the routes traversed to bus stops, the wait for buses to arrive and the ride upon the bus.** When these steps cannot be conducted safely and confidently, older adults without viable transportation alternatives are likely to stay at home and become isolated.

- a. Challenges reported by seniors as part of the route included long distances from home to the bus stop, poor sidewalk conditions, snow and ice during the winter, a lack of curb cuts, and few or brief opportunities to cross the street.
- b. Challenges reported by seniors as part of the wait included a lack of benches, shelters, and appropriate signage, infrequency of buses during the daytime, lengthy wait times, a perception of poor lighting and safety, and poor visibility of waiting passengers to drivers.
- c. Challenges reported by seniors as part of the ride included concerns about boarding (use of kneeling and ramp features), losing balance if not seated prior to acceleration, a lack of enforcement of designated seats, the inconvenience of fixed routes with respect to important destinations for seniors, and the value of courtesy and assistance.

3. **As older persons transition through phases of aging, there is a great benefit in having access to increased assistance and support for conducting activities of daily life.** Transportation is an essential link to many activities of importance and as such is an area of opportunity for the implementation of senior-friendly services that have yet to be explored.

Seniors require assistance in using public transportation and appropriate, successful options must be responsive to this. Currently, the City's only alternative to conventional public transportation is Handi-Transit. While a majority of its clients are seniors, the emotional, social, cognitive, or environmental issues faced by seniors are not the priority of the service. Its mandate is to ameliorate the impacts of extreme physical impairments upon transportation-disadvantaged persons and so many that could benefit from the service do not meet eligibility requirements.

Alternatives to conventional services are needed. Alongside TONS, addressing the issues faced by seniors in using public transportation will require the response of several key stakeholders. In order to be able to collaborate towards this joint goal, it is essential that the various parties operate from a place of common understanding and purpose. With this as a goal, six guiding principles and 14 recommended actions were drafted as a point of reference for these actors. These are summarized in the table *Senior-Friendly Public Transportation Services*. The principles respond to transportation-related stress and isolation for seniors. The actions are aimed at:

1. Assisting able seniors to access conventional transit through the removal of barriers and provision of additional support
2. Assisting vulnerable seniors to remain independent through the development of supportive senior-friendly alternatives to conventional service

Senior-friendly Public Transportation Services: Guiding Principles and Actions
PRINCIPLE 1: ACKNOWLEDGE AND SUPPORT THE NEEDS OF OLDER ADULTS
<i>Action One:</i> Recognize that the process of aging complicates the use of public transportation systems
<i>Action Two:</i> Provide additional assistance to meet the unique needs of seniors
PRINCIPLE 2: BUILD CONFIDENCE IN RIDERSHIP BY SENIORS
<i>Action Three:</i> Raise awareness amongst neighbours and the public to engage in senior-friendly behaviours
<i>Action Four:</i> Help seniors to develop comfort and confidence with bus ridership through trip planning and travel training
PRINCIPLE 3: REDUCE RISKS TO HEALTH AND SAFETY OF OLDER PEDESTRIANS
<i>Action Five:</i> Improve routes to the bus stop by improving snow clearing, sidewalk maintenance and curb cuts close to seniors' homes
<i>Action Six:</i> Ensure adequate timing and opportunities for street-crossings
PRINCIPLE 4: ENSURE COMFORT AND SECURITY OF OLDER RIDERS
<i>Action Seven:</i> Provide comfortable environments for waiting at bus stops
<i>Action Eight:</i> Ease process of boarding the bus
<i>Action Nine:</i> Enforce priority seating aboard the bus
<i>Action Ten:</i> Educate bus drivers about the specific needs of seniors
PRINCIPLE 5: IMPROVE ACCESSIBILITY FOR ISOLATED AND/OR VULNERABLE SENIORS
<i>Action Eleven:</i> Increase door-to-door service options
<i>Action Twelve:</i> Expand variable route, demand-responsive services
<i>Action Thirteen:</i> Develop fixed route loops for common destinations for seniors
PRINCIPLE 6: FOSTER INCLUSION AND INDEPENDENCE OF OLDER ADULTS
<i>Action Fourteen:</i> Support opportunities for socializing aboard the ride to common destinations

It is worth noting that while drafted with a senior-centered focus, these improvements could ultimately be developed to benefit other members of the community towards an age-friendly city. Groups that may also face challenges in using conventional public transportation include newcomers and families.

1. Introduction

Healthy aging requires a safe and convenient method of connecting to life outside of the home. Public transportation can fulfill this essential role in assisting people to conduct both instrumental activities of daily life, such as grocery shopping, and social activities of daily life, such as visiting with family and friends (Phillips, Richards, Maddocks & Spiegel, 2009.) As aging-in-place is a common choice made by older adults in Winnipeg, home care programs are used by health promotion agencies in order to prevent and address isolation (Hodge, 2008). These are services that are delivered within a person's home, such as friendly-visiting and meal delivery, allowing them to remain in their residence for longer than would otherwise be possible. However, involvement in group and social activities outside of the home is considered by seniors to be more beneficial to their well-being than one-on-one friendly visits with volunteers (Cattan, White, Learmouth, 2005). Health and wellness activities are offered by various organizations to assist seniors in remaining engaged within the community. Yet, these functions cannot be accessed without appropriate transportation that meets the needs of seniors (Newall, Hall, Payne, 2006). As an Executive Director of one Senior Resource Council observed,

“When we first started our outreach program, people said if we provide a bus that they would come out but that if we couldn't they wouldn't. This is difficult for us to do because it's so expensive. It feels like we are scrambling every week to make it happen.”

Over the last four years, bus ridership has decreased amongst seniors in Winnipeg (Winnipeg Transit, personal communication, January 20, 2009). This shift away from use of public transit is of particular concern because the proportion of Winnipeg's population constituted by older adults is increasing. User-oriented bus service has been given significant consideration by Winnipeg Transit. This is observable through frequent improvements that increase accessibility and efficiency. The desired outcome of such efforts has been to decrease demand on Handi-Transit by making regular transit a more viable option for physically impaired clients. Yet, the unique needs of a growing population of seniors have not been examined and so many potential clients of Transit are not currently engaged in use of the system.

The distinction must be made that these 'needs' are not exclusively the same issues presented by persons with physical impairments. The aging process may involve life changes which include reduced social supports, declines to sensory responses, and changes to mobility. Older persons become more susceptible to injury as their physical vulnerability increases. Long stretches of icy sidewalks, high curbs and either a lack of, or shortly timed, pedestrian crossings at intersections compromise sense of safety. Fears develop about the injury risks associated with use of public transportation. This leads to reduced outings and relegates lifestyles to subsistence-oriented trips such as grocery shopping or bill payment. For those who are no longer able to use the conventional system safely, yet do not meet the strict eligibility requirements of Handi-Transit, a negative cycle of isolation and declining health is perpetuated.

This report takes the perspective that there are two major considerations in applying a 'senior-oriented' lens to addressing the gaps in City services which are excluding many seniors from using Transit.

1. The first is that there are elements of the user-system relationship that are fixed. These elements involve components of an individual's personal and social realms. These include physical and emotional aspects, circumstances presented by the transitions of aging and important destinations which will not, or are unlikely, to change.
2. The second is that there are variable elements of the system which could be altered in consideration of the person and their needs. These include features of the transportation system and the effects of the built environment that govern and influence how older adults are able to meet both their instrumental and social activities of daily life.

The following will describe how information was gathered through collaboration with stakeholders and participation from the community. The use of geographic information systems (GIS) and data sharing permitted the production of maps that identified most-at-risk seniors, thereby permitting for surveys and interviews to be conducted with older adults in these areas. Quotes gathered through these discussions are incorporated throughout the report. Some maps are included in this report for the reader and others are to be shared with key stakeholders in further discussions.

The findings report upon the issues identified by seniors as challenges to using the public transportation system. Each of the issues described by seniors is supported with personal anecdotes and later responded to with recommendations for improvement. The various practices of the public transportation system and its supportive municipal services are acknowledged and analysed for their successes and short comings.

A set of 'Guiding Principles' and associated 'Actions' towards Senior-Friendly Public Transportation frame the recommendations of this report. Case studies of alternative policies and practices are integrated where possible. The goals of a senior-friendly public transportation services strategy should be to provide better service to those able to use the current system and to allow access to those unable to use either conventional or Handi-Transit. The key characteristic that must be considered in responding to the needs of seniors is the increased importance of assistance as a person transitions through phases of aging.

2. Methodology

The development of this position paper involved a multi-method approach with a particular emphasis on the engagement of community and civil stakeholders to inform the specific goals of the research activities. The goals of the investigation were guided through collaboration with stakeholders responsible for public transportation. The participation of senior resource councils and seniors living in the community provided accurate insights to the transportation behaviours of a range of seniors. The findings reflect a balance of the challenges described by seniors and the efforts being made by stakeholders to address them. The following section describes how this process of participatory research has evolved, how it was carried out for this project and how the engagement of interested parties has built trust amongst participants as well as lent validity to the findings.

History of Community Coalition Addressing Public Transportation for Seniors

TONS considers the guidance and input of stakeholders paramount to the development of relevant and applicable solutions that address public transportation for seniors. On March 20, 2008, TONS (formerly the Seniors Transportation Working Group) held a workshop in Winnipeg to inform stakeholders of recent research findings, and to receive input from representatives towards the refinement of areas of action on transportation for seniors in Manitoba. The gathering brought together a group representative of:

- Civic, provincial and federal government departments
- Senior-serving organizations
- Service providers
- Researchers

The participation of these stakeholders and community demonstrated the strength of relationships built over the course of years of research into the issue. Through input from participants, five strategic priority areas were selected based on feasibility, one of which was public transportation. *An Action Plan for Seniors Transportation in Manitoba: Strategic Priorities*, the reporting of the workshop, was distributed to participants. These included Winnipeg Transit, Handi-Transit, City of Winnipeg Streets and Maintenance, Planning, Property & Development and Access Committee, Manitoba Intergovernmental Affairs and Trade, and Manitoba Health.

In September of 2008, the Public Transportation Sub-committee of TONS was formed in response to the report. Membership of the Sub-Committee is comprised of representation from:

- City of Winnipeg Mayor's Seniors Advisory Committee
- Winnipeg Regional Health Authority
- Good Neighbours Seniors Centre
- Age & Opportunity
- St. James-Assiniboia Seniors Centre
- Manitoba Seniors and Healthy Aging Secretariat, and the Public Health Agency of Canada provide council.

A series of next steps were identified by the group for further investigation. These included developing an understanding of the senior-oriented opportunities and challenges of Dial-A-Ride-Transit (DART), Handi-Transit, community shuttles and issues of accessibility. Ultimately, the expansion of Winnipeg Transit's DART service was selected as the primary focus of the committee.

Engagement of Key Stakeholders

In order to refine how best to pursue this goal, municipal representatives from Winnipeg Transit and Handi-Transit were invited to attend two committee meetings.

- The dialogue with Winnipeg Transit examined the opportunities and challenges associated with the expansion of DART services on a city-wide or neighbourhood scale.
- The communication with Handi-Transit allowed for an up-to-date reporting on new policies, statistics reflecting changes in ridership and the administrative considerations in improvements.

The City of Winnipeg's Department of Streets and Maintenance was engaged through the Falls Prevention Sub-Committee of Safe Communities and through ongoing meetings which had begun a year prior around the development of maps of concentrations of seniors in Winnipeg.

- These ongoing exchanges with City of Winnipeg Streets and Maintenance have informed of the need for evidence gathering in support of improvements through changes in policy and practice.

As a result of this collaborative approach, it became clear to the committee that the expansion of DART would require significant new investments to be made by the City. Before emphasis could be placed on change, the committee was advised by these stakeholders that it would be of benefit to inform these departments of the key issues faced by seniors using the current system. As coordination would be necessary in order for improvements to be made, it would be important to get all players on the same page of understanding with respect to the transportation challenges experienced by seniors.

Gathering Evidence from Seniors in the Community

Following this suggestion from these stakeholders, the committee determined that research would be necessary and that the development of a position paper could serve as a platform for discussion amongst City departments. Therefore the committee's first step was to decide where and how to gather information from and about seniors using public transportation. Mapping, anecdotal information and literature were all collected to inform this report. The perspectives of seniors were gathered through surveys, focus groups and personal interviews. The following outlines the methodology applied.

The development of basic socio-demographic maps of seniors within Winnipeg allowed the group to narrow down four areas for focused analysis. Consideration of area selection was also given to those most at-risk of being transportation disadvantaged. In addition to city-wide analysis, the four areas focused upon were:

- St. James-Assiniboia
- Seven Oaks
- River East
- West End/Downtown

Senior Resource Councils in these areas were approached for assistance finding seniors that would be willing to participate in a survey or focus group. The survey questions were drafted in consideration of issues requiring further investigation as identified by Winnipeg Transit. A combination of full length and abbreviated questionnaires (Appendix A) were administered one-on-one in the West End, River East and St. James. The 59 respondents were participants of weekly daytime programs at Seniors Centers in these areas. Focus groups were also used to discuss the issues in group settings at the St. James Seniors Centre and Gwen Sexter Creative Living Centre.

Information was gathered about the transportation habits and socio-demographic backgrounds of these respondents. This is useful because it informs that the majority of persons (72 percent) were over age 75, that most were aging in place (42 percent) and that many (38 percent) make bus trips up to six times per week. The challenge with this approach of finding seniors that had been shuttled to programming turned out to be that they were persons who were less isolated than others in the community.

Therefore, Senior Resource Coordinators were asked if they were aware of anyone that was having specific challenges using public transportation and who would be interested in being asked about their travel habits and concerns. Personal interviews were carried out with four key informants. They each had unique stories to tell which can be found in Case Study boxes throughout the paper. They include:

- A married woman living in an apartment Downtown
- A married couple living in their home of 42 years in River East
- A widow from rural Saskatchewan living in a St. James apartment

These interviews were ethnographic in nature, free flowing and loosely-based on elements of common concern described by participants of the surveys and focus groups. Photography was used to document features in the built environment which were viewed as obstacles for personal interviewees. These stories served to provide information upon which 'Travel Story Maps' were created, illustrating the routes traversed by the four personal interviewees in accessing places of importance to those individuals. These story maps are intended to guide the reader through a trip for the interviewee, documenting the challenges that they encounter along the way.

Additionally, numerous maps were developed around each interviewee's home to show stakeholders the impact of these barriers upon each person's travel behaviour. The maps show a 'walking buffer zone' of 175 meters around homes and bus stops, routes and timing of buses, as well as services used by the interviewees. The prior are included in this report but the latter are being shared specifically with Winnipeg Transit.

GIS Analysis

Collaboration built trust between the organizations and ultimately led to willingness on the part of these departments to correspond and share unique data with TONS. This reciprocal approach became a pivotal element of the research and permitted for extensive GIS analysis to be conducted. Some of these maps appear in this report but the majority are exclusively for ongoing discussion with stakeholders to develop a better understanding, in a geo-spatial context, the issue of transportation for seniors.

Those maps included here provide a visual documentation of the availability and accessibility of bus service relative to the locations of seniors in Winnipeg.

- Maps 1 and 2 show concentrations and counts of seniors
- Maps 3, 4 and 5 show the location of specific groups most vulnerable to inadequate transportation options such as seniors living below the low-income cut-off (LICO) and widows/widowers

In order to analyze the relative adequacy of bus service, important indicators were reviewed. These included:

- The location of bus routes and stops
- The frequency of service
- The distance of seniors' homes to bus stops and services
- The location of essential services for seniors such as grocery stores, physicians, hospitals and financial institutions

The maps were used throughout the research as a communication tool with Sub-committee members and Winnipeg Transit, assisting in decision-making that guided the work.

Reviewing the Literature and Policy Climate

Members of the Sub-committee provided invaluable perspectives based on experiences with programming to combat isolation and the impacts of inadequate transportation upon seniors. Seniors in the community expressed the challenges of aging and adjusting to reduced mobility options. Therefore, a review of the literature was focused upon the effects of aging upon mobility, statistics about falls and fears of falling, causes of isolation, the impacts of isolation upon mental and overall health and the importance of independence to the continued community participation of seniors. Furthermore, local case studies and other best practices were looked to for alternatives. Policies relevant to the governance of transit systems and associated municipal services were reviewed to inform the recommendations.

3. Challenges to Using Public Transportation for Seniors

The following is a summary of the findings of the research. The information is intended to bridge gaps in knowledge for key stakeholders about the process of aging and its impact on transportation behaviour of seniors. The challenges described by seniors in their usage of the systems provide examples that illustrate the issues. Commentary from City departments and Sub-committee members rounds out the discussion by balancing the concerns of seniors with insight to current Departmental activities as well as limitations on practices.

The current gaps in public transportation for seniors fit into three main categories.

- The process of aging has many effects that result in consequences upon transportation behaviour. These include physical, social and psychological dimensions to a person's well-being. Because these issues are somewhat invariable, the development and provision of services for seniors ought to take these important factors into consideration.
- The use of public transportation is a multi-step engagement and its usefulness for seniors can be evaluated by how well the steps of usage can be conducted by an elderly client. It begins with awareness and education and is followed by the practice of using the system. This involves a combination of trip planning, the routes traversed to bus stops, the wait for buses to arrive and the ride upon the bus. When these steps cannot be conducted safely and confidently, older adults without viable transportation alternatives are likely to stay at home and become isolated.
- As older persons transition through phases of aging, there is a great benefit in having access to increased assistance and support for conducting activities of daily life. Transportation is an essential link to many activities of importance and as such is an area of opportunity for the implementation of senior-friendly services that have yet to be explored.

3.1 Effects of aging that affect transportation behaviour

There are personal and social effects of aging that influence transportation behaviours amongst older adults. Some elements of these life changes must be acknowledged as impediments to usage of traditional transit services. For purposes of this discussion, personal changes are largely physical and psychological in nature; whereas social changes refer to a person's circumstances and destinations.

3.1.1 Personal Circumstances

Seniors surveyed did not generally associate changes to their own physical abilities as an area of concern for Transit. Respondents were more likely to concentrate their remarks about transportation on trip planning, the route, the wait and the ride because this is where they understood the City to have responsibilities towards improvements. However, the personal interviews conducted with four individuals shed light on the

impact of physical declines and the psychological implications upon transportation. Therefore, it is important to consider these issues as they lay the foundation for understanding the concerns discussed by other respondents regarding the use of public transportation. Losses to hearing and sight, mobility and reaction times, and increased susceptibility to injury are the main challenges discussed in this section.

Reduced Mobility and Reaction Time

Mobility is a challenge for a significant proportion of the older population. In addition to extrinsic barriers of mobility, such as inappropriate transportation infrastructure, aids and physical environments; older adults also cope with intrinsic barriers, such as fear of falling and mobility impairments. Currently of those 60 years of age or over, 13 percent have mobility impairments; the proportion climbing to 30 percent by 80 years of age (CIHR, 2009).

Declines in movement and reaction times result in challenges to mobility. Research suggests that delayed response times have a sensory origin (Porciatti, Fiorentini, Morrone, Burr, 1999). The need to use mobility aids such as walkers adds to the stress of navigating amidst pedestrian traffic on sidewalks, or close by vehicular traffic at intersections. Some conditions, such as arthritis or weakness following a stroke, were reported by participants to exacerbate efforts at walking.

Snow and ice add an unwelcome level of danger. Examples of challenges include:

- Slipping on ice with or without the use of a mobility aid
- Lifting knees to get through deep snow, or past windrows at the end of a sidewalk or into a bus shelter
- Use of mobility aids such as walkers and wheelchairs through non-compacted snow or narrow paths

According to Handi-Transit's requirements, a person qualifies for service if they cannot walk more than 175 meters unassisted. However, depending on a person's health, every meter can be challenging. Respondents tended to restrict their activities to subsistence travel, accommodating only instrumental activities or shortened trips. A common trend in Canadian cities, Maps 1 and 2 (Appendix B) show that a great proportion of Winnipeg seniors are aging in place and do not live within 175 meters of traversable sidewalks to a bus stop (Hodge, 2008).

Aging in place is commonly characterized by seniors living in single-detached dwellings. This dispersal pattern results in densities too low for the City to respond through its current *Snow Clearing Policy for Sidewalks on Priority Three Streets (Near Senior Citizen Complexes)* (City of Winnipeg, 2009). According to the Policy, seniors living in housing designated for seniors and characterized by a minimum of ten dwelling units will benefit from plowing of an 'access route... to the most logical Priority I or II street" which is where most bus stops are located. Streets and Maintenance has been working with TONS to identify concentrations of seniors through GIS so as to plan for improved service.

Hearing and Vision Loss

A person's physical abilities change throughout their lifetime. Diminished vision and hearing represents a decline to senses used in transportation. Diminished capacity of either makes way-finding and asking for help difficult. About 30 percent of seniors experience age-related hearing loss (University of Maryland Medical Center, 2009). In addition to the reduced ability to hear sound, hearing loss also affects balance/equilibrium which reinforces concerns of falling. The most common cause of vision loss is age-related macular degeneration (AMD). The Canadian National Institute for the Blind (CNIB, 2009) states that "**seemingly ordinary, everyday activities such as traveling to familiar and unfamiliar places (can) present extraordinary challenges....Without assistance in adjusting to vision loss, many people (particularly seniors) may live in isolation and fear.**" CNIB predicts that "Canada will experience what has been called a 'crisis in vision loss' in the coming years" due to its aging population. Persons that have not lived with these impairments throughout their lives must adapt and this process is a difficult and taxing endeavour.

Winnipeg Transit has responded to these challenges by installing stop announcement equipment aboard buses. This feature shows street names as identified through a Global Positioning System aboard the bus. As well, a pre-recorded voice states the name of the next street as the bus departs from each stop. In Winnipeg's downtown, textured bricks have been added to the ground indicating a place for vision impaired passengers to stand in order to load onto the bus. This may be more helpful for persons aging with disability than those losing their sight who are not accustomed to seeking out these accessibility features.

Susceptibility to Injury

A person's susceptibility to injury can increase as they age. For example, the incidence of hip fractures increase by 13 times from age 60 to age 80 (De Laet, van Hout, Burger, Hofman, Pols, 1997). Injury, or knowledge of injury amongst peers, promotes a cycle of fear that is difficult to surmount. The emotional dimensions of fear further deteriorate confidence in physical abilities. Many survey respondents used the bus comfortably in the summertime but did not attempt these outings in the winter due to mobility challenges or fear of falling. The couple interviewed in *Case Study #1: River East Couple* are between 75-84 years of age. They report that knowledge of a pedestrian accident involving an elderly woman at the intersection crossing which they must use in order to take the bus makes them very uncomfortable.

Seniors and Falls (source)

- 1. Seniors may be aware of diminishing physical abilities**
- 2. If a person falls, there is a potential for injury**
- 3. The impact of this is the development of a fear of falling again**
- 4. The response to this fear is a diminished use of body through avoidance of activity**
- 5. Through reduced physical activity, the body loses agility and the ability to cope with another fall**
- 6. Therefore, if another fall occurs, there is a greater potential for more severe injury**

Comment: Include citation

Case Study # 1 – River East – Couple Aging in Place

The interviewees are a couple that has lived at their current address on Sutton Avenue, a single detached home, for 42 years. They are both between the ages of 75 -84 years. The gentleman lost his license two years ago and since then they have been using Winnipeg Transit and receiving rides from friends and family. They both say the transition has been difficult as neither of them had really been transit users before. She was dependent on him for rides. They have chosen to keep their car to give to their grandson as he has recently started to drive.

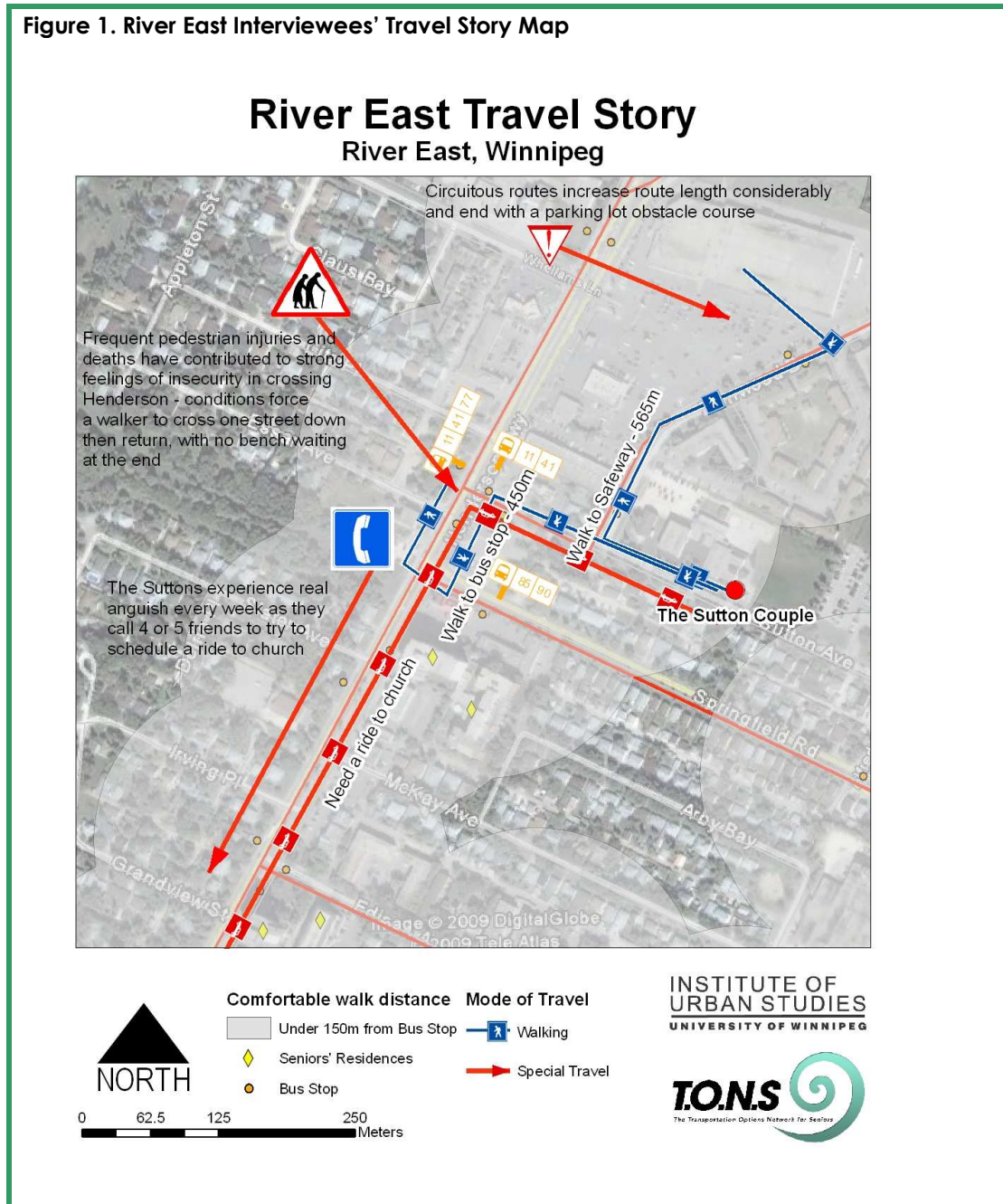
For this couple, the challenge of using public transportation is about the walk to the bus and the wait at the stop. Their home is not far from Henderson Hwy and but they feel isolated by the barriers involved in getting to out. The blocks are long and, given winter ice and snow, this is difficult to traverse. The gentleman has what he refers to as 'bad knees' and therefore finds walking longer distances challenging. There is no graduated path on the sidewalks for easier walking. The raising and lowering of his body involved with deep curbs pushes him to his limit for both distance and stamina within less than half of a kilometre. He does not qualify for Handi-Transit despite that his doctor has sent letters of support to accompany his applications.

They go out about 2-6 times and week. They take the bus about once a week, and sometimes more often, depending on the weather. It is a difficult walk for him in the summer time and nearly impossible in the winter because of poor snow clearance and generally poor sidewalk conditions. He says he has a cane but that it doesn't help.

A common bus destination for them is the Manitoba Clinic where the gentleman has a monthly appointment. For this purpose they must walk 450 meters to Henderson Highway in order to catch a bus (Figure 1. River East Interviewees' Travel Story Map). This is the furthest he can walk before feeling what he calls "extreme discomfort." His wife is afraid that he will really hurt himself if he falls on the ice. There is a *No Pedestrian Crossing* sign at the end of their block so they are required to walk up another half of a block to a set of lights. This is the moment they fear most because of the danger involved in crossing. The lights change quickly to keep traffic flowing and they end up stuck halfway across Henderson between two lanes of traffic on the median. An elderly woman was struck here by a car within the last few years. Knowledge of this increases their anxiety and they are aware of their compromised safety while standing there. To encounter this difficulty at Henderson Hwy aggravates matters for the gentleman and the lack of a bench for resting at the bus stop is enough to keep at him most of the time.

They will occasionally use transit to go downtown or to their church which is located nearby at Henderson and Kimberly. The route 11, which services the stop at Sutton (Southbound), goes past their church and will take them downtown. There is also a bus that goes down Springfield, one block over from their home. However, the only useful destination of the route 90 is the Kildonan Place shopping area. They find it very crowded and difficult to walk if trying to shop. Big box stores, large parking lots and traffic don't suit their needs well.

Figure 1. River East Interviewees' Travel Story Map



Case Study # 1 – River East – Couple Aging in Place...continued

The wife does the grocery shopping and receives help every two weeks from their son-in-law. It is a half-kilometre walk to Safeway and a shorter distance to use their bank. She finds this easy in the summer time. However, in the winter months when their mobility is compromised due to sidewalk conditions, they often request a ride to church from friends and family. About this he says,

“We sometimes sit and cry because there isn’t much we can do. I sometime phone 4 or 5 people in order to get a ride to church. We don’t want to phone the same people all the time.”

They have been asked why they don't move to an area more easily accessed by transit. She replies,

“We can still do everything in the home. Al has a big garden in the back where he grows row carrots and beets among other things. We would like someone to shovel our snow, but we can to everything else. We love our home and do not want to move. We just need another way to get around.”

3.1.2 Social Circumstances

A person's transportation requirements such as times of usage and destinations of importance also change with age. This is impacted by levels of independence work life/retirement, income, living alone, cessation of driving, and the availability of support from social networks. According to the Executive Director of one Seniors Resource Council, **"I notice more of our members needing assistance. As the membership ages (it is possible that) more older adults will be having to give up their cars. Aging in place is a great idea, however more than just home care and food need to be considered."** This comment points to the importance of a comprehensive approach to understanding the dimensions of transportation for older adults.

Common Destinations for Older Adults

The locations of home and essential destination sites such as grocers, financial institutions, and committed social activities, tend to be fixed. Visits to healthcare professionals and personal care homes were commonly reported as increasing in frequency by respondents. Hospitals, doctors' offices, pharmacies, other health care services/providers therefore become popular destinations. While it is possible to have groceries delivered, or conduct some banking transactions over the phone or internet, the social interactions encountered during outings are diminished through these automated systems. It cannot be assumed that older adults have the technology to access these services. The effort required to make these trips is well documented in the case studies found in the following section 3.2.2 *The Route, The Wait, The Ride*.

The table below compares the differences between activities of importance for seniors (Phillips, et al, 2008). In Manitoba, assistance with Activities of Daily Life (ADL) is provided to persons aging in place through Home Care Programs. However, while Instrumental Activities of Daily Life (IADLs) are broadly recognized by the public, help is not always available to those who need it and transportation is an important link in connecting seniors with IADLs. Seniors report the Social Activities of Daily Life as most meaningful in their lives and yet they are not prioritized by public transit systems. Even getting to community senior programming may not be possible when transportation is not provided.

Table 1. Comparing Activities of Daily Living, Instrumental Activities of Daily Living and Social Activities of Daily Living (Phillips, Richards, Maddocks, Spiegel, 2009)

Activities of Daily Living (ADLs):	Eating, toileting, getting dressed, personal care
Instrumental Activities of Daily Living (IADLs):	Shopping, cooking, cleaning, getting to doctor, paying bills, banking
Social Activities of Daily Living (SADLs):	Networking, interacting, visiting family/friends, neighbours, church, group exercise, seniors' groups

Assistance and Diminishing Social Networks

A need for physical support to access available transportation options, such as a friendly arm to the bus stop or clearance of walkways, is exacerbated by diminishing social networks. The loss of friends to illness and/or death can be debilitating for many, especially if that loss involves a spouse upon whom a person was reliant for transport and/or assistance. The expectation that family will help with rides often goes unmet and there is a sense of embarrassment in repeatedly asking for help from others. This engagement with family, friends and other community, such as attendance at church, becomes more sporadic but increasingly important. A user of the Gwen Selter Shuttle Bus shared that **“Having volunteer offer assistance is important because I need help with my walker. Having a hand is essential. I wouldn't get to where I'm going if the shuttle didn't come to my door.”** Speaking to the importance of the social dimension, another stated, **“I like using the shuttle because my friends ride it too.”**

Work

For many, alterations to travel routines are brought on by retirement. Although some people continue to participate in paid and unpaid work, the required trips may not be as methodical. As identified through the surveys, midday trips are common for medical appointments, grocery shopping, volunteerism and visits to family/friends. Some respondents had used the bus as commuters during their working life but were not accustomed to the infrequency and reported inconvenience of daytime service. The *Frequency of Service and Wait Times* is discussed in section 3.2.2 *The Route, The Wait, The Ride*.

Income and Living Alone

Reductions to income affect affordability of transportation. Most disproportionately affected and at-risk for social isolation are single persons, especially women, living below the Low Income Cut Off (LICO) (Newall, Hall, Payne, 2006).¹ This group is also least likely to drive but most likely to use public transportation if the services are considered suitable and available (Bailey, 2004). In Winnipeg, concentrations of seniors, widows/widowers, and seniors living below LICO were identified in the five areas below (Maps 3, 4 and 5 in Appendix B). The North End of the city was not examined but could have been according to the number of seniors living below LICO.

- Downtown
- The West End
- Seven Oaks
- St. James
- River East

¹ LICO is an indicator for the proportion of seniors (aged 65 and older) in a dissemination area (DA) that spend 20 percent more than the average of their before-tax income on food, shelter and clothing. A DA is the smallest, generally available area of analysis produced from Statscan Canada Census Data. It is an area that contains between 400 and 700 persons. It is the basis for all census analysis in this report.

Many survey respondents felt that prices were reasonable but others expressed that they would need further discounts or free service in order to ride the bus. One participant of the focus group at Gwen Selter Creative Living Centre noted the importance of affordable public transportation, saying, **“The costs add up and money doesn’t stretch as far. I like to get out, but it is expensive.”**

In an effort to make transportation more affordable for seniors, Winnipeg Transit has further reduced its senior fare in recent years. Seniors receive the greatest discount rate of any group, particularly to bus tickets and passes. Valid identification must be shown upon boarding; this can be either a Blue Card issued by the Federal Government or a photo identification issued by Transit. However, simply getting to the Winnipeg Transit building to request this ID is a challenge due to a walk through a long parking lot that lacks sidewalks.

Table 2. Winnipeg Transit Senior Fare 2009

Cash	\$1.80
Tickets (10)	\$10.00
Monthly pass	\$36.40
Superpass (Mon-Sun)	\$10.00

Cessation of Driving

Numerous respondents stated that they will be reliant upon public transportation once they are no longer able to drive. This acknowledgment is important because it documents awareness that there may eventually come a time when a personal automobile is no longer an option. Cessation of driving results in significant lifestyle changes which must be adapted to, specifically reduced independence and schedule flexibility. According to a report produced by researchers at McGill University, seniors fear losing their drivers licence more than cancer (Ward, 2009). A research participant expressed, **“Cancer is something that comes, a lot of my friends have it, there are good treatments now. But having my licence taken away, day one to day two, my whole life changes overnight.”**

Important Facts About Drivers, Non-drivers and Isolation (Bailey, 2004)

- o **Over half of non-drivers aged 65 and over stay home on a given day (54 percent), three times as much as drivers (17 percent)**
- o **One in five people 65 and over do not drive**
- o **Drivers at 70 likely to stop driving and spend an average of 6-9 years “dependent on others to meet their transportation needs”**

Volunteer Rides

According to Senior Resource Councils in Winnipeg, rides from family, friends, volunteers or Handi-Transit can sometimes be found for priority rides such as medical appointments. However, when favours are used for these outings, it is the rides for activities of social importance that are lost. The curb-to-curb option is essential for the interviewees from River East. They often request a ride to church, especially in the winter months when their mobility is compromised due to sidewalk conditions. They say, **“We sometimes sit and cry because there isn’t much we can do. I sometimes phone four or five people in order to get a ride to church. We don’t want to phone the same people all the time.”** Section 3.3.1 *Snapshot of Handi-transit and Seniors* goes into detail about how trips are prioritized for clients of the service.

Of additional concern is that volunteerism of this sort is on the decline and recruitment for such programs is increasingly difficult. The loss of existing drivers is changing the availability of rides. An example is that two of four volunteers at a Senior Resource Council in the city-centre recently lost their licences, cutting the availability of rides in half for area-residents.

Affordability and Accessibility of Nutritious Food

Lastly, grocery shopping is an essential trip for all seniors and it can be an arduous task for many. Trips can involve long, difficult treks through unsafe parking lots. Trips may have to be made frequently so that carrying of parcels to/from the bus is possible. In the city’s core area, residents may have to make trips to various venues in order to pick up a variety of foods because nearby corner grocers tend to sell expensive processed foods without fresh, nutritious options.

Access to affordable food in the downtown is of particular concern because it is home to the majority of older adults living below LICO (Map 3). As can be seen in Map 6, there is little availability of one-stop shopping in the area due to the lack of major chain grocers. These outlets tend to offer lower prices and a greater variety of food and this is an important feature for seniors using public transportation because travelling to many venues to gather various items is too cumbersome. Major chain grocers have been vacating the Downtown and West End for years in favour of sites mainly accessible by personal vehicle with ample free parking for customers.

The shuttles provided by some grocery stores in Winnipeg to seniors’ housing blocks are well-received and are unique in the country. A respondent appreciated, **“I like that Safeway will come pick us up for shopping.”** Yet, for many respondents in St. James and the West End, Safeway’s decision to close its locations at Polo Park and on Wall Street was frustrating. For bus users, the new Madison Square site requires a trek across eight lanes of traffic and a large parking lot lacking pedestrian walkways. Yet, some grocers will deliver groceries to a person’s home upon request. The grocery vans are discussed in greater detail in section 4.1 *Senior-friendly Public Transportation Services*.

3.2 Gaps in Public Transportation Services

Using public transportation is not simply about boarding and unloading from a bus. It is a multi-step engagement involving awareness, education, and practice on the part of the user. Successful use of the system is influenced by the aforementioned personal, psychological, and social circumstances but also by the environmental and systematic factors identified by participants and discussed in this section.

These factors are adaptable to the needs of seniors and so special attention ought to be paid to these findings by parties responsible for the arrangement and provision of these services; some improvements are already being made. Confidence can be developed through assistance with trip planning and training. Comfort and safety can be enhanced by addressing concerns about the route, the wait and the ride.

3.2.1 Awareness, Planning and Education

Prior to making a trip on public transportation, users must conduct a series of steps in order to plan an outing. To begin, users must find information and plan for where and when to take a bus or series of buses. Without assistance and training, entry to bus ridership can be a hurdle for some seniors.

Finding Information

Knowing how to find route and schedule information is the essential first step in a potential user's ability to familiarize themselves with the travel options presented by public transportation. Some respondents said that they receive the local bus schedules by mail when there is a seasonal change to scheduling; others were able to find the paper schedules at local malls and libraries. Respondents that rode the bus were generally aware of where to find this information but non-riders were less aware.

Trip Planning

Learning to interpret route and scheduling services is challenging for first time users of Transit and certain requirements of use can also operate as barriers for some seniors. These include language, literacy and technology such as touch tone phones and computers. But the importance of planning the trip route cannot be underestimated, especially during the winter months, when elderly persons are most susceptible to injury in the outdoor environment. Without familiarity of trip planning services, it is difficult to develop an understanding of:

1. Timing of various routes during different times of day/week/year
2. How to reduce walk and wait times
3. Bus transfer points

For persons comfortable using the internet, Winnipeg Transit's website provides very detailed information about using the bus. The online schedules and Navigo trip planning tool are very useful and demystify trip planning by giving riders a series of options for each trip.

Telebus requires entry of site-specific bus stop numbers to an automated system with the general number 287-RIDE (7433). These can be found by looking in the phone book or by venturing to exact bus stops. The steps involved in using the system are something of a challenge for some persons, especially for learners of English is an additional language.

As promoted on Winnipeg Transit's website, a recent call to the City's new information line proved that '311' can be used for assistance as operators are willing to assist with trip planning. Transit would like for riders to use the line for such inquiries. They also say that callers can request help in several languages. However, they must first get past a few touch-tone entries before speaking to the operator.

While very effective and efficient for many, it cannot be assumed that automation and technology have improved access for all. These technological requirements can exclude some, especially low income earners, from usage.

Training and Assistance

The provision of assistance with education and training on usage of transit from experienced users would be helpful for first time users. The interviewee in Case Study #2, a woman that moved to Winnipeg from Saskatchewan two years ago, expressed that her biggest challenge in using the bus was her fear of getting lost. A literate, physically fit, and cognitively able person, she has met limited success through training efforts made by other members of the community that were not regular transit users.

Case Study # 2 – St. James – Widow Living Alone in an Apartment

This interviewee is between 65-74 years of age and was born in Manitoba but lived in Oxbow, SK most of her life. She moved to Winnipeg 13 months ago after the death of her husband about two years ago. She sold her single family house and moved to an apartment block in Winnipeg. She chose St. James to make it easier for family driving in from SK to find her off Portage Ave.

She chose Winnipeg primarily to have access to the medical attention she needs. She does have a cousin here in Winnipeg but she doesn't like to feel dependent on individuals who aren't particularly keen on giving her a hand. She now has medical appointments once every three months. Her brother will often drive into Winnipeg from Saskatchewan to help her get to and from her appointments. Her appointments are at the Misericordia Urgent Care, which requires transferring between two buses from her home.

There is a Sobeys across the street from her home and most things that she needs are close by (Figure 2. St. James Interviewee's Travel Story Map). She elected to volunteer at a school that is within walking distance. She even changed denominations of faith in order to attend a church that is close to her place. She finds that if she really needs to get somewhere she will take a taxi but finds it very expensive. She is quite mobile, walking up to one kilometre for exercise with a fellow building resident. Her main issues with using public transportation are in regards to developing awareness and confidence in route planning.

There is a stop located in front of her building that is serviced by routes 24, 21 and 11. There is also a crosswalk located in front of her building. She admits that she has no problems walking and likes the bus very much. However, she has fears of travelling alone and getting lost. She has felt best about riding the bus when accompanied to Polo Park by a friend. They have also taken the bus for the fun of the ride. She is on a budget and would like to be able to take the bus more often.

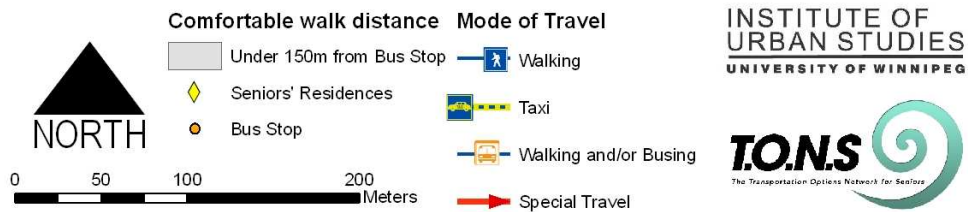
Before coming to Winnipeg she had never used a bus and finds it is not as easy as she initially thought it might be. She likes to do things for herself and feel she is fully able. She expresses her polarized assessments when she states,

“Everything is turning out well except for getting around. Everything is so fast on the bus, I am never sure where I am”

Figure 2. St. James Interviewee's Travel Story Map

St. James Travel Story

St. James, Winnipeg



INSTITUTE OF
URBAN STUDIES
UNIVERSITY OF WINNIPEG



3.2.2 The Route, The Wait, The Ride

The physical practice of using public transportation is what seniors claim to find most challenging about making a trip. While Winnipeg Transit is responsible for a person's quality of *ride*, other municipal departments play a strong role in getting people to and from their homes/destination, impacting the quality of the *route*. In addition, several parties are responsible for a person's *wait* on the street for a bus. Therefore it is not simply vehicle design that impacts accessibility but rather it is this combination of the route, the wait and the ride that enable or disable persons from using public transportation.

THE ROUTE:

The pedestrian environment impacts ridership even where service is otherwise adequate. Therefore, there are the persons that would be able to use the conventional system were it not for various environmental barriers such as the distance from home to the bus stop, sidewalk conditions, winter conditions, curb cuts, and street crossings. According to the Director of one Senior Resource Council,

“We have found that if transportation is offered to programs the number nearly doubles... Most (participants) are very isolated, many with disabilities like arthritis or stroke. Handi transit is sometimes available but timing is a problem. They get picked up early, dropped off late... Since September we have had two companies helping with transit, however one has cancelled (and) the other will only take two people... Our Rides for Seniors program is very good but like many transportation programs it is difficult to recruit volunteers. The staff does not give rides.”

The specific role of Handi-Transit in addressing the needs of seniors is discussed in section 3.3 *Handi-Transit: The Alternative for Mobility Challenged Persons*.

Distance: Aging in Place

Winnipeg's seniors follow a national trend of aging in their homes and most of the housing in which this is taking place is far removed from easy access to bus stops in the suburbs (Hodge, 2008). Map 1 and 2, were developed to clearly illustrate this residential pattern. Looking at Map 2, the trend is observable throughout the city and especially in areas such as St. James where a person may need to traverse 550 meters to a stop. To put it into perspective, the eligibility requirements for Handi-Transit set an unassisted walking limit of 175 meters for potential clients. So this distance is 375 meters farther than that permitted by Handi-Transit for mobility challenged persons.

Long city blocks increase the distances to stops for seniors even more so in areas where cul de sacs are prominent neighbourhood features. This is sometimes accompanied by the absence of sidewalks. Particularly in the suburbs, both the increased length of the trip and the lack of barriers from moving traffic creating a dangerous pedestrian scenario.

A resident of Rossmere was interviewed at the Good Neighbours Seniors Center. Requiring knee surgery but determined to remain active, this woman has adapted to the trek by designing and wearing a cardboard shield to protect herself from the winter wind and chill. She must walk on the road to the nearest stop across Henderson and then wait without an opportunity to rest as there is no shelter or bench at this particular stop. She does not think that she will be able to keep this up for long but does not want to feel stranded at home.

Sidewalk conditions

In addition, poor sidewalk conditions are prohibitive for pedestrian travel even over short distances. In the winter time, snow and ice are the most problematic issues. Throughout the rest of the year, cracks in the pavement can increase fears of tripping and falling. These circumstances are present throughout the city.

A resident of east Elmwood lives across the back lane from the Legion Gardens near Talbot. She is within walking distance from the stop at Gray but she experiences significant barriers in the winter time. She lives by herself and walks with a cane. She has to cross a back lane that she refers to as a "frozen ice pond" in order to access the stop. She loves to go out but feels unsafe having to get around with these conditions as the slipperiness makes it feel like a long walk. The Department of Streets and Maintenance has expressed openness to changes in practices through the prioritization of sidewalk clearing where high concentrations of seniors can be observed. Currently, most residential streets are third in line for clearing.

Winter

Participants identified a marked difference between the frequencies of their outings depending upon the time of year. Winter was expressed as a time when making trips out of the home becomes overly difficult and summer was regarded as a time of opportunity to resume personal activities. The interviewee in Case Study # 3 is a woman living at Lion's Place. She decreased her bus trips to once a week in the winter although she reported using the system 2-6 times per week in the summer.

This discontinuity in lifestyle was well expressed by a recipient of a home visit arranged through Age & Opportunity's "Be a Santa to a Senior" program. They stated that **"It is so nice to see someone at Christmas time because I haven't left my apartment since November when it began to snow."** The centre found over 100 isolated seniors in the Downtown. The visits were a welcome moment during the holiday with participants expressing that "Agencies like Age & Opportunity haven't forgotten us at one of the loneliest times of the year."

Susceptibility to and impact of falls (Public Health Agency of Canada, 2005a and b)

- **There is a prevalence in falls amongst seniors**
- **In Manitoba, majority of falls occur outdoors and between 11 am-3pm**
- **Hospital stays resulting from falls are longer for seniors as are the frequency and severity of injuries**

Case Study # 3 – Downtown – Married Woman Living at Lion's Manor

The interviewee from downtown lives at Lions Place, a seniors residence at 610 Portage Avenue. She has lived there since December 13th 2008. Before that she was living in Colony Square apartments across from the University of Winnipeg. Her husband is not well and lives less than a block away at Lions Manor which is at the corner of Portage Avenue and Sherbrook Street so she is able to walk to visit him there.

She needs a walker to get around and she does have unlimited access to Handi Transit (HT) but often feels that it compromises her freedom. She uses HT primarily for medical appointments and finds that she is often left waiting for long periods of time. She says it is very difficult to call to cancel a service or request an earlier pick up if things change while she is out.

She uses the bus to go out 2-6 times a week in the summer and approximately once a week in the winter. She experiences poor sidewalk conditions in the winter due to poor snow clearance. It is a very short, yet difficult distance, to the nearest Westbound bus stop which she uses for grocery shopping (Figure 3. Downtown Interviewee's Travel Story Map). There is a crosswalk at Portage and Langside but is often easier to cross at Portage and Sherbrook because of the longer traffic lights. There are more routes that pass at the Portage and Sherbrook stop as opposed to the Portage and Langside stop and so she'll often go there to catch the bus. In reference to crossing the south side of Portage to the north side at Langside she said,

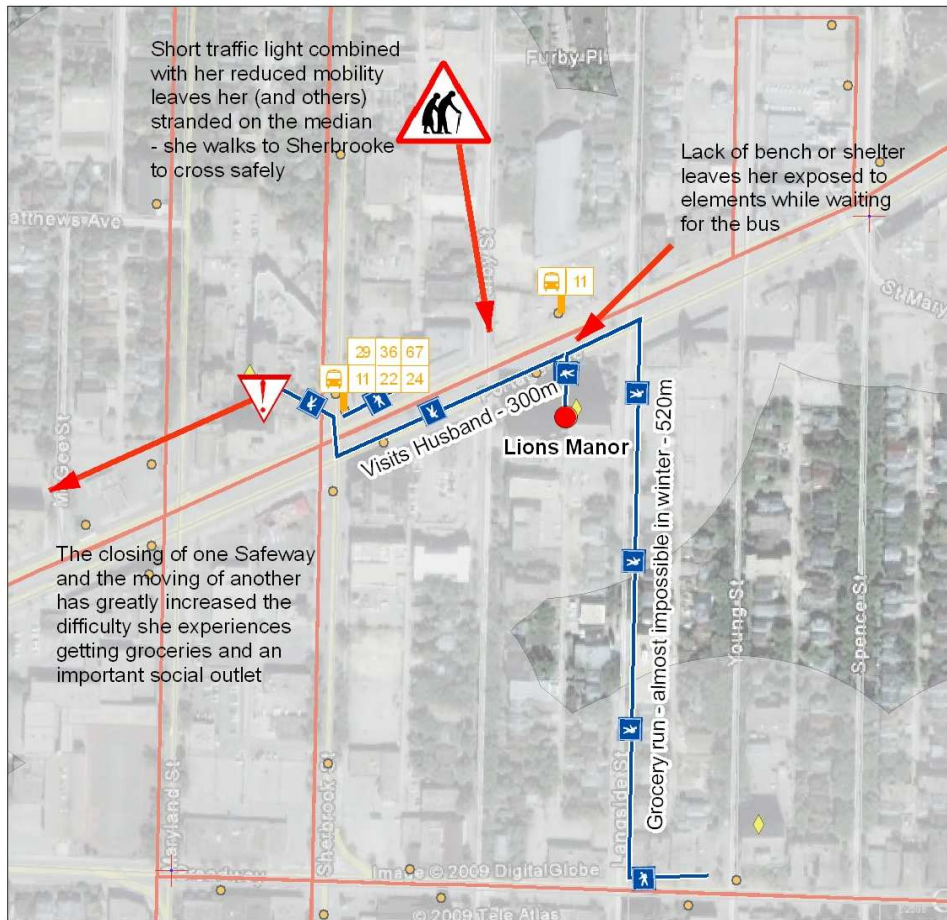
"When the median is full of snow it is hard to get across Portage. Many people here [Lions Place] have walkers and wheelchairs that don't fit through the narrow path that is cleared. We have to cross half of Portage, wait at the median in the little room we have and then cross the other half. The lights are so long so this can take some time. It is not safe."

The Portage and Langside stop on the north side of Portage Ave is serviced by route 11. There is a bench at the stop but no shelter, or schedule posting. This is the only stop between the University of Winnipeg and Sherbrook. On the south side of Portage in front of Lions Place the stop is, again, only serviced by route 11. The stop has a shelter with benches and schedules posted. The inconvenience of the route 11 is that it tends to be very crowded and difficult to find a seat. It is a long route with many stops and as a result is slow to get passengers from point to point. However, it does run quite frequently (Map 7). She has noticed an ever increasing amount of baby carriages and this frustrates her when she sees people using strollers to carry groceries or other goods.

She will often take the bus to get groceries or she will order them to her home. There is a small food store in Lions Place but it is for small, immediate, purchases as it is expensive. She believes that the recent move of Safeway away from Polo Park to an area less accessible by Transit was a poor choice. There were a lot of seniors in the area and in the building who she claims frequented that location. Survey respondents confirmed this and added that the closure of Safeway on Wall Street has had similar impact on area residents.

Figure 3. Downtown Interviewee's Travel Story Map

Lions Manor Travel Story Downtown, Winnipeg



INSTITUTE OF
URBAN STUDIES
UNIVERSITY OF WINNIPEG



Case Study # 3 – Downtown – Married Woman Living at Lion’s Manor...continued

She has one daughter who lives in Calgary and another daughter who is fairly ill. She says:

“I don’t have anyone here, but even if I did why should they have to drive me around? I shouldn’t have to lose my independence. I want to go out when I want to go out.”

Curb cuts

The lack of curb cuts in residential areas is problematic for pedestrians that experience troubles raising and lowering their bodies. This is a common difficulty for persons with knee conditions which limit mobility. This was certainly the case for the gentleman interviewed in Case Study # 1 who described this as a challenge. The use of walking/mobility aids can also be impeded by raised edges as described in Case Study # 3.

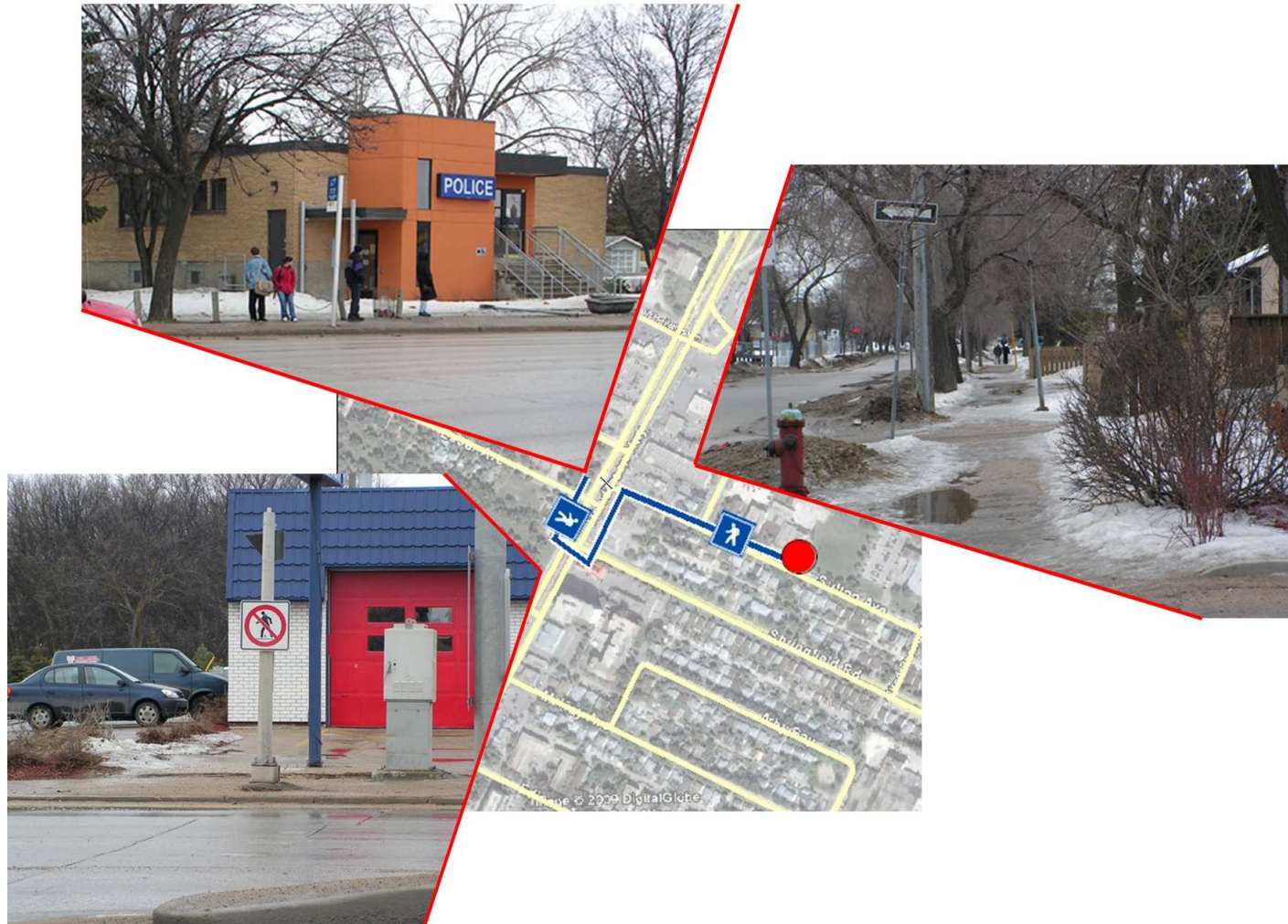
Improvements to sidewalks with high volumes of pedestrian traffic in downtown Winnipeg are examples of precedents set within the city that ought to be more widespread. Corners such as at Graham and Fort are excellent references. The value of accessible pedestrian environments has been magnified by a new incentive program employed by Handi-Transit. Permanent clients have been provided with a free pass to use regular service and this is producing dramatic results. As the population ages, demand on Handi-Transit will increase if these small improvements are not made.

Street crossings

For seniors, access bus stops and the need to cross the street play a major role in trip planning. Both the time given to pedestrians for crossing and the lack of opportunities to cross the street are problematic. The impact of this upon seniors has been documented by Handi-Transit. They say that it is common for seniors to book rides for one way and to cancel return rides. This is because bussing is easier in one direction than the other when a street doesn’t need to be crossed upon arrival on the route to home.

When there is no button to push at median street crossings, pedestrians do not have a chance to extend crossing times. For the interviewees from River East, this means that they often get stranded at the median between moving traffic. They report that knowing a pedestrian was struck by a car while standing at the median makes them feel more susceptible to injury. This reinforces the cycle of fear for the couple. Figure 4 demonstrates their route to the bus stop. Shown here are an icy sidewalk, a no-crossing sign at the end of their street, and no bench for sitting. Further complicating this journey, the Travel Story Map (Figure 1) for this couple shows that they must walk up one more block in order to get to a set of lights and double back one block in order to arrive at their stop.

Figure 4. Trip to the Bus Stop for Interviewees in Case Study # 1



The interviewee living at Lion's Place was only 85 meters from the nearest Westbound bus stop yet reported her trip to the stop as her biggest obstacle. She uses a walker and is unable to access the stop at Portage and Langside due to the narrowness of the snow-cleared path at the median. In addition, there are eight lanes of traffic to cross but no button at the halfway point in order to extend time crossing times. She remarked,

“When the median is full of snow it is hard to get across Portage. Many people here (Lions Place) have walkers and wheelchairs that don’t fit through the narrow path that is cleared. We have to cross half of Portage wait at the median in the little room we have and then cross the other half. The lights are so long so this can take some time. It is not safe.”

Figure 5. Street crossing in front of Lion's Place on Portage Ave. at Langside St.



THE WAIT:

Transit Improvements Program

The wait for a bus begins upon arrival at the stop. It is part of Winnipeg Transit's *Transit Improvements Program* to make their services more comfortable and reliable for commuters along major arterial streets. According to the Backgrounder on the program, “New heated and non-heated shelters, new signage, information kiosks, new benches, and sidewalk improvements” will be placed at “most major bus stops,” for example, shopping malls (Winnipeg Transit, 2007). However, the majority of seniors are not located along major arterial streets, are not commuting to workplaces and are still inconvenienced by the lack of basic accommodations at their primary (minor) bus stops.

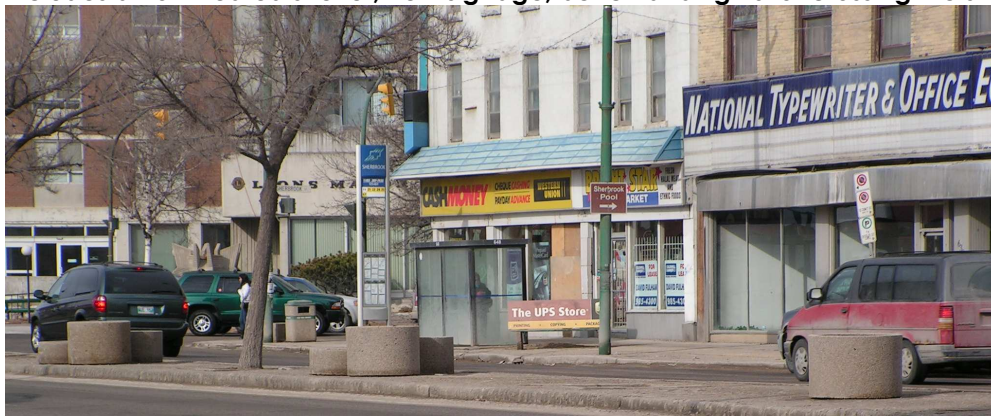
Benches and shelters

For the gentleman living in River East, the difficulty of the trek to the bus reaches its pinnacle when he arrives at the bus stop and encounters nowhere to sit and rest. As the journey can be exhausting, benches are very important for people of varying physical abilities. In addition to the challenges of street crossings with a walker, the resident of Lion's Place described walking double the distance to Sherbrook Street rather than using the most nearby stop at Langside Street because the one nearby lacks a shelter (Figures 6 and 7). It is important to note that the absence of supportive features at the Westbound Langside stop is surprising given the concentration of 325 seniors that live across the street. This particular interviewee qualified for Handi-Transit but found the service inconvenient due to wait times and inflexibility.

Figure 6. Bus stop Westbound on North side of Portage Ave. at Langside St. lacks many features that would be helpful for residents of Lion's Place



Figure 7. Bus stop Westbound on North side of Portage Ave. at Sherbrook St. This includes a non-heated shelter, new signage, bench and lights for crossing the street



Signage

Signage initiatives have improved readability of route numbers at stops and have even included the recent introduction of a real-time electronic banner announcing the timed distance of buses to arrive at the corner of Pembina Highway and Stafford Street. The posted schedules are helpful for older adults, especially if there are opportunities to wait indoors in a nearby spot rather than outside in the winter time. It was suggested by agency representatives of TONS' Public Transportation Sub-Committee that the readability of schedules and associated levels of literacy be considered in the production of new products for a diverse population. The text was seen as too small to read with ease and the layout challenging to understand.

Frequency of buses and duration of wait times

Long waits for buses at transfer points and the reduced frequency of daytime service is reported as frustrating for seniors that need to make daytime outings in order to keep important appointments. The duration of time that a person must wait for a bus varies greatly:

- Amongst routes
- Throughout the time of day
- Between weekday, Saturday and Sunday/holiday
- Seasonally
- Throughout the city

Maps 7, 8 and 9 (Appendix B) demonstrate the differences between winter weekday service at different times of day within a one kilometre radius of where interviewees live in Downtown, St. James and River East. Each of the interviewees was impacted in differing ways.

In River East, the bus stops closest to the couple experience their lowest frequency of bus visits in the midday between 9 a.m. and 3 p.m.. This lowest level of service means that only a maximum of five buses visit a given stop within a three hour period. This is a stark comparison to the frequency of service during commuter/rush hour service when bus visits increase to 11-39 bus visits at a stop within a three hour period. This is a clear example of how the needs of seniors are not met by using commuter volumes as the guiding principle for determining frequency of service.

In St. James, the bus stop closest to the interviewee is serviced throughout the day. Having selected housing next to this bus stop allows her to travel to Portage Avenue and continue through downtown on one bus. While the number of stops close to her is nearly as high as the Downtown, the configuration of the street network makes accessing a number of them difficult for other residents. As well, service is generally lower in frequency but not as low as in River East.

In downtown, the service is better, with routes heading off in a number of directions, allowing for many different journeys. The resident of Lion's Place placed emphasis benefits from the opportunity to retain flexibility in her schedule. She commented, **"I don't have anyone here, but even if I did why should they have to drive me around? I shouldn't have to lose my independence. I want to go out when I want to go out."**

Lighting and safety

Additionally, respondents from the Downtown and West End remarked upon concerns of lighting and safety at bus stops. Incidents of crime were not reported and no one had been victimized at these sites. Exact locations were not given as being particularly challenging. The Business Improvement Zones in both areas work with local businesses to improve the conditions around their buildings, including lighting programs and safety foot patrols.

Perceptions of safety influence seniors strongly, largely due to their vulnerability. According to the Gerald Hodge in *The Geography of Aging* (2008), Canada-wide research has shown that safety is a major issue for seniors, second only to health. He informs readers that,

“Fears will be more pronounced among seniors who are older, as well as those who need to use a cane, walker or wheelchair to get around. Although fear of crime is more widespread than crime itself, seniors’ fear of victimization and/or vulnerability due to age remains a pervasive environmental press for many (p.236).”

Delving deeper into a discussion on the role of seniors’ environmental perception and appropriate responses by planners, he recommends, **“Planning for seniors, at whatever scale, must be cognizant of how they perceive that environment and the environmental press embedded in it (p.237).”**

Visibility of waiting passengers to drivers

Lastly, standing in a spot visible to the bus driver can be difficult if a user chooses to stand inside of a bus shelter. Windows at the edge of the shelter reduce the ease of entry and exit. In the winter time, snow can reduce visibility and make it so that slow moving persons do not see, or approach quickly enough, when a bus arrives at a stop. A representative of a senior-serving organization reported experiencing first-hand the stressful scenario that results under these conditions. A pair of elderly women had made their way to a bus stop for shelter on a cold winter day. Waiting some time for their bus but unable to see it coming, the women missed its arrival and departure. They felt frustrated and had to wait even longer until the next bus. The representative reflected that had they asked the women of which bus they needed, they would have been able to inform the women of its approach.

THE RIDE:

Winnipeg Transit received the majority of compliments from senior riders when it came to “the ride.” This is encouraging because Transit has been working to ensure that riders of varying physical abilities are satisfied with their trips. Based on Winnipeg Transit’s current bus replacement program it is anticipated that the entire bus fleet will be low floor easy access in 2014. This means that no Transit buses will have stairs any longer. To prepare riders for using the system, Transit offers training to interested groups through their Service Development Division. Respondents to the survey for the most part provided very positive feedback, however some suggestions were made for improvements.

Positive remarks made by survey respondents about using the bus:

- **“We started using the bus 4 years ago when we moved into Winnipeg. The bus takes you to areas that you wouldn't walk to, and you may see something that you wouldn't see by car.”**
- **“I take the bus when I go downtown, I don't bother taking my car. I use the bus for convenience.”**
- **“The bus takes me where I need to go, and the drivers are helpful”**
- **“We have good bus drivers, we are very lucky. They will help us out when we go to somewhere new.”**
- **“Buses make me independent.”**
- **“I use the bus to get my groceries and to visit friends.”**
- **“I love to people watch. That is the reason I take the bus.”**
- **“As long as I can use the bus, I will.”**

Boarding

The actions involved in boarding the bus have become easier with the addition of the kneeling and ramp design features. It was common to hear from respondents, **“I really like the lowering bus with the ramps,”** and **“Buses with steps are difficult, the kneeling bus is wonderful!”** However, not all drivers automatically kneel the bus at stops; some acknowledge that seniors may need the service and provide it without being asked. Transit's policy is that if a request is made by a passenger then the bus must be kneeled or the ramp lowered. For persons that were more mobility challenged, boarding independently was not easy. Instead, they appreciated a helping hand, stating, **“It is difficult getting on and off the bus when there is no one to assist you.”**

Seating and acceleration

Once aboard, it is important that drivers give seniors time to be seated and to get on and off the vehicle without having to stand as the bus starts or stops. The newer buses can accelerate as quickly as a personal automobile. This development is troublesome for seniors due to the potential for injury of standing without proper support. A participant mentioned that there is a **“lack of secure bars to hold onto near the front of the bus.”** It was reported on several occasions that people had either observed or personally lost their balance due to a quick start or stop. The swinging handles at the front of the accessible buses were not considered sturdy enough for providing support. It was said that, **“It would be great if we could have smoother bus rides.”**

Importance of designated seats

The issues of unsafe standing on the bus stem from shortages of seating at the front of the bus and the lack of public awareness/willingness to give up the available spots. According to Winnipeg Transit's website, “Front seats are designated for seniors and people with mobility problems.” However, this position is adopted loosely and is not publicly promoted nor enforced aboard buses. Instead, different stickers are used next to the seats depicting a wheelchair, a stroller and an injured person (Figure 8). As a

result, seniors must often compete with parents with strollers for this space and this frustrated many of the survey respondents.

Figure 8. Signage aboard Winnipeg buses does not identify seating for seniors



The reasons for this were described by a respondent who required the use of a cane for walking, and had difficulty raising and lowering his body. He described that only three seats on entire bus are appropriate for sitting as he needs to grab the adjacent bars to raise his body from the seat; the first seat on the front-left side and the first two seats on the front right side next to the vertical pole. It would take too long for him to walk to a seat further into the bus. He figured that it is easier for drivers to identify the needs of persons with mobility aids than those who can walk but are not fully mobile.

Walkers, wheelchairs and scooters are now accommodated on buses, increasing accessibility for mobility impaired riders. However, space is limited for these devices so riders of routes heavily used by seniors, such as the number eleven, reported a crowding of mobility aids at the front of the bus. They said it helped when passengers were courteous in vacating the designated seats so that these assistive devices could be properly secured.

Figure 9. Walker aboard Winnipeg Transit Bus



Fixed routes and important destinations for seniors

Lastly, and very importantly for older persons, the fixed route system does not always provide a direct route to required destinations. Challenging for persons in good health, transferring of buses and crossing of large parking lots, is even more difficult for people with declining mobility.

One respondent expressed, **“If I want to take the bus to the doctor's or the hospital, I have to take a few transfers, and this is difficult.”** Participants in various areas of the city recalled a time when they could dial-a-bus to their door. One said, **“The Dial-a-bus was a great service; if they do it again they should do it for all areas, not just for one.”** Door-to-door service to grocery stores and personal care homes for visiting loved ones was considered important.

Assistance and courtesy

Overall, participants of the research described having needs that required more assistance than is currently offered to the majority of riders. Operations seemed to favour the needs of workplace commuters with a focus on speed and efficiency. Personalized services were recommended as being favourable.

3.3 Handi-Transit: The Alternative for Mobility Challenged Persons

There is a perception that a person is able to use conventional transit until their physical abilities decline to the point of eligibility for, and required use of, Handi-Transit. However, aging is a process of transition and it is important to recognize that the decline of physical or cognitive abilities can be either slow or sudden, for example due to arthritis or stroke. This intermediary phase is a time during which public transportation options are not viable and people can become stranded at home without mobility options.

The main issues related to transportation during this time could be addressed by the elimination of the route to the stop and/or added assistance. One respondent critiqued, **“They took the bus route off our street and I can’t use it because it’s too far on the next street over. It is a long way for me, even in the summer. It seems they didn’t even look at who was taking the bus before they moved the route.”** Prior to discussing recommendations for improvements in the final section of this paper, an examination of Handi-Transit’s services will help the reader to understand the policies, successes and limitations of the current alternative to conventional transit.

3.3.1 Snapshot of Handi-Transit and Seniors

Handi-Transit is currently the only alternative to conventional service that is offered to the public by the City. Its mandate is to provide transportation for persons who are physically unable to use the conventional system. Eligibility is offered to:

- Wheelchair/scooter users
- Persons unable to walk more than 175 meters without assistance
- Legally blind individuals

Furthermore, it is offered for various durations of time:

- Unlimited, for conditions present on an ongoing basis
- Limited, to a specific date for temporary conditions
- Seasonally, generally October 1st to March 31st, winter dates are adjusted depending upon weather conditions and may vary year to year
- Specifically for dialysis treatment

Handi-Transit operates parallel to regular transit, utilizing accessible vehicles (mini-buses, mini-vans, and sedans) in areas where traditional ‘fixed routes’ are present. Services are brokered to private companies with trained drivers who offer door-to-door assistance for passengers. If space is available, companions are permitted to accompany clients at the cost of a regular fare.

Trips must be scheduled in advance but cannot always be accommodated. Rides are shared with other passengers and offered according to three areas of priority as shown in Table 3. While the medical and therapeutic needs of seniors are prioritized, their instrumental activities of daily life such as grocery shopping and banking come second

to the employment and educational needs of others. Social outings are considered among the lowest of priorities, but are available.

Table 3. Handi-Transit Trip Priority System		
Priority One	Priority Two	Priority Three
Work	Essential shopping	Recreational activities
Medical	Support groups	Grooming
Education	Self development courses	Dining out
Therapy	Financial and legal business	Shopping
Transportation terminal	Advance ticket events	Other non-essential trips
	Religious services	
	Other prescribed therapy	
	Volunteer	

In 2008, Handi-Transit was able to accommodate 99.5 percent of all requested rides. Only 17 percent of these requests were for Priority Three rides. This is interesting it may mean that registrants are not making requests for these outings because they are finding other means to get around or because they are just not making them as they don't anticipate that they would be met. The interviewee from Lion's Place specified that she uses Handi-Transit strictly for her medical appointments.

Although not specifically designed to meet the needs of seniors, in 2007, 71 percent of the 10,650 registered users were over the age of 65. In 2008, just over one half of the 486,187 total trips conducted were made by seniors. This figure for total trips includes 58,663 passengers who were attendants, resulting in a higher number of total passengers being carried. Of trips made by seniors, approximately 177,000 were for persons that did not require the use of a walking aid, persons that use walkers and persons that use canes (Table 4).

Table 4. Proportion of all seniors' Handi-Transit trips by mobility aid (Handi-Transit, 2008)
31.2 percent do not use a walking aid
17.3 percent use a wheelchair
2.4 percent use a scooter
30.6 percent use a walker
17.5 percent use a cane
0.4 percent use a white cane (blind)

This is a key finding because it highlights the volume of usage by persons requiring the elimination of the route to the stop through the door-to-door service and the help of a driver or attendant. Using the transportation expense per passenger of \$12.15 per trip, which Handi-Transit incurred in 2007, the 177,000 trips made by these persons may have cost Handi-Transit a total of \$2,150,550. This estimation may be even greater if these persons used the assistance of an attendant which costs Handi-Transit the same as any other passenger to carry.

3.3.2 Limitations to the Usefulness of Handi-Transit as a Service for Seniors

As Handi-Transit is currently arranged, there are limits to the system's ability to address the needs of seniors. This is because its mandate is to ameliorate the impacts of extreme physical impairments upon transportation and so clients are screened strictly upon those eligibility requirements. The emotional, social, cognitive, or environmental issues faced by seniors are not the priority of the service. Yet, Handi-Transit has successfully prepared to meet some of these needs through personalized services such as scheduling pick ups by speaking with a person, the option of personal assistance with boarding, and door to door pick/drop off.

Many seniors who do not qualify for the service are not in condition to use conventional transit. Viable transportation alternatives for persons experiencing these challenges must be responsive to the needs of these individuals. Therefore, there is a need for alternatives to current transportation systems for those persons in the phase of decline where neither regular nor Handi-Transit are options.

The following section, *4. Opportunities: Senior-Friendly Public Transportation*, will examine alternate forms such as shuttles with door to door pick up and personal assistance; both of which are key features that help to alleviate isolation. According to one senior, **“Having a shuttle come to my door and take me where I'm going would be a dream.”** Another person remarked on the benefits they receive, **“The shuttle is really amazing for people without cars. It is not expensive to have the door-to-door service and we don't have to walk to the bus stop when it's snowing.”**

4. Opportunities: Senior-Friendly Public Transportation

The issues identified as challenges in the previous section represent opportunities to improve public transportation for a growing population of older adults. The primary finding arising from the research is that seniors require assistance in using public transportation and that appropriate and successful options must be responsive to this. In this final section, alternatives to conventional services and systems will be discussed.

- Presented are six guiding principles which lead a set of fourteen actions that address the personal, social, systematic and environmental difficulties faced by seniors in using public transportation. These are summarized in *Table 5: Senior-Friendly Public Transportation Services*.
- Descriptions of practices and strategies that are responsive to the transportation needs of seniors elaborate upon the principles and associated actions.
- Integrated into these descriptions are examples of community shuttles and municipal systems that showcase some of these senior-friendly features.

It is worth noting that while drafted with a senior-centered focus these improvements could ultimately be developed to benefit other members of the community. Groups that may also face challenges in using conventional public transportation include newcomers and families with young children.

4.1 Senior-friendly Public Transportation Services: Guiding Principles, Actions and Features

Alongside TONS, addressing the issues faced by seniors in using public transportation will require the response of several key stakeholders. In order to be able to collaborate towards this joint goal, it is essential that the various parties operate from a place of common understanding and purpose. The following guiding principles were drafted as a point of reference for these actors. The statements encapsulate key issues and desirable benefits which could be attained through focused efforts. Communication and partnerships will be focal points moving forward.

The principles respond to transportation-related stress and isolation for seniors:

- Principle 1: Acknowledge and support the needs of older adults
- Principle 2: Build confidence in ridership by seniors
- Principle 3: Reduce risks to health and safety of older pedestrians
- Principle 4: Ensure comfort and security of older riders
- Principle 5: Improve accessibility for isolated and/or vulnerable seniors
- Principle 6: Foster inclusion and independence of older adults

The actions are aimed at:

3. Assisting able seniors to access conventional transit through the removal of barriers and provision of additional support
4. Assisting vulnerable seniors to remain independent through the development of supportive senior-friendly alternatives to conventional service

The supporting initiatives that would be required in response to the actions provide great potential to improve the well-being of seniors aging in the community.

Table 5. Senior-friendly Public Transportation Services: Guiding Principles, Actions and Features

Senior-friendly Public Transportation Services: Guiding Principles and Actions
PRINCIPLE 1: ACKNOWLEDGE AND SUPPORT THE NEEDS OF OLDER ADULTS
<i>Action One:</i> Recognize that the process of aging complicates the use of public transportation systems
<i>Action Two:</i> Provide additional assistance to meet the unique needs of seniors
PRINCIPLE 2: BUILD CONFIDENCE IN RIDERSHIP BY SENIORS
<i>Action Three:</i> Raise awareness amongst neighbours and the public to engage in senior-friendly behaviours
<i>Action Four:</i> Help seniors to develop comfort and confidence with bus ridership through trip planning and travel training
PRINCIPLE 3: REDUCE RISKS TO HEALTH AND SAFETY OF OLDER PEDESTRIANS
<i>Action Five:</i> Improve routes to the bus stop by improving snow clearing, sidewalk maintenance and curb cuts close to seniors' homes
<i>Action Six:</i> Ensure adequate timing and opportunities for street-crossings
PRINCIPLE 4: ENSURE COMFORT AND SECURITY OF OLDER RIDERS
<i>Action Seven:</i> Provide comfortable environments for waiting at bus stops
<i>Action Eight:</i> Ease process of boarding the bus
<i>Action Nine:</i> Enforce priority seating aboard the bus
<i>Action Ten:</i> Educate bus drivers about the specific needs of seniors
PRINCIPLE 5: IMPROVE ACCESSIBILITY FOR ISOLATED AND/OR VULNERABLE SENIORS
<i>Action Eleven:</i> Increase door-to-door service options
<i>Action Twelve:</i> Expand variable route, demand-responsive services
<i>Action Thirteen:</i> Develop fixed route loops for common destinations for seniors
PRINCIPLE 6: FOSTER INCLUSION AND INDEPENDENCE OF OLDER ADULTS
<i>Action Fourteen:</i> Support opportunities for socializing aboard the ride to common destinations

Principle 1: Acknowledge and support the needs of older adults

Action One: Recognize that the process of aging complicates the use of public transportation systems

As a starting point, an aging population must be considered as an immediate and emerging concern.

1. Recognizing, respecting, and responding to the needs of seniors promotes livable and age-friendly communities
2. Supporting persons through the transitions of aging contributes to healthy aging and reduces risks of injury and isolation
3. Providing alternative forms of service shows the public's interest in maintaining elders engaged in community activities

Action Two: Provide additional assistance to meet the unique needs of seniors

The need for increased assistance surfaces as a most valuable consideration to guide improvements for seniors. Assistance would help to:

1. Reduce stress and build confidence in trip planning
2. Reduce the potential for injury and increase safety in conducting trips
3. Develop comfort in using public transportation
4. Decrease isolation by providing opportunities for maintaining:
 - a. An independent, active, and healthy lifestyle
 - b. Engaged in community with family, friends, peers and others

Principle 2: Build confidence in ridership by seniors

Action Three: Raise awareness amongst neighbours and the public to engage in senior-friendly activities

Public awareness campaigns promoting senior-friendly voluntary activities are simple but powerful tools. They foster community relationships, increase seniors' safety in the winter, and reduce fears of falls, increasing mobility confidence.

Social marketing of the following behaviours could be very beneficial at a grassroots level:

1. Shovelling of walkways at homes/businesses
2. Assisting seniors across the street
3. Helping seniors to identify buses arriving at stop
4. Offering support to board the bus
5. Vacating priority seating aboard the bus

In Calgary, where sidewalks must be cleared by private property owners, a social marketing campaign has been used to engage members of the community to assist seniors with clearing of their walkways. Recipients of this service provide recognition to their helper in the form a sticker of a “**Snow Angel.**” A multi-media promotional campaign and reward of eligibility for a travel draw are used as recruitment strategies (Newall, Hall and Payne, 2006). The City of Calgary’s website hosts the promotional video used for television advertisements (The City of Calgary, 2007).

Figure 10. City of Calgary’s Snow Angel Symbol



In Roseville, California, a comprehensive approach at personalized service and awareness-raising is carried out through the **Transit Ambassador Program** (City of Roseville, 2009). Its key features address many of the actions that are called for in “Senior-friendly Public Transportation Services.”

Volunteer Transit Ambassadors wear proper identification and complete both classroom and experiential training in order to help passengers and first-time users with public transportation. The duties of a Transit Ambassador include:

1. Giving information transit transfer centres
2. Offering directions to passengers
3. Conducting trip planning and ridership training for first-time passengers
4. Providing assistance for passengers on rides.

Figure 11. Transit Ambassador in Roseville, California



This delivers an extensive level of support for seniors. In Winnipeg, volunteerism could be targeted at intergenerational programs with high school students or ideal for interested and able seniors. It is an innovative means to engage the public, to draw attention to the needs of passengers and to recognize the contributions of volunteers.

Action Four: Help seniors to develop comfort and confidence with bus ridership through trip planning and travel training

Understanding the process of bus ridership is a barrier to usage. Increasing awareness of services and providing appropriate hands-on education can go a long way towards making transit more accessible for seniors. Step by step guidance and personalized customer service would be valuable. It is possible that the development of a "Travel Toolkit for Seniors Using Public Transportation" would aid in community outreach efforts. As a starting point, the information on Winnipeg Transit's website could be repackaged as a printed guide. Also, Transit has expressed that they may be developing a Transit Mentor program that would help with some of the following trip planning recommendations.

Trip planning for Winnipeg seniors should include learning about:

1. Where to find bus information
2. Where to purchase tickets and passes
3. Where and how to obtain Senior's identification
4. Applying for Handi-Transit
5. Use of trip planning services such as Telebus/Navigo/311
6. Identification of routes
7. Reading of transit maps
8. Developing an understanding of transfer points

The services currently offered would benefit from repackaging and additional promotion. These tools are effective, but can be very intimidating for seniors who have never used them before. Providing all of these services in additional languages to English is essential, particularly for seniors that are newcomers or that speak English as an additional language.

Training to use these services can go a long way towards making them accessible to seniors. This is valuable for seniors in building experience and confidence with using public transportation. Having assistance in this process creates a supportive environment where questions can be asked and mistakes can be made without great consequence. Taking this on alone can be intimidating and especially difficult for frail elderly persons.

Travel training for Winnipeg seniors should include:

1. Learning the steps of bus ridership
 - a. Boarding, payment, seating, requesting a stop, exiting
2. A "Travel Buddy" to accompany seniors on trips
3. Understanding rules and use of Handi-Transit
 - a. So as to make an informed decision about travel options

Education programs, such as Edmonton Transit's "Mobility Choices Travel Training", provide free training to groups or individuals including seniors and persons with disabilities. Similar to Winnipeg Transit's program, this service provides trial runs of bus

trips, instructing those unfamiliar with transit how to use the bus. ETS also provides trip planning and information on related services.

Principle 3: Reduce risks to health and safety of older pedestrians

Action Five: Improve routes to the bus stop

Making routes to bus stops easy and safe to traverse would remove barriers for many older adults who want to use the bus. There are several ways to address these routes, beginning at the seniors' doorway. GIS analysis has been done in conjunction with Winnipeg Transit and City of Winnipeg Streets and Maintenance in order to inform of zones where this most pertinent due to the population of seniors present. Responses to address winter conditions, poor sidewalks and high curbs include:

1. Snow clearing
 - a. Prioritize snow clearing on sidewalks of transit routes between seniors complexes, high density seniors neighbourhoods and bus stops
 - b. Have snow cleared from walkways at destination sites commonly frequented by seniors
2. Sidewalk maintenance
 - a. Maintain walkability of sidewalks by ensuring surface is even
3. Curb Cuts
 - a. Where seniors are aging-in-place, reduce height of curbs to reduce difficulty in trek to bus stop

Figure 12. Curb cuts in Downtown Victoria, BC



Action Six: Ensure adequate timing and opportunities for street-crossings

As illustrated in the case studies, crossing the street safely and expediently is a serious concern for seniors travelling to bus stops. Crosswalk locations and/or the absence of opportunities for crossing the street have a major impact. A difference of a few hundred metres can make the difference between an older adult using the bus or not.

Improvements to address these concerns include:

1. Placement of crosswalks in areas with heavy use by seniors, both close to home and to common destination, providing accessible and direct routeways where seniors make frequent trips (Figures 13 and 14)
2. Extending traffic lights to accommodate persons crossing at a slower pace at intersections and near bus stops
3. Appropriate signage to indicate mobility challenged persons crossing (Figure 16) and time remaining until light changes (Figure 14)
4. Safe waiting areas at medians (Figure 15)

Figure 13.



Figure 14. Timed pedestrian crossing



Figure 15. Protected median



Figure 16. Mobility challenged persons crossing



Principle 4: Ensure comfort and security of older riders

Action Seven: Provide comfortable environments for waiting at bus stops

Opportunities for resting following the journey to the stop are important. Placement of benches, shelters and schedules at sites frequented by seniors or close to their homes should be considered a basic service and necessity; not only for commuters but for persons aging in place. The posting of schedules was well-received by current transit users and the addition of signage with real time bus announcements will be especially useful at transfer points.

1. Ensure that benches and shelters are available, at a minimum,
 - a. At stops frequently used by seniors
 - b. At sites of common destinations for seniors
2. Increase bus schedules and wait time signage

Locating where seniors are using, or are more likely to use the system, may be challenging but the maps developed may assist in this process.

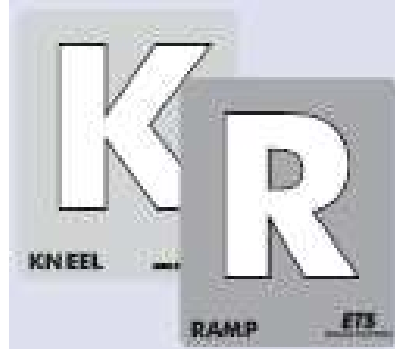
Action Eight: Ease process of boarding the bus

Boarding onto buses has been eased by the implementation of accessibility features on Winnipeg Transit's new vehicles. Most useful has been the removal of steps and the addition of the kneeling and ramp features. Use of these innovations should be maximized. Therefore, there ought to be better mechanisms for deciding when these are needed by passengers. Policies to be followed by drivers can help; however, so can cues from riders. Furthermore, some seniors with more limited mobility may require physical assistance in order to board. Although drivers are not able to provide extensive assistance there are options to address these needs.

1. Consider use of "Kneel/Ramp Mobility Cards" to aid pre-boarding communication between seniors and Transit drivers
2. Investigate use of volunteer "Transit Ambassador" programs to aid with boarding and seating of seniors

The Edmonton Transit System developed the "Mobility Card" in consultation with seniors and transit operators. Used as a hailing card, this double sided card is shown by passengers as the bus approaches to signal to the driver that they will require the bus to kneel (K) or for the ramp to be extended (R). Mobility Cards are available to anyone and are free of charge. This low cost device could also be used as a queue for drivers to proactively request to other passengers that seating be made available for a senior prior to boarding.

Figure 17. ETS Mobility Cards



Action Nine: Enforce priority seating aboard the bus

Being seated on a bus before it begins to move is important. For slow moving persons, and especially individuals with walking aids, this can be difficult to do. Two main factors influence this: bus drivers and passengers. Policy can help to address any ambiguity about rights to priority seats at the front of the bus.

1. Ensure that bus drivers wait until seniors are seated before accelerating
2. Remind passengers that priority seating is for persons with disabilities, seniors, and parents with young children

In the United States, the Americans with Disabilities Act requires that priority seating is designated without question for persons with impaired mobility (United States Access Board, 1998). At the federal level, the guidelines are implemented by the Department of Transportation and enforced by Disability Rights Law. Section 1192.27 of the ADA Accessibility Guidelines for Transportation Vehicles states, "Each vehicle shall contain sign(s) which indicate that seats in the front of the vehicle are priority seats for persons with disabilities, and that other passengers should make such seats available to those who wish to use them."

In California, Bay Area Transit also includes seniors in this consideration. An audio prompt of a recorded announcement is played as each stop approaches. In conjunction with the calling of street names, the message reminds passengers, "**Seats at the front are reserved for seniors and persons with disabilities.**" This is enforced by drivers and makes it socially unacceptable to remain in the seats. Outside of provincial or federal leadership creating similar statutes in Canada, Transit can play a role by including this sort of automated announcement on buses with these capabilities.

Action Ten: Educate bus drivers about the specific needs of seniors

Providing drivers with training of how to support seniors as passengers can reduce stressful incidents for both drivers and seniors. Ensuring that drivers are sensitive to the challenges experienced by senior is an important first step. Spending extra time to give

information or letting seniors find their seat are simple, cost effective ways to make Transit senior-friendly. According to one bus driver, it is a matter of business sense that drivers adopt a better understanding of generational differences because providing friendlier service results in more satisfied clientele.

1. Include senior-relevant content in customer service training for drivers
 - a. Educate drivers of seniors' safety needs upon boarding and exiting
 - b. Look to Canadian Urban Transit Association's Transit Ambassador Program for material on servicing special populations

Principle 5: Improve accessibility for isolated and/or vulnerable seniors

The actions related to improving accessibility are described in detail through key local and Canadian case studies. These models exemplify comprehensive responses that fill gaps left by conventional transit, increasing mobility for seniors.

Action Eleven: Eliminate “the route” and “the wait” for transportation-vulnerable seniors by offering door-to-door service

Increasing door-to-door service options would help to reduce the needs for seniors to traverse across dangerous frontage parking lots and/or through uncomfortable walking conditions such as streets without sidewalks. This would be valuable year-round, but of particular importance during the winter time when snow, ice and cold are barriers to outings. The following case study of the Gwen Sector Shuttle Bus demonstrates how for passengers of this unique weekly service:

1. The route begins at the front door, is supplemented through assistance and is shortened to the curb
2. The wait can take place indoors
3. The ride provides a safe, comfortable and social atmosphere for riders

Case Study: Gwen Sector Shuttle Bus

Gwen Sector Creative Living Centre, a senior's centre located in the city's North End and comprised predominantly of Jewish community members, provides a weekly shuttle for members to attend a meal program. This shuttle operates through the chartering of an accessible Winnipeg Transit bus during off-peak daytime hours. The personalized service, social interaction and assistance provided to members/passengers are key features. The contact begins with a telephone call from the same volunteer on a weekly basis. Each participant is asked to confirm their attendance at that week's meal as well as their need for a ride. Based on the seniors' response, the charter will provide door-to-door service. A retired bus driver works in conjunction with an onboard volunteer to ensure people can make it safely from their door to a seat on the bus, and then exit without incident.

A Gwen Sector volunteer will shovel a person's walkway if it is too snowy to exit the home (Figure 18). This is in stark contrast to Handi-Transit which requires that a client

clear their walkway to the vehicle for pick-up (Winnipeg Transit, 2009c). This same volunteer then offers a friendly arm for physical reassurance from their door to the vehicle (Figure 19). This is particularly helpful in the wintertime. The ramp is lowered for boarding and the driver waits until the volunteer helps to seat the passenger. Because of the time taken to allow for seating, seniors can sit almost anywhere on the bus (Figure 21). Passengers don't mind the time involved as it is a time where they can visit with friends (Figure 22). Exiting from the bus is also a familiar process of snow removal at the centre, ramp extension, and assistance if necessary (Figure 20).

Figure 18. Personalized service that meets needs of seniors includes volunteer clearing of snow from stairs and walkway so that passenger can exit their home



Figure 19. Door to door service provides personal assistance with an arm to hold onto for walking through snow



Figure 20. Comfortable exit: ramp is extended, walkway is cleared of deep snow at destination, familiar driver and volunteer provide a friendly arm to passenger.



Figure 21. Seniors seated throughout bus, not just at front, because driver waits while volunteer seats each passenger. This makes it so that they can get further back on the bus, without crowding.



Figure 22. Social aspects of a dependable weekly ride are invaluable



There are several features that make this model successful. According to Winnipeg Transit, the grid system and construction of streets in the city's North End allows for buses to access homes that would not be accessible to full-size buses in other areas of the city. The bus is chartered from Transit during off-peak hours and the Centre has been able to recruit a retired bus driver. The funding to make the shuttle possible originates from a private donation endowed by a member of the Jewish community in order to make transportation possible for seniors to Jewish community centres. Gwen Secter receives one third of the annual spending policy earned by the endowment. A final and essential element is the consistent volunteerism provided for the coordination of the shuttle service, the driving by a retired professional, and the additional supports to the passengers through shovelling and an arm to hold. This community mobilization has been an evolution and the result of much awareness raising within the entire community.

Several seniors acknowledged that they would not be able to attend routine social gatherings or congregate meals without this service. One user was particularly thankful for the opportunity to get out, stating, **"They took the bus route off our street and I can't use it because it's too far on the next street over. It is a long way for me, even in the summer. It seems they didn't even look at who was taking the bus before they moved the route."** This shuttle allows seniors to be socially active in their community, maximizing independence and quality of life.

Action Twelve: Expand variable route, demand-responsive services

Variable route transit operations can efficiently address seniors' requirements for Social Activities of Daily Life. As it is not viable for Winnipeg Transit's fixed route system to take seniors to personal appointments, and Handi-Transit would have difficulty meeting the demand for these activities if they were to increase the volume of ridership, it is important it consider practical alternatives. Winnipeg's Dial-a-Ride-Transit provides an ideal example that works well for seniors in St. Boniface has potential for seniors in other neighbourhoods. DART is ideal because it allows for flexibility and increases independence.

Expansion of this concept would require:

1. That seniors make trips within their neighbourhood or to connecting bus stops
2. The use of smaller vehicles to increase accessibility into residential neighbourhoods
3. That Winnipeg Transit adopt a new conceptualization of the usefulness of DART to focus on filling gaps in service for underserved populations rather than simply providing a feeder route during lulls in usage

Case Study: Winnipeg Transit's Dial-a-Ride-Transit (DART Route #110 - St. Boniface)

DART, operated by Winnipeg Transit, provides a demand-responsive service where individuals can call the driver of the bus and be picked up at the curb of their home or a nearby landmark. There are three DART routes that operate during off-peak hours, mainly in the evening, in the South end of the city. It is more economical for Winnipeg Transit to run a DART bus as a feeder route between terminals than to provide regular bus service to few users. However the fourth route operates in St. Boniface (#110), on weekdays, in the daytime and on Saturdays. The 110 route is unique because it operates to fill the gap when rush hour routes do not service streets with high densities of users. For example, the DART route includes the hospital and college. As well, many seniors housing blocks are not located on main roadways so Transit considered these buildings in their planning for the implementation of the service.

This has been advantageous for the high concentration of seniors in the area. Rather than acting as a feeder route to the main bus line, the St. Boniface DART will transport people to community services. DART is also a highly affordable service for seniors, costing the same as regular transit fares. The expansion of this type of service would be possible in and benefit neighbourhoods with large senior populations with common destinations.

However, replication may not be easy for a few reasons under the current rationale for provision and mandate of operations. First, St. Boniface's density of area residents and services allow DART to operate efficiently in a way that might not be possible in other neighbourhoods. Second, low ridership is the key to its operations because if numbers rose considerably then there would be justification for Transit to operate the fixed route system. Third, Transit warns that most neighbourhood street designs cannot

accommodate, or are heavily damaged, by the weight of vehicles used by Transit. DART buses are 30 feet long but not much lighter than the 40 foot buses.

Lastly, Winnipeg Transit explains that new money would be needed to make this operation possible under the criteria of meeting the needs of seniors and other populations such as parents with children. Overall ridership dropped by 20 percent, when it was pilot-tested in two areas of the city, with residents preferring to use the fixed route. However, it is not known if the usage shifted to a larger proportion of seniors or if it was broadly promoted to this population. Those persons interviewed in Westwood recalled the service and say that they used it. High levels of ridership would be needed to make the system feasible for Transit. Comparative to the nearly \$2.15 million spent on Handi-Transit rides for seniors with moderate mobility impairments, the cost of operating a single DART service between 9 a.m. and 6 p.m. weekdays and Saturdays would be in the order of \$175,000. A new 30 foot accessible bus would cost \$380,000. Transit has called it a niche service that could be successful under appropriate circumstances but which cannot be applied universally.

Action Thirteen: Develop fixed route loops for seniors

Fixed route transit models are highly effective at providing essential assistance to seniors in conducting Instrumental Activities of Daily Life. Options don't need to be available daily but rather ought to operate with dependable frequency, such as weekly by neighbourhood. The following two examples demonstrate how this can operate on a destination-specific scale as provided by the business community and on a municipal scale as provided by the public transit system.

Case studies show how loops incorporate the sites of popular destinations for seniors such as:

1. Grocery stores
2. Shopping centres
3. Medical complexes
4. Seniors centres

Case Study: Grocery Store Vans

Some of Winnipeg's chain grocery stores offer van rides to and from their establishments for residents of seniors housing throughout the city. In addition to delivering groceries to seniors' homes, Winnipeg Safeway launched this initiative and now other grocers, such as Sobeys' have followed suit. Identified by these stores as an opportunity to improve service to its clientele, the shuttles meet some of the unique needs of aging in a winter climate.

Designed specifically for seniors and people with mobility challenges, they are very successful at providing a selection of nutritious food for people that might otherwise have not have access. The model has many benefits. Vans operate on a regular schedule, making grocery trips predictable, reliable and part of a regular routine. The

consistency of this routine is important to many seniors, as it provides a social outing to look forward to. For some, especially during winter months, this weekly grocery trip is the only social activity undertaken within the community.

An advantage of the grocery store vans is that there is no charge to the user. The grocery chain absorbs the cost of this service, operating at a relative loss in comparison to expenditure. Yet, from a community perspective, it is an added service of great value for many Winnipeg seniors.

Case Study: Edmonton Transit System Community Bus Service (CBS)

Edmonton's similar climate, population size and dispersal allows for comparisons to be drawn regarding what kinds of alternatives might be plausible for Winnipeg. The CBS was initially designed to service emerging neighbourhoods, areas that didn't warrant full bus service, or streets that could not accommodate traditional buses; but two years ago ETS created a route specifically for seniors. The CBS uses smaller buses than the conventional system, providing fixed transportation loops from large seniors complexes to destinations like senior centres, medical buildings, or shopping centres. Buses are wheelchair accessible, have kneeling functions and have space for two wheelchairs or scooters. Passenger usage is high and this has led to much lower overhead than that required for regular bus service.



Figure 23. Edmonton Transit System's Community Bus

ETS has received positive feedback from seniors who like the more intimate feel of the ride. The bus ride itself has become a social experience and familiar relationships have occasionally developed with other passengers. These buses are also felt to be less intimidating than the larger buses that carry significantly more people. Bus routes are designed to transport seniors to areas that transit does not normally service, and closer to where seniors want to go. In some cases, such as shopping complexes and seniors centres, this means they can be dropped off at the front door of their destination. The biggest challenge of operating this service has not been the routes or service provision, but the buses themselves. Edmonton has not yet found a particular make or model of bus that is durable enough for the weather conditions and long operating hours.

Principle 6: Foster inclusion and independence of older adults**Action Fourteen: Support opportunities for socializing**

It has been demonstrated that public transportation is necessary in helping seniors to meet both the essential and social needs of life. Alternatives have been identified which present options for increasing these social opportunities. Connecting with Transit Ambassadors, using community shuttles and riding on grocery store vans provide support for independent seniors. These options promote communication, provide social settings and help people to access places of importance to them.

The example of the Gwen Sector Shuttle demonstrates most clearly that two elements make this possible:

- Sharing regular rides to common destinations allows for gathering with other seniors
- Senior-friendly service connects seniors with community programming and events, namely outreach services offered through Senior Resource Councils

Conclusion

Extensive participatory research involving Winnipeg's seniors community provided great insight to the gaps in public transportation for older persons with difficulty accessing services. Through the engagement of stakeholders, the challenges and opportunities of addressing these needs were put into a practical perspective. Developed as a basis for common understanding, the six guiding principles are supported by clear actions and were drafted in response to the pertinent issues facing older persons. As transportation is an essential link that permits older persons to remain active in society, the social dimensions of public transportation cannot be overlooked.

The process of aging often presents many circumstances in the life of an older adult which result in an increased need for assistance. Single persons, those living below LICO, non-drivers and the moderately mobility impaired are most vulnerable to isolation resulting from lack of transportation options. Responding to these key findings will require the collaboration of many parties and adoption of innovative practices. Identifying an appropriate starting point for moving forward will only be accomplished through ongoing dialogue, engagement of committed parties and sustained efforts at continued improvements.

References

Avoiding Falls: Understanding Falls Risk. (n.d) Retrieved March 30, 2009, from <http://www.lifeline.ca/servlet/DownloadServlet?id=996>

Bailey, L. (2004). Aging Americans: Stranded without Options. Surface Transportation Policy Project. Retrieved March 30, 2009, from http://www.transact.org/library/reports_html/seniors/aging.pdf

Canadian Broadcasting Corporation. Special needs transit rife with problems: report. <http://www.cbc.ca/canada/manitoba/story/2009/03/20/mb-transit-problems.html> (March 27, 2009).

Canadian Institutes of Health Research (CIHR). (n.d.) Mobility in Aging - a Strategic Initiative of the CIHR Institute of Aging Retrieved April 20, 2009, from <http://cihr-irsc.gc.ca/e/29994.html>

Canadian National Institute for the Blind (CNIB). (n.d.). About Vision Loss: How Does Vision Loss Affect People? Retrieved on April 20, 2009 from <http://www.cnib.ca/en/faq/vision-loss/default.aspx>

Cattan, M., White, M., Bond, J., Learmouth, A. 2005. Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Aging and Society*, 25, 41-67.

City of Roseville, California. (n.d.) Transit Ambassadors Program. Retrieved on May 15, 2009 from http://www.roseville.ca.us/transportation/roseville_transit/transit_ambassador_program.asp

De Laet, C., van Hout, B.A., Burger, H., Hofman, A. and Pols, H. (1997). Bone density and risk of hip fracture in men and women: cross sectional analysis. *BMJ*. 315, 221-225. Retrieved on April 20, 2009 from <http://www.bmj.com/cgi/content/abstract/315/7102/221>

Enhancing Mobility Options for Older Americans: A Five Year National Action Agenda (n.d) Retrieved March 30, 2009, from http://assets.aarp.org/www.aarp.org/articles/families/Mobility_Agenda.pdf

Falls and Fitness. (n.d.) Retrieved March 30, 2009, from http://www.lifeline.ca/content/english/tools_tips/falls_fitness.

Fitness: A Key to Avoiding Falls. (n.d) Retrieved March 30, 2009, from <http://www.lifeline.ca/servlet/DownloadServlet?id=995>

Havens, B., Hall, H., Sylvestre, G., Jivan, T. 2004. Social Isolation and Loneliness: Differences Between Older Rural and Urban Manitobans. *Canadian Journal of Aging*, 23(2), 129-140.

Hodge, G. 2008. *The Geography of Aging: Preparing Communities for the Surge in Seniors*. Montreal: Mc Gill-Queen's University Press.

Millar, W.W. 2009. Mobility Options that Will Enable Freedom, Opportunity and Independence for Older Adults: A Vision of our Transportation Future. American Public Transportation Association.
http://www.apta.com/research/info/online/mobility_options.cfm (March 30, 2009).

Newall, N., Hall, H., Payne, B. 2006. Report on Seniors' Social Isolation Workshop. Retrieved March 31, 2009, from
http://www.aginginmanitoba.ca/PDF_docs/2006_Caboto_Workshop_WEB.pdf

Oberlink, M.R. 2008. In Brief: Opportunities for Creating Livable Communities. Retrieved April, 2009, from http://www.aarp.org/research/housing-mobility/transportation/inb155_communities.html

Phillips, S., Richards, J., Maddocks, H., Spiegel, H. Preventing Social Exclusion of the Oldest-Old: The Importance of Policies that Support Seniors' Social Activities of Daily Living (SADLs) and their Social Inclusion [Power Point Slides]. Retrieved March 27, 2009, from <http://policyresearch.gc.ca/doclib/PS-pwfc2008-Richards-eng.pdf>

Porciatti, V., Fiorentini, A., Morrone, M.C. and Burr, D.C.. 1999. The effects of ageing on reaction times to motion onset, *Vision Research*. 39 (12), 2157-2164. Retrieved on April 20, 2009 from http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T0W-3W19RB9-D&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=55ca8d47d27bc2fd9e176f9c89a046fb

Preventing Falls: A Safety Checklist- Reducing Fall Risk. (n.d) Retrieved March 30, 2009, from <http://www.lifeline.ca/servlet/DownloadServlet?id=994>

Snow Clearing and Ice Control Program. The City of Winnipeg (n.d) Retrieved March 31, 2009, from http://winnipeg.ca/publicworks/Snow_Clearing_Policy/SnowClearing.asp

Snow Clearing Policy. The City of Winnipeg (n.d) Retrieved March 31, 2009, from http://winnipeg.ca/publicworks/Snow_Clearing_Policy/default.asp

Social inclusion and the health of Canadians: Where are the gaps? (n.d) Retrieved March 27, 2009, from <http://www.ccsd.ca/events/inclusion/proceedings/health.htm>

Social Inclusion: A Mental Health Framework.
http://www.torontohousing.ca/mental_health_framework#mh_seniors (March 27, 2009).

Social Inclusion: The Foundation of a National Policy Agenda (n.d) Retrieved March 27, 2009, from <http://www.ccsd.ca/subsites/inclusion/bp/mn.htm>

Social Isolation Among Seniors: An Emerging Issue (n.d) Retrieved March 27, 2009, from http://www.health.gov.bc.ca/library/publications/year/2004/Social_Isolation_Among_Seniors.pdf

Social Isolation and Loneliness, Geographic Isolation and Ethnocultural Background among Aging in Manitoba Study Respondents. Aging Manitoba. <http://www.aginginmanitoba.ca/docRes/isoEthno.html> (April 6,2009).

Study Shows Lonliness is a Concern for Older Manitobans. Aging Manitoba. <http://www.aginginmanitoba.ca/docNews/socLone.html> (April 6, 2009).

The City of Calgary. 2007. Snow Angels Promotional Video. Retrieved on May 15, 2009 from <http://content.calgary.ca/CCA/City+Hall/Business+Units/Community+and+Neighbourhood+Services/Seniors/Snow+Angels/Snow+Angels+Video.htm>

United States Access Board. 1998. Americans with Disabilities Act Accessibility Guidelines for Transportation Vehicles. Retrieved on April 20, 2009 from <http://www.access-board.gov/transit/html/vguide.htm>

University of Maryland Medical Center. 2009. Aging Changes in the Senses. Retrieved on April 20, 2009, from <http://www.umm.edu/ency/article/004013.htm>

Ward, B. (2009, February 26). Seniors Would Choose Cancer Over Loss of Driver's Licence. Ottawa Citizen. Retrieved on February 21, 2009 from <http://www.calgaryherald.com/Health/Seniors+would+choose+cancer+over+loss+driver+licence/1333139/story.html>

Winnipeg Transit. (2007, November 16). Governments Partner to Move Winnipeg Transit Improvements Forward. Retrieved on May 15, 2009 from http://myride.winnipegtransit.com/public_content/pdfs/TransitImprovements1107.pdf

Winnipeg Transit. 2009a. Transit Fares. Retrieved on May 15, 2009 from <http://myride.winnipegtransit.com/en/using-transit/transit-fares/>

Winnipeg Transit. 2009b. Accessible Transit. Retrieved on May 15, 2009 from <http://myride.winnipegtransit.com/en/using-transit/accessible/>

Winnipeg Transit. 2009c. Handi-Transit. Retrieved on May 15, 2009 from <http://myride.winnipegtransit.com/en/handi-transit/>

Appendix A - Survey

LCN – Public Transportation Sub-Committee Investigative Questionnaire

Hello, my name is _____, and I work for the Institute of Urban Studies at the University of Winnipeg. I am here today on behalf of Livable Communities Network of Manitoba, a group that addresses issues related to transportation for seniors. You are invited to voluntarily participate in a research study into the barriers and opportunities of transportation for seniors. The information that you provide to me today will remain confidential and your name and address will not be collected nor recorded on this survey.

1. Gender: 1. Female 2. Male

2. Age: 1. 45-54
2. 55-64
3. 65-74
4. 75-84
5. 85+

3. (Without giving the exact address) what type of housing do you live in?

1. Single-unit housing
2. Semi-detached dwelling (duplex)
3. Apartment
4. Seniors complex (seniors housing where some services may be offered, e.g. cooked meals)
5. Assisted living (offers choice in personal care and help with day-to-day activities)

4. How long have you lived at your current address? _____ years _____ months

5. How frequently do you go out? 1. Every Day or more
2. 2-6 Times a Week
3. About Once a Week
4. About Once a Month
5. Never
6. Other: _____

6. What is the primary purpose of your outings? (Medical, shopping, visiting)

7. When you go out, what is your primary form of transportation?

8. Can you walk:

1. without any help
2. with some help from a device only
3. with some help using a person only
4. with some help from both a person and a device
5. unable to do it

9. If answered "without any help or with some help" do you walk outdoors (assisted or unassisted)?

1. ¼ mile to 1 mile or more
2. 100 yards to ¼ mile
3. 10 to 100 yards
4. less than 10 yards

10. Do you experience any difficulties when trying to get around your community (East/North Kildonan)?

11. Do you experience any difficulties when trying to get downtown?

Bus Transportation

12. How frequently do you take the bus?
1. Every Day or more
 2. 2-6 Times a Week
 3. About Once a Week
 4. About Once a Month
 5. Never

*** If the answer is "Never", skip to question # 28

13. What do you enjoy about taking the bus?

14. What do you dislike about taking the bus?

15. How long have you been using Winnipeg Transit as a source of transportation?

16. Where do you get your bus schedule information?

1. Telebus (phone)
2. Internet
3. Schedule materials
4. Other: _____

17. Do you have difficulties accessing bus stops?

18. Do you experience any of the following problems:
1. poor sidewalk conditions
 2. poor snow clearance
 3. difficult distance to bus stops
 4. poor driving (start/stop)
 5. limited opportunity to cross the street. (short traffic lights, no traffic lights, no cross walk)

19. Which of the following are available at your main bus stops:
1. bench
 2. bus shelter
 3. heated bus shelter
 4. posted schedules
 5. street lights
 6. street crossing
(lights/crosswalk)
 7. maintained
sidewalk

20. Do you have difficulties boarding the bus?

21. What services do you find are helpful to you when you take the bus?

1. lower floors
2. stop announcements
3. reduced fare
4. priority seating
5. security cameras

22. How satisfied are you with priority seating on the bus?

1. very dissatisfied
2. dissatisfied
3. neutral
4. satisfied
5. very satisfied

23. How satisfied are you with reduced bus fare?

1. very dissatisfied
2. dissatisfied
3. neutral
4. satisfied
5. very satisfied

24. How satisfied are you with stop announcements?

1. very dissatisfied
2. dissatisfied
3. neutral
4. satisfied
5. very satisfied

25. How satisfied are you with lowered floors on the bus?

1. very dissatisfied
2. dissatisfied
3. neutral
4. satisfied
5. very satisfied

26. When taking the bus, how do you pay your bus fare?

1. Cash fare
2. Bus tickets
3. Bus pass

27. Do you feel safe on the bus?

Taxi Transportation

28. How frequently do you take a taxi?

1. Every Day or more
2. 2-6 Times a Week
3. About Once a Week
4. About Once a Month
5. Never
6. Other: _____

*** If the answer is "Never", skip to question 31

29. What do you enjoy about taking a taxi?

30. What do you dislike about taking a taxi?

Handi-Transit

31. Do you use Handi-Transit? 1. Yes 2. No

***If answer is "NO", proceed to question # 34

31. How frequently do you use Handi-Transit?
- 1. Every Day or more
 - 2. 2-6 Times a Week
 - 3. About Once a Week
 - 4. About Once a Month
 - 5. Less than once a month
 - 6. Other: _____

32. What do you enjoy about taking Handi-Transit?

33. What do you dislike about taking Handi-Transit?

General Questions

34. How can Winnipeg Transit improve its service for seniors?

35. The reduced senior fare of \$36.40 for a monthly bus pass is:

1. Very unaffordable
2. Unaffordable
3. Neither unaffordable or affordable
4. Affordable
5. Very affordable

36. Winnipeg Transit provides a safe environment for all transit users:

1. Disagree
2. Partially Disagree
3. Neither Agree or Disagree
4. Partially Agree
5. Agree

37. Winnipeg Transit is trying to make buses easier to use for seniors:

1. Disagree
2. Partially Disagree
3. Neither Agree or Disagree
4. Partially Agree
5. Agree

38. Winnipeg Transit drivers are sensitive to the needs of seniors:

1. Disagree
2. Partially Disagree
3. Neither Agree or Disagree
4. Partially Agree
5. Agree

39. Winnipeg Transit is easy to use:

1. Disagree
2. Partially Disagree
3. Neither Agree or Disagree
4. Partially Agree
5. Agree

40. Complete the following statement:

“ I would take the bus more often if...”

Appendix B - Survey Results

59 Respondents

Gender	Percent
Male	26%
Female	74%

Age Group	Percent
55-64	5%
65-74	22%
75-84	44%
85+	28%

Type of Housing	Percent
Single-Unit Housing	42%
Semi-Detached Housing	3%
Apartment	37%
Seniors Complex	14%
Assisted Living Complex	3%

Frequency of Outings	Percent
Every day or more	57%
2-6 times a week	36%
About once a week	7%
About once a month	0%
Never	0%

Frequency of Bus Trips	Percent
Every day or more	14%
2-6 times a week	24%
About once a week	14%
About once a month	12%
Never	37%

Frequency of Taxi Trips	Percent
Every day or more	0%
2-6 times a week	3%
About once a week	9%
About once a month	14%
Never	46%

Frequency of Handivan	Percent
Every day or more	4%
2-6 times a week	15%
About once a week	4%
About once a month	19%
Never	8%

Appendix C – Maps

Map 1. Population of Seniors in Winnipeg, MB

Map 2. Population of Seniors in Winnipeg by Density

Map 3. Proportion of Seniors Living Below LICO (after taxes) in Winnipeg

Map 4. Population of Widows/Widowers in Winnipeg

Map 5. Five Areas of Most-at-Risk Seniors in Winnipeg

Map 6. Major (Chain) Grocers in Winnipeg's Downtown

Map 7. Frequency of Nearby Buses to Downtown Interviewee

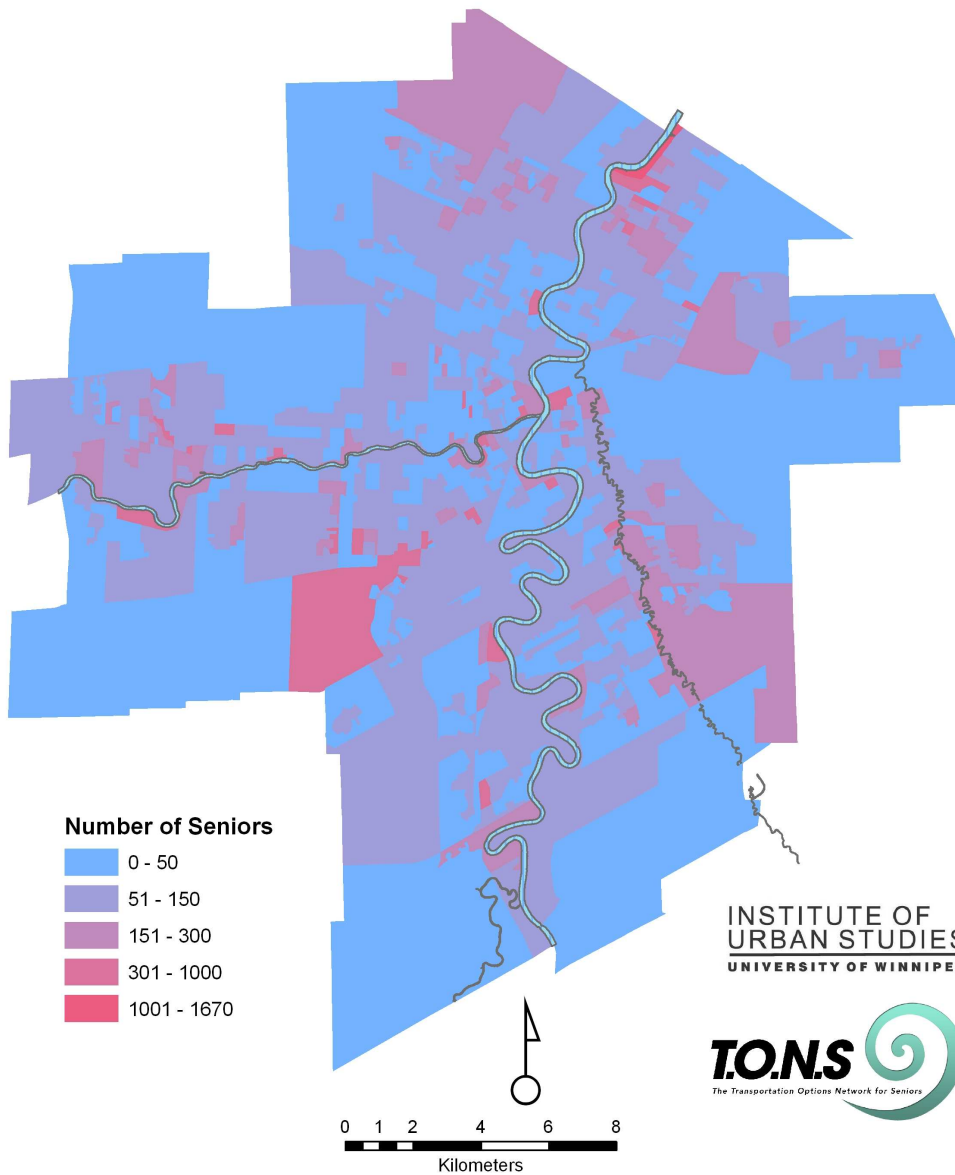
Map 8. Frequency of Nearby Buses to River East Interviewees

Map 9. Frequency of Nearby Buses to St. James Interviewee

Map 1. Population of Seniors in Winnipeg, MB

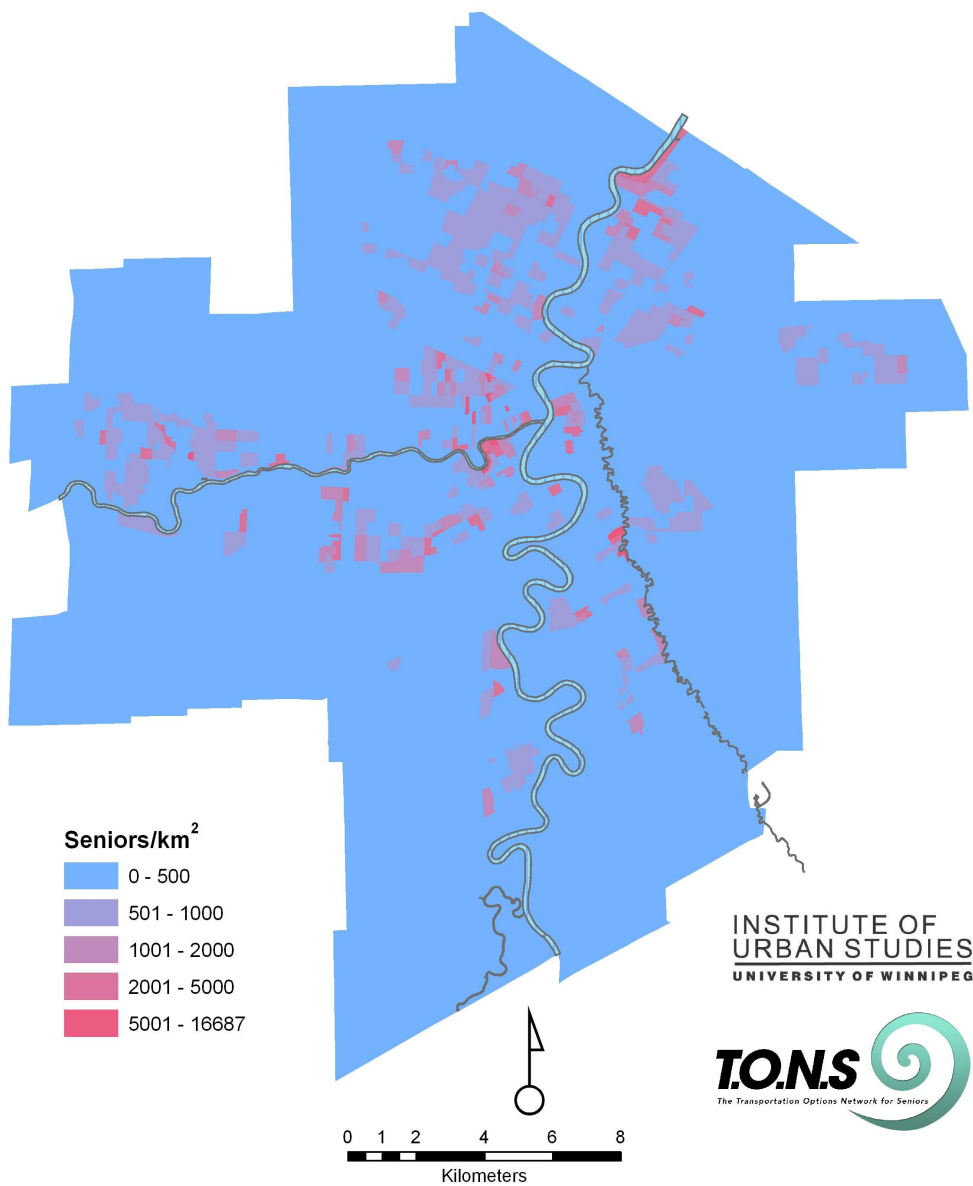
Population of Seniors

Winnipeg, MB



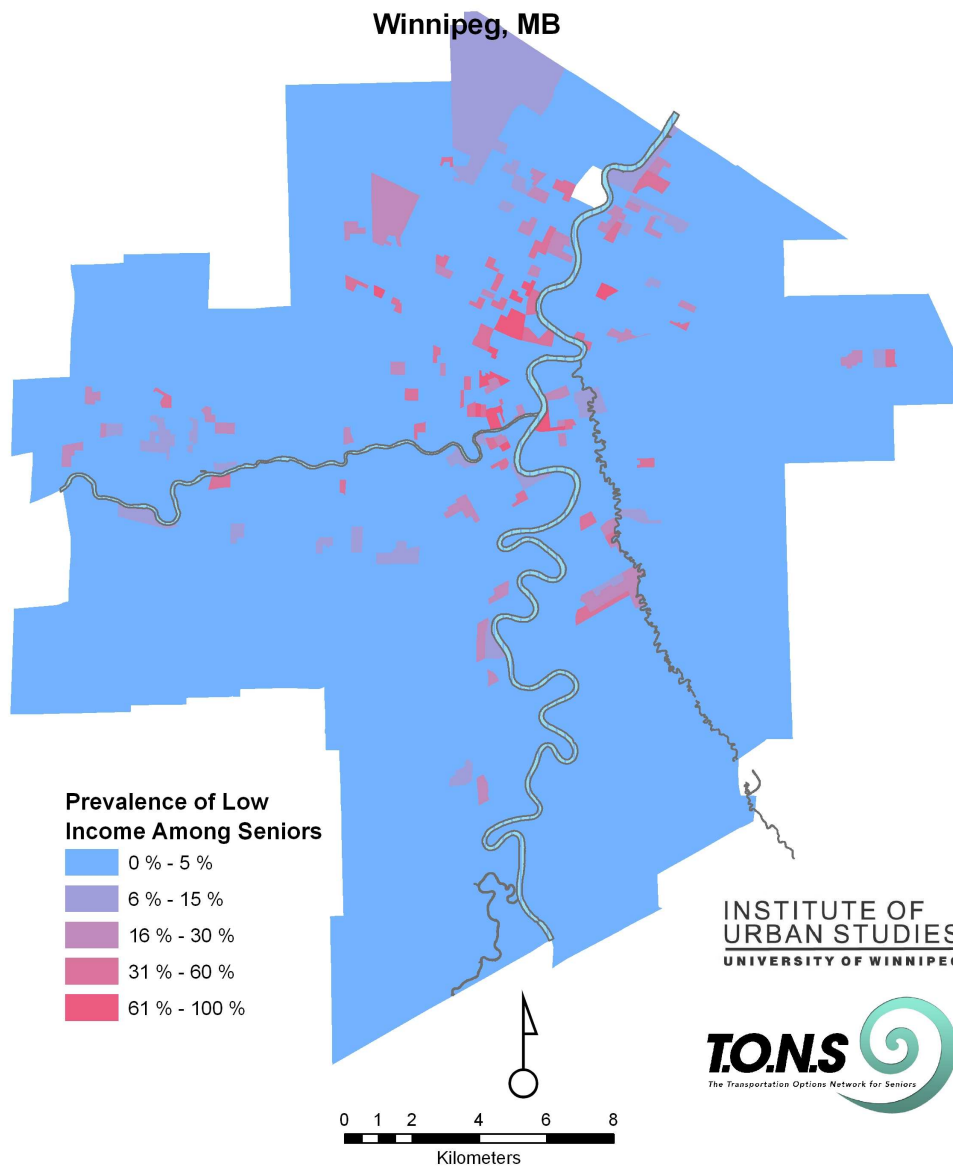
Map 2. Population of Seniors in Winnipeg by Density

Seniors per Square Kilometre Winnipeg, MB



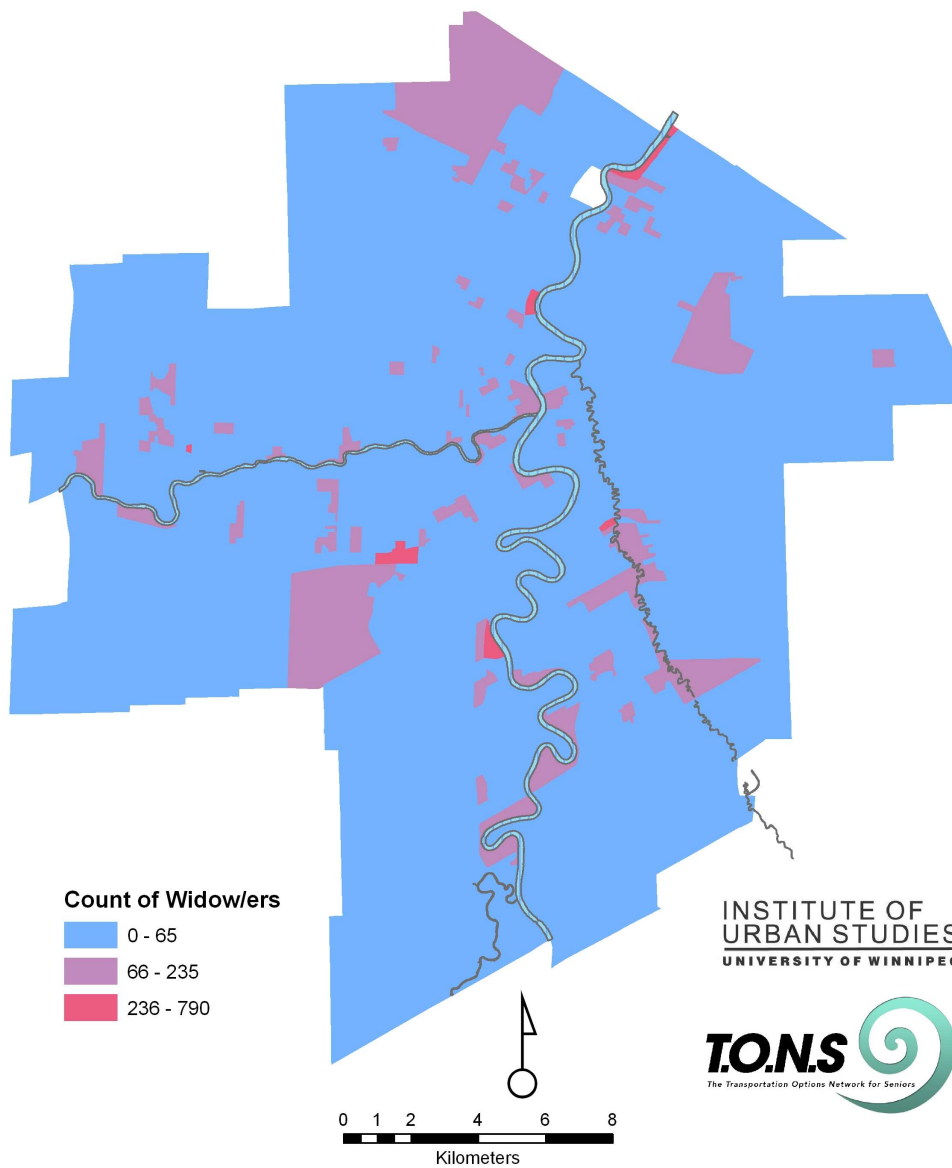
Map 3. Proportion of Seniors Living Below LICO (after taxes) in Winnipeg

Proportion of Seniors Living Below Low Income Cut-Off, After Taxes

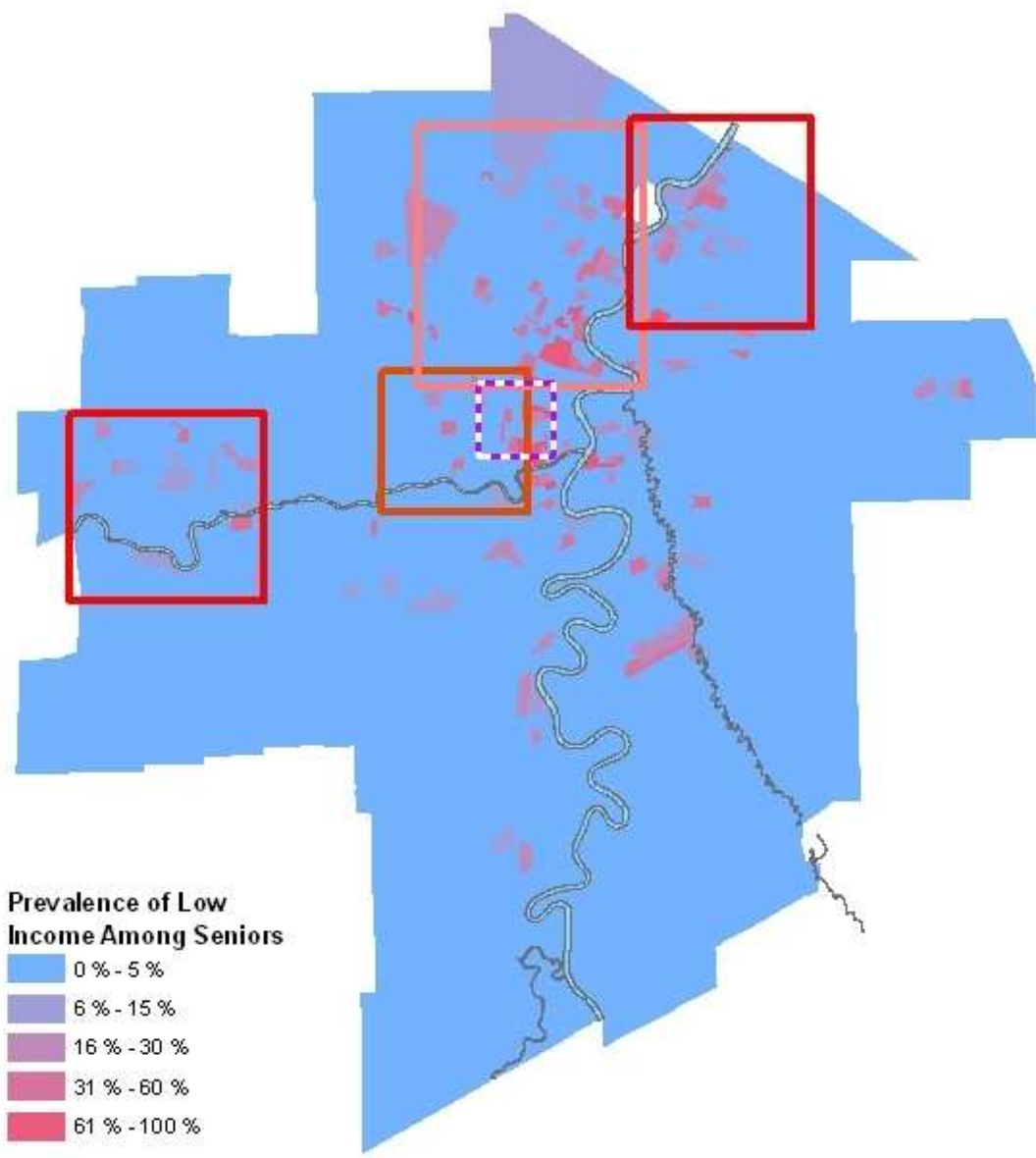


Map 4. Population of Widows/Widowers in Winnipeg

Widow/Widower Population Winnipeg, MB

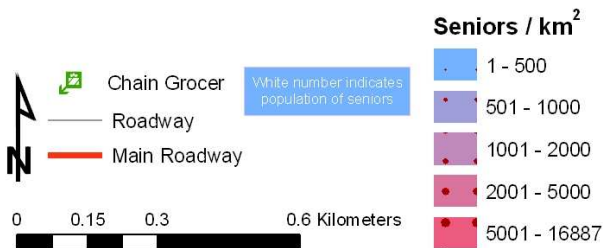
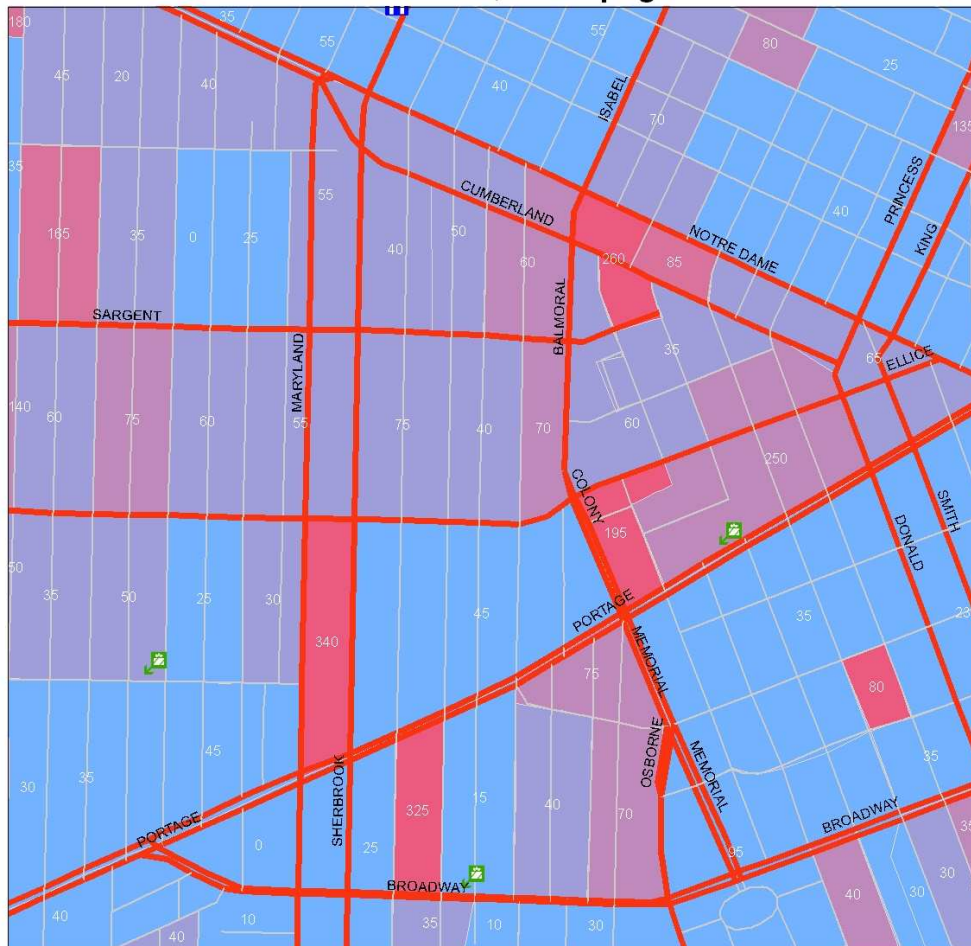


Map 5. Five Areas of Most-at-Risk Seniors in Winnipeg



Map 6. Major (Chain) Grocers in Winnipeg's Downtown

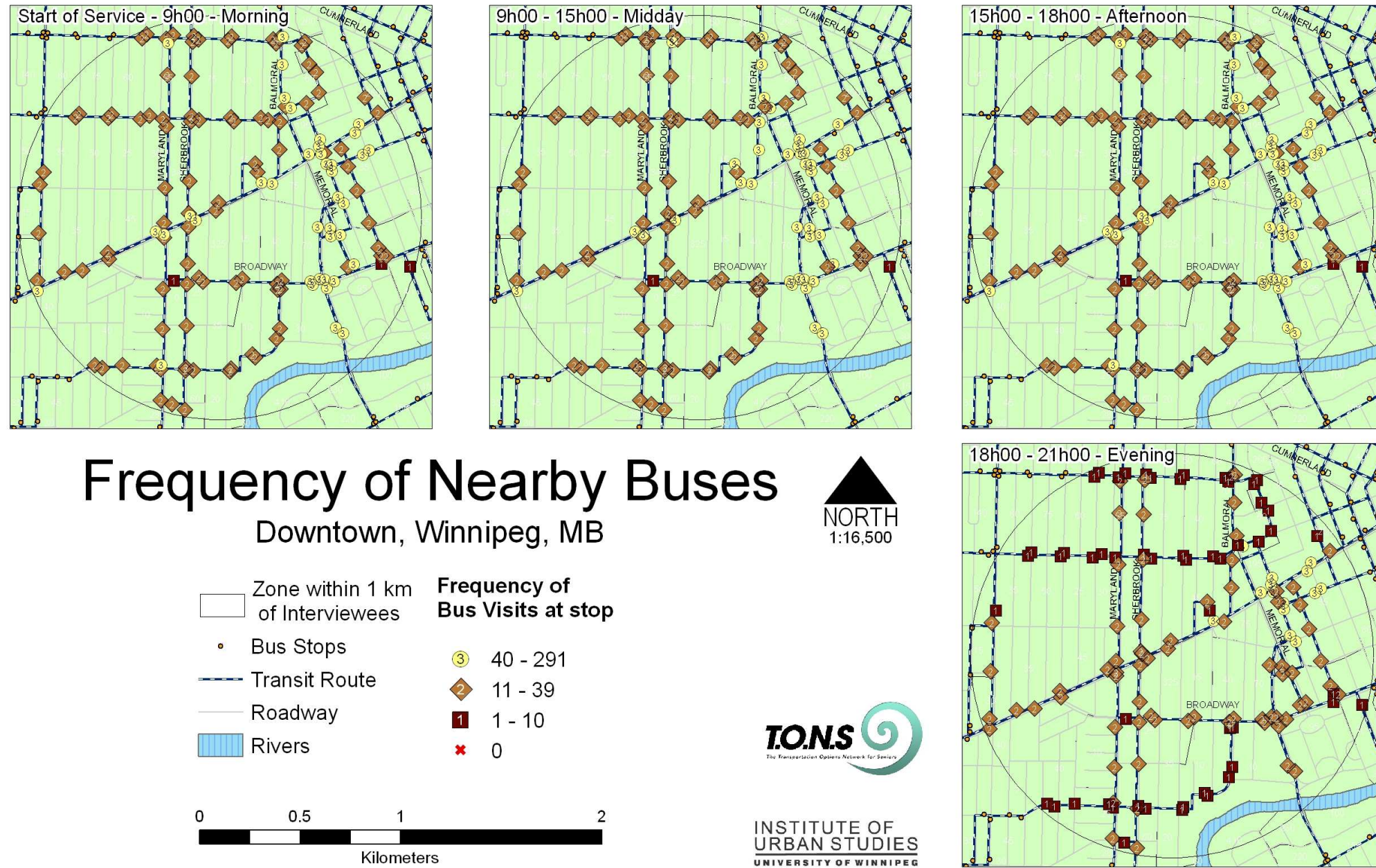
Grocery Stores Downtown, Winnipeg



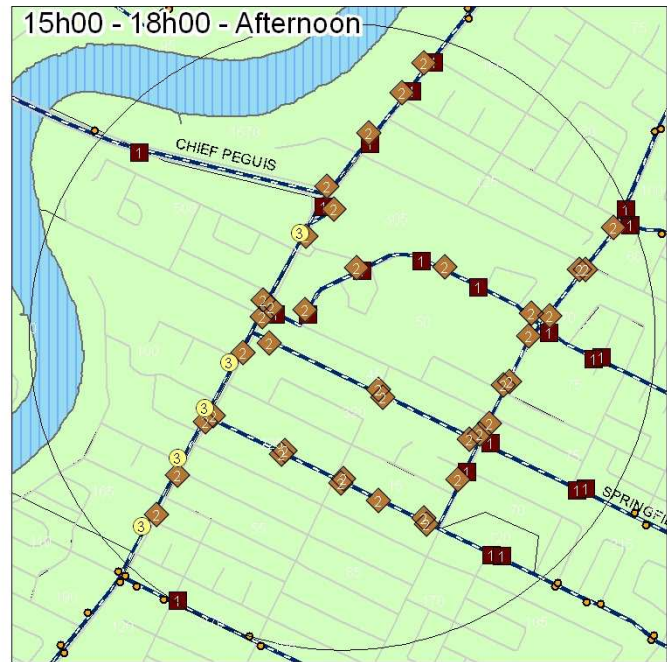
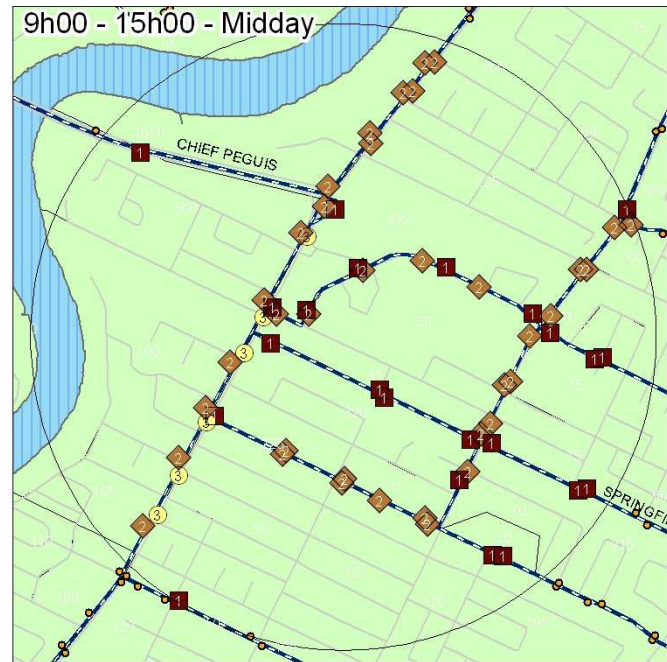
INSTITUTE OF
URBAN STUDIES
UNIVERSITY OF WINNIPEG



Map 7. Frequency of Nearby Buses to Downtown Interviewees



Map 8. Frequency of Nearby Buses to River East Interviewees

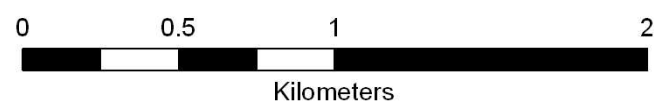


Frequency of Nearby Buses

River East, Winnipeg, MB

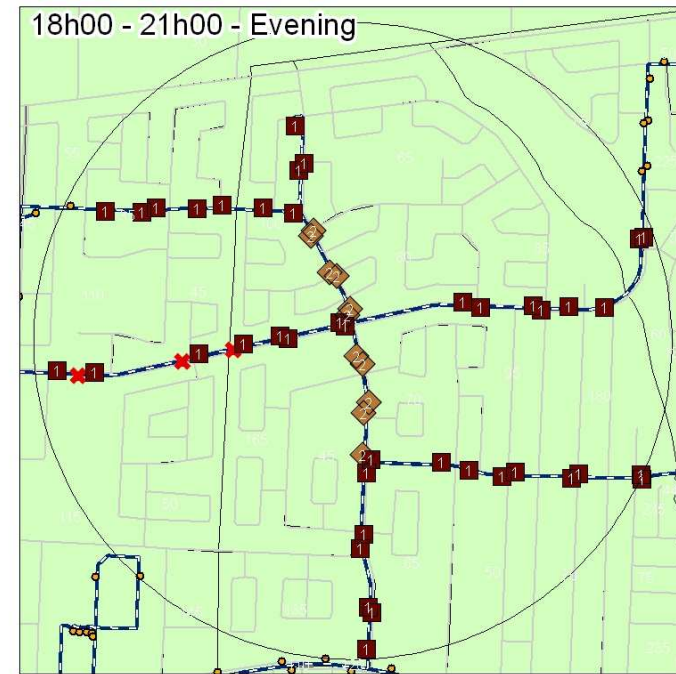
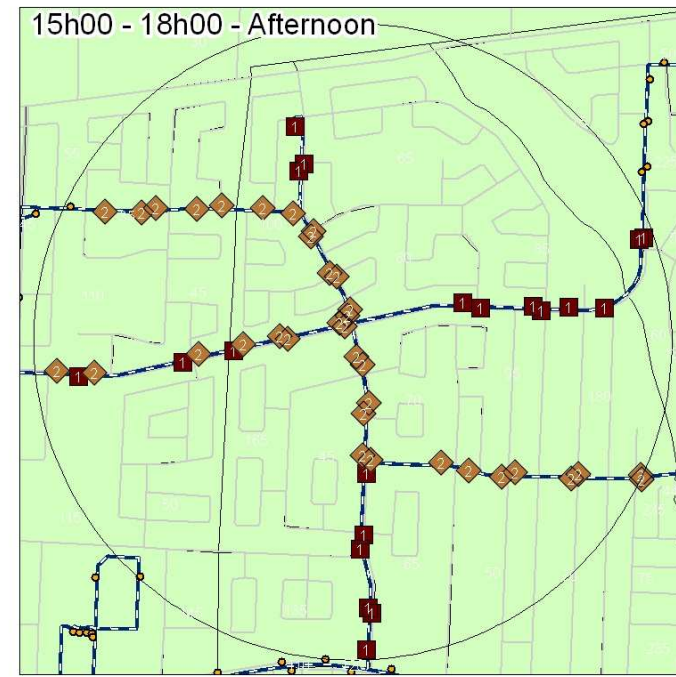
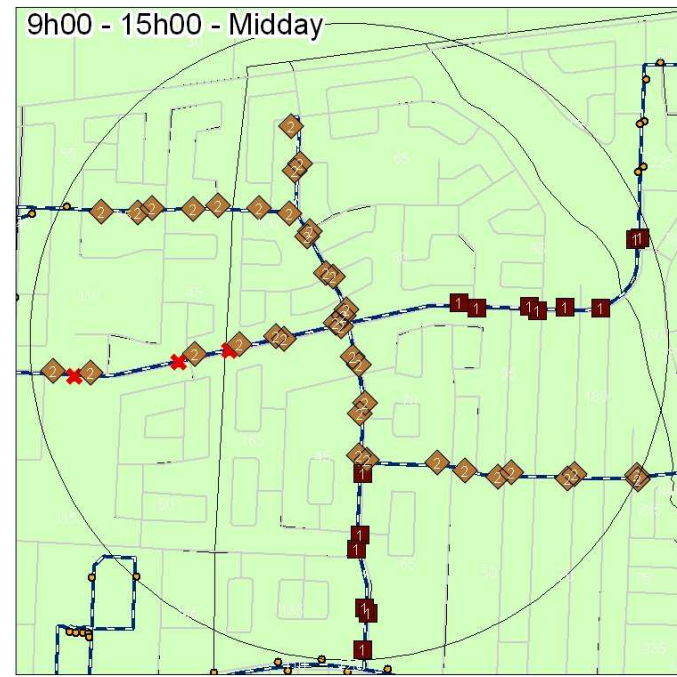
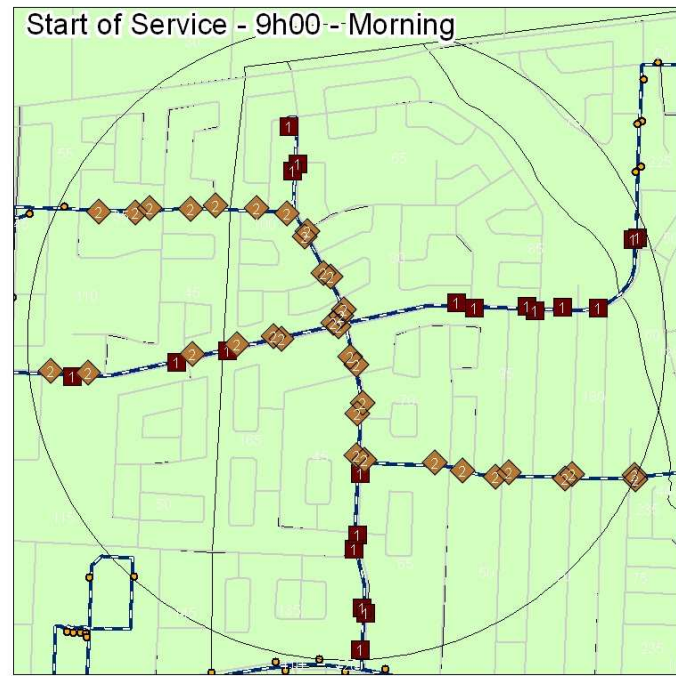


- Zone within 1 km of Interviewees
 - Bus Stops
 - Transit Route
 - Roadway
 - Rivers
- | Frequency of Bus Visits at stop | |
|---------------------------------|----------|
| 3 | 40 - 291 |
| 2 | 11 - 39 |
| 1 | 1 - 10 |
| * | 0 |



INSTITUTE OF URBAN STUDIES
UNIVERSITY OF WINNIPEG






Map 9. Frequency of Nearby Buses to St. James Interviewee



Frequency of Nearby Buses

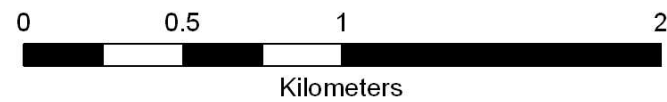
St. James, Winnipeg, MB



-  Zone within 1 km of Interviewees
-  Bus Stops
-  Transit Route
-  Roadway
-  Rivers

Frequency of Bus Visits at stop

-  40 - 291
-  11 - 39
-  1 - 10
-  0



INSTITUTE OF
URBAN STUDIES
UNIVERSITY OF WINNIPEG