

2008



Implementation of Accessibility Action Plan

Insightrix Research Inc.
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1 Background

The City of Saskatoon has been addressing access issues for persons in need of accessibility services on an on-going basis. Numerous initiatives have been undertaken involving City of Saskatoon civic departments and include the input of persons with disabilities and community advocate groups for the purpose of improving access for persons with disabilities with regards to infrastructure and City owned facilities.

During a City Council meeting held July 16, 2007, the Terms of Reference and the establishment of a Saskatoon Accessibility Advisory Committee were approved.

With City Council's approval to move forward with the development of an action plan, the Accessibility Advisory Committee hired Insightrix Research, Inc., to research and review the current situation within the city and develop a focused and prioritized framework for action.

In December of 2007 two documents developed by Insightrix were produced and presented to the Accessibility Advisory Committee: *"Checklist for Accessibility Planning"* and *"Accessibility Planning – Strategy Document"*.

As a result of recommendation #6 of the *"Accessibility Planning – Strategy Document"* – "before the Committee even starts to provide recommendations, especially regarding buildings and structures, barriers need to be defined and guidelines by which they are to be identified need to be set out" - this project is intended to carry out the two tasks.

2 Methodology

2.1 Development of Service Level Guidelines

Using the Checklist for Accessibility Planning document as the basis for the work and format for reporting outcomes, the City of Saskatoon Service Level Guidelines were developed and formalized for each target area of the six programs identified in the document, including items pertaining to:

- Built Environment
- Transportation
- Infrastructure
- Customer Service
- Information and Communications, and
- Employment

To confirm the Service Level Guidelines as being relevant and of greatest benefit for persons in need of accessibility services, Insightrix conducted consultations in the form of Focus Groups with seniors and persons with disabilities. Four focus groups were held between May 27th and 29th with a total of 33 participants attending. Two focus groups were held with senior residents of Saskatoon at the Saskatoon Community Service Village and the Franklin Senior Residence. Two additional groups were held at the Cosmo Civic Centre and the Saskatoon Field House and included people with various disabilities. In order to help with the recruiting process, various agencies and organizations were contacted, including:

- Saskatoon Council on Aging (SCOA)
- Franklin Retirement Community



- Saskatchewan Abilities Council
- Saskatchewan Association of Rehabilitation Centres
- Canadian National Institute for the Blind (CNIB)
- DAWning Saskatoon
- Multiple Sclerosis Society – Saskatoon Chapter
- Saskatchewan Brain Injury Association
- Visually Impaired Persons' Action Council (VIPAC)

Additional findings from the focus groups were incorporated into the Service Level Guidelines document and proposed revisions were brought forth to the Accessibility Advisory Committee for consideration.

Upon completion of the benchmark Service Level Guideline document, meetings were also held with the civic departments to review the guidelines against current and proposed civic programs and services for persons with disabilities. Civic departments that were contacted include:

- Transit
- Public Works
- Municipal Engineering
- Urban Design
- Human Resources
- Corporate Communications
- City Clerks
- Leisure Services
- Community Development
- Facilities Branch
- Planning Branch
- Development Standards
- Building Standards
- Parks Branch

Further, each department representative was provided with a copy of the document containing the Service Level Guidelines and were asked to comment on the validity, relevance and any discrepancies they felt were present in the section of the guidelines pertaining to their respective department. Costs and timelines associated with the implementation of the Service Level Guidelines were stressed during the consultations.

2.2 “Zone” Development

As a result of the consultations with the City departments, Inshtrix set out to determine the distribution of people with disabilities and seniors throughout Saskatoon. By understanding where the neighbourhoods with the highest proportions of persons with disabilities and seniors were, a series of “priority zones” were established to help prioritize the implementation of the items from the Service Level Guidelines.

To determine the location of **persons with disabilities**, several organizations that work with persons with disabilities were contacted. The Saskatchewan Abilities Council (SAC) provided a list of postal codes for participants of their Saskatoon Training program, Partners In Employment (PIE) program, and Disability Parking Permit program. The PIE program provides employment services for individuals with work-related barriers to find, secure and maintain long term employment. The Parking Permit program is administered by SAC on behalf of SGI. Access Transit also provided a list of postal codes for their users'



pick up points for the first quarter of 2008. These postal codes do not necessarily represent where users live, but rather where the service is being used.

With the help of the City Planning Branch, these postal codes were grouped by city neighbourhoods and sorted from highest to lowest according to the number of postal codes that fell within each neighbourhood boundary for each set of postal codes.

In addition, a list of all the assisted living residences and senior homes in Saskatoon were researched. This information was gathered from the Saskatoon Library Database of Senior Residences. This information detailed locations by neighborhood and compared to the other data sources.

To further supplement the creation of the zones, the Neighbourhood Profiles on the City of Saskatoon Website was used to calculate the percentage of **seniors** that lived in each neighbourhood relative to the total population of each neighbourhood. This was calculated by dividing the population of seniors that live in each neighbourhood by the total population within that neighbourhood. The neighbourhoods were then sorted from highest to lowest based on their percentage of seniors.

Based on the proportion of times a particular neighborhood was at the top of the list regardless of the data source (e.g. PIE program, Disability Parking, Census information, etc), priority zones were then determined.

2.3 Additional Consultations with Civic Departments

Due to the fact that some civic department representatives were unable to provide a significant amount of cost information during the first round of consultations, upon establishing the “priority zones”, additional consultations were held with those department representatives to obtain information regarding costs of implementing the Service Level Guidelines based on the zones. This simplified approach resulted in the ability to obtain additional cost estimates in a more focused fashion.

2.4 Secondary Research and Literature Review

In conjunction with conducting additional interviews and developing the “priority zones” within the city and consulting City staff on the costs of implementing the guidelines, secondary research was conducted to determine costs where gaps in information existed. This additional information examined the costs other municipalities spent on enhancing the accessibility of their cities. In addition to transit and infrastructure, a review of consultants in charge of sensitivity training and website accessibility audits was conducted as well.

3 Proposed Service Level Guidelines

At the start of the project, the Service Level Guidelines were established to provide guidance to the City of Saskatoon, when incorporating barrier-free accessibility to all civic facilities, services and infrastructure. These guidelines are not to act as a stand-alone document; they work in conjunction with the National Building Code as well as the Canadian Standards Association in regards to accessible design for the built environment.

Information contained in these Service Level Guidelines have been extrapolated from various sources including: the National Building Code (NBC), Canadian Standards Association (CSA), Facility Accessibility



Design Standards (FADS - developed by the City of London, ON.), various Accessibility Standards in accordance with the Accessibility for Ontarians with Disabilities Act (AODA) and various Accessibility Standards in accordance with the Americans with Disabilities Act (ADA).

Although these service level guidelines contain items that are technical in nature, when incorporating barrier-free accessibility to civic facilities and services, in addition to the Service Level Guidelines - the National Building Code, CSA Standard on accessible design for the built environment and the FADS document (which has been endorsed in Principle) should be adhered to and used during the implementation stage.

The Service Level Guidelines cover six target areas relevant to accessibility around the city of Saskatoon as well as access to facilities, information and services available to all residents of Saskatoon.

- a) Items in the **Built Environment** section include but are not limited to specifications regarding accessible parking areas, signage and entrances, as well as all interior building environments including; washrooms, elevators, handrails, lighting, stairs and ramps.
- b) Section on **Transportation** includes items pertaining to conventional as well as access transit buses, bus stops, driver training, signage and scheduling.
- c) Items mentioned in the section on **Infrastructure** are concerning sidewalks, crosswalks, audible pedestrian signals, curb cuts, snow removal, parks and playgrounds
- d) **Customer Service** Guidelines discuss items regarding staff training and providing people with disabilities with proper means to provide feedback to the City
- e) Guidelines regarding **information and communications** list the various means of distributing information to the residents of the city as well as items pertaining to the City website, Leisure Guide and general public education
- f) **Employment** Guidelines provide guidance to ensure existing staff are aware of issues and challenges faced by people with disabilities, to provide everyone with the same opportunities for employment as well as ensure that the workplace itself is accessible for an employee with a disability.

3.1 Background on Facility Accessibility Design Standards (FADS) – City of London

The Facility Accessibility Design Standards (FADS) is a technical design document used by the City of London staff to enhance accessibility beyond the minimal requirements of the Ontario Building Code. The FADS document is used when planning and designing municipal facilities as an aid to remove and prevent barriers for people with disabilities.

Originally introduced in 2001, the standards reflect extensive research on accessible, barrier-free environments that included consultations with organizations such as; Canadian Hearing Society, Canadian National Institute for the Blind, Community Living London, Learning Disabilities Association, Ontario March of Dimes and Thames Valley Children’s Centre. Going beyond existing accessibility regulations, standards and guidelines, FADS incorporates the principles of “universal design” that benefit people of all ages and abilities. This approach continues to earn the City of London praise as being on the leading edge in building an accessible community.



The City of London continues to encourage and support municipalities in their barrier-free endeavours. Permission to utilize and/or reproduce their standards can be obtained upon submission of a completed FADS Authorization Request Form. To date, more than 50 municipalities and organizations in Canada and the United States have adopted, or adapted the City of London's Facility Accessibility Standards for use in their community.

The Service Level Guidelines have been developed with the purpose to serve as the guiding benchmark document against which to direction action and monitor progress. Although some items in the Guidelines are quite detailed and include specific numbers be it regarding the slope of the ramp, the distance at which a handrail should be placed or the turning radius within an elevator, nevertheless they also contain information that does not restrict or prevent further improvements or amendments if needed. The Guidelines are not there to state what must be done, they in turn provide information on what should be done in order to ensure complete accessibility to all residents of Saskatoon.

3.2 Service Level Guidelines by Area

Below are the service level guidelines by area, which have been approved in principle by Council on September 2nd, 2008. As mentioned above, these guidelines provide guidance to the City of Saskatoon, when incorporating barrier-free accessibility to all civic facilities, services and infrastructure. These guidelines are not to act as a stand-alone document; they work in conjunction with the National Building Code as well as the Canadian Standards Association in regards to accessible design for the built environment.

3.2.1 Built Environment (All Civic Facilities)

- 1.1 **Parking areas** –availability and accessibility of parking areas at all civic facilities. Items covered should include:
 - 1.1.1 Designated accessible parking spaces located closest to accessible entrances
 - 1.1.2 Barrier-free path of travel from parking area to building entrance (clear of snow, garbage cans, sign posts and other obstacles; pathway well lit)
 - 1.1.3 A designated access aisle connecting the parking area to the entrance of the facility. This would also include the provision of a curb ramp between parking spaces in areas where a disabled parking spot is located adjacent to the curb and where the person with a disability may have to travel on the road to get onto the nearest curb ramp thus jeopardizing their safety.
 - 1.1.4 Accessible parking symbol painted on pavement of each parking stall, and proper signage posted and visible (after snow)
 - 1.1.5 Access aisle painted on pavement between parking spaces
 - 1.1.6 Number of designated accessible parking spaces ratio should be at least 3/100. At facilities where increased numbers of persons with disabilities may be expected, then a proportionately higher number of accessible parking spaces will be necessary.
 - 1.1.7 Accessible parking spaces width to be at least 2.7m



- 1.2 **Entrances** – All civic facilities have entrances accessible by people with various disabilities. Items to be examined when ensuring entrance accessibility should include:
- 1.2.1 Barrier-free path of travel to entrance, preferable on-grade access. If the main entrance has more than one doorway to get into the building, at least one door should be fully accessible.
 - 1.2.2 Entrances that are not accessible shall have directional signage marked with the International Symbol of Accessibility clearly indicating the location of accessible entrance
 - 1.2.3 Entrance doorway to be at least 95cm wide
 - 1.2.4 Entrance door is easy to open (automatic, sliding doors, power doors with large paddle/push plate)
 - 1.2.4.1 The maximum door opening force for pushing or pulling open a door shall be:
 - 38 N (8.5 lb) for exterior hinged doors
 - 22 N (4.6 lb) for interior hinged doors
 - 22 N (4.6 lb) for sliding or folding doors
 - 1.2.5 If entrance is through doors in a series, enough room should be left for a wheelchair to occupy the vestibule while opening the second door
 - 1.2.6 Automatic doors – the button/paddle should be large and well-marked and the door opens at a rate of approximately 15cm per second.
 - 1.2.7 Automatic doors – the button should be far enough from the door that the user is not struck by the opening door
- 1.3 **Signage** – Facilities and services for persons with disabilities are to be identified with appropriate signage and the signs used are to be consistent in design and are easily identifiable. Additional items pertaining to signage are as follows:
- 1.3.1 Signage should be available in graphic symbols for those with visual processing difficulties or who are unable to read
 - 1.3.2 Signage should include Braille as well as large print, high color contrast (white on blue background) and tactile lettering
 - 1.3.3 Signage should be installed a minimum of 1400 mm and a maximum of 1500 mm above the finished floor. The minimum level of illumination on signs shall be 200 lux (18.4 foot candles)
- 1.4 **Interior Building Environments**
- 1.4.1 **Washrooms** – there are to be washrooms available at all facilities that are accessible for people with disabilities, especially those in wheelchairs. Other items pertaining to accessible washrooms are:
 - 1.4.1.1 Single door entrance (not two doors in quick succession)



- 1.4.1.2 For washrooms without entrance doors, ensure there is only one turn with clear corner so persons with a visual impairment do not become disoriented
- 1.4.1.3 Barrier-free sink (that allows knee access for persons using wheelchairs) with soap and towel dispenser close to sink and at accessible height, include low mounted or tilt mirror, large lever handles or no-touch faucets.
- 1.4.1.4 BARRIER FREE CUBICLE:
- Minimum 1.5m x 1.5m
 - Door swings outward so the person in a wheelchair can close it independently
 - Equipped with door pull handle, coat hook, grab bars at appropriate height and placement
 - Can be locked from the inside with a large, sliding latch (not thumb-turning latch)
 - Toilet paper reachable without leaning too far off the toilet
 - Accessible toilet height of between 400mm to 460mm
 - If there are between 1 and 5 washroom cubicles in a facility, it should include one accessible cubicle. For facilities that have more than 5 cubicles, there should be 2 accessible stalls.
- 1.4.2 **Stairs** – all stair nosing should have tactile strips in contrasting colors. Slip-resistant, tactile finishes or strips contrasting in color and texture should be included on all landings. Stairs should be well lit.
- 1.4.3 **Elevators** – elevators are to be clearly identified at the main entrance, as well as the dimensions of the elevator should allow for a wheelchair or other assistive mobility devices. Elevator buttons and emergency controls should incorporate large print tactile numbers as well as Braille. Elevators should be operational at all times the facility is in use.
- 1.4.3.1 Dimension of the elevator car allows for a minimum turning radius of 1.5m x 1.5m with elevator door at least 950mm wide
- 1.4.3.2 The elevator door should remain fully open for a minimum of 8 seconds
- 1.4.3.3 In facilities with high public use, the distance between walls should be 2030mm x 1525mm
- 1.4.3.4 Elevator controls shall be readily accessible from a wheelchair upon entering the elevator with Braille labels on control buttons.
- 1.4.3.5 Elevators should have audible signals indicating floors, doors opening/closing.
- 1.4.3.6 Handrails should be provided on all non-access walls at a height of 800 to 920mm with a space of 40 to 45mm between the railing and the wall.



- 1.4.3.7 Floors of the elevator should have a firm and slip-resistant surface.
- 1.4.3.8 A two-way emergency call system or telephone should be available
- 1.4.4 **Ramps** – ramps should be able to accommodate 2 wheelchairs to pass, avoiding tight turns, and incorporating strong color contrast and tactile surfacing on all ramp landings.
- 1.4.4.1 Ramps should be used for any slope steeper than 1 in 20 in a path of travel
- 1.4.4.2 Ramp width should be minimum 1.5m to allow 2 wheelchairs to pass. Level landings/resting areas should be provided at 9m intervals along the ramp
- 1.4.5 **Handrails** – should be available on both sides of the stairwell/ramp and are continuously graspable, as well as extend horizontally beyond last stair and terminate to wall or ground
- 1.4.5.1 A ramp with a rise greater than 150mm shall have handrails which are:
- On both sides
 - Are continuous
 - Extend horizontally at least 300mm beyond the top and bottom of the ramp and return to the wall, floor or post
 - Measure between 865mm and 920mm from the ramp surface to the top of the handrail
- 1.4.6 **Interior Finishes**
- 1.4.6.1 Floor finishes are to be stable, firm, glare-free and have non-slip surfaces under wet and dry conditions
- 1.4.6.2 Routes of travel through a facility should address the full range of individuals that may use them. Minimum clear width 1100 mm (43 ¼ in.), will have a running slope of not steeper than 1:50 and minimum illumination level of 50 lux. Other considerations include accessible routes marked by bright colour or textural changes at floor level, to provide directional cues for people with vision disabilities
- 1.4.6.3 No protruding objects or tripping hazards are to be located in accessible routes, and if so, they should be clearly marked with a bright colour, a cane-detectable floor finish or a guard.
- 1.4.7 **Wall Finishes**
- 1.4.7.1 Walls in busy areas, corridors, ramps or staircases are finished in smooth, non-glossy, non-abrasive finishes
- 1.4.7.2 Colour of doors or door frames in hallways contrast with surrounding wall colours



1.4.7.3 Fire exit doors are consistently colored throughout the building, so that they are easily distinguishable from other doors

1.4.7.4 Mirrors and any separators made of glass are clearly marked for people with low vision

1.4.8 **Other**

1.4.8.1 At least one drinking fountain per floor should be available at accessible height with easily operated and accessible controls. Where more than one drinking fountain is provided on a floor level, at least 50% shall be accessible.

1.4.8.2 Reception or Service counters to provide a choice of counter heights to offer a range of options for a variety of persons. At least one barrier free section should be accessible for persons who use a wheelchair or scooter. Between 710 mm (28 in.) and 865 mm (34 in.) above the finished floor and has knee space below the counter surface.

1.4.8.3 Availability of space for persons using a wheelchair or scooter to sit/park in all public seating areas (without blocking walk-through areas)

1.4.8.4 Glass doors or partitions include a contrasting strip of color across at eye-level ensuring it is also visible to those using a wheelchair or other mobility assistive devices.

1.4.8.5 The width and clear path of travel to and from a doorway are adhered to not only in the entranceways but in addition in various offices, to accommodate people with various disabilities, especially those using a mobility assistive device.

1.4.8.6 Proper measures should be incorporated into the building emergency preparedness and evacuation system to assist people with various disabilities (incorporating visual signals together with the audible alarm systems, using appropriate emergency signage and ensuring it is clearly visible and displayed, in the event of fire when elevators cannot be used, areas of rescue assistance need to be designated)

1.4.8.7 Lighting is to be installed so that people with vision disabilities may clearly identify colours, patterns and signage. Specifically, lighting to minimize direct glare, to create an even distribution at floor level, not less than 200 lux (20 ft-candles)



3.2.2 Transportation

1.5 Access Transit Buses – items pertaining to accessible buses include:

1.5.1 Employees serving people with disabilities should be properly **trained** in:

- 1.5.1.1 Safe operation of accessibility equipment
- 1.5.1.2 Boarding and de-boarding assistance procedures
- 1.5.1.3 Handling and storage of transportable mobility aids and assistive devices
- 1.5.1.4 Understanding the function of personal care attendants, service animals and assistive devices and methods for interacting with customers who are accompanied by personal care attendants, service animals or use assistive devices
- 1.5.1.5 Emergency preparedness and response policy and procedures

1.5.2 The buses used for the transportation of persons with disabilities should display the **International Symbol of Access**

- 1.5.2.1 The international symbol of Access shall be displayed in a clearly visible position on the rear of the vehicle and on the front of the vehicle in a position other than the windshield
- 1.5.2.2 The international symbol of Access shall: a) be square or circle with a height and width of not less than 150 mm, and; b) consist of a symbol in white on a blue background.

1.6 Urban Transit – transit buses should all be low floor (kneeling) buses, and are properly labeled with the International Symbol for Access. Additional items pertaining to accessible **urban buses** include:

1.6.1 **Route or destination signage** - the route or direction or destination of the bus is to be legibly displayed, such that it is visible at the boarding point

- 1.6.1.1 Where route or destination signs are displayed, the buses should have signs that:
 - Are illuminated
 - Have non-glare surfaces
 - Are positioned to minimize glare, and
 - Use characters that provide high contrast with the background.

1.6.2 The route or direction or destination or next major stop of the bus should be **audibly announced** and visually presented through manual or electronic means



1.6.3 Steps on the Buses

- 1.6.3.1 Step surfaces are to be: a) firm and; b) slip resistant
- 1.6.3.2 Top outer edge of each step is to be marked by a colour strip in high contrast to its background that runs the full width of the leading edge of the step and is readily apparent from both directions of travel
- 1.6.3.3 All interior edges and raised floor areas should be marked by a colour strip in high contrast to its background
- 1.6.3.4 Step surfaces do not create glare.

1.6.4 Accessible **stop-request controls** are to be available throughout the bus, including within reach of allocated spaces and seated passengers.

1.6.5 Indicators within and on the Exterior of the Buses

- 1.6.5.1 A visual amber warning lamp indicator is to be mounted on the exterior, near the accessible entrance door(s)
- 1.6.5.2 Visual indicator should be coupled with an audible warning alarm. Both the visual indicator and audible warning alarm should function when the bus is kneeling, when the ramp is deployed or when the lift is in operation.
- 1.6.5.3 A visual and audible door opening and closing indicator system is to be available

1.6.6 **Bus Stops** – priority should be paid but not limited to installing bus shelters in areas that are highly concentrated by seniors and people with disabilities as well as based on utilization patterns. Paths are to be cleared to allow for easy access to the bus stop. Signage should be in clear print, the route numbers should be easy to see and identify.

- 1.6.6.1 Bus stops shall not be impeded by adjacent street furniture, such as waste boxes, planters, posts, signs, etc.

1.6.7 **Bus Shelters** - all glazed panels surrounding bus shelters shall incorporate decals of a highly contrasting color and a minimum of 2 in. wide

1.7 Access Transit

1.7.1 Provide an accessible means to make and accept reservations as well as obtain information. Some ways to achieve this are:

- Dedicated telephone line for making reservations, including an “Automated Touch Tone Service” to provide information on: scheduled pick-up and arrival times, ability to make trip cancellations, pre-booking, phone listings and hours of operation.
- Online access to the trip information details



3.2.3 Infrastructure

1.8 **Sidewalks** – in central business districts and downtown areas, sidewalks need to be designed to accommodate larger volumes of pedestrian traffic than in residential areas. Streetscapes in these areas often function for multiple purposes and generally consist of the following zones: the building frontage zone, the pedestrian travel zone, the planter/furniture zone, and the curb zone.

1.8.1 **Building frontage zone** – area between the building wall and pedestrian zone. At a minimum, pedestrians prefer to keep at least 0.6 m away from the building wall. The frontage zone should be increased and physically separated from the pedestrian zone (allow extra space for a door opening into the frontage area, sidewalk cafes, etc.) People with vision impairments often travel in the frontage zone and use the sound from the adjacent building for orientation. Some use the building edge as a guide for a cane, traveling between 0.3 m to 1.2 m from the building. The frontage zone should be free of obstacles and protruding objects. Level landings should be available at building entrances and around sidewalk furnishings such as drinking fountains, benches, etc.

1.8.2 **Pedestrian Travel Zone** – this is the area of sidewalk corridor that is specifically reserved for pedestrian travel. This area should be free of all obstacles, protruding objects, and any vertical obstructions hazardous to pedestrians, particularly for individuals with vision impairments

1.8.2.1 The pedestrian zone should be at least 1.8 m – 3.0 m wide or greater to meet the desired level of service in areas with higher pedestrian volumes.

1.8.2.2 The pedestrian zone should never be less than 1.2 m, which is the minimum width required for people using a guide dog, crutches and walkers. Wheelchair users need about 1.5 m to turn around and 1.8 m to pass other wheelchairs.

1.8.3 **Planter/Furniture Zone** – lies between the curb and the pedestrian travel zone. Provides a buffer from the street traffic and allows for the consolidation of elements like utilities (poles, hydrants, telephone kiosks, etc.) and street furniture (benches, signs, etc.). On local and collector streets 1.2 m is preferred and on arterial and major streets 1.8 m is preferred.

1.8.3.1 Additional space is required for bus stops and shelters which may include a boarding pad typically 1.5m x 2.4m.

1.8.3.2 For snow clearing purposes, wider planter/furniture zones are required, to allow for snow to be stored in the planter/furniture zone and keep the pedestrian zone obstacle free.

1.9 **Grades and Slopes**

1.9.1 The sidewalk grade ideally should not exceed 5 percent

1.9.2 Once a maximum grade of 8.3 percent for a distance of 9.0 m is achieved, a level landing must be installed



- 1.9.2.1 The slope of the level landing should not exceed 2 percent in any direction
- 1.9.2.2 The dimensions of the level landing should be at least 1.5m x 1.5m to allow wheelchair users to stop and rest without blocking the flow of pedestrians. This area can be greater with the inclusion of benches, hand rails and drinking fountains.
- 1.9.3 Maximum cross slope should not exceed 2 percent
- 1.9.4 Decorative surfaces such as paints and surface materials, polished stones or exposed aggregate rock are not slip resistant and should be avoided. Paint and thermoplastic materials commonly used to mark crosswalks are generally not as slip resistant when wet
 - 1.9.4.1 Brick and cobblestone increase the amount of work required by pedestrians with mobility impairments. Ensure tiles are spaced tightly together as they can create grooves that catch wheelchair casters.
 - 1.9.4.2 If the change in level/elevation of the sidewalk is between 6 mm and 13 mm – the surface needs to be beveled with a maximum grade of 50 percent. Once that change in elevation reaches over 13 mm, a ramp should be installed with a maximum grade of 8.3 percent.
 - 1.9.4.3 Gaps, grates and other openings occur at railroad tracks, drainage inlets, air vents, tree grates, etc. Grates should be placed within the planter/furniture zone away from the pedestrian travel area and also away from the bottom of crosswalks and curb ramps.
 - 1.9.4.4 Openings of gaps and grates should not allow the passage of a 13 mm sphere
 - 1.9.4.5 The long dimension of the opening should be perpendicular or diagonal to the dominant direction of travel.
 - 1.9.4.6 Tree branches should be maintained to hang no lower than 2.0 m as low hanging branches can be a safety hazard, especially for the pedestrians with vision impairments.
- 1.9.5 **Driveway crossings** – should be designed with the following guidance:
 - 1.9.5.1 Cross slope should be maximum 2.0 percent
 - 1.9.5.2 Changes in level should be flush (with a maximum change of 6.35 mm)
 - 1.9.5.3 The flare slope should be maximum 10 percent
- 1.9.6 **Ramps / Curb cuts**
 - 1.9.6.1 The ramp grade should not exceed a maximum slope of 8.3 percent



- 1.9.6.2 Cross slope on the ramp should not exceed 20 percent
- 1.9.6.3 Minimum ramp width should be 1.2 m. In restricted spaces only, the minimum width should not be less than 915 mm
- 1.9.6.4 Significant changes of grade as the pedestrians travel from the down slope of the ramp to the up slope of the gutter can cause wheelchair users to fall forward and should be 13 percent or less. Counter-slope should not exceed 5 percent
- 1.9.6.5 Curb ramp length is determined by the vertical height of the curb between the roadway and the sidewalk. Assuming the cross slope of the corridor is constant at 2 percent, the formula for determining ramp length is: curb height / (ramp slope/percent – sidewalk corridor cross slope/percent)
- 1.9.6.6 The curb ramp should be aligned with the marked crosswalk, so there is a straight path of travel to the curb ramp on the other side
- 1.9.6.7 Adequate drainage should be provided to prevent the accumulation of water, snow/ice and debris on or at the bottom of the ramp
- 1.9.6.8 Ramp lengths can be minimized by lowering the sidewalk to reduce the curb height. This would be applicable in areas with narrow sidewalks

1.9.7 **Snow Removal** – the sidewalks are to be cleared of snow and ice, in compliance with the snow clearing bylaw. It is of particular importance in areas and near facilities that are most commonly frequented by people with various disabilities as well as seniors.

1.10 Crosswalks

1.10.1 **Audible Traffic Signals** – Audible tones and speech messages can provide standard information about the status of the signal cycle (WALK, DON'T WALK). Information on the location, direction of travel and the name of the street to be crossed can also be included. In addition to providing information in multiple formats, the physical design, placement and location of the pedestrian signal device need to be accessible to pedestrians with vision and mobility impairments. Conduct an assessment of intersections throughout the city to review the following:

- 1.10.1.1 All “high-traffic” pedestrian intersections should have appropriate audible and visual traffic signals installed to accommodate those persons with various disabilities.
- 1.10.1.2 The push button should be located as close as possible to the curb ramp without interfering with clear space
- 1.10.1.3 The device should be mounted no higher than 1.0m above the sidewalk



- 1.10.1.4 The control face of the button shall be parallel to the direction of the marked crosswalk
- 1.10.1.5 The device should be placed no closer than 760 mm to the curb, and no more than 1.5m from the crosswalk
- 1.10.1.6 The button should be a minimum of 50 mm in diameter to be easily operated by pedestrians with limited hand function
- 1.10.1.7 The force to activate the button should require a minimum amount of force no greater than 15.5 N

1.10.2 **Flashing Pedestrian Crosswalks** – In areas that have higher than normal traffic of pedestrians and where currently no traffic signals are available (uncontrolled intersection), consider installing Flashing Pedestrian Crossings to ensure people are not waiting and can safely cross the streets.

1.11 Parks and fully accessible playgrounds

- 1.11.1 Sidewalks with the inclusion of curb cuts and proper surfacing should be available to make parks accessible for people with various disabilities.
- 1.11.2 Ensuring playgrounds have at least one accessible feature incorporated into the design, as well as introducing one fully accessible playground into all four quadrants of the city.
 - 1.11.2.1 Gates, pathways and walkways throughout the park shall be accessible to a person using a wheelchair, scooter or other mobility assisting device
 - 1.11.2.2 Provide accessible picnic tables, drinking fountains and accessible ground surfaces
 - 1.11.2.3 Provide benches adjacent to an accessible route, have arm and back rests, be of contrasting color to their background, have an adjacent level, firm ground surface at least 91cm x 137 cm for wheelchair, scooter or stroller parking

3.2.4 Customer Service

- 1.12 **Training of staff** – general staff training programs should include a component about how to provide goods and services to people with disabilities and their specific needs.
- 1.13 **Feedback process** – offer persons with disabilities with appropriate and effective means to provide their feedback be it: in person, by telephone, in writing, email or diskette – ensuring complaints and questions are handled appropriately and responded to using appropriate formats such as; email (using text documents rather than PDF, telephone or in writing.



3.2.5 Information and Communications

- 1.14 People with various disabilities should be provided with an effective means of obtaining information and providing their feedback to the City. Alternate formats of providing information and communication should be used such as;
 - 1.14.1 Large print – materials should be prepared with a font (print) size that is 16 to 20 points or larger
 - 1.14.2 Electronic text – ensure that formats of electronic text adhere to the screen reading software, as some items such as images and PDF's (Portable Document Format as supported by Adobe®) are not interpreted by screen reading software.
 - 1.14.3 Audio and/or video format
 - 1.14.4 Information distributed through various disability and senior organizations throughout the city or as bill inserts and/or pamphlets
- 1.15 Consider having the leisure guide available in alternate formats (other than print), or that people with disabilities have some alternative form of access to leisure information.
- 1.16 Review and re-design the website to conform to the W3C standards and applicable Web Content Accessibility Guidelines for website development.
- 1.17 Pursue means and ways to educate the general public on issues and needs of people with various disabilities, traffic laws, parking laws, usage of Audible Pedestrian Signals, etc.

3.2.6 Employment

- 1.18 **Training of existing staff** – build awareness among existing staff members on the needs and issues faced by people with various disabilities to ensure an equal and appropriate work environment is available for any staff with a disability. Provide training for supervisors and managers so they understand how to support employees with disabilities
- 1.19 **Recruitment and selection** – provide all applicants to City of Saskatoon job postings with an equal opportunity to obtain employment, by asking potential employees or applicants whether they have any needs or require any job-related support.
- 1.20 **Workplace accommodations** - people with disabilities are to be provided with a pleasant working environment, particularly: desk areas are appropriately positioned and provide ample room for a wheelchair; accessible washrooms are available, providing TTY telephone service and screen magnifiers, flexible scheduling and emergency preparedness. The section on the Built Environment (page 5 of this report) should be referred to as base level requirements for all buildings.

All of the information and discussions beyond this point are relative to the general public, civic department representatives and implications regarding the costs and timelines associated with putting these Service Level Guidelines into action.



4 Focus Group Findings and Results

To confirm the Service Level Guidelines as being relevant and of greatest benefit for persons in need of accessibility services, Insightrix conducted consultations in the form of Focus Groups with seniors and persons with disabilities. Four focus groups were held between May 27th and 29th with a total of 33 participants attending. Two focus groups were held with senior residents of Saskatoon at the Saskatoon Community Service Village and the Franklin Senior Residence. Two additional groups were held at the Cosmo Civic Centre and the Saskatoon Field House and included people with various disabilities. In order to help with the recruiting process, various agencies and organizations were contacted, including:

- Saskatoon Council on Aging (SCOA)
- Franklin Retirement Community
- Saskatchewan Abilities Council
- Saskatchewan Association of Rehabilitation Centres
- Canadian National Institute for the Blind (CNIB)
- DAWNING Saskatoon
- Multiple Sclerosis Society – Saskatoon Chapter
- Saskatchewan Brain Injury Association
- Visually Impaired Persons' Action Council (VIPAC)

4.1 Overall Results

Participants were asked to comment on general categories such as: Built Environment, Transit, Infrastructure, Leisure, Customer Service and areas which they felt were in need of most improvements.

Participants were asked to prioritize categories in order of importance, and Infrastructure was one of the top priorities (including – sidewalks and their condition, crosswalks and Audible Pedestrian Signals). Snow Removal was the next item of importance in all four groups. Another item at the top of the priority list was Transit both regular and Access, which was followed by items regarding Built Environment. Communication and information was seen to be connected with the above categories and was mentioned to be a priority in conjunction with Infrastructure, Snow Removal, Transit or Built Environment, specifically, the means by which people receive information and the perception on how much information they currently receive. Customer service was seen to be the least important item on the list with all of the focus group participants as they commented on it being good and adequate with very little complaints.

Safety of people was also mentioned throughout the discussions, in particular when crossing the roads, when walking on sidewalks in poor condition, usage of ramps within buildings and curb cuts on the sidewalks, lighting conditions as well as other interior components of the buildings such as color contrasts, heavy doors, etc.

There was a general consensus that there is a need for public awareness campaign on the items pertaining to disabilities, such as; the proper usage of Audible Traffic Signals, parking in spaces designated for people with disabilities, accommodating people using assistive mobility devices, and using conventional and access transit buses.

Praise was given to the city for having these focus groups as they are seen as opportunity for people to provide feedback and make their voices heard.



4.2 Detailed Focus Group Findings

Below are the details as they pertain to the focus groups. Participants were able to get very specific on areas/locations that require improvement.

4.2.1 Challenges people face in getting around the city

Sidewalks and Crosswalks

Quality of sidewalks – uneven, broken up, cracked. This presents a challenge as it is difficult to walk with a cane, drive over it with an assistive mobility device (scooter, wheelchair, walker). People with visual impairments have trouble seeing the cracks and bumps in the sidewalks.

The grooves on the road around Bessborough were commented as being difficult to maneuver about. People with sports wheelchairs get their wheels stuck in the grooves all the time.

Some individuals from the focus group with the seniors commented that they leave the city during the winter not only due to the cold weather, but because it becomes very immobile during wintertime.

Crosswalks in certain areas, particularly the timing of crosswalks, were commented to be a challenge for people. Participants from all four focus groups stated that at certain intersections the pedestrian light does not stay on long enough for them to be able to get to the other side of the street.

People on bikes, rollerblades, and skateboards - using sidewalks as their routes were commented to present a challenge in getting around the city. This was especially difficult for those who had hearing problems as they are unable to hear them approaching from behind.

Drainage systems at pedestrian crossings were commented to be full of water in the spring and snow/ice in the winter. Improper drainage creates water/ice obstacles for people to properly cross the streets.

People with visual impairments commented that there is a lack of well marked pedestrian crossings, in areas where there are no traffic signals. They stated that the information (location of crossing) needs to be available to them in order to feel safe to cross the street. This could be achieved by having clear and descriptive signage identifying the pedestrian crossing available.

Talking pedestrian signals (by City Hall) were commented to be very helpful to those who have visual impairments. Another great feature as commented by participants were those signals that announced the names of the streets at the intersection. Those signals with the “beeping” sounds don’t provide any directions and if you’re lost or unsure where you are the audible announcement of the street is very beneficial. Good traffic signals as stated by participants are located at Munroe and College Drive.

Transit

Access Transit – Calling 7 days in advance was seen as a tremendous challenge and commented to be unacceptable throughout all focus groups (seniors and those with various disabilities).

Some participants suggested that there should be a dedicated bus that takes people to doctor’s appointments or follows a set route on an hourly schedule, ensuring that everyone who needs to go somewhere has the means to get to their destination as well as get back to their residence. Some places



mentioned that could be included in the set route for the designated bus were: downtown, Field House, medical arts, midtown plaza, superstore, hospitals.

Participants from the Franklin senior residence commented that it's impossible to use access transit due to the scheduling times. They saw a great benefit in having a shuttle van that would take them to all of their appointments, shopping, theaters, etc. Franklin residence has one of these shuttles and participants provided only positive comments on the benefits of having one available.

Participants felt that there were not enough Access Transit buses in the city. Comments were made that people don't use it, because one can only get one-way trips and you are not guaranteed a ride back. People commented that calling to book access transit after 10:00 am would decrease their chance in getting on the bus.

A few participants stated that they spoke to City Transit asking the bus drivers to announce the names of the bus stops, or at least the major intersections; however they were not receptive of that idea. If the landmarks can't be seen, people become dependent on the bus driver to let them off, which at times they forget and let you off at the wrong stop. Toronto was mentioned as one of the cities where participants have visited and it is mandatory for the bus drivers to call out stops.

Snow removal

Build-up of snow and ice on sidewalks presents a challenge in moving about the city. This was mentioned to be an issue especially on bridges. It was commented that the city is doing a poor job with snow removal on major sidewalks and improvements have not been experienced with the introduction of the new Bylaw.

Communication

Seniors felt that it would be beneficial to hold a forum with city staff and the general public, where people would be able to raise issues and concerns, talk to the city staff directly as some of the participants felt that by calling they would get a run-around in trying to get a hold of a certain person. Media was seen as the channel through which the public could raise and voice their concerns.

With regards to the audible traffic signals, it was stated that a lot of people from the general public as well as those with disabilities are unaware of the proper usage and function of the signals. They are unaware that the noise/voice will not come on until you hold the push-button for longer than 3 seconds. Public needs to be educated as currently some residents are complaining that the signals are too noisy for them. It was also stated that the City at some point wanted the CNIB to inform their members where the signals were located, however many people with visual impairments living in Saskatoon are not affiliated with CNIB.

Facility Interior Features

Ramps

The ramp to get to the second floor at the Cosmo Civic Centre was commented to be very difficult to climb in a wheelchair. There are no rest areas on that ramp as it is a continual incline.

Washrooms

City facilities were commented to have good and accessible washrooms.



Stairs

Unmarked steps inside buildings create a walking hazard, especially single steps. Need to ensure they are properly marked (coloured)

North side by the Bessborough - the stairs are unmarked. City hall is dark in the foyer and is in need of more contrasting colors.

Parking

A program which some participants commented as being beneficial and useful was the ability for handicapped parking permit holders to park at the metered parking spots downtown, however it was stated that the program isn't highly publicized. This was supported by the fact that some participants were not aware of this program's existence.

Safety and Crime

Security and public safety (crime) has been raised as an issue/challenge that participants feel is a hindrance to getting around the city. The bus terminal downtown was commented to be one of the areas where people don't feel safe walking by.

Grocery Store in the downtown core

Those living in the downtown core all felt that a grocery store would be of great benefit, as currently people have to travel to other areas around the city to purchase their groceries.

4.2.2 Additional Comments

Other Comments on Built Environment

Signage is not very good – some areas are designated for bicycles (14th and Cumberland), however it becomes confusing as people think that it means they can go on the sidewalk

Availability of handicapped spots is not sufficient – Outside Mendel Gallery, they are hard to distinguish. Parking around TCU Place is very bad.

Not all street signs are in standard positions, making it difficult to figure out where to look for signage.

Credit Union Centre has no separate entrance for people in wheelchairs, and during concerts everyone uses the same door to get in and out of the building, trampling those in wheelchairs.

Harry Bailey has a ramp, but no railing to get into the pool. Have not gone swimming for that reason.

Sidewalk grates are too wide, canes get stuck in them quite often

Cosmo – poorly lit in the foyer and hallway – needs more contrast

All elevators should have Braille



Stairs – in need of contrasting strips to indicate where steps start and if there are any other steps following

Washrooms that don't have doors but instead are built with curved hallways are hard to maneuver; proper signage should be available, using symbols and Braille to point someone in the general direction of the washroom

Handrails in Field House and Cosmo – need to have them extend all the way to the bottom and a bit beyond the stairs, as at these places handrails start right at the edge of the ramp.

Other Comments on Access Transit

Participants felt it needs better time management or improved scheduling.

Access Transit is viewed as being very inefficient.

One idea is a zoning bus which could offer a circular route to offer transit service for several people who are going to a similar place.

Biggest complaint is to get access via telephone and trying to make a reservation. It can be very difficult to get through to make a reservation, or to know if the bus is on time or if it is delayed.

The participants would also like reduced fares for access transit.

More taxis are needed to complement Access Transit (i.e. The city could partner with taxi companies and offer reduced fares for those wishing to use the cab which in turn would off load some demand on Access Transit)

Only people with medical problem can use access transit yet many feel they could benefit from it (e.g. seniors with some mobility issues).

Short on drivers

7 days advance reservation is too long of a timeframe.

In need of more buses, demand is more than supply.

Other Comments on Infrastructure

Crosswalk lights are too short – timing needs to be extended to allow enough time to cross the street

Pedestrian crossings should have flashing light indicators

Audible traffic signals are generally seen as good. More of the ones that announce street names and intersections

Set priority for areas that are highly concentrated by seniors for sidewalk repairs and snow removal

Drainage in front of the ramp is not good, creating puddles during spring snow-melt

Audible traffic signals are only installed if they are requested by the general public.



Snow removal is poor

Downtown, one intersection has a curb cut on one side of the street, while the other side is missing one, there is no way to get onto the sidewalk

Bus stops need to be well marked, signage can be too high for people with a visual impairment.

4.2.3 Categories of most importance

The three most important categories to the participants from all four focus groups were areas regarding the infrastructure, Transit (Access in particular) and Snow clearing/removal. These were the three “hot” topics of discussion and comments were made that if changes and improvements were done to all three or one of them it would make the city more accessible and easier to get around. Customer service was seen as being really good in city facilities and the city overall.

Ranking	Area
1	Infrastructure
2	Transit (both urban and Access)
3	Snow clearing/removal
4	Built Environment
5	Communication with the City
6	Customer Service

4.3 List of Specific Locations around the City as mentioned by Focus Group Participants

4.3.1 Sidewalks and Crosswalks

4.3.1.1 Central Business District (Downtown Core) and City Park

- Sidewalks are in poor conditions around senior homes. Franklin was mentioned as one of the places where people have fallen numerous times due to the cracked, broken up and uneven sidewalk surface.
- The grooves on the road around Bessborough were commented as being difficult to maneuver about. People with sports wheelchairs get their wheels stuck in the grooves all the time.
- Presence of flower pots on sidewalks and street corners creates a hazard for people walking on the sidewalk. 4th avenue around 24th and 25th streets was commented to be one of the areas where this was an issue. 23rd and 3rd avenue was another area where flower pots were right at the end of the crosswalk
- Railroad tracks on Idylwyld difficult to get across
- 22nd, 20th and Idylwyld – ramp to get onto sidewalk is designed in a way that you need to get into the way of oncoming traffic to get on the sidewalk
- It is very difficult for visually impaired people to find curb cuts – there is no colour and no distinction. 20th and Idylwyld, 22nd and Idylwyld



- Queen Street before 4th and 3rd Avenue (North Side) - Sidewalks are uneven and people noted they have tripped and fallen there before

4.3.1.2 Nutana Suburban Centre

- Area by Walter Murray and Holy Cross schools were commented as another area where sidewalk was broken up and people called the City, however no action has been taken as of yet and the sidewalk is still in poor condition.
- West side of Market Mall – by senior residences – sidewalk all broken up
- Adelaide and Preston need ramps to get onto the sidewalk

4.3.1.3 Buena Vista and Haultain

- 26th street between 2nd and 3rd avenue was noted to be in need of sidewalk repairs.
- 8th street does not have sidewalks on the south side

4.3.2 Snow Removal

4.3.2.1 Central Business District (Downtown Core)

- Area between 24th street and bus mall (parking lot across from city hall) was commented to have water run off creating puddles in the spring and ice in the winter.
- Building on 25th street before Parktown was commented to never clean their sidewalks and remove snow in the winter.

4.3.2.2 Varsity View

- College and Munroe is really bad for snow clearing.

4.3.2.3 Lawson Heights Suburban Centre

- Primrose and Pinehouse as well as Primrose and Lenore are really bad for snow clearing

4.3.3 Audible Traffic Signals and Flashing Pedestrian Crossings

4.3.3.1 Central Business District (Downtown Core)

- 25th street should have audible traffic signals
- Idylwyld and 22nd in need of an Audible Traffic Signal



- Queen and 2nd Ave – in high need of an Audible Traffic Signal

4.3.3.2 Wildwood

- Acadia and Taylor – need an Audible Traffic Signal
- Kingsmere Blvd – becoming a very high traffic area, need traffic lights or flashing pedestrian crossing

4.3.3.3 Nutana Suburban Centre

- Adelaide Street (1 and a half blocks east of Market Mall) – high traffic – need flashing pedestrian crossings.

4.3.4 Length of Traffic Signals being too short

4.3.4.1 Central Business District (Downtown Core) and City Park

- Idylwyld and 22nd the lights to cross the street are too short
- 6th Ave and 25th Street – lights to cross the street stay on for too short.
- 24th and 5th the audible signal is the same in both directions
- 3rd and 23rd - too short
- 21st and 1st – very difficult to cross the street on the short signal.

4.3.4.2 Wildwood

- Acadia and Taylor – the lights to cross the street are too short going south

4.3.5 City Facilities

- The ramp to get to the second floor at the Cosmo Civic Centre was commented to very difficult to climb in a wheelchair. There are no rest areas on that ramp as it is a continual incline.
- City hall is dark in the foyer and is in need of more contrasting colors
- Handrails in Field House and Cosmo – need to have them extend all the way to the bottom and a bit beyond the stairs, as at these places handrails start right at the edge of the ramp.

4.3.6 Parks

4.3.6.1 Central Business District

North side by the Bessborough - the stairs are unmarked.



5 In-depth interviews with city departments

Upon completion of the benchmark Service Level Guideline document and the focus groups, meetings were held with the civic departments to review the guidelines against current and proposed civic programs and services for persons with disabilities. Civic Branches/Departments that were contacted include:

- Transit
- Public Works
- Municipal Engineering
- Urban Design
- Human Resources
- Corporate Communications
- City Clerks
- Leisure Services
- Community Development
- Facilities Branch
- Planning Branch
- Development Standards
- Building Standards
- Parks Branch

Most of the consultations occurred between June 9th and June 18th with additional follow-up interviews completed by August 28th.

Each department representative was provided with a copy of the document containing the Service Level Guidelines and were asked to comment on the validity, relevance and any discrepancies they felt were present in the section of the guidelines pertaining to their respective department. Costs and timelines associated with the implementation of the Service Level Guidelines were stressed during the consultations.

Below are the results from these discussions.

5.1 Public Works

- John Deere building itself is not accessible at all. It would be almost impossible to do any changes to it, to make the building accessible, due to it being a heritage site. Only solution would be to move to a different location.
- The repair and installation of sidewalk grades and slopes is all currently driven by complaints from the public. When a sidewalk is in a condition where it needs to be re-done and there are no curb cuts present they will be incorporated with the new sidewalk.
- Items such as cobblestone and interlocking blocks which are at times included in the sidewalk (River Landing) need to be thought out during the design and planning stages to ensure those areas can be accessed by wheelchair and other mobility assistive devices.
- Driveway crossings (installation and repair) are currently complaint driven
- Currently follow a standard design for ramps and curb cuts.



- Snow removal – the largest issue/factor this past year has been equipment breakdown. There have been too many mechanics lost and the machinery has been sitting in the shops without being fixed.
 - Currently writing a report to council regarding the planning and implementation of snow removal for 08/09 year.
 - Key areas will be identified.
- Business districts – this year will be ensuring that there is an inspection process for these key areas. There has not been a lot of monitoring on how the public adheres to the new Bylaw; however that issue will be targeted by introducing area inspections. Currently it has been complaint driven.
- The general public and staff need to be trained, there needs to be an understanding of the challenges involved with mobility issues around the town.
- Approximately 70% of the sidewalks around the city are in good condition.
 - It would be of benefit of having an assessment on areas that are highly concentrated by seniors and people with disabilities. Establishing “zones” around the city and then prioritizing and budgeting accordingly. It would be beneficial to have these “zones” as costs could then be estimated. It would take approximately a week to condition rate the sidewalks in a zone and then the scope of the repair work, the time it would take, and the costs could be estimated.
 - Snow removal could follow the same procedure. Currently the busy routes, downtown core, and business districts are cleared of snow first. The established “zones” could serve as the next steps in snow clearing.
 - Strategic Services provides public works with a list of approximately 30-50 sidewalk locations per year. If crews are replacing sidewalk at an intersection where ramps are not present they have been instructed to install ramps as part of the replacement.
- For snow removal the budget for the whole program is \$4.7 million dollars. The biggest challenge is on the equipment side of things, not enough mechanics to repair the machinery, as it sits in the shop waiting to be repaired.
 - There is a need for more snow removal equipment.
 - Currently examining enforcement in various areas around the city. There will be dedicated people who will become responsible for districts and will ensure that the snow removal Bylaw is abided to.

The following are estimated costs for sidewalk repairs:

- We have approximately 1,600 km of sidewalks and it is estimated that 30% of them have distresses that could be repaired.
 - \$22,000 to replace 100 meters of sidewalk
 - \$850-\$1500 to install a ramp

Therefore based on the calculations, approximately 480 km of sidewalk require some type of repair and it would cost \$13.6 million to complete all of the repairs (Using an estimate that 90% of these sidewalks or



432 km are in fair condition and would cost \$7.00 to repair 1 m of sidewalk and 10% or 48 km are in poor condition and would cost \$220.00 to replace 1 m of sidewalk – total to complete all repairs would be \$13,584,000).

5.2 Urban Design

- Urban Design is not directly responsible for bus shelters, although they are installed in our streetscapes. In the past when there have been bus shelters installed, the shelters have protruded into or have been installed within the Pedestrian Travel Zone.
- Currently do not keep all furniture outside of the bus stop zone, although consideration is given to what types of furniture is appropriate.
- Currently do not have a building frontage zone separated from the pedestrian zone.
- The minimum pedestrian zone we use is 1.5 metres width and has been as wide as 2.0 metres at a maximum.
- The minimum space for bus shelters and bus stops is not implemented. This requires a significant amount of space which is not always available.
- The tree grates and electrical vault grates used in our streetscapes use much larger openings than 13mm. The electrical vaults require a specific opening size for venting. The electrical vaults used have openings in the direction of travel. This is part of a structural requirement for the grate.

With regards to costs associated, most costs associated with Urban Design are actually incurred by either Infrastructure or Public Works departments.

5.3 City Clerks / Communications

- They will be looking to introduce files available to the public in formats other than PDF (i.e. Word and HTML).
- Council meetings will be available online through video-streamed files, so that the public can access meetings online on their own time
- Braille – not a widely used form of communication. There has not been a lot of interest or demand from the public for documents to be available in Braille. Public library has the “JAWS” screen reader program available. When something needs to be done in Braille, hire a person, train them and purchase the equipment.
- There is a general phone number for the city. That number is not as widely publicized. There is a section in the phone book that contains various contact numbers for city departments and issues the public might have. This information is hard to find and is not available in any other format.
- Currently the city prints a brochure called “Who’s Job is it?” This brochure is printed and updated every two years. It is available in PDF format in the “W” section of the website. Very difficult to find. The cost is approximately \$2,000-\$3,000 dollars to print the brochure. It is distributed by Local Area Planners throughout the city and is available at leisure facilities. This is a very useful brochure as it contains a great deal of contact information for various city departments. It is seen



as beneficial to work with major associations and organizations to distribute copies of this brochure to them so it can be passed on to the general public.

- When printed materials go out to the general public the design is based on the target audience the print is going out to. Colors and contrasts, font sizes and other accessible features are considered when material is distributed to seniors or people with disabilities, however it does not currently segregate or separate people by ability/disability status.
- In the process of developing a new portal (City Website) – it will have more online services available for residents of the city. They will look into whether the new portal will be compliant with the W3C Standards and whether there will be any accessibility feature incorporated into the website. To this point, the website does not have “font enlargement” capabilities.
- The City offers Sign Language courses for interested employees and those working with other employees who have a hearing impairment
- Communications Branch in its communications ensures that civic material is available to everyone — use a variety of media, depending on the campaign and budget, including radio, print, TV, direct mail, distribution points, and web site to communicate its message. When other civic branches are hosting open houses and we are assisting with communications, we ask them to make sure that the venues are wheelchair accessible (which they usually are).

Point Specific Comments from the Service Level Implementation Guideline document (*found on page 16 of this report*):

- 1.14.1 - probably not feasible for every brochure, but possible when some material is intended for a specific stakeholder group with a visual impairment. Currently, the City tries to ensure its brochures/materials are of a basic readable font size, effective layout, colour scheme, etc.
[costs depend on printing and layout specs]
- 1.14.4 - the Communications Branch is definitely able to distribute the brochure “Whose Job Is it?” to the larger organizations, such as CNIB and Council for Aging whose clients may find it helpful. Other materials will be distributed to those groups or other stakeholder groups, where applicable (such as when Saskatoon Transit changed its routes, an info session and materials were provided to those specific stakeholders)
[no extra costs; part of the regular distribution]
- 1.16 - the City is currently re-designing its website, and though it has not been confirmed by the technical people that it will be W3C compliant, there is some confirmation that the web pages will be expandable so easily read by those with vision impairments
[not sure about cost]
- 1.17 - the City already weaves into existing communications, messages about accessibility. For example: with the new sidewalk clearing bylaw, residents were encouraged to clear their sidewalks for safety and mobility reasons, and not just because it was the law; or when new audible pedestrian signals are installed, a public service announcement is issued, explaining why and how they work.
[no extra costs; part of the regular distribution]



5.4 Building Standards

- The items in the document that refer to buildings do not conflict with the requirements of the National Building Code of Canada (NBC)
- Other items such as buses, sidewalks, parking lots are not regulated by the NBC however these items (in the document) also do not contradict NBC requirements
- For new buildings or changes of major occupancy of existing buildings, the barrier free requirements of the NBC would be applied and they are much more extensive than the contents of the Proposed Service Level Guidelines.
- Over all, the approach seems to be a good one. I just would caution that there are already codes and standards in existence and so to avoid confusion maybe this document should reference those wherever possible instead of creating a new "code".

Ensuring that Building Code and Accessibility Standards are not omitted, need to incorporate a clause into the guidelines stating that the items in the guidelines work together with the building code. FADS would be a useful document to implement. Current accessibility standards document dates back to 1998 and is very similar to the FADS. It is part of the Accessibility Standards document of the building code.

5.5 Parks

- The new park signs should accommodate these service level standards, albeit the vertical height of the sign may pose a small problem, being installed adjacent to both the primary and secondary asphalt pathways. The fact that we are utilizing symbols should be a step in the right direction from our present (wooden horizontal) sign standards and location (in the turf areas).
- Repairs/Evenness - park pathway standard 2.4 metres wide. Paths are inspected on an annual basis and any issues that arise such as frost heaving, tree roots, cracks, etc. are dealt with through our asphalt repair budget.
- Snow Removal - The Parks Branch implemented a pathway snow removal program for the primary, lit, asphalt pathways in parks in conjunction with the corporate sidewalk snow removal bylaws. The Parks Branch will be implementing snow removal program in 2008/09 for all secondary asphalt pathways.
- Drainage - Park drainage issues, including those that affect pathways/access, will be dealt with through the new "drainage remediation" funding in our operating budget.
- Most, if not all primary entrances into parks are adjacent to sidewalk curb cuts to accommodate access. All other park pathways whether asphalt or aggregate, are built to match the grade of adjacent city (concrete) sidewalks. We also include, as part of a park upgrade, the curb cut "ramps" at the primary entrances, if it does not exist.
- The Parks Branch utilizes a wide variety of trees/shrub and perennial plant species for colour, fragrance and effect. We consciously make an effort to avoid planting seed/fruit producing trees/shrubs adjacent to pathways/sidewalks for the reasons as stated in this section. We maintain a clearance of 2.5 metres for obstructing branches, which exceeds the City of London standards, as outlined in this section. We have utilized raised planters, but with the costs of construction, they are limited in their usage.



5.6 Planning

Initiatives mentioned in the Planning area include:

- New areas and neighbourhoods include accessibility in the planning process, ensuring that there is easy access.
- The City incorporates crime prevention through environmental design (CPTED) principles, ensuring proper lighting; pathways are in well lit areas, accessible, etc.
- The City looks at the location of residences in proximity to public transit and transportation. This assists in ensuring adequate public transportation for the area.
- The City is offering supply of affordable housing units through the Affordable housing program
- The City takes into account all income levels when designing new neighborhoods, making affordability a consideration when designing an area or neighbourhood.
- The City is incorporating “Village Centres” in the new neighbourhoods which ensure accessibility to necessary services are available to the public.

5.7 Facilities Branch

As background, Access Experts were commissioned to provide the Facilities Branch with audits for approximately 50 civic structures with a report issued in 1998 (Access Report). The audit, incorporated requirements of the 1995 National Building Code, and included Occupancy Requirements, Parking, Exterior Paths of Travel, Signage, Major Entrance(s), Doors & Hardware, Interior Paths of Travel/Interior Ramps, Program Spaces, Drinking Fountains, Tactile Cues, and Warning Systems. For larger facilities, an added matrix of Priorities, Recommendation, and Estimated Costs was noted.

The findings of this report were incorporated into the Comprehensive Maintenance Program and has been steadily worked at since report date. It is estimated that approximately \$200,000 - \$300,000 has been spent. The source of funding has been the Capital and Civic Buildings Comprehensive Maintenance Reserve (CBCM) together with monies from Council.

The CBCM, which charges each operating department 1.2% of the new replacement value of capital infrastructure is used to do the planned maintenance of existing infrastructure. Exceptions arising from decisions on timing or application are noted below:

1. Many audited existing buildings did not have a “public” component, such as Fire Halls (other than the main hall #1) where wheel chair access or accommodated health access would never arise and as a result the decision was made to not spend in these areas.
2. Existing facilities with hardware, tactile cue, or handrail extension deficiencies were also not completed awaiting a larger renovation or expansion to accommodate the removal and replacement intents. An example of this would be the Mendel Art Gallery which will have these modifications done as part of the 2009/2010 Expansion/Renovation. Funds totaling \$125,000 have been allocated within the planned Mendel Art Gallery Capital Project.



The cost to complete the changes related to the report against the 1995 National Building Code standards is very close to complete once the Mendel is finished.

A dollar estimate was not available to bring the facilities up to the most recent National Building Code and that would require a full audit. However, the approach of using the CBCM reserve to fund planned infrastructure maintenance means that monies will be available in the future as required in the future to do this work. There is also in place a 5 Year Plan together with a tentative Ten Year Plan that will allow the incorporation of such changes.

5.8 Access Transit

The buses operate from 6 am in the morning to 11:30 pm at night, which is 18 hours a day/ 7 days a week/ 365 days a year. The operators work through all statutory holidays.

Customers can book 7 days in advance or same day pick up. Of all pick ups 50% are Subscriptions, or pre-booked for the same time(s) each day on an ongoing basis.

Bookings are done by email, phone or fax on an equal basis. Four clerks staff the booking and scheduling system, with average wait time of 20 minutes.

Currently the facility is maxed on space according to the Manager. The system is operated by one Manager and one Supervisor.

The service is from Accessible Door to Accessible Door. They will assist people but will not do transfers. A person requiring a transfer is expected to have an attendant.

The buses are fitted with GPS. Drivers wear uniforms. In terms of fares, structure is the same as the city buses.

In terms of training, each driver who is hired is provided with 5 to 6 days training before they are on the road by themselves.

Training consists of:

1. General Rules & Procedures including:
 - Pick up procedures
 - Operation of lift
 - Secure of client including operation of Q-Strait
 - Transport
 - Vehicle operation
 - De-acceleration
 - Videos
 - Defensive driving
2. SMART Driver Program
3. Learn the city including high density trip areas
4. Sensitivity training including an understanding of common disabilities
5. Operator Rules of Conduct
6. Radio training



Each driver must have a Class 4 License. 2A or 1A licenses are not required as the buses do not have air brakes.

Each operator spends 2 days with the Trainer, as well as One-on-One with 3 current drivers so they can observe and practice the techniques. Each of the current operators provides an evaluation of the trainee. The Trainer also conducts Site Visitations at 3 sites to interview the customer and to observe the driver in their use of equipment.

Major Constraints

Lack of Loading Zones for pick up and drop off are a major concern at key locations such as doctor's offices and the Galaxy Theatre. There are handicapped parking spaces but frequently the bus cannot access the spots.

A suggestion that is being made to the Accessibility Committee is for the Access Transit to use conventional bus stops where they are available.

Demand

A key part of the zoning study was the analysis conducted by the Acting Manager Access Transit, who identified the postal codes of their clients and the number of pickups done at those postal codes during a four month period from January 1, 2008 until April 30, 2008. This allowed the consultants to plot this data and with the assistance of the City of Saskatoon, Mapping Staff they created a density profile of the city.

The transit management also did the same exercise for drop-offs, but for purposes of time, the consultants used only the pick up points.

The time period of January to April is important to the reader. Usage of the system dramatically picks up with the first snow and extends through to spring snow melt. Thus the time period of January to April is also expected to be fairly representative of the fall period.

5.9 Development Standards

Development Services Branch, at City Hall, reviewed the guidelines and all seemed to be in order with no objections on any part of the guidelines from this department.

5.10 Leisure Services

Items pertaining to customer service training were seen as a very good component in the guidelines document. A lot of the training could happen on a weekly or monthly basis, where people would talk about any experiences they've had and how they dealt with resolving the situation. This would build on staff awareness regarding issues faced by seniors and people with disabilities and how they should be addressed.

There are currently no programs that target people with various disabilities. Leisure guide does not have any identification whether the programs are available to people with disabilities. The reasoning behind this was not to segregate the disabled into their own category, however after looking at other leisure guides throughout Canada and mentioning the fact that there are sections in the guide available on



“accessible programming” it was seen as beneficial to identify whether any program is available for people with disabilities.

5.11 Community Development

- When the playground replacement program was introduced it was estimated that an average cost of installing at least one accessible component at a playground would be approximately \$20,000.
 - Currently it costs \$40,000 dollars to add an accessible component to the already existing playground. For 2009 the total budgeted amount for accessible components is \$160,000 based on doing upgrades to 4 playgrounds.
- Upgrades are being done to approximately 4 playgrounds per year.
- When the initial inventory of playgrounds was done there were 109 playgrounds in the city. 40 of them were wooden and since this replacement program started have done 17 playgrounds to date.
- Everybody's Playground in Erindale cost \$207,800 (in 2003) dollars, so in order to include one in each of the remaining three quadrants of the city, would need three more playgrounds and at least \$750,000 (in 2008 dollars).
 - Currently a fully accessible playground is being installed in Blairmore Suburban Centre – Morris T. Cherneskey Park - and will be completed by the end of the year.
 - 2009 – fully accessible playground is budgeted to be installed at the WW Ashley Park (Taylor Street)
 - 2010 – fully accessible playground will be installed in the Mayfair Neighbourhood – Ashworth Holmes Park.

5.12 Human Resources

- Did cross cultural training – cost was approximately \$7,500 to do this. Gathered staff and trained them on how to deal with people/employees from various cultures. This was complaint driven.
- Having customer service training incorporated would probably cost the same if not more. This can be included as a part of weekly or monthly meetings, where people get to share their experiences and how they dealt with issues and concerns.



6 Secondary Research and Literature Review

Two rounds of consultation occurred with many of the city staff. The first round occurred regarding the guidelines and obtaining their feedback. After the development of priority areas, consultation occurred again to gather information on costs.

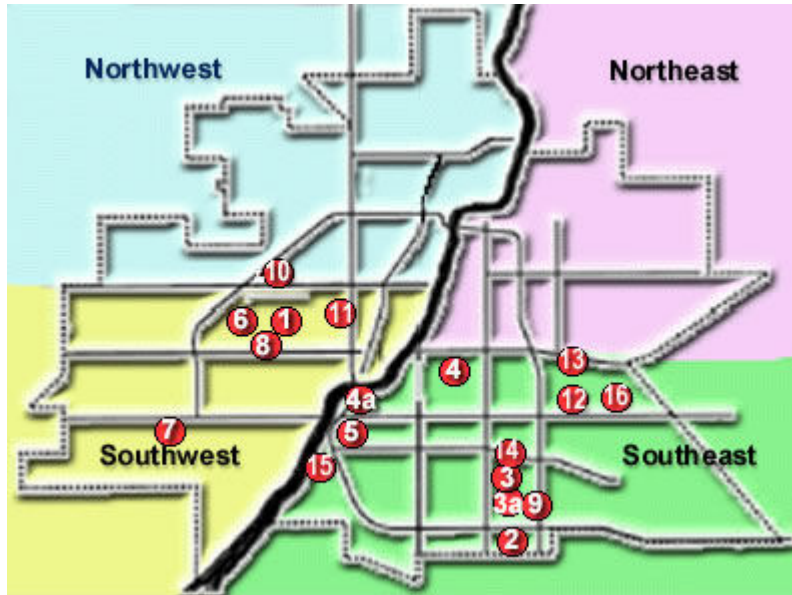
In addition to the gathering of demographic and residence information to create the zones, additional information was also consulted to determine what other cities were doing in terms of priority setting, training, communications, and transit.

Section 6.1 details the additional information used to create the zones. Section 6.2 identifies additional research conducted determine the requirements, possible sources, and additional costs for other areas including training, communications, and transit.

6.1 Statistical Data

- a. Where do persons with disabilities and seniors live in Saskatoon?
 - In terms of people with disabilities, Statistics Canada can only tabulate the requested data at the provincial level. They can use the Census information (which asks if a person has activity limitations) to tabulate data at the city and town level. Costs start at \$1,115 and can take up to 9 weeks to obtain the tabulations.
 - Canadian Institute for Health Information did not have any of the required information.
 - Contacted Saskatoon Association for Community Living asking if they would be willing to provide postal codes or street names of their contacts with disabilities living in Saskatoon. However, they mostly work with intellectual disabilities, and so they recommended looking at the location of nursing homes, senior residences, etc.
 - Other organizations that work with persons with disabilities in Saskatoon and Saskatchewan that were contacted include: Saskatchewan Abilities Council, Learning Disabilities Association of Saskatchewan, Disability Income Support Coalition, Saskatchewan Voice of People with Disabilities, and the North Saskatchewan Independent Living Centre.

To assist in the process of determining where seniors and those with disabilities reside in Saskatoon, a list of all the assisted living residences and senior homes in Saskatoon were researched. This information was gathered from the Saskatoon Library Database of Senior Residences.



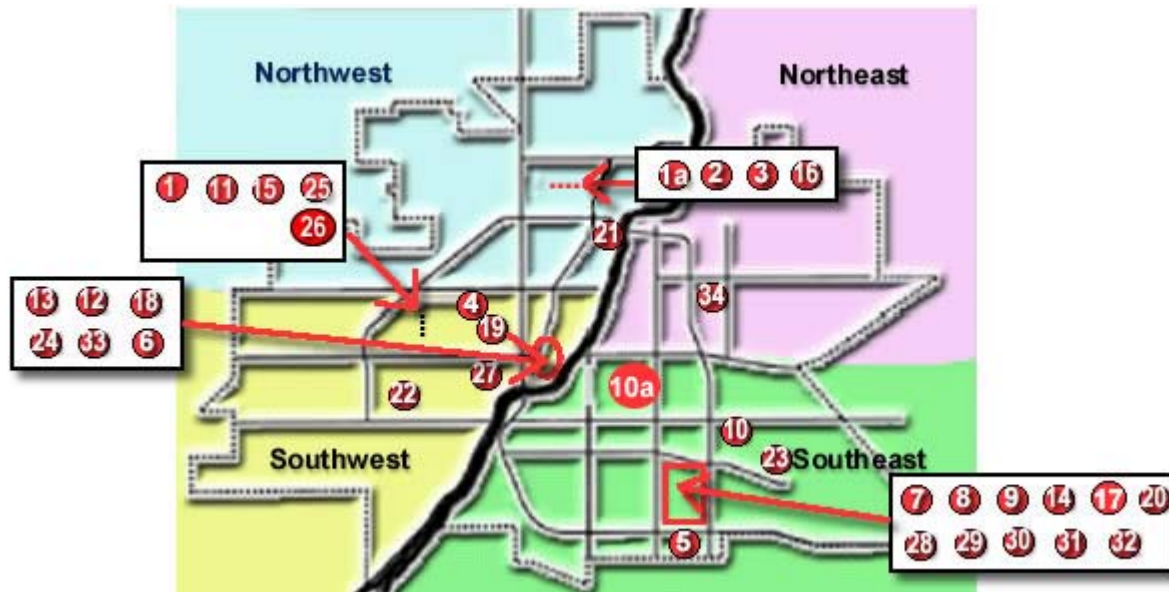
- Above is a distribution of Special Care Homes in Saskatoon. A special care home, or nursing home, is defined as a residence for individuals who require much assistance with all the activities of their daily living.



- Above is a distribution of Personal Care Homes in Saskatoon. A personal care home is "a private business that provides accommodation, meals and supervision or assistance with personal care to adults in a residential, family-like atmosphere.." (definition from *Personal Care Homes Directory*)



- Above is the distribution of Supported Independence Residents in Saskatoon. A supported independence residence is an apartment complex where residents have their own suite but may access services such as meals, housekeeping, and an emergency call service.



- Above is the distribution of Self-Contained Units in Saskatoon. Self-contained units are apartment complexes where residents are wholly responsible for their own meals, laundry, housekeeping, etc. Some self-contained units provide limited support services.

(Above info can be found at: <http://www.saskatoonlibrary.ca/housing/index.html>)

In addition, Census information was utilized to determine the proportions of seniors in each neighborhood. This appears in the following section: Development of Priority Zones.



6.2 Other Municipalities Initiatives

6.2.1 Training

To determine the need for and potential costs of training, Inshtrix reviewed other city practices. It was found that some other cities:

- Commented on the importance of sensitivity training with respect to persons with disabilities. An approach to have the City 'lead by example' was being commonly mentioned as well.
- Promoted hiring a Disability Resource Expert (staff, consultants, volunteers that have first hand advice and experience), to assist in the development and delivery of training, due to the complexity and diversity of disability issues.
- Integrate sensitivity training into new employee orientation process.

Some specific examples are as follows:

City of Mississauga

- The Human Resources department has been put in charge of developing training material for municipal employees to heighten sensitivity to customer needs (meeting all customer needs) and greater acceptance of disabled workers.
- They intend to hire Disability Resource Experts to develop the training materials.

City of Brampton

- Transit and Emergency Services includes sensitivity training as part of their new employee orientation process.

County of North Middlesex

- Plans to incorporate sensitivity training into current training programs.

City of Kingston

- Plans to incorporate sensitivity training into current training programs.

Ontario municipalities are welcoming this training in order to achieve the AODA's standards for Customer Service.

6.2.2 City Transit

To determine the need for and potential costs regarding transit, Inshtrix reviewed other city practices. It was found that some other cities:

- Have low floor accessible buses that are used in conjunction with conventional buses in the main transit system. Goal in place is to have all routes accessible within the next 5-10 years.
- Have a subsidized taxi program (Taxi Scrip) where people pay about ½ the regular price using coupons.
- Distribute "Hailing Kits" from the CNIB, for visually impaired passengers. The "Hailing Kit" is made up of plastic, three sleeved folder and a set of numbers that are in large print and also have the Braille numbers embedded on the cards. These night-reflective cards can be waved at an approaching bus to let the driver know which route the rider wants to board. It also includes a "reminder" card that can be given to the operator to ensure the rider is informed when his/her stop is approaching.
- All cities state in their rider policy that persons who wish to use the low floor buses must be able to enter and exit the bus independently. The bus driver is not responsible for assisting them, except for securing them in place.



Some specific examples are as follows:

City of Guelph

- Mobility Service provides service from accessible door to accessible door within city limits. At times, taxis will be used to meet demand.
- Currently have 14 fully accessible bus routes, with a goal of making all bus routes fully accessible.
- 35 of 55 conventional buses are low floor accessible.
- Bus drivers announce all stops
- Taxi Scrip Program - Persons using a wheelchair or scooter can book directly with Red Top Taxi. A \$40 coupon book may be purchased for \$20. The costs associated with the program are shared by transit and the taxi company.

Grand River Transit (Kitchener, Waterloo, Cambridge)

- MobilityPlus provides specialized transit services for persons with reduced mobility. Allows for temporary and seasonal use. Must book at least 2 days in advance.
- Use of low floor accessible buses running on many routes.
- MobilityPlus members can ride low floor accessible buses for free, provided they can safely board and exit the bus independently.
- If a person has trouble boarding a low floor bus without assistance, they may be required to attend a bus training session run by transit. These are held multiple times a year to meet demand.
- Taxi Scrip Program – similar to program in Guelph

City of London

- Use of low floor accessible buses on select routes
- Cherryhill Community Bus – specialized bus specifically designed for seniors and persons with mobility challenges. This bus goes to specified senior residences, medical facilities, and shopping centres.
- Specialized Transit – consists of a community bus service similar to above, shuttle service and paratransit services. Trip planning and Travel Training programs are in place to assist travelers that may require a higher level of support.

City of Kingston

- Distributed “Hailing Kits” for persons who are visually impaired. A “Hailing Kit” consists of a night reflective card that can be used to wave down a bus and a reminder card that can be given to a bus operator to ensure they notify the passenger of the desired stop.

Low Floor Accessibility

Many cities across the country have made a commitment to make their conventional transit systems fully accessible within the next 5 to 10 years. This means that the entire fleet of buses will have low-floor accessibility. Low-floor accessible buses have the ability to lower the front right corner of the bus to within 6-8 inches from the curb, eliminating the need to step up to enter the bus. The low-floor accessible buses also have a ramp that can be extended to the curb for persons in wheelchairs.

Low-floor accessible buses have clearly become a necessity for many cities across the country. Cities such as Kingston, London and Toronto, lead the country with respect to accessibility improvements. This can be attributed to the fact that Ontario has a Disability Act that requires municipalities to invest in accessibility planning.

Training

In 2002, City of London started to offer a training and familiarization program for the use of accessible conventional transit by eligible registrants of the specialized service (equivalent to Access Transit).



Further, the program provided training support for applicants deemed ineligible for the specialized service. The program is listed in the Accessibility Directorate's website as a best practice.

As an incentive, trips on the accessible conventional service were provided free for the target customers and one companion, during off-peak hours (9:00am – 2:00pm and 6:00pm – 12:00am) on weekdays, and all day on weekends and statutory holidays. At peak times on weekdays, the customer paid the prevailing fare.

The program had two principle objectives:

1. To support increased opportunity for travel and access to the community by designated individuals, addressing in part the latent demand for specialized transit services; and
2. To relieve pressure on the specialized transit service, freeing up resources to be used to support other forms of specialized transit services and/or meet increased demand for the service.

The program has been extremely successful, resulting in approximately 24,700 trips being taken on London's accessible conventional transit service by specialized transit service registrants. These trips may have otherwise been provided by or requested for the specialized transit service. The program has received a positive response from the community as indicated by the following:

- 55% of pass holders had never tried accessible conventional transit prior to having the pass
- 89% of customers that made use of the pass indicated their experience on the accessible conventional transit service was good to excellent
- 60% of the trips provided on the accessible conventional service were reported by customers as being trips in addition to those normally taken on the specialized service

In 2003, the City of London implemented a new operator training program for conventional transit operators. This was done to ensure that front line employees had the necessary knowledge to assist riders with disabilities to use accessible conventional transit. Accessibility awareness and sensitivity training was delivered to all employees and was included as part of training program for new employees.

In 2007, the City of London added to the operator training program by adding ongoing refresher training for existing employees. The City estimated that 65% of operators will have undergone the new training by the end of 2007.

Driver Responsibilities

The literature review looked at the policies of various cities across the country including, Calgary, Kingston, Guelph, London, Kitchener, and Waterloo. All cities clearly stated in their transit services policy that riders in wheelchairs or scooters using accessible low-floor buses are responsible for ensuring that they can enter the bus, position themselves in the designated area, and exit the bus in a safe and efficient manner. Failure to do so could result in the refusal of service. If assistance is required then riders are required to have an attendant who can help them enter and exit the bus. The main reason for this policy is a liability issue.



7 Development of “priority zones” and findings

7.1 Setting Priorities

There are various ways of setting priorities and implementing action plans. Research conducted on other municipalities and their processes for determining priorities focuses on:

- Retrofitting initiatives
- Usage of the facility/location/area
- Health and Safety Considerations
- Coordinating efforts with other planned upgrades

In most cases, not only priorities but timelines are also defined based on the priorities. Below is an example used at Brock University:

Priority 1	Changes recommended are maintenance related and can be made within the confines of regularly scheduled operations. For example, installing new light bulbs when burned out to maintain appropriate lighting levels, lowering an existing sign or light switch to a more accessible level. No timeline is associated with this area.
Priority 2	Changes identified require immediate consideration and the development of timeline to address identified issues . A two-year time frame for completion of projects associated with these issues is recommended. Failure to address the identified issues may put the University at risk of non-compliance with government regulation or legislation.
Priority 3	Changes recommended are desirable to assist the University in more effectively meeting the access needs of people with disabilities . Therefore, action is recommended within 5 year time frame. Implementing the recommendations will result in lower incidents of possible complaints and increased service levels.
Priority 4	Changes recommended are suggestions for consideration in future planning and/or capital projects as resources become available. They may serve as ways to prevent barriers.

Following a similar approach, priorities for the implementation of an Action Plan for Accessibility in Saskatoon are set determining the demographics, living residences of seniors and those with disabilities, as well as identified problem locations based on public consultation (ie. Focus groups). Costs have also been taken into account and calculated in the next section.



7.2 Determining Priority Neighbourhoods

In order to identify possible areas of the city for the Accessibility Advisory Committee to target for accessibility improvements, Inshtrix Research conducted extensive research regarding the demographic composition of the city by neighbourhood boundaries. The focus was on determining neighbourhoods that contained a high proportion of persons with disabilities, seniors, and senior or personal care residences.

7.3 Identifying Persons with Disabilities

To determine the location of persons with disabilities, several organizations that work with persons with disabilities were contacted. The Saskatchewan Abilities Council (SAC) provided a list of postal codes for participants of their Saskatoon Training program, Partners in Employment (PIE) program, and Disability Parking Permit program. The PIE program provides employment services for individuals with work-related barriers to find, secure and maintain long term employment. The Parking Permit program is administered by SAC on behalf of SGI. Access Transit also provided a list of postal codes for their users' pick up points for the first quarter of 2008. These postal codes do not necessarily represent where users live, but rather where the transit service is being used.

With the help of the City Planning Branch, these postal codes were grouped by city neighbourhoods and sorted from highest to lowest according to the number of postal codes that fell within each neighbourhood boundary for each set of postal codes. Based on the neighbourhood rankings within each set of postal codes, the neighbourhoods were further divided into five color groups. The five color groups were derived by taking the highest number of occurrences and dividing that number by five. The resulting value was used to determine range for each color.

Table 1 - Saskatchewan Abilities Council Trainees

SAC Training Program	
Neighborhood	Occurrences
Nutana Park	8
Parkridge	8
Eastview	7
Lakeview	7
Pleasant Hill	7
Westview	7
Meadowgreen	6
Wildwood	6
Avalon	5
Fairhaven	5
Haultain	5
College Park	4
Pacific Heights	4
Adelaide/Churchill	3
Brevoort Park	3
City Park	3
College Park East	3
Confederation Park	3
Exhibition	3
Massey Place	3
Mount Royal	3
Queen Elizabeth	3
Erindale	2
Forest Grove	2
Holiday Park	2
Holliston	2
Hudson Bay Park	2
Lawson Heights	2
Nutana Suburban Centre	2
River Heights	2
Silverwood Heights	2
Briarwood	1
Buena Vista	1
Caswell Hill	1
Confederation Suburban Centre	1
Dundonald	1
Grosvenor Park	1
Montgomery Place	1
North Industrial	1
North Park	1
Nutana	1
Riversdale	1
Sutherland	1



The neighbourhoods of Nutana Park, Parkridge, Eastview, Lakeview, Pleasant Hill and Westview had the highest number of occurrences. Based on the SAC data, these neighbourhoods were classified as having the highest priority.

Table 2 - Saskatchewan Abilities Council Partners in Employment (PIE) Program

SAC PIE Program

Neighborhood	Occurrences				
		Greystone Heights	8	Exhibition	3
Pleasant Hill	30	Westview	8	Holiday Park	3
		Dundonald	7	North Park	3
Riversdale	20	Mayfair	7	Silverspring	3
Meadowgreen	15	Buena Vista	6	Arbor Creek	2
City Park	13	Eastview	6	Lakeridge	2
Sutherland	13	Holliston	6	Lakewood	2
Confederation Park	12	Nutana Suburban Centre	6	Suburban Centre	2
Nutana	12			Montgomery Place	2
Central Business District	11	Wildwood	6	Nutana Park	2
Fairhaven	11	Hudson Bay Park	5	Queen Elizabeth	2
Parkridge	11			Richmond Heights	2
Silverwood Heights	11	Pacific Heights	5	Varsity View	2
College Park	10	River Heights	5	Airport Business Area	1
College Park East	10	Confederation	4	Grosvenor Park	1
Brevoort Park	9	Suburban Centre	4	Hudson Bay	1
Caswell Hill	9	Haultain	4	Industrial	1
Lakeview	9	Kelsey - Woodlawn	4	Lawson Heights	1
Massey Place	9	King George	4	U of S Lands	1
Mount Royal	9	Adelaide/Churchill	3	South MA	1
Westmount	9	Avalon	3	University Heights	1
Forest Grove	8	Briarwood	3	Suburban Centre	1

Based on the PIE data, the neighbourhoods of Pleasant Hill and Riversdale were classified as having the highest priority.



Table 3 - Saskatchewan Abilities Council (SGI) Parking Permits

SAC Parking Permits

Neighborhood	Occurrences		
Nutana Suburban Centre	444	Varsity View	80
Wildwood	367	Dundonald	79
Central Business District	207	Forest Grove	78
Lawson Heights Suburban Centre	206	Nutana Park	78
Mount Royal	199	Massey Place	76
Silverwood Heights	176	Exhibition	74
Nutana	141	Erindale	72
City Park	134	College Park East	70
Sutherland	127	Mayfair	67
Lakeview	124	Montgomery Place	66
Adelaide/Churchill	123	Pacific Heights	66
Confederation Park	123	Pleasant Hill	65
College Park	116	Haultain	62
Eastview	113	Parkridge	62
Fairhaven	110	Briarwood	61
University Heights Suburban Centre	108	Greystone Heights	61
Hudson Bay Park	106	Caswell Hill	60
Holliston	95	Richmond Heights	58
Brevoort Park	92	Holiday Park	55
Avalon	89	Silverspring	55
Buena Vista	86	Queen Elizabeth	54
River Heights	86	King George	48
Westview	86	North Park	47
Meadowgreen	85	Lakeridge	46
Lawson Heights	82	Westmount	41
		Arbor Creek	39
		Riversdale	35
		Grosvenor Park	34
		Stonebridge	30
		Kelsey - Woodlawn	18
		Confederation Suburban Centre	16
		Lakewood Suburban Centre	16
		Willowgrove	11
		Airport Business Area	5
		The Willows	5
		West Industrial	4
		Hudson Bay Industrial	3
		Central Industrial	1
		Hampton Village	1
		North Industrial	1
		South West Industrial	1
		U of S Lands South MA	1

Based on the Parking Permit data, the neighbourhoods of Nutana Suburban Centre and Wildwood were classified as having the highest priority.



Table 4 - Access Transit Pick-ups

Access Transit Users

Neighborhood	Occurrences
Nutana Suburban Centre	2808
Central Business District	2792
College Park	1222
Parkridge	1172
Wildwood	1172
City Park	1097
Confederation Park	825
Pleasant Hill	820
Mount Royal	749
U of S MA	662
Lawson Heights Suburban Centre	502
Meadowgreen	485
Nutana	473
Fairhaven	400
Caswell Hill	364
Hudson Bay Park	362
Silverwood Heights	358
Confederation Suburban Centre	333
Buena Vista	323
Eastview	312
Greystone Heights	306
Varsity View	298
Lawson Heights	287

Queen Elizabeth	284
Sutherland	283
Airport Business Area	277
Agriplace	256
Forest Grove	243
Haultain	202
Richmond Heights	199
Stonebridge	195
Mayfair	194
Holliston	188
Adelaide/Churchill	170
Kelsey - Woodlawn	166
Nutana Park	160
Pacific Heights	158
Exhibition	153
Dundonald	150
River Heights	148
Lakeview	140
Westview	120
Erindale	115
Holiday Park	113
Lakeridge	102
Riversdale	102
Grosvenor Park	95
Montgomery Place	92
Westmount	88
King George	84

North Industrial	78
Brevoort Park	74
Avalon	71
College Park East	66
University Heights Suburban Centre	63
Silverspring	56
Briarwood	43
Arbor Creek	39
Massey Place	36
North Park	30
Willowgrove	18
Lakewood Suburban Centre	13
Sutherland Industrial	8
Hudson Bay Industrial	4
Central Industrial	3
CN Industrial	3

Based on the Access Transit data, the neighbourhoods of Nutana Suburban Centre and Central Business District were classified as having the highest priority. This is an identical result to the SAC Parking Permit data above.



7.4 Identifying Senior Population

The Neighbourhood Profiles on the City of Saskatoon Website was used to calculate the percentage of seniors that lived in each neighbourhood relative to the total population of each neighbourhood. The neighbourhoods were sorted from highest to lowest based on their percentage of seniors and grouped by color. The range for each color had to be adjusted to account for the large number of values between 19% and 1%.

Table 5 - Senior Population

Senior Population

Neighborhood	Percentage of Seniors		
Nutana SC	69%	King George	10%
Lawson Heights SC	51%	Sutherland	10%
Central Business District	45%	Montgomery Place	10%
Richmond Heights	32%	Westmount	10%
Hudson Bay Park	28%	Mayfair	10%
Mount Royal	24%	River Heights	10%
City Park	19%	Fairhaven	9%
Avalon	19%	Caswell Hill	9%
Wildwood	18%	Meadowgreen	8%
Adelaide/Churchill	18%	Pleasant Hill	8%
Eastview	18%	Massey Place	8%
Varsity View	18%	Lawson Heights	7%
Holliston	17%	Lakewood SC	7%
University Heights SC	17%	Briarwood	7%
Greystone Heights	17%	Parkridge	6%
Queen Elizabeth	15%	Westview	5%
Nutana Park	15%	Lakeview	5%
Buena Vista	15%	Pacific Heights	4%
North Park	15%	Erindale	4%
Exhibition	14%	College Park East	4%
Stonebridge	14%	Airport Business Area	4%
Grosvenor Park	14%	Silverwood Heights	4%
Haultain	13%	Confederation Park	3%
Brevoort Park	13%	Dundonald	3%
Nutana	13%	Forest Grove	3%
Kelsey - Woodlawn	12%	Silverspring	3%
College Park	12%	Lakeridge	2%
Holiday Park	12%	Arbor Creek	2%
Riversdale	11%	Willowgrove	1%
Confederation SC	10%	U of S Lands South	1%
		MA	1%



Nutana Suburban Centre has the highest density of seniors, with 69% of the neighbourhood’s population being over the age of 65. Lawson Heights Suburban Centre comes is second with 51% of the population being Seniors.

Identifying Senior Residences

The Saskatoon Library Online Directory of Senior Housing was used to gather a list of postal codes for all types of senior residences in Saskatoon including Special Care Homes, Personal Care Homes, Supported Independence Residences, and Self Contained Units. Similar to Tables 1-3, the postal codes were grouped by City neighbourhood, ranked from highest to lowest, and grouped by color.

Table 6 - Senior Residences

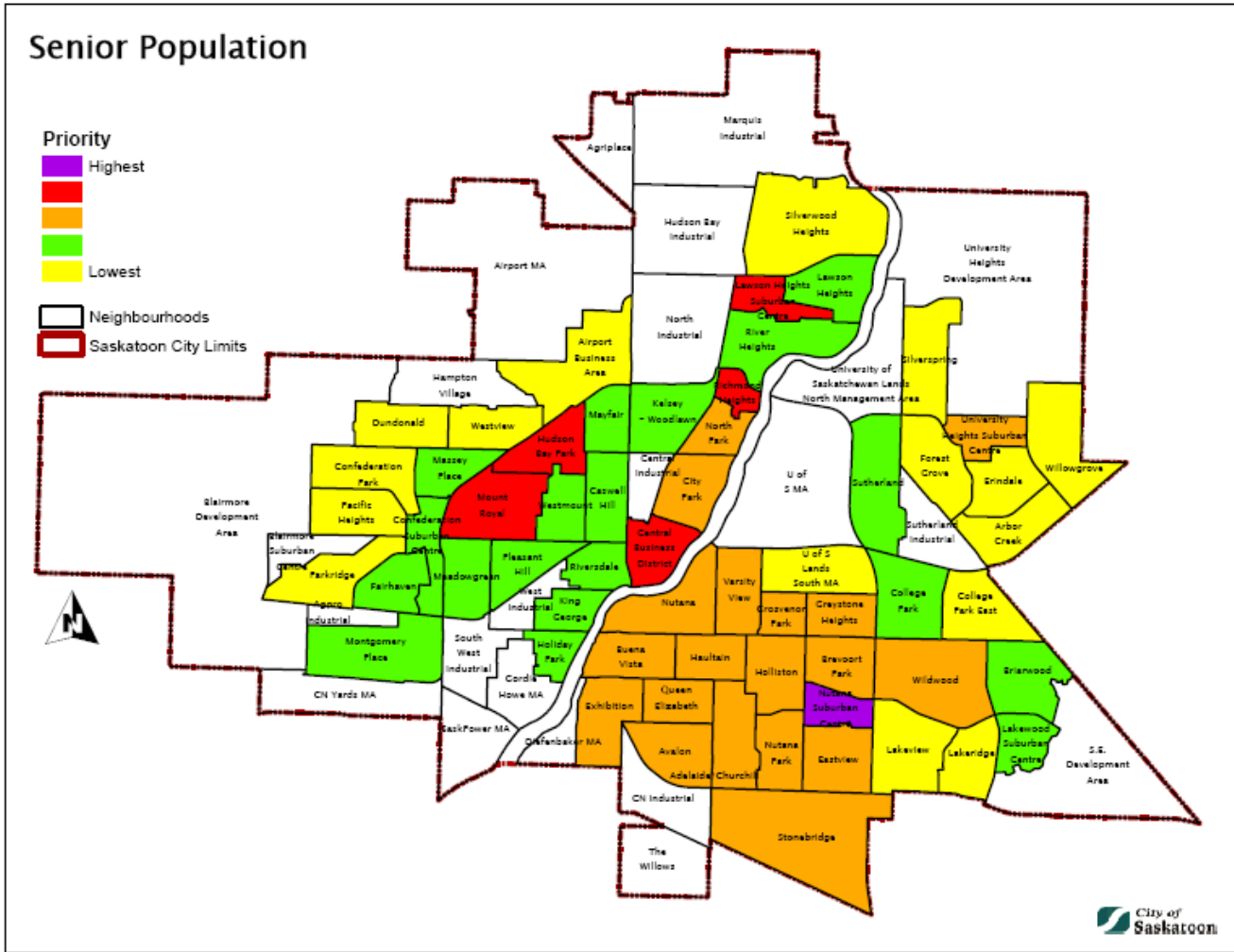
Senior Residences

Neighborhood	Occurrences
Nutana Suburban Centre	18
Central Business District	7
Lawson Heights Suburban Centre	6
Wildwood	6
Hudson Bay Park	5
Mount Royal	5
Buena Vista	4
City Park	3
Haultain	3
Silverwood Heights	3
Stonebridge	3
Varsity View	3
College Park	2
Richmond Heights	2
Caswell Hill	1
Eastview	1
Erindale	1
Exhibition	1
Greystone Heights	1
Holiday Park	1
King George	1
Lawson Heights	1
Meadowgreen	1
Nutana	1
Parkridge	1
Riversdale	1
Silverspring	1
Sutherland	1

Nutana Suburban Centre has the greatest number of occurrences for senior residences.



Senior Population



N:\Planning\MAPPING\Requests\Public\insightrx\mapping_data.mxd



7.6 Overall Representation

To obtain an overall representation of the data that was collected, each neighbourhood was assigned a value based on their color group with purple being the highest (value=5) and white being the lowest (value=0). For example, if a neighbourhood had the color purple, it would receive a value of 5 compared to a neighbourhood with the color yellow which would receive a value of 1 (Table 6). Each of these values was multiplied by a weighting that was given to each set of data, to ensure greater accuracy (Table 7). To avoid working with decimals each neighbourhood total was then multiplied by 100, resulting in a weighted total. Based on the weighted total, the neighbourhoods were grouped by color.

Table 7 - Overall Representation



City of Saskatoon – Implementation of Accessibility Action Plan

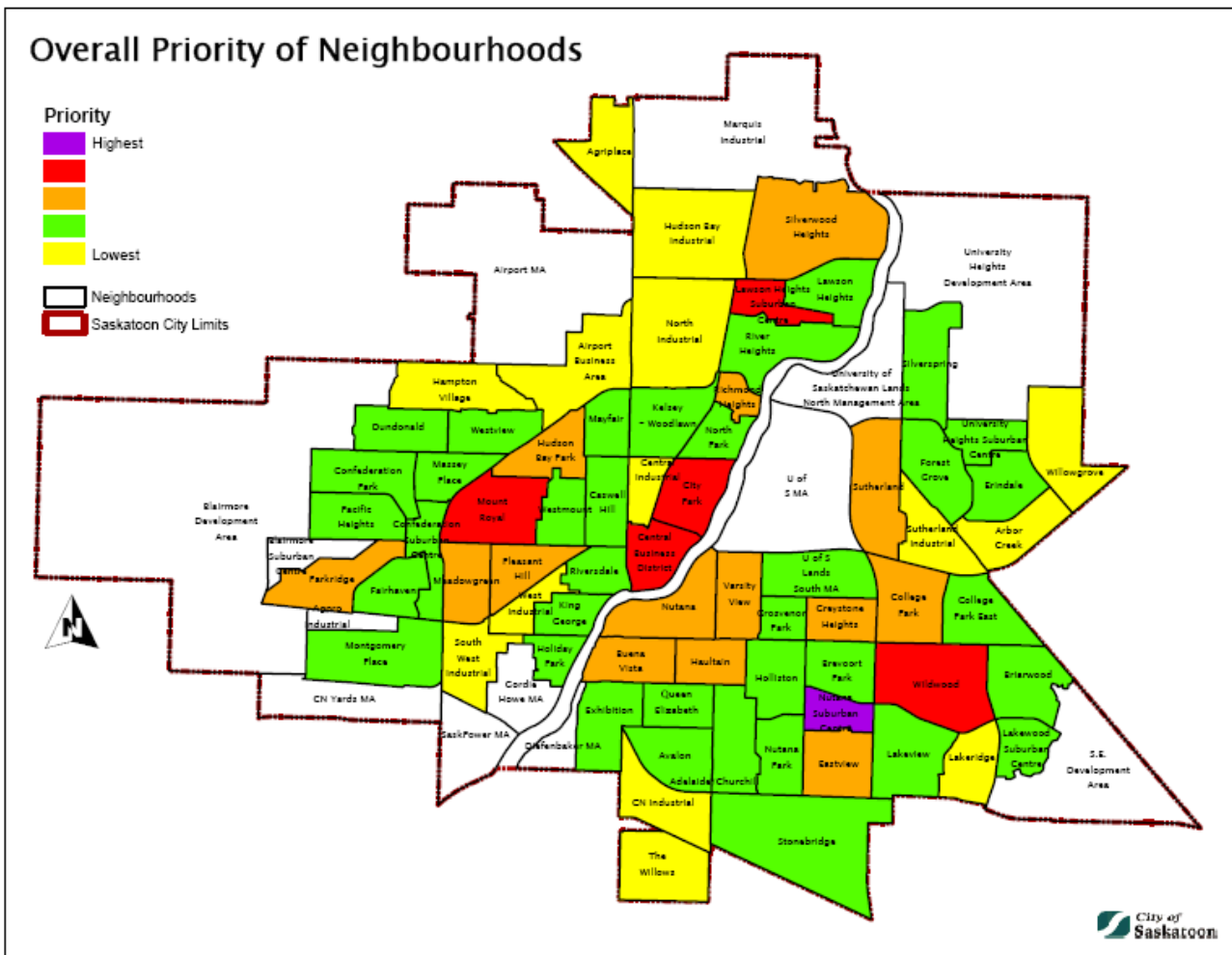
Neighborhood	SAC Training	SAC PIE	SAC Parking	Senior Residences	Senior Population %	Access Transit Pick Up Points	Weighted Total
Nutana Suburban Centre	2	2	5	5	5	5	470
Central Business District	0	4	4	4	4	5	400
Wildwood	4	2	5	4	3	4	380
Mount Royal	3	3	4	3	4	3	350
Lawson Heights Suburban Centre	0	0	4	4	4	3	340
City Park	3	4	3	2	3	4	305
Hudson Bay Park	2	2	3	3	4	2	300
College Park	4	3	3	2	2	4	275
Nutana	1	4	3	1	3	3	255
Buena Vista	1	2	2	3	3	2	245
Eastview	5	2	3	1	3	2	245
Haultain	4	2	2	2	3	2	240
Richmond Heights	0	1	2	2	4	1	225
Meadowgreen	4	4	2	1	2	3	220
Silverwood Heights	2	4	4	2	1	2	220
Parkridge	5	4	2	1	1	4	215
Varsity View	0	1	2	2	3	2	215
Pleasant Hill	5	5	2	0	2	3	210
Greystone Heights	0	3	2	1	3	2	205
Sutherland	1	4	3	1	2	2	205
Fairhaven	4	4	3	0	2	2	200
Adelaide/Churchill	3	2	3	0	3	1	195
Exhibition	3	2	2	1	3	1	195
Queen Elizabeth	3	1	2	0	3	2	190
Confederation Park	3	4	3	0	1	3	185
Avalon	4	2	2	0	3	1	180
Brevort Park	3	3	2	0	3	1	180
Caswell Hill	1	3	2	1	2	2	180
Nutana Park	5	1	2	0	3	1	180
Lawson Heights	2	1	2	1	2	2	175
University Heights Suburban Centre	0	1	3	0	3	1	175
Holliston	2	2	2	0	3	1	170
Stonebridge	0	0	1	2	3	1	170
Holiday Park	2	2	2	1	2	1	160
Lakeview	5	3	3	0	1	1	150
Massey Place	3	3	2	0	2	1	150
Riversdale	1	5	1	1	2	1	150
North Park	1	2	1	0	3	1	145
Grosvenor Park	1	1	1	0	3	1	140
River Heights	2	2	2	0	2	1	140
Briarwood	1	2	2	0	2	1	135
Confederation Suburban Centre	1	2	1	0	2	2	135
Forest Grove	2	3	2	0	1	2	135
Mayfair	0	3	2	0	2	1	135
King George	0	2	1	1	2	1	130
Montgomery Place	1	1	2	0	2	1	130
Westview	5	3	2	0	1	1	130
College Park East	3	3	2	0	1	1	120
Erindale	2	2	2	1	1	1	120
Pacific Heights	4	2	2	0	1	1	120
Silverspring	0	2	2	1	1	1	120
U of S Lands South MA	0	1	1	0	1	3	115
Westmount	0	3	1	0	2	1	115
Dundonald	1	3	2	0	1	1	110
Kelsey - Woodlawn	0	2	1	0	2	1	110
Lakewood Suburban Centre	0	1	1	0	2	1	105
Airport Business Area	0	1	1	0	1	2	95
Arbor Creek	0	1	1	0	1	1	75
Lakeridge	0	1	1	0	1	1	75
Willowgrove	0	0	1	0	1	1	70
Hudson Bay Industrial	0	1	1	0	0	1	45
North Industrial	1	0	1	0	0	1	45
Agriplace	0	0	0	0	0	2	40
Central Industrial	0	0	1	0	0	1	40
CN Industrial	0	0	0	0	0	1	20
Hampton Village	0	0	1	0	0	0	20
South West Industrial	0	0	1	0	0	0	20
Sutherland Industrial	0	0	0	0	0	1	20
The Willows	0	0	1	0	0	0	20
West Industrial	0	0	1	0	0	0	20



SAC Training	5%	SAC Training and SAC PIE were given the lowest weighting due to the small size of the sample. The Senior Population Percentage was given the highest weighting because of the known accuracy of the source, Statistics Canada.
SAC PIE	5%	
SAC Parking	20%	
Senior Residences	20%	
Access Transit	20%	
Senior Pop. %	30%	

7.7 Overall Density Map

The following map illustrates the overall level of priority for each neighbourhood by color. Similar to the previous density maps, neighbourhoods in purple have the highest priority followed by red, orange, green and yellow. Neighbourhoods in white had no data fall within its boundaries.





8 Priorities, Costs and Timelines of Completion

8.1 Cost Estimates

Using information from multiple sources including the City departments and secondary information from other municipalities, Insightrix Research obtained costing information. This costing information was applied to those areas determined to be priority as calculated in the previous section. Below are the cost estimates based for the different services/enhancements deemed to be a priority by those consulted during the focus groups (infrastructure, transit, and snow removal) as well as those that were a somewhat lower priority. Both are presented since those with a low priority, in many cases, have a small dollar amount attached to that service or enhancement.

8.2 Cost Estimates – High Importance Items

8.2.1 Disability Ramps

The number of disability ramps that have been constructed in each neighbourhood were tabulated by a representative from Municipal Engineering and provided an estimate of the number of disability ramps that are still required in each neighbourhood.

The table below (Table 8) shows the number of ramps required and the total cost by neighbourhood according to their priority ranking.

- A total of 4,090 ramps are currently required to have 100% of all sidewalks accessible.
- The cost per ramp is estimated at \$1,200 (in 2008 dollars).
- **The total cost to construct all the required ramps is \$4,908,000.**
- **Priority zones (purple, red, and orange) total cost: \$2,179,200 covering 44% of total curb ramps in the city that still need to be installed.**



Table 8 - Ramps by Neighborhood

Neighbourhood	Total	Existing	Required	Priority	Total Ramp Cost
Nutana S.C.	42	37	5	470	\$ 6,000
Central Business District	246	245	1	400	\$ 1,200
Wildwood	186	108	78	380	\$ 93,600
Mount Royal	225	53	172	350	\$ 206,400
Lawson Heights S.C.	41	40	1	340	\$ 1,200
City Park	219	143	76	305	\$ 91,200
Hudson Bay Park	95	23	72	300	\$ 86,400
College Park	148	77	71	275	\$ 85,200
Nutana	360	198	162	255	\$ 194,400
Buena Vista	203	84	119	245	\$ 142,800
Eastview	123	28	95	245	\$ 114,000
Haultain	227	71	156	240	\$ 187,200
Richmond Heights	38	17	21	225	\$ 25,200
Meadowgreen	121	12	109	220	\$ 130,800
Silverwood Heights	299	158	141	220	\$ 169,200
Parkridge	135	53	82	215	\$ 98,400
Varsity View	284	118	166	215	\$ 199,200
Pleasant Hill	155	33	122	210	\$ 146,400
Greystone Heights	94	39	55	205	\$ 66,000
Sutherland	214	102	112	205	\$ 134,400
Fairhaven	101	28	73	200	\$ 87,600
Adelaide/Churchill	202	93	109	195	\$ 130,800
Exhibition	162	81	81	195	\$ 97,200
Queen Elizabeth	205	44	161	190	\$ 193,200
Confederation Park	91	40	51	185	\$ 61,200
Avalon	189	71	118	180	\$ 141,600
Brevoort Park	143	60	83	180	\$ 99,600
Caswell Hill	288	139	149	180	\$ 178,800
Nutana Park	107	25	82	180	\$ 98,400
Lawson Heights	135	24	111	175	\$ 133,200
University Heights S.C.	92	91	1	175	\$ 1,200
Holliston	206	73	133	170	\$ 159,600
Holiday Park	73	13	60	160	\$ 72,000
Lakeview	180	64	116	150	\$ 139,200
Massey Place	27	21	6	150	\$ 7,200
Riversdale	176	86	90	150	\$ 108,000
North Park	137	82	55	145	\$ 66,000
Grosvenor Park	59	36	23	140	\$ 27,600
River Heights	169	48	121	140	\$ 145,200
Briarwood	182	182	0	135	\$ -
Confederation S.C.	67	67	0	135	\$ -
Forest Grove	221	174	47	135	\$ 56,400
Mayfair	182	32	150	135	\$ 180,000
King George	171	11	160	130	\$ 192,000
Montgomery Place	22	10	12	130	\$ 14,400
Westview	18	18	0	130	\$ -
College Park East	134	39	95	120	\$ 114,000
Erindale	161	160	1	120	\$ 1,200
Pacific Heights	20	9	11	120	\$ 13,200
Silverspring	179	179	0	120	\$ -
UofS Lands - South Management Area	24	23	1	115	\$ 1,200
Westmount	34	27	7	115	\$ 8,400
Dundonald	143	67	76	110	\$ 91,200
Kelsey-Woodlawn	86	6	80	110	\$ 96,000
Airport Business Area	1	1	0	95	\$ -
Arbor Creek	144	143	1	75	\$ 1,200
Lakeridge	163	161	2	75	\$ 2,400
Willowgrove	11	11	0	70	\$ -
North Industrial	2	2	0	45	\$ -
Central Industrial	11	11	0	40	\$ -
Hampton Village	5	5	0	20	\$ -
South West Industrial	5	5	0	20	\$ -
Sutherland Industrial	5	3	2	20	\$ 2,400
University of Saskatchewan Management Area	27	21	6	6	\$ 7,200
Totals	8,215	4,125	4,090		\$ 4,908,000



Table 9 - Cost by Priority Area

Table 9

Priority	Total Cost	Percentage of Required Ramps
	\$ 6,000	0.12%
	\$ 393,600	8.02%
	\$ 1,779,600	36.26%
	\$ 2,715,600	55.33%
	\$ 6,000	0.27%
	\$ 7,200	0.15%

This table shows the total cost for disability ramps and the percentage of required ramps for each priority color group. It appears that the city has done a good job of constructing ramps in the neighbourhoods that require them most. Less than 10% of the required ramps are for neighbourhoods in the top two priority groups.

8.3 Infrastructure (sidewalks, walkways, crosswalks, signals)

Four years ago Municipal Engineering conducted a 100% audit of all crosswalks and walkways in the city. This very extensive database has been updated on a continual basis so that a very detailed record exists of every crosswalk in the city, the type of crosswalk and in a similar manner, every walkway.

The focus of this audit was existing neighbourhoods. The database is also updated for installations that occur in new neighbourhoods. The database breaks the city into four quadrants with street addresses and plan numbers for every entry.

The current annual budget for existing neighbourhoods, (not new), is \$400,000 for walkways, and \$250,000 for crosswalks. Costs of pedestrian signals are \$20,000 to \$30,000. New signs are \$1,000 per sign. Painting of signs is \$250 per sign. The City condition rates its sidewalks and work is scheduled based on severity of distress, funding and location. For 2008, priority was given to sidewalks that contained parking meters or had parking restrictions plus sidewalks near hospitals and school.

In terms of additional needs, based on our focus groups 2 flashing pedestrian crosswalks were identified as required: estimated cost of \$50,000 each for a total of \$100,000.

Focus groups also identified a need for the audible traffic signals at 4 locations. **Estimated cost is \$15,000 each for total of \$60,000.**

Based on information received from City representatives, out of a total of 1,600 km of sidewalk in Saskatoon, approximately 70% of sidewalks are in good condition (i.e. 30% have distresses that could be repaired). To replace the sidewalk, cost is estimated to be \$220 per linear meter. To repair sidewalks costs are \$7 per linear meter. **Assuming 10% are replaced and 90% of the sidewalks can be repaired, total cost in the priority zones is \$4.85 million.** (For a complete breakdown of costs please refer to the table on page 62 of this report)

8.4 Access Transit

At the present time the City of Saskatoon has 16 routes serviced by 23 buses operated by 33 operators. These 23 buses are each worth \$110,000 with a useful life of 3 to 5 years. The current fleet has been in operation for 4 years. If access transit were to grow at a rate of two buses per year, they would require an additional 2 operators per bus. At a staff cost of \$60,000 per operator, this would result to a total staffing cost of \$240,000.



The yearly cost of adding two new access transit buses and four operators per year, would amount to a total of \$460,000.

Future Requirements

As we heard from the focus groups there is a great deal of complaints about the Access Transit booking system. With the current demand for the access transit buses; there is a definite need to expand the fleet and the corresponding staff to drive the new buses. The actual number of additional buses needed to address the current demand will require additional studies and exploration of other measures that could mitigate the demand load. (i.e. like the training and familiarization program in the City of London mentioned on page 38 & 39 of this report). There is also a need to continue to budget for replacement of the existing fleet of 23 buses, which are nearing the useful life expectancy.

The purchase cost of 23 new access transit buses would be an additional \$2,530,000 less salvage value.

8.4.1 Playgrounds

Currently it costs \$40,000 dollars to add an accessible component to the already existing playground. For 2009 the total budgeted amount is \$160,000 based on doing upgrades to 4 playgrounds. Upgrades are being done to approximately 4 playgrounds per year.

When the initial inventory of playgrounds was done there were 109 playgrounds in the city. 40 of them were wooden and since this replacement program started have replaced 17 playgrounds to date.

Everybody's Playground in Erindale (a fully accessible destination playground) cost \$207,800 (in 2003 dollars), so in order to include one in the remaining three quadrants of the city would need at least \$750,000 (in 2008 dollars).

- Currently a fully accessible playground is being installed in Blairmore Suburban Centre – Morris T. Cherneskey Park - and will be completed by the end of the year (2008).
- 2009 – fully accessible playground is budgeted to be installed at the WW Ashley Park (Taylor Street)
- 2010 – fully accessible playground will be installed in the Mayfair Neighbourhood – Ashworth Holmes Park.

8.4.2 Sensitivity Training

Insightrix reviewed many of the local consultants' promotional material and determined there was no one actively promoting specialization in sensitivity training regarding persons with disabilities. Due to the current legislation requirements in Ontario, there are many consulting firms that are available for reference. One such firm is Designable Environments, an organization of consultants who assist their clients in the creation of accessible environments through the application of universal design principles. The firm has a number of services including architectural consultation, medical/legal consultation, future care planning, codes and standard development, education and training, and facility audit and accessibility planning.

In terms of the education and training, for the City of Saskatoon, they proposed the following methodology:



Phase 1: Needs Analysis

Phase 2: Training Development

Phase 3: Training Delivery

Phase 1: Needs Analysis

- One visit to City to meet with interested parties
- Conduct targeted interviews to assess needs and define target audience
- Review City's training facilities and resources
- Develop specific learning outcomes for the training
- Develop a training strategy

Budget Estimate: \$ 3600 plus disbursements

Phase 2: Training Development

- Develop detailed training curriculum
- Develop training tools and resources
- One visit to the City to review progress and gather feedback
- One visit to the City for pilot testing of the training, tools and resources
- One visit to the City to conduct a 'train-the-trainers' workshop

Budget Estimate: \$ 7200 plus disbursements

Phase 3: Training Delivery

- Provide ongoing support for the trainers

Budget Estimate: \$ 1200 plus disbursements

Total initial hard costs (assuming the train the trainer approach): \$12,000 plus disbursements (total estimated to be \$25,000 including disbursements)

Should the needs analysis suggest that a 'train-the-trainer' approach is not appropriate, the consultant would undertake the training at an additional cost of \$1200 per diem per trainer (plus disbursements). One day of training would likely incorporate presenting the same ½ day session twice, to groups of about 50 participants.

8.4.3 Communication

Insightrix reviewed many of the local consultants' promotional material and determined there was no one actively promoting specialization in accessibility audits in regards to communication. Due the current legislation requirements in Ontario, there are many consulting firms that are available for reference. One of the main areas of interest in regards to communication however is the accessibility of the City's website.

The Website

The Web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation, and more. It is essential that the Web be accessible in order to provide equal access and equal opportunity for people with disabilities. An accessible Web can also help people with disabilities participate more actively in society.

The City of Saskatoon website offers the possibility for unprecedented access to information and interaction for many people with disabilities. That is, the accessibility barriers to print, audio, and visual media can be easily overcome through Web technologies.



The power of the web is in its universality. Access by everyone regardless of disability is an essential aspect.

- **Tim Berners-Lee,**

Inventor of the World Wide Web.

One such company that conducts audits and designs accessibility websites is Yellow Pencil in Edmonton and Vancouver. Their process includes the following:

- **Accessibility Audit** - illustrates how the City's website performs for users with disabilities. They provide a report that gives an overview, context on the issues of accessibility, and concrete tasks for the City's developers to improve access to the site. Specifically:
 1. The City tells them (or they help the City determine) what level of accessibility compliance they need. This can range from a general improvement to a specific target with the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C) - (priority A or priority AAA).
 2. Their experts run technical and heuristic tests on the City's site to determine how easy or difficult it is to navigate the website in regards to accessibility.
 3. They will provide a full report of the findings including:
 - o An overview to introduce the concepts and issues behind accessibility information regarding your legal responsibilities to provide an accessible website
 - o Specific instructions for developers on how to solve any problems and learning resources on how create and maintain accessible content.
 - o Personas of users and how people with disabilities interact with information online.

Depending on the complexity of the website (number of templates used or media types employed throughout the site), the City of Saskatoon may be able to perform their own accessibility audit through free software such that is provided on the website "www.w3.org". The free heuristic test available allows the user to run their url address through the software to see if it passes for accessibility. Error messages will inform the webmaster of areas of weakness and any barriers a person with a disability may encounter. The second option entails employing a third party auditor such as yellowpencil.com to perform an audit.

An accessibility auditor such as yellowpencil.com randomly selects between 20 and 50 of the website pages (depending on the size of the site) and scores them for accessibility. **This process is far more involved and will cost between \$5,000 and \$10,000 dollars.** After the audit, full-service companies like yellowpencil can either coach the City of Saskatoon's webmaster to make the changes (at an hourly rate) or complete the changes (for an additional cost dependent on the number and complexity of the changes required).

Contact Dave Bellous at Yellowpencil for more information 780-423-5917 ext 221



8.5 Summary by Neighborhood: Costs associated with Purple, Red and Orange Priority Zones.

Neighbourhoods / Suburban Centres	Ramps Required	Priority	Total Ramp Cost	Sidewalks Replacement (\$220.00 per linear meter)	Sidewalk Repair (\$7.00 per linear meter)	Crosswalks	Audible Traffic Signals	Total Costs
Nutana S.C.	5	Purple	\$ 6,000	\$51,514.95	\$14,752.01	\$ 50,000.00		\$ 122,267
Central Business District	1	Red	\$ 1,200	\$166,724.65	\$47,743.88		\$ 30,000.00	\$ 245,669
Wildwood	78	Red	\$ 93,600	\$217,983.82	\$62,422.64	\$ 50,000.00	\$ 15,000.00	\$ 439,006
Mount Royal	172	Red	\$ 206,400	\$271,798.17	\$77,833.11			\$ 556,031
Lawson Heights S.C.	1	Red	\$ 1,200	\$43,642.64	\$12,497.66			\$ 57,340
City Park	76	Red	\$ 91,200	\$196,944.38	\$56,397.71		\$ 15,000.00	\$ 359,542
Hudson Bay Park	72	Orange	\$ 86,400	\$142,207.14	\$40,722.95			\$ 269,330
College Park	71	Orange	\$ 85,200	\$213,187.32	\$61,049.10			\$ 359,436
Nutana	162	Orange	\$ 194,400	\$270,539.54	\$77,472.69			\$ 542,412
Buena Vista	119	Orange	\$ 142,800	\$189,252.05	\$54,194.91			\$ 386,247
Eastview	95	Orange	\$ 114,000	\$178,027.40	\$50,980.57			\$ 343,008
Haultain	156	Orange	\$ 187,200	\$185,446.39	\$53,105.10			\$ 425,751
Richmond Heights	21	Orange	\$ 25,200	\$51,561.14	\$14,765.24			\$ 91,526
Meadowgreen	109	Orange	\$ 130,800	\$166,045.48	\$47,549.39			\$ 344,395
Silverwood Heights	141	Orange	\$ 169,200	\$476,283.48	\$136,390.27			\$ 781,874
Parkridge	82	Orange	\$ 98,400	\$192,652.93	\$55,168.79			\$ 346,222
Varsity View	166	Orange	\$ 199,200	\$222,706.09	\$63,774.93			\$ 485,681
Pleasant Hill	122	Orange	\$ 146,400	\$178,452.34	\$51,102.26			\$ 375,955
Greystone Heights	55	Orange	\$ 66,000	\$135,543.76	\$38,814.81			\$ 240,359
Sutherland	112	Orange	\$ 134,400	\$219,156.72	\$62,758.52			\$ 416,315
Totals	1,816		\$ 2,179,200	\$ 3,769,670	\$ 1,079,497	\$ 100,000	\$ 60,000	\$ 7,188,367
Average Cost / Neighbourhood								\$ 359,418

- Priority zones (purple, red, orange) total cost: \$2,179,200 covering 44% of total curb ramps in the city that still need to be installed.
- In terms of additional needs, based on our focus groups 2 flashing pedestrian crosswalks was identified as required: estimated cost \$50,000 each for total of \$100,000.
- Focus groups also identified a need for the audible traffic signals at 4 locations. Estimated cost is \$15,000 each for total of \$60,000.
- Based on information received from city representatives, out of a total of 1,600 km of sidewalk in Saskatoon, approximately 70% of sidewalks are in good condition (i.e. 30% are in poor condition and in need of improvement). To replace the sidewalk, cost is estimated to be \$220 per linear meter. Total repair sidewalks costs \$7 per linear meter. Assuming 10% are replaced and 90% of the sidewalks in poor condition are repaired, total cost in the priority zones are \$4.85 million.

Highlighted are those areas with above average (basis the 20 neighborhoods) total costs.



9 Conclusions and Recommendations

Based on research conducted including; focus groups, internal interviews with City of Saskatoon department representatives, interviews with other municipalities, as well as literature review, the following conclusions and recommendations are provided.

9.1 Recommendation #1: Facility Accessibility Design Standards (FADS)

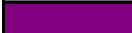




With strong support from the City of Saskatoon civic department representatives, it is highly recommended that the City adopt the Facility Accessibility Design Standards (FADS) document developed by the City of London. The FADS document is available to use and implement upon submitting an application form to the City of London (free of charge). The FADS are used by over 50 cities, communities and organizations throughout Canada and the United States. The FADS document outlines all necessary standards needed to make facilities as well as the infrastructure (sidewalks, ramps, curb cuts) fully accessible to people with disabilities. Instead of using a number of various documents (National Building Code, Canadian Standards Association Standard on accessible design for the built environment and the FADS) to implement standards on accessibility, the FADS document can be used as the one standard setting document for the City. In the case that the FADS document is not adopted by the City of Saskatoon, the City should look to combine all essential documentation from the above mentioned sources and produce a single standard setting document to address facility and infrastructure accessibility.

9.2 Recommendation #2: Service Level Guidelines

The Service Level Guidelines have been established to provide guidance to the City of Saskatoon, when incorporating barrier-free accessibility to all civic facilities, services and infrastructure. It is recommended that the City of Saskatoon implement the Service Level Guidelines as the benchmark guiding document to direct action and track progress. If implemented, it should be noted that these guidelines do not act as a stand-alone document and work in conjunction with the National Building Code, the Canadian Standards Association Standard on accessible design for the built environment, as well as the FADS document (if selected as a standard setting document for Facility Accessibility Design).

9.3 Recommendation #3: “Priority Zone” implementation

Through extensive research regarding the demographic composition of the city by neighbourhood boundaries, the “priority zone” development focused on determining neighbourhoods that contained a high proportion of persons with disabilities, seniors and senior or personal care residences. The zones identify and provide possible areas of the city, which can be targeted for prioritizing accessibility improvements contained in the Service Level Guidelines. All the zones have been coded by colour which distinguishes priority levels from highest to lowest. Neighbourhoods that have been coded with the purple colour are considered to be the highest priority neighbourhoods, followed by red, orange, green and yellow (lowest priority neighbourhoods). It is recommended that the zones be used by order of priority when implementing items from the Service Level Guidelines. The table below provides suggested timelines of how long it should take to make improvements within certain zones, as will have an impact on accessibility within those neighbourhoods.

Zone Colors	Implementation Timeline
 Purple	1 to 2 years
 Red	2 to 3 years
 Orange	3 to 5 years
 Green	5 to 7 years
 Yellow	7 to 10 years



9.4 Recommendation #4: Areas of Importance (Infrastructure, Snow Removal and Transit)

Through the focus groups conducted with seniors and people with various disabilities a list of exact locations (contained in the body of this report) provides a directory of specific items which people feel are in need of improvements. The items and locations from this list should be considered to be of high priority and targeted directly. Furthermore - Infrastructure, Snow Removal and Transit were the three priority areas from the Service Level Guidelines that were ranked to be of high importance by participants in all focus groups. Based on the high priority neighbourhoods as well as the top three areas of importance as determined by focus group participants it is recommended that an inventory of additional improvements be conducted to ensure that the main concerns of the residents in those neighbourhoods are addressed. Due to the fact that a limited number of people participated in the focus groups and the specific locations are based on their comments only, it is seen as beneficial to set-up a one-call number where any individual could call and report other locations of concern.

9.4.1 Recommendation #4a: Stage Priority Improvements based on Focus Group Results

As shown in Appendix A and Appendix B, begin development on improvement to infrastructure including sidewalks, crosswalks, walkways, and signals in those priority areas identified in the focus groups which also correspond to those areas of high priority. **The focus group results validated the need to examine these priority areas or zones as 95% of the suggestions from focus groups in terms of problem locations were in those priority areas identified based on demographics and residences.**

The City can stage the improvements of the high cost items and those that are low priority but low and/or no significant cost should also be implemented.

9.5 Recommendation #5: Sensitivity Training

As a result of findings from the focus groups as well as consultations with various civic department representatives it became apparent that some employees within the City need to become more knowledgeable and understanding regarding the issues pertaining to accessibility for people with various disabilities. Through secondary research and consultations with other cities, it was noted that some communities choose to hire consultants who provide sensitivity training to existing and new staff on topics pertaining to accessibility awareness and dealing with various issues faced by people with disabilities. The City should consider providing sensitivity training for its existing and new employees.

Insightrix reviewed many of the local consultants' promotional material and determined there was no one actively promoting specialization in sensitivity training regarding persons with disabilities. Due the current legislation requirements in Ontario, there are many consulting firms that are available for reference. One such firm is Designable Environments, an organization of consultants who assist their clients in the creation of accessible environments through the application of universal design principles. The firm has a number of services including architectural consultation, medical/legal consultation, future care planning, codes and standard development, education and training, and facility audit and accessibility planning.

9.6 Recommendation #6: City Website Audit

The Web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation, and more. It is essential that the website be accessible in



order to provide equal access and equal opportunity for people with disabilities. An accessible Web can also help people with disabilities participate more actively in society.

The City of Saskatoon website offers the possibility for unprecedented access to information and interaction for many people with disabilities. That is, the accessibility barriers to print, audio, and visual media can be easily overcome through Web technologies. The lack of accessibility features available on the City Website has been mentioned on numerous occasions during focus group discussions and consultations with City representatives. In developing a standard for website accessibility, one of the many standards from the W3C is the Web Content Accessibility Guidelines 2.0 system (WCAG 2.0), which covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make Web content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech difficulties, photosensitivity and combination of these.

It is recommended that the City assess the current accessibility features of the City of Saskatoon website. Depending on the complexity of the website (number of templates used or media types employed throughout the site), the City of Saskatoon may be able to perform their own accessibility audit through free software such that is provided on the website “www.w3.org”. The second option entails employing a third party auditor such as yellowpencil.com to perform an audit.

9.7 Recommendation #7: Structured approach to sidewalk repairs, audible traffic signal installation and snow removal

The current state of sidewalk repairs, installation of audible traffic signals (ATS) and snow removal is complaint based. Through public consultations and interviews with City department representatives it was noted that at the present time all of the above mentioned items, especially sidewalk repairs and ATS installations are complaint based. The City does have some locations which they select for improvements, however if a broken-up sidewalk has not been reported it is unlikely it will be fixed. The City should consider transitioning to a more structured approach in addressing these issues be it by way of conducting an inventory of sidewalks and areas of high traffic for ATS installations or by assessing the above items based on the high priority neighbourhoods, or actively promoting a 1call number to report deficiencies – “Neighbourhood Watch”.

9.8 Recommendation #8: Distribution of “Whose Job Is It?” Brochure

As mentioned in the focus groups, people feel there is a need for a better communication network with the City of Saskatoon. On many occasions it was mentioned that people don't know who to contact, get the run-around when they do get a hold of someone, or feel they are not being listened to. Through consultations with the Communications Branch and City Clerk's Office it became apparent that there exists a brochure titled “Whose Job Is It?” which provides a full directory, listing important numbers and contact information for a specific area of concern. This brochure is updated and printed every two years and is distributed at various city facilities. Consideration should be paid to effectively pursue the distribution of “Whose Job Is It?” brochure with all important contact information available to the residents of Saskatoon. It is seen as beneficial to work with major associations and organizations to distribute copies of this brochure so it can be passed on to the general public.



10 Appendix A – High Cost and Low Cost Items by Section and Priority Level

High Cost Items - From Focus Group Findings		
Relevant section from the Service Level Guidelines	Description	Cost
Infrastructure*	Sidewalk repairs	\$7 per linear meter
	Sidewalk replacement	\$220 per linear meter
	Curb ramb installation	\$1,200 per ramp
	Crosswalks - patterned concrete	\$20,000 per leg of an intersection
	Crosswalks - general	\$10,000 to add pedestrian signals and crosswalks to all 4 legs of an intersection
	Flashing Pedestrian Crosswalk	\$40,000 - \$50,000
	Audible Traffic Signals	\$7,500 per device (need two devices per intersection)
Transit*	Access Transit buses	\$110,000 per bus, plus ongoing operating and maintenance costs
Parks	Playgrounds - Addition of one accessible component to an existing playground	\$40,000 to add one accessible component to a play structure
	Fully Accessible Playground	\$350,000
Built Environment	Handrail placement	unable to provide costs
	Leisure Facility and Pool accessibility	unable to provide costs

* These items are considered to be of **High Priority**, based on findings from the focus group discussions



Low Cost Items - From Focus Group Findings		
Relevant Section from the Service Level Guidelines	Description	Actions to be taken
Infrastructure	Traffic Signals*	Extending the timing of traffic signals to provide pedestrians with appropriate time to cross the road
	Sidewalks	Flower pots at various locations around the city have been mentioned to be located in the path of travel presenting obstacles and hazards to pedestrians, as well as their locations too close to street corners. Moving the flower pots would be of help to pedestrians.
Transit	Stop Announcements	Bus drivers to announce at minimum bus stops at major intersections
Built Environment	City Facilities	Ensuring there is proper lighting inside city facilities (hallways, entranceways and foyers). Cosmo Civic Centre, Saskatoon Fieldhouse and City Hall mentioned during focus groups
Communication	Brochure Distribution	Connecting with major disability agencies and organizations serving the City and distributing the "Whose Job Is It?" brochure containing directory of contact information for various city departments. There needs to be broader distribution of this brochure.

* These items are considered to be of **High Priority**, based on findings from the focus group discussions



11 Appendix B – Specific Location by Section

List of Specific Locations From Focus Group Findings			
Relevant section from the Service Level Guidelines	Description	Neighbourhood (Priority Zone)	Specific Location
Sidewalks and Crosswalks	Poor condition, broken up, uneven, in need of repairs or replacement	Nutana Suburban Centre	Area around Walter Murray and Holy Cross High Schools
			West side of Market Mall - by senior residences
		Central Business District and City Park	24th Street and 3rd Ave - Franklin Senior Residence
			Delta Bessborough Hotel
			Queen Street before 4th and 3rd Avenue (North Side)
			26th Street between 2nd and 3rd Avenue
			Railroad Tracks on Idylwyld Drive.
	Obstacles (flower pots) on sidewalks and street corners	Central Business District and City Park	4th Avenue around 24th and 25th Streets
			3rd Avenue and 23rd Street
	Unmarked Curbs and Curb Cuts	Central Business District and City Park	20th Street and Idylwyld Drive
			22nd Street and Idylwyld Drive
	Difficult sidewalk ramps or lack of them	Central Business District and City Park	22nd, 20th Streets and Idylwyld Drive (difficult to get onto sidewalk on existing ramps)
		Nutana Suburban Centre	Adelaide and Preston (need ramps)
Buena Vista and Haultain		8th Street (South Side)	



List of Specific Locations From Focus Group Findings				
Relevant section from the Service Level Guidelines	Description	Neighbourhood (Priority Zone)	Specific Location	
Traffic Signals and Pedestrian Crossings	Flashing Pedestrian Crossing needed	Nutana Suburban Centre	Adelaide Street (one and a half blocks east of Market Mall)	
		Wildwood	Kingsmere Blvd - becoming a high traffic area	
	Audible Traffic Signal needed	Central Business District and City Park	25th Street	
			Idylwyld Drive and 22nd Avenue	
			Queen Street and 2nd Avenue	
	Length of Traffic Signals is too short	Central Business District and City Park	Wildwood	Acadia and Taylor
			Idylwyld and 22nd Avenue	
			6th Avenue and 25th Street	
			3rd Avenue and 23rd Street	
			1st Avenue and 21st Street	
Snow Removal	Sidewalks are rarely cleared of snow	Central Business District and City Park	Area between 24th Street and The Bus Mall	
			25th Street before Parktown	
		Lawson Heights Suburban Centre	Primrose and Pinehouse	
			Primrose and Lenore	
		Varsity View	College and Monroe	



12 Appendix C – Listing of Consultants for Website Accessibility Audits and Sensitivity Training

WebAIM (www.webaim.org)

- WebAIM is a non-profit organization within the Center for Persons with Disabilities - external link at Utah State University
- Services include: Accessible Design and Retrofitting, Accessibility Monitoring and Reporting, Consulting and Technical Assistance, Accessibility Training, and Accessible Site Certification.
- Brief Report on Accessibility of Website starting at \$350.

Web Content Accessibility Guidelines (www.w3.org)

- The World Wide Web Consortium (W3C) is an international consortium where Member organizations, a full-time staff, and the public work together to develop Web standards.
- Provides in-depth information on web accessibility design, management and evaluation.

Web Accessibility Technical Services (www.wats.com)

- Web Accessibility Consulting since 2001
- Services include: Accessible Design and Development, Consulting and Technical Services, Website Testing, Accessibility Training.
- Clients include: National Research Council, Canadian Space Agency, Parks Canada, Services Canada: People with Disabilities On-Line

Beyond Ability International (www.beyond-ability.com)

- Founded in 1986, Beyond Abilities provides technical, educational, and marketing services to make the world more accessible to persons with disabilities.
- Services include: Accessibility Training and Education, Accessibility Planning and Policy Development, and Operational Evaluations.
- Clients Include: City of Guelph, Region of Waterloo, Town of Oakville, Canada Post

Cantor Access (www.cantoraccess.com)

- Cantor Access Inc. is a Toronto-based consultancy that works with organizations worldwide to ensure that their products, services, spaces, and web sites, are accessible to and usable by people with disabilities; and that their employees with disabilities can perform their jobs efficiently and effectively.
- Services include: Accessibility Consulting, Accessibility Training, and Accessible Website Development.
- Clients Include: RBC, CIBC, American Express, BMO

Designable Environments (www.designable.net)

- Organization of consultants who assist our clients in the creation of accessible environments through the practical application of universal design principles
- Services include: Facility Auditing and Accessibility Planning, Education and Training, Codes and Standards Development, Future Care Planning.
- Clients include: City of Winnipeg, City of Guelph, City of Oshawa, City of Kitchener.

Effective Accessibility Consulting (www.effectiveaccessibility.ca)

- Providing education and training on issues relating to disability and accessibility.
- Services include: Needs Assessment, Accessibility Assessments, *Person-to-Person* Sensitivity Awareness/Customer Service Training Workshops
- Clients include: Town of Midland, Town of Penetanguishene, Ontario Public Service.