PUBLIC AGENDA
STANDING POLICY COMMITTEE
ON TRANSPORTATION

Tuesday, February 10, 2015, 9:00 a.m.

Council Chamber, City Hall

Committee Members:

Councillor C. Clark, Chair, Councillor R. Donauer, Vice-Chair, Councillor T. Davies, Councillor D. Hill, Councillor M. Loewen, His Worship the Mayor (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

3. ADOPTION OF MINUTES

   3.1 Minutes of regular meeting of Standing Policy Committee on Transportation held January 12, 2015

4. UNFINISHED BUSINESS

5. COMMUNICATIONS (requiring the direction of the Committee)

   5.1 Delegated Authority Matters

   5.1.1 Request for Sole Concessionaire Rights - 39th Annual 'Experience Downtown' Sidewalk Sale, The Partnership, July 9-11, 2015 [File No. CK. 205-1] 6 - 6

   Recommendation

   That permission be granted to The Partnership to be the sole agent for the allocation of vending and concession locations at the 39th Annual Downtown Sidewalk Sale, July 9-11, 2015.

   5.1.2 Protected Bike Lane Demonstration Project - Kent Smith-Windsor, Executive Director, Greater Saskatoon Chamber of Commerce [File No. CK. 6000-5] 7 - 7

   Recommendation

   That the letter be forwarded to the Administration to respond to the writer and joined to the file.

5.2 Matters Requiring Direction

5.2.1 Request for continued transit services and use of Circle Drive South Bridge - Optimist Canada Day 2015 - Brad Sylvestor, Chair, Optimist Canada Day 2015 [File No. CK. 205-1] 8 - 8

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

That the request for continued transit services and use of Circle Drive South Bridge for Optimist Canada Day 2015 to be held on July 1, 2015, be approved subject to any administrative conditions.

5.2.2 Request for permission to operate small Unmanned Aerial Vehicle (sUAV) over City of Saskatoon property - Zenon Dragan, President, Draganfly Innovations Inc. [File No. CK. 370-1] 9 - 9

A representative of Draganfly Innovations will be available to answer questions.

Recommendation

That the request to operate small Unmanned Aerial Vehicle (sUAV) over City of Saskatoon property be referred to the Administration for a report.

5.3 Requests to Speak (new matters)

6. REPORTS FROM ADMINISTRATION

6.1 Delegated Authority Matters

6.2 Matters Requiring Direction

6.2.1 Award of Contract - Urban Systems Ltd for the Development of the Active Transportation Plan [File No. CK. 4110-2] 10 - 14

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the award of contract for the development of the Active Transportation Plan to Urban Systems Ltd. for a total of $209,987.98 (including GST) be approved; and
2. That the City Solicitor be requested to prepare the appropriate contract documents, and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

205-1

experience downtown

THE PARTNERSHIP
Saskatoon Downtown Business Improvement District

January 26, 2015

His Worship the Mayor and Members of City Council
Office of the City Clerk
City of Saskatoon
2nd Floor, City Hall
222 3rd Ave N
Saskatoon SK S7K 0J5

His Worship the Mayor and Members of City Council,

Re: Request for Sole Concessionaire Rights – 39th Annual 'Experience Downtown' Sidewalk Sale

The 39th annual Downtown Sidewalk Sale will be held from July 9-11, 2015. As the organizer of this event, we respectfully request permission to be the sole agent for the allocation of vending and concession locations. This will ensure our downtown businesses and licensed vendors are not compromised.

If you have any questions regarding this request, please contact our office at 306-665-2001.

Sincerely,

Brent Penner

Executive Director

BP/kh

cc: Kara Lackie, City of Saskatoon

242 Third Avenue South
Saskatoon, SK S7K 1L9
Telephone: (306) 665-2001 Fax: (306) 664-2245

6000-5

104 - 202 4th Ave. N, Saskatoon, SK S7K 0K1 T: (306) 244-2151 F: (306) 244-8366
E: chamber@saskatoonchamber.com W: www.saskatoonchamber.com

theChamber
GREATER SASKATOON CHAMBER OF COMMERCE

January 27, 2015

Standing Policy Committee on Transportation
c/o City Clerk's Office - City Hall
222 Third Avenue North
Saskatoon, SK S7K 0J5

Dear Members of the Standing Policy Committee on Transportation:

Re: Protected Bike Lane Demonstration Project

Our Chamber acknowledges that a protected bike lane project, if implemented correctly, could serve to benefit the community of Saskatoon. We applaud your decision to re-evaluate the original plans as we work to come to a solution which is beneficial for all parties, including our downtown business core.

However, we feel there are still concerns which must be addressed regarding the delay of the 4th Avenue lane. Namely, *would council consider delaying implementation of the 4th Avenue protected corridor until the Victoria Bridge is replaced and re-enters the transportation network.* We feel that this delay would allow for a more comprehensive and factual evaluation of the proposed demonstration project.

We look forward to your response.

Sincerely,

Kent Smith-Windsor
Executive Director
Greater Saskatoon Chamber of Commerce

205-1

Jan 29 2015

Mayor Don Atchison and Members of City Council
City of Saskatoon
City Hall
Saskatoon, Saskatchewan
S7K 0J5

OPTIMIST INTERNATIONAL
Friend of Youth

RE: OPTIMIST CANADA DAY 2015

Dear Your Worship and members of city Council,

The Optimist Club of Saskatoon (OCS) is in the planning stages for this year's celebration of Optimist Canada Day 2015, in Diefenbaker Park, on July 1. The Optimist Club of Saskatoon has been organizing Canada Day events since 1967, which started as a centennial project. 2017 will be our 50th year. There are five separate items for your consideration as follows:

- OCS requests an exemption from the noise bylaw until 11:30 pm on July 1. This will allow time for the fireworks and crowd clearance from the park. We will continue to face the main stage south, to mitigate the noise that occurs in the local neighborhood.
- Exemption from the ***park access*** by-law from 7 am June 30th to 1 pm July 2 for set-up/pull down and clean up by vendors and exhibitors.
- OSC requests continued Transit services, as was provided in 2014 by the city of Saskatoon Transit. Operationally this service was a success and we see community value for the city of Saskatoon to continue providing this service.
- As in the previous years, OSC requests continued support from the Saskatoon Police Services, and Fire and Protective Services to work with our committee to provide a safe family day and evening
- OCS would be pleased to work with the city to provide a safe environment to watch the fireworks. While last year we suggested the bridge be closed during the Fireworks portion of the event, the city elected to slow traffic during that time. The OCS would be pleased to provide any program information to best plan the traffic strategy for the Circle Drive South Bridge this year.

I understand that these requests will be referred to committees for consideration. OCS will provide a representative(s) to answer questions at committee level and/or at council upon request.

Yours in Optimism,

Bradley S Sylvester, C.Dir
Chair, Optimist Canada Day 2015
1014 Hurley Way
Saskatoon, Sask. S7N 4J7
306 653 0971 daytime
306 653 1458 fax

370-1

draganfly
INNOVATIONS INC
2108 St. George Ave.
Saskatoon, SK S7M 0K7
Canada
Phone: 306-955-9907
Toll Free: 800-979-9794
Fax: 306-955-9906

December 9, 2014

City of Saskatoon
City Hall
222 3rd Ave, North
Saskatoon, SK
S7K 0J5

His Worship the Mayor and Members of City Council

RE: Permission to operate small Unmanned Aerial Vehicle (sUAV) over City of Saskatoon Property

Draganfly Innovations Inc is a Saskatoon based company conducting business in Saskatoon since 1998, and is a world renowned manufacturer of sUAV systems. Draganflyer systems are used worldwide for obtaining high resolution imaging for a wide variety of emergency services and industrial/commercial purposes. As part of our business we offer aerial imaging services using these systems to local clients requiring imaging for emergency services applications, as well as imaging for inspections and evaluations for a wide variety applications of commercial use.

All operations are conducted under the authority of a Special Flight Operations Certificate (SFOC) issued by Transport Canada. As a requirement of the SFOC to conduct flights of the UAV, we are required to contact property owners, over which and from which flights of the UAV will take place, including take-offs and landings; have been advised of the proposed operation and have no objections. For the most part the operations generally take place over private property but in some cases such as, search and rescue, crime scene or accident investigation, inspection or evaluation of infrastructure, riverbank areas, bridge inspections it may be necessary to take-off, fly over or land on city property including parks.

For our purpose of use, although these systems may appear to be the same as "radio-controlled model aircraft " they do not fall into that designation. According to Transport Canada as they are not being used for "recreation purposes" but rather used for "commercial purposes" they therefore fall under the regulatory authority of the Canadian Air Regulations (CARs) and must be operated within the requirements as specified by an SFOC.

The SFOC requires that the operation of the UAV is conducted in a manner that does not pose a hazard to aviation or public safety. As such all necessary steps will be taken to ensure the operations comply with the SFOC requirements including having required sufficient, liability insurance as well as qualified personnel on site to conduct the operations in a safe manner.

Draganfly Innovations Inc. hereby requests permission to conduct sUAS operations over City of Saskatoon property to conduct commercial operations on an "as necessary or required basis".

Respectfully submitted,

Zenon Dragan
President

Award of Contract – Urban Systems Ltd. for the Development of the Active Transportation Plan

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the award of contract for the development of the Active Transportation Plan to Urban Systems Ltd. for a total of $209,987.98 (including GST) be approved; and
2. That the City Solicitor be requested to prepare the appropriate contract documents, and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

Topic and Purpose

The purpose of this report is to award the contract and prepare the agreement with Urban Systems Ltd. for the consultant work required to carry out the development of the Active Transportation Plan (ATP).

Report Highlights

1. Submission/Evaluation Process Overview – The consultant selection for the ATP followed a Request for Proposals (RFP). Submissions were reviewed and scored based on a range of criteria.
2. Consultant Selection – Urban Systems Ltd. is recommended, in part, because of their exceptional understanding of the project and the local context, their innovative and comprehensive approach to the project methodology, and their past work on projects of a similar nature.

Strategic Goal

This report supports the City of Saskatoon's (City) Strategic Goal of Moving Around. The recommendations support the long-term strategy to develop an integrated transportation network that is practical and useful for vehicles, buses, bikes, and pedestrians.

Background

During its February 6, 2012 meeting, City Council adopted the Strategic Plan 2012 to 2022. One of the seven strategic goals presented in the plan (Moving Around) is being addressed through the ATP.

At its December 4, 2012 meeting, City Council approved the Active Transportation Reserve, which provides mill rate supported base funding to be phased-in and supplemented with one-time capital funding until the base reaches $500,000 annually. The development of the ATP is to be funded from this reserve.

This approved capital project had funds in the amount of $100,000 added to the reserve in 2014 in order to fulfill the active transportation goals of the Corporate Strategic Plan, and an additional $150,000 was added in 2015 to hire a consultant to work with the Administration and community in the development of an ATP.

During its October 27, 2014 meeting, City Council received an information report which presented the ATP terms of reference, including project purpose and objectives and a preliminary timeline and process for 2014 to 2016. These terms of reference formed the basis for the ATP RFP.

Report

Submission/Evaluation Process Overview

The Long Range Planning Section of the Planning and Development Division led the preparation of an RFP for the purpose of engaging the services of a consultant to develop an ATP for the City. A 14 member Active Transportation Steering Committee (ATSC) was assembled for the purposes of drafting the RFP and steering the project through its entirety. Planning and Development will be responsible for Project Management on behalf of the City.

The ATSC developed a comprehensive RFP which was issued on October 28, 2014, and closed on December 5, 2014. Ten teams submitted proposals, with the following proponents listed as leads:

1) Allnorth Consultants Limited
2) Alta Planning + Design
3) Dialog Consultants
4) Dillon Consulting Ltd.
5) IBI Group Inc.
6) Mobycon
7) Morr Transportation Consulting Ltd.
8) Opus International Consultants Limited
9) Urban Systems Ltd.
10) WSP Canada Inc.

The ATSC reviewed and scored the proposals out of a possible 100 points, using the criteria listed in Attachment 1.

Consultant Selection

Several proposals demonstrated sound understanding of the project, suitable experience, and compelling approaches to communications and engagement. Urban Systems Ltd. was identified as the highest-scoring proponent due to their exceptional understanding of the project and the local context, their strong project management team and structure, and their innovative and comprehensive approach to the project methodology. Their past work on projects of a similar nature demonstrates their capacity to successfully deliver on this project.

Public and/or Stakeholder Involvement

The ATSC represents the internal and external stakeholders that are considered to be active partners in developing and, in the future, implementing an ATP. The ATSC is composed of 11 representatives from various civic departments and sections, as well as representatives from the Saskatoon Health Region, Meewasin Valley Authority, and a

member of the public affiliated with the University of Saskatchewan School of Public Health.

Public involvement has not yet been required for this project. Throughout the development of the ATP, engaging a broad stakeholder group and the general public will be a key factor in a successful process. The consultant is expected to design and deliver comprehensive communication and meaningful engagement processes that actively engage stakeholders and the broad community.

Communication Plan
An innovative and comprehensive Communications Strategy (Strategy) is a key component of the ATP. The Administration, in conjunction with the consultant, will strive to reach a broad audience and ensure that efficient and effective methods of reporting back are utilized to keep residents engaged and informed throughout the process. A detailed Strategy will be developed with the consultant once they are under contract with the City.

The consultant will oversee all aspects of the Strategy, and will play an active role in developing and implementing the Strategy, including:

1) incorporating the current Growing Forward brand;
2) developing key messages;
3) creating a media plan;
4) creating an external and internal communications plan;
5) creating a website and social media plan that utilizes the existing City mediums;
6) developing and implementing Community Engagement and Communication Plans;
7) advertising and promoting the various community engagement events; and
8) playing an active role in the planning and coordinating of all logistics for various events and activities, including stakeholder, City Council, and media events.

Financial Implications
This report recommends awarding a contract in the amount of $209,978.98 (including GST). Funding for this contract award is available within approved ATP Capital Project No. P2551. The project balance is sufficient to cover this contract and allow for a 9% contingency.

Other Considerations/Implications
There are no options, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion
The project is expected to be ongoing until March 2016, with communications to Committee(s) and City Council occurring at key milestones throughout the duration of

the project. A more detailed timeline will be developed pending development of the detailed public and stakeholder consultation plan.

Public Notice

Public Notice, pursuant to Section 3 of Public Notice Policy No. C01-021, is not required.

Attachment

1. Active Transportation Plan Evaluation Criteria

Report Approval

Written by:	Danae Balogun, Senior Planner, Long Range Planning
Reviewed by:	Alan Wallace, Director of Planning and Development
Approved by:	Randy Grauer, General Manager, Community Services Department
Approved by:	Murray Totland, City Manager

S/Reports/CP/2015 – TRANSPORTATION - Award of Contract - Urban Systems Ltd. for the Development of the Active Transportation Plan/ks

ATTACHMENT 1

Active Transportation Plan Evaluation Criteria

Criteria	Maximum Points
Project Understanding The proponent demonstrates a clear understanding of the project and of Saskatoon.	**5**
Quality of Proposal The proposal is clear and concise, visually stimulating, and addresses all relevant points of the RFP.	**5**
Innovation and Vision The proposal demonstrates a commitment from the proponent to go above and beyond in their approach to the project in ways that add value.	**10**
Team Strength (Qualifications, Experience, Skills) The proponent has assembled a team of professionals that demonstrate exceptional expertise in their respective fields, and adequate time has been allocated to each individual relative to the importance of their tasks.	**15**
Project Management The proposal clearly identifies a framework for managing the project that addresses all components of the RFP, identifies a clear reporting system, and allows for flexibility.	**5**
Approach and Methodology The proposal identifies a logical, timely, and adaptive approach to achieving the project purpose and objectives that includes ample opportunity for public input and internal feedback, and that delivers a comprehensive plan for implementing active transportation in Saskatoon and measureable goals for evaluating success.	**25**
Communication and Engagement The proposal identifies a robust and transparent approach to community engagement, providing opportunities for all residents and stakeholders of Saskatoon, including those who are typically under-represented, to increase their understanding of active transportation, gather input, and build excitement and support for the proposed strategies.	**30**
Cost	**5**
TOTAL	**100 points**

Capital Project No. 2236 – Stonebridge and Highway 11 Interchange

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That Capital Project No. 2236 - Stonebridge and Highway 11 Interchange be provided with an additional $1.9 million of funding from the Interchange Reserve in order that this project be undertaken in 2015.

Topic and Purpose

This report provides an update on the status and timing for Capital Project No. 2236 – Stonebridge and Highway 11 Interchange. Additional funding needs have been identified and requested. Information regarding the cost of additional access has been provided.

Report Highlights

1. The total cost of the proposed limited access interchange is $19.0 million. An additional allocation of $1.9 million is required from the Interchange Reserve to ensure that this project proceed in 2015.
2. Additional access from the Stonebridge neighborhood to Highway 11 southbound could be provided at a cost of $3.7 million; however, it is not recommended at this time.
3. A further report on Interchange Reserve cash flow and levy rates will be provided later in 2015.

Strategic Goal

This report supports the City of Saskatoon's (City) Strategic Goal of Moving Around. The provision of adequate access to newly developed neighborhoods contributes to the overall development of an integrated transportation network.

Background

At its February 10, 2014 meeting, City Council considered a report on the Stonebridge and Highway 11 Interchange, and resolved:

> "1) That the Administration be requested to provide a report to the Administration and Finance Committee regarding the status of the interchange reserve; and
> 2) That the Administration be requested to report back to the Administration and Finance Committee, prior to going to tender for Capital Project 2236, regarding a funding strategy and feasibility of

including Ramp 3 as part of this project, and identifying potential savings to construct Ramp 3 at this time."

Report

The Stonebridge Neighborhood Concept Plan identified three access points for the neighborhood, which includes Clarence Avenue, Preston Avenue, and Highway 11 via a limited access interchange. This report is an update on the progress of the interchange design and financing.

This interchange project is a requirement of the Development and Servicing Agreement between the City and Dundee Developments (now Dream Asset Management [Dream]). The agreement requires Dream to construct a limited access interchange at Highway 11.

Dream has hired AECOM Canada Ltd. to design the interchange and will be hiring the contractor for its construction as well. A detailed interchange design and cost estimate has been provided to the City. The limited access interchange design meets the requirements of the development agreement and includes provision to upgrade the interchange to a full access interchange, should there be a need or desire to do so by the City at a later date.

Total Cost and City Financing

The total cost of the proposed limited access interchange is $19.0 million. Of this cost, $18.4 million is to be shared equally between the City and Dream ($9.2 million each).

A special levy has been collected on behalf of Dream for their portion. It is estimated that that the total amount collected in the special levy will be $8.3 million. The remaining funds will be provided directly by Dream.

The City has committed to finance its portion through the Interchange Reserve. In 2014, the project received a budget allocation of $7.9 million from the Interchange Reserve. An additional $1.3 million is required from the Interchange Reserve to fulfill the requirements of the development agreement.

In order to provide the flexibility to expand the interchange to provide full access for traffic movements in all directions, additional works are required during the initial construction. Those works total $0.6 million.

Therefore, a total of $1.9 million in additional funding is required from the Interchange Reserve in order to ensure this project proceed in 2015. A further report on Interchange Reserve cash flow and levy rates will be provided later in 2015.

Additional Access – Ramp No. 3 and No. 4 (Refer to Attachment 1)

City Council has requested that the cost to construct a southbound ramp to Highway 11 be provided (Ramp No. 3). This ramp is not included in the development agreement

with Dream and would need to be financed outside of the current development agreement.

The total cost for Ramp No. 3 is estimated at $3.7 million. There is currently no funding source for this construction. No revenue has been collected for this item by the Interchange Reserve levy. Funding through this source would limit the ability to fund other projects that have been identified in the establishment of the levy rates.

To build the final ramp that would complete the interchange (Ramp No. 4) and complete the bridge deck to allow for full access to all traffic movements would cost an additional $7.4 million. A financing strategy and funding responsibility will be determined when, and if, there is the need or desire to provide full access in concert with the development of lands currently in the Rural Municipality (RM) of Corman Park to the east of Highway 11.

Options to the Recommendation

Options pertaining to the additional $1.9 million are limited. Of this funding, $1.3 million fulfills the City's obligation under the servicing agreement and the remaining $0.6 million is required in order to ensure that, in the future, the City has the option of providing access east of Highway 11. This funding could be recovered from benefiting landowners at the time of development.

Regarding Ramp 3, the City could choose to construct this ramp in conjunction with interchange construction.

Public and/or Stakeholder Involvement

Extensive public consultation regarding the Stonebridge neighborhood was undertaken at the time that the neighborhood concept plan was being considered. This consultation included neighborhood access and the configuration of the Stonebridge and Highway 11 interchange.

Communication Plan

Project communication will be carried out during the construction phase of this project and will include dynamic information on the City's website and regular updates provided to the neighborhood community association.

Financial Implications

In total, an additional allocation of $1.9M is required from the Interchange Reserve in order that this project proceed in 2015.

Budgeted	Unbudgeted	Capital	Operating	Non-Mill Rate	External Funding
$7.9 million	$1.9 million	$9.8 million	$0.0 million	$9.8 million	$0.0 million

Environmental Implications

The construction phase of this project will result in consumption of natural resources (fuel) and generation of greenhouse gas emissions. The overall impact on greenhouse gas emissions has not been quantified.

Safety/Crime Prevention Through Environmental Design (CPTED)

A CPTED review of the detailed design will be undertaken prior to tender and construction.

Other Considerations/Implications

There are no policy or privacy implications or considerations.

Due Date for Follow-up and/or Project Completion

Construction of some limited earthworks began in fall 2014, with completion anticipated for fall of 2016.

Public Notice

Public Notice, pursuant to Section 3 of Public Notice Policy No. C01-021, is not required.

Attachment

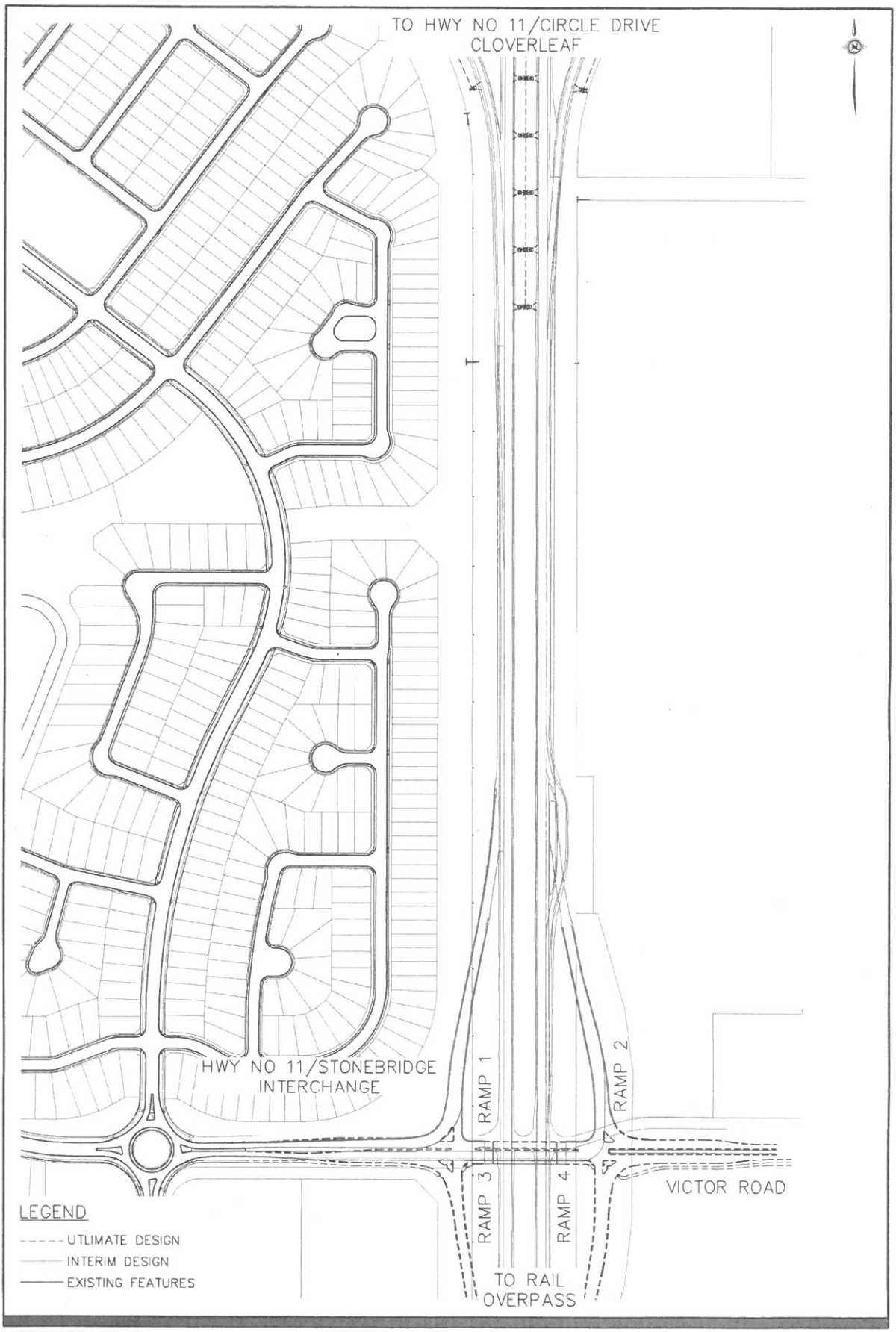
1. Stonebridge and Highway 11 Interchange Design

Report Approval

Written by: Don Cook, Manager, Long Range Planning, Planning and Development
Reviewed by: Alan Wallace, Director of Planning and Development
Approved by: Jeff Jorgenson, General Manager, Transportation and Utilities Department
Approved by: Randy Grauer, General Manager, Community Services Department
Approved by Murray Totland, City Manager

S:\Reports\CP\2015\TRANSPORTATION – Capital Project No. 2236 – Stonebridge and Highway 11 Interchange\kt
FINAL/APPROVED – R. Grauer/M. Totland – Feb. 3/15

Stonebridge and Highway 11 Interchange Design



DUNDEE DEVELOPMENTS
STONEBRIDGE INTERCHANGE
REVISED INTERIM DESIGN
PROJECT NO. 60290428

AECOM

Capital Project #2407 – IS North Commuter Parkway and Traffic Bridge – Operation and Maintenance Update

Recommendation
That the report of the General Manager, Transportation & Utilities Department dated February 10, 2015, be forwarded to City Council for information.

Topic and Purpose
The purpose of this report is to provide the Standing Policy Committee on Transportation an update regarding the assignment of long term operations and maintenance activities for the North Commuter Parkway and Traffic Bridge Project.

Report Highlights
1. Following review of the draft Request for Proposals (RFP) and Project Agreement package in December 2014, PPP Canada is requiring that the boundaries of Project Co's responsibility for operation and maintenance be extended along Central Avenue.
2. The revised boundaries of Project Co's responsibilities would add 1.9 kms of Central Avenue from the north side of the Attridge Drive intersection to Fedoruk Drive.

Strategic Goal
The construction of the North Commuter Parkway and Traffic Bridge supports the Strategic Goal of Moving Around as it will optimize the flow of people and goods in and around the city.

Background
At its meeting on August 19, 2014, the Standing Policy Committee on Transportation received a report from Administration outlining the lines of responsibility for operation and maintenance of various components of the project by Project Co and City forces.

The Request for Qualifications was issued on July 21, 2014 and closed on September 10, 2014. Three proponents were shortlisted for the Request for Proposal (RFP) stage on October 3, 2014. The RFP was issued to the shortlisted proponents on December 23, 2014.

Report
Further to the August 19, 2014 report by the Administration to the Standing Policy Committee on Transportation regarding the division of responsibility for operation and maintenance of various components of the project by Project Co and City forces, this report is to advise City Council of a minor revision to the boundaries of Project Co's responsibilities required by PPP Canada.

Operations and Maintenance Boundaries

Following review of the draft RFP and Project Agreement package in December 2014, PPP Canada is requiring that the boundaries of Project Co's responsibility for operation and maintenance be extended along Central Avenue to be more in line with their interpretation of the grant funding application and business case, as approved by the PPP Canada Board of Directors. As such, the boundaries of Project Co's responsibilities would include all of Central Avenue from the north side of the Attridge Drive intersection to the intersection of Central Avenue and the extension of McOrmond Drive, as opposed to the previously identified boundary proposed at the intersection of Central Avenue and Fedoruk Drive.

The revised boundaries of responsibility are shown in Attachment 1.

Financial Implications

The overall project limits are the same, the capital cost is the same, only the maintenance and rehabilitation costs for this portion of the project will switch to Project Co instead of the City.

Public and/or Stakeholder Involvement

Stakeholder involvement will be required at various stages of the project. Community events will be planned in order to engage and educate the citizens. The Administration will coordinate with applicable stakeholders as necessary.

Communication Plan

A communications agency has been retained through the Technical Advisor for the project, and a phased-in communications plan has been developed for the life of the project. Webpages for the North Commuter Parkway and Traffic Bridge have been updated and an educational video has been developed. Various community events will be planned in order to engage and educate the citizens. Regular project updates will be provided to City Council by the Project Manager, and more broadly to the general public, through the media.

Safety/Crime Prevention Through Environmental Design (CPTED)

A preliminary CPTED review was completed at the Committee's September 5, 2013, meeting. Additional CPTED reviews will be undertaken on staged design submissions during the detailed design period.

Due Date for Follow-up and/or Project Completion

The Administration is currently operating on a realistic target completion date for the North Commuter Parkway project of October 2018.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

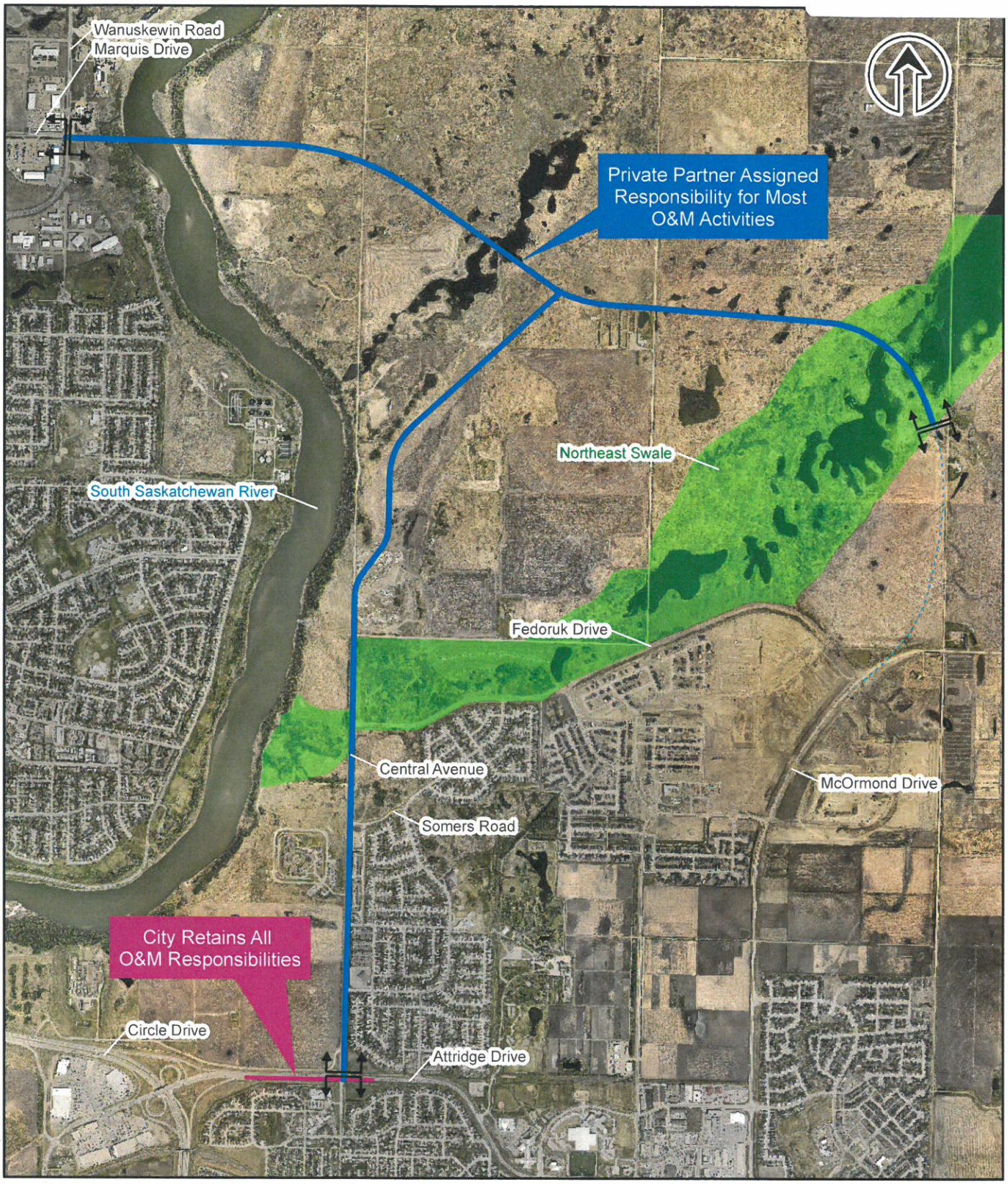
Attachment

1. North Commuter Parkway - Revised Division of Operations and Maintenance Responsibilities

Report Approval

Written by: Dan Willems, Special Projects Manager, Major Projects
Reviewed by: Mike Gutek, Director of Major Projects
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS DW – IS NCP and Traffic Bridge – Operations and Maintenance Update-Feb 2015



W:\Office\Corporate Projects\6005-58 North Commuter Bridge\09 - Surveys and Designs\figs\responsibility_divisions_20150105.pdf
2015-01-05 By:dwillems

January 2015
6050-104-44

City of Saskatoon

Scale: 1:30,000

Project:
NORTH COMMUTER PARKWAY

Figure No.:
1

Title/Subject:
Revised Division of Operations and Maintenance Responsibilities

Neighbourhood Traffic Management Program Reviews – Selection Process

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:
1. That the Administration be directed to draft a policy pertaining to selection of neighbourhoods to receive Neighbourhood Traffic Reviews based on the modified selection process outlined in this report; and
2. That the Administration be directed to draft a report pertaining to selection of major roadway corridors to receive a Corridor Review based on a similar selection process.

Topic and Purpose
This report identifies the criteria used to select the eight neighbourhoods for traffic reviews each year. The traffic reviews are intended to address local traffic concerns such as speeding, shortcutting, pedestrian accommodation, and parking.

The purpose of this report is to present the existing process, and a proposed adjustment based on feedback the Administration has heard from Councillors when the 2015 list was considered at the Standing Policy Committee on Transportation and by City Council. Administration is seeking feedback from the Committee and further insights. The Administration will then draft a policy pertaining to this issue.

Report Highlights
A formalized process was developed to prioritize and select neighbourhoods for traffic reviews each year that includes three steps: 1) evaluate existing traffic concerns, 2) coordinate with other projects, and 3) area/Ward distribution.

Strategic Goal
This report supports the Strategic Goal of Moving Around by improving the safety of all road users (pedestrians, cyclists, and drivers), and helps to provide a great place to live, work, and raise a family.

Background
City Council, at its meeting held on August 14, 2013, approved a new process within the Neighbourhood Traffic Management Program. This process includes a strategy to review concerns on a neighbourhood-wide basis by engaging the community and stakeholders in first identifying specific traffic issues, and secondly, jointly developing recommendations that address the issues. Based on the existing level of resources, eight neighbourhood reviews are completed annually.

Eight neighbourhood reviews were completed in 2014 (Varsity View, Westmount, Brevoort Park, Holliston, Haultain, Hudson Bay Park, Caswell Hill, and City Park) and eight neighbourhood reviews are planned for 2015 (Mount Royal, Adelaide-Churchill, Lakeview, Montgomery Place, Confederation, Meadowgreen, Avalon, and Greystone Heights).

Report

Criteria for Prioritization

A formalized process was developed to prioritize and select neighbourhoods for traffic reviews each year by the following criteria:

Step 1 – Evaluate existing traffic concerns:

1. Number of outstanding concerns – includes all phone calls, emails, letters and additional correspondence documented since the beginning of the program in August 2013 (1 point per concern is added to the total score).
2. Number of temporary traffic calming devices currently installed – there is currently a number of existing temporary traffic calming locations that must be maintained and assessed (1 point per device is added to the total score).
3. Number of collisions – collision data provided by SGI will be reviewed each year. The criteria for collisions is as follows:
    - Low – the number of collisions appears to be lower relative to other neighbourhoods (0 points are added to the total score).
    - Medium – the number of collisions appears to be average relative to other neighbourhoods (1 point is added to the total score).
    - High – the number of collisions appears to be higher relative to other neighbourhoods (2 points are added to the total score).

Step 2 – Coordinate with other projects/consider areas under development:
After reviewing the above criteria, coordination with other projects, such as Local Area Plans (LAP) is required to achieve efficiencies such as combining public consultation efforts. Similarly, neighbourhoods under development where roads and infrastructure are not yet constructed may be delayed as traffic patterns will evolve. Both of these factors may result in an adjustment to the timing of reviews in certain neighbourhoods.

Step 3 – Area/Ward Distribution:
The final step of the neighbourhood selection process is to ensure reasonable distribution among the city. Since only eight neighbourhoods are selected for reviews each year, not all wards will be selected on an annual basis. The intent would be to consider those neighbourhoods the following year.

An example using the prioritization of neighbourhoods for 2015 is illustrated in Attachment 1.

In addition to the formal neighbourhood-wide traffic reviews, Transportation is working with the Saskatoon Police Service to address speeding concerns in residential neighborhoods by increasing, driver and community, awareness of the speed conditions

on their local streets. In neighbourhoods where a review has not yet been completed or a roadway where traffic calming is not feasible, speeding concerns will be addressed through use of speed radar signs, dedicated enforcement and educational/awareness campaigns.

Although the process has worked reasonably well, the Number of Outstanding Concerns criteria is potentially problematic. It is defined as how many concerns have been brought to the Administration's attention. This causes some inherent issues, as sometimes it is difficult to discern what constitutes a formal concern. One specific location within a neighbourhood may drive many complaints, which might not warrant a full neighbourhood review. Further, concerns brought to Councillor's attention are not included, unless they are forwarded to the Administration.

Therefore, in place of the Number of Outstanding Concerns criteria, the Administration proposes that they work with each Councillor to select the highest priority neighbourhood in the Ward, considering all information available. Once this is done, that neighbourhood will be assigned 3 points. The list will be re-sorted and the remainder of the existing process would be followed.

High volume roadways, such as Arterials, are not considered during the Neighbourhood Traffic Review process. An appropriate policy will be required for these roadways as well, in order to ensure that the roadways causing the most problems for residents are prioritized. The Administration will prepare a report for these roadways as well and present to the Standing Policy Committee on Transportation by the second quarter of 2015.

Public and/or Stakeholder Involvement

Public meetings will be held for each of the eight neighbourhoods, including an initial meeting with residents and stakeholders to identify specific traffic concerns and potential improvements, and a second meeting to present a neighbourhood draft traffic plan for discussion. A third meeting may be required if significant changes of the traffic plan are required.

Residents and business owners who cannot attend the meetings will be able to provide feedback via the City's on-line neighbourhood traffic concerns form, Shaping Saskatoon.ca website, or by phone, email, or mail.

The City's internal departments will review the traffic plan and provide feedback.

Communication Plan

Residents and stakeholders in each neighbourhood will be invited to attend both meetings. The meeting invitations will be provided as follows:

- A flyer delivered to each residence in the neighbourhood;
- By using the on-line tool Shaping Saskatoon.ca website;
- By requesting the neighbourhood community associations to post the information on their website or Facebook page; and

- By notifying the appropriate Councillor.

The collection of issues and potential improvements will be completed through the following:

- The Shaping Saskatoon.ca website;
- Written submissions at the meetings;
- Written notes taken by the Administration at the meetings; and
- Written, verbal, and e-mail submission to the Administration.

The final Neighbourhood Traffic Plan is shared with the community through the following:

- City of Saskatoon website;
- Community Association communication forums (i.e. website, newsletter); and
- Direct mail-out to residents in the review area.

Financial Implications

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake eight neighbourhood reviews in 2015.

Environmental Implications

Neighbourhood traffic reviews are expected to have positive greenhouse gas emissions implications. The tendency is to reduce total vehicle mileage in an area by reducing speeds and improving conditions for walking, cycling and transit use.

Other Considerations/Implications

There are no options, policy, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

An annual report of the strategies and programs completed for each year will be provided to City Council.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Neighbourhood Prioritization List

Report Approval

Written by:	Jay Magus, Engineering Manager, Transportation Justine Nyen, Traffic Safety Engineer, Transportation
Reviewed by:	Angela Gardiner, Director of Transportation
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

Neighbourhood Prioritization List

Neighbourhood	# of Concerns	Temporary	Collisions	TOTAL SCORE	Ward	Councillor
Stonebridge	19	1	1	21	7	Loewen
Hampton Village	11	4	1	16	4	Davies
Adelaide-Churchill	12			12	7	Loewen
Mount Royal	9	2	1	12	4	Davies
Willowgrove	8	2	1	11	10	Jeffries
Riversdale	1	5	2	8	2	Lorje
Avalon	6		1	7	7	Loewen
Confederation Park	7			7	3	Iwanchuk
Lakeview	5	1	1	7	9	Paulsen
Sutherland	5	1	1	7	1	Hill
Buena Vista	6			6	6	Clark
Dundonald	5	1		6	4	Davies
Greystone Heights	3	3		6	8	Olauson
Grosvenor Park	6			6	6	Clark
Montgomery Place	6			6	2	Lorje
Queen Elizabeth	5		1	6	7	Loewen
Wildwood	4		2	6	9	Paulsen
Briarwood	4		1	5	8	Olauson
College Park	3		1	4	8	Olauson
Lakeridge	2	2		4	9	Paulsen
Meadowgreen	2	1	1	4	2	Lorje
Pleasant Hill	2		2	4	2	Lorje
Eastview	2	1		3	7	Loewen
Fairhaven	2		1	3	3	Iwanchuk
Massey Place	2	1		3	4	Davies
Silverspring	2	1		3	10	Jeffries
Arbor Creek	2			2	10	Jeffries
Erindale		2		2	10	Jeffries
Evergreen	1		1	2	10	Jeffries
Exhibition	1		1	2	7	Loewen
Nutana SC			2	2	7	Loewen
Parkridge	1	1		2	3	Iwanchuk
Richmond Heights	2			2	1	Hill
Silverwood Heights		1	1	2	5	Donauer
Westview	1	1		2	4	Davies
King George		1		1	2	Lorje
Lawson Heights	1			1	5	Donauer
North Park		1		1	1	Hill
Pacific Heights	1			1	3	Iwanchuk
River Heights			1	1	5	Donauer
College Park East				0	8	Olauson
Forest Grove				0	1	Hill
Holiday Park				0	2	Lorje
Nutana Park				0	7	Loewen
Rosewood				0	9	Paulsen
The Willows				0	7	Loewen
Varsity View	**Neighbourhoods Reviewed in 2014**				6	Clark
Brevoort Park					8	Olauson
City Park					1	Hill
Caswell Hill					2	Lorje
Hudson Bay Park					1	Hill
Kelsey-Woodlawn					1	Hill
Mayfair					1	Hill
Westmount					4	Davies
Haultain					6	Clark
Holliston					6	Clark
Nutana					6	Clark

Review Distribution among Wards

Ward	Councillor	2014	2015	2016	TOTAL
1	Hill	4	0		4
2	Lorje	1	2		3
3	Iwanchuk	0	1		1
4	Davies	1	1	1	3
5	Donauer	0	0		0
6	Clark	4	0		4
7	Loewen	0	2	1	3
8	Olauson	1	1		2
9	Paulsen	0	1		1
10	Jeffries	0	0	1	1

Brevoort Park Neighbourhood Traffic Review

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Brevoort Park neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

Topic and Purpose
The purpose of this report is to provide information on the Neighbourhood Traffic Review for the Brevoort Park neighbourhood.

Report Highlights
A traffic plan for the Brevoort Park neighbourhood was developed, in consultation with the community, in response to concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the level of safety for pedestrians, cyclists, and motorists.

Background
A public meeting was held in January 2014 to identify traffic concerns and potential solutions within the Brevoort Park neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in September 2014.

Report
The development and implementation of the Traffic Management Plan includes four stages:

1. Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed and present the plan to City Council for adoption; and
4. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

The majority of concerns identified through the January 2014 consultation included shortcutting, speeding, pedestrian safety (specifically near the Brevoort Park School and the St. Matthew Catholic School), and parking.

The Administration is recommending the following improvements to increase traffic safety in the Brevoort Park neighbourhood:

- Four traffic calming locations
- Two stop sign locations
- Three pedestrian crosswalks
- One parking removal
- Two advanced warning sign locations
- Back lanes – one-way restrictions; 20kph speed signs
- Pick-up/drop-off zone at St. Matthew School
- One major intersection review

Installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, accessible pedestrian ramps
Medium-term (3 to 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks (in some cases), major intersection reviews
Long-term (5 years plus)	Permanent traffic calming devices, roadway realignment, sidewalks

The Brevoort Park Neighbourhood Traffic Review is included in Attachment 1.

Public and/or Stakeholder Involvement

In January 2014, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback received was used to develop the neighbourhood traffic plan which was presented at a follow-up public meeting in September 2014. Additional feedback received at the follow-up public meeting was also incorporated into the recommended Traffic Management Plan.

Feedback was provided by internal civic stakeholders of various divisions and departments: Public Works, Saskatoon Transit, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the proposed Traffic Management Plan.

Communication Plan

The final neighbourhood traffic plan will be shared with the residents of the impacted neighbourhood using several methods: City website, Community Association communication forums (i.e. website, newsletter), and by a direct mail-out.

Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions is not known at this time.

Financial Implications

The implementation of the neighbourhood traffic calming plan will have significant financial implications. The costs are summarized in the following table:

Item	2015	Beyond 2015
Traffic Calming	$1,500	$30,000
Marked Pedestrian Crosswalks	2,400	-
Stop and Yield Signs	1,000	-
Miscellaneous Signs	2,750	-
Major Intersection Reviews	-	30,000
TOTAL	$7,650	$60,000

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2015.

The remainder of the work, beyond 2015, will be considered alongside all other improvements identified through the Neighbourhood Traffic Management Program. The Administration's annual budget submission package will include the list of projects recommended to be funded, and the rationale used to prioritize the projects.

Other Considerations/Implications

There are no options, policy, privacy or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices and signage will be implemented during the 2015 construction season.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Brevoort Park Neighbourhood Traffic Review, December 2, 2014

Report Approval

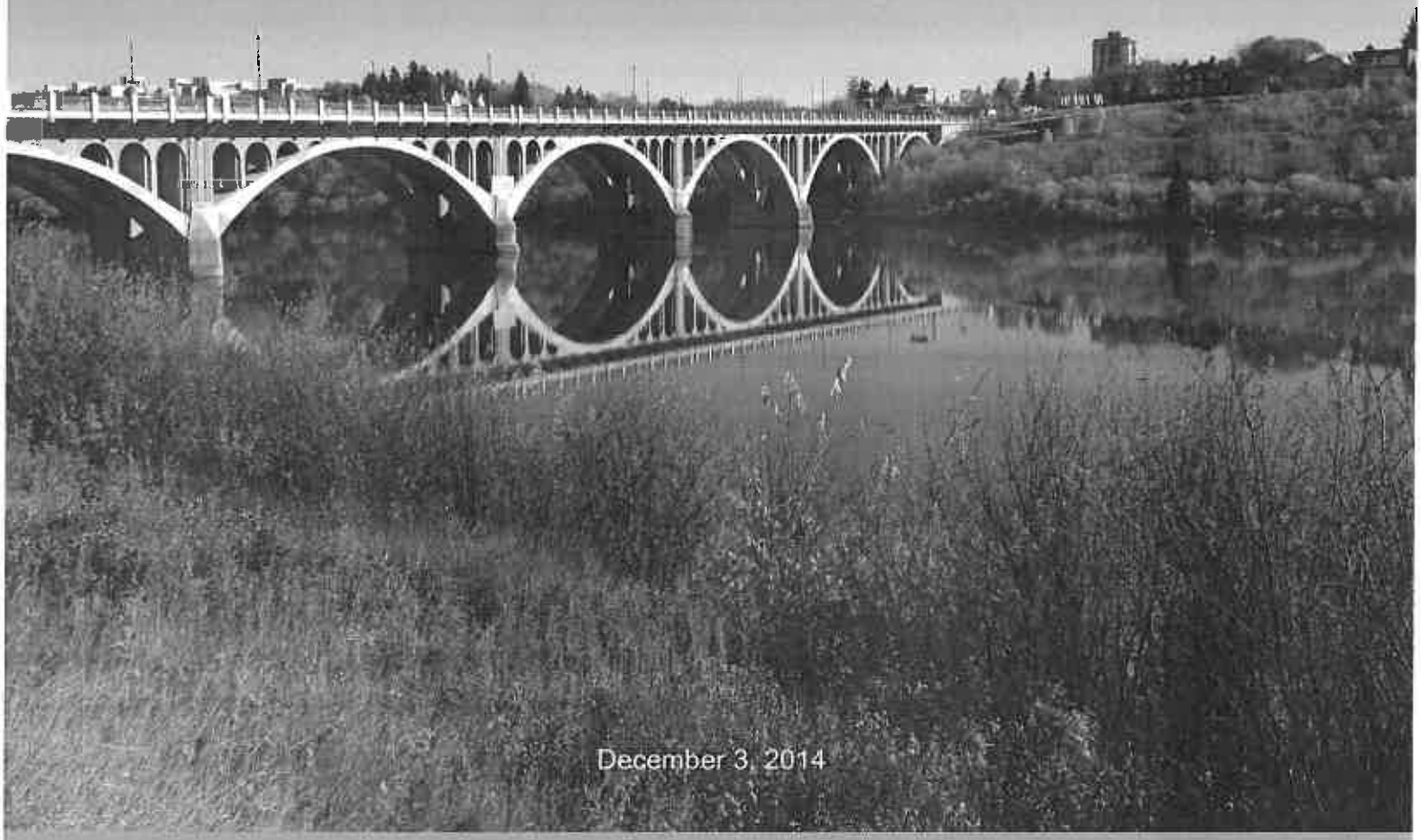
Written by: Justine Nyen, Traffic Safety Engineer, Transportation
Reviewed by: Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS JN – Brevoort Park Neighbourhood Traffic Review

ATTACHMENT 1

City of Saskatoon

Brevoort Park Neighbourhood Traffic Review



December 3, 2014

Transportation & Utilities Department

Acknowledgements

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Brevoort Park residents
- Brevoort Park Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- City of Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Eric Olauson

Executive Summary

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2013.

A public meeting was held in January of 2014 to identify traffic concerns and potential solutions within the Brevoort Park neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in September 2014.

A summary of recommended improvements for the Brevoort Park neighbourhood are included in **Table ES-1.** The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years.

The resulting proposed Brevoort Park Traffic Management Plan is illustrated in **Exhibit ES-1.**

Table ES-1: Brevoort Park Neighbourhood Recommended Improvements

Location	Proposed Measure	Time Frame
Arlington Ave (south of Baldwin Cres)	"No parking" signs on southeast corner or Arlington Ave (approximately 7m)	1 to 2 years
Arlington Ave & Early Dr	Standard pedestrian crosswalk	
Early Dr & Salisbury Dr	Remove temporary traffic calming; alter direction of stop signs	
Early Dr & curve west of Salisbury Dr	"Curve ahead" signs & chevrons	
Salisbury Dr at curve west of Conn Ave	Permanent median islands	
Salisbury Dr & lane leading to park	Standard pedestrian crosswalk	
3rd St & Argyle Ave	Two-way stop	
3rd St & Tucker Cres	Two-way stop	
Back lanes – west of Argyle Ave	20kph speed signs	
Back lanes - north of Taylor St	20kph speed signs	
Back lane - west of Arlington Ave	One-way signs	
Brevoort Park School & St. Matthew School	Drop-off / Pick-up zone	
In front of Brevoort Park School & St. Matthew School	Parking enforcement (i.e. parking over crosswalks, blocking driveways)	
Early Dr & Webb Cres	Raised median island	3 to 5 years (devices will be installed temporarily until proven effective)
Early Dr & Phillips Cres (west)	Raised median island	
Arlington Ave & Early Dr	Raised median island	
Taylor St & Arlington Ave	Major intersection review	5 years plus


LEGEND
EXISTING STOP SIGN
EXISTING YIELD SIGN
BUS ROUTE
EXISTING TRAFFIC SIGNAL
PEDESTRIAN ACTUATED SIGNAL LOCATION
EXISTING TRAFFIC CALMING LOCATION
LOCATION
MEASURE PROPOSED
1 "No Parking" signs on southeast corner of Arlington Ave (approximately 7m)
2 Median island & standard pedestrian crosswalk
3 Remove temporary traffic calming, alter direction of stop signs
4 "Curve Ahead" signs & chevrons
5 Permanent median islands
6 Standard pedestrian crosswalk
7 2-way stop
8 2-way stop
9 20kph speed signs
10 20kph speed signs
11 One-way sign
12 Drop off/Pick-up zone
13 Parking enforcement (ie. parking over crosswalks, blocking driveways, etc.)
14 Major intersection review
15 Install median island
16 Install median island
City of Saskatoon
BREVOORT PARK TRAFFIC PLAN

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LIST OF EXHIBITS

1. Introduction

The purpose of this review was to develop a Traffic Management Plan for the Brevoort Park neighbourhood following the implementation procedure outlined in the *City of Saskatoon Traffic Calming Guidelines and Tools* adopted by City Council in August 2013.

The Brevoort Park neighbourhood is located on the east side of the South Saskatchewan River and is bound by Circle Drive to the east, 8th Street East to the north, Taylor Street to the south, and Preston Avenue to the west. The area use is mostly residential, with elementary schools (Brevoort Park School on Early Drive, and Arlington Avenue St. Matthew School), and some commercial land use adjacent to 8th Street.

The development and implementation of the traffic management plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **Stage 4** - Implement the proposed measures in specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years) or long-term (5 years plus).

2. Identifying Issues, Concerns, & Possible Solutions

A public meeting was held in January of 2014 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood residents.

CONCERN 1 – SPEEDING AND SHORTCUTTING

Shortcutting occurs when non-local traffic passes through the neighbourhood on local streets which are designed and intended for low volumes of traffic. In the case of Brevoort Park, the bordering arterial streets (8th Street, Taylor Street, and Preston Avenue) are designated to accommodate larger volumes of traffic.

As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Neighbourhood concerns for speeding and shortcutting were at the following locations:

- 7th Street
- Arlington Avenue
- Salisbury Drive
- Early Drive: south of 7th Street, around curves
- Sparling Crescent: parents dropping off / picking up students
- Phillips Crescent
- Back lanes north of Taylor Street
- Back lanes near parks
- Back lane north of Taylor Street & Arlington Avenue intersection (avoiding traffic signals)
- Back lanes off of Argyle Avenue
- Truck traffic on Preston Avenue

Proposed solutions identified by residents:

- Install speed humps
- Install median on Early Drive at curve
- Install 20kph speed sign in back lanes

CONCERN 2 - PEDESTRIAN SAFETY

A majority of the residents were concerned about pedestrian safety surrounding the school sites within Brevoort Park (St. Matthew School, Brevoort Park School).

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

> "The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled "Traffic Control at Pedestrian Crossings – 2004" approved by City Council in 2004."

Neighbourhood concerns regarding pedestrian safety were at the following locations:

- Arlington Avenue at Early Drive and Salisbury Drive
- Salisbury Drive near the alley that leads to the park
- Early Drive near Brevoort Park School
- U-turns in school zones (Taylor Street & Early Drive)

Proposed solutions identified by residents:

- Arlington Avenue and Early Drive: install a median and activated pedestrian device
- Extend the school zone on Arlington Avenue to Early Drive
- Implement crossing guards for the schools
- Install midblock crossing on Salisbury Drive at the alley that leads to the park
- Install four-way stops or activated pedestrian devices on Early Drive
- More time needed for pedestrians to cross traffic signal locations on 8th Street
- Extend school zone on west end of Early Drive to west end of Madden Avenue

CONCERN 3 - TRAFFIC CONTROL

Traffic control signs are used in order to assign the right-of-way and must meet guidelines in City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009 which states that stop and yield signs are not to be used as speed control devices, to stop priority traffic over minor traffic, on the same approach to an intersection where traffic signals are operational, or as a pedestrian crossing device.

An all-way stop must meet the conditions for traffic volume, collision history, and must have a balanced volume from each leg to operate sufficiently.

Neighbourhood concerns regarding traffic control improvements were are at the following intersections:

- Taylor Street / Arlington Avenue: westbound traffic is using a dedicated right turn lane for through movements; left turn signal is not activated and causes further congestion; need longer left turn bay; issues with lane designation & signage; more green time required on Arlington Avenue
- Arlington Avenue: southbound drivers are using parking lane as driving lane
- 7th Street / Arlington Avenue: difficult to turn left
- 8th Street: (particularly at Arlington Avenue) difficult to turn left at traffic signal locations; lane designation is confusing

Proposed solutions identified by residents:

- Install curb on Arlington Avenue (similar to the Preston Avenue / 14th Street intersection) to restrict drivers from using right lane as driving lane
- Install stop or yield signs on 3rd Street between Preston Avenue / Early Drive
- 8th Street: include left turn arrows for both directions at traffic signals; lane designation signs needed

CONCERN 4 – PARKING

Parking is allowed on all city streets unless signage is posted. According to City of Saskatoon Bylaw 7200, *The Traffic Bylaw*, December 16, 2013, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway crossing.

Neighbourhood concerns regarding parking were at the following locations:

- Taylor Street: congested due to parking near schools
- Arlington Avenue: congested (especially during morning peak hours) near Sparling Crescent & Clark Crescent due to parking in front of schools; parents dropping off/picking up students
- Baldwin Crescent: difficult to see northbound drivers from Taylor Street due to parked cars
- Students parking on Madden Avenue and Phillips Crescent
- Parking near intersection of 7th Street / Arlington Avenue is obstructing driver's view
- Parking too close to alleys on Taylor Street & Cameron Avenue
- Parking over crosswalks in school zones
- Students parking on Phillips Crescent are disrespectful to residents. They park on Phillips Crescent and use the walkway on the south end to get to Taylor Street. They block resident's driveway, leave their garbage, vandalize property, and speed down the crescent.

Proposed solutions identified by residents:

- Parking enforcement
- Remove parking on Taylor Street or no parking during peak times
- Change drop off zone locations near schools on Taylor Street
- Move drop off zones onto school property
- Remove parking on east side of Arlington Avenue near St. Matthews School
- School patrol parking
- Remove parking around median islands on Salisbury Drive
- Install drop off loop for schools
- Inform residents directly affected by parking restrictions

CONCERN 5 – MAINTENANCE

A majority of the residents were concerned about the condition of the streets in Brevoort Park (i.e. snow clearing, potholes, tree trimming, and temporary traffic calming devices).

Neighbourhood concerns regarding maintenance were at the following locations:

- Snow clearing needed on: 7th Street; and Taylor Street between Arlington Avenue and Circle Drive interchange
- Motorists are driving over sidewalk on Early Drive when there's snow
- Snow is pushed onto sidewalk forcing pedestrians to walk on the street
- Temporary medians islands on Salisbury Drive need to be fixed
- Potholes in back lanes
- Raised median islands are difficult to see in winter; should be higher

Proposed solutions identified by residents:

- Trim trees on Baldwin Crescent to improve sightlines
- Pave back lanes

3. Assessment

Stage 2 of the plan development included developing a draft traffic management plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic data and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements.

1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

Table 3-1: City of Saskatoon Street Classifications and Characteristics

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85th percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Brevoort Park area is 50kph, except for school zones where the speed limit is 30kph from September and June, 8:00am to 5:00pm, excluding weekends.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue are summarized in **Table 3-2.**

Table 3-2: Speed Studies and Average Daily Traffic Counts (2014)

Street	Between	Classification	Average Daily Traffic (vpd)	Speed (kph)
Back Lane north of Taylor Street	Cameron Avenue & Arlington Avenue	Lane	368	not assessed
Back Lane east of Salisbury Drive	Taylor Street & Early Drive		48	not assessed
Back Lane north of Taylor Street	Madden Avenue & Cameron Avenue		42	not assessed
Early Drive	Phillips Crescent & Phillips Crescent (school zone)	Local	1,127	30.7 (school hours) & 44.7 (regular hours)
Early Drive	Tucker Crescent & 3rd Street		1,228	45.5
Phillips Crescent	Midblock		205	33.4
Salisbury Drive	Early Drive & McLellan Avenue		576	44.3
7th Street	Conn Avenue & Harris Avenue	Collector	3,200	not assessed
Arlington Avenue	Sparling Crescent & Baldwin Crescent	Major Collector	4,501	51.8

2. Turning Movement Counts

Turning movement counts were completed to determine the need for an all-way (i.e. three-way or four-way) stop control. All-way stop controls need to the meet City of Saskatoon Council Policy C07-007 Traffic Control – Use of Stop and Yield Signs, January 26, 2009. Criteria outlined in the policy that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Results of the studies are shown in **Table 3-3.**

Table 3-3: All-Way Stop Assessments

Location	Peak Hour Traffic Count	Average Daily Traffic (vpd)	Results
Arlington Avenue (north leg) & 7th Street	641	6,540	All-way Stop Not Warranted
Early Drive & Salisbury Drive	247	2,730	

As a result of the assessment there are no all-way stop controls recommended. Details of the all-way stop assessments are provided in **Appendix A**.

3. Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which, in adherence to the City of Saskatoon Council Policy C07-018 Traffic Control at Pedestrian Crossings, November 15, 2004, are typically active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:

- The number of traffic lanes to be crossed;
- the presence of a physical median;
- the posted speed limit of the street;
- the distance the crossing point is to the nearest protected crosswalk point; and
- the number of pedestrian and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.

In addition, if a pedestrian actuated crosswalk is not warranted, a standard marked pedestrian crosswalk, or a zebra crosswalk (i.e. striped) may be considered. A summary of the pedestrian studies are provided in **Table 3-4**.

Table 3-4: Pedestrian Assessment

Location	Number of pedestrians crossing	Results
Salisbury Drive & back lane to park (East of Conn Avenue)	26	Pedestrian Devices Not Warranted
Early Drive & Salisbury Drive	59	

As a result of the assessment, no pedestrian devices are recommended. Details of the pedestrian device assessments are provided in **Appendix B.**

4. Plan Development

Stage 3 of the review included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- Present the draft plan to the residents at a follow-up public meeting
- Circulate the draft plan to the Civic Divisions for comment
- Revise the draft plan based on feedback from the stakeholders
- Prepare a technical document summarizing the recommended plan and project process

The tables in the following sections provide the details of the recommended traffic management plan, including the location, recommended improvement, and the justification of the recommended improvement.

1. Shortcutting and Speeding

The traffic volume and the 85th percentile speed were higher than expected on Early Drive near the Brevoort Park School and on Arlington Avenue near St. Matthew School. Back lanes north of Taylor Street were also a concern for shortcutting due to the nearby schools on Taylor Street. The recommended improvements and justification to address speeding and shortcutting are detailed in **Table 4-1.**

Table 4-1: Recommended Improvements to Reduce Speeding and Shortcutting

Location	Recommended Improvement[1]	Justification
Arlington Avenue & Early Drive	Raised median island	Reduce speed near schools (school route, transit route)
Early Drive & Webb Crescent	Raised median island	Reduce speed near Brevoort Park School
Early Drive & Phillips Crescent (west)	Raised median island	Reduce speed near Brevoort Park School
Early Drive at curve west of Salisbury Drive	"Curve ahead" signs & chevrons	Reduce speed around curve
Salisbury Drive at curve west of Conn Avenue	Permanent raised median islands	Reduce speed around curve
Back lanes – north of Taylor Street	20kph speed sign	Reduce speed
Back lane – west of Arlington Avenue	One-way sign	Restrict shortcutting (i.e. restrict westbound movement from Arlington Avenue north of Taylor Street intersection)
Back lane - west of Argyle Avenue (7th Street & Taylor Street accesses)	20kph speed sign	Reduce speed; passively reduce shortcutting

[1] For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

2. Pedestrian Safety

Brevoort Park residents identified pedestrian safety near Brevoort Park School and St. Matthew School as a priority. The safety of the pedestrian environment near schools is important to encourage people to walk to school, as opposed to being dropped off. Accordingly, the recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Pedestrian Safety Improvements – School Sites

Location	Recommended Improvement	Purpose
Arlington Avenue & Early Drive	Raised median island & standard pedestrian crosswalk	Improve pedestrian safety near schools (school route, transit route)
Early Drive & Webb Crescent	Raised median island	Improve pedestrian safety near Brevoort Park School
Early Drive & Phillips Crescent (west)	Raised median island	Improve pedestrian safety near Brevoort Park School
Salisbury Drive & back lane east of Conn Avenue	Standard pedestrian crosswalk	Improve pedestrian safety (connects to Brevoort Park North & Brevoort Park School)
St. Matthew School	Implement Drop-off & Pick-Up Zone	Improve pedestrian safety

It should be noted, implementation of the Drop-off & Pick-up Zone is based on the discretion of the schools (more information provided at saskatoon.ca click on "S" for School Zones).

3. Traffic Control

The recommended improvements to intersections that will improve the level of safety by clearly identifying the right-of-way through traffic controls are provided in **Table 4-3**.

Table 4-3: Recommended Traffic Control Improvements

Location	Recommended Improvement	Purpose
Early Drive & Salisbury Drive	Remove temporary traffic **calming; Alter direction of 2-way stop (facing Salisbury Drive)**	Traffic volumes are higher on Early Drive (66% of total intersection volume); according to Policy C07-007 – Traffic Control – Use of Stop & Yield Signs, stop signs are not to be used to stop priority traffic over minor traffic
3rd Street & Argyle Avenue	2-way stop	Enhance compliance
3rd Street & Tucker Crescent	2-way stop	Enhance compliance

4. Parking Improvements

The recommended improvements to parking that will improve parking control, lower the impact on residents, and improve the level of safety at specific intersections is detailed in **Table 4-4**.

Table 4-4: Recommended Parking Improvements

Location	Recommended Improvement	Purpose
Arlington Avenue (southeast corner of Baldwin Crescent)	"No parking" sign (approximately 17m from intersection)	Improve sightlines
Near Brevoort Park School & St. Matthew School	Parking enforcement	Parking over crosswalks, blocking back lanes, parking for longer than allowed times

During the public consultation residents voiced their concerns regarding parking on Phillips Crescent. Many students park on the crescent due to the walkway on the south end that provides a quick access to the high schools on Taylor Street. Residents reported littering, parked vehicles obstructing their driveways, vandalism, and concerns for speeding. Parking Services is following up with a review to determine the need for implementation of time parking restrictions to alleviate their concerns.

5. Major Intersection Reviews

The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. As almost all neighbourhood are bound by arterial streets, such as 8th Street or Taylor Street, it is not uncommon to have residents raise issues regarding these streets. However, arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are expensive and time-consuming. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues, identify the work requirements, and securing funding to complete these types of assessments.

Follow up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in September 2014. Recommended improvements that were not supported by the residents were eliminated or altered accordingly. A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix C**. A decision matrix for additional comments received after the draft traffic plan is also included in **Appendix C**.

The following table displays a list of the improvements that were adjusted based on the feedback received at the September 2014 follow up meeting.

Table 4-5: Adjusted Recommended Improvements

Location	Improvement	Reason	Resident Feedback	Decision
Early Drive & Salisbury Drive	Permanent curb extensions & raised median island	Improve pedestrian safety near school & park	Existing temporary traffic calming is doing little to reduce speed; consider 4-way stop instead	Remove existing temporary traffic calming; alter direction of 2-way stop to face minor street (ie. Salisbury Drive)
Salisbury Drive near back lane leading to Brevoort Park North	Advanced warning sign for pedestrians	Improve pedestrian safety (lane leads to park)	Install pedestrian crosswalk instead	Install standard pedestrian crosswalk

The list of the improvements that were added based on the feedback received at the follow up meeting held in September 2014 is shown in **Table 4-6**.

Table 4-6: Added Improvements

Location	Improvement	Reason
Near Brevoort Park School & St. Matthew School	Parking enforcement	Parking over crosswalks, blocking back lanes, parking for longer than allowed times
St. Matthew School	Implement Pick-up / Drop-off zone (based on school board discretion)	Improve pedestrian safety

All Civic Divisions supported the Traffic Management Plan, with Transit specifically commenting that all devices installed allow Transit vehicles to manoeuvre around them without causing damage to the structure. Accordingly, the proposed recommendation for the intersection of Arlington Avenue & Early Drive was reviewed to ensure transit could complete all turning movements.

5. Recommended Plan and Cost Estimates

Stage 4, the last stage of the process, is to install the recommended improvements for the Brevoort Park neighbourhood within the specified timeframe. The timeframe depends upon the complexity and cost of the solution. A short-term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of pedestrian and traffic control signage will be completed short-term (1 to 2 years).

All traffic calming measures will be installed temporarily using rubber curbing until proven effective, and will be implemented short-term (1 to 2 years).

Permanent traffic calming often includes removing the temporary barriers and reconstructing with concrete. The timeline for permanent traffic calming may depend on the complexity of the device and the availability of funding; therefore the timeline is medium-term (3 to 5 years).

Major intersection reviews are based on the number of other locations to be reviewed city-wide and the availability of funding. The timeline for review will be medium-term (3 to 5 years).

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- **Table 5-1**: Traffic Calming Cost Estimate
- **Table 5-2**: Marked Pedestrian Crosswalks Cost Estimate
- **Table 5-3**: Traffic Control Signage – Stop & Yield Cost Estimate
- **Table 5-4**: Miscellaneous Signage Cost Estimate
- **Table 5-5**: Major Intersection Review Cost Estimate

Table 5-1: Traffic Calming Cost Estimate

Location	Traffic Calming Device (s)	Cost Estimate		Time Frame
		Temporary	Permanent	
Arlington Avenue & Early Drive	Raised median island	$500	$6,000	1 to 5 years
Early Drive & Webb Crescent	Raised median island	$500	$6,000	
Early Drive & Phillips Crescent (west)	Raised median island	$500	$6,000	
Salisbury Drive at curve west of Conn Avenue	Permanent raised median islands	NA	$12,000	
	Total	$1,500	$30,000	

Temporary traffic calming will be installed in 2015 and will be monitored to determine its effectiveness. If proven effective, the devices will be made permanent. Until they are made permanent, the devices will remain temporary and maintained on a yearly basis. An estimated cost for maintenance is about $5,000 per year. The maintenance typically involves the replacement of damage curbs as result of snow removal, damage from vehicle impact, etc.

Table 5-2: Marked Pedestrian Crosswalks Cost Estimate

Location	Device (s)	Cost Estimate	Time Frame
Arlington Avenue & Early Drive	4 signs & standard markings	$1,200	1 to 2 years
Salisbury Drive & back lane east of Conn Avenue	4 signs & standard markings	$1,200	
	Total	$2,400	

The operating cost on an annual basis to maintain a crosswalk is approximately $60 each.

Table 5-3: Traffic Control Signage – Stop & Yield Cost Estimate

Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
Early Drive & Salisbury Drive	Remove temporary traffic calming; Alter direction of 2-way stop (facing Salisbury Drive)	none	$0	1 to 2 years
3rd Street & Argyle Avenue	Stop signs	2	$500	
3rd Street & Tucker Crescent	Stop signs	2	$500	
		Total	$1,000	

Table 5-4: Miscellaneous Signage Cost Estimate

Location	Sign	Number of Signs	Cost Estimate	Time Frame
Early Drive at curve west of Salisbury Drive	"Curve Ahead" & Chevron	4	$1,000	1 to 5 years
Back lanes – north of Taylor Street	20kph speed limit	5	$1,250	
Back lane – west of Arlington Avenue	One-way	1	$250	
Arlington Avenue (southeast corner of Baldwin Crescent)	"No parking"	1	$250	
		Total	$2,750	

Table 5-5: Major Intersection Review Cost Estimate

Location	Improvement	Cost Estimate	Time Frame
Taylor Street & Arlington Avenue	Review traffic signal timing & geometric improvements	$30,000	1 to 5 years
	Total	$30,000	

The total cost estimate for the signage and temporary traffic calming devices to be installed in 2015 is **$7,650**. The total cost estimate, including the installation of future permanent traffic calming and major intersections reviews is **$67,650.**

Resulting from the plan development process, the recommended improvements, including the location, type of improvement, and schedule for implementation are

summarized in **Table 3-1**. The resulting recommended Brevoort Park Neighbourhood Traffic Management Plan is illustrated in **Exhibit 5-1**.

Table 5-6: Brevoort Park Neighbourhood Recommended Improvements

Location	Proposed Measure	Time Frame
Arlington Avenue (south of Baldwin Crescent)	"No parking" signs on southeast corner or Arlington Ave (approximately 7m)	1 to 2 years
Arlington Avenue & Early Drive	Standard pedestrian crosswalk	
Early Drive & Salisbury Drive	Remove temporary traffic calming; alter direction of stop signs	
Early Drive & curve west of Salisbury Drive	"Curve ahead" signs & chevrons	
Salisbury Drive at curve west of Conn Avenue	Permanent median islands	
Salisbury Drive & lane leading to park	Standard pedestrian crosswalk	
3rd Street & Argyle Avenue	2-way stop	
3rd Street & Tucker Crescent	2-way stop	
Back lanes – west of Argyle Avenue	20kph speed signs	
Back lanes - north of Taylor Street	20kph speed signs	
Back lane - west of Arlington Avenue	One-way signs	
Brevoort Park School & St. Matthew School	Drop-off / Pick-up zone	
In front of Brevoort Park School & St. Matthew School	Parking enforcement (ie. parking over crosswalks, blocking driveways)	
Early Drive & Webb Crescent	Raised median island	3 to 5 years (devices will be installed temporarily until proven effective)
Early Drive & Phillips Crescent (west)	Raised median island	
Arlington Avenue & Early Drive	Raised median island	
Taylor Street & Arlington Avenue	Major intersection review	5 years plus


LEGEND
EXISTING STOP SIGN
EXISTING YIELD SIGN
BUS ROUTE
EXISTING TRAFFIC SIGNAL
PEDESTRIAN ACTUATED SIGNAL LOCATION
EXISTING TRAFFIC CALMING LOCATION
LOCATION
MEASURE PROPOSED
1 "No Parking" signs on southeast corner of Arlington Ave (approximately 7m)
2 Median island & standard pedestrian crosswalk
3 Remove temporary traffic calming, alter direction of stop signs
4 "Curve Ahead" signs & chevrons
5 Permanent median islands
6 Standard pedestrian crosswalk
7 2-way stop
8 2-way stop
9 20kph speed signs
10 20kph speed signs
11 One-way sign
12 Drop off/Pick-up zone
13 Parking enforcement (ie. parking over crosswalks, blocking driveways, etc.)
14 Major intersection review
15 Install median island
16 Install median island
City of Saskatoon
BREVOORT PARK TRAFFIC PLAN

Appendix A

All Way Stop Assessments

All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)

The following conditions must be met for all-way stop control to be considered:

i) The combined volume of traffic entering the intersection over the five peak hour periods from the minor street must be at least 25% of the total volume for a three-way stop control, and at least 35% of the total volume for a four-way stop control.

ii) There can be no all-way stop control and traffic signal within 200 metres of the proposed intersection being considered for all-way stop control on either of the intersecting streets.

Location	Condition 1: Combined volume of traffic entering intersection from minor street is at least 25% for 3-way stop or 35% for 4-way stop	Condition 2: There can be no all-way stop or traffic signal within 200m	Results
Arlington Avenue (north leg) & 7th Street	33% - Condition met	170m from traffic signal at 8th St – Condition NOT met	Conditions not met therefore all-way stop NOT warranted
Early Drive & Salisbury Drive	34% - Condition NOT met	No all-way stop or traffic signals within 200m – Condition met	Since Condition 1 is only 1% less than requirement check additional warrant criteria.

Provided the above criteria are met, the following conditions, singly or in combination, may warrant the installation of all-way stop signs:

i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.

ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.

iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.

iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Criteria 1: 5 or more collisions in last twelve months	Criteria 2: at least 600 vehicles per peak hour OR 6,000 vehicles per day	Criteria 3: average delay per vehicle greater than 30sec during peak hour	Criteria 4: Interim for traffic signals	Results
Early Drive & Salisbury Drive	2 collisions – Criteria NOT met	247 peak hour, 2,730 – Criteria NOT met	Below 30sec – Criteria NOT met	No plans for traffic signals – Criteria NOT met	All-way stop NOT warranted

Appendix B

Pedestrian Device Assessments

Pedestrian device assessment (Traffic Controls at Pedestrian Crossing, 2004)

Salisbury Dr & back lane (east of Conn Ave):

1. Lanes Priority Points:

L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.

2. Median Priority Points:

MEDF =	6.0	points	= indicating there is no physical median here.

3. Speed Priority Points:

S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.

4. Pedestrian Protection Location:

D =	325	m	= distance from study location to nearest protected crosswalk.
LOCF =	9.4	points	= (D-200) / 13.3 to a maximum of 15 points.

5. Pedestrian/Vehicle Volume Priority Points:

H =	5.0		= (hours) duration of counting period.
Ps =	26.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	39.0		= weighted average of pedestrians crossing the main street.
Pcm =	7.8		= weighted average hourly pedestrian volume crossing the main street.
V =	193.0		= volume of traffic passing through the crossing(s).
Vam =	38.6		= average hourly volume of traffic passing through the crossing(s).
VOLF =	0.6	points	= Vam x Pcm / 500

6. Satisfaction of Installation Criteria:

SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)

SUMF =	23	points

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Early Drive & Salisbury Drive:

1. Lanes Priority Points:

L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.

2. Median Priority Points:

MEDF =	3.0	points	= indicating there is a physical median here.

3. Speed Priority Points:

S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.

4. Pedestrian Protection Location:

D =	270	m	= distance from study location to nearest protected crosswalk.
LOCF =	5.3	points	= (D-200) / 13.3 to a maximum of 15 points.

5. Pedestrian/Vehicle Volume Priority Points:

H =	5.0	= (hours) duration of counting period.
Ps =	59.0	= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0	= total number of adults counted.
Pw =	88.5	= weighted average of pedestrians crossing the main street.
Pcm =	17.7	= weighted average hourly pedestrian volume crossing the main street.
V =	923.0	= volume of traffic passing through the crossing(s).
Vam =	184.6	= average hourly volume of traffic passing through the crossing(s).

VOLF =	6.5	points	= Vam x Pcm / 500

6. Satisfaction of Installation Criteria:

SUMF = (LANF + MEDF + SPDF + LOCF + VOLF)

SUMF =	**21**	points

(P.A. Signal Warrant Points)

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Appendix C

Recommendation Review Matrix

Decision Matrix – Recommendations proposed at initial meeting

Item	Location	Recommended Improvement	Group 1	Group 2	Group 3	Group 4	Other	Decision
1	Taylor St & Arlington Ave	Major intersection review	simultaneous LT arrows on Arlington lights for east/west turns onto Taylor St	In favour BUT should be double red for northbound traffic when left turn green arrow is on; left turn arrow should be on to let one or two cars through rather than having a long queue of cars to activate it	Should be looked at			Carried. Comments noted for review.
2	Arlington Ave (south of Baldwin Cres)	Remove parking on southeast corner or Arlington Ave (approximately 7m)				let home owner know		Carried
3	Arlington Ave & Early Dr	Install median island and standard pedestrian crosswalk		In favour BUT should be on north crosswalk instead of south crosswalk & have curb extensions added				Standard crosswalk on both sides. Median island will be on north side.
4	Early Dr & Webb Cres	Install median island	good but snow piles will make road too narrow for Transit					Carried
5	Early Dr & Phillips Cres (west)	Install median island	good but snow piles will make road too narrow for Transit					Carried
6	Early Dr & Salisbury Dr	Install permanent curb extensions & median island	would rather see 4-way stop	Needs to be well marked	50/50 members not in favour; install 4-way stop; tree trimming			Rejected. Traffic volumes are higher on Early Dr therefore stop signs should face Salisbury Dr. Remove existing temporary traffic calming. Change direction of 2-way stop.
7	Early Dr & curve west of Salisbury Dr	Install "curve ahead" signs & chevrons				chevrons not needed		Carried
8	Salisbury Dr at curve west of Conn Ave	Install permanent median islands		Narrow median islands				Carried
9	Salisbury Dr west of lane leading to park	Install advanced warning sign for pedestrians				in favour as long as there's marked pedestrian crosswalks		Rejected. Install Pedestrian crosswalk at back lane.
10	Salisbury Dr east of lane leading to park	Install advanced warning sign for pedestrians						Rejected. Install Pedestrian crosswalk at back lane.
11	7th St & Arlington Ave (west leg)	Install 3-way stop			Not in favour	visibility issues (10m)		Rejected. All-way stop criteria not met due to proximity of traffic signals on 6th St.
12	3rd St & Argyle Ave	Install 2-way stop						Carried
13	3rd St & Tucker Cres	Install 2-way stop						Carried
14	Back lanes - north of Taylor St	Install 20kph speed limit signs	close alley access from Taylor St	Speed humps instead				Carried. Traffic calming not recommended in back lanes.
15	Back lanes - west of Arlington Ave	Install one-way signs				not in favour; 20kph speed signs instead		Carried

Decision Matrix – Additional comments

Item	Location	Concern	Recommended Improvement	Decision
1	Arlington Avenue between Sparling Crescent & Clark Crescent (in front of St. Matthews School	Parents dropping off/picking up children; parking in crosswalks; blocking back lanes	Implement Drop-off / Pick-up zone. Parking enforcement for parking over crosswalks & undesignated zones.	Carried (based on discretion of school board).
2	Arlington Ave & Argyle Ave	Shortcutting in back lanes	Install 20kph speed limit signs	Add 20kph speed signs at entrances to back lanes west of Argyle Ave; shortcutting in the back lane near Arlington Ave & Taylor St will be addressed with installation of one-way signage
3	Early Drive school zone	Speeding	Extend west end of school zone to west side of Madden Ave	Rejected. Proposed traffic calming on Early Drive should reduce speed.

Holliston Neighbourhood Traffic Review

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Holliston neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

Topic and Purpose
The purpose of this report is to provide information on the Neighbourhood Traffic Review for the Holliston neighbourhood.

Report Highlights
A traffic plan for the Holliston neighbourhood was developed, in consultation with the community, in response to concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the level of safety of pedestrians, cyclists, and motorists.

Background
A public meeting was held in March 2014, to identify traffic concerns and potential solutions within the Holliston neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in October 2014.

Report
The development and implementation of the Traffic Management Plan includes four stages:

1. Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed and present the plan to City Council for adoption; and
4. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

The majority of concerns received during the consultation included shortcutting, speeding, and pedestrian safety (specifically near the Holliston School and parks).

The Administration is recommending the following modifications to improve safety in the Holliston neighbourhood:

- Four traffic calming locations
- Five pedestrian crosswalk locations
- One stop sign
- Fourteen miscellaneous signs (i.e. no parking, 20kph speed, playground)
- Yield sign retrofit (Funding acquired through Stop & Yield Retrofit Program - 2014)

Installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, accessible pedestrian ramps
Medium-term (3 to 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks (in some cases), major intersection reviews
Long-term (5 years plus)	Permanent traffic calming devices, roadway realignment, sidewalks

The Holliston Neighbourhood Traffic Review is included in Attachment 1.

Public and/or Stakeholder Involvement

In March 2014, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback was used to develop the neighbourhood traffic plan which was presented at a follow up public meeting in October 2014. Additional feedback received at the follow-up public meeting was also incorporated into the recommended Traffic Management Plan.

Feedback was provided by internal civic stakeholders of various divisions and departments: Public Works, Saskatoon Transit, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the proposed Traffic Management Plan.

Communication Plan

The final neighbourhood traffic plan will be shared with the residents of the impacted neighbourhood using several methods: City website, the Community Association communication forums (i.e. website, newsletter), and by a direct mail-out.

Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions is not known at this time.

Financial Implications

The implementation of the neighbourhood traffic calming plan will have significant financial implications. The costs are summarized in the following table:

Item	2015	Beyond 2015
Traffic Calming	$ 3,500	$66,000
Marked Pedestrian Crosswalks	7,200	-
Stop and Yield Signs	250	-
Miscellaneous Signs	3,500	-
TOTAL	$14,450	$66,000

There is sufficient funding within Capital Project #1512 - Neighbourhood Traffic Management to undertake the work in 2015.

The remainder of the work, beyond 2015, will be considered alongside all other improvements identified through the Neighbourhood Traffic Management Program. The Administration's annual budget submission package will include the list of projects recommended to be funded, and the rationale used to prioritize the projects.

Other Considerations/Implications

There are no options, policy, privacy or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices and signage will be implemented during the 2015 construction season.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Holliston Neighbourhood Traffic Review, January 13, 2015

Report Approval

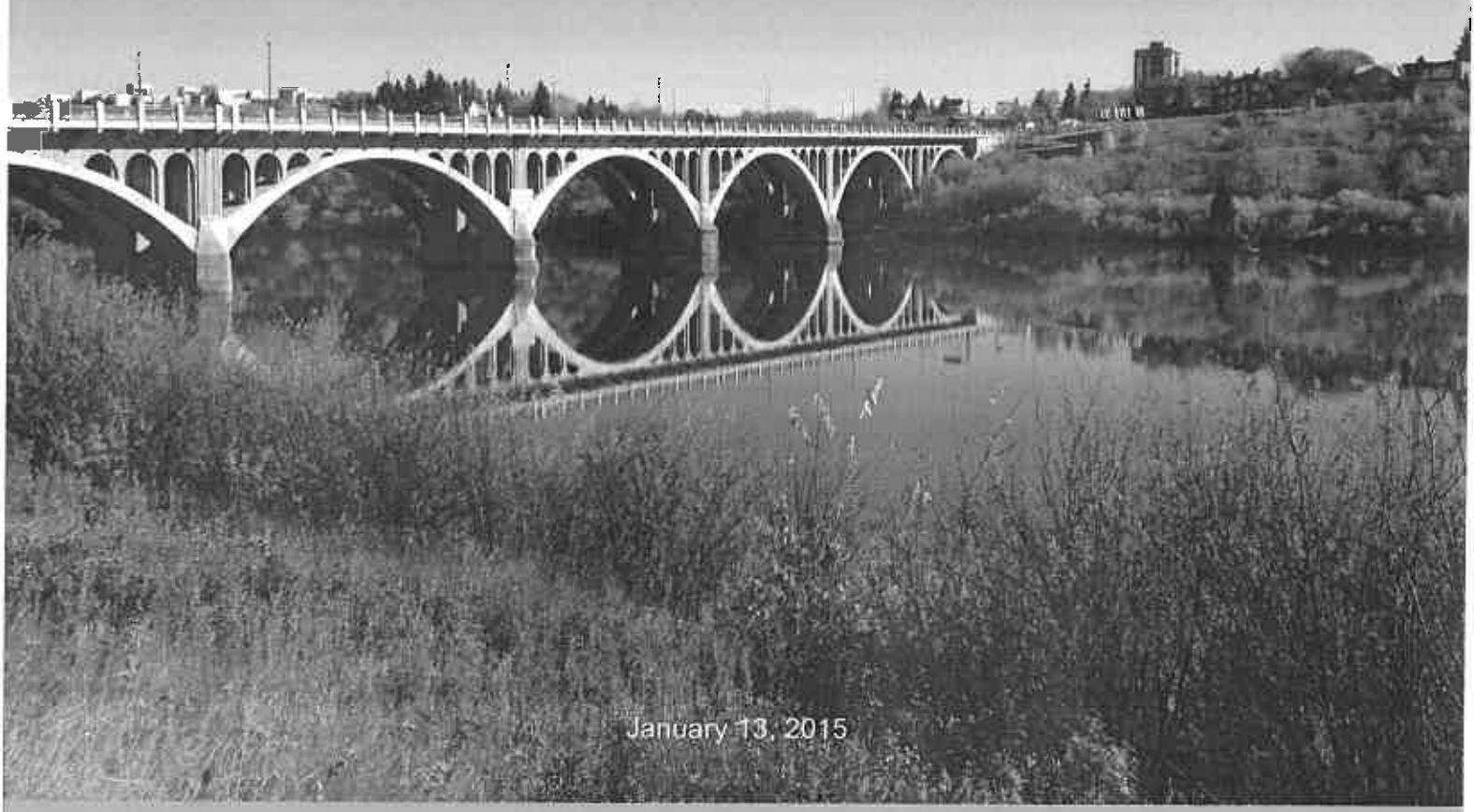
Written by:	Justine Nyen, Traffic Safety Engineer, Transportation
Reviewed by:	Jay Magus, Engineering Manager, Transportation
Reviewed by:	Angela Gardiner, Director of Transportation
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS JN – Holliston Neighbourhood Traffic Review

ATTACHMENT 1

City of Saskatoon

Holliston Neighbourhood Traffic Review



January 13, 2015

Transportation & Utilities Department

Acknowledgements

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Holliston residents
- Holliston Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- City of Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Charlie Clark

Executive Summary

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2013.

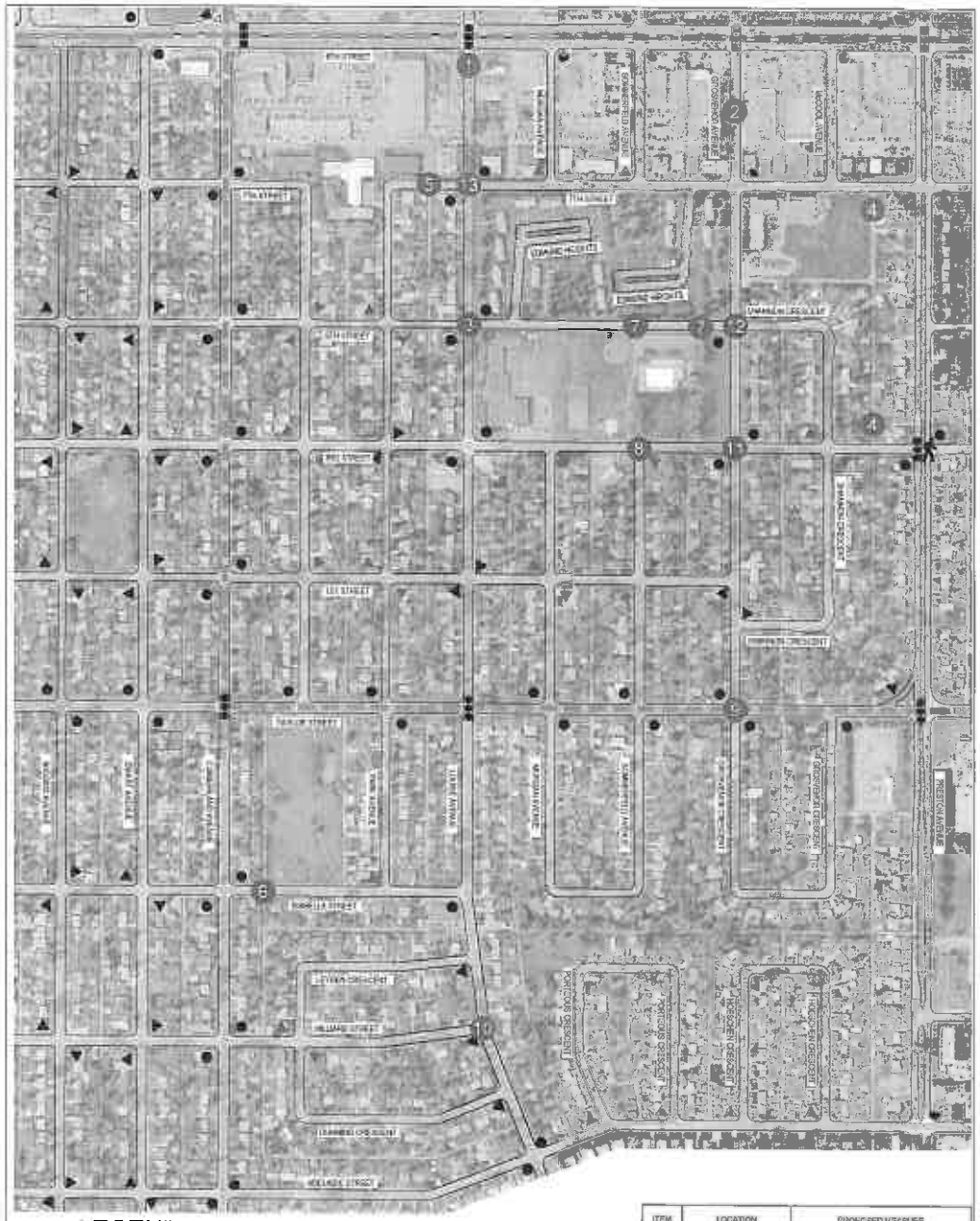
A public meeting was held in March of 2014 to identify traffic concerns and potential solutions within the Holliston neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in October 2014.

A summary of recommended improvements for the Holliston neighbourhood are included in **Table ES-1.** The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years.

The resulting proposed Holliston Traffic Management Plan is illustrated in **Exhibit ES-1.**

Table ES-1: Holliston Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
Louise Avenue (20m south of 8th Street)	"No parking" sign on west side	1 to 2 years
Grosvenor Avenue (beside The Keg & Jerry's access)	"No parking" signs 5m on either side	
Louise Avenue & 5th Street	"No parking" signs on Louise Avenue (10m on southwest corner, 15m on northwest corner)	
Back Lane (between 7th / 3rd Streets & Preston / Grosvenor Avenues)	20kph speed signs	
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	"Local Traffic Only" sign, 20kph speed sign & stop sign	
Isabella Street near Canon Smith Park	Playground sign	
5th Street between Louise Avenue & Grosvenor Avenue	Playground signs	
3rd Street & Sommerfeld Avenue	Standard crosswalk (west leg)	
Taylor Street & Grosvenor Avenue	Zebra crosswalks; "no parking" sign 15m on Taylor Street (southwest corner)	
All uncontrolled intersections	Yield signs	
Louise Avenue & Hilliard Street	Raised median island (south leg)	3 to 5 years (traffic calming devices will be installed temporarily until proven effective)
Grosvenor Avenue & 3rd Street	Raised median islands & zebra crosswalks	
Grosvenor Avenue & 5th Street	Zebra crosswalk, curb extension & Raised median island (south leg)	
Louise Avenue & 7th Street	Zebra crosswalk (north leg); Raised median islands (north & south leg); "no parking" sign (northeast corner of Louise Avenue to fire hydrant - approximately 20m)	



LEGEND

- EXISTING STOP SIGN
- EXISTING YIELD SIGN
- PROPOSED YIELD SIGN
- BUS ROUTE
- EXISTING TRAFFIC SIGNAL
- PEDESTRIAN ACTUATED SIGNAL LOCATION

ITEM	LOCATION	PROPOSED MEASURE
1	Louise Ave (20m south of 6th Street)	"No parking" sign on west side
2	Grosvenor Ave (beside The Keg & Jerry's access	"No parking" signs 5m on either side
3	Louise Ave & 5th Street	"No parking" signs on Louise Ave (10m on southwest corner, 15m on northwest corner)
4	Back Lane (between 701/3rd St & Preston/Grosvenor Ave	20kph speed sign
5	Back Lane (behind Sobey's & beside 1615 -7th St E	"Local Traffic Only" sign, 20kph speed sign & stop sign
6	Isabella St near Carson Smith Park	Playground sign

ITEM	LOCATION	PROPOSED MEASURE
7	5th Street west Louise Ave & Grosvenor Ave	Playground sign
8	3rd St E Summerfield Ave	Standard crosswalk (west leg)
9	Taylor St E Grosvenor Ave	Zebra crosswalk, "no parking" sign 15m on Taylor Street (southwest corner)
10	Louise Ave & Hilliard Street	Median island (south leg)
11	Grosvenor Ave & 3rd Street	Median islands & zebra crosswalk
12	Grosvenor Ave & 5th Street	Zebra crosswalk, curb extension & median island (south leg)
13	Louise Avenue & 7th Street	Zebra crosswalk (north leg), median islands (north & south leg), "no parking" sign (northeast corner of Louise Ave to fire hydrant - approximately 20m)
14	All uncontrolled intersections	Yield signs

HOLLISTON TRAFFIC PLAN

City of Saskatoon

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1. Introduction

The purpose of this project was to develop a Traffic Management Plan for the Holliston neighbourhood following the implementation procedure outlined in the *City of Saskatoon Traffic Calming Guidelines and Tools* adopted by City Council in August 2013.

The Holliston neighbourhood is located on the east side of the South Saskatchewan River and is bound by Preston Avenue to the east, 8th Street East to the north, Adelaide Street to the south, and Wiggins Avenue / Cumberland Avenue to the west. The area use is mostly residential, with a commercial area on the north end along 8th Street. Schools in the area include Holliston School (Louise Avenue, 3rd Street, and 5th Street). Parks in the area include Holliston Park (Grosvenor Avenue, 3rd Street, and 5th Street), Wiggins Park (Wiggins Avenue, Ewart Avenue, 1st Street, and 3rd Street), Jeffery Park, and Canon Smith Park (Taylor Street and Isabella Street).

The development and implementation of the traffic management plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **Stage 4** - Implement the proposed measures in specific time frame, short-term (1 to 2 years), medium-term (1 to 5 years) or long-term (5 years plus).

2. Identifying Issues, Concerns, & Possible Solutions

A public meeting was held in March of 2014 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood residents.

CONCERN 1 – SPEEDING AND SHORTCUTTING

Shortcutting occurs when non-local traffic passes through the neighbourhood on local streets which are designed and intended for low volumes of traffic. In the case of Holliston, the bordering arterial streets (8th Street and Preston Avenue) and intersecting arterial street (Taylor Street) are designated to accommodate larger volumes of traffic.

As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Neighbourhood concerns for speeding and shortcutting were at the following locations:

- Preston Avenue
- Louise Avenue
- Taylor Street: motorists are driving as if there are two lanes instead of one; speed and heavy traffic flow between Preston Avenue & Cumberland Avenue
- Isabella Street near park; between Cumberland Avenue to Louise Avenue
- Grosvenor Avenue
- Cumberland Avenue
- Shannon Crescent: shortcutting to avoid Taylor Street / Preston Avenue intersection
- Dunning Crescent
- Hilliard Street
- Adelaide Street
- Jackson Avenue
- 5th Street near park
- 7th Street: shortcutting to access 8th Street; speeding along Park Avenue and Jackson Avenue Back lane east of Louise Avenue between Taylor Street & Adelaide Street; shortcutting to avoid traffic signal at Taylor Street & Louise Avenue; speeding near Jeffery Park
- Sommerfeld Avenue (& 3rd Street): George Ward Pool and Holliston School; speeding through uncontrolled intersections
- Back lanes near Shannon Crescent / Preston Avenue & 3rd Street / 7th Street
- Back lanes near Canon Smith Park
- Back lane by Sobeys

Proposed solutions identified by residents:

- Speed humps (including locations near parks and around curves)
- Better coordination of traffic signals on 8th Street to prevent shortcutting on 7th Street
- 4-way stop

CONCERN 2 - PEDESTRIAN SAFETY & ACTIVE TRANSPORTATION

A majority of the residents were concerned about pedestrian safety surrounding school sites (Holliston School), parks (Canon Smith Park), and the George Ward Pool.

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

> "The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled "Traffic Control at Pedestrian Crossings – 2004" approved by City Council in 2004."

Neighbourhood concerns regarding pedestrian safety were at the following locations:

- Preston and 3rd Street: no need for pedestrian-actuated signal
- Grosvenor Avenue & 3rd Street: children cross on their way to Holliston School & park
- Isabella Street: near park
- 5th Street: near pool
- Need a crossing on 8th Street between Clarence Avenue & Cumberland Avenue
- Louise Avenue: disregard for pedestrians; unsafe for cyclists
- Taylor Street: children crossing to pool/schools; driver stops for pedestrian and driver passes on right nearly hitting them; unsafe for cyclists
- Larger intersections where drivers can pass on the right

Proposed solutions identified by residents:

- Install "while children present" sign with school zone sign rather than time restrictions
- City should initiate a public "share the road" campaign
- Remove school zone speed reduction from high schools
- Install barriers near high schools to prevent jaywalking
- Traffic calming devices at intersections so drivers can't pass on right

CONCERN 3 - TRAFFIC CONTROL

Traffic control signs are used in order to assign the right-of-way and must meet guidelines in City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009 which states that stop and yield signs are not to be used as speed control devices, to stop priority traffic over minor traffic, on the same approach to an intersection where traffic signals are operational, or as a pedestrian crossing device.

An all-way stop must meet the conditions for traffic volume, collision history, and must have a balanced volume from each leg to operate sufficiently.

Neighbourhood concerns regarding traffic control improvements were at following locations:

- 1st Street: proposed yield signs between Louise Avenue and Grosvenor Avenue will cause speeding
- Southbound left turn needed at 8th Street and Cumberland Avenue
- Drivers failing to yield at uncontrolled intersections (i.e. Jackson Avenue)
- 7th Street & Louise Avenue
- Grosvenor Avenue & 3rd Street
- Shannon Crescent & 3rd Street
- Louise Avenue & 8th Street
- Grosvenor Avenue & 8th Street: left lane is unserviceable

Proposed solutions identified by residents:

- Alter direction of yield signs on 1st Street between Louise Avenue & Grosvenor Avenue
- Install protected left turn arrow at Louise Avenue & 8th Street

CONCERN 4 – PARKING

Parking is allowed on all city streets unless signage is posted. According to City of Saskatoon Bylaw 7200, *The Traffic Bylaw*, December 16, 2013, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway crossing.

Neighbourhood concerns regarding parking were at the following locations:

- Taylor Street: parking near St. Stevens Church impedes traffic flow
- Cumberland Avenue: parked cars obstruct driver's view
- Grosvenor Avenue: parked cars obstruct driver's view at driveways to businesses (i.e. The Keg, Jerry's)
- 5th Street: parked longer than legal time
- Louise Avenue: parking near McDonalds obstructs right-turning traffic from 8th Street

CONCERN 5 – MAINTENANCE

A majority of the residents were concerned about the condition of the streets in Holliston (i.e. snow clearing, potholes, tree trimming, and temporary traffic calming devices).

Neighbourhood concerns regarding maintenance were at the following locations:

- Preston Avenue: snow banks need to be lower on medians near intersections to improve sightlines (especially near Adelaide Street)
- Shrubs on boulevards obstruct driver's view

3. Assessment

Stage 2 of the plan development included developing a draft traffic management plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic data and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements.

1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

Table 3-1: City of Saskatoon Street Classifications and Characteristics

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85th percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Holliston area is 50kph, except for school zones where the speed limit is 30kph from September and June, 8:00am to 5:00pm, excluding weekends.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue are summarized in **Table 3-2.**

Table 3-2: Speed Studies and Average Daily Traffic Counts (2014)

Street	Between	Classification	Average Daily Traffic (vpd)	Speed (kph)
Back lane east of Canon Smith Park	Taylor Street & Isabella Street	lane	10	NA
Back Lane north of 7th Street	Sobeys & apartment buildings		548	26.8
Isabella Street	Park Avenue & Cumberland Avenue	local	434	45.5
Grosvenor Avenue	3rd Street & 5th Street		688	48
5th Street	Louise Avenue & Grosvenor Crescent		327	45.6
Adelaide Street	Louise Avenue & Preston Avenue		782	45.6
Park Avenue	5th Street & 7th Street		466	NA
5th Street	Park Avenue & Jackson Avenue		729	36.9
Louise Avenue	Leyden Crescent & Hilliard Street	major collector	2358	51.3
Taylor Street	Sommerfeld Avenue & Grosvenor Avenue	minor arterial	8300	53.9

2. Turning Movement Counts

Turning movement counts were completed to determine the need for an all-way (i.e. 3-way or 4-way) stop control. All-way stop controls need to the meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009. Criteria outlined in the policy that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Results of the studies are shown in **Table 3-3**.

Table 3-3: All-way Stop Assessments

Location	Peak Hour Traffic Count	Average Daily Traffic (vpd)	Results
Louise Avenue & 7th Street	486	5630	All-way Stop Not Warranted
Grosvenor Avenue & 3rd Street	190	2090	

As a result of the assessment there are no an all-way stop controls recommended. Details of the all-way stop assessments are provided in **Appendix A**.

3. Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which, in adherence to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004, are typically active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:

- The number of traffic lanes to be crossed;
- the presence of a physical median;
- the posted speed limit of the street;
- the distance the crossing point is to the nearest protected crosswalk point; and
- the number of pedestrian and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.

In addition, if a pedestrian actuated crosswalk is not warranted, a standard marked pedestrian crosswalk, or a zebra (i.e. striped crosswalk) may be considered. A summary of the pedestrian studies are provided in **Table 3-4**.

Table 3-4: Pedestrian Assessment

Location	Number of Pedestrians Crossing	Results
Taylor Street & Sommerfeld Avenue	8	Pedestrian Device Not Warranted
Louise Avenue & 7th Street E	78	
Grosvenor Avenue & 3rd Street	22	

As a result of the assessment, no pedestrian devices are recommended. Details of the pedestrian device assessments are provided in **Appendix B**.

4. Plan Development

Stage 3 of the project included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- Present the draft plan to the residents at a follow-up public meeting
- Circulate the draft plan to the Civic Divisions for comment
- Revise the draft plan based on feedback from the stakeholders
- Prepare a technical document summarizing the recommended plan and project process

The tables in the following sections provide the details of the recommended traffic management plan, including the location, recommended improvement, and the justification of the recommended improvement.

1. Shortcutting and Speeding

Traffic volume and the 85th percentile speed were higher than expected in the back lane south of the Sobeys grocery store (north of 7th Street). Speeding in the back lanes between 7th Street / 3rd Street and Preston Avenue / Grosvenor Avenue was also a concern. The recommended improvements and justification to address speeding and shortcutting are detailed in **Table 4-1.**

Table 4-1: Recommended Improvements to Reduce Speeding and Shortcutting

Location	Recommended Improvement	Justification
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	Install "Local Traffic Only", 20kph speed sign, & stop sign (facing back lane)	Reduce shortcutting; enhance compliance (southbound)
Back Lane (between 7th / 3rd Streets & Preston / Grosvenor Avenues)	Install 20kph speed limit signs	Reduce speeds in back lane

2. Pedestrian Safety

Holliston residents identified pedestrian safety as a priority near Holliston School, George Ward Pool, and various parks. The safety of the pedestrian environment near schools is important to encourage people to walk to school, as opposed to being dropped off. Accordingly, the recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Pedestrian Safety Improvements

Location	Recommended Improvement[1]	Purpose
Louise Avenue & 7th Street	Install zebra crosswalk (north side); install Raised median islands (north & south leg); install "no parking" sign on northeast corner of Louise Avenue to fire hydrant (approximately 20m)	Improve pedestrian safety; reduce speeds; enhance visibility
Grosvenor Avenue & 5th Street	Install zebra crosswalk; install curb extension & Raised median island (south leg)	Improve pedestrian safety near school & park; reduce speeds
5th Street between Louise Avenue & Grosvenor Avenue	Install playground signs	Improve pedestrian safety
3rd Street & Sommerfeld Avenue	Install standard pedestrian crosswalk (west leg)	Improve pedestrian safety near school & connecting to park path
Grosvenor Avenue & 3rd Street	Install Raised median islands & zebra crosswalks (north & south legs)	Improve pedestrian safety near school & park; reduce speeds
Taylor Street & Grosvenor Avenue	Install zebra crosswalk (east & west legs); install "no parking" sign 15m on Taylor Street (southwest corner)	Improve pedestrian safety; enhance visibility
Louise Avenue & Hilliard Street	Install Raised median island (south leg)	Improve pedestrian safety; reduce speed
Isabella Street near Canon Smith Park	Install playground sign	Improve pedestrian safety

[1] For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

3. Traffic Control

The recommended improvements to intersections that will improve the level of safety by clearly identifying the right-of-way through traffic controls are provided in **Table 4-3**.

Table 4-3: Recommended Traffic Control Improvements

Location	Recommended Improvement	Purpose
All uncontrolled intersections	Install yield signs (Stop & Yield Retrofit Program)	Improve safety; enhance driver compliance
1st Street & Sommerfeld Avenue	Install east-west yield signs	Ensure 1st Street is not a thoroughfare

The Traffic Control Neighbourhood Retrofit Program was initiated in 2008 as a pilot project in City Park. Yield signs were installed at all uncontrolled intersections to mitigate collisions. Collision history results have shown to be favourable with an overall reduction in collision frequency; therefore, the program was expanded to other neighbourhoods. Holliston was selected in 2014 based on a high average number of collisions per uncontrolled intersection per year.

During the public consultation a yield sign plan for the area was shown to the residents. Residents were concerned about speeding caused by the proposed orientation of the yield signs at 1st Street and Sommerfeld Avenue. The plan was altered accordingly.

4. Parking Improvements

The recommended improvements to parking will improve the level of safety at specific intersections by enhancing sightlines. Further details are provided in Table 4-4.

Table 4-4: Recommended Parking Improvements

Location	Recommended Improvement	Purpose
Louise Avenue (20m south of 8th Street)	Install "no parking" sign on west side	Improve traffic flow; enhance sightlines
Grosvenor Avenue (beside The Keg & Jerry's access)	Install "no parking" signs 5m on either side	Enhance sightlines to and from access to parking lots
Louise Avenue & 5th Street	Install "no parking" signs on Louise Avenue (10m on southwest corner; 15m on northwest corner	Enhance sightlines

5. Major Intersection Reviews

The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. As almost all neighbourhoods are bound by arterial streets, such as 8th Street or Preston Avenue, it is not uncommon to have residents raise issues regarding these streets. However, arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are expensive and requires significant resources. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues, identify the work requirements, and securing funding to complete these types of assessments.

Follow up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in October 2014. Recommended improvements that were not supported by the residents were eliminated or altered accordingly. A decision matrix detailing the list of recommended improvements included in the draft traffic plan (and comments received

during the follow-up consultation) is displayed in **Appendix C**. A decision matrix detailing additional comments received during the follow-up consultation is also displayed in **Appendix C**.

The following table displays a list of the improvements that were adjusted based on the feedback received at the October 2014 follow up meeting.

Table 4-5: Adjusted Recommended Improvements

Location	Improvement	Reason	Resident feedback	Decision
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	Install "Local Traffic Only" sign	Reduce shortcutting	Address speeding issues.	Add stop sign (exiting back lane) & 20kph speed sign
Grosvenor Avenue (beside The Keg & Jerry's access)	Install "no parking" signs 4m on either side	Improve sightlines	Increase distance to further improve sightlines	Increase distance to 5m on either side.
Grosvenor Avenue & 3rd Street	Install Raised median islands (north & south legs)	Improve pedestrian safety	More improvements needed to enhance pedestrian safety (near park, pool, school etc)	Add zebra crosswalks
Louise Avenue & Isabella Street	Install Raised median island (south leg)	Reduce speeds; improve pedestrian safety	Isabella isn't a good location for a Raised median island; pedestrian safety isn't an issue here; drivers will stop for pedestrians as is; Raised median island will only force drivers towards sidewalks; there's a mailbox where people stop nearby daily; ponding occurs in spring and drivers avoid it by driving into centre of roadway; Raised median island would restrict movements	Move Raised median island to Hilliard Street (one block south) to reduce speeds on Louise Avenue
1st Street & Sommerfeld Avenue	Install north-south yield signs (part of Stop & Yield Retrofit Program)	Clearly identify right-of-way; enhance compliance	Orientation of proposed yield signs on 1st Avenue had 3 blocks of north-south facing yields. Residents were concerned this would create speeding/thoroughfare.	Switch yield signs at 1st Street & Sommerfeld Avenue to prevent thoroughfare on 1st Street

After finalizing the plan it was circulated to the Civic Divisions to review. No concerns were received.

5. Recommended Plan and Cost Estimates

Stage 4, the last stage of the process, is to install the recommended improvements for the Holliston neighbourhood within the specified timeframe. The timeframe depends upon the complexity and cost of the solution. A short term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of pedestrian and traffic control signage will be completed short-term (1 to 2 years).

All traffic calming measures will be installed temporarily using rubber curbing until proven effective, and will be implemented short-term (1 to 2 years).

Permanent traffic calming often includes removing the temporary barriers and reconstructing with concrete. The timeline for permanent traffic calming may depend on the complexity of the device and the availability of funding; therefore the timeline is medium-term (3 to 5 years).

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- **Table 5-1**: Traffic Calming Cost Estimate
- **Table 5-2**: Marked Pedestrian Crosswalks Cost Estimate
- **Table 5-3**: Traffic Control Signage – Stop & Yield Cost Estimate
- **Table 5-4**: Miscellaneous Signage Cost Estimate

Table 5-1: Traffic Calming Cost Estimate

Location	Traffic Calming Device (s)	Cost Estimate		Time Frame
		Temporary	Permanent	
Louise Avenue & Hilliard Street	1 Raised median island	$500	$6,000	3 to 5 years
Grosvenor Avenue & 3rd Street	2 Raised median islands	$1,000	$12,000	
Grosvenor Avenue & 5th Street	1 Curb extension & 1 Raised median island	$1,000	$36,000	
Louise Avenue & 7th Street	2 Raised median islands	$1,000	$12,000	
	Total	$3,500	$66,000	

Temporary traffic calming will be installed in 2015 and will be monitored to determine its effectiveness. If proven effective, the devices will be made permanent. Until they are made permanent, the devices will remain temporary and maintained on a yearly basis. An estimated cost for maintenance is about $5,000 per year. The maintenance typically involves the replacement of damage curbs as result of the winter snow removal, damage from vehicle impact, etc.

Table 5-2: Marked Pedestrian Crosswalks Cost Estimate

Location	Devices (s)	Cost Estimate	Time Frame
3rd Street & Sommerfeld Avenue	Standard crosswalk	$1,200	1 to 2 years
Taylor Street & Grosvenor Avenue	Zebra crosswalks	$1,600	
Grosvenor Avenue & 3rd Street	Zebra crosswalks	$1,600	
Grosvenor Avenue & 5th Street	Zebra crosswalk	$1,400	
Louise Avenue & 7th Street	Zebra crosswalk	$1,400	
	Total	$7,200	

The operating impact on an annual basis to maintain a painted crosswalk is approximately $60 each.

Table 5-3: Traffic Control Signage – Stop & Yield Cost Estimate

Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
All uncontrolled intersections	Yield signs	28	$7,000 (Funded through Stop & Yield Retrofit Program)	1 to 2 years
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	Stop sign	1	$250	
		Total	$250	

Table 5-4: Miscellaneous Signage Cost Estimate

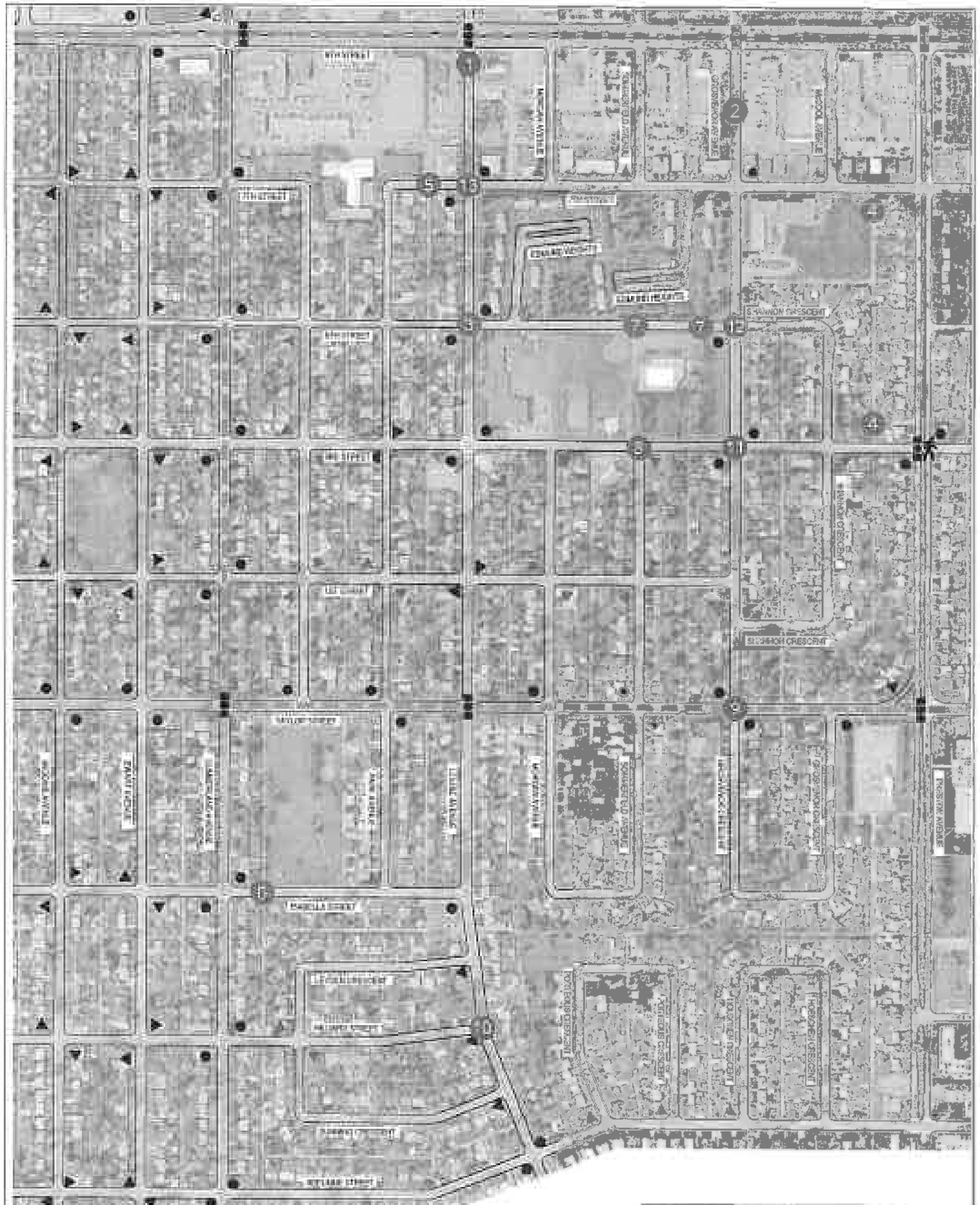
Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
Louise Avenue (20m south of 8th Street)	"No parking" sign	1	$250	1 to 2 years
Grosvenor Avenue (beside The Keg & Jerry's access)	"No parking" signs	2	$500	
Louise Avenue & 5th Street	"No parking" signs	2	$500	
Back Lane (between 7th/3rd Street & Preston/Grosvenor Avenue)	20kph speed signs	2	$500	
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	"Local Traffic Only" sign & 20kph speed sign	2	$500	
Isabella Street near Canon Smith Park	Playground sign	1	$250	
5th Street between Louise Avenue & Grosvenor Avenue	Playground signs	2	$500	
Taylor Street & Grosvenor Avenue	"No parking" sign	1	$250	
Louise Avenue & 7th Street	"No parking" sign	1	$250	
		Total	$3,500	

The total cost estimate for the signage and temporary traffic calming devices to be installed in 2015 is **$14,450**. The yield sign installations will be funded through the Stop & Yield Retrofit Program ($7,000). The total cost estimate, including the installation of permanent traffic calming is **$80,450**.

Resulting from the plan development process, the recommended improvements, including the location, type of improvement, and schedule for implementation are summarized in **Table 5-5**. The resulting recommended Holliston Traffic Management Plan is illustrated in **Exhibit 5-1**.

Table 5-5: Holliston Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
Louise Avenue (20m south of 8th Street)	"No parking" sign on west side	1 to 2 years
Grosvenor Avenue (beside The Keg & Jerry's access)	"No parking" signs 5m on either side	
Louise Avenue & 5th Street	"No parking" signs on Louise Avenue (10m on southwest corner, 15m on northwest corner)	
Back Lane (between 7th / 3rd Streets & Preston/Grosvenor Avenues)	20kph speed signs	
Back Lane (behind Sobeys & beside 1615 - 7th Street E)	"Local Traffic Only" sign, 20kph speed sign & stop sign	
Isabella Street near Canon Smith Park	Playground sign	
5th Street between Louise Avenue & Grosvenor Avenue	Playground signs	
3rd Street & Sommerfeld Avenue	Standard crosswalk (west leg)	
Taylor Street & Grosvenor Avenue	Zebra crosswalks; "no parking" sign 15m on Taylor Street (southwest corner)	
All uncontrolled intersections	Yield signs	
Louise Avenue & Hilliard Street	Raised median island (south leg)	3 to 5 years (traffic calming devices will be installed temporarily until proven effective)
Grosvenor Avenue & 3rd Street	Raised median islands & zebra crosswalks	
Grosvenor Avenue & 5th Street	Zebra crosswalk, curb extension & raised median island (south leg)	
Louise Avenue & 7th Street	Zebra crosswalk (north leg); raised median islands (north & south leg); "no parking" sign (northeast corner of Louise Avenue to fire hydrant - approximately 20m)	



LEGEND

- ● EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- ▼ PROPOSED YIELD SIGN
- BUS ROUTE
- EXISTING TRAFFIC SIGNAL
- PEDESTRIAN ACTUATED SIGNAL LOCATION

ITEM	LOCATION	PROPOSED MEASURE
1	Louise Ave (20m south of 8th Street)	"No parking" sign on west side
2	Grosvenor Ave (beside The Keg & Jerry's access	"No parking" signs 5m on either side
3	Louise Ave & 5th Street	"No parking" signs on Louise Ave (10m on southwest corner, 15m on northwest corner)
4	Back Lane (between 7th/3rd St & Preston/Grosvenor Ave	20kph speed sign
5	Back Lane (behind Sobey's & beside 1615 -7th St E	"Local Traffic Only" sign, 20kph speed sign & stop sign
6	Isabella St near Canon Smith Park	Playground sign

ITEM	LOCATION	PROPOSED MEASURE
7	5th St between Louise Ave & Grosvenor Ave	Playground sign
8	3rd St & Sommerfeld Ave	Standard crosswalk (west leg)
9	Taylor St & Grosvenor Ave	Zebra crosswalks; "no parking" sign 15m on Taylor Street(southwest corner)
10	Louise Ave & Hilliard Street	Median island (south leg)
11	Grosvenor Ave & 3rd Street	Median islands & zebra crosswalks
12	Grosvenor Ave & 5th Street	Zebra crosswalk, curb extension & median island (south leg)
13	Louise Avenue & 7th Street	Zebra crosswalk (north leg); median islands (north & south leg); "no parking" sign (northeast corner on Louise Ave to fire hydrant - approximately 20m)
14	All uncontrolled intersections	Yield signs

HOLLISTON TRAFFIC PLAN

City of Saskatoon

Appendix A

All Way Stop Assessments

All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)

The following conditions must be met for all-way stop control to be considered:

i) The combined volume of traffic entering the intersection over the five peak hour periods from the minor street must be at least 25% of the total volume for a three-way stop control, and at least 35% of the total volume for a four-way stop control.

ii) There can be no all-way stop control and traffic signal within 200 metres of the proposed intersection being considered for all-way stop control on either of the intersecting streets.

Location	Condition 1: Combined volume of traffic entering intersection from minor street is at least 25% for 3-way stop or 35% for 4-way stop	Condition 2: There can be no all-way stop or traffic signal within 200m	Results
Louise Avenue & 7th Street	30% - Condition NOT met	170m from traffic signal at 8th Street – Condition NOT met	Conditions not met therefore all-way stop NOT warranted
Grosvenor Avenue & 3rd Street	34% - Condition NOT met	No all-way stop or traffic signals within 200m – Condition met	Since Condition 1 is only 1% less than requirement check additional warrant criteria.

Provided the above criteria are met, the following conditions, singly or in combination, may warrant the installation of all-way stop signs:

i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.

ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.

iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.

iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Criteria 1: 5 or more collisions in last twelve months	Criteria 2: at least 600 vehicles per peak hour OR 6,000 vehicles per day	Criteria 3: average delay per vehicle greater than 30sec during peak hour	Criteria 4: Interim for traffic signals	Results
Grosvenor Ave & 3rd Street	1 collision – Criteria NOT met	190 peak hour, 2,090 – Criteria NOT met	Below 30sec – Criteria NOT met	No plans for traffic signals – Criteria NOT met	All-way stop NOT warranted

Appendix B

Pedestrian Device Assessments

Pedestrian device assessment (Traffic Controls at Pedestrian Crossing, 2004)

Taylor Street & Sommerfeld Avenue:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	210	m	= distance from study location to nearest protected crosswalk.
LOCF =	0.8	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	8.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	12.0		= weighted average of pedestrians crossing the main street.
Pcm =	2.4		= weighted average hourly pedestrian volume crossing the main street.
V =	3855.0		= volume of traffic passing through the crossing(s).
Vam =	771.0		= average hourly volume of traffic passing through the crossing(s).
VOLF =	3.7	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**17**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Louise Avenue & 7th Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	165	m	= distance from study location to nearest protected crosswalk.
LOCF =	0.0	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	78.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	117.0		= weighted average of pedestrians crossing the main street.
Pcm =	23.4		= weighted average hourly pedestrian volume crossing the main street.
V =	0.0		= volume of traffic passing through the crossing(s).
Vam =	0.0		= average hourly volume of traffic passing through the crossing(s).
VOLF =	0.0	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**13**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Grosvenor Avenue & 3rd Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	225	m	= distance from study location to nearest protected crosswalk.
LOCF =	1.9	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	22.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	33.0		= weighted average of pedestrians crossing the main street.
Pcm =	6.6		= weighted average hourly pedestrian volume crossing the main street.
V =	812.0		= volume of traffic passing through the crossing(s).
Vam =	162.4		= average hourly volume of traffic passing through the crossing(s).
VOLF =	2.1	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**17**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Appendix C

Recommendation Review Matrix

Decision Matrix – Recommendations proposed at initial meeting

Item	Location	Recommendation	Group 1	Group 2	Group 3	Group 4	Additional letters, phone calls, emails	Decision
1	Back Lane (behind Sobeys & beside 1615 - 7th Street E)	Install "Local Traffic Only" sign	more than just sign	speeding in back lanes (Shannon to Grosvenor)	(50/50)needs to more restrictive; stop sign for southbound; turn is narrow due to garbage bin; slippery in winter and lane is sloped downhill southbound; Tim Hortons causes a lot of traffic; not in favour of full restriction			Carried. Add stop sign (facing back lane) & 20kph speed limit sign.
2	Louise Avenue (20m south of 6th Street)	Install "no parking" sign on west side	make sure McDonalds staff is aware of changes; trim shrubs to improve sightlines					Carried.
3	Louise Avenue & 7th Street	Install zebra crosswalk (north side); install raised median islands (north & south leg); install "no parking" sign on northeast corner of Louise Avenue to fire hydrant (approximately 20m)						Carried.
4	Grosvenor Avenue (beside The Keg & Jerry's access)	Install "no parking" signs 4m on either side	increase to 6m					Carried. Increase distance to 5m.
5	Back Lane (between 7th/3rd Street & Preston/Grosvenor Avenue)	Install 20kph speed limit signs	investigate further measures		In favour but consider something more restrictive; enforcement		also install "local traffic only" sign to emphasize the dual statements of "slow down" & "this is not a thoroughfare"	Carried. "Local traffic only" signs not recommended because these are residential/not a route to commercial
6	Grosvenor Avenue & 5th Street	Install zebra crosswalk; install curb extension & Raised median island (south leg)						Carried.
7	5th Street between Louise Avenue & Grosvenor Avenue	Install playground signs	Install 30kph signs around park					Carried. Comment noted for city-wide review (park/playground speed 30kph speed zone)
8	Louise Avenue & 5th Street	Install "no parking" signs on Louise Avenue (10m on southwest corner; 15m on northwest corner						Carried.
9	3rd Street & Sommerfeld Avenue	Install standard pedestrian crosswalk (west leg)						Carried.
10	Grosvenor Avenue & 3rd Street	Install raised median islands (north & south legs)	add zebra crosswalk & curb extension					Carried. Add zebra crosswalks. Curb extensions not necessary with addition of raised median islands.

Item	Location	Recommendation	Group 1	Group 2	Group 3	Group 4	Additional letters, phone calls, emails	Decision
11	Taylor Street & Grosvenor Avenue	Install zebra crosswalk (east & west legs); Install "no parking" sign 15m on Taylor St (southwest corner)	no parking south all way & tree trim					Carried. Additional parking removal not recommended due to church.
12	Louise Avenue & Isabella Street	Install raised median island (south leg)					Isabella isn't a good location for a raised median island; pedestrian safety isn't an issue here; drivers will stop for pedestrians as is; raised median island will only force drivers towards sidewalks; there's a mailbox where people stop nearby daily; ponding occurs in spring and drivers avoid it by driving into centre of roadway; raised median island would restrict movements; if speeding on Louise is a concern then move it to Hilliard because this is where speeding is worst	Move raised median island to Louise Avenue & Hilliard Street
13	Isabella Street near Canon Smith Park	Install playground sign						Carried.
14	All uncontrolled intersections	Install yield signs	3rd Street & Shannon Crescent - flip yield signs; 1st Street has two intersections back-to-back which may create speeding	5th Street - yield signs should be reversed			Having yield signs for the north-south streets off 3rd Street may help reduce collisions, but it won't slow the traffic down on 3rd. Although there are only two blocks between Preston and Grosvenor on 3rd, cars can (and do) get going very fast very quickly on that part of the street. Having the yield signs oriented east-west might result in slower overall speeds on 3rd.	Carried. 1st Street & Sommerfeld Avenue changed to east-west facing to continue alternating pattern as part of the Stop & Yield Retrofit Program. Yield signs at Shannon Crescent and 3rd Street will remain north-south to continue alternating pattern (must stop on 3rd Street at Grosvenor Avenue only 105m from Shannon Crescent)

Decision Matrix – Additional comments

Item	Location	Concern	Decision
1	Back lane east of Louise between Taylor Street & Adelaide Street	Shortcutting to avoid traffic signal at Taylor & Louise; speeding near Jeffrey Park; install speed humps in north-south & east-west lane near Jeffrey Park	Rejected. Traffic Signal at Taylor Street & Louise Avenue is satisfactory. Speed humps are not used in back lanes.
2	School zones/playgrounds	Use "while children present" rather than time restrictions	Noted. Will be included in city-wide review for reduced speeds around parks & playgrounds.
3	Back lanes near Shannon Crescent to Grosvenor Avenue	Speeding	Rejected. Residential area.
4	7th Street along Park/Jackson	Speed humps around curve leading to 5th Street	Rejected. Speed humps not recommended on curves.
5	8th Street & Cumberland Avenue	Southbound left turn required	Noted. Will be included in major intersection reviews.
6	Preston Avenue & 3rd Street	Review pedestrian-actuated signal; no need for it, timing, U-turns	Timing was reviewed and is satisfactory. U-turns are illegal at and signalized intersection as per Bylaw 7200.
7	NA	Larger intersections - issue with drivers passing on right	Noted.
8	NA	public "share the road" campaign	Noted.
9	School zones around high schools (ie. Walter Murray, Aden Bowman)	Remove school zone speed reduction from high schools	Noted. Will be reviewed as part of city-wide review for reduced speeds around parks & playgrounds.
10	High schools	Install barriers to prevent jaywalking	Rejected. Administration will continue to monitor the situation.

Hudson Bay Park Neighbourhood Traffic Review

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Hudson Bay Park neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

Topic and Purpose

The purpose of this report is to provide information on the Neighbourhood Traffic Review for the Hudson Bay Park neighbourhood.

Report Highlights

A traffic plan for the Hudson Bay Park neighbourhood was developed, in consultation with the community, in response to concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.

Strategic Goal

This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the level of safety of pedestrians, cyclists, and motorists.

Background

A public meeting was held in April 2014 to identify traffic concerns and potential solutions within the Hudson Bay Park neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in October 2014.

Report

The development and implementation of the Traffic Management Plan includes four stages:

1. Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed and present the plan to City Council for adoption; and
4. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

The majority of concerns received during the consultation included shortcutting, speeding, and pedestrian safety (specifically near the Henry Kelsey School and parks).

The Administration is recommending the following modifications to improve safety in the Hudson Bay Park neighbourhood:

- Four traffic calming locations
- Two pedestrian crosswalk locations
- Three stop signs
- Eight yield signs
- One sidewalk location

Installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, accessible pedestrian ramps
Medium-term (3 to 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks (in some cases), major intersection reviews
Long-term (5 years plus)	Permanent traffic calming devices, roadway realignment, sidewalks

The Hudson Bay Park Neighbourhood Traffic Review is included in Attachment 1.

Public and/or Stakeholder Involvement

In April 2014, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback received was used to develop the neighbourhood traffic plan which was presented at a follow-up public meeting in October 2014. Additional feedback received at the follow-up public meeting was also incorporated into the recommended Traffic Management Plan.

Feedback was provided by internal civic stakeholders of various divisions and departments: Public Works, Saskatoon Transit, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the proposed Traffic Management Plan.

Communication Plan

The final neighbourhood traffic plan will be shared with the residents of the impacted neighbourhood using several methods: City website, Community Association communication forums (i.e. website, newsletter), and by a direct mail-out.

Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions is not known at this time.

Financial Implications

The implementation of the neighbourhood traffic calming plan will have significant financial implications. The costs are summarized in the following table:

Item	2015	Beyond 2015
Traffic Calming	$2,000	$ 64,000
Marked Pedestrian Crosswalks	2,600	-
Stop and Yield Signs	2,750	-
Sidewalk Installations	-	77,000
TOTAL	$7,350	$141,000

There is sufficient funding within Capital Project #1512 - Neighbourhood Traffic Management to undertake the work in 2015.

The remainder of the work, beyond 2015, will be considered alongside all other improvements identified through the Neighbourhood Traffic Management Program. The Administration's annual budget submission package will include the list of projects recommended to be funded, and the rationale used to prioritize the projects.

Other Considerations/Implications

There are no options, policy, privacy or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices and signage will be implemented during the 2015 construction season.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Hudson Bay Park Neighbourhood Traffic Review, January 12, 2015

Report Approval

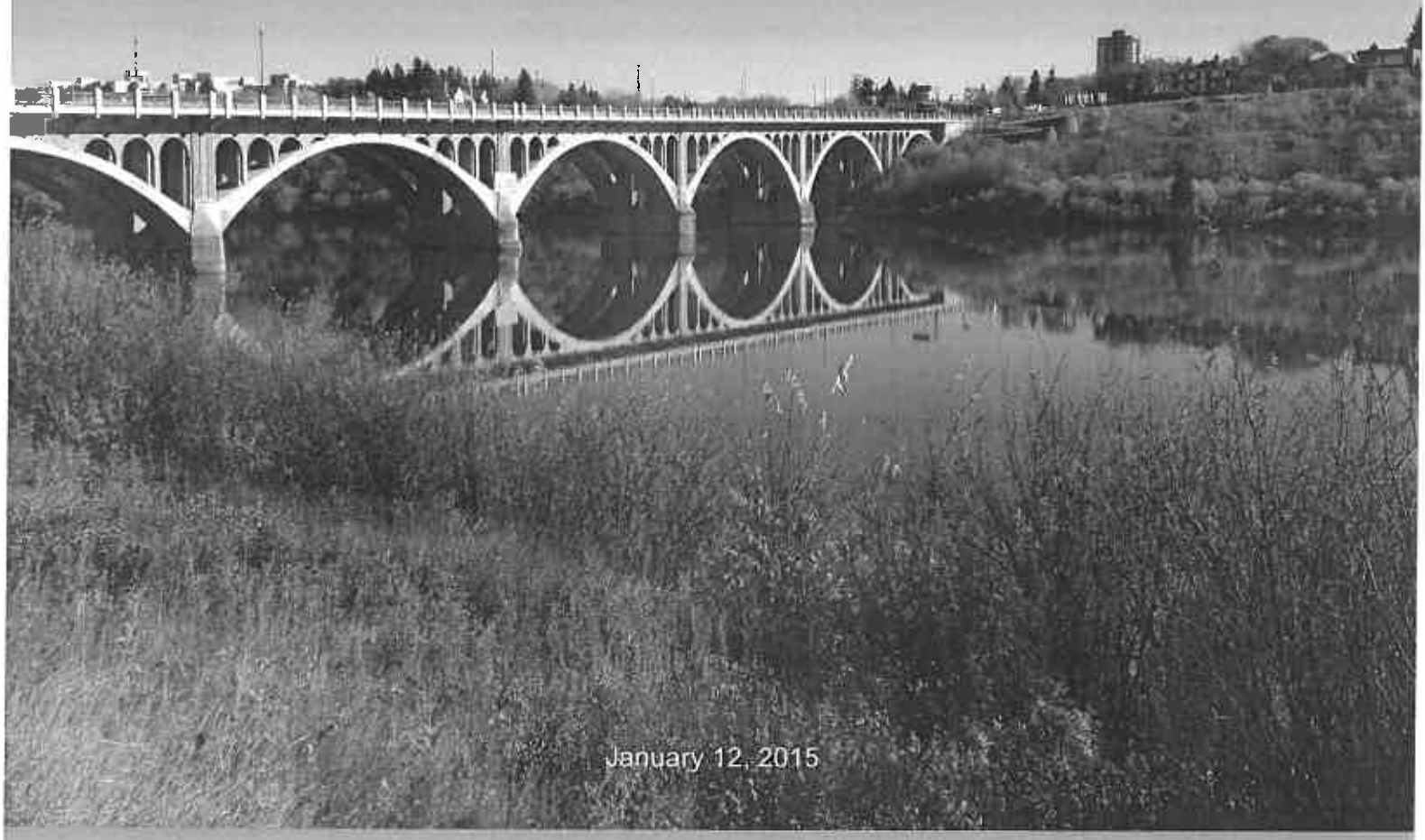
Written by: Justine Nyen, Traffic Safety Engineer, Transportation
Reviewed by: Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS JN – Hudson Bay Park Neighbourhood Traffic Review

ATTACHMENT 1

City of Saskatoon

Hudson Bay Park Neighbourhood Traffic Review



January 12, 2015

Transportation & Utilities Department

Acknowledgements

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Hudson Bay Park residents
- Hudson Bay Park Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- City of Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Darren Hill

Executive Summary

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2013.

A public meeting was held in April of 2014 to identify traffic concerns and potential solutions within the Hudson Bay Park neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in October 2014.

A summary of recommended improvements for the Hudson Bay Park neighbourhood are included in **Table ES-1.** The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years.

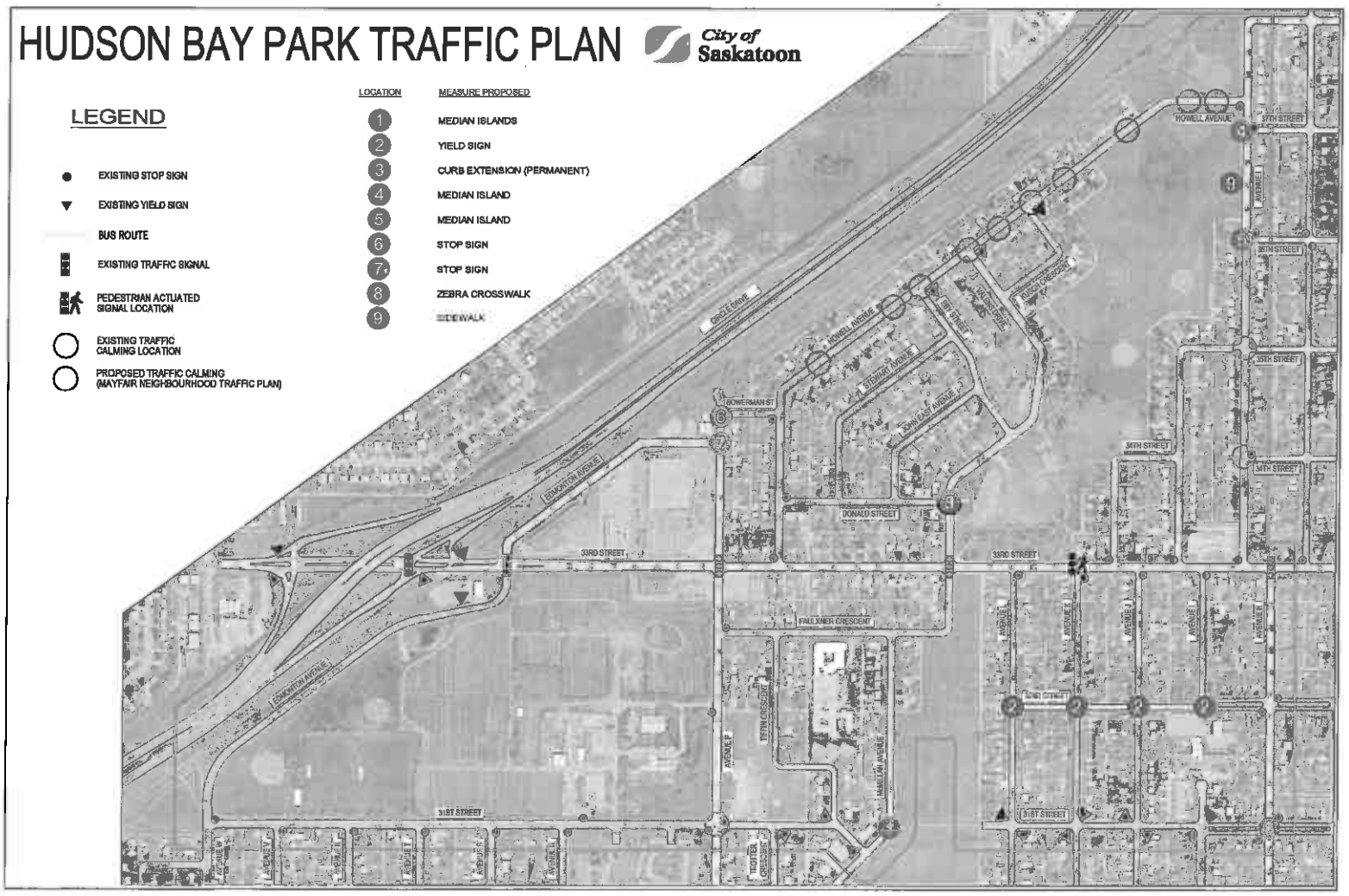
The resulting proposed Hudson Bay Park Traffic Management Plan is illustrated in **Exhibit ES-1**.

Table ES-1: Hudson Bay Park Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
Avenue P & Bowerman Street	Install stop sign	1 to 2 years
Avenue P & Edmonton Avenue	Install stop sign	
Avenue H & 31st Street	Install zebra crosswalks (north and south legs)	
Faulkner Crescent & McMillan Avenue	Upgrade yield sign to stop sign (northbound)	
32nd Street at Avenue I, Avenue J, Avenue K, & Avenue L	Install yield signs	
McMillan Avenue (curve north of 31st Street)	Install median islands on north & south side of crosswalk/curve	3 to 5 years (devices will be installed temporarily until proven effective)
Avenue I & 37th Street	Install median island & standard crosswalk (north leg)	
Avenue I & 36th Street	Install median island (north leg)	
Valens Drive (in front of Henry Kelsey School)	Install permanent curb extension	5 years plus
Avenue I between Howell Avenue & 36th Street	Install sidewalk (on west side/park side)	

HUDSON BAY PARK TRAFFIC PLAN

City of Saskatoon



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LIST OF EXHIBITS

1. Introduction

The purpose of this project was to develop a Traffic Management Plan for the Hudson Bay Park neighbourhood following the implementation procedure outlined in the *City of Saskatoon Traffic Calming Guidelines and Tools* adopted by City Council in August 2013.

The Hudson Bay Park neighbourhood is located on the west side of the South Saskatchewan River and is bound by Circle Drive to the northwest, 31st Street to the south, and Avenue I to the east. The neighbourhood is intersected by 33rd Street, a major arterial which carries high volumes of traffic between the west end and the downtown and core areas of the city. The area use is mostly residential, with an elementary school (Henry Kelsey School) on Valens Drive and 33rd Street West.

The development and implementation of the traffic management plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **Stage 4** - Implement the proposed measures in specific time frame, short term (1 to 2 years), medium term (3 to 5 years) or long term (5 years plus).

2. Identifying Issues, Concerns, & Possible Solutions

A public meeting was held in April of 2014 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood residents.

CONCERN 1 – SPEEDING AND SHORTCUTTING

Shortcutting occurs when non-local traffic passes through the neighbourhood on local streets which are designed and intended for low volumes of traffic. In the case of Hudson Bay Park, the nearby arterial streets (33rd St, and Avenue I) are designated to accommodate larger volumes of traffic.

As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Neighbourhood concerns for speeding and shortcutting were at the following locations:

- Faulkner Crescent: shortcutting to avoid the traffic signals at Avenue P & 33rd Street
- Howell Avenue
- McMillan Avenue: speeding near park; shortcutting between 29th Street & 33rd Street
- Eby Street: school buses speeding
- Avenue P at Bowerman Street & Edmonton Avenue: offset intersections; drivers speeding around corners
- Valens Drive

Proposed solutions identified by residents:

- Install median islands on Faulkner Crescent
- Speed humps
- Roundabouts
- Enforcement
- Extend Edmonton Avenue to reduce shortcutting on Howell Avenue
- 40kph speed limit on residential streets
- Install stop signs (Avenue P at Bowerman Street & Edmonton Avenue)
- Install yield signs at all uncontrolled intersections between Avenue L, Avenue H, 29th Street, & 33rd Street.
- Snow clearing around median islands may be an issue; extend parking restrictions to ensure clearance for graders.

CONCERN 2 - PEDESTRIAN SAFETY

A majority of the residents were concerned about pedestrian safety surrounding the school sites and parks within Hudson Bay Park (Henry Kelsey School, Henry Kelsey Park, Pierre Radisson Park).

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

> "The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled "Traffic Control at Pedestrian Crossings – 2004" approved by City Council in 2004."

Neighbourhood concerns regarding pedestrian safety were at the following locations:

- McMillan Avenue: near park
- Valens Drive: parking over crosswalk; U-turns
- Avenue I & 36th Street
- U-turns in school zone

Proposed solutions identified by residents:

- Install sidewalk on Avenue I between Howell Avenue & 36th Street on park side (Henry Kelsey Park)
- Install pedestrian/cyclist crossing on Circle Drive from Avenue P to Glenwood Avenue and/or Henry Kelsey North Park to south end of Cardinal Place; crossing Circle Drive (i.e. tunnel, bridge)
- Place signs to identify parks / playgrounds & areas where kids are playing
- 40kph speed limit all year round at school zones, parks, & playgrounds
- Install cameras or unmarked police cars to address U-turns in school zone
- Public safety blitz
- School provide staff in the morning to help children and tell drivers not to park in crosswalk
- Consideration for effects of traffic calming devices and cyclists

CONCERN 3 – PARKING

Parking is allowed on all city streets unless signage is posted. According to City of Saskatoon Bylaw 7200, *The Traffic Bylaw*, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway crossing.

Neighbourhood concerns regarding parking were at the following locations:

- Buses park in front of Henry Kelsey School on Valens Drive around the curve, limiting visibility.
- Parking over the crosswalk in front of the Henry Kelsey School
- Parking congestion around the Oliver Lodge

Proposed solutions identified by residents:

- Move the school bus loading zone south of the Henry Kelsey School on Valens Drive to improve visibility.

CONCERN 4 – 33rd STREET

Residents identified a number of concerns regarding speeding, shortcutting, and pedestrian safety along 33rd Street. An extensive review of 33rd Street (between Idylwyld Drive and Confederation Drive) will begin in 2015. All concerns were documented and will be included in the review. A list of the 33rd Street concerns are shown in **Appendix A**.

3. Assessment

Stage 2 of the plan development included developing a draft traffic management plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic data and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements.

1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

Table 3-1: City of Saskatoon Street Classifications and Characteristics

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85th percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Hudson Bay Park area is 50kph, except for school zones (33rd Street and Valens Drive) where the speed limit is 30kph from September and June, 8:00am to 5:00pm, excluding weekends.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue are summarized in **Table 3-2**.

Table 3-2: Speed Studies and Average Daily Traffic Counts (2014)

Street	Between	Classification	Average Daily Traffic (vpd)	Speed (kph)
McMillan Avenue	29th Street & 30th Street	local	492	46.6
Avenue L	29th Street & 30th Street		568	38.7
Howell Avenue	33rd Street & Avenue I		815	45.6
Faulkner Crescent	33rd Street McMillan Avenue		515	27.3
Avenue I	36th Street & 37th Street	minor collector	1911	55.4
Avenue H	30th Street & 31st Street	arterial	2929	52.2

2. Turning Movement Counts

Turning movement counts were completed to determine the need for an all-way (i.e. 3-way or 4-way) stop control. All-way stop controls need to the meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009. Criteria outlined in the policy that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Results of the studies are shown in **Table 3-3**.

Table 3-3: All-way Stop Assessments

Location	Peak Hour Traffic Count	Average Daily Traffic (vpd)	Results
McMillan Avenue & 31st Street	55	610	All-way stop not warranted
Avenue H & 31st Street	596	5960	

As a result of the assessment there are no an all-way stop controls recommended. Details of the all-way stop assessments are provided in **Appendix B**.

3. Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which, in adherence to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004, are typically active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:

- The number of traffic lanes to be crossed;
- the presence of a physical median;
- the posted speed limit of the street;
- the distance the crossing point is to the nearest protected crosswalk point; and
- the number of pedestrian and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.

In addition, if a pedestrian actuated crosswalk is not warranted, a standard marked pedestrian crosswalk, or a zebra (i.e. striped crosswalk) may be considered. A summary of the pedestrian studies are provided in **Table 3-4**.

Table 3-4: Pedestrian Assessment

Location	Number of pedestrians crossing	Results
McMillan Avenue & 31st Street	4	Pedestrian Devices Not Warranted
Avenue H & 31st Street	27	

As a result of the assessment, no pedestrian devices are recommended. Details of the pedestrian device assessments are provided in **Appendix C**.

4. Plan Development

Stage 3 of the project included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- Present the draft plan to the residents at a follow-up public meeting
- Circulate the draft plan to the Civic divisions for comment
- Revise the draft plan based on feedback from the stakeholders
- Prepare a technical document summarizing the recommended plan and project process

The tables in the following sections provide the details of the recommended traffic management plan, including the location, recommended improvement, and the justification of the recommended improvement.

1. Shortcutting and Speeding

The 85th percentile speed was higher than expected on Avenue I. The recommended improvements and justification to address speeding and shortcutting are detailed in **Table 4-1**.

Table 4-1: Recommended Improvements to Reduce Speeding and Shortcutting

Location	Recommended Improvement1	Justification
Avenue I & 36th Street	Raised median island	Reduce speed near park (transit route)
Avenue I & 37th Street	Raised median island	Reduce speed near park (transit route)

[1] For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

2. Pedestrian Safety

Hudson Bay Park residents identified pedestrian safety concerns near the Pierre Radisson Park (McMillan Avenue) and the Henry Kelsey School (Valens Drive) as a priority. The safety of the pedestrian environment near schools is important to encourage people to walk to school, as opposed to being dropped off. There a currently no marked crosswalks on Avenue H (arterial) between 29th Street and 33rd Street. Accordingly, the recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Pedestrian Safety Improvements – School Sites

Location	Recommended Improvement	Purpose
McMillan Avenue (curve north of 31st Street)	Raised median islands (on either side of crosswalk/curve)	Improve pedestrian safety near park/curve
Avenue H & 31st Street	Zebra crosswalk	Improve pedestrian (currently no marked crosswalks on Avenue H between 29th Street & Avenue H)
Valens Drive (in front of Henry Kelsey School)	Permanent curb extension	Improve pedestrian safety (prevents parking within intersection & over crosswalks; prevents U-turns)
Avenue I & 37th Street	Standard pedestrian crosswalk	Improve pedestrian safety near park
Avenue I between Howell Avenue & 36th Street	Install sidewalk (west side only)	Improve pedestrian safety near park

The Active Transportation Plan is a comprehensive city-wide study that will help to provide more choices for moving around Saskatoon by addressing community and infrastructure needs for cycling, walking, and other modes of active transportation.

During the public consultation, residents recommended installation of a pedestrian/cyclist bridge across Circle Drive connecting Hudson Bay Park to the north side of Circle Drive. Possible connections identified were Ave P to Glenwood Ave are and/or Henry Kelsey North Park to the south end of Cardinal Place. These may be reviewed as part of the Active Transportation Plan.

3. Traffic Control

The recommended improvements to intersections that will improve the level of safety by clearly identifying the right-of-way through traffic controls are provided in **Table 4-3**.

Table 4-3: Recommended Traffic Control Improvements

Location	Recommended Improvement	Purpose
Avenue P & Bowerman Street; Avenue P & Edmonton Avenue	Stop sign	Enhance compliance (offset intersection; drivers speeding around corners; currently uncontrolled)
Faulkner Crescent & McMillan Avenue	Upgrade yield sign to stop sign	Enhance compliance (drivers shortcutting; not stopping at T-intersection)
32nd Street at Avenue I, Avenue J, Avenue K, & Avenue L	Yield Signs	Enhance compliance

4. Parking Improvements

The Administration will discuss parking issues in front of the Henry Kelsey School (ie. bus loading zones) with the Public School Board and principal of the Henry Kelsey School.

Follow up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in October 2014. Recommended improvements that were not supported by the residents were eliminated or altered accordingly. A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix D**. A decision matrix for additional comments received after the draft traffic plan is also included in **Appendix D**.

The following table displays a list of the improvements that were adjusted based on the feedback received at the October 2014 follow up meeting.

Table 4-4: Adjusted Recommended Improvements

Location	Improvement	Reason	Resident feedback	Decision
Avenue I & 37th Street	Median island	Reduce speeding near park	Agreed. Add crosswalk to further enhance pedestrian safety near park.	Carried

The list of the improvements that were added based on the feedback received at the follow up meeting held in October 2014 is shown in **Table 4-5**.

Table 4-5: Added Improvements

Location	Improvement	Reason
Faulkner Crescent & McMillan Avenue	Upgrade yield sign to stop sign (northbound)	Enhance compliance (drivers shortcutting; not stopping at T-intersection)
Avenue I between Howell Avenue & 36th Street	Install sidewalk on west side (near park)	Improve pedestrian safety

All Civic Divisions supported the Traffic Management Plan provided all devices installed will allow transit and emergency vehicles to manoeuvre around them without causing damage to the structure.

Saskatoon Light & Power identified issues with overhead power lines over Circle Drive near the proposed location for the pedestrian/cyclist bridge. As previously mentioned, this will be reviewed as part of the Active Transportation Plan.

5. Recommended Plan and Cost Estimates

Stage 4, the last stage of the process, is to install the recommended improvements for the Hudson Bay Park neighbourhood within the specified timeframe. The timeframe depends upon the complexity and cost of the solution. A short term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of pedestrian and traffic control signage will be completed short-term (1 to 2 years).

All traffic calming measures will be installed temporarily using rubber curbing until proven effective, and will be implemented short-term (1 to 2 years).

Permanent traffic calming often includes removing the temporary barriers and reconstructing with concrete. The timeline for permanent traffic calming may depend on the complexity of the device and the availability of funding; therefore the timeline is medium-term (3 to 5 years).

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- **Table 5-1**: Traffic Calming Cost Estimate
- **Table 5-2**: Marked Pedestrian Crosswalks Cost Estimate
- **Table 5-3**: Traffic Control Cost Estimate
- **Table 5-4**: Sidewalk Cost Estimate

Table 5-1: Traffic Calming Cost Estimate

Location	Device (s)	Temporary	Permanent	Time Frame
McMillan Avenue (curve north of 31st Street)	Raised median islands	$1,000	$12,000	3 to 5 years
Avenue I & 37th Street	Raised median island	$500	$6,000	
Avenue I & 36th Street	Raised median island	$500	$6,000	
Valens Drive (in front of Henry Kelsey School)	Curb extension	NA (installed 2013)	$40,000	
Total		$2,000	$64,000	

Temporary traffic calming will be installed in 2015 and will be monitored to determine its effectiveness. If proven effective, the devices will be made permanent. Until they are made permanent, the devices will remain temporary and maintained on a yearly basis. An estimated cost for maintenance is about $5,000 per year. The maintenance typically

involves the replacement of damage curbs as result of the winter- snow removal, damage from vehicle impact, etc.

Table 5-2: Marked Pedestrian Crosswalks Cost Estimate

Location	Device (s)	Cost Estimate	Time Frame
Avenue H & 31st Street	4 signs & zebra markings crosswalks	$1,200	1 to 2 years
Avenue I & 37th Street	2 signs & standard markings	$1,400	
Total		$2,600	

The operating impact on an annual basis to maintain a painted crosswalk is approximately $60 each.

Table 5-3: Traffic Control Cost Estimate

Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
Avenue P & Bowerman Street	Stop sign	1	$250	1 to 2 years
Avenue P & Edmonton Avenue	Stop sign	1	$250	
Faulkner Crescent & McMillan Avenue	Stop sign	1	$250	
32nd Street at Avenue I, Avenue J, Avenue K, & Avenue L	Yield signs	8	$2,000	
Total			$2,750	

Table 5-4: Sidewalk Cost Estimate

Location	Device (s)	Cost Estimate	Time Frame
Avenue I between Howell Avenue & 36th Street	Sidewalk	$77,000	5 years plus

The total cost estimate for the signage, pavement markings, and temporary traffic calming devices to be installed in 2015 is **$7,350**. The total cost estimate, including the installation of permanent traffic calming and sidewalk installations is **$148,350.**

Resulting from the plan development process, the recommended improvements, including the location, type of improvement, and schedule for implementation are summarized in **Table 5-5**. The resulting recommended Hudson Bay Park Traffic Management Plan is illustrated in **Exhibit 5-1**.

Table 5-5: Hudson Bay Park Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
Avenue P & Bowerman Street	Install stop sign	1 to 2 years
Avenue P & Edmonton Avenue	Install stop sign	
Avenue H & 31st Street	Install zebra crosswalks (north and south legs)	
Faulkner Crescent & McMillan Avenue	Upgrade yield sign to stop sign (northbound)	
32nd Street at Avenue I, Avenue J, Avenue K, & Avenue L	Install yield signs	
McMillan Avenue (curve north of 31st Street)	Install median islands on north & south side of crosswalk/curve	3 to 5 years (devices will be installed temporarily until proven effective)
Avenue I & 37th Street	Install median island & standard crosswalk (north leg)	
Avenue I & 36th Street	Install median island (north leg)	
Valens Drive (in front of Henry Kelsey School)	Install permanent curb extension	5 years plus
Avenue I between Howell Avenue & 36th Street	Install sidewalk (on west side/park side)	

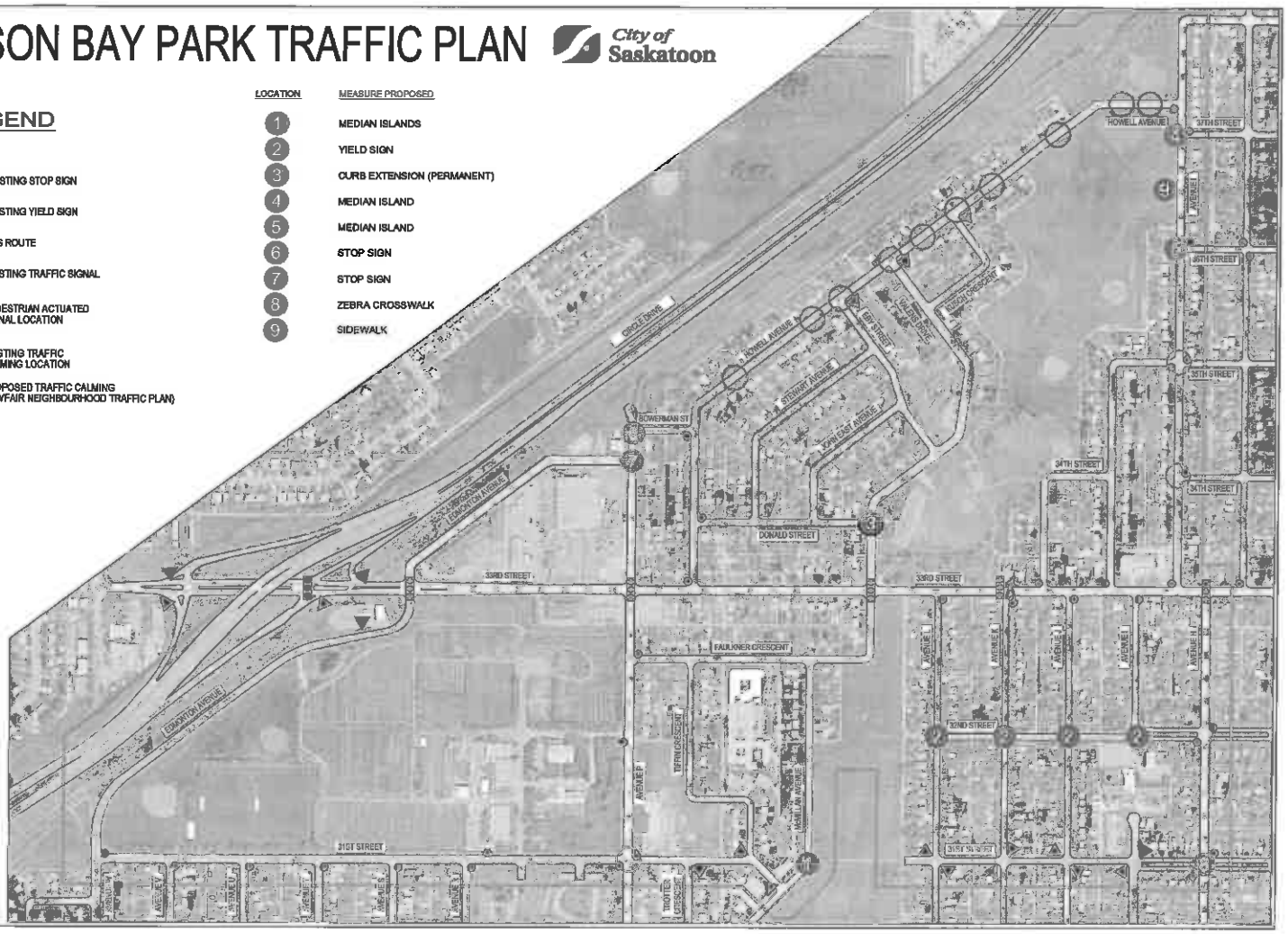
HUDSON BAY PARK TRAFFIC PLAN

City of Saskatoon

LEGEND

- EXISTING STOP SIGN
- EXISTING YIELD SIGN
- BUS ROUTE
- EXISTING TRAFFIC SIGNAL
- PEDESTRIAN ACTUATED SIGNAL LOCATION
- EXISTING TRAFFIC CALMING LOCATION
- PROPOSED TRAFFIC CALMING (MAYFAIR NEIGHBOURHOOD TRAFFIC PLAN)

LOCATION	MEASURE PROPOSED
1	MEDIAN ISLANDS
2	YIELD SIGN
3	CURB EXTENSION (PERMANENT)
4	MEDIAN ISLAND
5	MEDIAN ISLAND
6	STOP SIGN
7	STOP SIGN
8	ZEBRA CROSSWALK
9	SIDEWALK



Appendix A

33rd Street Concerns

1. Ave P - congestion; running red lights; speeding; needs left turn signal from 33rd to Ave P; not yielding to pedestrians when turning right on red; needs left turn northbound/southbound to improve traffic flow.
2. Keep parking on 33rd St; parking cannot be removed without it becoming a freeway.
3. Ave K - Drivers not stopping at active pedestrian corridor; more traffic calming devices are needed on to improve pedestrian safety on 33rd St from Ave I to Valens Drive.
4. New neighbourhoods being developed will increase traffic volumes.
5. Supportive of keeping parking on 33rd Street: removal of parking will create higher traffic speeds.
6. Installing parking meters favored for the business commercial areas.
7. Discourage traffic - prioritize east/west traffic by improving signal timing at Idylwyld and 33rd Street westbound.
8. Restriction is supported - difficult to back out from a driveway; do not allow two lanes.
9. Sidewalk be marked more clearly to improve pedestrian safety.
10. Consider sidewalk clearing/snow removal with traffic calming – narrow road cause issues for snow equipment.
11. Sidewalk maintenance on south side – improve pedestrian safety.
12. Enforcement – speeding – safety for crosswalks, school zones and do not allow semi's (big trucks).
13. General support of left turns – allows residential access.
14. Divert 33rd Street commuter traffic at Circle Drive with additional lanes may improve traffic flow.
15. Garbage and recycle carts – keep as front pickup.
16. Avenue D – keep lights - reduces left turn difficulties and restricts speeding.
17. Circle Drive – reduce lights – may improve the congestion on 33rd Street.
18. Residents on 33rd St will have to back their vehicles out of the driveways directly into a traffic lane.
19. Traffic moves in orderly and efficient manner right now. Additional lane will increase speed and you get people trying to get into the pole position.
20. Addition of another lane will make it difficult to cross the street, especially kids on their way to school.
21. Shortcutting from 33rd St to avoid Ave P intersection (33rd St to Faulkner Cres to McMillan Ave near park to 29th St).
22. Valens Avenue – shorter light cycle needed; improve traffic flow.
23. Ave K – pedestrian-activated crossing on 33rd St placed too high to see

Ave P & 33rd St - needs turning signals to turn onto Ave P; left turn signal may reduce shortcutting on Faulkner Crescent.

Appendix B

All Way Stop Assessments

All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)

The following conditions, singly or in combination, may warrant the installation of all-way stop signs:

i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.

ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.

iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.

iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Criteria 1: 5 or more collisions in last twelve months	Criteria 2: at least 600 vehicles per peak hour OR 6,000 vehicles per day	Criteria 3: average delay per vehicle greater than 30sec during peak hour	Criteria 4: Interim for traffic signals	Results
McMillan Avenue & 31st Street	0 collisions – Criteria NOT met	55 peak hour, 610 – Criteria NOT met	Below 30sec – Criteria NOT met	No plans for traffic signals – Criteria NOT met	All-way stop NOT warranted
Avenue H & 31st Street	0 collisions – Criteria NOT met	596 peak hour, 5,960 – Criteria NOT met	Below 30sec – Criteria NOT met	No plans for traffic signals – Criteria NOT met	All-way stop NOT warranted

Appendix C

Pedestrian Device Assessments

Pedestrian device assessment (Traffic Controls at Pedestrian Crossing, 2004)

McMillan Avenue & 31st Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	300	m	= distance from study location to nearest protected crosswalk.
LOCF =	7.5	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	4.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	6.0		= weighted average of pedestrians crossing the main street.
Pcm =	1.2		= weighted average hourly pedestrian volume crossing the main street.
V =	211.0		= volume of traffic passing through the crossing(s).
Vam =	42.2		= average hourly volume of traffic passing through the crossing(s).
VOLF =	0.1	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**20**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Avenue H & 31st Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0.0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	400	m	= distance from study location to nearest protected crosswalk.
LOCF =	15.0	points	= (D-200) / 13.3 to a maximum of 15 points.
Actual value=	15.03759	Points	
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	27.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	40.5		= weighted average of pedestrians crossing the main street.
Pcm =	8.1		= weighted average hourly pedestrian volume crossing the main street.
V =	2008.0		= volume of traffic passing through the crossing(s).
Vam =	401.6		= average hourly volume of traffic passing through the crossing(s).
VOLF =	6.5	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**34**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Appendix D

Recommendation Review Matrix

Decision Matrix – Recommendations proposed at initial meeting

Item	Location	Proposed Measure	Decision
1	McMillan Ave (curve north of 31st St)	Install median islands on north & south side of crosswalk/curve	Carried.
2	McMillan Ave (near park)	Install median island & playground sign (southbound)	Removed. Sign not necessary. Issues with emergency vehicles entering back lane.
3	Valens Dr (in front of Henry Kelsey School)	Install permanent curb extension	Carried.
4	Ave I & 37th St	Install median island (north leg)	Carried. Add crosswalk.
5	Ave I & 36th St	Install median island (north leg)	Carried. Ensure bus turning movements or move to south leg.
6	Ave P & Bowerman St	Install stop sign	Carried.
7	Ave P & Edmonton Ave	Install stop sign	Carried.
8	Circle Dr near end of Ave P	Include in Active Transportation Plan - Install pedestrian/cyclist bridge across Circle Dr to connect Ave P to Glenwood Ave are and/or Henry Kelsey North Park to the south end of Cardinal Place	Removed. To be reviewed as part of the Active Transportation Plan. Change to pedestrian/cyclist bridge, not tunnel. Ensure location does not interfere with overhead power lines.
9	Ave H & 31st St	Install zebra crosswalks (north and south legs)	Carried.

Decision Matrix – Additional comments

Item	Location	Recommendation / Concern	Decision
1	Faulkner Cres & McMillan Ave	Upgrade yield sign to stop sign (northbound)	Carried. Driver's shortcutting down McMillan Ave/Faulkner Cres to 33rd St. Enhance compliance at intersection.
2	Circle Dr	Install sound walls	Noted.
3	Ave P & 33rd St	Protected left turn phase at traffic signals (to reduce shortcutting on McMillane Ave & Faulkner Cres)	Comments will be included in 33rd St Review.
4	Faulkner Cres	Install median islands	Rejected. Speed study indicated speeds and traffic volumes were within acceptable range. Shortcutting may be reduced through 33rd St improvements.
5	Eby St	Speeding concerns.	Noted. No recommendations at this time. Not a through street.
6	Ave I between Howell Ave & 36th St	Install sidewalk (on west side/park side)	Carried.
7	Ave I, Ave J, Ave K, & Ave L between 29th St & 33rd St	Install yield signs at uncontrolled intersections.	30th St & 31st St will be is inlcuded in the list of neighbourhoods for the Stop & Yield Retrofit Program (Wesmount) and will be installed in spring 2015. Intersections along 32nd St (at Ave I, Ave, J, Ave, K, & Ave L) will be added.
8	38th St & Ave D	Snow maintenance around islands may be an issue - extend "no Parking" zone	Noted. Parking restrictions will be added if snow clearing is an issue.

Westmount Neighbourhood Traffic Review

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:

That the Neighbourhood Traffic Review for the Westmount neighbourhood be adopted as the framework for future traffic improvements in the area, to be undertaken as funding is made available through the annual budget process.

Topic and Purpose
The purpose of this report is to provide information on the Neighbourhood Traffic Review for the Westmount neighbourhood.

Report Highlights
A traffic plan for the Westmount neighbourhood was developed, in consultation with the community, in response to concerns such as speeding, traffic shortcutting, and pedestrian safety. The plan will be implemented over time as funding for the improvements is available.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing a plan to guide the installation of traffic calming devices and pedestrian safety enhancements to improve the level of safety of pedestrians, cyclists, and motorists.

Background
A public meeting was held in April 2014 to identify traffic concerns and potential solutions within the Westmount neighbourhood. Representatives from the Saskatoon Police Service were in attendance to address traffic enforcement issues. Based on the residents' input provided at the initial public meeting and the analysis of the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in October 2014.

Report
The development and implementation of the Traffic Management Plan includes four stages:

1. Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon.ca website;
2. Develop a draft traffic plan based on residents' input and traffic assessments;
3. Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed and present the plan to City Council for adoption; and
4. Implement the proposed measures in a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years), or long-term (more than 5 years).

The majority of concerns received during the consultation included shortcutting, speeding, and pedestrian safety (specifically on 29th Street and near the park on McMillan Avenue).

The Administration is recommending the following modifications to improve traffic safety in the Westmount neighbourhood:

- Four traffic calming locations
- Four pedestrian crosswalk locations
- Yield sign retrofit (17 locations)
- Two stop sign locations
- One school zone extension
- One sidewalk installation

Installation of each proposed improvement will be implemented in three specific time frames as follows:

Short-term (1 to 2 years)	Temporary traffic calming measures, signage, pavement markings, accessible pedestrian ramps
Medium-term (3 to 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks (in some cases), major intersection reviews
Long-term (5 years plus)	Permanent traffic calming devices, roadway realignment, sidewalks

The Westmount Neighbourhood Traffic Review is included in Attachment 1.

Public and/or Stakeholder Involvement

In April 2014, a public meeting was held to discuss traffic concerns and identify potential solutions. The feedback received was used to develop the neighbourhood traffic plan which was presented at a follow up public meeting in October 2014. Additional feedback received at the follow-up meeting was also incorporated into the final Traffic Management Plan.

Feedback was provided by internal civic stakeholders of various divisions and departments: Public Works, Saskatoon Transit, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the proposed Traffic Management Plan.

Communication Plan

The final neighbourhood traffic plan will be shared with the residents of the impacted neighbourhood using several methods: City website, Community Association communication forums (i.e. website, newsletter), and by a direct mail-out.

Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions is not known at this time.

Financial Implications

The implementation of the neighbourhood traffic calming plan will have significant financial implications. The costs are summarized in the following table:

Item	2015	Beyond 2015
Traffic Calming	$ 3,500	$138,000
Marked Pedestrian Crosswalks	5,200	-
Stop and Yield Signs	9,500	-
Sidewalks	0	37,400
TOTAL	$18,200	$175,400

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2015.

The remainder of the work, beyond 2015, will be considered alongside all other improvements identified through the Neighbourhood Traffic Management Program. The Administration's annual budget submission package will include the list of projects recommended to be funded, and the rationale used to prioritize the projects.

Other Considerations/Implications

There are no options, policy, privacy or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If adopted by City Council, temporary traffic calming devices, pavement markings and signage will be implemented during the 2015 construction season.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Westmount Neighbourhood Traffic Review, January 8, 2015

Report Approval

Written by: Justine Nyen, Traffic Safety Engineer, Transportation
Reviewed by: Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS JN – Westmount Neighbourhood Traffic Review

ATTACHMENT 1

City of Saskatoon

Westmount Neighbourhood Traffic Review

January 8, 2015

Transportation & Utilities Department

Acknowledgements

The completion of this review would not be possible without the contribution of the following organizations and individuals:

- Westmount residents
- Westmount Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- City of Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Troy Davies

Executive Summary

The objective of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. The program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation that provides the environment for neighbourhood residents and City staff to work together in developing solutions that address traffic concerns. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2013.

A public meeting was held in April of 2014 to identify traffic concerns and potential solutions within the Westmount neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in October 2014.

A summary of recommended improvements for the Westmount neighbourhood are included in **Table ES-1.** The summary identifies the locations, the recommended improvement, and a schedule for implementation. The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the *Traffic Calming Guidelines and Tools* document, the time frame may range from short-term (1 to 2 year); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years.

The resulting proposed Westmount Traffic Management Plan is illustrated in **Exhibit ES-1**.

Table ES-1: Westmount Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
All uncontrolled intersections	34 yield signs	1 to 2 years
Bedford Road & Avenue K; Bedford Road & Avenue I	4 stop signs (east-west facing)	
Rusholme Roadd between Avenue M & Avenue K	Extend school zone	
Avenue H & 31st Street	2 zebra crosswalks on Avenue H	
29th Street & McMillan Avenue	2 zebra crosswalks on 29th Street	
29th Street & Avenue L	2 zebra crosswalks on 29th Street	
29th Street & Avenue I	1 zebra crosswalk on 29th Street & move mailboxes on southeast corner	
McMillan Avenue & Trotter Crescent	1 raised median island on McMillan Avenue	3 to 5 years (devices will be installed temporarily until proven effective)
McMillan Avenue & curve north of 31st Street	2 raised median islands on McMillan Avenue	
29th Street & McMillan Avenue	2 curb extensions on 29th Street	
29th Street & Avenue L	2 curb extensions on 29th Street	
Avenue M between 22nd Street & 23rd Street	Sidewalk (west side)	5 years plus

WESTMOUNT TRAFFIC PLAN

City of Saskatoon

LEGEND

- STOP SIGN
- YIELD SIGN
- PROPOSED YIELD SIGN
- BUS ROUTE
- TRAFFIC SIGNAL LOCATION
- PEDESTRIAN ACTUATED SIGNAL LOCATION

LOCATION	MEASURE PROPOSED
1	Proposed Yield signs (various locations)
2	Stop signs
3	School zone expansion
4	Zebra crosswalks & curb extensions
5	Zebra crosswalks & curb extensions
6	Zebra crosswalk
7	Raised median island
8	Raised median islands
9	Zebra crosswalk
10	Sidewalk (West side only)

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LIST OF EXHIBITS

1. Introduction

The purpose of this project was to develop a Traffic Management Plan for the Westmount neighbourhood following the implementation procedure outlined in the *City of Saskatoon Traffic Calming Guidelines and Tools* adopted by City Council in August 2013.

The Westmount neighbourhood is located on the west side of the South Saskatchewan River and is bound by Avenue H North to the east, 22nd Street West to the south, 31st Street West to the north, and a skewed border on the west which runs along Avenue P North, Avenue O North, and McMillan Ave. The area use is mostly residential, with schools along Rusholme Road (E.D. Feehan Catholic High School and Westmount Community School), and some commercial land use adjacent to 22nd Street.

The development and implementation of the traffic management plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a draft traffic plan based on resident's input and traffic assessments.
- **Stage 3** - Present the draft traffic plan to the neighbourhood at a follow-up meeting; circulate the plan to other civic divisions for feedback; make adjustments as needed; and present the plan to City Council for approval.
- **Stage 4** - Implement the proposed measures in specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years) or long-term (5 years plus).

2. Identifying Issues, Concerns, & Possible Solutions

A public meeting was held in April of 2014 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood residents.

CONCERN 1 – SPEEDING AND SHORTCUTTING

Shortcutting occurs when non-local traffic passes through the neighbourhood on local streets which are designed and intended for low volumes of traffic. In the case of Westmount, the nearby arterial streets (Avenue H, Avenue P, 22nd Street, and 33rd Street) are designated to accommodate larger volumes of traffic.

As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Neighbourhood concerns for speeding and shortcutting were at the following locations:

- McMillan Avenue between 29th Street & 33rd Street: speeding near park; shortcutting to and from 33rd Street.
- McMillan Avenue between 23rd Street & Bedford Road
- 29th Street: increased traffic volumes as a result of 25th Street opening; speeding
- Bedford Road & Avenue K (near park): coming onto Bedford Road from Avenue H is a shortcut going west; speeding
- Rusholme Road
- Avenue L between 29th Street & 33rd Street

Proposed solutions identified by residents:

- 29th Street between Avenue P and McMillan Avenue: narrow the road; install a stop sign
- Bedford Road & Avenue K: yield sign should be changed to stop sign; install speed humps.
- Avenue L between 29th Street & 33rd Street: install speed humps or roundabouts.
- Implement 40kph speed zone in particular areas.
- Install "Traffic-calmed Neighbourhood" signage (or something similar that reminds motorists they are in a neighbourhood and to drive slower) at major entrances into the neighbourhood.
- Consider snow removal / graders before implementing traffic calming devices.
- Consider stop signs instead of yield signs.

CONCERN 2 - PEDESTRIAN SAFETY

Pedestrian crosswalks need to adhere to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004 which states the following:

> "The installation of appropriate traffic controls at pedestrian crossings shall be based on warrants listed in the document entitled "Traffic Control at Pedestrian Crossings – 2004" approved by City Council in 2004."

Neighbourhood concerns regarding pedestrian safety were at the following locations:

- Avenue H: no one slows down in the school zone at Bedford Road and cars pass on the right when one is making a left turn into Rusholme Road; there are no safe crossings between 29th Street & 33rd Street.
- McMillan Avenue & 29th Street: children cross here; improve crossing
- McMillan Avenue & 31st Street: unsafe to cross; daycare nearby
- 29th Street & Avenue I: parked vehicles obstructs view of pedestrians; busy pedestrian crossing due to the convenience store.
- Bedford Road & Avenue K: a lot of children in the area
- Rusholme Road: the entire length should be a school zone; it's 50kph for one block, then 30kph for one block etc.

Proposed solutions identified by residents:

- Avenue H & Rusholme Road: put curbing or a diverter in front of the bus stop on the east side of Avenue H just before the Rusholme Road crosswalk.
- McMillan Avenue & 29th Street: roundabout may help
- McMillan Avenue & 31st Street: install traffic calming to improve crossing
- Better pedestrian crossing signs (or possibly crossing lights) where kids are crossing for schools.
- Bedford Road Collegiate: construct a drop off/pickup zone for students.
- Rusholme Road: extend school zone all the way from Avenue H to Avenue W. There are a number of schools adjacent to this roadway.
- Install sidewalk between 22nd Street & 23rd Street.

CONCERN 3 – MAINTENANCE

Residents were concerned about the condition of the streets in Westmount (i.e. snow clearing, potholes, tree trimming, and temporary traffic calming devices), particularly 23rd Street where a number of temporary traffic calming devices were installed as part of the Blairmore Bikeway.

Neighbourhood concerns regarding maintenance were at the following locations:

- 23rd Street bike route is a great idea however from Avenue N to Idylwyld Drive is in deplorable shape, not safe for bikes or cars as people try to avoid the numerous potholes.
- 23rd Street: Roundabouts are a hazard and the temporary barriers should not be used; graders tear them up; broken barriers and bolts are left scattered on the road; in the winter they're buried in snow, dirt, and gravel and garbage collects over them; they are never cleaned out which makes them an eyesore.
- New homes are being constructed in the area are causing more heavy vehicle traffic from 22nd Street; trucks can't pass temporary roundabouts on 23rd Street.

Proposed solutions identified by residents:

- Remove temporary traffic calming devices on 23rd Street.
- Resurface 23rd Street to make it smoother for cyclists.

CONCERN 4 – BORDERING ARTERIAL STREETS

22nd Street is a major arterial which borders Westmount on the south end. Specific concerns were identified during the public consultation.
Neighbourhood concerns regarding maintenance were at the following locations along 22nd Street: • Avenue H: high traffic volumes causing congestion; collisions; need for a left turn signal phase for northbound & southbound. • Avenue P: high pedestrian location
Proposed solutions identified by residents: • Avenue H: install left turn signal phase for northbound & southbound. • Avenue P: install left turn signal phase (may give pedestrians opportunity to cross)

3. Assessment

Stage 2 of the plan development included developing a draft traffic management plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic data and information the City has on file for the neighbourhood.
- Prepare a data collection program that will provide the appropriate information needed to undertake the assessments.
- Complete the data collection, which may include:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements.

1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. In Saskatoon the neighbourhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on these streets should meet the City of Saskatoon guidelines shown in **Table 3-1**.

Table 3-1: City of Saskatoon Street Classifications and Characteristics

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vehicles per day)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85th percentile speed, which is the speed at which 85 percent of vehicles are travelling at or below. The speed limit in the Westmount area is 50kph, except for school zones where the speed limit is 30kph from September and June, 8:00am to 5:00pm, excluding weekends.

The speed studies and Average Daily Traffic (ADT) on streets where speeding was identified as an issue are summarized in **Table 3-2.**

Table 3-2: Speed Studies and Average Daily Traffic Counts (2014)

Street	Between	Classification	Average Daily Traffic (vpd)	Speed (kph)
McMillan Avenue	23rd Street & Bedford Road	Local	130	43.4
Bedford Road	Avenue K & Avenue L		170	40.1
McMillan Avenue	29th Street & 30th Street		490	46.6
Avenue L	29th Street & 30th Street		570	38.7
29th Street	Avenue O & McMillan Avenue	Major Collector	4,775	53.6
29th Street	Avenue M & McMillan Avenue		3,410	59.6
Avenue H	30th Street & 31st Street	Arterial	2,930	52.2

2. Turning Movement Counts

Turning movement counts were completed to determine the need for an all-way (i.e. 3-way or 4-way) stop control. All-way stop controls need to the meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009. Criteria outlined in the policy that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Results of the studies are shown in **Table 3-3**.

Table 3-3: All-way Stop Assessments

Location	Peak Hour Traffic Count	Average Daily Traffic (vpd)	Results
29th Street & McMillan Avenue	482	4,820	All-way Stop Not Warranted
31st Street & McMillan Avenue	55	610	
29th Street & Avenue I	585	6,880	
Avenue H & 31st Street	596	5,960	
29th Street & Avenue L	599	6,390	
28th Street & Avenue H	572	5,740	

As a result of the assessment there are no an all-way stop controls recommended. Details of the all-way stop assessments are provided in **Appendix A**.

3. Pedestrian Assessments

Pedestrian assessments are conducted to determine the need for pedestrian actuated signalized crosswalks which, in adherence to the City of Saskatoon Council Policy C07-018 *Traffic Control at Pedestrian Crossings*, November 15, 2004, are typically active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including:

- The number of traffic lanes to be crossed;
- the presence of a physical median;
- the posted speed limit of the street;
- the distance the crossing point is to the nearest protected crosswalk point; and
- the number of pedestrian and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.

In addition, if a pedestrian actuated crosswalk is not warranted, a standard marked pedestrian crosswalk, or a zebra (i.e. striped crosswalk) may be considered. A summary of the pedestrian studies are provided in **Table 3-4**.

Table 3-4: Pedestrian Assessment

Location	Number of pedestrians crossing	Results
29th Street & McMillan Avenue	6	Pedestrian Devices Not Warranted
31st Street & McMillan Avenue	4	
29th Street & Avenue I	36	
Avenue H & 31st Street	27	
29th Street & Avenue L	24	
28th Street & Avenue H	14	

As a result of the assessment, no pedestrian devices are recommended. Details of the pedestrian device assessments are provided in **Appendix B**.

4. Plan Development

Stage 3 of the project included finalizing the recommended plan. This was achieved by completing the following steps:

- Based on the assessments, prepare a plan that illustrates the appropriate recommended improvement
- Present the draft plan to the residents at a follow-up public meeting
- Circulate the draft plan to the Civic Divisions for comment
- Revise the draft plan based on feedback from the stakeholders
- Prepare a technical document summarizing the recommended plan and project process

The tables in the following sections provide the details of the recommended traffic management plan, including the location, recommended improvement, and the justification of the recommended improvement.

1. Shortcutting and Speeding

Traffic volumes and the 85th percentile speed was higher than expected on 29th Street. McMillan Avenue was also a concern for shortcutting between 29th Street and 33rd Street. The recommended improvements and justification to address speeding and shortcutting are detailed in **Table 4-1.**

Table 4-1: Recommended Improvements to Reduce Speeding and Shortcutting

Location	Recommended Improvement[1]	Justification
Rusholme Road between Avenue M & Avenue K	Extend School Zone	Reduce speed near schools
29th Street & McMillan Avenue	Curb extensions on 29th Street	Reduce speed between parks
29th Street & Avenue L	Curb extensions on 29th Street	Reduce speed
McMillan Avenue & Trotter Crescent	Raised median island on McMillan Avenue	Reduce speed near park
McMillan Avenue & curve north of 31st Street	Raised median islands on McMillan Avenue	Reduce speed near park (connects to multi-use path)

[1] For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

2. Pedestrian Safety

Westmount residents identified pedestrian safety near the school sites and parks (E.D. Feehan Catholic High School, Westmount Community School, Pierre Radisson Park, and Westmount Park) as a concern. The safety of the pedestrian environment near schools is important to encourage people to walk to school, as opposed to being dropped off. Accordingly, the recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Pedestrian Safety Improvements – School Sites

Location	Recommended Improvement	Purpose
29th Street & McMillan Avenue	Zebra crosswalks & curb extensions (noted in previous section) on 29th Street	Improve pedestrian safety near parks
29th Street & Avenue L	Zebra crosswalks & curb extensions (noted in previous section) on 29th Street	Improve pedestrian safety
29th Street & Avenue I	Zebra crosswalk on 29th Street & move mailboxes on southeast corner	Improve pedestrian safety near convenience store & enhance visibility
McMillan Avenue & curve north of 31st Street	Raised median islands (noted in previous section) on McMillan Avenue	Improve pedestrian safety near park & daycare
Avenue H & 31st Street	Zebra crosswalks on Avenue H	Improve pedestrian safety (currently no marked crossings on Avenue H between 29th Street & 33rd Street)
Avenue M between 22nd Street & 23rd Street	Sidewalk on both sides	Improve pedestrian safety

It should be noted, implementation of the Drop-off & Pick-up Zone is based on the discretion of the schools (more information provided at saskatoon.ca click on "S" for School Zones).

3. Maintenance

The concerns regarding potholes and roadway maintenance were forwarded to the Public Works Division for further consideration.

Concerns regarding the Blairmore Bikeway (23rd Street cycling route) have been forwarded for further consideration as part of that project.

4. Major Intersection Reviews

The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. As almost all neighbourhood are bound by arterial streets, such as 22nd Street, it is not uncommon to have residents raise issues regarding these streets. However, arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types

of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are expensive and require significant resources. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues, identify the work requirements, and securing funding to complete these types of assessments.

5. Traffic Control Retrofit

The Traffic Control Neighbourhood Retrofit Program was initiated in 2008 as a pilot project in City Park. Yield signs were installed at all uncontrolled intersections to mitigate collisions. Collision history results have shown to be favourable with an overall reduction in collision frequency; therefore, the program was expanded to other neighbourhoods. Westmount was one of the neighbourhoods selected in 2014 based on a highest average number of collisions per uncontrolled intersection, per year.

During the initial public consultation a yield sign plan for the area was shown to the residents. The residents were in favour of the recommendations, asking only that the yield signs be upgraded to stop signs at two intersections (Bedford Road at Avenue K & Avenue I) to enhance compliance.

Follow up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in October 2014. Recommended improvements that were not supported by the residents were eliminated or altered accordingly.

The improvement that was added based on the feedback received at the follow up meeting held in October 2014 is shown in **Table 4-3**.

Table 4-3: Added Improvements

Location	Improvement	Reason
Avenue M between 22nd Street & 23rd Street	Install sidewalk	Added crossing at Avenue M & 22nd Street has introduced higher pedestrian volumes on Avenue M north of 22nd Street. There's currently no sidewalk in this section of road therefore pedestrian safety is a concern.

All Civic Divisions supported the Traffic Management Plan.

5. Recommended Plan and Cost Estimates

Stage 4, the last stage of the process, is to install the recommended improvements for the Westmount neighbourhood within the specified timeframe. The timeframe depends upon the complexity and cost of the solution. A short term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 3 to 5 years; and long-term is 5 years plus.

The placement of pedestrian and traffic control signage will be completed short-term (1 to 2 years).

All traffic calming measures will be installed temporarily using rubber curbing until proven effective, and will be implemented short-term (1 to 2 years).

Permanent traffic calming often includes removing the temporary barriers and reconstructing with concrete. The timeline for permanent traffic calming may depend on the complexity of the device and the availability of funding; therefore the timeline is medium-term (3 to 5 years).

Major intersection reviews are based on the number of other locations to be reviewed city-wide and the availability of funding. The timeline for review will be medium-term (3 to 5 years).

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- **Table 5-1:** Traffic Calming Cost Estimate
- **Table 5-2:** Marked Pedestrian Crosswalks Cost Estimate
- **Table 5-3:** Traffic control signage – Stop & Yield Cost Estimate (Funded by Stop & Yield Retrofit Program)
- **Table 5-4:** Miscellaneous Signage Cost Estimate
- **Table 5-5:** Sidewalk Cost Estimate

Table 5-1: Traffic Calming Cost Estimate

Location	Traffic Calming Device (s)	Cost Estimate		Time Frame
		Temporary	Permanent	
29th Street & Avenue L	2 curb extensions	$1,000	$60,000	1 to 5 years
29th Street & McMillan Avenue	2 curb extensions	$1,000	$60,000	
McMillan Avenue & Trotter Crescent	1 raised median island	$500	$6,000	
McMillan Avenue & curve north of 31st Street	2 raised median islands	$500	$12,000	
	Total	$3,500	$138,000	

Temporary traffic calming will be installed in 2015 and will be monitored to determine its effectiveness. If proven effective, the devices will be made permanent. Until they are made permanent, the devices will remain temporary and maintained on a yearly basis. An estimated cost for maintenance is about $5,000 per year. The maintenance typically involves the replacement of damage curbs as result of the winter- snow removal, damage from vehicle impact, etc.

Table 5-2: Marked Pedestrian Crosswalks Cost Estimate

Location	Device (s)	Cost Estimate	Time Frame
29th Street & Avenue L	4 signs & zebra markings	$1,200	1 to 2 years
29th Street & Avenue I	4 signs & 2 zebra markings	$1,400	
29th Street & McMillan Avenue	4 signs & 2 zebra markings	$1,400	
Avenue H & 31st Street	4 signs & zebra markings	$1,200	
	Total	$5,200	

The operating impact on an annual basis to maintain a painted crosswalk is approximately $60 each.

Table 5-3: Traffic control signage – Stop & Yield Cost Estimate (Funded by Stop & Yield Retrofit Program)

Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
All uncontrolled intersections	Yield signs	34	$8,500	1 to 2 years
Bedford Road & Avenue K; Bedford Road & Avenue I	Stop signs	4	$1,000	
		Total	$9,500	

Table 5-4: Miscellaneous Signage Cost Estimate

Location	Device (s)	Number of Signs	Cost Estimate	Time Frame
Rusholme Road between Avenue M & Avenue K	Extend school zone; remove existing signs	0	$0	3 to 5 years
		Total	$0	

Table 5-5: Sidewalk Cost Estimate

Location	Device (s)	Cost Estimate	Time Frame
Avenue M between 22nd Street & 23rd Street	Sidewalk (west side)	$37,400	3 to 5 years
	Total	$37,400	

The total cost estimate for the signage and temporary traffic calming devices to be installed in 2015 is **$18,200**. The addition of permanent traffic calming devices and sidewalks results in a total cost estimate of **$175,400**.

Resulting from the plan development process, the recommended improvements, including the location, type of improvement, and schedule for implementation are summarized in **Table 5-6.** The resulting recommended Westmount Traffic Management Plan is illustrated in **Exhibit 5-1**.

Table 5-6: Westmount Neighbourhood Recommended Improvements

Location	Recommended Improvement	Time Frame
All uncontrolled intersections	34 yield signs	1 to 2 years
Bedford Road & Avenue K; Bedford Road & Avenue I	4 stop signs (east-west facing)	
Rusholme Road between Avenue M & Avenue K	Extend school zone	
Avenue H & 31st Street	2 zebra crosswalks on Avenue H	
29th Street & McMillan Avenue	2 zebra crosswalks on 29th Street	
29th Street & Avenue L	2 zebra crosswalks on 29th Street	
29th Street & Avenue I	1 zebra crosswalk on 29th Street & move mailboxes on southeast corner	
McMillan Avenue & Trotter Crescent	1 raised median island on McMillan Avenue	3 to 5 years (devices will be installed temporarily until proven effective)
McMillan Avenue & curve north of 31st Street	2 raised median islands on McMillan Avenue	
29th Street & McMillan Avenue	2 curb extensions on 29th Street	
29th Street & Avenue L	2 curb extensions on 29th Street	
Avenue M between 22nd Street & 23rd Street	Sidewalk (west side)	5 years plus

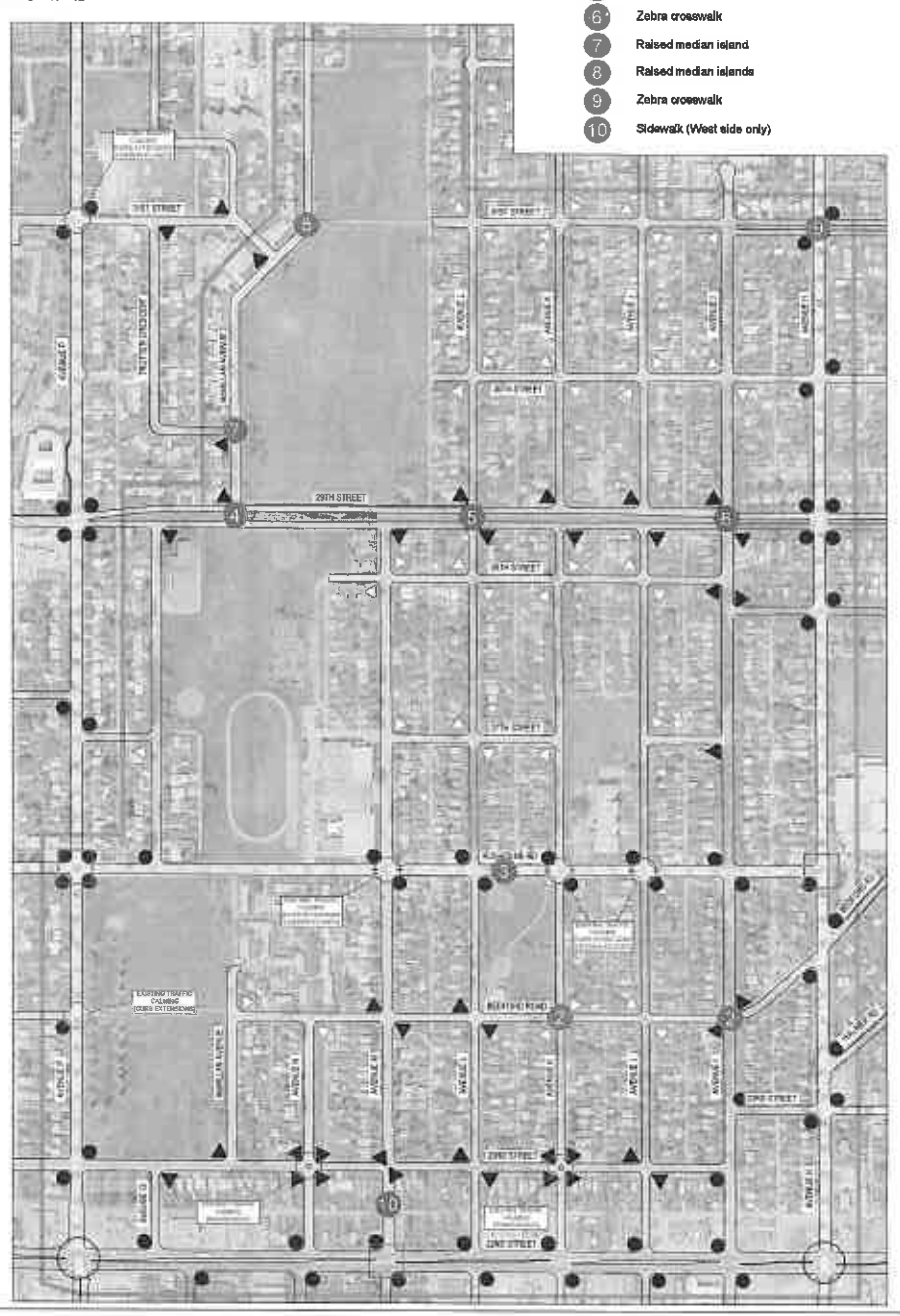
WESTMOUNT TRAFFIC PLAN

City of Saskatoon

LEGEND

- STOP SIGN
- YIELD SIGN
- PROPOSED YIELD SIGN
- BUS ROUTE
- TRAFFIC SIGNAL LOCATION
- PEDESTRIAN ACTUATED SIGNAL LOCATION

LOCATION	MEASURE PROPOSED
1	Proposed Yield signs (various locations)
2	Stop signs
3	School zone expansion
4	Zebra crosswalks & curb extensions
5	Zebra crosswalks & curb extensions
6	Zebra crosswalk
7	Raised median island
8	Raised median islands
9	Zebra crosswalk
10	Sidewalk (West side only)



Appendix A

All Way Stop Assessments

All-way Stop Assessment (Policy C07-007 – Traffic Control – Use of Stop & Yield Signs)

The following conditions must be met for all-way stop control to be considered:

i) The combined volume of traffic entering the intersection over the five peak hour periods from the minor street must be at least 25% of the total volume for a three-way stop control, and at least 35% of the total volume for a four-way stop control.

ii) There can be no all-way stop control and traffic signal within 200 metres of the proposed intersection being considered for all-way stop control on either of the intersecting streets.

Location	Condition 1: Combined volume of traffic entering intersection from minor street is at least 25% for 3-way stop or 35% for 4-way stop	Condition 2: There can be no all-way stop or traffic signal within 200m	Results
29th Street & McMillan Avenue	6% - Condition NOT met	4-way stop at Avenue P & 29th Street within 200m– Condition NOT met	Conditions not met therefore all-way stop NOT warranted
31st Street & McMillan Avenue	28% - Condition met (three-way stop)	No all-way stop or traffic signals within 200m – Condition met	Conditions met therefore check additional criteria
29th Street & Avenue I	9% - Condition NOT met	4-way stop at Avenue H & 29th Street within 200m – Condition NOT met	Conditions not met therefore all-way stop NOT warranted
Avenue H & 31st Street	6% - Condition NOT met	No all-way stop or traffic signals within 200m – Condition met	Conditions not met therefore all-way stop NOT warranted
29th Street & Avenue L	7% - Condition NOT met	No all-way stop or traffic signals within 200m – Condition met	Conditions not met therefore all-way stop NOT warranted
28th St & Avenue H	3% - Condition NOT met	4-way stop at Avenue H & 29th St within 200m – Condition NOT met	Conditions not met therefore all-way stop NOT warranted

Provided the above criteria are met, the following conditions, singly or in combination, may warrant the installation of all-way stop signs:

i) When five or more collisions are reported in the last twelve month period and are of a type susceptible to correction by an all-way stop control.

ii) When the total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour or the total intersection entering volume exceeds 6,000 vehicles per day.

iii) The average delay per vehicle to the minor street traffic must be 30 seconds or greater during the peak hour.

iv) As an interim measure to control traffic while arrangements are being made for the installation of traffic signals.

Location	Criteria 1: 5 or more collisions in last twelve months	Criteria 2: at least 600 vehicles per peak hour OR 6,000 vehicles per day	Criteria 3: average delay per vehicle greater than 30sec during peak hour	Criteria 4: Interim for traffic signals	Results
31st Street & McMillan Avenue	0 collisions – Criteria NOT met	55 peak hour, 610 – Criteria NOT met	Below 30sec – Criteria NOT met	No plans for traffic signals – Criteria NOT met	All-way stop NOT warranted

Appendix B

Pedestrian Device Assessments

Pedestrian device assessment (Traffic Controls at Pedestrian Crossing, 2004)

Avenue H & 31st Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	400	m	= distance from study location to nearest protected crosswalk.
LOCF =	15	points	= (D-200) / 13.3 to a maximum of 15 points.
Actual value =	15.03759	points	points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	27.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	40.5		= weighted average of pedestrians crossing the main street.
Pcm =	8.1		= weighted average hourly pedestrian volume crossing the main street.
V =	2008.0		= volume of traffic passing through the crossing(s).
Vam =	401.6		= average hourly volume of traffic passing through the crossing(s).
VOLF =	6.5	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**34**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

McMillan Avenue & 31st Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	300	m	= distance from study location to nearest protected crosswalk.
LOCF =	7.5	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	4.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	6.0		= weighted average of pedestrians crossing the main street.
Pcm =	1.2		= weighted average hourly pedestrian volume crossing the main street.
V =	211.0		= volume of traffic passing through the crossing(s).
Vam =	42.2		= average hourly volume of traffic passing through the crossing(s).
VOLF =	0.1	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**20**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

29th Street & McMillan Avenue:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	3	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	175	m	= distance from study location to nearest protected crosswalk.
LOCF =	0.0	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	6.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	9.0		= weighted average of pedestrians crossing the main street.
Pcm =	1.8		= weighted average hourly pedestrian volume crossing the main street.
V =	1630.0		= volume of traffic passing through the crossing(s).
Vam =	326.0		= average hourly volume of traffic passing through the crossing(s).
VOLF =	1.2	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**11**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Avenue H & 28th Street:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	6.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	95	m	= distance from study location to nearest protected crosswalk.
LOCF =	0.0	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	14.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	21.0		= weighted average of pedestrians crossing the main street.
Pcm =	4.2		= weighted average hourly pedestrian volume crossing the main street.
V =	2263.0		= volume of traffic passing through the crossing(s).
Vam =	452.6		= average hourly volume of traffic passing through the crossing(s).
VOLF =	3.8	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**16**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

29th Street & Avenue L:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	3.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	390	m	= distance from study location to nearest protected crosswalk.
LOCF =	14.3	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	24.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	36.0		= weighted average of pedestrians crossing the main street.
Pcm =	7.2		= weighted average hourly pedestrian volume crossing the main street.
V =	2277.0		= volume of traffic passing through the crossing(s).
Vam =	455.4		= average hourly volume of traffic passing through the crossing(s).
VOLF =	6.6	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**16**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

29th Street & Avenue I:

1. Lanes Priority Points:			
L =	2	lanes	= number of lanes.
LANF =	0	points	= (L-2) x 3.6 to a max of 15 points, urban x-section only.
2. Median Priority Points:			
MEDF =	3.0	points	= indicating there is no physical median here.
3. Speed Priority Points:			
S =	50	kph	= speed limit or 85th percentile speed.
SPDF =	6.7	points	= (S-30) / 3 to a maximum of 10 points.
4. Pedestrian Protection Location:			
D =	95	m	= distance from study location to nearest protected crosswalk.
LOCF =	0.0	points	= (D-200) / 13.3 to a maximum of 15 points.
5. Pedestrian/Vehicle Volume Priority Points:			
H =	5.0		= (hours) duration of counting period.
Ps =	36.0		= total number of children, teenagers, seniors and/or impaired counted.
Pa =	0.0		= total number of adults counted.
Pw =	54.0		= weighted average of pedestrians crossing the main street.
Pcm =	10.8		= weighted average hourly pedestrian volume crossing the main street.
V =	2603.0		= volume of traffic passing through the crossing(s).
Vam =	520.6		= average hourly volume of traffic passing through the crossing(s).
VOLF =	11.2	points	= Vam x Pcm / 500
6. Satisfaction of Installation Criteria:			
SUMF =	(LANF + MEDF + SPDF + LOCF + VOLF)		
=	**21**	**points**	
(P.A. Signal Warrant Points)			

The total of the warrant points is less than 100 indicating that a pedestrian actuated signal is NOT warranted.

Inquiry – Councillor A. Iwanchuk (June 23, 2014) Pedestrian-Activated Crosswalk or Traffic Light - Confederation Drive and John A. MacDonald Road

Recommendation
That the report of the General Manager, Transportation & Utilities Department, dated February 10, 2015, be forwarded to City Council for information.

Topic and Purpose
The purpose of this report is to provide information in response to an inquiry from Councillor A. Iwanchuk requesting a report on the possibility of installing a pedestrian activated crosswalk or traffic signals at the intersection of Confederation Drive and John A. MacDonald Road.

Report Highlights
1. Confederation Drive and John A. MacDonald Road is a three-legged intersection with a stop sign giving the right-of-way to Confederation Drive.
2. The most recent five-year collision data was reviewed and shows that 7 of the 17 collisions were either a right angle collision or a collision where at least one vehicle was attempting a left-turn.
3. Pedestrian and traffic studies were undertaken and indicate that neither a Pedestrian Actuated Signal (PAS), nor a traffic signal, are warranted. Based on the results of the collision history review, and the pedestrian and traffic studies, the Administration will be installing a standard crosswalk on the north side of the intersection.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing the safe movement of all modes of transportation.

Background
The following inquiry was made by Councillor A. Iwanchuk at the meeting of City Council held on June 23, 2014:

> "Would the Administration please report on the possibility of installing a pedestrian-activated crosswalk or a traffic light at Confederation Drive and John A. MacDonald Road. This intersection has become increasingly busy and it is difficult for pedestrians to cross, as well as for vehicles to turn west onto Confederation Drive."

Report

Traffic Characteristics

Confederation Drive and John A. MacDonald Road is a three-legged intersection with a stop sign giving the right-of-way to Confederation Drive. The posted speed limit is 50 km/hr. There are no marked crosswalks at this intersection.

Confederation Drive has the following characteristics:

- Classified as an arterial roadway.
- Four lane cross-section with two lanes of traffic in each direction.
- Two lanes of traffic in each direction are separated by a median.
- Parking is permitted on both sides of the street.

John A. MacDonald Road has the following characteristics:

- Classified as a collector roadway.
- Two lane cross-section with one lane in each direction.
- Parking is permitted on both sides of the street.

Collision History

The most recent five-year collision data (2009-2013) at Confederation Drive and John A. MacDonald Road was reviewed. The results are presented in Attachment 1.

A review of the collision data yields the following:

- Seventeen collisions occurred at the intersection.
- Seven of the 17 collisions were either a right angle collision or a collision where at least one vehicle was attempting a left-turn.
- Road conditions or driving too fast for road conditions was a contributing factor for 6 of the 17 collisions.

Pedestrian and Traffic Studies

Pedestrian and traffic counts were collected on November 6, 2014, during peak hours (7:00 a.m. – 9:00 a.m.; 11:30 a.m. – 1:30 p.m.; 3:00 p.m. – 6:00 p.m.). The counts were used to complete a PAS warrant and a traffic signal warrant.

The PAS count during the peak times determined that six pedestrians (two adults, two teenagers and two children) had crossed Confederation Drive and John A. MacDonald Road. Calculations were undertaken to determine if a PAS was warranted at the intersection of Confederation Drive and John A. MacDonald Road. The PAS warrant assigns points for a variety of conditions that exist at the crossing location including:

- The number of traffic lanes to be crossed;
- The presence of a physical median;
- The posted speed limit of the street;
- The distance the crossing point is to the nearest protected crosswalk point; and
- The number of pedestrians and vehicles at the intersection.

The minimum requirement for consideration of a PAS is 100 points or greater. Based on the point combination of the conditions, the pedestrian study yielded a warrant value of 21 at Confederation Drive and John A. MacDonald Road, well below the threshold value of 100 points required for further consideration. Site observations also indicated that pedestrians were able to cross safely during gaps in approaching traffic and vehicles yielded the right-of-way when required.

The traffic signal warrant assigns points for a variety of conditions including:

- The number of traffic lanes;
- The posted speed limit;
- The lane configurations; and
- The number of pedestrians and vehicles at the location.

The minimum requirement for consideration of a traffic signal is 100 points or greater. Based on the point combination of the conditions, the traffic signal study yielded a warrant value of 72 at Confederation Drive and John A. MacDonald Road, below the threshold value of 100 points required for further consideration. Site observations indicated an increase in traffic volumes on Confederation Drive during the morning and afternoon peak hours; however, the delays for vehicles making eastbound turning movements from John A. MacDonald Road were brief, and do not justify the installation of traffic signals.

Based on the results of the collision history review, and the pedestrian and traffic studies, the Administration will be installing a standard crosswalk on the north side of the intersection. This consists of pedestrian signage and pavement markings to bring awareness of the crossing to improve safety of pedestrians.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, communication, policy, financial, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

A follow-up report or project completion is not required.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Collision Data (2009-2013)

Report Approval

Written by: Mariniel Flores, Traffic Engineer, Transportation
Reviewed by: Jay Magus, Engineering Section Manager, Transportation
Angela Gardiner, Director of Transportation

Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS MF – Inq Iwanchuk (June 23 2014) Crosswalk or Traffic Light-Confed_J. A. MacDonald.docx

Collision Data (2009-2013)

ID	*Date*	*Severity*	*Configuration*	*Contributing Factors*
1	January 2009	Property Damage	Other	Driving too fast for road conditions
2	January 2009	Personal Injury	Rear End	Road conditions
3	June 2009	Personal Injury	Fixed/Movable Object	Traffic control device disregarded
4	March 2010	Property Damage	Other	-
5	December 2010	Personal Injury	Left Turn - Passing	• Turning improper • Road conditions • Passing or lane usage improper
6	August 2011	Personal Injury	Left Turn/Straight - Opposite Direction	• Fail to yield the right-of-way • Had been drinking
7	October 2011	Personal Injury	Rear End	Following too closely
8	November 2011	Property Damage	Right Angle	• Driving too fast for road conditions • Weather conditions
9	November 2011	Property Damage	Right Angle	• Uninvolved vehicle • Taking evasive action • Road conditions • Driving too fast for road conditions
10	January 2012	Property Damage	Lost Control - Right Ditch	• Uninvolved vehicle • Taking evasive action
11	May 2012	Personal Injury	Side Swipe - Same Direction	• Exceeding speed limit • Other human action • Inattentive • Exceeding speed limit
12	November 2012	Property Damage	Rear End	Road conditions
13	July 2013	Property Damage	Left Turn/Straight	-
14	August 2013	Property Damage	Rear End	-
15	September 2013	Personal Injury	Left Turn/Straight	-
16	December 2013	Property Damage	Right Angle	Fail to yield the right-of-way
17	December 2013	Property Damage	Side Swipe - Opposite Direction	Passing or lane usage improper

Inquiry – Councillor T. Davies (January 21, 2013) - Installation of Traffic Light at Milton Street and Confederation Drive

Recommendation
That the report of the General Manager, Transportation & Utilities Department dated February 10, 2015, be forwarded to City Council for information.

Topic and Purpose
The purpose of this report is to provide information to an inquiry from Councillor T. Davies requesting a report on the possibility of installing traffic signals at the intersection of Milton Street/Palmer Place and Confederation Drive.

Report Highlights
1. Milton Street/Palmer Place and Confederation Drive is a four-legged intersection with stop signs giving the right-of-way to Confederation Drive.
2. The most recent five-year collision data was reviewed and shows that four of the 16 collisions were either a right angle collision or a collision where at least one vehicle was attempting a left turn.
3. Traffic studies were undertaken and show that a traffic signal is not warranted; therefore, based on the review, the Administration is recommending no changes at this time.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing the safe movement of all modes of transportation.

Background
The following inquiry was made by Councillor Davies at the meeting of City Council held on January 21, 2013:

> "I would like the City Traffic Facilities to investigate the possibility of installing a traffic light at Milton Street and Confederation Drive rather than a pedestrian light which was on the list for 2015. Currently there are no lights between 33rd St. and Laurier Drive, which means currently there are no traffic lights helping residents of Massey Place exit their community. It's my belief that a traffic light at this location will increase the safety of that crossing but also reduce traffic on 33rd West."

Report
Traffic Characteristics

Milton Street/Palmer Place and Confederation Drive is a four-legged intersection with stop signs giving the right-of-way to Confederation Drive.

The posted speed limit is 50 km/hr. There is a marked and signed east to west pedestrian crosswalk at the north side of the intersection.

Milton Street, the east leg of the intersection, has the following characteristics:
- Classified as a collector roadway.
- Two lane cross-section with one lane in each direction.
- Parking is permitted on both sides of the street.

Palmer Place, the west leg of the intersection, has the following characteristics:
- Classified as a local roadway, terminating at a cul-de-sac.
- Two lane cross-section with one lane in each direction.
- One lane of traffic in each direction is separated by a median.
- Parking is permitted on both sides of the street.

Confederation Drive, aligned north-south, has the following characteristics:
- Classified as an arterial roadway.
- Four lane cross-section with two lanes of traffic in each direction.
- Two lanes of traffic in each direction are separated by a median.
- Parking is permitted on both sides of the street.

Collision History

The most recent five-year collision data (2009-2013) at Milton Street/Palmer Place and Confederation Drive was reviewed. The results are presented in Attachment 1.

A review of the collision data yields the following:
- Sixteen collisions occurred at the intersection.
- Four of the 16 collisions were either a right angle collision or a collision where at least one vehicle was attempting a left turn.
- Following too closely, being inattentive and/or failing to yield the right-of-way were contributing factors in all 16 collisions.

Traffic Studies and Analysis

Pedestrian and traffic counts were collected in 2010 and in 2014 during peak hours (7:00 a.m. – 9:00 a.m.; 11:30 a.m. – 1:30 p.m.; 4:00 p.m. – 6:00 p.m.). The counts were used to complete traffic signal warrants to evaluate the need for the installation of a traffic signal at the intersection of Milton Street/Palmer Place and Confederation Drive.

The traffic signal warrant assigns points for a variety of conditions including:
- The number of traffic lanes;
- The posted speed limit;
- The lane configurations; and
- The number of pedestrians and vehicles at the location.

The minimum requirement for consideration of a traffic signal is 100 points or greater. Based on the point combination of the conditions, the warrants yielded the following results:

- December 2010 – 58 points
- February 2014 – 43 points

Both warrants produced a value well below the threshold value of 100 points required for further consideration.

A comparison of the traffic volumes collected in 2010 and in 2014 is summarized below:

Count Date	December 2010	February 2014
Average hourly northbound vehicle volume	556	573
Average hourly southbound vehicle volume	537	588
Average hourly westbound vehicle volume	64	61
Average hourly eastbound vehicle volume	6	3
Average hourly east to west pedestrian volume	20	9

Site observations indicated that pedestrian activity was light compared to other busier intersections such as Confederation Drive and Laurier Drive. The majority of pedestrians crossed at the north side of the intersection. Pedestrians were able to cross safely during gaps in approaching traffic and vehicles yielded the right-of-way when required. Traffic volumes on Confederation Drive did increase during the morning and afternoon peak hours; however, the delays for vehicles making westbound turning movements from Milton Street were brief, and do not justify the installation of traffic signals.

In addition, nine southbound and eight northbound U-turns were noted during the period of site observations. The majority of these vehicles were travelling from and to their nearby places of residence, and these U-turns were an efficient convenience for them to reach their destinations. These U-turns would not be legally permitted if this intersection was signalized.

Based on the results of the collision history review and the traffic studies, the current traffic controls are sufficient for the existing conditions and needs. Therefore, the Administration is recommending no changes at this time.

Other Considerations/Implications
There are no options, public and/or stakeholder involvement, communication, policy, financial, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion
There is no due date for follow-up or project completion.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Collision Data (2009-2013)

Report Approval

Written by:	Mariniel Flores, Traffic Engineer, Transportation
Reviewed by:	Jay Magus, Engineering Manager, Transportation
Reviewed by:	Angela Gardiner, Director of Transportation
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS MF – Inq Councillor T Davies (Jan. 21 2013) Install of Traffic Light - Milton St_Confed.docx

Collision Data (2009-2013)

ID	Date	Severity	Configuration	Contributing Factors
1	April 2009	Property Damage	Fixed/Movable Object	-
2	November 2009	Personal Injury	Right Angle	• Inattentive • Fail to yield the right-of-way
3	December 2009	Property Damage	Other	-
4	December 2009	Property Damage	Other	Inattentive
5	February 2010	Property Damage	Rear End	• Following too closely • Inattentive
6	January 2011	Personal Injury	Rear End	• Road conditions • Following too closely • Driving too fast for road conditions
7	April 2011	Property Damage	Right Angle	• Inattentive • Traffic control device disregarded
8	December 2011	Personal Injury	Rear End	• Uninvolved pedestrian • Following too closely
9	December 2011	Personal Injury	Rear End	• Uninvolved pedestrian • Driving too fast for road conditions • Following too closely • Road conditions
10	June 2012	Property Damage	Left-Turn/Straight - Same Direction	Fail to yield the right-of-way
11	August 2012	Personal Injury	Fixed/Movable Object	Fail to yield the right-of-way
12	September 2012	Personal Injury	Rear End	Following too closely
13	March 2013	Property Damage	Left-Turn/Straight	Fail to yield the right-of-way
14	May 2013	Personal Injury	Rear End	• Following too closely • Uninvolved vehicle • Taking evasive action
15	June 2013	Property Damage	Side-Swipe - Same Direction	• Inattentive • Passing or lane usage improper
16	December 2013	Property Damage	Lost Control - Right Ditch	-

Median Closure and New Median Opening on Idylwyld Drive at 25th Street

Recommendation
That the report of the General Manager, Transportation & Utilities Department, dated February 10, 2015, be forwarded to City Council for information.

Topic and Purpose
The purpose of this report is to provide an update on the traffic impact of the median closure and new median opening on Idylwyld Drive, north of 25th Street.

Report Highlights
1. The median at Idylwyld Drive and 25th Street was closed as part of the 25th Street extension project and a new median opening on Idylwyld Drive, north of 25th Street, was constructed to allow passenger vehicles to make a northbound U-turn, drive south on Idylwyld Drive, turn right onto 25th Street, and access properties adjacent to 25th Street.
2. To assess the traffic impact of the median closure and new median opening on Idylwyld Drive, the daily traffic volumes and turning movement volumes were reviewed.
3. The median closure and subsequent new median opening on Idylwyld Drive has not had a significant impact on the Caswell Hill neighbourhood.

Strategic Goal
This report supports the Strategic Goal of Moving Around by providing safer roads for all road users, and optimizing the flow of people and goods in and around the city.

Background
In order to accommodate the new intersection on Idylwyld Drive as part of the 25th Street Extension Project, the existing median at 25th Street West was closed due to its proximity to the Canadian Pacific Railway track.

In order to accommodate northbound vehicles on Idylwyld Drive destined for 25th Street westbound, a new median opening on Idylwyld Drive, with sufficient clearance from the railway tracks, was approved. This new median opening accommodates passenger vehicles wishing to make a northbound U-turn to access properties along the existing 25th Street. The new 25th Street/Idylwyld Drive and 25th Street median opening are illustrated in Attachment 1.

City Council at its meeting held on August 15, 2012, resolved, in part:

> "3) that the matter be reviewed after one year to determine impact on traffic"

Report

Review of the New Median Opening

The existing median at Idylwyld Drive and 25th Street was closed during construction and a new median opening on Idylwyld Drive, north of 25th Street was opened in late 2013. The new median opening was designed to allow passenger vehicles to make a northbound U-turn, drive south on Idylwyld Drive, turn right onto 25th Street, and access properties adjacent to 25th Street.

25th Street west of Idylwyd Drive is classified as a Local Road and transitions to Walmer Road approximately 425 metres to the west. Idylwyld Drive is classified as a Major Arterial and is a significant north-south artery for the city.

In November 2014, a review was conducted. Assessment of the traffic impact of the closure and new median opening on Idylwyld Drive, included review of the following:

1. Daily traffic volumes before and after construction
2. Turning movement volumes before and after construction

Results of the Review

The traffic impact of the median closure and new median opening on Idylwyld Drive is acceptable based on the findings below:

1. The new median opening on Idylwyld Drive, north of 25th Street has resulted in a reduction of daily traffic volumes on 25th Street. Traffic data, specifically daily traffic volumes, were collected in November 2014. The data comparison is illustrated in Table 1.

Table 1 – 25th Street Daily Traffic Volumes

Road	Actual Traffic Volumes (vehicles per day)		% change
	2009/2010	2014	
25th Street	2,810 (year - 2010)	933	67% reduction

2. The new median opening has resulted in an increase of daily traffic volumes on 29th Street, which was anticipated. As part of the 25th Street Extension Project, a northbound left turn arrow was added to the traffic signal operations to accommodate this additional traffic. The data comparison for 29th Street is illustrated in Table 2.

Table 2 – 29th Street Daily Traffic Volumes

Road	Actual Traffic Volumes (vehicles per day)		% change
	2009/2010	2014	
29th Street	4,210 (year - 2009)	5,345	21% increase

3. The daily traffic volume of 5,345 on 29th Street, although it has increased, falls within acceptable parameters. 29th Street is classified as a Collector Road, and in accordance with the *City of Saskatoon New Neighbourhood Design and Development Standards Manual, January 2012*, this classification of road is

expected to accommodate daily traffic volumes between 1,000 to 10,000 trips per day.

As part of the neighbourhood traffic management plan, enhancements to pedestrian crossings along 29th Street at Avenues B and C are recommended. The neighbourhood-wide plan will be presented to City Council in 2015.

4. The amount of northbound Idylwyld Drive traffic destined for 25th Street westbound has decreased. The peak hour turning movement counts before and after the new median opening on Idylwyld Drive, north of 25th Street, are compared in Table 3 below. The information illustrates that less traffic is completing this manoeuvre.

Table 3 – Peak Hour Traffic Volumes

Intersection	Peak Hour Turning Movement Counts	
	2010	2014
25th Street/Idylwyld Drive (northbound left turn)	100	0
Idylwyld Drive, north of 25th street (northbound U-turn)	0	43

Public and/or Stakeholder Involvement
As part of the neighbourhood traffic management program, traffic conditions in the Caswell Hill neighbourhood were reviewed and input from the community was received to develop a neighbourhood-wide plan. Two neighbourhood meetings were held in 2014. The impacts from the median closure were not identified as being significant within the community.

Other Considerations/Implications
There are no options, communication, policy, financial, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion
No follow-up is required.

Public Notice
Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment
1. Alignment of 25th St with Idylwyld Drive

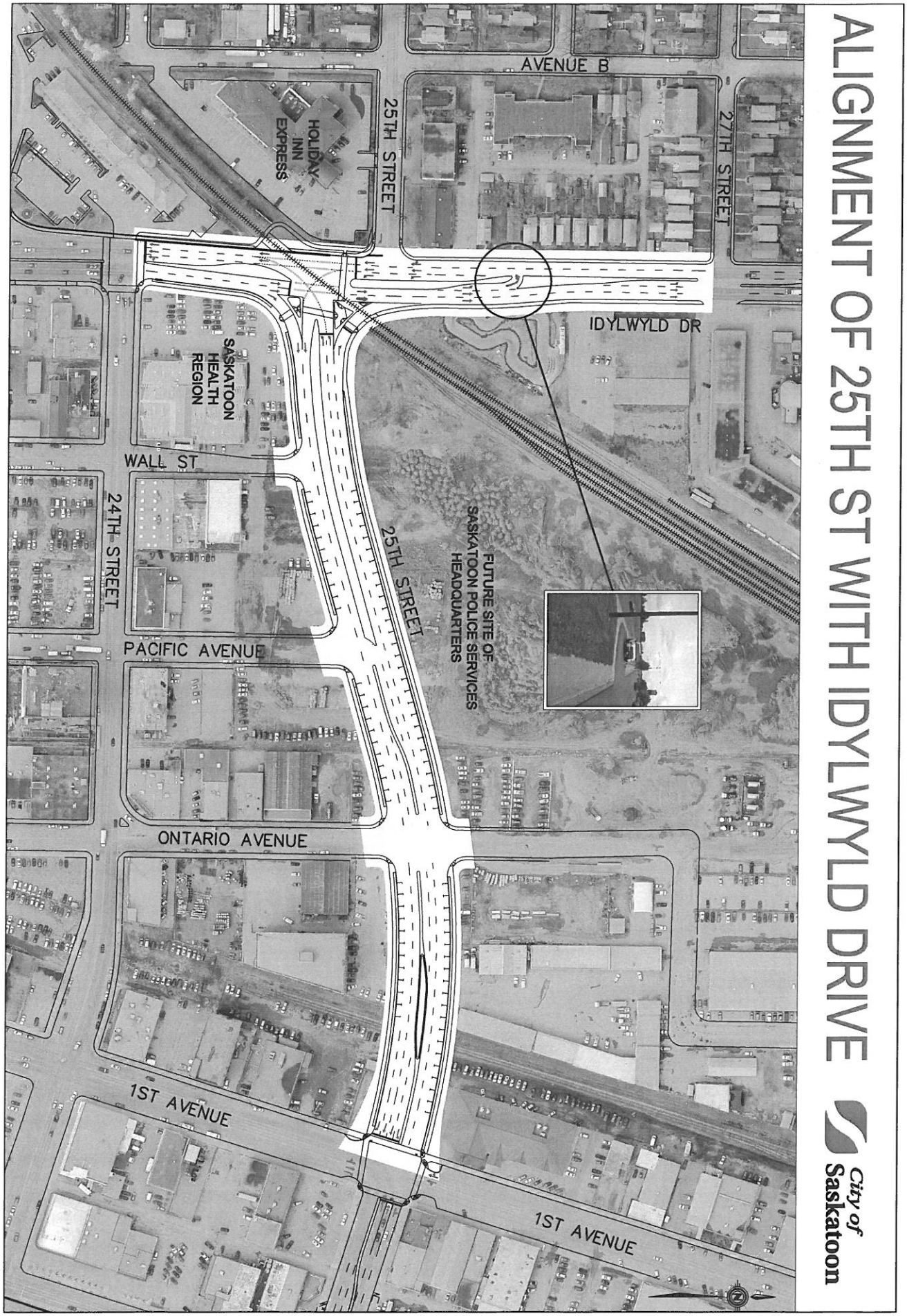
Report Approval
Written by: Lanre Akindipe, Transportation Engineer, Transportation
Written by: Jay Magus, Engineering Manager, Transportation
Reviewed by: Angela Gardiner, Director of Transportation

Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS LA JM - Median Closure - New Median Opening - Idylwyld Dr at 25th St.docx

ALIGNMENT OF 25TH ST WITH IDYLWYLD DRIVE

City of Saskatoon



Sidewalk Snow Clearing Enforcement Process

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:
That the Administration be directed to draft the appropriate policy based on Option 3 as outlined in this report.

Topic and Purpose
The purpose of this report is to provide information regarding the sidewalk snow clearing enforcement process and how to speed up the process for owners who repeatedly fail to clear their sidewalk.

Report Highlights
1. Adjusting timelines for bylaw inspections is possible within Bylaw No. 8463, The Sidewalk Clearing Bylaw, 2005.
2. Options to address properties with repeat violations, including issuing Notices of Violation are available in the current bylaw.

Strategic Goals
Acceleration of snow clearing enforcement supports the Strategic Goals of Continuous Improvement, Quality of Life and Moving Around. Accelerated enforcement of sidewalk clearing increases responsiveness to citizen calls, and provides a coordinated approach to maintenance of properties by establishing service levels for the maintenance of sidewalks. It is consistent with the philosophy that safety is a top priority for the City, and improves accessibility of sidewalks for wheelchair users and citizens with limited physical mobility.

Background
During consideration of the Inquiry - Councillor A. Iwanchuk (January 7, 2013) Options and Costs – Comprehensive Snow Clearing and Removal report, City Council, at its meeting held on November 24, 2014, resolved that Administration speed up the compliance process to the extent possible, in particular for repeat bylaw offenders, and report back to the Standing Policy Committee on Transportation.

Bylaw No. 8463, The Sidewalk Clearing Bylaw, 2005 outlines the requirements for clearing a sidewalk after a snowfall. Section 9 outlines the ability for the City of Saskatoon to clear the sidewalk and charge the property owner for the costs. Section 10 outlines the Notice of Violation offences with fines starting as follows:

- First offence $100
- Second offence $200
- Third or subsequent offence, a fine of not less than $200 and not more than $1,000 in the case of an individual or $2,000 in the case of a corporation.

To date, the City has issued Bylaw Notices rather than using the Notice of Violation process. This results in the requirement where property owners either clear the sidewalk themselves, or if they remain non-compliant the City does the work and charges the homeowner through property taxes.

Report

Timelines for Enforcement

Currently, the bylaw inspector determines the date and approximate time the snowfall stopped. Inspection occurs only after the 24 hour (commercial properties) or 48 hour (residential properties) clearing time has expired. A Bylaw Notice is issued to the property owner of non-compliant properties. An additional 24 (or 48) hours is provided for the occupant to comply. The bylaw inspector, on the return visit, initiates snow removal by the City if the property is still not in compliance and the cost of the service is charged to the property tax roll.

The additional 48 hours to comply, after initial inspection, was chosen based on the level of resources available to conduct the re-inspection. This timeframe is not outlined in the bylaw and can be adjusted as required, although additional inspection staff would be required during peak periods.

Options for Enforcement of Properties with Multiple Violations

Although Bylaw No. 8463, The Sidewalk Clearing Bylaw, 2005 provides for the ability to issue a Notice of a Violation and accompanying fine (in addition to the costs for clearing the sidewalk), this has not been done to date. Section 10 of the Bylaw outlines increasing penalty amounts and reduced penalty amounts for early payment. Notices of Violation can be served by personal service (hand delivery to the person in violation), by registered mail, or by posting on the property to which the violation relates. The Notice of Violation process only imposes a penalty and the property owner is not compelled to clear the sidewalk. Once ticketed for a particular snowfall, that person cannot be ticketed again for that same snowfall as there is no continuing offence in the Bylaw.

A number of options are available to improve compliance with Bylaw No. 8463, The Sidewalk Clearing Bylaw, 2005:

1. Reduce the 48 hour waiting period for re-inspection of violations to 24 hours. This option would require additional inspectors for bylaw inspection after a snowfall.
2. Issue only a Notice of Violation upon inspection of a complaint after a snowfall. This option would not achieve the goal of clearing sidewalks as the Notice of Violation provides a penalty and cannot compel compliance with the Bylaw.
3. This is the recommended option. For first offences, the current Bylaw Notice would be used. For subsequent offences by the same property owner, the City would issue a Notice of Violation and also proceed with the Bylaw Notice process to ensure the violation is remediated. This would not only act as a penalty and deterrent, but also ensure that the sidewalk is cleared to improve mobility. Further violations would result in increasing fines as per the bylaw.
4. Continue with the existing process of issuing Bylaw Notices to remedy the violation and issue Notices of Violation for properties with repeat violations.

The Administration recommends Option 3, as it is felt to be an appropriate escalation of impact to property owners. If this is approved, the Administration will draft a new policy. The implementation would occur during the 2015/2016 winter season, which would provide the ability to finalize operational details and implement a communications plan focused on properties that have received sidewalk-clearing Bylaw Notices in the past.

Communication Plan

Changes will be communicated to the general public through a variety of measures. General communications will include the City website, social media, advertising, and news release. Targeted letters will be provided to homeowners who have received Bylaw Notices in the past. This issue may also be made the topic of a Better Winter Roads weekly media conference.

Financial Implications

A communication plan will require funding for advertising. The requirements will be dependent on the significance of the changes made to the enforcement process, and are estimated to be less than $9,000. Implementation of Option 3 will not have a direct budget impact corporately, as revenues would be expected to match any cost increases. Future budgets will be adjusted to adjust these revenues and expenditures.

Other Considerations/Implications

There are no public and/or stakeholder involvement, policy, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

There is no due date for follow-up or project completion.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Report Approval

Written by:	Nick Bakker, Customer Service Manager, Transportation
Reviewed by:	Angela Gardiner, Director of Transportation
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS NB - Snow Clearing Enforcement Process.docx

Snowmobile Bylaw Amendment

Recommendation
That the Standing Policy Committee on Transportation recommend to City Council:
1. That designated snowmobile routes within city limits be updated; and
2. That the City Solicitor be requested to prepare the amendment to Bylaw No. 7983, The Snowmobile Bylaw, 2000.

Topic and Purpose
The purpose of this report is to amend Bylaw No. 7983, The Snowmobile Bylaw, 2000 to update designated routes within city limits.

Report Highlights
Bylaw No. 7983, The Snowmobile Bylaw, 2000 currently designates only one route within the city leading to a gas station that no longer exists. The amendment is to reflect the new city limits requested as part of an upcoming annexation in 2015, and to ensure adequate routing to gas stations.

Strategic Goal
The recommendations in this report support the Strategic Goal of Moving Around by providing safety for snowmobile drivers and motorists.

Background
The existing Bylaw No. 7983, The Snowmobile Bylaw, 2000 designates only one route within the city. The route connects snowmobilers to a now closed gas station site at the northern edge of the city. The route requires updating to provide a gas station connection on each edge of the city (north, south, east, and west). The updated routes will also reflect the new city limits, which have been requested as part of an upcoming annexation in 2015.

Report
The proposed routes, each leading to the nearest gas station on the north, east, and west edges of the city, are illustrated in Attachments 1 to 3. The south edge does not require a route as there is a gas station within close proximity, at the intersection of Highway 11 and Grasswood Road, approximately 2 kms south of city limits.

Public and/or Stakeholder Involvement
The Saskatoon Snowmobile Club reviewed the proposed routes in 2014 and provided input prior to finalizing the selection.

Communication Plan

If the proposed changes are accepted, the City will undertake communication efforts to ensure stakeholders are aware of any route changes. This may involve: direct communications with snowmobile associations, an advertisement in The StarPhoenix City Pages, and updates as information posted to the City's website.

Other Considerations/Implications

There are no options, policy, financial, environmental, privacy, or CPTED consideration or implications.

Due Date for Follow-up and/or Project Completion

The bylaw amendment will be made once approved by City Council.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. Proposed North Route
2. Proposed East Route
3. Proposed West Route

Report Approval

Written by:	Justine Nyen, Traffic Engineer, Transportation
Reviewed by:	Jay Magus, Engineering Section Manager, Transportation Angela Gardiner, Director of Transportation
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

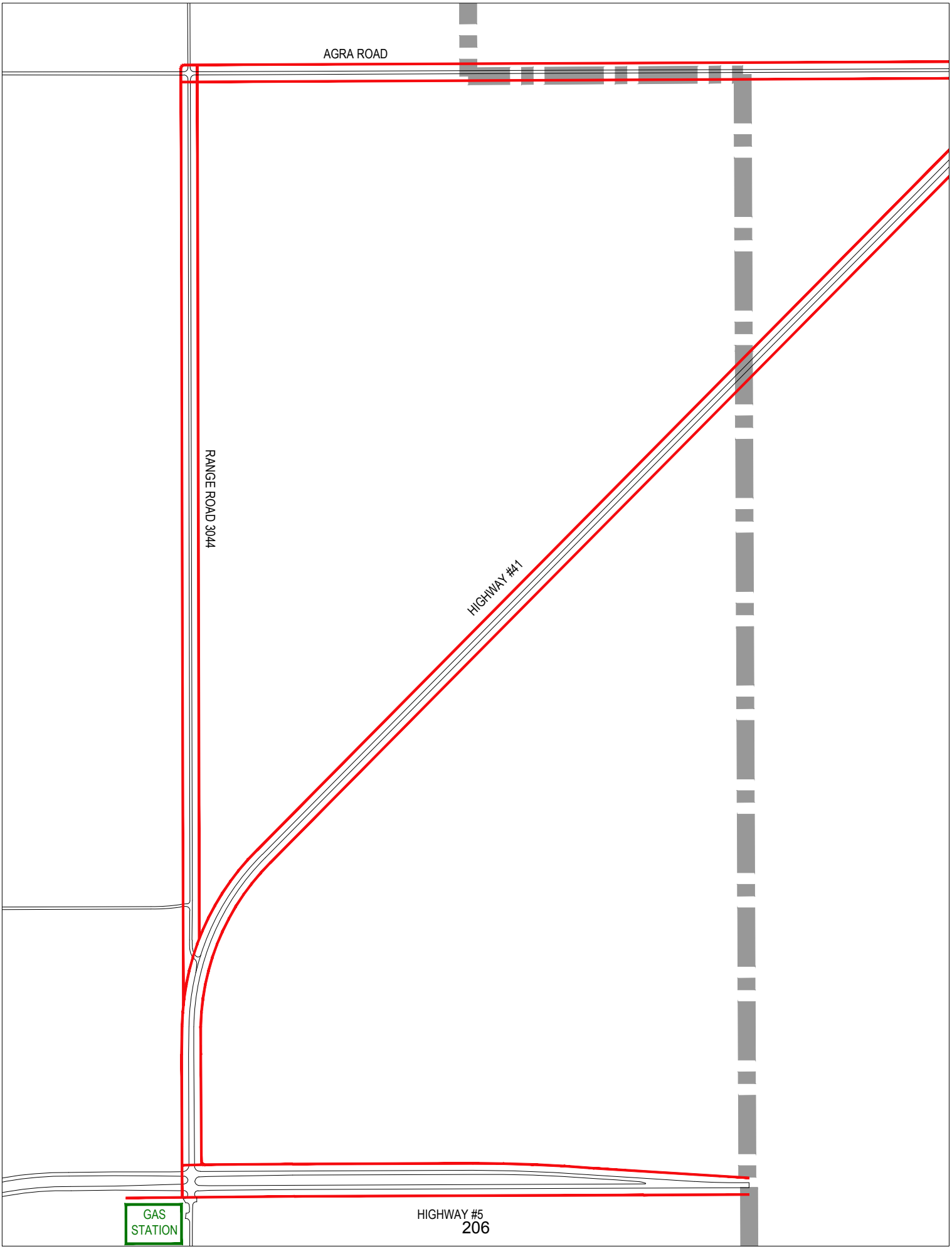
TRANS JN - Snowmobile Bylaw Amendment.docx

PROPOSED NORTH ROUTE

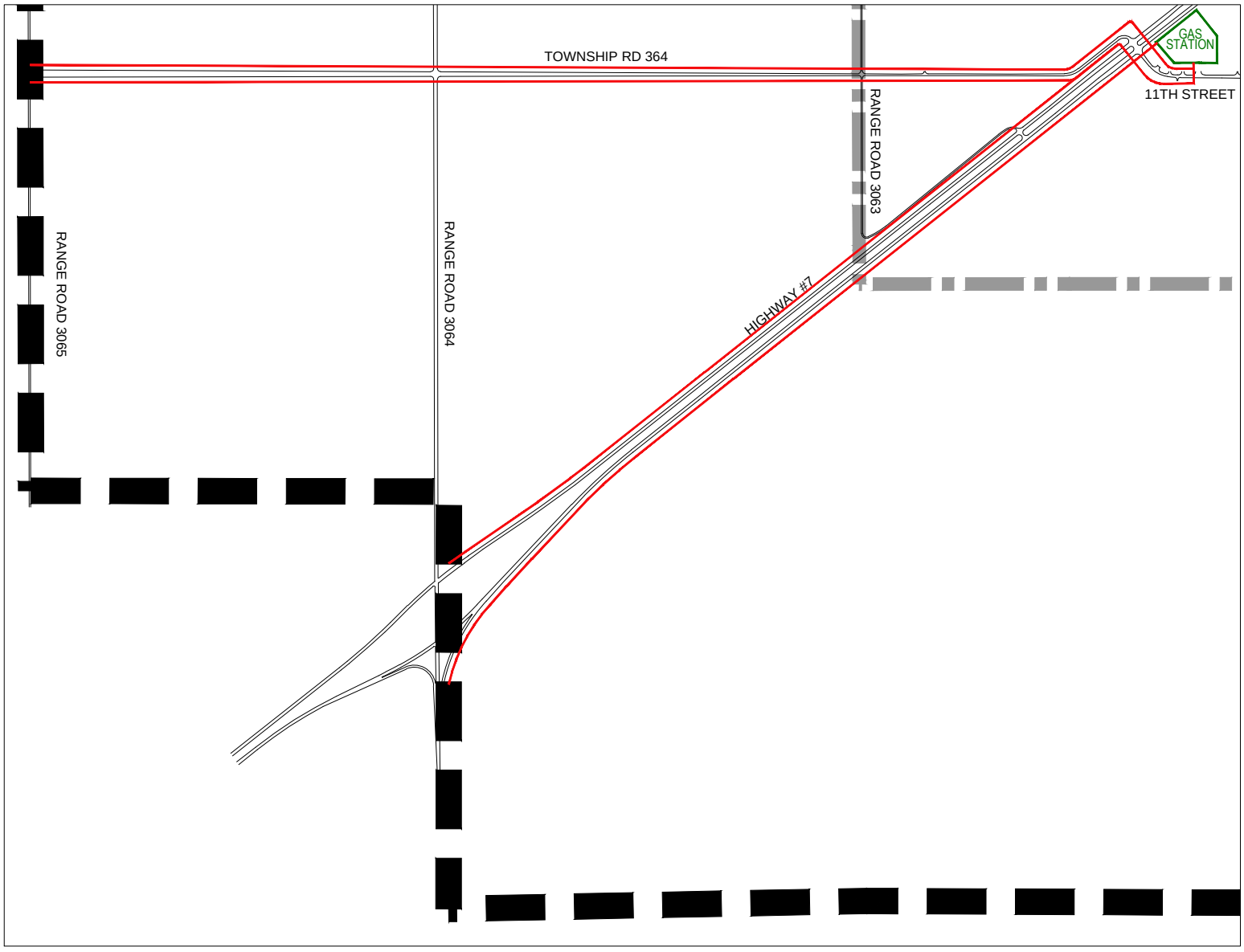
ATTACHMENT 1

PROPOSED EAST ROUTE

ATTACHMENT 2



PROPOSED WEST ROUTE



Westvac Industrial Ltd. – Supply of Stertil-Koni Column Lifts – Blanket Purchase Order

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:

1. That the Administration prepare a blanket purchase order with Westvac Industrial Ltd., the only western Canadian supplier of the supply of Stertil-Koni Column Lifts for the next two years, for a maximum total estimated cost of $100,000 (not including taxes) per year; and,
2. That Purchasing Services issue the appropriate blanket purchase order.

Topic and Purpose

The purpose of this report is to request City Council approve a blanket purchase order from Westvac Industrial Ltd. for the supply of Stertil-Koni Column Lifts.

Report Highlights

1. A blanket purchase order is recommended for the compatibility with the existing column lifts and they have been specified for supply in the new Civic Operations Centre.
2. Westvac Industrial Ltd. is the only western Canadian supplier of the Stertil-Koni Column Lifts.
3. It is recommended that the Administration negotiate a multi-year blanket purchase order with Westvac Industrial Ltd.

Strategic Goal

This report supports the Strategic Goal of Continuous Improvement by standardizing existing equipment and establishing multi-year blanket purchase orders.

Background

In 2010, tenders for the supply of hoists opened publicly and two tenders were received. Westvac Industrial Ltd. was the successful bidder, and the majority of hoists at Transit are from this supplier.

Report

Blanket Purchase Order is Recommended

A blanket purchase order is being recommended for the following reasons:

- Will allow Saskatoon Transit to reduce the administrative time spent raising and managing individual purchase orders.
- Compatibility with our existing column lifts in order to continue to service our conventional fleet.
- The Stertil-Koni Column Lifts have been specified for supply in the new Civic Operations Centre.

- The lifts will replace existing aging lifts which are proven unreliable; parts availability is becoming limited to none.

Westvac Industrial Ltd. is the Only Authorized Distributer

Westvac Industrial Ltd. is the only western Canadian supplier of the Stertil-Koni Column Lifts as verified by the attached letter (see Attachment 1).

Negotiate a Blanket Purchase Order

The Administration is recommending that the City negotiate directly with Westvac Industrial Ltd. to obtain a blanket purchase order for Saskatoon Transit, for Stertil-Koni Column Lifts. By combining purchases into one contract, the City will have additional bargaining power and be able to take advantage of any available bulk purchasing discounts.

Options to the Recommendation

The supply of the materials could be individually sole sourced. Westvac Industrial Ltd. would be the exclusive supplier of the Stertil-Koni Column Lifts. The Administration believes that the most advantageous approach for the City is to negotiate a larger order directly with the supplier to minimize overhead and obtain the best pricing available.

Financial Implications

Funds are available in the maintenance programs of the Saskatoon Transit approved 2015 (and future) Capital Budget Project 0671 – Transit – Aux Veh/Equip-Eq Purchase.

Other Considerations/Implications

There are no policy, public and/or stakeholder involvement, communication plan, environmental, Privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

This blanket purchase order should be in place by March 1, 2015, with an option to extend the blanket for one year, provided the supplier provides acceptable pricing and maintains status as the sole supplier of the Stertil-Koni Column Lifts.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Stertil-Koni Letter Dated January 7, 2015

Report Approval

Written by:	Paul Bracken, Maintenance Manager
Reviewed by:	Bob Howe, Director of Saskatoon Transit
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

Stertil KONI

OMER

200 Log Canoe Circle
Stevensville, MD 21666 • 410-643-9001 • 800-336-6637 • 410-643-8901 (Fax)

January 7, 2015

To Whom This May Concern,

Please be advised that Westvac Industrial Ltd. with offices in Surrey, BC, Acheson, AB and Saskatoon, SK is the exclusive Stertil-Koni Sales and Service provider for Western Canada including the provinces of BC, AB, SK and MB.

Sincerely,

Rawn D Roman
Regional Manager