



**PUBLIC AGENDA
STANDING POLICY COMMITTEE
ON TRANSPORTATION**

Monday, March 13, 2017, 2:00 p.m.

Council Chamber, City Hall

Committee Members:

Councillor R. Donauer, Chair, Councillor Z. Jeffries, Vice-Chair, Councillor C. Block, Councillor S. Gersher, Councillor A. Iwanchuk, His Worship Mayor C. Clark (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

Recommendation

That the agenda be confirmed as presented.

3. DECLARATION OF CONFLICT OF INTEREST

4. ADOPTION OF MINUTES

Recommendation

That the minutes of regular meeting of the Standing Policy Committee on Transportation held on January 31, 2017 be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

6.2 Matters Requiring Direction

6.3 Requests to Speak (new matters)

6.3.1 Blairmore Retail Center - Ron Stevens - [File No. CK 4110-37]

7 - 7

Attached is an email from Ron Stevens dated January 24, 2017, requesting to speak.

Recommendation

That the information be received.

7. REPORTS FROM ADMINISTRATION

7.1 Delegated Authority Matters

- 7.1.1 Request for Encroachment Agreement - 1814 Broadway Avenue [Files CK. 4090-2 and PL 4090-2] 8 - 11**

Recommendation

1. That the proposed encroachment at 1814 Broadway Avenue (Lots 13 and 14, Block 20, Plan G186) be recognized;
2. That the City Solicitor be requested to prepare the appropriate encroachment agreement making provision to collect the applicable fees; and
3. That His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal and in a form that is satisfactory to the City Solicitor.

- 7.1.2 Capital Project #2407 – North Commuter Parkway and Traffic Bridge – Construction Update [Files CK 6050-10, xCK 6050-8, CS 6050-10 and TS 6050-104-044] 12 - 14**

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be received as information.

- 7.1.3 Highway 16/Boychuk Drive and McOrmond Drive/College Drive Interchanges – Design & Construction Update [Files CK 6000-1 and TS 6330-1] 15 - 18**

Supplemental information is forthcoming and will be provided prior to the meeting.

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be received as information.

7.2 Matters Requiring Direction

- 7.2.1 **Inquiry – Councillor M. Loewen (June 27, 2016) Establishment of Mid-Block Crosswalk in front of Aden Bowman Collegiate [Files CK 6150-1 and TS 4131-1]** 19 - 57

The following requests to speak have been received:

- Cate Soffer, Aden Bowman School Community Council
- Alex Hanson, Colliers International

Recommendation

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

That the Administration proceed with an urban landscape project to mitigate jaywalking across Clarence Avenue between Aden Bowman Collegiate Institute and the commercial strip mall.

- 7.2.2 **2016 Traffic Control, Parking Restrictions and Parking Prohibitions Signage [Files CK 6280-1 and TS 6120-3]** 58 - 65

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated March 13, 2017, be forwarded to City Council for information.

- 7.2.3 **Proposed Agreement with Calgary Parking Authority – Parking System Software and Support [Files CK 6120-3 and PL 6120-1]** 66 - 70

Recommendation

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

1. That the City of Saskatoon enter into an interim agreement with the Calgary Parking Authority for the provision of parking enforcement system software and support services subject to the terms outlined in this report;
2. That the Office of the City Solicitor prepare the appropriate agreement for execution by His Worship the Mayor and the City Clerk under the corporate seal; and
3. That the Administration issue a Request for Proposals to procure a long-term supplier of the required parking enforcement system software to take affect at the conclusion of the interim agreement.

7.2.4	Implementation Update on Way-To-Park Application and Amendments to Traffic Bylaw No. 7200 [Files CK 6120-3, xCK 261-1 and PL 6120-1]	71 - 72
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Recommendation

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

1. That the information be received;
2. That the proposed amendments to Traffic Bylaw No. 7200, as outlined in this report, be approved; and
3. That the City Solicitor be requested to amend Traffic Bylaw No. 7200, as outlined in this report, effective March 27, 2016.

7.2.5	Central Business District Sidewalk and Bike Lane Sweeping Pilot Study [Files CK 6315-3 and PW 6315-3]	73 - 74
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Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be forwarded to City Council for information.

7.2.6	2016-2017 Winter Road Maintenance - Operations Update [Files CK 6290-1 and PW 6290-1]	75 - 79
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Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be forwarded to City Council for information.

7.2.7	Automated Speed Enforcement – Pilot Program Update [Files CK 5300-8 and TS 1815-1]	80 - 82
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Recommendation

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

That the City of Saskatoon continue to partner with Saskatchewan Government Insurance on the Automated Speed Enforcement pilot program until a decision is made by government on the future of the program. A contract extension of up to two years is requested in the meantime.

7.2.8	Arbor Creek Sound Attenuation Funding [Files CK 375-2, xCK 1702-1 and TS 375-02]	83 - 85
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Recommendation

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

1. That \$2.2 Million be allocated to Capital Project #1522 – Traffic Noise Sound Attenuation from a reallocation of New Building Canada Funds to fund the Arbor Creek sound attenuation wall.
2. That the \$2.2 Million be cash flowed until such time as the reallocation funding is available.

7.2.9	Glasgow Street Traffic Review [Files CK 6320-1 and TS 6320-1]	86 - 96
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Recommendation

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

1. That the Administration proceed with removing the pinch points installed in a temporary fashion on Glasgow Street; and
2. That left turns be restricted at the intersection of Glasgow Street and Clarence Avenue on a trial basis.

7.2.10	Lakeridge Neighbourhood Traffic Review [Files CK 6320-1 and TS 6320-1]	97 - 154
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Recommendation

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

That the Neighbourhood Traffic Review for the Lakeridge 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.

7.2.11	Parkridge Neighbourhood Traffic Review [Files CK 6320-1 and TS 6320-1]	155 - 233
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Recommendation

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

That the Neighbourhood Traffic Review for the Parkridge 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.

7.2.12	Willowgrove Neighbourhood Traffic Review [Files CK 6320-1 and TS 6320-1]	234 - 306
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Recommendation

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

That the Neighbourhood Traffic Review for the Willowgrove 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.

8. URGENT BUSINESS

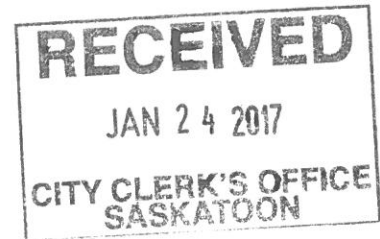
9. MOTIONS (Notice Previously Given)

10. GIVING NOTICE

11. IN CAMERA AGENDA ITEMS

12. ADJOURNMENT

From: City Council
Sent: January 24, 2017 12:15 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Tuesday, January 24, 2017 - 12:14
Submitted by anonymous user: 72.235.185.170
Submitted values are:

Date: Tuesday, January 24, 2017
To: His Worship the Mayor and Members of City Council
First Name: Ron
Last Name: Stevens
Address: 142 Arrand Cres
City: Saskatoon
Province: Saskatchewan
Postal Code: S7m4z8
Email: ronstevens142@gmail.com

Comments: Planning Committee. The Blairmore Retail Center (BRC) does not provide direct vehicle access to the Parkridge community that borders it. A retail center is built to provide service to the communities that surround it yet this is the only retail center in Saskatoon (or perhaps Western Canada) that restricts access. Businesses rely on the surrounding neighborhoods to support them. Lot sales in the last 3years have been disasterous, 12 houses and 9 vacant lots. This is compared to Kensington that the city sold 259 lots in the last 2 years. Dream Developments have sold nearly all their 550 lots in Kensington and built on a majority of them. It's about access to theretail center and exits to connecting roads to get to work. Parkridge extension has one and it travels 3kms through school zones to reach 22nd st. It could reach 22nd directly within 2 blocks with access. Kensington has 5 exits and direct access to BRC. I feel the city needs to reconsider this restriction in order to sell lots in Parkridge Extension. I would like to speak on this if I may

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/142175>

Request for Encroachment Agreement – 1814 Broadway Avenue

Recommendation

1. That the proposed encroachment at 1814 Broadway Avenue (Lots 13 and 14, Block 20, Plan G186) be recognized;
2. That the City Solicitor be requested to prepare the appropriate encroachment agreement making provision to collect the applicable fees; and
3. That His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal and in a form that is satisfactory to the City Solicitor.

Topic and Purpose

The purpose of this report is to seek permission for the existing encroachment for the portions of the building façade located at 1814 Broadway Avenue.

Report Highlights

1. The existing encroachment area is 2.93 square metres.
2. The building façade extends onto the Broadway Avenue sidewalk by up to 0.32 metres.

Strategic Goals

This report supports the City of Saskatoon’s Strategic Goals of Sustainable Growth and Quality of Life by ensuring that designs of proposed developments are consistent with planning and development criteria and that these designs do not pose a hazard for public safety.

Background

Building Bylaw No. 7306 states, in part, that:

“The General Manager of the Community Services Department shall not issue a permit for the erection or alteration of any building or structure the plans of which show construction of any kind on, under, or over the surface of any public place until permission for such construction has been granted by Council.”

Report

The owner of the property located at 1814 Broadway Avenue has requested permission to enter into an encroachment agreement (see Attachment 1). As shown on the Site Plan, the existing building façade encroaches onto the Broadway Avenue sidewalk to a maximum of 0.32 metres (see Attachment 2). The total area of the encroachment is approximately 2.93 square metres; therefore, will be subject to an annual charge of \$50.

Request for Encroachment Agreement – 1814 Broadway Avenue

Public and/or Stakeholder Involvement

There is no public or stakeholder involvement.

Other Considerations/Implications

There are no options, policy, financial, environmental, privacy, or CPTED implications or considerations; a communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

There is no follow-up report planned.

Public Notice

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

Attachments

1. Request for Encroachment Agreement Dated February 10, 2017
2. Copy of the Site Plan Detailing Existing Encroachment

Report Approval

Written by: Tanda Wunder-Buhr, Commercial Permit Supervisor, Building Standards

Reviewed by: Daisy Harington, Senior Building Code Engineer, Building Standards

Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2017/BS/TRANS – Request for Encroachment Agreement – 1814 Broadway Avenue/lc

Request for Encroachment Agreement Dated February 10, 2017



BUILDING STANDARDS
222-3rd AVE NORTH, SASKATOON, SK S7K 0J5

THIS IS NOT AN AGREEMENT

ENA - 00002/17

ENCROACHMENT AGREEMENT APPLICATION

SECTION A – PROJECT INFORMATION (to be completed for ALL ENCROACHMENT AGREEMENT APPLICATIONS)
(Please note the approval process may take up to 10 weeks dependent on the Standing Policy Committee Meeting Schedule)

TYPE OF ENCROACHMENT	New Proposed <input checked="" type="checkbox"/>	Revision <input type="checkbox"/>
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PROJECT INFORMATION	Site Address 1814 Broadway Ave Legal Description (Lot/Block/Plan) Lots 13 & 14 Block 20 Plan 6136
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APPLICANT	Contact Name Rick Laver Company Name (if applicable) Rely-ex Contracting Inc Address 516 43 rd St E City Saskatoon Province SK Postal Code S7K 0J6 Phone Number (incl. Area Code) (306) 664-2155 Email Address rick@rely-ex.com Preferred method of correspondence: MAIL or EMAIL
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OWNER	Contact Name (Official Name that will appear on the Agreement) Lakmarc Holdings Company Name (if applicable) Address 15 Ashwood Drive City Corman Park Province SK Postal Code S7T 1B9 Phone Number (incl. Area Code) (306) 380-2447 Email Address anyanikoneru@hotmail.com Preferred method of correspondence: MAIL or EMAIL
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SECTION B – SUBMISSION REQUIREMENTS (to be completed for ALL ENCROACHMENT APPLICATIONS)

ENCROACHMENT AGREEMENT APPLICATION REQUIREMENTS		Submitted	Received (office use only)
<input type="checkbox"/>	Application Fee	An Encroachment Application Fee of \$100.00 is required to be submitted at the time of application	
<input type="checkbox"/>	Existing Encroachment	Current Real Property Report/Surveyor's Certificate that clearly outlines the encroaching areas, including detailed dimensions of all areas that encroach onto City of Saskatoon Property	
<input type="checkbox"/>	Proposed Future Encroachment	/	

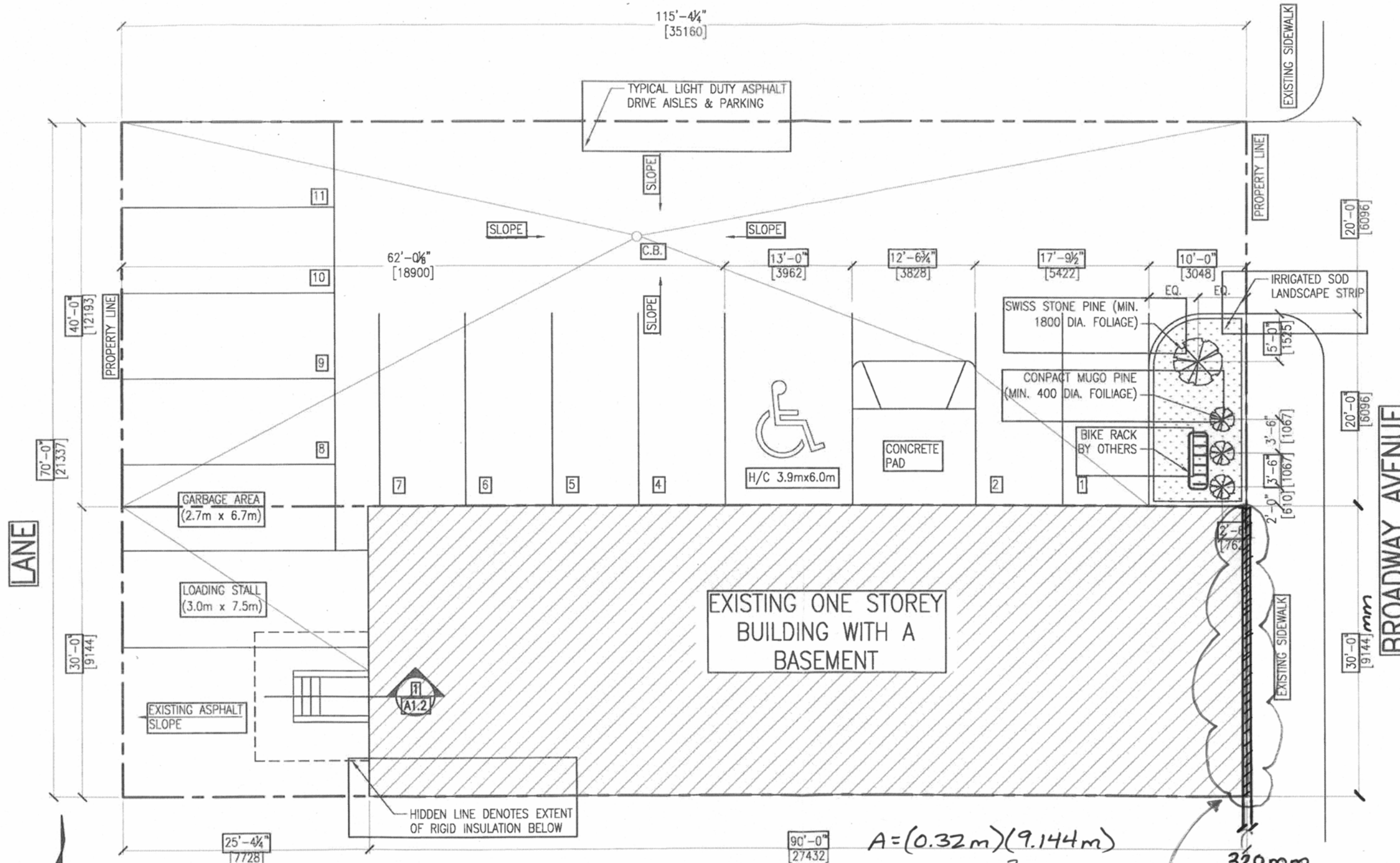
Upon receipt of the request, the Building Standards Division of the Community Services Department will request approvals from the necessary Departments and Divisions, including Development Services, Building Standards, Transportation & Utilities and any other Department or Division as deemed necessary, depending on the type of encroachment. Upon receipt of the various approvals and that there are no objections to the request; the application will be forwarded to the next available Standing Policy Committee on Transportation meeting for their approval. Once the Standing Policy Committee on Transportation has approved, the City Clerks office will advise the applicant of the Committee's decision and will prepare the agreement. Please note that encroachment agreement requests may take up to 10 weeks to process and is dependent on the Standing Policy Committee Meeting Schedule.

Assuming the encroachment is approved, an annual fee will be applied to the tax notice. This fee is based on the area of encroachment, and is calculated at \$3.25 per square meter. The current minimum fee is \$50.00

DECLARATION & SIGNATURES	I DO HEREBY DECLARE:	
	<ul style="list-style-type: none"> That the issuance of an Encroachment Agreement does not relieve the owner and authorized agents from complying with the requirements of the 2010 National Building Code of Canada, as amended and within the scope of the Uniform Building and Accessibility Standards Act. That the submission of this application does not give permission for encroachment of any portion of the building, and that appropriate building permits are required to be obtained prior to the construction of the encroachment. 	
	I certify that I have read and agree to abide by the conditions above, and all information contained within this application is correct.	
	Applicant Signature 	Date Feb 10/17
	Application Received By 	Date Received FEB 10 2017

RECEIVED
 FEB 10 2017
 CITY OF SASKATOON
 COMMERCIAL PERMIT OFFICER

Copy of Site Plan Detailing Existing Encroachment



$A = (0.32m)(9.144m)$
 $= 2.93m^2$
 $\times \$3.25/m^2$
 $= \$9.51$
 $\rightarrow \$50/year\ minimum.$

Encroachment.

LUMINARY DESIGN
 T: (306)242-2402
 E: info@luminarydesign.ca
 #510 - 230 22ND ST EAST
 SASKATOON, SK S7K 0E9
 WWW.LUMINARYDESIGN.CA

CONSULTANTS:
REM
Rempel Engineering & Management Ltd
 1809 LORNE AVENUE,
 SASKATOON, SK., S7H 1Y5
 PHONE: (306) 343-8737
 FAX: (306) 343-8732
 WWW.REMPELENG.CA

RECEIVED
 FEB 10 2017
 CITY OF SASKATOON
 COMMERCIAL PERMIT OFFICER

CONTRACTOR:
RELY-EX

PROJECT TITLE:
DENTAL CLINIC
 1814 BROADWAY AVENUE
 SASKATOON, SK

DATE	REVISION
DEC 14/16	ISSUED FOR PERMIT
DEC 23/16	ISSUED FOR CONSTRUCTION
JAN 04/17	REVISED SITE PLAN
JAN 05/17	REVISED SITE PLAN

DRAWING TITLE:
SITE PLAN

DRN BY: KM
 DATE: January 05, 2017
 PG: **A1.1**

Capital Project #2407 – North Commuter Parkway and Traffic Bridge – Construction Update

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be received as information:

Topic and Purpose

This report is to provide the Standing Policy Committee on Transportation with an update of the North Commuter Parkway and Traffic Bridge project construction progress.

Report Highlights

1. At the Traffic Bridge, Graham Commuter Partners (GCP) has completed demolition of the final components of the original bridge and has now completed all of the new piers, both abutments, and erection of Span 4, the southernmost span of the bridge.
2. At the North Commuter Parkway bridge, construction of Pier 1 and Pier 2, the west and centre in-river piers, is complete. Erection of the girders for Span 2, the west-centre span, is underway.

Strategic Goal

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 a special meeting held on September 8, 2015, City Council awarded the RFP for the North Commuter Parkway and Traffic Bridge, naming GCP the Preferred Proponent. At its meeting on November 23, 2015, City Council received information regarding the financial details of the Project Agreement (PA) with GCP.

A construction update was last provided to the Standing Policy Committee on Transportation on November 14, 2016.

Report

Design Status

At this time, completed designs for most of the new infrastructure have been reviewed by the project team. Full completion of all remaining design work is anticipated by late March 2017.

Traffic Bridge Construction Status

Demolition of the final span and two piers of the original bridge was completed in November 2016. All of the piers and both abutments have been completed. Erection of the new south span (Span 4) was also completed last fall.

Erection of the south-centre span (Span 3) commenced in late January, and is scheduled to be complete by late February. Erection of the north-centre span (Span 2) will commence immediately following erection of Span 3, and is scheduled to be complete by mid-April. The final span will be constructed this spring. Construction of the bridge deck will follow.

Construction of the new south embankment in Rotary Park remains ongoing, and work to reconstruct the retaining wall along Victoria Avenue commenced in February.

North Commuter Parkway Construction Status

Construction of the west and centre in-river piers (Piers 1 and 2, respectively) for the new North Commuter Parkway bridge is complete. Work on the west abutment is nearly complete.

On January 19, 2017, the first girders arrived onsite and erection of the first span (Span 2) of the bridge commenced. The two west spans of the bridge are scheduled to be completed by mid-April, then work will transition to the east side of the river so that the final pier and last two spans can be constructed.

Work at the intersection of Attridge Drive and Central Avenue is substantially complete with only the median infills remaining. This work is scheduled to be completed in spring 2017.

Work on the new roadways, sound attenuation walls, and underground utilities wrapped up for the winter in November 2016. Work will recommence on these items following spring thaw.

Public and/or Stakeholder Involvement

Stakeholder involvement is required at various stages of the project. There have been three public open house events since December 2015. Community events are periodically planned in order to engage and educate the citizens. The Administration will coordinate these activities with applicable stakeholders as necessary.

Communication Plan

Various communication requirements are to be completed by GCP during both the construction and operating periods of the project. In addition, 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. The North Commuter Parkway and Traffic Bridge webpage, saskatoon.ca/bridging, is regularly updated and various community events will be planned in order to engage and educate

citizens. Regular project updates are being provided to the general public and Community Associations.

Financial Implications

Capital Project #2407 has been approved for funding in the amount of \$238.8M.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The North Commuter Parkway and Traffic Bridge project is scheduled for substantial completion in October 2018.

Public Notice

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

Report Approval

Written &

Reviewed by: Dan Willems, Director of Major Projects

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

TRANS DW – CP2407 – NCP and TB – Construction Update – March 13, 2017

Highway 16/Boychuk Drive and McOrmond Drive/College Drive Interchanges – Design & Construction Update

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be received as information.

Topic and Purpose

The purpose of this report is to provide an update on the design and construction of the interchanges at Highway 16/Boychuk Drive and McOrmond Drive/College Drive, as well as the transportation plan for each location.

Report Highlights

1. The design for both interchanges has been progressing well and PCL Construction Management Inc. (PCL) has started doing preliminary site work at both locations.
2. The construction of detour roads will begin in April 2017 and the detours are anticipated to be in effect for June 2017.
3. The street lighting along College Drive is scheduled to be in place before June 2017.
4. The Administration is developing transportation plans for each location to minimize impacts to commuters and communicate transportation alternatives.

Strategic Goal

This report supports the Strategic Goal of Moving Around by investing in infrastructure that improves connectivity for all travel modes.

Background

At its meeting on February 29, 2016, City Council approved the procurement strategy for the bundling of Highway 16/Boychuk Drive and McOrmond Drive/College Drive Interchanges as a single project called the Saskatoon Interchange Project.

At its meeting on November 28, 2016, City Council approved PCL as the Preferred Proponent for the Saskatoon Interchange Project with a price, not including GST, of:

Boychuk Interchange:	\$27,245,518.28
McOrmond Interchange:	<u>\$29,449,081.72</u>
Total Cost:	<u>\$56,694,600.00</u>

PCL and the City finalized the Project Agreement with an effective date for the project of December 12, 2016.

Report

PCL has been progressing the design for each interchange since the Project Agreement was executed in December 2016. They mobilized site trailers to each site in January 2017, and have completed preliminary site work in February. Third party utilities started to relocate their utilities in February, and will continue to do so until June.

PCL will start building detour roads in April, and anticipate to have the detour in place at both locations for June. The impact to commuters between April and June is expected to be minimal.

The street lighting along College Drive is scheduled to be in place before the detour roads are in use, which is expected to be June 2017.

Commuters aren't expected to experience traffic delays as a result of construction until the detour roads are in operation in June 2017. Administration is finalizing transportation plans for each location to minimize the impacts that commuters will experience as well as show alternative routes and methods of transportation and their associated times. This "re-route your commute" approach has proven to be a successful approach.

Public and/or Stakeholder Involvement

In March 2009, an open house was held in conjunction with the Ministry of Highways and Infrastructure and the Rural Municipality of Corman Park as part of the Highway 16 Corridor Planning Study. The functional plan for the interchange was presented at that time.

In 2013, the functional plan for the interchange at McOrmond Drive/College Drive was presented at a public open house.

Prior to work beginning at each site, area residents and stakeholders will have an opportunity to learn about construction plans and impacts at two information sessions:

Boychuk Drive & Highway 16 Interchange Public Information Session

Thursday, March 16, 2017
6:00 p.m. - 9:00 p.m. (presentations 6:30 and 7:30)
Saskatoon Christian School
362 Township Road

McOrmond Drive & College Drive Interchange Public Information Session

Location and time to be determined.

Communication Plan

A communication plan is in place and a marketing plan is in development to ensure stakeholders and residents understand the necessity of the interchanges, and are

continuously updated on project timelines and temporary changes to traffic patterns. Messaging will be distributed via the most appropriate methods prior to the project commencing, throughout construction, and for a period after the interchanges are complete (online at saskatoon.ca/interchanges, flyers, social media, traditional media, etc).

Policy Implications

This project will comply with the City's wetland policy, and a wetland mitigation and compensation strategy has been established for the project.

Financial Implications

For the Highway 16/Boychuk interchange, the Government of Canada and the Province of Saskatchewan have each agreed to pay a third of the cost of the interchange, to a maximum of \$14.7M for each interchange. The favourable pricing achieved on the project will allow these contributions to be reduced, which will be finalized upon conclusion of the project. The Federal and Provincial Governments will also each pay a third of the costs for any other eligible expenses the City incurs for the Highway 16/Boychuk Drive Interchange. The City will pay for the remainder of the interchange through the interchange levies and developer contributions.

The McOrmond/College Drive interchange is funded by developer contributions and the interchange levy.

Because funding for these interchanges is not from property taxes, this project has no direct positive or negative impact to the mill rate. There are, however, significant savings to taxpayers due to favourable pricing, which will lessen provincial and federal funding contributions and will reduce the draw from the City's Interchange Levy reserve.

Environmental Implications

The construction of the project will emit greenhouse gas emissions but that will be offset from the long-term benefit of the two interchanges moving traffic more efficiently.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Substantial Completion is currently targeted for October 31, 2018, for McOrmond Drive/College Drive, and July 31, 2019, for Highway 16/Boychuk Drive. The project remains on schedule.

Public Notice

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

Highway 16/Boychuk Drive and McOrmond Drive/College Drive Interchanges – Design and Construction Update

Report Approval

Written by: Bryan Zerebeski, Senior Project Management Engineer, Major Project & Preservation
Reviewed by: Dan Willems, Director of Major Project & Preservation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

TRANS BZ - Hwy 16-Boychuk Dr and McOrmond Dr-College Dr Interchanges – Design and Construction Update

Inquiry – Councillor M. Loewen (June 27, 2016)

Establishment of Mid-Block Crosswalk in front of Aden Bowman Collegiate

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Administration proceed with an urban landscape project to mitigate jaywalking across Clarence Avenue between Aden Bowman Collegiate Institute and the commercial strip mall.

Topic and Purpose

This report provides a recommendation to mitigate jaywalking across Clarence Avenue between Aden Bowman Collegiate Institute (ABCI) and the commercial strip mall via an urban landscape project on the school site.

Report Highlights

1. There is an existing jaywalking issue across Clarence Avenue between ABCI and the commercial strip mall.
2. Several options were considered and evaluated.
3. An urban landscape project is recommended to mitigate the jaywalking issue.

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 provide a great place to live, work, and raise a family.

Background

On May 15, 2015, Administration met with Saskatoon Police Service (SPS) and the ABCI Principal to discuss jaywalking concerns between ABCI and the commercial strip mall directly across Clarence Avenue. Addressing illegal jaywalking through education and enforcement has not been sufficient enough to discourage jaywalkers.

In June of 2015, the ABCI Principal provided the Transportation division with a written request for a mid-block pedestrian crossing. After consideration, the request for a mid-block crossing was denied in October of 2015.

In December of 2015 and January of 2016, an additional assessment of the issue was undertaken to collect pedestrian and traffic data, develop and evaluate options, and prepare an interim report.

In April of 2016, an interim report was provided to the Principal and shared with the school's parent and student councils. The interim report recommended the installation

of a centre median fencing option to physically prevent jaywalking across Clarence Avenue. In May and June of 2016, Administration met with the ABCI Principal and Councillor to discuss the interim report and next steps.

The following inquiry was made by Councillor M. Loewen at the meeting of City Council held on June 27, 2016:

“As a result of conversations between the staff, students, and parents at Aden Bowman Collegiate, I would like to request that the Administration please report back to the Standing Policy Committee on Transportation regarding the possibility of implementing a mid-block crosswalk in front of Aden Bowman Collegiate as a pilot project at some point during the 2016/17 school year.”

On October 3, 2016, Administration met with the new ABCI Principal to further discuss options to address the jaywalking issue.

On October 18, 2016, Administration met with the School Community Council and agreed to continue to work towards a suitable resolution to the jaywalking issue.

On January 12, 2017, Administration met with the principal, vice-principal, Councillor, and two parents to review an alternative option developed by the Administration which includes an urban landscape design.

On January 17, 2017, Administration presented the urban landscape design option to the School Community Council and a representative from the Adelaide-Churchill Community Association.

Report

A detailed technical report summarizing the background, data collection and analysis, options review, conclusions, and recommendations is provided in Attachment 1.

Jaywalking Issues and Mitigation Option Summarized

- ABCI is located directly across Clarence Avenue (to the west) from the commercial strip mall, attracting a significant amount of pedestrian traffic from ABCI.
- Instead of using the crosswalk at the signalized intersection of Clarence Avenue and Taylor Street, students jaywalk across Clarence Avenue.
- ABCI has attempted to mitigate jaywalking through landscaping, supervising the area to deter jaywalking, and educating students.
- ABCI is highly utilized outside of school hours and non-students have anecdotally been seen jaywalking across Clarence Avenue.
- SPS has attempted to mitigate through enforcement by issuing jaywalking tickets.
- The development and build out of the Stonebridge neighbourhood has increased traffic on Clarence Avenue, increasing the opportunity for conflicts between pedestrians and vehicles.

- Annually, ABCI students paint an illegal crosswalk at this location, which is removed at the taxpayer's expense. This illegal crosswalk generates significant safety issues for pedestrians and drivers.

In January of 2016, jaywalking data was collected from 7:00 AM to 10:00 PM. A summary of the number of jaywalkers over the lunch period is provided below:

Time	Jaywalking Direction		Total
	Westbound	Eastbound	
11:00 to 12:00 PM	40	39	79
12:00 to 1:00 PM	47	64	111
1:00 to 2:00 PM	15	4	19

A review of the collision history on Clarence Avenue (between Taylor Street and Isabella Street) indicates 10 collisions involving vehicles at this location from 2010 to 2014, with about 50% of the collisions having been rear end collisions. Traffic volumes on Clarence Avenue are increasing annually. Installing a mid-block crosswalk at this location will increase the probability of rear end collisions, lowering the level of safety for both pedestrians and drivers. No collisions involving pedestrians were reported to Saskatchewan Government Insurance in this time frame, and no fatalities occurred.

Options Considered

Several options were considered: do nothing, enforcement, education, and a pick-up/drop-off loop were discussed and discarded. A centre median fencing option along Clarence Avenue was evaluated and determined to be effective, yet created a significant barrier for the community. An option to install a mid-block pedestrian crossing was considered but discarded as it does not follow accepted transportation engineering practices, and would lower the level of safety for both pedestrians and drivers.

When considering the installation of crosswalks, several factors are evaluated. These include the proximity to existing crossing points, sight distance, vehicle speed, collision records, traffic volumes, and pedestrian volumes.

As a general principle when installing mid-block pedestrian crossings, appropriate stopping sight distance and proximity to other available pedestrian crossing points are critical. The available sight distance should be sufficient enough to enable a vehicle travelling at or near the design speed to stop before reaching an object in its path. Since mid-block crossings are not generally expected by drivers, they should only be used where truly needed with appropriate signage to avoid putting pedestrians at risk.

The location of a mid-block crossing should be well spaced from the other safe intersection crossings. The existing fully signalized intersection at Clarence Avenue/Taylor Street provides pedestrians with a safe crossing to access adjacent facilities. Furthermore, there is a well signed pedestrian crosswalk at Clarence Avenue/Isabella Street which provides pedestrians another safe crossing. These two existing crossing points on Clarence Avenue are 230 metres apart.

The Transportation Association of Canada's October 2011 Pedestrian Crossing Control Guide provides guidelines on the use of devices for pedestrian crossing control. The guidelines outline that mid-block crosswalks should not be installed within 200 metres of another crosswalk. The sidewalk aligned east-west between the school's front doors on Clarence Avenue and the street is approximately 65 metres south of the Clarence Avenue/Taylor Street intersection. This spacing is too close to an existing protected pedestrian crossing at the signalized intersection.

In order to minimize impact on traffic flows, pedestrian crossings on arterial roadways near a signalized intersection need to be coordinated with the existing traffic signals. This often results in delays for pedestrians when the crossing pushbutton is initiated.

Based on the observations of jaywalking behaviour at this location, delays for the crossing light may further lower the level of safety as jaywalkers will cross without the signal instead of waiting for the crossing light.

The Administration commissioned an independent engineering consultant to review the Administration's technical report addressing the jaywalking issue. Their comments are included in Attachment 2 and confirm that the use of a centre median barrier provides a safer alternative than creating a mid-block crossing.

The installation of a pedestrian mid-block crosswalk as a pilot project is not recommended. Pedestrians would be placed at risk through the sense of a 'false security' of installing a mid-block crossing in a location that is unfamiliar and unexpected by drivers.

Urban Landscape Project Highlights

While the centre median fencing option is the preferred solution from a traffic engineering perspective, as it will eliminate conflicts between pedestrians and vehicles, the Administration acknowledges that it would create a barrier in the community. Therefore, an alternative solution has been developed to address the jaywalking, which includes an urban landscape project on the school site immediately adjacent to Clarence Avenue and between the school doors and the strip mall. A plan view of the concept plan is included as Attachment 3. An illustrative view of the concept plan is included as Attachment 4. Highlights of the project are as follows:

- The landscaping and fence would be designed to deter passage and climbing.
- The fence panels can be water etched to reflect famous Aden Bowman graduates or teachers, or memorialize school groups (sports teams, debate squads, etc.)
- The site can be designed to mitigate the impact to pedestrians with mobility issues (i.e. wheelchair accessibility), or even improve accessibility by improving the Taylor Street access, currently not accessible to people in wheelchairs.
- The square area can be used for pep rallies, or public speaking and include seating areas for students and staff, with the potential to include shaded areas.
- There is a potential to have a solar powered device charging station.

- Flag poles and flags will recognize the province and nation.

The potential exists for the students and City Administration to collaborate together to realize this project. This may result in opportunities for student education, allowing them to take ownership of the project and physical space.

Options to the Recommendation

The attached technical report provides details on the various options considered.

Public and/or Stakeholder Involvement

Several stakeholders have been involved throughout the past two years, including the ABCI Principal, Councillor, ABCI Parent and Student Council, and Adelaide-Churchill Community Association.

Communication Plan

A detailed communication plan will be developed, including an update to the area residents through flyers and providing written updates to ABCI, the school board, and the Community Associations. A grand opening of the new site could be planned to celebrate the improvement of this area for pedestrians, cyclists, and drivers. Guests would include those who played a key role in the development of the urban landscape project, including students and staff from ABCI, as well as interested parents, community members and members of both the Saskatoon Public School Board and the City of Saskatoon.

Policy Implications

The recommendations in this report are consistent with the established guidelines in Council Policy C07-018 – Traffic Control of Pedestrian Crossings.

Financial Implications

A preliminary cost estimate for the centerline median fencing option along Clarence Avenue is approximately \$125,000. The Administration supports the allocation of \$125,000 to the urban landscape project. This project could be funded from the Traffic Safety Reserve and will be included as a potential project in an upcoming report to allocate revenues from the reserve.

Other Considerations/Implications

There are no environmental, privacy, or CPTED considerations/implications.

Due Date for Follow-up and/or Project Completion

The project completion date is dependent on available funding.

Public Notice

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

Attachments

1. Jaywalking Review – Clarence Avenue between Taylor Street and Isabella Street
2. Stantec Consulting Ltd. – Mid-block Pedestrian Crossings of Clarence Avenue South of Taylor Street
3. ABCI Proposed Site Layout
4. Proposed New School Sign and Decorative Fence Aden Bowman Collegiate

Report Approval

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

TRANS JM – Inq C Loewen (Jun 27-16) Mid-Block Crosswalk - ABCI.docx

Date: February 2, 2017

File: 6280-2

To: File

From: Jay Magus, P.Eng., Engineering Manager, Transportation

**Re: Jaywalking Review - Clarence Avenue between Taylor
Street and Isabella Street**

1. Introduction

On May 8, 2015 The City of Saskatoon's Transportation division (Transportation) received a request from Saskatoon Police Service and Mr. Cody Hanke, then Principal of Aden Bowman Collegiate Institute (ABCI) to meet and discuss concerns surrounding jaywalking between ABCI and the Churchill Shopping Centre (Strip Mall) directly across Clarence Avenue. On May 15, 2015 Mr. Hanke and representatives from Saskatoon Police Service and Transportation met to discuss the issues. A summary of the discussion is as follows:

- Saskatoon Police Service have ticketed students for jaywalking.
- In order to direct students to a signalized crosswalk, ABCI landscaped their front yard on Clarence Avenue and constructed a concrete pathway between the school's main doors and the intersection of Clarence Avenue and Taylor Street where traffic signals provide a signalized crosswalk. This pathway has been removed as it was not effective.
- ABCI staff have monitored the students and direct them to the protected crosswalk.
- ABCI requested a mid-block crossing be installed as the above measures did not improve the jaywalking issue.

As a follow up to the meeting, in June of 2015 Transportation received a letter from Mr. Hanke. The letter described the long standing issue of jaywalking across Clarence Avenue between ABCI and the Strip Mall. The letter closed with a request of the City to consider 'a crosswalk, traffic calming measures, signage, and crossing lights' to improve the level of safety.

In October of 2015 Transportation responded to Mr. Hanke denying the request for installation of a mid-block crossing on Clarence Avenue between Taylor Street and Isabella Street.

In November of 2015 the neighbourhood of Adelaide – Churchill held their second Neighbourhood Traffic Review meeting. At this meeting the jaywalking issue was raised by residents as a safety issue.

In December of 2015 and January of 2016 discussion between Mr. Hanke, Councillor Mairin Loewen, and Transportation led to an agreement that Transportation would undertake additional assessment of the issue, collect pedestrian and traffic data, develop and evaluate options, prepare a summary report, and present the report.

In April of 2016 an interim report was provided to Mr. Hanke and Councillor Loewen. We understand that this report was shared with the ABCI parent council.

In May and June Transportation met separately with Mr. Hanke and Councillor Loewen to discuss the interim report findings and respond to questions.

The following inquiry was made by Councillor Loewen at the meeting of City Council held on June 27, 2016:

“As a result of conversations between the staff, students, and parents at Aden Bowman Collegiate, I would like to request that the Administration please report back to the Standing Policy Committee on Transportation regarding the possibility of implementing a mid-block crosswalk in front of Aden Bowman Collegiate as a pilot project at some point during the 2016/17 school year.”

This report, based on the interim report, but supplemented with traffic analysis and additional information, presents the complete study findings and recommendations.

2. Problem Statement

The issue can be summarized as follows:

- ABCI is located directly across Clarence Avenue (to the west) from the Strip Mall. The Strip Mall attracts a significant amount of pedestrian traffic from ABCI.
- Instead of using the crosswalk at the signalized intersection of Clarence Avenue and Taylor Street only 65 metres away, pedestrians jaywalk across Clarence Avenue.
- ABCI fronts Clarence Avenue, and a wide concrete sidewalk connects the sidewalk adjacent to Clarence Avenue with the school’s main doors. This main entrance path, if extended, would cross Clarence Avenue and meet the front doors of the Strip Mall’s tenants. It is the main pedestrian desire line between the school and the Strip Mall.
- ABCI has attempted to mitigate the issue through the following:
 - Re-landscape the front yard, including a new sidewalk between the school’s main doors and the intersection of Clarence Avenue and Taylor Street.
 - ABCI staff supervised the area to deter jaywalking.

- ABCI is highly utilized outside of school hours and people who are not students have anecdotally been seen to also jaywalk across Clarence Avenue.
- Saskatoon Police Service has also attempted to mitigate by issuing tickets.
- Over the past years ABCI has attempted to educate their students.
- The development and build out of the Stonebridge neighbourhood has increased traffic on Clarence Avenue, exacerbating the safety issue.
- ABCI Grade 12 students have a tradition of painting an illegal crosswalk at this location. This act generates a very significant safety issue as pedestrians and drivers are unaware how to behave at this illegal crosswalk. Transportation removes the crosswalks, but at the expense of the City.

The City of Saskatoon's Bylaw No. 7200, The Traffic Bylaw, defines jaywalking as follows:

“Jaywalking

37. (1) *A pedestrian shall not cross a street within one block from a traffic signal at a crosswalk.”*

3. Scope

The assessment area is Clarence Avenue between Isabella Street and Taylor Street in the north-south direction, and between the Strip Mall's property line and ABCI's front door.

4. Objective

The main objective of this assessment is to resolve the issue of jaywalking across Clarence Avenue between ABCI and the Strip Mall. Efforts made over the years in education and enforcement have failed to improve the level of safety.

5. Methodology

To achieve the assessment objective outlined above, the review methodology included the following tasks:

- In January of 2016 pedestrian data was collected at the predominant jaywalking location to quantify the non-conformance of pedestrians at this location.
- In January of 2016 pedestrian data was also collected at the intersection of Clarence Avenue and Taylor Street to quantify the pedestrian usage and traffic volumes during the peak hours.
- Review parking along Clarence Avenue including signage, loading zones, and driveway accesses.
- Review the collision history over the past five years from 2010 to 2014.

- Analysis of pedestrian behaviour from on-site reviews and from the video data collected.
- Traffic analysis to determine the impacts to access.
- Develop and review the options.

6. Assessment

6.1 Traffic Characteristics

Clarence Avenue is aligned north to south and is classified as an arterial street. The posted speed limit is 50 kilometres per hour (kph). However, ABCI is located along Clarence Avenue between Taylor Street and Isabella Street, and this segment of Clarence Avenue is a school zone, with a 30 kph posted speed limit, between 8:00 a.m. to 5:00 p.m., every weekday from September to June.

Clarence Avenue between Taylor Street and Isabella Street has the following characteristics:

- Two traffic lanes (one in each direction) with parking lanes on either side.
- Northbound direction includes:
 - Two bus stops, one immediately north of Isabella Street and one immediately south of Taylor Street.
 - There is a parking restriction adjacent to the Strip Mall.
 - The remaining portion of the street allows parking.
- Southbound direction includes:
 - A bus stop immediately south of the Taylor Street.
 - A restricted parking zone.
 - A disabled persons parking zone.
 - A five minute parking zone.
- There are “no jaywalking” signs posted midblock.

Taylor Street is aligned east to west and is classified as an arterial street. Taylor Street has two traffic lanes with parking lanes on either side. The traffic signals at the intersection of Taylor Street and Clarence Avenue provide a protected crosswalk for pedestrians to cross.

The intersection of Taylor Street and Clarence Avenue is approximately 60 metres north of the jaywalking desire lane between ABCI and the Strip Mall.

Isabella Street is aligned east to west and is classified as a local street. It has stop control and a standard crosswalk across Clarence Avenue. The intersection of Isabella Street and Clarence Avenue is approximately 150 metres south of the pedestrian desire line.

6.2 School Site

ABCI fronts all of Clarence Avenue between Taylor Street and Isabell Street to the west. The school has two entrances along Clarence Avenue. The north entrance is directly across from the Strip Mall desire line, and is approximately 60 metres south of Clarence Avenue and a second further south approximately 60 metres north of Isabella Street.

6.3 Pedestrians

Traffic and pedestrian data was collected in January of 2016 on a weekday between 7:00 a.m. to 10:00 p.m. at the jaywalking location along Clarence Avenue and during weekday peak hours (7:00 a.m. to 9:00 a.m.; 11:30 a.m. to 1:30 p.m.; and 3:00 p.m. to 6:00 p.m.) at Clarence Avenue and Taylor Street. The data collected on January 12, 2016 quantified the non-conformance of the pedestrian crossing at the jaywalking location is summarized in **Table 1**.

Table 1: Jaywalking Data at Problem Location

Time	Pedestrians			Vehicles Passing Location on Clarence Ave
	Westbound	Eastbound	Total	
7:00 a.m. – 8:00 a.m.	0	0	0	538
8:00 a.m. – 9:00 a.m.	10	6	16	720
9:00 a.m. – 10:00 a.m.	4	2	6	409
10:00 a.m. – 11:00 a.m.	0	2	2	447
11:00 a.m. – 12:00 p.m.	40	39	79	545
12:00 p.m. – 1:00 p.m.	47	64	111	589
1:00 p.m. – 2:00 p.m.	15	4	19	578
2:00 p.m. – 3:00 p.m.	10	9	19	614
3:00 p.m. – 4:00 p.m.	11	17	28	874
4:00 p.m. – 5:00 p.m.	1	0	1	975
5:00 p.m. – 6:00 p.m.	1	0	1	882
6:00 p.m. – 7:00 p.m.	4	0	4	778
7:00 p.m. – 8:00 p.m.	0	0	0	629
8:00 p.m. – 9:00 p.m.	1	3	40	529
9:00 p.m. – 10:00 p.m.	0	0	0	399
Totals	144	146	326	9506

A review of the information presented in the previous table yields the following:

- There is a significant amount of jaywalking occurring.
- The peak hour for jaywalking is over the school lunch break (111 jaywalkers).
- Vehicular traffic is not insignificant, and grows incrementally all day peaking in the afternoon between 4:00 p.m. to 5:00 p.m.

The peak hour data, used to quantify the pedestrian usage during the peak hours, is summarized in **Table 2**.

Table 2: Pedestrian Traffic at Taylor Street and Clarence Avenue Signalized Intersection

Time	East-West Pedestrians		
	North Side of Intersection	South Side of Intersection	Total
7:00 a.m. – 8:00 a.m.	1	5	6
8:00 a.m. – 9:00 a.m.	19	45	64
11:30 a.m. – 12:00 p.m.	0	9	9
12:00 p.m. – 1:00 p.m.	0	110	110
1:00 p.m. – 1:30 p.m.	1	10	11
3:00 p.m. – 4:00 p.m.	7	107	114
4:00 p.m. – 5:00 p.m.	10	31	41
5:00 p.m. – 6:00 p.m.	6	12	18
Totals	44	329	373

A review of the information presented in the above table yields the following:

- There is a significant amount of pedestrian activity.
- The peak hours coincide with the school hours.

Comparing the two previous tables for the 12:00 p.m. to 1:00 p.m. hour it appears that the non-conformance of pedestrians was significant at approximately 50%. Therefore, it is concluded that a significant jaywalking issue does exist during school hours and peaking over the lunch hour. Comparing the data for the 11:00 a.m. to 12:00 p.m. hour there were 79 jaywalkers compared with 9 pedestrians using the legal crosswalk. This significant non-conformance is most likely due to ABCI staff members not being at the location to dissuade jaywalking.

Additional observations made while reviewing the video data and from field visits are as follows:

- Morning observations (8:00 a.m. to 10:00 a.m.):
 - Some students were dropped on east side of Clarence Avenue and ran across (jaywalking) the street.
 - Most jaywalkers waited for gaps in traffic before crossing.
 - A few jaywalkers ran in front of vehicles, a dangerous condition that may lead to pedestrian collisions or rear end collisions.
- Mid-day and afternoon observations (11:00 a.m. to 3:00 p.m.):
 - Large groups of jaywalkers would cross together, and traffic would stop.
 - Jaywalkers would suddenly cross and not wait for a gap in traffic.
 - Jaywalkers would wait for a gap before crossing.
 - The video data showed some students noticing the camera, hesitating to jaywalk, and instead used the legal crosswalk at Taylor Street.

Based on the additional observations it is concluded that the pedestrian behaviour is random and unpredictable, and this behaviour should influence the type of treatment chosen to mitigate the issue.

6.4 Parking

As previously mentioned, parking is available in front of ABCI from mid-block south to Isabella Street midway along Clarence Avenue to Isabella Street. Parking is also available on Taylor Street between Clarence Avenue to York Avenue, and on Isabella Street south of the school. During site visits in January and February over the peak periods (8:00 a.m. to 9:00 a.m.; 11:30 a.m. to 1:30 p.m.; and 3:00 p.m. to 4:00 p.m.) while school was in session, the following observations were made:

- The vehicles were parked typically by students.
- There was no illegally parked vehicles.

6.5 Collision Analysis

The most recent available five year collision data from SGI is from 2010 to 2014. This data was reviewed looking for information regarding Clarence Avenue between Taylor Street and Isabella Street. This data is presented in **Table 3**, summarizes the following:

- Number of collisions per year.
- The lighting indication of dark, daylight or dawn illustrating the time of day the collision happened.
- Road condition indicating if weather was a factor in the collision.
- Configuration indicating the type of collision.
- Major contributing factor indicates the cause of the collision. Attention is given to pedestrian related incidents at these locations.
- Severity and cost of the collision.

Table 3: Collisions on Clarence Avenue between Taylor Street and Isabella Street

Year	Date / Time	Lighting	Road Condition	Configuration	Major Contributing factor	Severity	Cost
2010	Mar. 8, 3:15 p.m.	Not stated	Not stated	other	Not stated	Property damage	\$2,500
2011	Oct. 28, 7:30 p.m.	Dark	Dry	Rear end	Slowing or stopping on roadway	Property damage	\$5,259
2012	Nov. 27, 6:16 p.m.	Not stated	Packed snow	Rear end	following too closely	Personal Injury	\$2,500
2013	Jun. 20, 8:20 p.m.	Daylight	Not stated	side swipe same direction	Passing or lane usage improper	Property Damage	\$5,052
	Jun. 25, 6:30 a.m.	Daylight	Not stated	Rear end	following too closely	Property Damage	\$8,498
2014	Jan. 2, 9:00 a.m.	Daylight	Not stated	other	Not stated	Property Damage	\$2,500
	Sep. 29, 2:00 a.m.	Dark	Dry	Rear end	Impaired	Property Damage	\$40,000

A review of the information presented in the previous table yields the following:

- Four of the collisions are rear ends. Rear end collisions are typically caused by the first vehicles slowing down for something in the roadway in which the second vehicle is following too closely. Even though the collision statistics do not indicate pedestrian involvement, it is possible the vehicle did slow down for a pedestrian to cross, resulting in the second driver rear ending the first vehicle. This premise is supported by the site observations and video showing near misses due to pedestrians not waiting for a gap to jaywalk.
- No collisions with pedestrians were reported to SGI in this time frame.
- No fatalities occurred.

A summary of the current existing conditions is provided in the following exhibit.

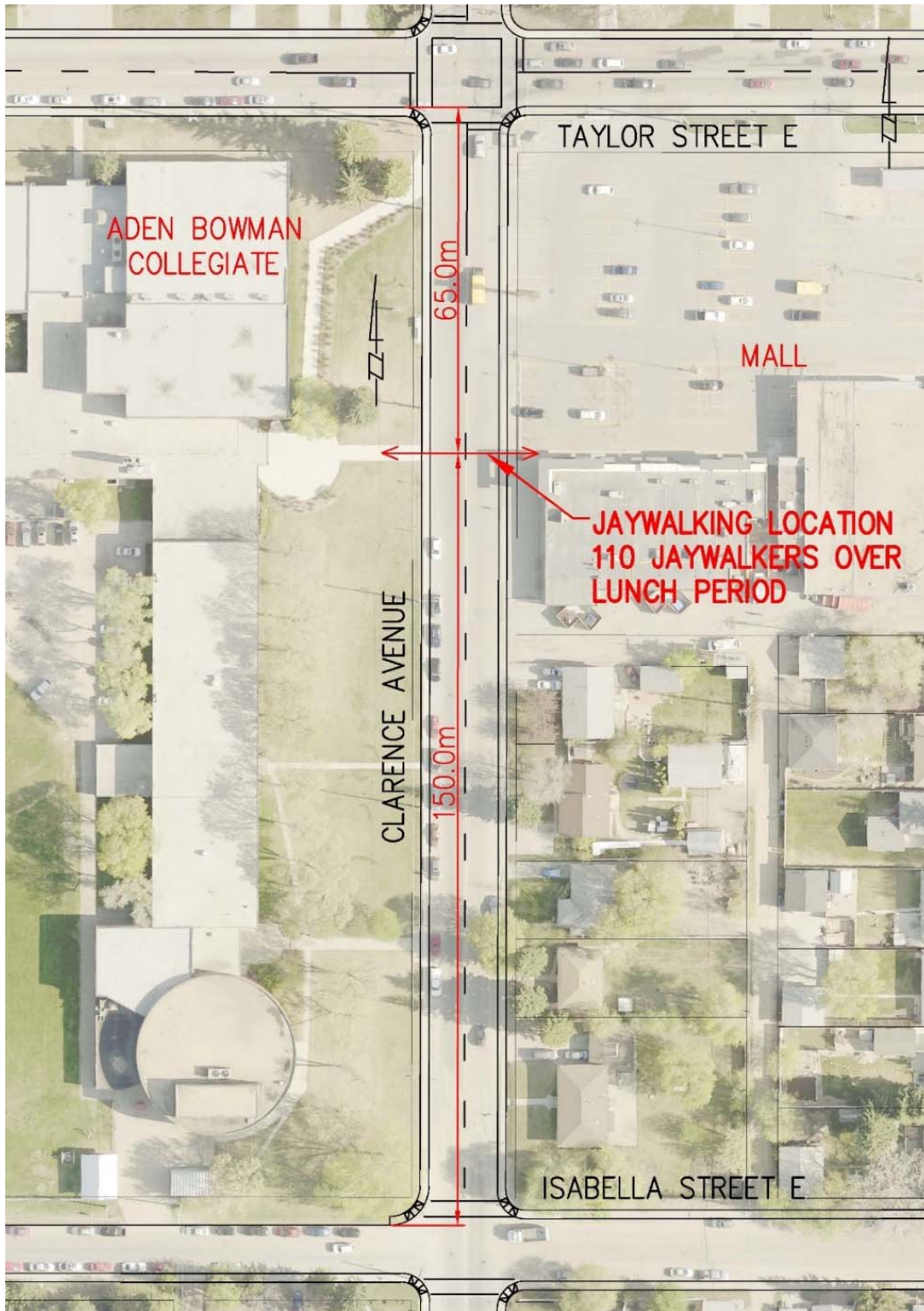


Exhibit 1: Existing Conditions

7. Options

This section presents the following options that were considered in determining the recommended course of action to mitigate the jaywalking:

1. Do nothing
2. Enforcement
3. Education
4. Pick-Up / Drop-Off Loop
5. Mid-Block Crossing
6. Centre median fence
7. Urban Landscape Project

7.1 Do Nothing

Transportation suggests that the Do Nothing option is not considered. Upon reviewing the jaywalking data, conducting a site visit, and watching the jaywalking activity on video, it is concluded that a serious safety issue exists, and mitigation activities must occur.

7.2 Enforcement

The Saskatoon Police Service have ticketed jaywalkers numerous times over the past several years with no sustained change in pedestrian behaviour. Transportation also suggests that the enforcement, while an important tool in changing behaviour, should not be the primary mitigation measure to reduce jaywalking.

7.3 Education

Over the years it appears ABCI has done an admirable job in educating their students on the jaywalking issue through verbal directions, monitoring of the jaywalking location, and re-constructing their sidewalk network, in attempts to mitigate the issue. Unfortunately although this most likely has reduced jaywalking, it has not eliminated it, and therefore more substantial mitigation measures should be completed.

7.4 Pick Up / Drop Off Loop

A suggestion previously provided to Transportation was to consider constructing a pick up / drop off loop in front of the school front doors fronting Clarence Avenue. This is not recommended in consideration of the following:

1. The construction of a loop would not eliminate jaywalking.
2. The cost of construction, may become an issue if jaywalking is not addressed.

3. The loss of common greenspace.
4. The cost of construction would be the responsibility of the School Board.

7.5 Pedestrian Crosswalk

Transportation previously did not support ABCI's request for the installation of a mid-block pedestrian crossing.

A mid-block crossing at this location does not follow accepted transportation engineering practices, and **would lower the level of safety for both pedestrians and drivers.**

When considering the installation of crosswalks, several factors are evaluated. These include the proximity to existing crossing points, sight distance, vehicle speed, collision records, traffic volumes, and pedestrian volumes.

As a general principle when installing mid-block pedestrian crossings, appropriate stopping sight distances and proximity to other available pedestrian crossing points, are critical. The available sight distance should be sufficient enough to enable a vehicle travelling at or near the design speed to stop before reaching an object in its path. Since the mid-block crossings are not generally expected by drivers, they should only be used where truly needed, with appropriate signage, and well marked to avoid putting pedestrians at risk.

Installation of a mid-block crossing at this location would create a very significant unsafe condition for pedestrians due to driver's expectations not being met. A driver would not expect a mid-block crossing at this location, and this inherently lowers the level of safety by potentially causing hesitation or confusion in drivers.

The location of a mid-block crossing should be well spaced from the other safe intersection crossings of close proximity. The existing fully signalized intersection at Clarence Avenue and Taylor Street provides pedestrians with a safe crossing to access adjacent facilities. Similarly, there is a well signed pedestrian crosswalk at Clarence Avenue and Isabella Street which provides pedestrians another safe crossing. These two existing crossing points on Clarence Avenue are approximately 230 metres apart.

The Transportation Association of Canada's October 2011 Pedestrian Crossing Control Guide, provides guidelines on the use of devices for pedestrian crossing control. The guidelines include a Decision Support Tool (DST) to assist practitioners in completing a preliminary assessment to identify whether a location is a candidate. The DST includes the following statements:

"4. If the given site is not within close proximity to an existing traffic control device then this site is a candidate for pedestrian crossing control. The type of device to install depends on specific site conditions."

Close proximity is defined as any distance between 100 and 200 metres.

As the jaywalking location across Clarence Avenue is only approximately 65 metres from the Clarence Avenue / Taylor Street intersection, this spacing is much too close to an existing protected pedestrian crossing at the signalized intersection to warrant another pedestrian crossing.

A review of the collision history on Clarence Avenue (between Taylor Street and Isabella Street) indicates ten collisions involving vehicles at this location between 2009 and 2014 with about 50 percent of the collisions having been rear end collisions. Traffic volumes on Clarence Avenue are increasing annually, and installing a crosswalk at this mid-block location will increase the probability of this type of collision, **thus lowering the level of safety for both pedestrians and drivers.**

Another reason to not install a mid-block crossing that was not included in the previous letter provided to ABCI, but became evident after conducting the site visit and reviewing the video, is that there is significant doubt that the jaywalkers would consistently use the pedestrian crossing device if one was installed. A mid-block crossing device would typically include some sort of lights, and these would be required to be co-ordinated with the traffic signals at the intersection of Clarence Avenue and Taylor Street due to the proximity. This means that the pedestrian crossing light would not be 'on demand', in other words once the push button was pressed, it would take anywhere from a few seconds to a minute for the crosswalk light to be activated. After watching the jaywalking behaviour at this location, Transportation suggests that it is highly likely that the jaywalkers would not wait for the crossing light, but would jaywalk anyways. Introducing this condition would further lower the level of safety at this location.

7.6 Clarence Avenue Centreline Fence

An option to mitigate jaywalking is to install a fence along the centreline of Clarence Avenue. To ensure that the issue would not be relocated further north or south along Clarence Avenue the fence would need to be installed the entire length of the street between Isabella Street and Taylor Street. The existing edge of curb to edge of curb distance is approximately 13.5 metres. A potential cross-section that includes a centreline fence would require the following elements:

- 3.6 metres driving lanes
- 2.5 metres parking lanes
- 1.3 metres median

There is precedent and many examples of this type of jaywalking mitigation in Saskatoon, Calgary, and Prince Albert including applications for schools. These are illustrated in Exhibits 2 to 7.



Exhibit 2: Raised Concrete Barrier on Idylwyld Drive (looking easterly)

The above figure illustrates a raised concrete barrier (or jersey barrier) in place on Idylwyld Drive between 20th Street and the access to Midtown Mall, a length of approximately 70 metres. This barrier does not include a fence, but was installed to mitigate the potential for jaywalking between the parking lot immediately west of Idylwyld Drive and the shopping centre. Of note is how it is between two signalized pedestrian crossings.



Exhibit 3: Raised Concrete Barrier and Fence on 37th Street in Calgary

The previous exhibit illustrates a raised concrete barrier and fence in place on Calgary's 37th Street SW between 33rd Street and Richmond Road, a length of approximately 125 metres. This barrier includes a fence, appears to be installed retroactively and stops jaywalking between A.E. High School and the convenience store on the other side of 37th Street. Again, of note is how it is the entire length between two signalized pedestrian crossings.



Exhibit 4: Fence on 69th Street in Calgary

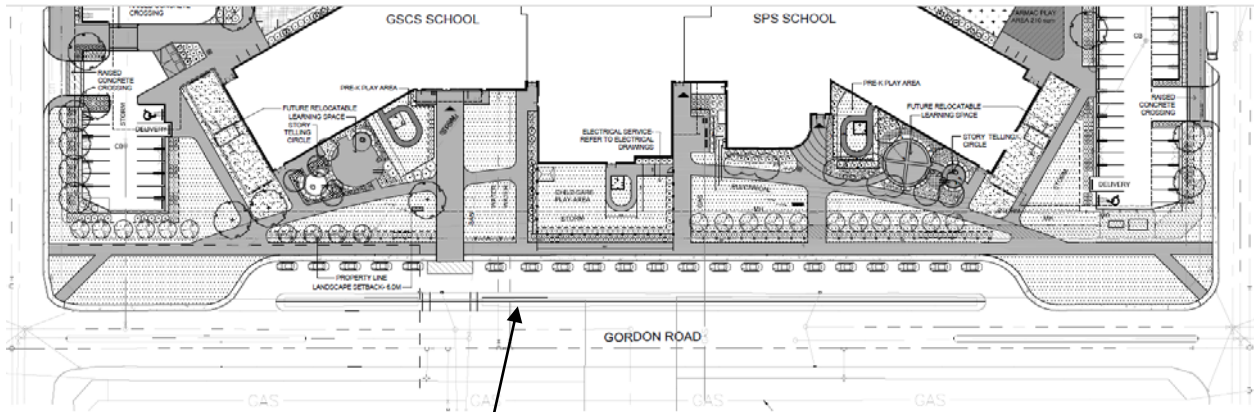
The above figure illustrates another example from Calgary, this time of a fence without a raised barrier on Calgary's 69th Street SW between 17th Avenue and Springborough Blvd, a length of approximately 250 metres. This fence stops jaywalking between Ernest Manning High School and the transit station and community centre on the other side of 69th Street. Again, of note is how it is the entire length between two signalized pedestrian crossings.

Idylwyld Drive in Saskatoon, and 37th Street SW and 69th Street SW in Calgary are arterial streets, similar to Clarence Avenue.



5: Fence on 2nd Avenue in Prince Albert

The above figure illustrates an example from Prince Albert, this time of a black ornamental fence on 2nd Avenue West between 22nd Street and 17th Street, a length of approximately 400 metres. This fence stops jaywalking between two residential areas across 2nd Avenue West, which has a significant downgrade to the north as you approach the Prince Albert bridge across the North Saskatchewan River.



Location of median fence to stop jaywalking between Gordon Road eastbound lane and pick-up / drop-off area. Style of fence will architecturally match existing fencing in Stonebridge.

Exhibit 6: Future Fence on Gordon Road in Saskatoon

The above figure illustrates an example from Saskatoon of the location of a future fence to be installed to stop jaywalking. The fence will be approximately 175 metres long and will stop people from stopping on Gordon Road, dropping of students, and having them jaywalk across the pick-up / drop-off area. The fence will be ornamental and architecturally match existing ornamental fencing in Stonebridge.

It is recommended that the fence installed along Clarence Avenue is ornamental, a suggested style that will stop jaywalking, not allow fence climbing, and be attractive is the fence along 2nd Avenue in Prince Albert. A close up of this fence is shown in the exhibit below.



Exhibit 7: Example of Ornamental Fence

A preliminary cost estimate to install a concrete barrier with a fence on top is approximately \$125,000. Additional work on the design and costing is required.

The construction of an ornamental fence would affect access to the strip mall site as the driveway will remain open, but will operate as a right-in / right-out:

- Southbound drivers on Clarence Avenue will now have to turn left onto Taylor Street, and then turn right into the mall at one of two driveways.
- Drivers leaving the site at the Clarence Avenue access will now have to turn left from the site onto Taylor Street, and then turn left onto Clarence Avenue to continue south.

Traffic data was collected on September 22, 2016 and in the afternoon peak rush hour only 17 vehicles southbound on Clarence Avenue turned left into the site, and only 20 vehicles exiting the site turned left onto Clarence Avenue Southbound.

Fortunately the site has numerous access points (two on Taylor Street and two on McKinnon Avenue), which will easily be able to accommodate the above minimal left turning traffic:

The existing traffic volumes for the weekday peak hours are provided in **Exhibit 8**.

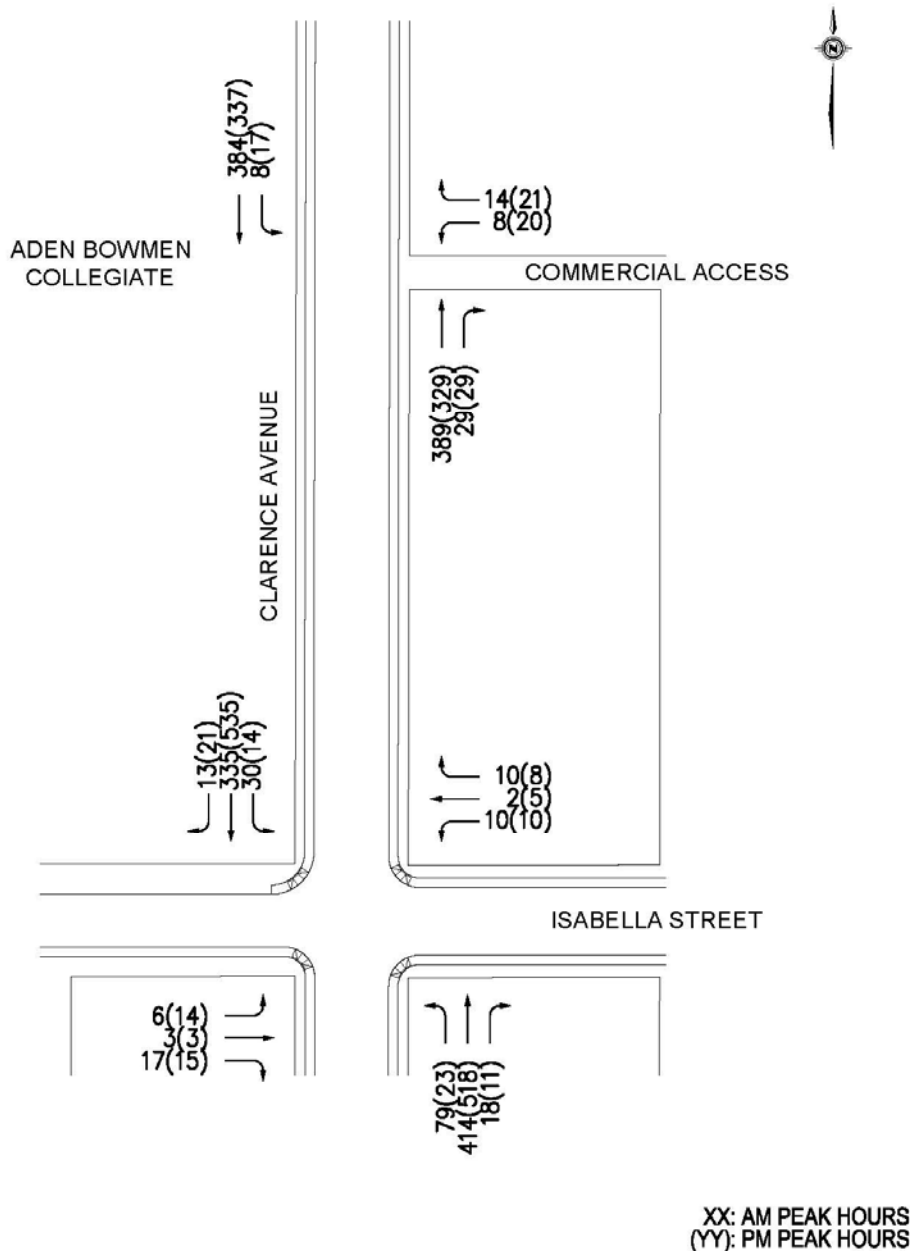


Exhibit 8: Existing Traffic Volumes

7.7 Urban Landscape Project

The preferred option is an urban landscape project on the school site immediately adjacent to Clarence Avenue and between the school doors and the strip mall. The urban design group within the City of Saskatoon was engaged to develop a concept that through the use of urban design would naturally move the pedestrian desire line from the jaywalking location to the corner of the intersection of Clarence Avenue and Taylor Street.

The innovative concept 'Bear Square' is provided in **Figure 9**, and illustration of the concept is provided in **Figure 10**. This option does not include the installation of a median fence on Clarence Avenue, but rather a much stronger community building proposal, that can meet the objective by reducing jaywalking through urban design that adds value to the school site and neighbourhood. The following specific comments are provided:

- Flag poles and flags will recognize the province and nation.
- The fence panels can be water etched to reflect famous Aden Bowman graduates or teachers, or memorialize school sports teams or drama groups.
- The square area can be used for pep rallies, or public speaking events.
- The square area will include seating areas for students and staff, with the potential to include shaded areas.
- There is a potential to include a solar powered device charging station.
- The fence can be designed to deter climbing.
- For people in wheelchairs the current travel distance is 35 metres. The pick-up / drop-off location would require moving to Taylor Street and the travel distance would increase to only 73 metres to the Clarence Avenue north school door.
- Currently the eastern school door on Taylor Street is not accessible to people in wheel chairs. To increase accessibility to the school, it would be possible as part of this project to improve that access, thus providing another location for all people to us. This second access door would be only 52 metres away from new loading and disabled parking located on Taylor Street.
- The potential exists for the students and City professionals to collaborate together to realize this project. The benefits of such a collaboration effort are potentially immeasurable in terms of the education opportunity for the students, and the taking ownership of the project and physical space by the students that would occur. It is a wonderful opportunity to improve the culture.

In addition to the concept illustrations included in this document, the administration also prepared a short video, as well as a physical mock-up that further illustrates and details the concept. The administration met with the principal, vice-principal, area councillor, and a couple of parents on the afternoon of Thursday January 12, 2017. The administration met again with the same group plus additional parents and a representative from the Adelaide-Churchill community association on the evening of Tuesday, January 17, 2017. At both meetings the video and physical mock-up was shared with the group.

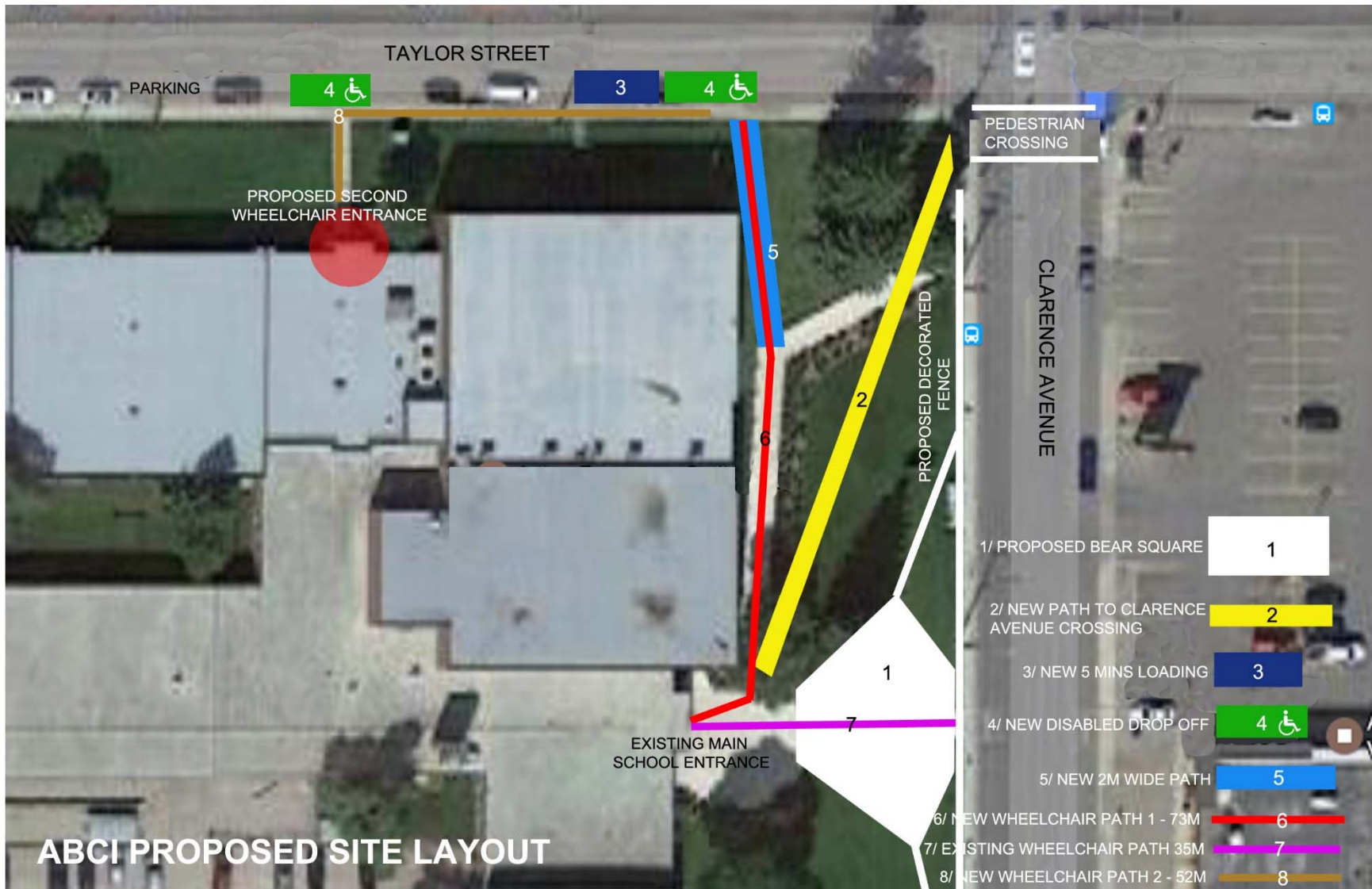


Exhibit 9: Proposed Bear Square



**PROPOSED NEW SCHOOL SIGN AND DECORATIVE FENCE
ADEN BOWMAN COLLEGIATE**



Exhibit 10: Bear Square Looking West

8. Conclusion

To conclude, an urban landscape project on the school site immediately adjacent to Clarence Avenue and between the school doors and the strip mall is the preferred option in consideration of the following:

- There is a significant jaywalking issue between ABCI and the Strip Mall to the east across Clarence Avenue.
- The jaywalking issue consistently occurs throughout the day, and peaks over the lunch hour.
- The jaywalking location is approximately 60 metres south of the Clarence Avenue / Taylor Street intersection.
- Based on observations the pedestrian behaviour is random and unpredictable, and this behaviour should influence the type of treatment chosen to mitigate the issue.
- Enforcement, while an important tool in changing behaviour, should not be the primary mitigation measure to reduce jaywalking.
- The substantial effort by ABCI has not eliminated jaywalking, therefore more substantial mitigation measures should be completed.
- It is a neighbourhood building project that includes large potential for an educational experience for students, and to further increase the level of pride in students and parents of ABCI.
- The objective of reducing jaywalking is reached without the construction of centreline median.
- The objective of reducing jaywalking is also met through the construction of a centreline median fence (however this is not a neighbourhood building project with cultural benefits):
 - There is an acceptable cross-section that would include a centreline median fence.
 - There is precedent for this type of jaywalking mitigation both in Saskatoon and Calgary, including applications for schools.
 - A centreline median fence completely eliminates jaywalking. Extending the fence between Taylor Street and Isabella Street does not relocate the jaywalking issue.
 - The issue of students painting a crosswalk is also eliminated.

9. Recommendation

The following recommendations are provided:

1. The urban landscape project is selected as the method to reduce jaywalking.
2. The funds that the City would have paid towards a centreline median fence instead be used for the urban landscape project.
3. A project steering committee be struck with members including: ABCI students, ABCI staff, City urban designers, and City transportation engineers

10. Closing

Please do not hesitate to contact the undersigned at 306-975-3171 or jay.magus@saskatoon.ca for any feedback or questions you may have.

*Original stamped
and signed*

Jay Magus, P.Eng.
Engineering Manager, Transportation
Transportation and Utilities Department
City of Saskatoon
222 3rd Avenue North
Saskatoon, SK S7K 0J5



Stantec Consulting Ltd.
100-75 24th Street East, Saskatoon SK S7K 0K3

January 4, 2017
File: 111099000

Transportation Division
City of Saskatoon
222 Third Avenue North
Saskatoon, SK S7K 0J5

Attention: Jay Magus, P.Eng.
Engineering Manager

Dear Mr. Magus,

Reference: Mid-block Pedestrian Crossings of Clarence Avenue South of Taylor Street

Stantec Consulting Ltd. has reviewed your technical memo, dated September 30, 2016, regarding mid-block pedestrian crossings of Clarence Avenue south of Taylor Street. As indicated in the memo the majority of the crossings are made by students attending Aden Bowman Collegiate Institute who are traveling between the school and the Churchill Shopping Centre. The majority of the crossings occur during the noon hour period at times when school is in session.

The issue of mid-block pedestrian crossings at this location has been a concern for a long time. Enforcement, education and traffic control measures such as signage and a reduced speed zone have not alleviated the problem. The problem will continue to exist unless significant engineering and/or traffic control measures are provided to increase protection of pedestrians at this location, or that pedestrian crossings are diverted to another location, such as the Clarence Avenue/Taylor Street intersection. The memo indicates that the "do nothing" option is not considered acceptable.

Traffic control measures typically used to increase pedestrian protection at crossings include:

- Installation of a painted and signed crosswalk;
- Installation of a painted and signed crosswalk complete with rectangular rapid flash beacons (RRFB);
- Installation of a pedestrian corridor with overhead signage, illumination and actuated flashing lights; and
- Installation of pedestrian actuated traffic signals.

The potential measures to divert pedestrians to another location include:



January 4, 2017

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Reference: Mid-block Pedestrian Crossings of Clarence Avenue South of Taylor Street

- Prohibiting students from using the school's main doors along Clarence Avenue; and
- The installation of a barrier along Clarence Avenue that physically prevents the crossings.

Construction of a pedestrian grade separation across Clarence Avenue could resolve the issue however the cost and physical requirements of a grade separation at this location make this option unsuitable.

Traffic control measures such as the installation of a painted and signed crosswalk, installation of a crosswalk with rectangular rapid flash beacons, installation of a pedestrian corridor, and pedestrian actuated traffic signals are not considered to provide adequate protection at this location. The unsuitability of these devices is mainly due to driver expectations and the workload placed upon drivers in an area with numerous distractions.

The Geometric Design Guide for Canadian Roads (GDGCR) recognizes the importance of designing a roadway so that it conforms to what drivers expect from such a roadway from previous experience. It also acknowledges the importance of providing drivers with clear clues about what is expected of them on a particular roadway. The GDGCR states the following pertaining to expectancy:

"Prior driver experiences are critical in reducing reaction time and engendering an appropriate response when a new driving task is imposed. These experiences develop, over time, into a set of expectancies which allow for anticipation and forward planning, and which enable drivers to respond to common situations in predictable and successful ways. If these experiences are violated, problems are likely to occur, either as a result of a wrong decision or of an inordinately long reaction time."

The GDGCR also indicates that the characteristics of expectancies are:

- *"Drivers tend to anticipate upcoming situations and events that are common to the road they are travelling;*
- *The more predictable the road feature, the less likely the chance for errors;*
- *Drivers experience difficulty when they are confronted with the unexpected;*
- *Drivers, in the absence of counter evidence, assume that they will only have to react to standard situations;*
- *The road and its environment upstream of a site create an expectation of downstream conditions; drivers are more likely to experience problems in transition areas and locations with inconsistent design or operation; and*



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Reference: Mid-block Pedestrian Crossings of Clarence Avenue South of Taylor Street

- *Expectancies are associated with all levels of driving performance and all aspects of the driving situation. This includes expectancies relative to speed, path, direction, the roadway, the environment, geometric design, traffic operations and traffic control devices."*

Meeting driver expectancies reduces driver perception and reaction times because a driver responds through familiarity and habit. Driver behavior is largely governed by habit, experience, expectation and reaction and that any design or operation which violates these considerations is likely to be less safe. Because of this, unusual or inconsistent design or operational situations should be avoided, similar designs should be used in similar situations, and information that is provided to the driver should decrease the driver's uncertainty, not increase it.

Driver expectancy considerations make the use of traffic control measures, such as standard crosswalks, pedestrian RRFB's, corridors and actuated signals, at this mid-block pedestrian crossing undesirable. In part, this is because drivers do not expect to encounter such devices so close to a signalized intersection. The expectancy issue is made worse by other factors that the driver must deal with at this particular location such as vehicles entering and exiting the shopping centre, the dropping off and picking up of students on both sides of Clarence Avenue, the reduced school speed zone which drivers must adhere to, on-street parking, the operation of the traffic signals at Clarence Avenue/Taylor Street, cyclists on Clarence Avenue, and buses entering and leaving bus stops. The concern with the use of the above pedestrian traffic control measures is that drivers may not observe the traffic control device or perception and reaction times may be increased to the point where the driver cannot react in time to the requirement of the device, for example not be able to stop when a pedestrian is legally in a mid-block crosswalk.

It should be noted that the unsuitability of devices such as pedestrian RRFB's, corridors and actuated signals is not due solely to their use at a mid-block location but rather their use at a mid-block location so close to a signalized intersection. Currently there are instances where pedestrian corridors and actuated signals are used at mid-block locations in Saskatoon. However, these are away from signalized intersections and have operating conditions that make such devices suitable at these locations.

In view of the above, only measures to divert pedestrians to other legal crossing locations are considered as viable options to increase pedestrian protection. The technical memo indicates that prohibiting students from using the school's main Clarence Avenue doors is not an option at this time. That leaves the installation of a barrier along Clarence Avenue, to physically prevent students from crossing Clarence Avenue mid-block, as the remaining suitable option. Due to the access requirements of the school, shopping centre, and residences south of the shopping centre, the most feasible location for the barrier is along the centre of the Clarence Avenue roadway likely within a new centre median.

A centre median barrier on Clarence Avenue extending from Taylor Street to Isabella Street would prohibit southbound access to and from the shopping centre and residences south of the



January 4, 2017
Page 4 of 4

Reference: Mid-block Pedestrian Crossings of Clarence Avenue South of Taylor Street

shopping centre. The removal of access to and from southbound Clarence Avenue may be considered as a reasonable restriction in order to protect pedestrians.

The use of a centre median barrier as a pedestrian protection device is currently employed in Saskatoon. The centre median barrier on Idylwyld Drive between 20th and 21st Streets was installed to stop mid-block pedestrian crossings at this location between the Midtown Plaza and the parking lot on the west side of Idylwyld Drive. The centre median barrier on 22nd Street between 1st Avenue and Pacific Avenue was installed to prevent mid-block pedestrian crossings between the Midtown Plaza and the parking lot on the north side of 22nd Street. Both of these installations force pedestrians to cross at intersections at each end of the barrier. As noted in the memo, this type of measure is used in Calgary to achieve the same objective.

The type of barrier suitable for use along Clarence Avenue should be designed to effectively prevent pedestrians from jumping over the barrier while not creating a hazard to motorists. Sight lines at intersections need to be maintained and proper transitions at each end of the barrier need to be provided.

For the reasons presented above, diversion of the mid-block crossings to a nearby intersection through the use of a centre median barrier is considered a safer alternative than creating a legal mid-block crossing through the use of traffic control measures such as a pedestrian crosswalk with RRFB's, a pedestrian corridors or an actuated pedestrian traffic signal.

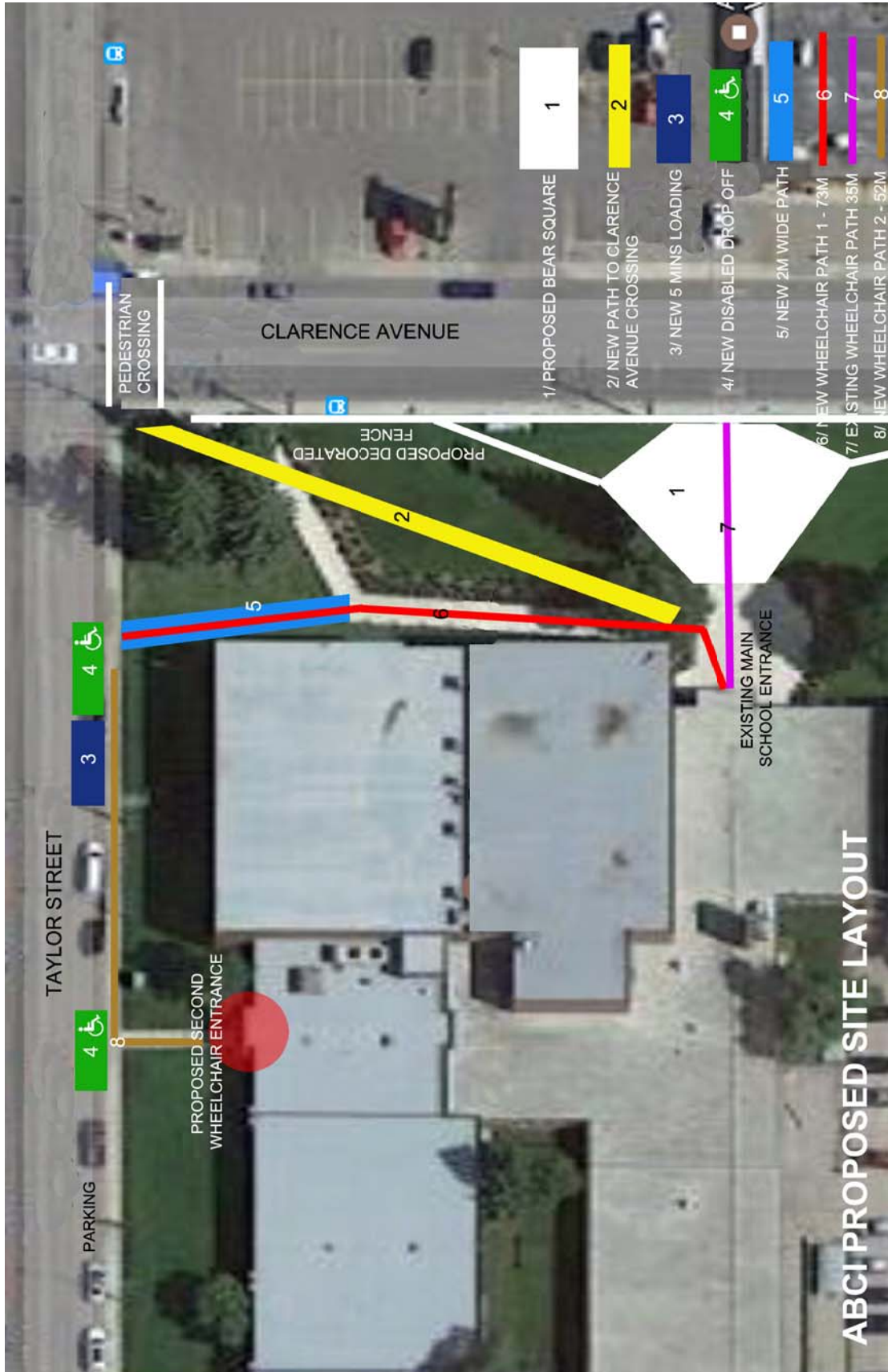
Please contact the undersigned if you would like to discuss the above.

Yours truly,

STANTEC CONSULTING LTD.

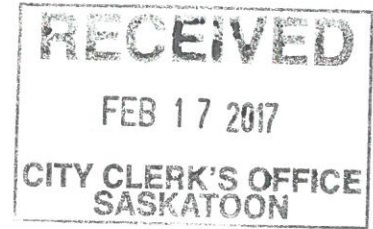
A handwritten signature in black ink that reads "Tom Mercer".

Tom Mercer, M.Eng., P.Eng.
Senior Principal
Phone: (306) 667-2453
tom.mercer@stantec.com





From: City Council
Sent: February 17, 2017 2:11 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Friday, February 17, 2017 - 14:11
Submitted by anonymous user: 70.64.56.97
Submitted values are:

Date: Friday, February 17, 2017
To: His Worship the Mayor and Members of City Council
First Name: Catherine
Last Name: Weenk
Address: 301 Saskatchewan Crescent West
City: Saskatoon
Province: Saskatchewan
Postal Code: S7M0A2
Email: patboot@yahoo.com

Comments:

Hello! We would like to request to speak at the Standing Policy Committee on Transportation on Monday, March 13th at 2pm. We would like to speak on the Aden Bowman Cross-walk issue. We will have two different speakers. One from the Aden Bowman School Community Council and one from Colliers Property Management. We look forward to getting your confirmation.

Regards,

Catherine Weenk

*Cate Soffer
on behalf of
Aden Bowman School
Community Council
to speak.*

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/149058>

6150-1

From: City Council
Sent: March 07, 2017 3:07 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Tuesday, March 7, 2017 - 15:07
Submitted by anonymous user: 70.64.56.97
Submitted values are:

Date: Tuesday, March 07, 2017
To: His Worship the Mayor and Members of City Council
First Name: Alex
Last Name: Hanson
Address: 728 Spading Crescent East
City: Saskatoon
Province: Saskatchewan
Postal Code: S7K 3H2
Email: patboot@yahoo.com

Comments: This is to request that Alex Hanson from Colliers International have 5 minutes to speak at the standing policy committee on Transportation on Monday, March 13th at 2pm at City Hall regarding the Aden Bowman Collegiate cross-walk issue. Thanks very much.

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/154530>

2016 Traffic Control, Parking Restrictions and Parking Prohibitions Signage

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated March 13, 2017, be forwarded to City Council for information.

Topic and Purpose

This report provides City Council with information regarding sign installation/removal in 2016.

Report Highlights

1. The Administration is required to provide City Council with an annual report outlining completed signage throughout the year.
2. In 2016, there were 388 sign installation/removal projects consisting of 771 signs (589 signs installed, 136 signs removed, 46 signs moved) to support parking restrictions (loading zones), parking prohibitions (no parking, no stopping), traffic control (stop and/or yield signs) and schools (school zones).

Strategic Goal

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

Background

City Council at its meeting held on January 26, 2009 delegated authority to the General Manager, Infrastructure Services Department, to proceed with the placement of traffic controls (stop and/or yield signs); the installation of all parking restrictions including general loading zones; church loading zones; hotel loading zones; school loading zones and disability parking zones and parking prohibitions, without City Council approval. Prior to being given delegated authority, City Council approval was required for all requests for new or modified signage.

Report

All signage requests received from the public, City Council, property owners, schools and other civic departments require a thorough review to ensure they meet policies approved by City Council or Transportation Association of Canada guidelines to control the placement of signage.

The table below summarizes the number of permanent sign installation/removal projects and number of signs installed/removed in 2016. Numerous requests were denied as they did not meet policy guidelines.

2016 Traffic Control, Parking Restrictions and Parking Prohibitions Signage

Type	Number of Projects	Number of Signs Installed	Number of Signs Removed	Number of Signs Relocated
<i>Parking Restrictions:</i>				
General Loading Zone	1	2	0	0
Disabled Person Parking Zone	66	119	10	2
Church Loading Zone	0	0	0	0
School Bus Loading Zone	8	7	7	4
School Drop Off/Pickup Loading Zone	2	4	0	0
General Parking Restriction	4	20	9	0
5 Minute Parking	14	15	12	6
15 Minute Parking	6	6	0	1
30 Minute Parking	1	2	0	0
1 Hour Parking	0	0	0	0
90 Minute Parking	0	0	0	0
2 Hour Parking	13	20	14	5
3 Hour Parking	1	11	0	0
<i>Parking Prohibitions:</i>				
No Parking	70	168	16	22
No Stopping	5	14	0	0
Stopping Prohibited Except School Bus	4	1	0	3
<i>Traffic Control:</i>				
Yield	59	36	31	0
Two-Way Yield	39	41	34	2
Stop	60	58	1	0
Two-Way Stop	24	46	0	0
All-Way Stop	5	14	0	0
<i>Schools:</i>				
School Zone	6	5	2	1
TOTAL	388	589	136	46

The detailed list, as illustrated in Attachment 1, provides the ward, location, type and number of traffic sign installations/removals in 2016.

The number of projects completed increased by 18% compared to 2015. Additional signage was also installed in addition to those specifically identified in this report, such as pedestrian crosswalk signage or signage associated with traffic calming devices. All signage included as part of the 23rd Street and 4th Avenue protected bike lanes are not included in this report.

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

An annual report will be provided to City Council regarding the completed installation/removal of traffic signage. The next report will be submitted in early 2018.

Public Notice

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

Attachment

1. Detailed List of All 2016 Sign Installations/Removals

Report Approval

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

TRANS JM – 2016 Traffic Control Parking Restrictions Parking Prohibitions Signage.docx

Detailed List of All 2016 Sign Installations / Removals

ATTACHMENT 1

Ward	Councillor	Neighbourhood	Location	Type of Signage
1	Hill	City Park	King Crescent	Move No Parking
1	Hill	City Park	550 4 th Avenue	5 Minute; 2 Hour
1	Hill	City Park	Queen Street	2 Hour; 3 Hour
1	Hill	City Park	700 Block of Duchess	2 Hour; No Parking
1	Hill	City Park	7 th Avenue & Lauriston Street	No Parking; Move 2 Hour
1	Hill	City Park	803 5 th Avenue North	Disabled Parking
1	Hill	Forest Grove	Forest Grove School	School Drop-off / Pick-up; Parking Restrictions
1	Hill	Forest Grove	209 Dunlop Street	Disabled Parking
1	Hill	Forest Grove	112 th Street	2 Hour; No Parking
1	Hill	Hudson Bay Park	Henry Kelsey School	Remove 5 Minute; Move Stopping prohibited except buses
1	Hill	Hudson Bay Park	1621 33 rd Street	No Parking
1	Hill	Hudson Bay Park	Avenue P & 31 st Street	No Parking
1	Hill	Hudson Bay Park	33 Valens Drive	5 Minute
1	Hill	Kelsey-Woodlawn	1213 1 st Avenue North	Disabled Parking
1	Hill	Kelsey-Woodlawn	1224 1 st Avenue North	Disabled Parking
1	Hill	Kelsey-Woodlawn	33 rd Street - St. Michaels School Zone	Move No Parking
1	Hill	Kelsey-Woodlawn	100 33 rd Street East & 1312 1 st Avenue North	Disabled; 15 Minute; No Parking
1	Hill	Mayfair	1301 Idylwyld Drive North	30 Minute
1	Hill	Mayfair	1736 Avenue C North	No Parking
1	Hill	Mayfair	1436 Avenue F North	Disabled Parking
1	Hill	Mayfair	1439 Avenue B North	Remove Disabled Parking
1	Hill	Mayfair	33 rd Street - west of Idylwyld Drive	Remove Parking Restrictions; No Parking
1	Hill	Mayfair	Mayfair School	Move School Bus; Move 5 Minute
1	Hill	Sutherland	Egbert Avenue	Disabled Parking; No Parking
1	Hill	Sutherland	Aspen Place	Parking Restrictions (0900- 1600)
1	Hill	Sutherland	308 110 th Street West	No Parking
2	Gough	Caswell Hill	821 Avenue E North	Disabled Parking
2	Gough	Caswell Hill	219 29 th Street West	Disabled Parking
2	Gough	Caswell Hill	222 Avenue G North	Disabled Parking
2	Gough	Caswell Hill	No Parking signs	Move No Parking
2	Gough	Caswell Hill	116 Avenue B North	2 Hour
2	Gough	Caswell Hill	711 31 st Street	Disabled Parking
2	Gough	Caswell Hill	117 29 th Street West	Disabled Parking
2	Gough	Caswell Hill	350 Avenue R South	Disabled Parking
2	Gough	Caswell Hill	Holiday Inn Express – 25 th Street West	No Parking
2	Gough	Caswell Hill	207 28 th Street West	Disabled Parking
2	Gough	Caswell Hill	Avenue C North & 25 th Street	Move No Parking
2	Gough	Caswell Hill	101 Avenue E North	2 Hour; No Parking
2	Gough	Caswell Hill	213 27 th Street West	Disabled Parking
2	Gough	Caswell Hill	219 28 th Street West	Disabled Parking; No Parking
2	Gough	Caswell Hill	426 Avenue B North	Move Disabled Parking

Ward	Councillor	Neighbourhood	Location	Type of Signage
2	Gough	Holiday Park	Avenue M South & Schuyler Street	Remove Two-way yield; Two-way stop
2	Gough	Holiday Park	1111 Avenue L South	Disabled Parking
2	Gough	King George	818 Avenue I South	Disabled Parking
2	Gough	Meadowgreen	Meadowgreen neighbourhood plan	No Parking; Two-way yield; Two-way stop; All-way stop
2	Gough	Meadowgreen	Witney Avenue & 20 th Street	All-way stop
2	Gough	Montgomery Place	St. Dominic School	Move School bus loading; Move 5 Minute
2	Gough	Montgomery Place	Montgomery Place neighbourhood plan	No Parking
2	Gough	Montgomery Place	Montgomery Place neighbourhood plan	Remove yields; Stop; Two-Way Stop
2	Gough	Montgomery Place	Montgomery Place neighbourhood plan	No Parking; No Stopping
2	Gough	Montgomery Place	Ortona Street (Montgomery School)	No Stopping
2	Gough	Montgomery Place	Crerar Drive - across from St. Dominic School	No Parking
2	Gough	Pleasant Hill	Columbian Place (20 th Street)	School zone
2	Gough	Pleasant Hill	328 Avenue N South	Disabled Parking
2	Gough	Riversdale	427 Avenue H South	Disabled Parking
2	Gough	Riversdale	429 Avenue C South	Disabled Parking
2	Gough	Riversdale	422 Avenue I South	Disabled Parking
2	Gough	Riversdale	209 Avenue H South	Disabled Parking
2	Gough	Riversdale	201 & 209 Avenue H South	Remove Disabled
2	Gough	Riversdale	19 th Street	2 Hour; No Parking
2	Gough	South West Industrial	2323 Dudley Street (Avenue X South side)	No Parking
2	Gough	South West Industrial	1131 Avenue W South	No Parking
2	Gough	West Industrial	18 th Street & Avenue N	Yield
3	Iwanchuk	Confederation Park	Confederation Park Neighbourhood	No Parking; Remove yield; Stop
3	Iwanchuk	Elk Point	3954 33 rd Street West	Disabled Parking
3	Iwanchuk	Fairhaven	Pendygrasse & Clancy	All-way stop; Remove Stop
3	Iwanchuk	Fairhaven	St. Marguerite School	School Bus; Remove 5 Minute
3	Iwanchuk	Parkridge	St. Marguerite School	School zone
3	Iwanchuk	Parkridge	Parkridge Extension	Stop / Yield signs (new neighbourhood signage)
4	Davies	Hampton Village	407 Coad Manor	Disabled Parking
4	Davies	Hampton Village	McClocklin Road between East Hampton Blvd & Claypool Drive	No Parking
4	Davies	Hampton Village	1303 Richardson Road (condos)	No Parking
4	Davies	Hampton Village	Hampton Green	No Parking
4	Davies	Hampton Village	McClockin & Richardson	No Parking
4	Davies	Kensington	Various street in A2	Stop / Yield signs (new neighbourhood signage)
4	Davies	Massey Place	3221 33 rd Street West	Disabled Parking
4	Davies	Massey Place	37 Mackie Crescent	Disabled Parking
4	Davies	Mount Royal	437 Avenue W North	Disabled Parking
4	Davies	Mount Royal	325 Avenue T North	Disabled Parking

Ward	Councillor	Neighbourhood	Location	Type of Signage
4	Davies	Mount Royal	Avenue W & 29 th Street	Remove Two-way Stop; All-way stop
4	Davies	Mount Royal	Ave W & 29 th Street	All-way stop
4	Davies	Mount Royal	Mount Royal neighbourhood	Remove yields; Stop; Two-Way Stop; All-way stop
4	Davies	Westmount	208 Avenue M North	Disabled Parking
4	Davies	Westmount	523 Avenue H North	Disabled Parking
4	Davies	Westmount	Pierre Radisson Dog Park	No Parking
4	Davies	Westmount	1001 23 rd Street W	Disabled Parking
4	Davies	Westview	Caroline Robbin School	School Bus; School Drop-off / Pick-up; School
4	Davies	Westview	Verbeke Road & Gathercole Crescent	Yield
5	Donauer	Airport	Back lane - 2502 Thayer Avenue	No parking
5	Donauer	Industrial	3002 Miners Avenue	Move No Parking
5	Donauer	Lawson Heights	305 Pinehouse Drive	No parking
5	Donauer	Marquis Industrial	Millar Avenue (60 th – 71 st Street)	No Parking
5	Donauer	North Industrial	56 th Street	No Parking
5	Donauer	North Industrial	702 43 rd Street	No Parking
5	Donauer	North Industrial	227 Venture Crescent	No Parking
5	Donauer	River Heights	Ravine Court	Disabled Parking; Remove 15 Minute
5	Donauer	River Heights	Ravine Court	No Parking
5	Donauer	River Heights	River Heights School	Remove Disabled Parking; Move School Bus; Move 5 Minute
5	Donauer	River Heights	303 La Ronge Road	Disabled Parking
5	Donauer	Silverwood Heights	135 Wheeler Street	Loading (general 24 Hour)
6	Block	Buena Vista	119 7 th Street East	Disabled Parking
6	Block	Buena Vista	429 5 th Street East	Disabled Parking
6	Block	Buena Vista	203 8 th Street West	Disabled Parking
6	Block	CBD	309 4 th Avenue North	15-min
6	Block	CBD	Back lane 2 nd Avenue	No Parking
6	Block	CBD	26 th Street & 1 st Avenue (Egadz)	15 Minute; 2 Hour
6	Block	CBD	211 5 th Avenue North	5 Minute
6	Block	CBD	300 Block of Pacific Avenue	No Parking; Remove 2 Hour
6	Block	CBD	300 Block of Wall Street	Remove Stop
6	Block	CBD	347 2 nd Avenue Street	Disabled Parking
6	Block	CBD	24 th Street South of 1 st Avenue	Move No Parking
6	Block	Grosvenor Park	Lake Crescent & Isbister Street	Two-way yield
6	Block	Haultain	728 7 th Street East	Disabled Parking
6	Block	Holliston	Sion Middle School	Remove School bus
6	Block	Nutana	712 9 th Street East	Disabled Parking
6	Block	Nutana	9 th Street	No Parking
6	Block	Nutana	Albert Avenue & Main Street	Two-way yield
6	Block	Nutana	Temperance & Lansdowne	No Parking
6	Block	Nutana	Broadway Avenue	School
6	Block	Nutana	No Parking sign	No Parking
6	Block	Nutana	211 Main Street	Disabled Parking
6	Block	Nutana	1012 Lansdowne Avenue	Move 5 Minute

Ward	Councillor	Neighbourhood	Location	Type of Signage
6	Block	Nutana	D'Lish by Trish cafe – 14 th Street & Lansdowne	No Parking
6	Block	Nutana	1019 Eastlake Avenue	Disabled Parking
6	Block	Nutana	418 Albert Avenue	Disabled Parking
6	Block	Nutana	Dufferin Avenue & 12 th Street East	Disabled Parking
6	Block	Nutana	720 13 th Street East	Disabled Parking
6	Block	Nutana	720 Temperance Street	Disabled Parking
6	Block	Nutana	508 12 th Street East	Disabled Parking
6	Block	Nutana	508 12 th Street East	Remove Disabled Parking
6	Block	Varsity View	LutherCare (1212 Osler Street)	Move No Parking
6	Block	Varsity View	President Murray Park - Munroe Avenue	Move No Parking
6	Block	Varsity View	Munroe Avenue back lanes	No Parking; 90 Minute
6	Block	Varsity View	8 th Street near Clarence Avenue	No Stopping
7	Loewen	Adelaide / Churchill	2113 Clarence Avenue	Disabled Parking
7	Loewen	Adelaide / Churchill	Clarence Avenue & Glasgow Street	No Parking
7	Loewen	Avalon	Avalon Neighbourhood	Yield; Two-way yield
7	Loewen	Eastview	John Dolan School	No Parking
7	Loewen	Eastview	2446 Arlington Avenue	Disabled Parking
7	Loewen	Nutana Park	1816 Wilson Crescent	Disabled Parking
7	Loewen	Queen Elizabeth	Hilliard Avenue (St. Frances School)	School bus
7	Loewen	Queen Elizabeth	1908 York Avenue	Disabled Parking
7	Loewen	Stonebridge	375 Cornish Road	No Parking
7	Loewen	Stonebridge	302 Cope Lane	Move No Parking
7	Loewen	Stonebridge	Cope Crescent	Stop
7	Loewen	Stonebridge	Stonebridge	Stop / Yield signs (new neighbourhood signage)
7	Loewen	Stonebridge	Lewin Way & Cornish Road	Stop
7	Loewen	Stonebridge	Stonebridge Common & Laycock Crescent	Move No Parking
7	Loewen	Stonebridge	Hunter Rd - Tim Hortons driveway	Move No Parking
8	Gersher	Brevoort Park	Early Drive & Webb Crescent	Move 5 Minute; Move No Stopping
8	Gersher	Brevoort Park	Argyle Avenue & Taylor Street	Move 2 Hour Parking; Move No Parking
8	Gersher	Brevoort Park	57 Baldwin Crescent	Disabled Parking
8	Gersher	Briarwood	Brookdale Crescent	No Parking
8	Gersher	Briarwood	Slimmon Road	No Parking
8	Gersher	Brighton	New road	Stop
8	Gersher	Brighton	Brighton Area	Yield; Two-way yield; Stop (new neighbourhood signage)
8	Gersher	College Park	École College Park School (3440 Harrington Street)	No Parking; Stopping prohibited except buses
8	Gersher	College Park East	602 Boychuck Drive	Move 5 Minute; Move 15
8	Gersher	Greystone Heights	810 Arlington Avenue	Disabled Parking
8	Gersher	Greystone Heights	Main Street - Greystone Heights School	Move School bus

Ward	Councillor	Neighbourhood	Location	Type of Signage
8	Gersher	Greystone Heights	913 Argyle Avenue	5 Minute
9	Dubois	Rosewood	Hamm and Burgess	Stop; Two-way stop (new neighbourhood signage)
9	Dubois	Wildwood	3718 Moss Avenue	No Parking
10	Jeffries	Arbor Creek	Kenderdine Road	No Parking
10	Jeffries	Erindale	494 Perehudoff Crescent	Remove No Parking; 5 Minute
10	Jeffries	Evergreen	Evergreen & Fedoruk	Stop
10	Jeffries	Evergreen	210 Rajput Way	Disabled Parking
10	Jeffries	Silverspring	Mother Teresa School	Move School bus loading zone
10	Jeffries	University Heights	Centennial Collegiate (Nelson Road)	30 Minute
10	Jeffries	Willowgrove	287 Willowgrove Lane	Disabled Parking
10	Jeffries	Willowgrove	215 Willowgrove Lane	Disabled Parking

Proposed Agreement with Calgary Parking Authority – Parking System Software and Support

Recommendation

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

1. That the City of Saskatoon enter into an interim agreement with the Calgary Parking Authority for the provision of parking enforcement system software and support services subject to the terms outlined in this report;
2. That the Office of the City Solicitor prepare the appropriate agreement for execution by His Worship the Mayor and the City Clerk under the corporate seal; and
3. That the Administration issue a Request for Proposals to procure a long-term supplier of the required parking enforcement system software to take effect at the conclusion of the interim agreement.

Topic and Purpose

The purpose of this report is to seek approval of an interim agreement with the Calgary Parking Authority for the provision of parking enforcement system software, including software support and data communication, related to the operation of the City of Saskatoon's FlexParking system. This report also highlights the scope of the parking enforcement software for the purposes of issuing a Request for Proposals for long-term service delivery.

Report Highlights

1. The City of Saskatoon (City) requires an interim agreement with the Calgary Parking Authority (CPA) for supply of parking enforcement software to ensure service continuity.
2. Procurement of long-term service is proposed through a Request for Proposals (RFP) process. The option of extending the interim agreement is also worthy of consideration.

Strategic Goals

This report supports the City's Strategic Goal of Moving Around by developing an integrated transportation network that is practical and useful. This report also supports the Strategic Goal of Asset and Financial Sustainability by securing important revenue streams.

Background

The City's current FlexParking system was procured in 2014 and commissioned in 2015. Included in the procurement was the requirement for a software system that would link the paid session data from the terminals with the enforcement hardware (vehicle and hand-held tablets) used by the enforcement officers. This software link, provided through the CPA, allows officers to verify vehicles in violation and conduct appropriate enforcement.

During system set-up in late 2014, the City was introduced to the CPA by our main parking system supplier, Cale Systems Inc. (Cale). The CPA was introduced as the most effective service provider of the needed parking enforcement software. Since that time, the CPA has been an important service provider in continuously improving the level of service and delivering parking enforcement support for the City.

A formal agreement for services has not been secured to this point for a variety of reasons, as follows:

1. The scope of services provided by the CPA has required continuous developments and adaptations over time to meet Saskatoon's unique service needs.
2. The negotiations regarding various levels of service over certain time periods has been complex, covering both past and future services.
3. The original understanding was that Cale would be providing these services, and it took some time to determine that the specific services were being provided by CPA. (It should be noted that discussions with Cale on this point are not concluded, but a formal arrangement with the CPA is required now, in the Administration's view, for service continuity.)

To date, payments for service to the CPA have included a one-time \$38,000 capital set-up fee, \$49,500 in operational fees for 2015, and \$72,000 in operational fees for 2016.

Report

Interim Contract with Calgary Parking Authority

A formal agreement with the CPA is required for the provision of parking enforcement services in 2017. Full implementation has occurred and, as such, the scope of service provided has expanded to meet Saskatoon's needs. The proposed agreement would include the following terms:

1. The agreement would be for eight-months (January 1, 2017 to August 31, 2017) at a cost of \$10,000 per month, including GST.
2. Parking enforcement software and support services to be provided by the CPA include:
 - a) system interfacing with pay machines;
 - b) uploading and hosting paid parking sessions;
 - c) providing real-time infraction processing;
 - d) providing effective collection of plate data;
 - e) providing relevant software support;
 - f) creating tickets and capturing photographs; and
 - g) managing and storing related ticket data.

Under Corporate Purchasing Procedure Policy No. A02-027, this proposed agreement would be considered a sole source contract with the CPA. In accordance with

Section 5.6(b) and (c) of the noted policy, a sole source contract is recommended for the following reasons:

1. The supply of this unique bundle of services, fully compatible with Saskatoon's parking system, is only available from the CPA in the short term, where continuity of service is imperative.
2. This is an extension of work in an existing area of service, where it is considered more economical, efficient, and expedient over the short term of the proposed agreement.

Parking Enforcement System Software and Support – Request for Proposals (RFP)

During the course of the interim agreement, an RFP would be issued to procure a long-term supplier of the parking enforcement system software and support services. The proposed scope of the RFP is outlined in Attachment 1. The timeline of the interim contract will allow for a successful proponent to be selected, approved, and set up to ensure service continuity.

Options to the Recommendation

An option to both Recommendation Nos. 1 and 3 would be to award a sole source contract to the CPA for provision of the parking enforcement software system for a longer-term period. The term could be recommended to align with the current contract with Cale for the provision of the terminals. The term would end September 30, 2020. This option would allow for continued service and would maximize the set-up and development investments already made. If the sole source option was chosen, the Administration could be instructed to negotiate the financial terms for the agreement beyond the eight-month term and a report could be brought back regarding the results of those negotiations. In the meantime, service fees would be paid on a month-to-month basis.

This option has not been recommended because the competitive bid process may result in lower costs.

The New West Partnership Trade Agreement allows for sole source agreements between public bodies. It should be noted that this does not circumvent our purchasing policies or bind the will of City Council. It is, however, an option to consider, given that the CPA is a committee of Council of the City of Calgary.

Public and/or Stakeholder Involvement

The procurement of the parking enforcement software service is for internal business needs to deliver our services. No further public or stakeholder consultation is required.

Communication Plan

This internal business function is not expected to generate or require specific public communication needs.

Policy Implications

As previously noted, under Corporate Purchasing Procedure Policy No. A02-027, the proposed interim agreement with the CPA is a sole source contract that requires the approval of City Council.

Financial Implications

Award of the interim sole source contract to the CPA would result in a total contract value of \$80,000. The 2017 operating budget has sufficient allocation to cover this expenditure. Net costs resulting from long-term procurement will be included in subsequent years' budgets based on the final approved contract value.

For contextual purposes, parking operations generate approximately \$10 million annually between paid parking, permitting, and ticket revenue. After supporting the expenses of operations, the remaining approximate \$8 million is directed toward repaying the vendor-financed contract with Cale, and general revenue to support the mill rate, as well as toward various programs, including streetscape improvement, Business Improvement District support, and the Community Support Officer Program.

Other Considerations/Implications

There are no environmental, privacy, or CPTED considerations.

Due Date for Follow-up and/or Project Completion

If direction is to proceed with an RFP for long-term service, then a report recommending award to the successful bidder will be brought forward for approval in mid-2017.

Public Notice

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

Attachment

1. Proposed Outline of RFP Terms and Scoring Grid for the Parking Enforcement System Software and Support Services

Report Approval

Written by: Andrew Hildebrandt, Director of Community Standards

Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2017/CS/TRANS – Proposed Agreement with Calgary Parking Authority – Parking System Software and Support/lc

Proposed Terms and Scoring Grid for the Parking Enforcement System Software and Support Request for Proposals

The following terms are proposed for the Request for Proposals:

- The City is seeking the services of an experienced parking system operator for a three-year term (renewable) to supply, set up, and support an appropriate parking enforcement software system to link paid parking sessions to enforcement vehicles and hand-held tablets.
- Basic system requirements will include:
 - interfacing with current pay stations and software; and
 - hosting of paid parking session data.
- Basic enforcement requirements will include:
 - storing, managing, and recalling infraction data;
 - creating tickets and capturing plate data;
 - allowing for real-time ticket processing and delivery; and
 - accessing permit or exemption lists.
- An Evaluation Committee will be formed to review all submitted proposals. The proposals will be ranked by the following criteria:

Criteria	Points
Previous Parking System Operations Experience: (years of applicable experience; areas of expertise; municipal experience; daily, hourly, and monthly parking experience; and references)	25
System Reliability and Service Support: (resources available during parking hours of operation; response times; types of programs to be used; and number of workforce, i.e. technical support staff)	25
System Integration: (compatibility of the proposed system with the City's current paid parking infrastructure)	35
Adaptability and Flexibility: (additional features available that may provide added benefit for future service or adaptations)	5
Fee for Service:	10
TOTAL	100

Implementation Update on Way-To-Park Application and Amendments to Traffic Bylaw No. 7200

Recommendation

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

1. That the information be received;
2. That the proposed amendments to Traffic Bylaw No. 7200, as outlined in this report, be approved; and
3. That the City Solicitor be requested to amend Traffic Bylaw No. 7200, as outlined in this report, effective March 27, 2016.

Topic and Purpose

The purpose of this report is to provide an update on implementation of the smart phone application used with the FlexParking system, and to outline the proposed amendments to Traffic Bylaw No. 7200, to support the application as a parking payment method.

Report Highlights

1. The new Way-To-Park (WTP) application (app) will be launched publicly on April 5, 2017.
2. The proposed amendments to Traffic Bylaw No. 7200 (Traffic Bylaw) will support implementation of the WTP app.

Strategic Goals

This report supports the City of Saskatoon's (City) Strategic Goals of Moving Around and Quality of Life by providing a flexible parking system that facilitates efficient transportation movement in a method that is responsive and user-friendly for customers.

Background

In 2013, a process was initiated to select a new parking system to replace the aging, single-space meters. A vendor was chosen and approved, and implementation of new flexible pay-by-space parking stations began in early 2015. As part of this process, the provision of a smart phone payment method was to be a key requirement of the new parking system.

Report

WTP App Overview and Launch

The WTP app, supplied by Cale Systems Inc., allows the user to pay for parking via a smart phone. The user creates a secure account, inputting credit card or pre-paid parking smart card information and multiple license plate numbers. When parking on the street, the app is used to select and pay for the amount of parking time required. Notifications are issued through the app to remind the user when parking time is about to expire and to provide an opportunity to extend the parking time before it expires.

Testing and modifications are underway to ensure this app is suitable for the Saskatoon market, with public launch anticipated for April 5, 2017.

Amendments to the Traffic Bylaw

The Traffic Bylaw requires amendments to authorize the use of the WTP app and credit cards to pay for parking, and to add an obligation for app users to follow the instructions within the app. These amendments are required prior to launching the WTP app to the general public in order to make the app-related payments enforceable. If the Committee is in favour of these amendments, the City Solicitor's Office has indicated that it can have the amended bylaw prepared and attached to this report for consideration by City Council at its next meeting.

Options to the Recommendation

City Council could choose to not approve these amendments to the Traffic Bylaw; in this case, further direction would be required.

Public and/or Stakeholder Involvement

There is no public engagement required. An internal stakeholder group has been involved in the ongoing testing of the WTP app.

Communication Plan

The launch of the WTP app will coincide with a communication and marketing campaign, including a news release, an announcement on the City's website, posters, and indoor media advertising, as well as decals placed on existing parking stations notifying users of the availability of the app.

Financial Implications

Provision of another flexible payment option through the use of the app may increase paid on-street parking usage and associated revenue. Parking volumes will be monitored accordingly. The transaction and credit card fees associated with the use of the app will be absorbed as an operating expense of the Parking Services Section, Community Standards Division. Increased credit card fees will be monitored over the months after app launch to assess the resulting increases in these costs.

It is estimated that app usage will comprise 10% of all parking transactions (or approximately 15,000 transactions per month), resulting in increased operating expenses of \$5,000 per month, or \$60,000 per year. This expense was approved in the 2017 budget.

Other Considerations/Implications

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

Public Notice

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

Report Approval

Written by: Michael Kowalchuk, Way-To-Park App Project Manager, Community Standards
Reviewed by: Andrew Hildebrandt, Director of Community Standards
Approved by: Lynne Lacroix, Acting General Manager, Community Services Department

S/Reports/2017/CS/TRANS – Implementation Update on Way-To-Park Application and Amendments to Traffic Bylaw No. 7220/lc

Central Business District Sidewalk and Bike Lane Sweeping Pilot Study

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to inform City Council of the Central Business District street sweeping and pilot study that is planned for the 2017 spring, summer and fall seasons.

Report Highlights

A pilot study will be completed to determine the long-term feasibility of the City partnering with the Downtown Business Improvement District (DTN YXE) for bike lane and sidewalk sweeping.

Strategic Goals

This report supports the Strategic Goal of Continuous Improvement by finding innovative partnership opportunities with key city stakeholder groups. This report also supports the Strategic Goals of Moving Around and Quality of Life by increasing the Level of Service on bike lanes in the downtown core, and improving aesthetics and air quality by removing contaminants more frequently.

Background

Seasonal meetings between Administration and Business Improvement District Directors have yielded improved collaboration and inter-agency partnership opportunities.

Report

For the 2017 spring, summer and fall seasons a pilot study will be completed to determine the feasibility of the City partnering with DTN YXE for street sweeping utilizing a micro air street sweeper, also known as an air sweeper. The air sweeper is much narrower and utilizes different technology than a traditional street sweeper to clean streets and control dust in high population, narrow and congested locations such as bike lanes, catch basins and the transportation network within the Central Business District.

The pilot study will consist of the City re-tasking a small sweeper to be operated by the DTN YXE. The City will provide and install equipment consumables and will perform regular maintenance. DTN YXE will operate the sweeper and clear debris from bike lanes to meet or exceed the current Level of Service. When the bike lanes are not being cleaned, the sweeper will be used to improve the Level of Service and cleanliness

on sidewalks within the district. Both agencies, and ultimately the public, will benefit while saving on costs over the short and long terms. The pilot study will be evaluated at the end of the season to identify lessons learned and the feasibility of continuing and expanding a similar model to the other Business Improvement Districts.

Options to the Recommendation

Rather than receiving this report as information, the Standing Policy Committee on Transportation could ask Administration to provide further recommendations to review.

Communication Plan

The pilot has been explained to all Business Improvement District Directors. Results of the pilot will be reported back to the group and similar or modified partnerships will be explored if applicable.

Financial Implications

The partnership is expected to reduce the cost of sweeping the protected bike lanes by approximately \$20,000 in 2017.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A close-out report will be completed at the end of the sweeping season and provided early 2018, with recommendations based on the lessons learned.

Public Notice

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

Report Approval

Written by: Eric Quail, Roadways Manager
Reviewed by: Brodie Thompson, Logistics & Procurement Manager
Reviewed by: Brandon Harris, Director of Roadways & Operations
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

2016-2017 Winter Road Maintenance - Operations Update

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated March 13, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide an update on mid-winter operations and current continuous improvement initiatives for winter road maintenance programs.

Report Highlights

1. As of mid-February, there have been a total of six weather events and three snow events during the winter of 2016/2017.
2. Service changes for 2016/17 include increased crew coverage, expanded liquid de-icer capability and extending the snow removal program.
3. Winter mobility citizen engagement will begin in March and April 2017.
4. The Civic Operations Centre Snow Management Facility was opened in January and is operating successfully.
5. Blue warning lights have been added to the high-speed winter maintenance fleet as a public and staff safety initiative.
6. Five pilot studies for improving service and operation are currently complete, planned, or underway:
 - Ice rut prevention and removal
 - Permanent winter pothole repair techniques
 - Road Weather Information system
 - Automatic Vehicle Locator system
 - Graphical User Interface for winter operation communication

Strategic Goals

This report supports the Strategic Goal of Moving Around by enabling citizens to move around in the winter. This report also supports the Strategic Goals of Continuous Improvement and Environmental Leadership by controlling runoff from snow storage sites and reducing salt and sand usage where possible.

Background

The winter road maintenance programs and model continue to evolve to meet the changing needs of a growing Saskatoon applying the model of continuous improvement.

Report

Weather Event and Response Summary

As of February 17, 2017 there have been a total of six weather events and three snow events that resulted in a 12 cm ground snow pack on February 11 (source: Environment

Canada). Response to all three Snow Events met the Winter Level of Service and were completed within 72 hours.

To date, 3200 tandem loads of snow have been removed from high-density parking locations on Priority 2 streets and 2000 tandem loads have been removed from Business Improvement Districts and Circle Drive barriers.

The 2016/17 winter has been mild and snow accumulations have been below average. Freeze-thaw cycles have resulted in multiple melts since the first fall in early October. While low accumulations have reduced snow removal efforts, temperatures around freezing have resulted in a high salt application and multiple freeze-thaw cycles have presented drainage and pothole challenges that are unusual for winter months.

Service Changes for 2017

With the 0.55% Mill Rate increase to the snow and ice programs for 2017, three major operational changes have been made: 1) crew coverage has been increased, 2) liquid de-icer capability has been expanded, and 3) the snow removal program has been extended.

Eight new winter seasonal positions were added providing capacity for an additional night shift focussed on the weekend, with better weeknight coverage as well. This has improved overnight response and improved street conditions for the morning commute. Also, snow removal is conducted overnight so the additional positions have increased the City's snow removal capacity.

Liquid de-icer capabilities on the high-speed tandem fleet have been increased from 4 to 12 trucks. De-icer capability on the 1-ton sander fleet has doubled from 2 to 4 trucks.

Snow removal has been expanded to include areas with high density parking where snow removal had not been conducted before.

Public Engagement

In March and April 2017, the City will be conducting a comprehensive public engagement that will focus on winter service expectations and barriers for Saskatoon citizens, and will consider all transportation modes. The engagement will have two phases; a survey that will be open for the month of March and an innovation co-design session in mid-April. Outcomes of the engagement will be provided to City Council, and will provide the foundation for future service level enhancements and operational changes to improve existing programs.

Civic Operations Centre Snow Management Facility

The Civic Operations Centre Snow Management Facility was opened to the public on January 9, 2017. There have been no major operational issues since the site was opened. Minor issues have been identified and will be addressed by the fall of 2017. Currently, approximately half of the surface area of the snow pad is in use. However, during a warm week in February, it was the only snow storage facility open due to

melting and softening of the ground at the other snow storage sites. The new Civic Operations Centre facility allowed snow removal activities to continue in the city.

Blue Warning Lights on Snow Maintenance Equipment

The addition of blue warning lights to snow and ice maintenance equipment is almost complete. All high speed plows and sanders (23) have now been completed and lighting packages on all graders (16) are scheduled to be complete by the end of February 2017. This safety initiative brings City of Saskatoon snow maintenance equipment in-line with current Canadian best practices.

Pilot Studies

A four-day pilot study to test day-time ice rut elimination techniques has been temporarily put on hold due to unseasonal temperatures. The pilot study can only proceed this winter if there are additional snow accumulations and sustained cold temperatures before spring thaw. A radio ad was aired in February 2017 to educate the public on ice rut prevention methods.

A new permanent winter pothole repair program is scheduled to begin in April 2017 with the purchase of one infrared pothole patching machine. In 2018, this pilot study may be expanded into infrared joint sealing applications. This technology uses a heating system to reactivate in-place asphalt and will enable crews to produce and place high-quality recycled asphalt material year-round and reduce the reliance on cold-mix as a temporary solution.

The City is in the process of formalizing a partnership with the University of Saskatchewan to develop and pilot a Road Weather Information system. This system will empower decision making by identifying pavement conditions that are suitable for different anti-icing products and identifying conditions that lead to pavement frost. The hardware is planned to be installed and tested this fall.

The Automatic Vehicle Location system will provide live Global Positioning System locations and operating data from snow maintenance equipment. This information will be utilized to make real-time operational decisions, track work, update the public on current operational status, and optimize routing resulting in higher activity uptime. Currently, tandem axle sanders have Global Positioning System capability; real time data for internal operational use is expected for November 1, 2017.

A Graphical User Interface for winter communications is under development which will enable more timely operations updates, service alerts, and Public Service Announcements. If successful, the model may be expanded into an information dashboard for internal City stakeholders, City Council, and eventually the public.

Public and/or Stakeholder Involvement

Citizens will be involved throughout the citizen engagement exercise. Citizens will be invited to complete a survey via social media, radio advertising campaigns and face-to-face at a number of tradeshow and strategic booth locations.

Key stakeholders will be invited to an innovation co-design session. These stakeholders include, but are not limited to, the Accessibility Committee, Business Improvement District Directors, and representation from Saskatoon First Nations communities.

Communication Plan

Under the Better Winter Roads campaign, the City provides updates to local media, drivers and residents about the winter road maintenance activities in preparation for, during, and following a snow or weather event. Specific programs, such as Priority Street grading, sanding, snow route declaration, snow storage, rut grading, and snow removal are promoted through media relations, social media channels, on the City's website, and paid advertising. Service Level information and timely updates can be found at saskatoon.ca/snow for winter road maintenance information. Schools and Business Improvement Districts will be provided a summary of the snow grading and removal activities each winter and drivers are notified in advance of removal activities with posted No Parking signs. The engagement plan would include coordinated communications activities to reach an acceptable cross-section of residents to participate.

Pilot projects will be featured under the Better Winter Roads campaign beginning in early spring.

Environmental Implications

Results from the water quality tests at the Civic Operations Center will be included in the winter close-out report.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A 2016-2017 winter close-out report will be completed at the end of the winter season and provided prior to August 2017, with recommendations based on the lessons learned.

Public Notice

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

Report Approval

Written by: Eric Quail, Roadways Manager
Reviewed by: Brodie Thompson, Logistics & Procurement Manager
Reviewed by: Brandon Harris, Director of Roadways & Operations
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department

TRANS EQ – 2016-2017 Winter Road Maintenance – Operations Update

Automated Speed Enforcement – Pilot Program Update

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the City of Saskatoon continue to partner with Saskatchewan Government Insurance on the Automated Speed Enforcement pilot program until a decision is made by government on the future of the program. A contract extension of up to two years is requested in the meantime.

Topic and Purpose

The purpose of this report is to provide an update on the Automated Speed Enforcement (ASE) pilot program and seek approval for a continued partnership with Saskatchewan Government Insurance (SGI).

Report Highlights

1. The intended two-year ASE pilot program began in March 2015 along Circle Drive and in five school zones throughout the City of Saskatoon (City).
2. The two-year pilot has ended. SGI is undertaking a review of the impact of the ASE pilot program and will be making a recommendation to government in the near future. In the meantime, the cameras will continue to operate.

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

City Council, at its meeting held on November 24, 2014, approved the City's involvement in the two-year ASE pilot program which was implemented at five locations on Circle Drive and in five school zones. The two ASE systems installed rotate between these locations.

Immediately after the installation of the two systems, a three-month warning period to drivers began on December 8, 2014, with actual tickets being issued beginning on March 8, 2015.

Any revenues over and above the cost of the ASE pilot program fund the City's traffic safety improvements and initiatives including:

- Enforcement safety initiatives such as impaired driving initiatives, intersection enforcement;
- Traffic calming measures in residential neighbourhoods;
- Supporting a public awareness campaign for pedestrian safety;
- Installation of pedestrian crossing enhancements;
- Undertaking a review of traffic conditions in industrial areas;
- Improving safety for cyclists; and
- Enhancing traffic operations at high collision intersections throughout the city.

Report

ASE Pilot Program Assessment

The preliminary impact of the pilot program is being assessed by SGI, with input from the Saskatoon Police Service (SPS) and the City. The initial results for Saskatoon look promising, including:

- Average violation rates on Circle Drive are 0.4%, less than the target rate of 1% set by SGI
- Average violation rates in school zones reduced from 8.7% in May 2015 to less than 1% in June 2016. The average violation rate is 2.5%

Extension of Pilot Program

SGI will be putting forward a recommendation to government in a few months' time.

If deemed effective and provincial legislation is ultimately modified at some point to support a permanent program, the trial phase would end and it would be up to the City to determine whether or not to utilize the legislation and continue a similar ASE program.

The Administration is recommending that the City continues to partner with SGI to administer the revenues, expenses, and to evaluate the impact of the ASE pilot program.

Public and/or Stakeholder Involvement

The City and SPS are working with SGI to ensure the successful implementation of this program.

Communication Plan

SGI is leading the program and will be coordinating overall province wide communications. The City will continue to work with SGI and the SPS to ensure a Public Service Announcement is issued informing motorists of the enforcement system. SPS is responsible for addressing enforcement related questions and the City will address questions about the program's operations.

Financial Implications

SGI is responsible for all costs for the duration of the ASE pilot program, including compensating the SPS for processing of tickets and the City for maintaining cameras.

To date, the ASE pilot program generated net revenues of \$465,000 in 2015 and \$455,000 in 2016 for allocation to traffic safety initiatives for the City.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The Administration will present a report to the Standing Policy Committee on Transportation by mid-2017 to allocate any additional funds in the Traffic Safety Reserve from 2016. A further report will be presented in 2019 to share SGI's final recommendations from the extended pilot program.

Public Notice

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

Report Approval

Written by: Angela Gardiner, Director of Transportation
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department

TRANS AG – Automated Speed Enforcement – Pilot Program Update

Arbor Creek Sound Attenuation Funding

Recommendation

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

1. That \$2.2 Million be allocated to Capital Project #1522 – Traffic Noise Sound Attenuation from a reallocation of New Building Canada Funds to fund the Arbor Creek sound attenuation wall.
2. That the \$2.2 Million be cash flowed until such time as the reallocation funding is available.

Topic and Purpose

This purpose of this report is to request City Council approval to fund the Arbor Creek sound attenuation wall through a reallocation of New Building Canada Funds (NBCF).

Report Highlights

The Arbor Creek sound attenuation wall could be funded by reallocating NBCF. This is the only known outstanding location that meets the criteria for sound attenuation.

Strategic Goal

This report supports the Strategic Goal of Moving Around and Quality of Life by providing Traffic Noise Sound Attenuation (TNSA) to help maintain the quality of the outdoor amenity space in residential areas located adjacent to high volume roadways.

Background

City Council, at its meeting on November 28, 2016, approved an award of the Project Agreement for the Saskatoon Interchange Project to PCL Construction Management Inc. The Saskatoon Interchange Project includes construction of both the interchanges of McOrmond Drive/College Drive and Boychuk Drive/Highway 16. The report indicated that a further report be submitted to provide options to fund the sound attenuation adjacent to Arbor Creek.

Although the Arbor Creek sound attenuation wall was on the list in 2013 as a candidate for retrofit, it was not included in subsequent lists because the intent was to construct the wall as part of the McOrmond Drive/College Drive interchange. It was determined through further sound modelling and detailed design of the interchange that the extent of the sound wall did not cover the entire length of College Drive to the Canadian Pacific Railway tracks. In addition, the final funding strategy for the interchange is fully from developers and development levies, so the scope of work must be scrutinized to ensure only infrastructure supporting development is funded. This left a large portion of the sound wall adjacent to Arbor Creek in a situation where it was not on the retrofit list, and was not included in the scope of the interchange project.

A November 2016 sound wall policy report to the Standing Policy Committee on Transportation confirmed Arbor Creek as the only known location in the city that met the threshold requirements of 65 dBA to construct traffic noise sound attenuation.

Report

The tender for Boychuk Drive/Highway 16 and McOrmond Drive/College Drive interchange projects resulted in a much lower cost than was originally estimated. Therefore, approximately \$7.5 Million of the NBCF will no longer be required for the project. The City will still receive approximately \$7.5 Million through applications for other eligible funded projects. The original source of funding from other projects will be placed into a reallocation pool, which could be used to fund the sound attenuation wall along Arbor Creek. The preliminary cost estimate for this additional sound attenuation wall is \$2.2 Million.

As eligible NBCF projects are completed, the City will receive funding. The Federal Government has not established a payment schedule at this point; however, the funds will be received sometime before 2024. As a result, funds may not be available at the time of the construction of the Arbor Creek sound attenuation wall. The \$2.2 Million will need to be cash flowed until such time as the reallocation pool funds are received.

Public and/or Stakeholder Involvement

If approved by City Council, the Administration will proceed with planning the Arbor Creek sound attenuation wall, and generate a functional plan illustrating the proposed location and height of the wall. Residents that immediately back onto the project location will be provided with an initial information letter followed by a copy of the functional plan. Resident input will be considered when determining the final location of the sound attenuation. Prior to construction start, the residents will be provided with a construction notice.

Communication Plan

A communication plan will be developed for the project as the planning work proceeds.

Financial Implications

The estimated cost for the Arbor Creek sound attenuation wall is estimated at \$2.2 Million. The funding strategy is included in the body of this report.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

If approved, the Administration will proceed with functional planning of the sound attenuation wall for construction in 2018 to coincide with the construction of the interchange project.

Public Notice

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

Report Approval

Written by: Angela Gardiner, Director of Transportation
Kari Smith, Manager of Financial Planning
Reviewed by: Clae Hack, Director of Finance
Approved by: Kerry Tarasoff, CFO/General Manager of Asset & Financial
Management Department
Jeff Jorgenson, General Manager, Transportation & Utilities
Department

TRANS AG – Arbor Creek Sound Attenuation Funding.docx

Glasgow Street Traffic Review

Recommendation

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

1. That the Administration proceed with removing the pinch points installed in a temporary fashion on Glasgow Street; and
2. That left turns be restricted at the intersection of Glasgow Street and Clarence Avenue on a trial basis.

Topic and Purpose

The purpose of this report is to provide an update on the Glasgow Street traffic review and to provide information on recently completed community engagement.

Report Highlights

1. Traffic data was collected and confirmed that shortcutting on Glasgow Street is an issue.
2. The pinch points on Glasgow Street have not been effective in reducing shortcutting.
3. A resident survey was conducted to obtain feedback on two alternative options.
4. Given that Glasgow Street is classified as a local street, left-turn restrictions are recommended at the intersection of Clarence Avenue and Glasgow Street to restore the traffic conditions to that of a local residential street.

Strategic Goal

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

Background

The Avalon Neighbourhood Traffic Review (NTR) was approved by City Council in 2016 and included installations of pinch points at the following locations to address shortcutting concerns:

- On Glasgow Street between Maceachern Avenue and Mendel Crescent (across from 711 Glasgow Street)
- On Glasgow Street between Clarence Avenue and Mendel Crescent (in front of 917 and 919 Glasgow Street)

Installation of the pinch points was on a trial basis, with an effectiveness review outlined in the Avalon NTR.

Report

Public Meetings and Traffic Study Data Results

At the public meetings held in October of 2014 and April of 2015, residents identified travel speed and traffic volume as the main concerns on Glasgow Street between Broadway Avenue and Clarence Avenue. In 2015, traffic studies were undertaken and numerous field observations were completed to quantify these concerns.

The peak hour traffic volumes are included as Attachment 1. A review of this information yields that there are two primary traffic shortcut movements:

- Northbound left turn from Clarence Avenue to Glasgow Street and the westbound right turn from Glasgow Street onto Broadway Avenue; and conversely,
- Southbound left turn from Broadway Avenue to Glasgow Street and the eastbound right turn from Glasgow Street onto Clarence Avenue.

The data also confirmed that the dog park located at the south end of Broadway Avenue is not the main traffic generator, and that the primary travel pattern is between Clarence Avenue and Broadway Avenue, via Glasgow Street.

In May of 2015, daily traffic volumes were counted at the following locations:

- Reviewed two locations (between Clarence Avenue and Broadway Avenue on Glasgow Street) where vehicle trips were respectively 3,200 and 3,700. In Saskatoon, according to the New Neighbourhood Design Guidelines, the upper limit expected for a local residential street is 1,000 vehicle trips per day. Conversely, collector streets have up to 15,000 trips per day and arterial streets such as Clarence Avenue and 8th Street can expect well over 20,000 vehicle trips per day.
- Reviewed Wilson Crescent where there was a daily traffic volume of 2,300 vehicle trips. Wilson Crescent is a collector street with traffic signals and is designed to accommodate more traffic, yet has much less volume than Glasgow Street.
- Reviewed vehicle speeds along Glasgow Street that ranged between 49 kph and 54 kph, which is typical for a local street with a posted speed limit of 50 kph.

Through a review of the traffic data, it was confirmed that the primary issue was shortcutting traffic on Glasgow Street.

Pinch Point Effectiveness Review

An evaluation of the pinch points was completed including the collection of traffic data before and after the temporary trial installation. Based on the review shown in Attachment 2, it has been determined that the pinch points have not been effective in reducing shortcutting and the Administration is recommending that they be removed.

Resident Survey Results

To determine the level of support for the alternative options, a survey was hand delivered to residents on January 27, 2017. A copy of the survey is included as Attachment 3. The survey area was bound by these locations:

- Circle Drive to the south
- Clarence Avenue to the east (residences on Clarence Avenue were included)
- Wilson Crescent to the north
- Cascade Crescent to the west (residences on Cascade Crescent were included)

Residents were asked which option they preferred. A graphical summary of the feedback is included in Attachment 4. The tabular summary is provided below:

Table – Summary of Survey Results

Zone	Surveys Distributed	A – No Left Turns at Clarence	B – Do Nothing	C – Other
1	64	6	35	11
2	19	3	-	1
3	60 ¹	-	-	-
4	108	3	15	18
5	13	1	-	-
6	41	15	5	5
7	116	5	47	18
8	25	1	2	2
TOTALS	446	34	104	55

¹ Apartment units

A review of the survey results yields the following observations:

- Residents on Glasgow Street are in favour of restricting left turns at the intersection of Glasgow Street/Clarence Avenue on a pilot project basis.
- Residents not on Glasgow Street are opposed to restricting left turns at the intersection of Glasgow Street/Clarence Avenue on a pilot project basis.
- Of the 55 other suggestions there were: 17 – speed humps; 17 – Stop signs; 9 – reduced speed zone; 6 – traffic signals at Clarence and Glasgow; 3 – keep pinch points; and 1 each for roundabout at Clarence and Glasgow, to restrict traffic at Turner Avenue and Broadway Avenue, and adjust signal timings at Clarence Avenue/Wilson Crescent.

Left-turn Restriction Advantage and Disadvantage

Advantage:

Given that Glasgow Street is a local street, the Administration is recommending that left turns be restricted at Clarence Avenue and Glasgow Street on a trial basis. The overall level of safety on Glasgow Street would increase by lowering traffic volumes.

Disadvantage:

- Traffic volumes will increase on Mcaskill Crescent, Maceachern Avenue, and Turner Avenue. It is difficult to predict the exact traffic volume increase, but it is estimated that up to 200 vehicle trips per day may be re-assigned to those streets. Traffic data along Mcaskill Crescent was collected in July 2015 and had a daily traffic volume of 205.

- Travel distances will increase as motorists may have to drive a few more blocks to arrive, or depart, from their residence.

If approved, the recommended scope and schedule for the trial project is as follows:

- Install the temporary restriction in May of 2017.
- Conduct traffic counts on Glasgow Street, Wilson Crescent, Mcaskill Crescent, and Maceachern Avenue in June of 2017.
- Complete an effectiveness review in September of 2017.
- Share the results of the effectiveness review with the area residents in October of 2017.
- Report back to City Council in late 2017 on the effectiveness of the pilot project and resident feedback.

Options to the Recommendation

There is an option to do nothing and reclassify Glasgow Street to a collector street which would match the current traffic conditions of the roadway. The benefit of this option is that traffic volumes on Mcaskill Crescent, Maceachern Avenue, and Turner Avenue will remain the same. This option would not resolve residents' traffic concerns on Glasgow Street.

A summary of other options discussed with residents is shown in Attachment 5.

Public and/or Stakeholder Involvement

The public has been engaged throughout this process as follows:

Date	Timeline
September 26, 2014	City Council received a petition from over 300 area residents.
October 2014	A neighbourhood meeting was held to discuss traffic issues on Glasgow Street (estimated attendance was 40).
April 16, 2015	As part of the Avalon NTR, a public meeting was held with residents to discuss traffic issues in Avalon, including Glasgow Street (estimated attendance was 70).
October 29, 2015	As part of the Avalon NTR, a public meeting was held with residents to discuss the draft traffic plan to improve vehicular and pedestrian safety (estimated attendance was 90). To address shortcutting concerns along Glasgow Street, a recommendation to restrict left turns at the intersection of Clarence Avenue and Glasgow Street was presented to residents with little support. The recommendation was removed at that time from the Traffic Plan pending further consultation.
January 14, 2016	As part of the Avalon NTR, a public meeting was held with residents to discuss Glasgow Street and Clarence Avenue (estimated attendance was 90). The recommendation to install pinch points on Glasgow Street on a trial basis was generally supported by those in attendance.
January 19, 2017	A public meeting was held with residents to discuss Glasgow Street (attendance was 185). Results of the pinch point trial were presented and two alternative options were discussed.
January 27, 2017	A survey was distributed to area residents to determine the level of support for each alternative.

Communication Plan

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

Financial Implications

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to remove the pinch points and implement measures to restrict left turns at Clarence Avenue and Glasgow Street.

Environmental Implications

The overall impact of the recommendations on traffic characteristics, including the impacts on greenhouse gas emissions, has not been quantified at this time.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The Administration will prepare a follow-up report to evaluate the impact of the left-turn restrictions at the intersection of Clarence Avenue and Glasgow Street in late 2017.

Public Notice

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

Attachments

1. Glasgow Street Peak Hour Traffic Volumes
2. Pinch Point Effectiveness Review
3. Shaping Saskatoon – Glasgow Street Traffic Review Update and Survey
4. Graphical Summary of Survey Results
5. Options to the Recommendation

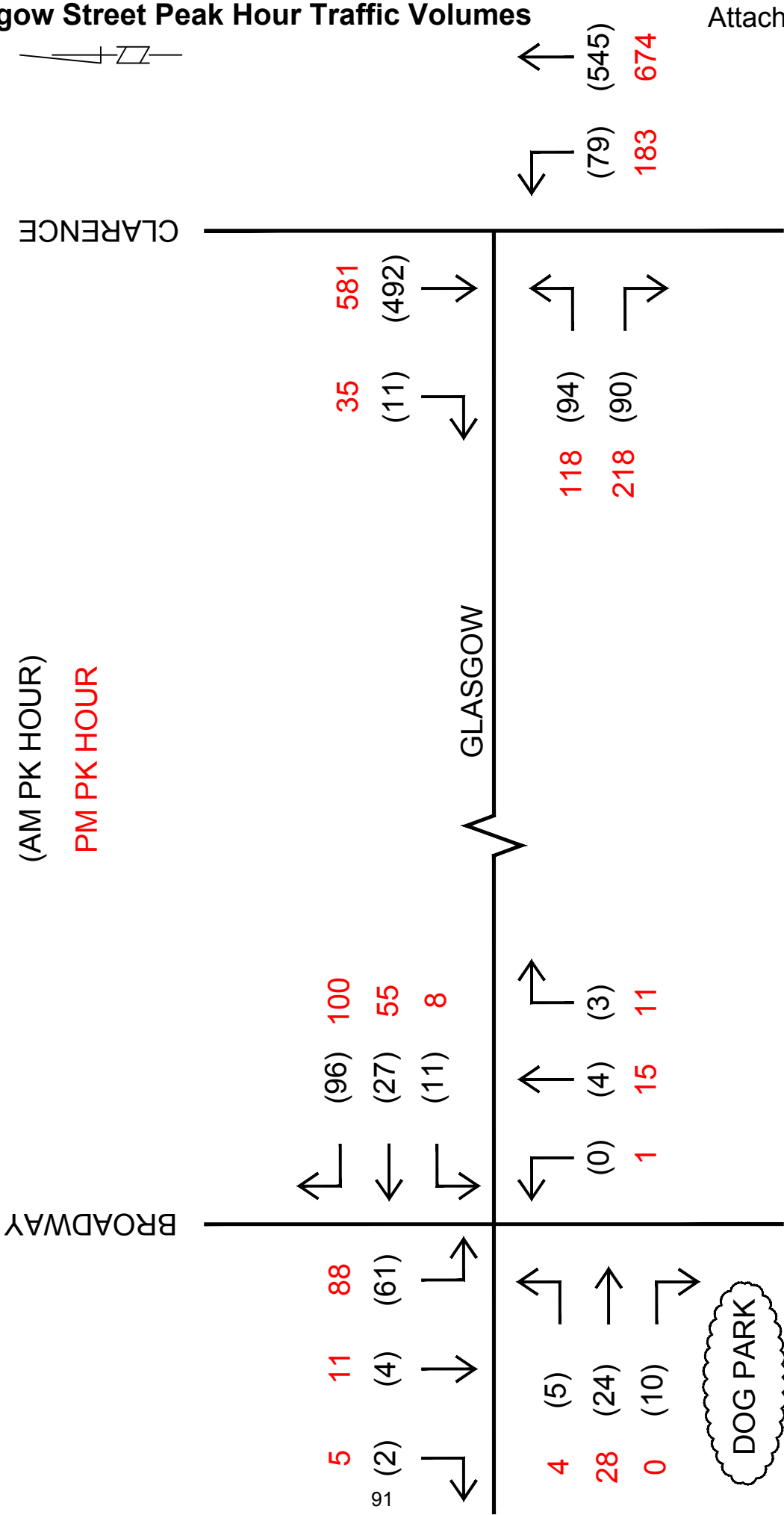
Report Approval

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

TRANS JM – Glasgow Street Traffic Review.docx

Glasgow Street Peak Hour Traffic Volumes

Attachment 1



Pinch Point Effectiveness Review

Traffic data prior to the pinch points being installed was collected in May of 2015, and traffic data after the pinch points were installed was collected in October of 2015. Traffic data was collected at two locations on Glasgow Street, and one location on Wilson Crescent. Wilson Crescent was included so that the impacts on this adjacent collected could be monitored. A comparison of the traffic volumes is provided in Table 1.

Table 1 – Pinch Point Effect on Traffic Volumes

Location	Traffic Volumes and Travel Speeds (85 th Percentile Speed)	
	Before (May 2015)	After (Oct 2016)
Glasgow Street – Mendel Crescent (east) to Turner Avenue	3,700 vpd 54 kph	3,400 vpd 53 kph
Glasgow Street – MacEachern Avenue to Mendel Crescent (west)	3,200 vpd 47kph	2,600 vpd 51 kph
Wilson Crescent – Albert Avenue to Clare Crescent	2,300 vpd 49 kph	2,500 vpd 49 kph

vpd = vehicles per day

kph = kilometres per hour

A review of the traffic volumes in the table indicates that the traffic volumes have dropped slightly, and the 85th percentile speed has not significantly been impacted.

Anecdotally, Transportation received numerous phone calls and e-mails from residents complaining about the pinch-points. Typically these were from residents that did not live on Glasgow Street. However, more correspondence was beginning to also be received from residents that live on Glasgow Street complaining about the pinch-points.

Based on the effectiveness review, it is recommended that the pinch-points be removed.



Glasgow Street Traffic Review Update and Survey

On April 25, 2016, City Council adopted the Avalon Traffic Management Plan.

Public consultation began in April 2015 at a public meeting to discuss traffic concerns and potential solutions within the Avalon neighbourhood. Comments from the residents gathered during the meeting and the months to follow were used to coordinate traffic studies, conduct traffic assessments, and develop a neighbourhood-wide plan. The plan was presented at a follow-up meeting and online in October 2015, allowing residents to provide input. An additional follow-up meeting was held in January 2016 to finalize the plan.

The final plan included a number of measures to improve traffic conditions within the Avalon neighbourhood, including a series of pinch points and temporary traffic calming along Glasgow Street. Installations began in the summer of 2016 and traffic data was collected, including the Average Daily Traffic (vehicles per day) and 85th percentile speed (speed at which 85% of drivers are travelling at or below). Results are as follows:

Location	Before (May 2015)	After (Oct 2016)
Glasgow St – Mendel Cres (east) to Turner Ave	3,700 vpd; 54 kph	3,400 vpd; 53 kph
Glasgow St – MacEachern Ave to Mendel Cres (west)	3,200 vpd; 47 kph	2,600 vpd; 51 kph
Wilson Cres – Albert Ave to Clare Cres	2,300 vpd; 49 kph	2,500 vpd; 49 kph

On January 19, 2017 a public meeting was held to share with the area residents the process to date and provide traffic volume information. As a follow up to the recent public meeting we are surveying area residents for input regarding the issue of speeding and increased traffic flow along Glasgow Street. The results will be included in an upcoming report provided to Transportation Committee and City Council that summarized the process and work to date and suggest



recommendations including the removing of pinch-points on Glasgow Street and one of the following two options:

- Do not allow left turns at the Clarence Avenue / Glasgow Street intersection on a trial basis
- Do nothing as all reasonable options have been investigated

The council dates we are targeting are March 13 (Transportation Committee) followed by March 27 (City Council); or April 10 (Transportation Committee) followed by April 24 (City Council). Please visit the City website for the agenda published the Thursday prior to each meeting.

For information: shapingsaskatoon.ca/discussions/glasgow-street-traffic-review

SURVEY

Name: _____

Address: _____

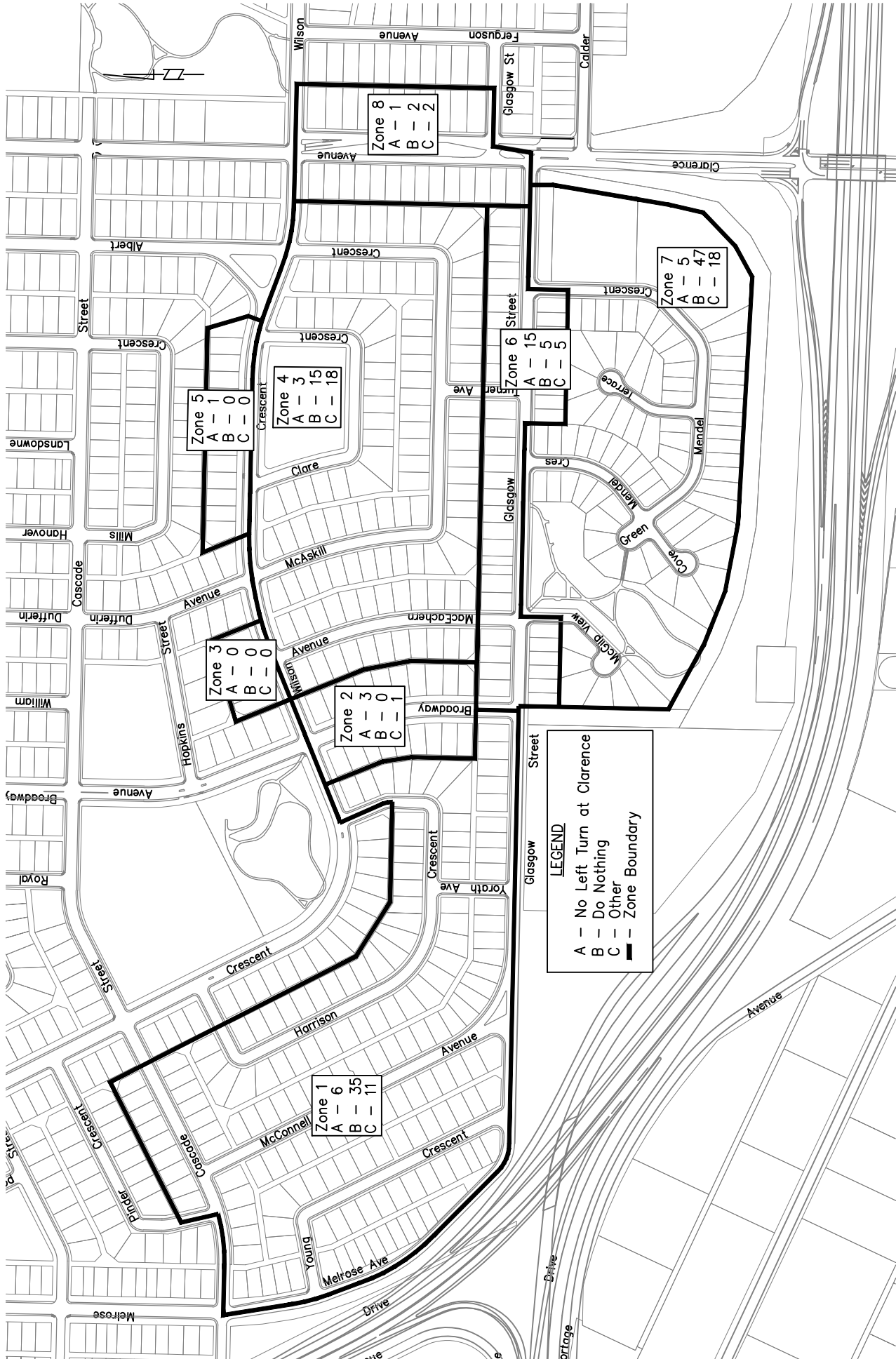
Please indicate your support for one of the following options:

- Remove the pinch points and do not allow left turns at the Clarence Avenue / Glasgow Street intersection on a trial basis
- Do nothing as all reasonable options have been investigated
- Other (please describe):

Please return your survey by **February 8, 2017** to transportation@saskatoon.ca (suggest taking a picture and emailing).

or mail: Transportation Customer Service
222 – 3rd Avenue North
Saskatoon, SK S7K 0J5

or drop-off: Transportation Desk
3rd Floor, City Hall
222 – 3rd Ave North



Options to the Recommendation

Two options to slow vehicle speeds, but not significantly reduce traffic volumes, that may be available for City Council's consideration in the future are:

1. Automated Speed Enforcement (ASE) – During the public engagement many residents raised automated speed enforcement on Glasgow Street. Currently the ASE is a pilot project initiated by SGI with cooperation from the City of Saskatoon. The pilot project has been extended two years, and after this time more information will be known on the future of ASE.
2. Incorporation of a 30kph playground speed zone – Only feasible if all playground zones within the City have a reduced speed limit. There are numerous issues to be reviewed prior to full consideration, namely the scope of the reduced speed zones in terms of time of day, which days of the week, which months of the year, coordination with the reduced speeds in school zones, cost to implement, and an implementation plan.

Two items that are not recommended, but consistently raised by residents are as follows:

1. Speed humps – These are not recommended as they are not a tool in reducing cut-through traffic.
2. Stop signs – The Administration has reviewed the intersections along Glasgow Street between, and including, Broadway Avenue and Clarence Avenue and no intersection meets Council Policy for the installation of all-way stops. Installing stop signs where they are not warranted can create an unsafe condition. Also, installing an all-way stop at the intersection of Glasgow Street / Broadway Avenue, in addition to lowering the safety of this intersection, will also do nothing to reduce short-cutting nor vehicle speeds as the cut-through traffic is either turning right (from westbound on Glasgow Street to northbound on Broadway Avenue) or turning left (from Broadway Avenue to eastbound on Clarence Avenue) anyways. These vehicles either stop or slow down significantly to make these turns.

Lakeridge Neighbourhood Traffic Review

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Neighbourhood Traffic Review for the Lakeridge 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 (NTR) for the Lakeridge neighbourhood.

Report Highlights

A Neighbourhood Traffic Plan for the Lakeridge 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 safety of pedestrians, motorists, and cyclists.

Background

A public meeting was held in May 2016 to identify traffic concerns and potential solutions within the Lakeridge 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 Neighbourhood Traffic Plan was developed and presented to the community at a second public meeting held in November 2016.

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, and make adjustments as needed to 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 during the consultation included shortcutting, speeding, pedestrian safety, and parking.

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

- Median islands
- Curb extensions
- Parking restrictions
- Yield signs
- Stop signs
- Speed display boards
- Tree Trimming
- Enforcement

The 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, enforcement, speed display boards
Medium-term (3 to 5 years)	Permanent traffic calming devices, Active Pedestrian Corridors
Long-term (more than 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks

The Lakeridge Neighbourhood Traffic Review is included in Attachment 1.

If approved by City Council, all of the temporary traffic calming measures will be installed in 2017. The annual report on the NTRs will provide an update on the status of converting the temporary measures to a permanent condition.

Public and/or Stakeholder Involvement

In May 2016, 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 November 2016. Additional feedback received at the follow-up public meeting was also incorporated into the NTR.

Feedback was provided by internal civic stakeholders of various divisions and departments: Roadways & Operations, Saskatoon Transit, Planning & Development, Saskatoon Light & Power, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the recommended Neighbourhood Traffic 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, has not been quantified at this time.

Financial Implications

The implementation of the Neighbourhood Traffic Plan will have financial implications. The costs are summarized in the following table:

Category	2017	Beyond 2017
Signs, Pavement Markings & Temporary Traffic Calming	\$19,000	NA
Permanent Traffic Calming	NA	\$90,000
TOTALS	\$19,000	\$90,000

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2017, which includes implementation of all signage, pavement markings, and temporary traffic calming measures.

The remainder of the work beyond 2017 includes the construction of permanent traffic calming measures and will be considered alongside all other improvements identified through the NTR Program. The Administration will include in their annual budget submission package 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 implications or considerations.

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 2017 construction season.

Public Notice

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

Attachment

1. Lakeridge Neighbourhood Traffic Review, February 17, 2017

Report Approval

Written by: Lanre Akindipe, Transportation 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 JM – Lakeridge Neighbourhood Traffic Review

LAKERIDGE

2016 Neighbourhood Traffic Reviews

CITY OF SASKATOON

February 17, 2017

Lakeridge Neighbourhood Traffic Review

February 17, 2017

Authorization

Prepared By:

*Original stamped
and signed*

Lanre Akindipe, P.Eng.
Transportation Engineer

Checked By:

*Original stamped
and signed*

Jay Magus, P.Eng.
Transportation Engineering Manager

Acknowledgements

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

- Lakeridge residents
- Lakeridge Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Planning & Development
- City of Saskatoon Roadways & Operations
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Bev Dubois

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 program involves additional community and stakeholder consultation that provides opportunity for residents and City staff to work together in developing solutions that address traffic concerns within their neighbourhood. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2016.

A public meeting was held in May 2016 to identify traffic concerns and potential solutions within the Lakeridge 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 Plan was developed and presented to the community at a follow-up meeting held in November 2016.

A summary of recommended improvements for the Lakeridge 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 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 ranges from 1 to 5 years.

The Lakeridge Traffic Plan is illustrated in **Exhibit ES-1**.

Table ES-1: Lakeridge Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	Kingsmere Boulevard & Brightwater Cres	Change yield sign to stop sign; "No Parking" sign 10m from the intersection; make temporary calming permanent	Improve Safety
2	Kingsmere Boulevard & Waterbury Road	Install a 4 way stop at the intersection	Improve visibility and safety
3	Emmeline Road & Waterbury Road	Install "No Parking" signs 10m from the intersection; tree trimming on the southeast corner	Improve visibility and safety
4	Emmeline Road & Swan Crescent (west)	Install a median island	Enhance visibility and reduce speeding
5	Emmeline Road (at midblock crosswalk)	Install a median island; make temporary calming permanent	Enhance visibility and reduce speeding
6	Emmeline Road & Swan Crescent (east)	Install "No Parking" signs on Emmeline road 10m from the intersection on the southwest and southeast corners; "No Parking" sign on Emmeline road (at the crosswalk on the north side between the disabled persons loading zone and the 5min parking)	Enhance visibility
7	Emmeline Road & Nemeiben Road	Replace yield sign with a stop sign; Install "No Parking" signs 15m from the intersection on the southwest and southeast corners; tree trimming on the southwest corner	Enhance visibility and improve safety
8	Nemeiben Road & Brudell Road	Install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners	Reduce speeding and improve safety
9	Nemeiben Road & Brabant Crescent	Replace yield sign with a stop sign	Improve safety
10	Nemeiben Road & Anglin Place	Replace yield sign with a stop sign	Improve safety
11	Nemeiben Road & Smoothstone Crescent (east)	Install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners; replace yield sign with a stop sign	Reduce speeding and improve safety
12	Nemeiben Road & Waterbury Road	Install a median island with enhanced stop sign	Enhance visibility of stop sign and improve pedestrian safety

Table ES-I Continued

Item	Location	Recommendation	Reason
13	Nemeiben Road & Smoothstone Crescent (west)	Replace yield sign with a stop sign	Improve safety
14	Waterbury Road & Jan Crescent	Tree trimming at the southwest corner	Enhance visibility
15	Weyakwin Drive & Nemeiben Road	Install "No Parking" signs on Weyakwin Drive 10m from the intersection on the southwest and northeast corners; Tree trimming on the southwest and northeast corners	Enhance visibility and sightlines
16	Taylor Street & Weyakwin Drive	Major Intersection Improvement; recent improvements	Improve delays; enhance safety
17	Brudell Road & Franklin Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign	Reduce speeding and improve safety
18	Brudell Road & Keller Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speeding and improve safety
19	Brudell Road & Keller Crescent	Tree trimming at the southeast corner	Enhance visibility
20	Swan Lane	Install yield signs on Swan Lane	To assign right of way to Traffic on Swan Crescent
21	All intersecting streets on Nemeiben Road, Waterbury road and Kingsmere Blvd	Change all yield signs to stop signs (15 signs total)	Improve safety on bus route
22	Nemeiben Road - 35m east of Emmeline Road	Temporary speed display board facing westbound traffic	Reduce speed



LEGEND

- PROPOSED STOP SIGN
- EXISTING STOP SIGN
- ▲ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- EXISTING SCHOOL ZONE
- ⚡ EXISTING TRAFFIC SIGNAL

LAKERIDGE TRAFFIC PLAN

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I INTRODUCTION

As the City of Saskatoon continues to grow, many neighbourhoods face issues such as pedestrian safety, cut-through traffic, and increased speeds. In August 2013, City Council adopted the City of Saskatoon *Traffic Guidelines and Tools* document that outlines a procedure for completing traffic reviews on a neighbourhood-wide basis. Prior to this, neighbourhood traffic issues were dealt with on a case-by-case basis with mixed results. Since 2013 the formal process has proven to be very successful in providing recommendations that improve neighbourhood traffic conditions and pedestrian safety. Recommendations are developed by the Administration and residents in a collaborative fashion. Accordingly, this report provides the Traffic Plan for the Lakeridge neighbourhood.

The Lakeridge neighbourhood is located on the east portion of Saskatoon and is bound by Highway 16 to the south, Boychuk Drive to the east, Weyakwin Drive to the west and Taylor Street to the north. The land use is mostly residential, with elementary schools (Saint Luke School and Lakeridge School) on Emmeline Road.

The neighbourhood traffic review includes four stages:

- **Stage 1** - Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon online discussion.
- **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).

This report presents the study findings and recommendations.

2 STAGE 1: IDENTIFYING ISSUES, CONCERNS, AND POSSIBLE SOLUTIONS

A public meeting was held in May 2016 to identify traffic concerns within the Lakeridge neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions. The meeting minutes are provided in **Appendix A**.

The following pages summarize the concerns and suggested solutions identified during the initial consultation (including all correspondence and Shaping Saskatoon discussion comments received prior to the follow-up meeting) with the residents.

2.1 Concern 1 – Speeding and Shortcutting

Shortcutting occurs when non-local traffic passes through the neighbourhood on streets that are designed and intended for low volumes of traffic (i.e. local streets). As speeding often accompanies shortcutting, these concerns have been grouped into one category.

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

- Brudell Road
- Kingsmere Boulevard
- Nemeiben Road
- Emmeline Road (near midblock crosswalk)
- Waterbury Road
- Swan Crescent
- Brabant Crescent
- Franklin Place

Proposed solutions identified by residents:

- Emmeline Road:
 - Install an active pedestrian corridor
 - Have the school zone enforced all through the day
 - Traffic calming devices
 - Install speed enforcement camera
 - Better lane markings
 - Identify existing crosswalks

- Nemieben Road:
 - Install speed bumps between Waterbury Road and Boychuk Drive
 - Police enforcement
- Brudell Road - Install traffic calming devices
- Kingsmere Boulevard:
 - Install speed bumps
 - Police enforcement
 - Install traffic calming devices

2.2 Concern 2 – Pedestrian Safety

It is important to address pedestrian safety concerns to support active transportation as encouraging walking to nearby amenities, as opposed to driving, reduces traffic volumes.

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:

- Kingsmere Boulevard & Waterbury Road - pedestrian crossing at this location is difficult. It is not clearly visible.
- Emmeline Road (especially near midblock crosswalks):
 - Visibility concerns with crosswalks.
 - Vehicles do not stop to allow pedestrians to safely cross
 - There are still people making U turns in front of the schools
 - Bushes and trees obstruct vehicles from seeing pedestrians
- Kingsmere Boulevard & Lavalee Road - Visibility concerns at the North West corner obstructing vehicles from seeing pedestrians crossing.
- Weyakwin Drive & Taylor Street:
 - Unsafe for pedestrians to cross this intersection
 - Vehicles do not stop for pedestrians

- Weyakwin Drive & Nemeiben Road:
 - Trees makes visibility difficult and unsafe for pedestrians to cross.
 - Vehicles do not stop for pedestrians

Proposed solutions identified by residents:

- Install an active pedestrian corridor
- Install pedestrian actuated signal
- Have the school zone enforced all through the day
- Tree trimming at intersections to enhance visibility
- Restrict parking at intersections to enhance visibility
- Improve visibility of school zone signs
- Install curb extensions
- Install Traffic signal at Weyakwin Drive & Taylor Street with countdown timers for pedestrians

2.3 Concern 3 – Traffic Control

Traffic control signs are used in order to assign the right-of-way. City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, April 26, 2009 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 volumes, collision history, and must have a balanced volume from each leg to operate sufficiently.

Concerns regarding traffic control in the Lakeridge Neighbourhood were identified at the following locations:

- Weyakwin Drive & Nemeiben Road – Long delays in safely making an Westbound left turn and safety concerns
- Weyakwin Drive & Taylor Street – Traffic delays on Weyakwin Drive and safety concerns for pedestrians
- Emmeline Road & Nemeiben Road – Safety concerns and traffic delays on Emmeline Road
- Kingsmere Boulevard & Waterbury Road - Safety concerns

- Emmeline Road & Waterbury Road – Traffic delays and safety concerns
- Swan Crescent & Swan Lane – Safety concern; no right of way to traffic on Swan Crescent
- Brabant Crescent & Brabant Court - no right of way to traffic on Brabant Crescent
- Brabant Crescent & Brabant Terrace - no right of way to traffic on Brabant Crescent
- Brabant Crescent & Brabant Place - no right of way to traffic on Brabant Crescent
- Kingsmere Boulevard & Brightwater Crescent – Yield sign should be changed to a stop sign

Proposed solutions identified by residents:

- Weyakwin Drive & Nemeiben Road – Make the intersection a 3 – way stop
- Weyakwin Drive & Taylor Street – Install full traffic signals
- Emmeline Road & Nemeiben Road – Make the intersection a 3 – way stop
- Kingsmere Boulevard & Waterbury Road – Install a 4 – way stop
- Emmeline Road & Waterbury Road – Install a 3 – way stop
- Swan Crescent & Swan Lane – Install a yield or stop sign on Swan Lane
- Brabant Crescent & Brabant Court – Install a yield or stop sign on Brabant Court
- Brabant Crescent & Brabant Terrace – Install a yield or stop sign on Brabant Terrace
- Brabant Crescent & Brabant Place – Install a yield or stop sign on Brabant Place
- Kingsmere Boulevard & Brightwater Crescent – Stop sign should be installed on Brightwater Crescent
- Stop & Yield Retrofit Program:
 - Install yield signs to assign right of way to busier roads
 - Replace some yield signs with stop signs because people do not obey the yield signs

2.4 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 or back lane.

Neighbourhood concerns regarding parking were at the following locations:

- Emmeline Road & Waterbury Road – Parking too close to the intersection makes the intersection unsafe
- Weyakwin Drive & Nemeiben Road - Bushes and Parking obstructs sightlines (blind corner)
- Emmeline Road & Nemeiben Road – Southwest corner of the intersection is unsafe. Parked vehicles restrict visibility for turning vehicles
- Swan Crescent & Emmeline Road – Parking on crosswalks; Parking in a no stopping area

- Kingsmere Boulevard & Lavalee Road – Stop sign should be installed on Brightwater Crescent

Proposed solutions identified by residents:

- Emmeline Road & Waterbury Road – Install a “No Parking” sign at the intersection especially at the southeast corner and police enforcement.
- Weyakwin Drive & Nemeiben Road - Install a “No Parking” sign at the intersection
- Emmeline Road & Nemeiben Road – Install a “No Parking” sign at the intersection especially at the Southwest corner.
- Swan Crescent & Emmeline Road – Install a “No Parking” sign at the crosswalks and “no stopping area”. Also install a “No Parking” sign at the intersection.
- Kingsmere Boulevard & Lavalee Road – Install a “No Parking” sign about 15 meters to 20 meters away from the intersection.

2.5 Concern 5 – Major Intersections & Corridors

Major intersections include roadways with higher traffic volumes (i.e. arterials, collectors) or intersections with an existing traffic signal.

Neighbourhood concerns regarding major intersections were at the following locations:

- Taylor Street & Weyakwin Drive:
 - A very dangerous intersection; very unsafe
 - Too long delays for traffic on Weyakwin Drive
 - Unsafe for pedestrians to cross Taylor Street
- Boychuk Drive & Kingsmere Boulevard - Westbound left turning vehicles makes it difficult for eastbound traffic from Kingsmere Boulevard to find gaps to safely make a right turn

Proposed solutions identified by residents:

- Taylor Street & Weyakwin Drive - Install a traffic signal with countdown timers for pedestrians
- Boychuk Drive & Kingsmere Boulevard - Enforcement needed to make sure people adhere to traffic controls

3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

3.1 Methodology

Stage 2 of the neighbourhood traffic review included developing a draft Traffic Plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic studies 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:
 - Daily and weekly traffic counts
 - Speed measurements
 - Intersection turning movement counts
 - Pedestrian counts
 - Site observations
 - Collision analysis
- 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 judgment.

The following sections provide details on the data collected for traffic volume and speed assessments, traffic control assessments, pedestrian crossing assessments, traffic signal assessments and collision analysis. A map of the traffic data collection is shown in **Appendix B**.

3.2 Traffic Volume and Speed Assessments

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 Lakeridge Village neighbourhood is 50kph, except for school zones where the speed limit will be 30kph from September and June, Monday to Friday, 8:00am to 5:00pm.

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 (2016)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
Franklin Place	Franklin Crescent & Franklin Crescent	Local	17	35
Franklin Crescent	Brudell Road & Brudell Road		82	30
Brabant Crescent	Nemeiben Road & Waterbury Road		320	49
Emmeline Road	Lavalee Road & Waterbury Road		630	42
Brudell Road	Taylor Street & Nemeiben Road		1050	52
Waterbury Road	Kingsmere Boulevard & Nemeiben Road	Collector	800	44
Nemeiben Road	Weyakwin Drive & Boychuk Drive		1550	63
Kingsmere Boulevard	Weyakwin Drive & Boychuk Drive		3500	55
Weyakwin Drive	Kingsmere Boulevard & Taylor Street		2650	55

3.3 Traffic Control Assessments

Yield, stop, and all-way stop controls need to meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009.

Turning movement counts were completed to determine the need for an all-way (i.e. three-way or four-way) stop control. Criteria outlined in Council Policy C07-007 that may warrant an all-way stop include:

- A peak hour count greater than 600 vehicles;
- an ADT greater than 6,000 vehicles per day; or
- 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.

Further conditions that must be met for an all-way stop to be warranted are:

1. Traffic entering the intersection from the minor street must be at least 35% for a four-way stop and 25% for a three-way stop.
2. No other all-way stop or traffic signals within 200 m.

Results of the studies are shown in **Table 3-3**.

Table 3-3: All-Way Stop Warrant Criteria

Location	Criteria 1: Peak Hour Count (greater than 600)	Criteria 2: Average Daily Traffic (greater than 6,000vpd)	Criteria 3: Collisions within most recent 12 months (5 or more)	Results
Kingsmere Boulevard & Waterbury Road	425 (no)	4670 (no)	1 (no)	All-Way Stop Not Warranted
Nemeiben Road & Emmeline Road	276 (no)	2,870 (no)	0 (no)	All-Way Stop Not Warranted
Weyakwin Drive & Nemeiben Road	449 (no)	4,610 (no)	0 (no)	All-Way Stop Not Warranted

Provided one of the above criteria are met, continue to Step 2 to check the condition requirements.

3.4 Pedestrian Assessments

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

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

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

A standard pedestrian crosswalk or a zebra crosswalk (i.e. striped) may be considered when a signalized crosswalk is not warranted. In this neighbourhood, no pedestrian assessments were conducted.

3.5 Traffic Signal Assessments

Assessments are conducted to determine the need for traffic signals, in adherence to the Traffic Signal and Pedestrian Signal Head Warrant Handbook. A warrant system assigns points for a variety of conditions including:

- Number of traffic lanes;
- posted speed limit of the street;
- distance to the nearest traffic signal; and
- number of pedestrians and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am to 9:00am, 11:30am to 1:30pm, and 4:00pm to 6:00pm.

If a traffic signal is not warranted, additional measures to improve safety (i.e. parking restrictions, oversized stop signs) may be considered. In this neighbourhood, no traffic signal assessments were conducted.

3.6 Collision Analysis

The most recently available five year collision data (2011 to 2015) was provided by SGI. High-collision locations, typically noted as the locations with an average of two or more collisions per year, were reviewed in more depth to identify trends and possible improvements. Locations with two or more collisions per year are:

- Nemeiben Road & Weyakwin Drive
- Taylor Street & Weyakwin Drive
- Emmeline Road & Nemeiben Road

Details of the collision analysis are provided in **Appendix C**.

4 STAGE 3: PRESENTATION OF TRAFFIC PLAN

4.1 Methodology

Stage 3 of the neighbourhood traffic 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 Plan, including the location, recommended improvement, and the justification of the recommended improvement.

4.2 Speeding and Shortcutting

As stated in Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009, “stop signs are not to be used as speed control devices.”

The recommended improvements to address speeding and shortcutting are detailed in **Table 4-1**.

Table 4-1: Recommended Improvements – Speeding and Shortcutting

Location	Recommended Improvement	Justification
Emmeline Road & Swan Crescent (west)	Install a median island	Reduce speed and enhance visibility
Emmeline Road (at midblock crosswalk)	Install a median island; make temporary calming permanent	Reduce speed and enhance visibility
Nemeiben Road & Brudell Road	Install a median island at the east side of the intersection on Nemeiben Road; Add temporary curb extensions on the northeast & southeast corners.	Reduce speed and improve safety
Nemeiben Road & Smoothstone Crescent (east)	Install a median island at the east side of the intersection on Nemeiben Road; add temporary curb extensions on the northeast & southeast corners; replace yield sign with a stop sign.	Reduce speed and improve safety
Brudell Road & Franklin Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speed and improve safety
Brudell Road & Keller Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speed and improve safety
Nemeiben Road - 35m east of Emmeline Road	Temporary speed display board facing westbound traffic	Reduce speed

4.3 Pedestrian Safety

The recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Improvements - Pedestrian Safety

Location	Recommended Improvement	Justification
Emmeline Road & Nemeiben Road	Replace yield sign with a stop sign; Install "No Parking" signs 15m from the intersection on the southwest and southeast corners; tree trimming on the southwest corner.	Enhance visibility and Improve pedestrian safety to cross Nemeiben Road
Nemeiben Road & Waterbury Road	Install a median island with enhanced stop sign.	Enhance visibility of stop sign and improve pedestrian safety

4.4 Intersection Safety

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 Improvements – Intersection Safety

Location	Recommended Improvement	Justification
All intersecting streets on Nemeiben Road, Waterbury road and Kingsmere Blvd.	Change all yield signs to stop signs (15 in total)	Improve safety on bus route
Taylor Street & Weyakwin Drive	Major Intersection Improvement; recent improvements	Improve delays; enhance safety
Kingsmere Boulevard & Waterbury Road	Install a 4 way stop at the intersection	Enhance visibility and safety
Waterbury Road & Jan Crescent	Tree trimming at the southwest corner	Enhance visibility and safety
Brudell Road & Keller Crescent	Tree trimming at the southeast corner	Enhance visibility and safety
Swan Lane	Install Yield Signs on Swan Lane	To assign right of way to traffic on Swan Crescent
Nemeiben Road & Smoothstone Crescent (west)	Replace yield sign with a stop sign.	Improve safety
Nemeiben Road & Anglin Place	Replace yield sign with a stop sign.	Improve safety
Nemeiben Road & Brabant Crescent	Replace yield sign with a stop sign.	Improve safety

4.5 Parking

The recommended improvements to parking that will improve the level of safety are provided in **Table 4-4**.

Table 4-4: Recommended Improvements – Parking

Location	Recommended Improvement	Justification
Kingsmere Boulevard & Brightwater Cres	Change yield sign to stop sign; "No Parking" sign 10m from the intersection; make temporary calming permanent	Improve visibility and safety
Emmeline Road & Waterbury Road	Install "No Parking" signs 10m from the intersection; tree trimming on the southeast corner.	Improve visibility and safety
Emmeline Road & Swan Crescent (east)	Install "No Parking" signs on Emmeline road 10m from the intersection on the southwest and southeast corners; "No Parking" sign on Emmeline road (at the crosswalk on the north side between the disabled persons loading zone and the 5min parking).	Enhance visibility
Weyakwin Drive & Nemeiben Road	Install "No Parking" signs on Weyakwin Drive 10m from the intersection on the southwest and northeast corners; Tree trimming on the southwest and northeast corners.	Enhance visibility and sightlines

4.6 Follow Up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting in November 2016. Meeting minutes are provided in **Appendix D**. Recommended improvements that were not supported were eliminated or altered accordingly.

A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix E**. Additional issues raised during the follow-up meeting were assessed and outlined in **Appendix F**. Recommendations were added to the list of improvements if necessary.

The revised list of recommendations was then circulated to the civic divisions (including Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Environmental Services, Parking Services, Roadways & Operations and Transit) to gather comments and concerns. General support was received.

5 STAGE 4: IMPLEMENTATION

Stage 4, the final stage of the Neighbourhood Traffic Review, is to install the recommended improvements within the specified time frame. The time frame depends upon the complexity and cost of the solution. A short-term time frame is defined by implementing the improvements within short-term (1 to 2 years); medium-term (3 to 5 years); and long-term (5 years plus).

The placement of signs, pavement markings and temporary traffic calming will be completed short-term (1 to 2 years). Most often the installations take place in spring / summer of the following year. Therefore installations for Lakeridge are likely to take place in spring / summer 2017.

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

- **Table 5-1:** Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate
- **Table 5-2:** Speed Enforcement & Speed Display Boards Cost Estimate
- **Table 5-3:** Permanent Traffic Calming Cost Estimate
- **Table 5-4:** Total Cost Estimate

Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Timeframe
Kingsmere Boulevard & Brightwater Cres	No Parking signs (2)	\$500	1 to 2 years
	Stop sign (1)	\$250	
Kingsmere Boulevard & Waterbury Road	Stop signs (6)	\$1500	
	Median islands (2)	\$1000	
Emmeline Road & Waterbury Road	No Parking signs (2)	\$500	
Emmeline Road & Swan Crescent (east)	No Parking signs (3)	\$750	
Emmeline Road & Nemeiben Road	No Parking signs (2)	\$500	
	Stop sign (1)	\$250	
Emmeline Road & Swan Crescent (west)	Median island (1)	\$500	
Emmeline Road (at midblock crosswalk)	Median island (1)	\$500	
Nemeiben Road & Brudell Road	Median island (1)	\$500	
	Curb extensions (2)	\$1000	
Nemeiben Road & Brabant Crescent	Stop sign (1)	\$250	
Swan Lane	Yield signs (2)	\$500	
Nemeiben Road & Anglin Place	Stop sign (1)	\$250	
Nemeiben Road & Smoothstone Crescent (east)	Median island (1)	\$500	
	Curb extensions (2)	\$1000	
	Stop sign (1)	\$250	
Nemeiben Road & Waterbury Road	Median islands (2)	\$1000	
	Stop signs (2)	\$500	
Nemeiben Road & Smoothstone Crescent (west)	Stop sign (1)	\$250	
Waterbury Road & Jan Crescent	Tree Trimming	\$250	
Weyakwin Drive & Nemeiben Road	No Parking signs (2)	\$500	
	Tree Trimming	\$250	
Brudell Road & Franklin Crescent	Median island (1)	\$500	
	Curb extensions (2)	\$1000	
	Stop sign (1)	\$250	
Brudell Road & Keller Crescent	Tree Trimming	\$250	
All intersecting streets on Nemeiben Road, Waterbury Road and Kingsmere Boulevard	No Parking signs (15)	\$3750	
Total		\$19,000	

Table 5-2: Speed Enforcement & Speed Display Boards Cost Estimate

Location	Device	Cost Estimate	Time Frame
Nemeiben Road – east of Emmeline Road	Temporary speed display board; Saskatoon Police Service enforcement	\$0 (funded through Speed Program) \$0 (provided by Saskatoon Police Service)	1 to 2 years
Kingsmere Boulevard	Saskatoon Police Service enforcement	\$0 (provided by Saskatoon Police Service)	
Total		\$0	

Table 5-3: Permanent Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Kingsmere Boulevard & Brightwater Crescent	Curb extension (1)	\$45,000	3 to 5 years
Emmeline Road (at midblock crosswalk)	Curb extension (1)	\$45,000	
Total		\$90,000	

Table 5-4: Total Cost Estimate

Category	Time Frame	
	Short-Term (1 to 2 years)	Medium-Term (3 to 5 years)
Signs, Pavement Markings & Temporary Traffic Calming	\$19,000	NA
Speed Enforcement & Temporary Speed Display Boards	\$0	NA
Pedestrian Safety Devices	NA	NA
Permanent Traffic Calming	NA	\$90,000
Total	\$19,000	\$90,000

The total cost estimate for short-term improvements (signs, pavement markings and temporary traffic calming) is **\$19,000**. The total cost estimate for long-term improvements (permanent traffic calming and pedestrian safety devices) is **\$90,000**.

Resulting from the Neighbourhood Traffic Review is a list of recommended improvements, including the location and justification as summarized in **Table 5-5**.

The resulting recommended Lakeridge Neighbourhood Traffic Plan is illustrated in **Exhibit 5-1**.

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Table 5-5: Lakeridge Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	Kingsmere Boulevard & Brightwater Cres	Change yield sign to stop sign; "No Parking" sign 10m from the intersection; make temporary calming permanent	Improve Safety
2	Kingsmere Boulevard & Waterbury Road	Install a 4 way stop at the intersection	Improve visibility and safety
3	Emmeline Road & Waterbury Road	Install "No Parking" signs 10m from the intersection; tree trimming on the southeast corner	Improve visibility and safety
4	Emmeline Road & Swan Crescent (west)	Install a median island	Enhance visibility and reduce speeding
5	Emmeline Road (at midblock crosswalk)	Install a median island; make temporary calming permanent	Enhance visibility and reduce speeding
6	Emmeline Road & Swan Crescent (east)	Install "No Parking" signs on Emmeline road 10m from the intersection on the southwest and southeast corners; "No Parking" sign on Emmeline road (at the crosswalk on the north side between the disabled persons loading zone and the 5min parking)	Enhance visibility
7	Emmeline Road & Nemeiben Road	Replace yield sign with a stop sign; Install "No Parking" signs 15m from the intersection on the southwest and southeast corners; tree trimming on the southwest corner	Enhance visibility and improve safety
8	Nemeiben Road & Brudell Road	Install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners	Reduce speeding and improve safety
9	Nemeiben Road & Brabant Crescent	Replace yield sign with a stop sign	Improve safety
10	Nemeiben Road & Anglin Place	Replace yield sign with a stop sign	Improve safety
11	Nemeiben Road & Smoothstone Crescent (east)	Install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners; replace yield sign with a stop sign	Reduce speeding and improve safety
12	Nemeiben Road & Waterbury Road	Install a median island with enhanced stop sign	Enhance visibility of stop sign and improve pedestrian safety

Table 5-5 Continued

Item	Location	Recommendation	Reason
13	Nemeiben Road & Smoothstone Crescent (west)	Replace yield sign with a stop sign	Improve safety
14	Waterbury Road & Jan Crescent	Tree trimming at the southwest corner	Enhance visibility
15	Weyakwin Drive & Nemeiben Road	Install "No Parking" signs on Weyakwin Drive 10m from the intersection on the southwest and northeast corners; Tree trimming on the southwest and northeast corners	Enhance visibility and sightlines
16	Taylor Street & Weyakwin Drive	Major Intersection Improvement; recent improvements	Improve delays; enhance safety
17	Brudell Road & Franklin Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign	Reduce speeding and improve safety
18	Brudell Road & Keller Crescent	Install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speeding and improve safety
19	Brudell Road & Keller Crescent	Tree trimming at the southeast corner	Enhance visibility
20	Swan Lane	Install yield signs on Swan Lane	To assign right of way to Traffic on Swan Crescent
21	All intersecting streets on Nemeiben Road, Waterbury road and Kingsmere Blvd	Change all yield signs to stop signs (15 signs total)	Improve safety on bus route
22	Nemeiben Road - 35m east of Emmeline Road	Temporary speed display board facing westbound traffic	Reduce speed



LEGEND

- PROPOSED STOP SIGN
- EXISTING STOP SIGN
- ▲ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- EXISTING SCHOOL ZONE
- ⚡ EXISTING TRAFFIC SIGNAL

LAKERIDGE TRAFFIC PLAN

APPENDIX A: PUBLIC MEETING #1 – MAY 26, 2016 MINUTES

Lakeridge Neighbourhood Traffic Review
Thursday, May 26, 2016, 7:00 PM – 9:00 PM
Lakeridge School Gymnasium

Agenda

1. Welcome & Introductions
2. Presentation from Transportation Division
3. Small Group Discussions & Report Back to Large Group
4. Next Steps
5. Large Group Discussion – Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Lakeridge Neighbourhood Traffic Review

(Presented by Lanre Akindipe, P.Eng, Transportation Engineer)

Presentation Outline

- Neighbourhood Traffic Review Process
- Lakeridge Review Schedule
- Sources of Information
- Past Concerns Received
- Description of Traffic Calming & Pedestrian Safety Devices
- Corridor Reviews & Major Intersection Reviews

Neighbourhood Traffic Review Process

- August 2013 – New process
- Mandate – Reduce and calm traffic, and improve safety within neighbourhoods
- 2014 – Reviewed 11 neighbourhoods
- 2015 – Reviewed 8 neighbourhoods
- 2016 – Sutherland, Willowgrove, Stonebridge, Hampton Village, Grosvenor Park, Parkridge, Silverspring, Lakeridge

Lakeridge Review Schedule

- Stage 1 – Identify issues & possible solutions through community consultation (May to Fall 2016)
- Stage 2 – Develop a draft traffic plan
- Stage 3 – Present draft traffic plan to community for feedback (Fall 2016)
- Stage 4 – Implement changes over time (Beginning Spring 2017)

Sources of Information

- Past studies
- Collision Analysis
- Feedback from public consultation
- Traffic Counts & Assessments

Past Concerns Received

- Speeding and Pedestrian Safety – Weyakwin Drive, Brudell Road, Emmeline Road, Kingsmere Blvd, Waterbury Road, Intersection of Weyakwin Drive and Taylor Street.
- Safety & Visibility Concerns – Emmeline Road & Emmeline Terrace
- School Safety Concerns

Traffic Calming Devices

- Speed Display Board
- Curb Extension
- Raised Median Island
- Roundabout
- Diverter
- Right-In/Right-Out Island
- Directional Closure
- Raised Median Through Intersection
- Full Closure
- Pedestrian Devices
- Standard Crosswalk
- Zebra Crosswalk
- Active Pedestrian Corridor
- Pedestrian Actuated Signal

Corridor Reviews & Major Intersection Reviews

- Created to address issues at intersections along arterial streets as Neighbourhood Traffic Reviews addresses local and collector streets within neighbourhoods
- Recommendations will be identified and projects will be prioritized for funding approval
- Report will be presented to City Council

3. Small Group Discussions

Residents were divided into small groups to discuss traffic concerns in Sutherland and potential solutions

Group 1: Mariniel Flores (City Facilitator)

- Emmeline Road near midblock crosswalk:
 - Speeding and pedestrian safety issues (including school buses). Vehicles don't stop to allow pedestrians to cross and U-turns in the school zones.
 - Bushes are obstructing pedestrians

Recommendations

- Speed and Traffic volume studies are needed.
 - Suggesting an active pedestrian corridors
 - Having the school zone active 24 – 7.
- Weyakwin Drive and Nemeiben Road:
 - Bushes obstructing sightlines (blind corner)

Recommendations

- Parking restrictions on south east side.
- 3 Way stop suggested (only single stop right now).
- Emmeline Road and Nemeiben Road:
 - Sightline issues
 - Speeding issues

Recommendations

- Trees / Bushes need to be trimmed.
- 40km/hr in all residentials
- Maybe photo enforcement on Emmeline Road (expand program to include Emmeline road)
- Weyakwin Drive and Taylor Street:
 - Northbound have to creep out to see oncoming traffic (can't see up the hill; obstruction; visibility issues)
 - Cars don't stop for pedestrians
 - More traffic since Rosewood developed

Recommendations

- Speed signs, Full traffic signals, speed display boards or APS
- Restructure road not 4 – way stop.
- Kingsmere Boulevard:
 - Speeding (100km/h)

Recommendation

- Enforcement needed (7:30am – 8:30am) and (4pm – 6pm)

Group 2: Shirley Matt (City Facilitator)

- Weyakwin Drive and Taylor Street
 - Difficult to cross for Pedestrians.
 - Very Busy on Weyakwin Road during the peak AM and PM hours
 - Very difficult to make a left turn from Weyakwin Road to Taylor Street.

Recommendations

- Pedestrian actuated signal.
- Traffic signals.
- Emmeline Road and Nemeiben Road:
 - Lots of buses uses this intersection (school buses)
 - Speeding issues – Drivers take corner too fast
 - Southwest corner of this intersection is unsafe. Vehicles restrict visibility for turning vehicles.

Recommendations

- 3 Way Stop
- Speed bumps on Nemeiben Road (between Waterbury and Boychuk)

- Weyakwin Drive and Nemeiben Road:
 - The curve on Weyakwin makes it difficult to see when making a left turn.(blind corner)

Recommendation

- Parking restrictions

- Kingsmere Boulevard:
 - Speeding

Recommendation

- None

Group 3: Justine Nyen (City Facilitator)

- Speeding on Taylor Street
 - Police enforcement is not necessary
 - Drivers don't know that the speed limit is 50km/hr

Recommendations

- Education – people need to be educated more
- Install 50kph in both directions.

- Kingsmere Boulevard and Lavalae road
 - Pedestrian safety concerns – sight obstruction at the NW corner
 - Yield sign on Brightwater Crescent should be a stop sign
- Swan Crescent and Emmeline road
 - Parking in crosswalk
 - Parking in a no stopping area
 - Lots of illegal U turns
 - Speeding on Emmeline road especially during the summer months when schools are out of session
- Brabant Crescent
 - Speeding
- Boychuk Drive
 - Snow removal along Boychuk Drive
 - Moving the snow to a non school side and not unto sidewalk. It narrows the road to one.

Recommendation

- Pile the snow to the eastside in the parking lane and not sidewalk

- Taylor Street
 - Speeding
 - Noise – soundwall???
 - Too wide a street

- Keller Crescent and Brudell Road
 - Remove the island and make turn sharper
- Brudell Road
 - Speeding
 - High volume of traffic during the peak hours
- Franklin Place
 - Speeding

Recommendation

- Curb extension?
- Median islands?

4. Next Steps

(Presented by Mitch Riabko, Facilitator)

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than June 24, 2016
3. Additional public input via City on-line Community Engagement webpage no later than June 24, 2016 at <http://shapingsaskatoon.ca/discussions/lakeridge-neighbourhood-traffic-review>
4. Traffic & pedestrian data collection, analysis
5. Develop recommendations and prepare draft Traffic Plan
6. Follow-up public input meeting to provide input on draft Traffic Plan
7. Determine revisions and finalize Traffic Plan
8. Present Traffic Plan to City Council for approval

5. Large Group Discussion – Questions & Answers

Question/Comment 1:

- Resident: How does the City determine the type of traffic control used at an intersection?
- City: We typically do a study which includes collecting traffic and pedestrian counts. A warrant system is the used to determine the need for a traffic control. A final decision of the control is based on factors which includes, warrant points, safety and engineering judgement based of field observation.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Shirley Matt – City of Saskatoon, Transportation & Utilities, Senior Transportation Engineer
- Yang Li – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Justin Nyen – City of Saskatoon, Transportation & Utilities, Transportation Engineer

APPENDIX B: TRAFFIC DATA COLLECTION



LAKERIDGE TRAFFIC DATA

APPENDIX C: COLLISION ANALYSIS

Street 1	Street 2	Ugrid	All Collisions (2011 - 2015)	All Collisions (2015)	Right Angle, Left turn & Right turn only (2011 - 2015)	Right Angle, Left turn & Right turn only (2015)	Average # of Collisions (2011 - 2015)
Weyakwin Drive	Taylor Street	SKO11-2	21	1	15	0	4
Nemeiben Road	Weyakwin Drive	SKO12-11	4	0	3	0	1
Emmeline Road	Waterbury Road	SKO12-16	5	1	1	0	1
Emmeline Road	Nemeiben Road	SKP12-9	1	0	1	0	0

APPENDIX D: PUBLIC MEETING #2 – NOVEMBER 17, 2016 MINUTES

Lakeridge Neighbourhood Traffic Review Follow – Up Meeting
Thursday, November 17, 2016, 7:00 PM – 9:00 PM
Lakeridge School Library

Agenda

1. Welcome & Introductions
2. Traffic Management Presentation from Transportation Division
3. Small Group Discussions & Report Back to Large Group
4. Next Steps
5. Large Group Discussion – Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Lakeridge Neighbourhood Traffic Review

(Presented by Lanre Akindipe, P.Eng, Transportation Engineer)

Presentation Outline

- Neighbourhood Traffic Management Program
- How We Got Here
- What We Heard
- What We Did
- What We Propose

Neighbourhood Traffic Management Program

- Address neighbourhood traffic issues:
 - Speeding concerns
 - Short-cutting concerns
 - Pedestrian safety
 - Intersection safety

How We Got Here

- May 2016 – Initial Traffic Meeting
- May to November 2016 – gather feedback, conduct traffic studies, collect data, develop traffic plan
- November 2016 – Follow Up Traffic Meeting - display proposed traffic plan and gather feedback

What We Heard

- A. Speeding / High Traffic Volume Concerns:
 - Kingsmere Boulevard
 - Taylor Street
 - Nemeiben Road
 - Emmeline Road
 - Brudell Road

- Brabant Crescent
- Franklin Place / Crescent

B. Pedestrian Safety:

- Kingsmere Blvd & Lavalae Road
- Emmeline Road especially near mid-block crosswalk
- Taylor St & Weyakwin Dr

C. Intersection Safety:

- Taylor St & Weyakwin Dr
- Nemeiben Road & Emmeline Road
- Weyakwin Dr & Nemeiben Road
- Waterbury Road & Emmeline Road
- Kingsmere Blvd & Waterbury Road
- Kingsmere Blvd & Lavalae Road
- Emmeline Road & Swan Crescent

D. Parking:

- Emmeline Road & Swan Crescent
- Weyakwin Dr & Nemeiben Road
- Nemeiben Road & Emmeline Road

E. Other Issues:

- Snow removal
- Trees blocking signs & intersection
- Noise on Taylor Street
- School zone speed

What We Did

- Compiled Information received:
 - Past Studies
 - Comments from initial meeting
 - Resident responses (phone calls, emails, letters)
 - Comments from Shaping Saskatoon discussions
- Collected Data:
 - Traffic Studies
 - 4 Intersection / Pedestrian counts
 - 9 – 7 day traffic count (24 hour) & Average Speed measurements
 - ADT studies
 - Collision history
- Site visits / Field Reviews
- Assessed the issues
- Generated proposed recommendations

What We Propose

- 4 - way stop - 1 location
- Traffic calming – 7 locations
- Parking restrictions – 5 locations
- Stop signs (intersecting streets on Kingsmere Blvd, Nemeiben Road and Waterbury Road)
- Speed display board

Traffic Calming Devices

- Speed Display Board
- Curb Extension
- Raised Median Island

3. Small Group Discussions

Residents were divided into small groups to discuss traffic concerns in Lakeridge and potential solutions

Group 1: Mariniel Flores (City Facilitator)

- Mostly in favour of Recommendation

Comments:

- Extend recommendation #1 to about 15m – 25m of parking restriction
- Consider a 3 way stop for recommendation #3
- Curb extension preferred for recommendation #4
- In addition to recommendation #5, add reflective yellow paint on edge
- For recommendation #16, traffic usually back up near Weyakwin Dr at about 7:30a.m. requires grade separation or traffic signal.

Other Comments:

- No more curvy streets (e.g Weyakwin Dr near Nemeiben road)
- Curb extensions are generally preferred to median islands
- Really like the replacement of yield signs to stop signs
- At Boychuk Dr & Kingsmere Blvd, rosewood is growing and Westbound left turns makes it difficult for eastbound right turns to find gaps. Enforcement needed.
- Taylor Street 7 Weyakwin Drive is very icy during winter months, requires sanding.
- Sanding is also required at most crescents during winter months. To be forwarded to maintenance group.

Group 2: Yang Li (City Facilitator)

- Recommendation mostly accepted

Comments:

- Recommendation #3 – need parking space for school loading and unloading
- Recommendation #4 and #5 – will it be too narrow for buses?
- Not in favour of recommendation #11 – too many island or curb extension on Nemeiben road

- Recommendation #16 – install 4 way stop or traffic signals
- Recommendation #17 and #18 – bad winter condition, island or curb will make road worse. Clear snow more often if going with this recommendation.

Other Comments:

- Change School zone hours to 24 hours
- Install signs to remind westbound left turning traffic on Rosewood Blvd and Slimmon road to stay on left
- Install no u-turn sign in school zones.

Group 3: Lanre Akindipe (City Facilitator)

- Mostly in favour of Recommendation

Comments:

- Speed boards should be positioned facing eastbound traffic on Nemeiben road.
- There is a lot of speeding on Emmeline road (between Lavalee road and Nemeiben road)
- Recommendation #17 & #18 should be moved further north
- Pedestrian safety concerns at Weyakwin Dr 7 Nemeiben Road
- Stop signs needed at Swan lane
- Stop signs needed at Brabant crescent / court / terrace.
- Curb extension is needed for recommendation #17
- Taylor Street & Weyakwin Drive is very dangerous

Other Comments:

- Speeding on Boychuk Drive should be addressed.
- Snow clearing during winter especially with the recommended curb extensions.

4. Next Steps

(Presented by Lanre Akindipe, City of Saskatoon)

1. Send comments no later than **December 17, 2016**
2. Additional public input via Shaping Saskatoon no later than **December 17, 2016**
<http://shapingsaskatoon.ca/discussions/lakeridge-neighbourhood-traffic-review>
3. Additional consultation if required
4. Present traffic plan to City Council for approval
5. What happens after City Council approval?
6. What if I don't agree?

5. Large Group Discussion – Questions & Answers

Comments

- Keep left turning traffic coming out of Rosewood to their lanes so they don't make it difficult for eastbound right turn traffic to make their movement.
- There should be a one way in front of schools on Emmeline road. Parents should be talked to use one way and make a right turn at Emmeline road and Lavalee road.

Question / Answer

Question: When will the interchange at Boychuk and Highway 16 be built? There is a need for two turning lanes from Hwy 16 to Boychuk

Answer: Interchange work starts in the spring of 2017. Consultant for the work should be hired soon.

Question: When will Zimmerman road be opened to Costco?

Answer: we will get back to you with this information. It will be posted on shaping Saskatoon discussion forum.

Follow-up answer - Zimmerman Road from Highway 16 to Market Drive is now open. However, the segment of Zimmerman Road from Market Drive / Rosewood Blvd. to Meadows Blvd. is currently closed. This closed section is expected to be opened in early to mid-December.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Yang Li – City of Saskatoon, Transportation & Utilities, Transportation Engineer

APPENDIX E: DECISION MATRIX

APPENDIX E - DECISION MATRIX

Item	Location	Recommendation	Reason	Group 1: Mariniel Flores	Group 2: Yang Li	Group 3: Lanre Akindipe	Decision
1	Kingsmere Boulevard & Brightwater Cres	Change yield sign to stop sign; "No Parking" sign 10m from the intersection; make temporary bulbing permanent	Improve Safety	support recommendation			Carried
2	Kingsmere Boulevard & Waterbury Road	Install a 4 way stop at the intersection	Improve the efficiency of traffic movement	support recommendation	Support recommendation	Support recommendation	A four way stop is not warranted at this intersection but it is recommended to enhance efficiency
3	Emmeline Road & Waterbury Road	Install "No Parking" signs 10m from the intersection; tree trimming on the southeast corner.	Improve visibilty and safety	Consider a 3 -way stop	Need parking spaces for school loading and unloading		Carried
4	Emmeline Road & Swan Crescent (west)	Install a median island	Enhance visibilty and reduce speeding	A curb extension will be preferred	Support recommendation but consideration should be given to school buses when installing the median island.		A median island is recommended to narrow the road width to reduce speeding and also provide a safe refuge for pedestrians crossing
5	Emmeline Road (at midblock crosswalk)	install a median island; make temporary bulbing permanent	Enhance visibilty and reduce speeding	In addition to this recommendation, add reflective yellow paint on the edges	Support recommendation but consideration should be given to school buses when installing the median island.		Buses will be put into consideration during the design of the median islands. This will also be monitored after the tempoarary installation.
6	Emmeline Road & Swan Crescent (east)	Install "No Parking" signs on Emmeline road 10m from the intersection on the southwest and southeast corners; "No Parking" sign on Emmeline road (at the crosswalk on the north side between the disabled persons loading zone and the 5min parking).	Enhance visibilty				Carried

7	Emmeline Road & Nemeiben Road	Replace yield sign with a stop sign; Install "No Parking" signs 15m from the intersection on the southwest and southeast corners; tree trimming on the southwest corner.	Enhance visibility and improve safety				Carried
8	Nemeiben Road & Brudell Road	install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners.	Reduce speeding and improve safety				Carried
9	Nemeiben Road & Brabant Crescent	Replace yield sign with a stop sign.	Improve safety				Carried
10	Nemeiben Road & Anglin Place	Replace yield sign with a stop sign.	Improve safety				Carried
11	Nemeiben Road & Smoothstone Crescent (east)	install a median island at the east side of the intersection on Nemeiben road; Add temporary curb extensions on the northeast & southeast corners; replace yield sign with a stop sign.	Reduce speeding and improve safety		Not in favour. Too many islands or curbextension on Nemeiben Road		The speed results on Nemeiben Road was the highest in this neighbourhood and thus the additional traffic calming measures to help reduce speeding.
12	Nemeiben Road & Waterbury Road	Install a median island with enhanced stop sign.	Enhance visibility of stop sign and improve pedestrian safety				Carried
13	Nemeiben Road & Smoothstone Crescent (west)	Replace yield sign with a stop sign.	Improve safety				Carried
14	Waterbury Road & Jan Crescent	Tree trimming at the southwest corner	Enhance visibility				Carried
15	Weyakwin Drive & Nemeiben Road	Install "No Parking" signs on Weyakwin Drive 10m from the intersection on the southwest and northeast corners; Tree trimming on the southwest and northeast corners.	Enhance visibility and sightlines				Carried

16	Taylor Street & Weyakwin Drive	Major Intersection Improvement; recent improvements	Improve delays; enhance safety	Requires grade separation or a traffic signal	Install a four way stop or traffic signal		This is an intersection out of the scope of this project but it will be included as part of the major intersection improvement program
17	Brudell Road & Franklin Crescent	install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speeding and improve safety		Winter conditions may make road worse. It will be beneficial if snow is cleared more often if these islands are installed.	This recommendation is supported but it should be moved further north. Curb extension is also needed.	The location was selected due to a lot of pedestrian activities
18	Brudell Road & Franklin Crescent	install a median island at the south side of the intersection on Brudell road; Add temporary curb extensions on the southwest & southeast corners; replace yield sign with a stop sign.	Reduce speeding and improve safety		Winter conditions may make road worse. It will be beneficial if snow is cleared more often if these islands are installed.	This recommendation is supported but it should be moved further north	The location was selected due to a lot of pedestrian activities
19	Brudell Road & Keller Crescent	Tree trimming at the southeast corner	Enhance visibility				Carried
20	All intersecting streets on Nemeiben Road, Waterbury road and Kingsmere Blvd.	Change all yield signs to stop signs (15 signs total)	improve safety on bus route				Carried
21	Nemeiben Road - 35m east of Emmeline Road	Speed display board facing westbound traffic	Reduce speed			Speed Boards should be positioned facing eastbound traffic on Nemeiben Road	Speed boards are typically not installed where there are obstructions like trees and they are installed at locations where they are visible.

APPENDIX F: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
PLAN

APPENDIX H: ADDITIONAL CONCERNS

Item	Location	Comments	Response	Added to Final Recommendations
1	Emmeline Road (between Lavalee Road and Nemeiben Road)	There is a lot of speeding on Emmeline Road (between Lavalee Road and Nemeiben Road)	This location will be included in the lists of speed studies for 2017	
2	Rosewood	Install signs to remind westbound left turning traffic from Rosewood Boulevard and Slimmon Road to stay on their left lane	This will be forwarded to the Saskatoon Police Service and it will also be included in the Rosewood Neighbourhood Review	
3	Emmeline Road	School zone signs should be in place 24 hours of the day	This is a decision that will be decided by City Council	
4	Brabant Crescent & Nemeiben Road	Install a stop sign at this intersection	It will be included as part of the recommendations	X
5	Swan Lane	Install control signs at Swan lane	It will be included as part of the recommendations	X
6	Boychuk Drive	There are lots of speeding on Boychuk Drive	This will be forwarded to the Saskatoon Police Service	

Parkridge Neighbourhood Traffic Review

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Neighbourhood Traffic Review for the Parkridge 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 (NTR) for the Parkridge neighbourhood.

Report Highlights

A Neighbourhood Traffic Plan for the Parkridge 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 2016 to identify traffic concerns and potential solutions within the Parkridge 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 Plan was developed and presented to the community at a second public meeting held in December 2016.

Report

The development and implementation of the Traffic 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, and make adjustments as needed to 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 during the consultation included speeding and pedestrian safety (specifically on McCormack Road) as well as the lack of access between Parkridge neighbourhood and Blairmore Suburban Centre. During the public meetings, information related to previous City Council decisions regarding access to Blairmore Suburban Centre was shared and reconsidering the provision of access is not included in this report.

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

- Stop signs
- Median islands
- Curb extensions
- Hazard board signs
- Temporary speed display board
- Zebra crosswalk
- Protected left-turn signal
- “No Parking” sign

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, speed display board, traffic signal improvement
Medium-term (3 to 5 years)	Permanent traffic calming devices
Long-term (more than 5 years)	Permanent traffic calming devices

The Parkridge Neighbourhood Traffic Review is included in Attachment 1.

If approved by City Council, all of the temporary traffic calming measures will be installed in 2017. An annual report on the NTRs will provide an update on the status of converting the temporary measures to a permanent condition.

Public and/or Stakeholder Involvement

In April 2016, 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 December 2016. Additional feedback received at the follow-up public meeting was also incorporated into the NTR.

Feedback was provided by internal civic stakeholders of various divisions and departments: Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Parking Services, Roadways & Operations, and Saskatoon Transit on the proposed improvements, which was incorporated into the recommended NTR.

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, has not been quantified at this time.

Financial Implications

The implementation of the Neighbourhood Traffic Plan will have significant financial implications. The costs are summarized in the following table:

Category	2017	Beyond 2017
Signs, Pavement Markings & Temporary Traffic Calming	\$11,000	NA
Temporary Speed Display Board	\$0	NA
Permanent Traffic Calming	NA	\$105,000
Traffic Signal Improvement	\$5,000	NA
TOTALS	\$16,000	\$105,000

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2017, which includes implementation of all signage, pavement markings, and temporary traffic calming measures.

The remainder of the work beyond 2017 includes the construction of permanent traffic calming measures and will be considered alongside all other improvements identified through the NTR Program. The Administration will include in their annual budget submission package 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 2017 construction season.

Public Notice

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

Attachment

1. Parkridge Neighbourhood Traffic Review, February 10, 2017

Report Approval

Written by: Mariniel Flores, Transportation 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 – Parkridge Neighbourhood Traffic Review

PARKRIDGE

2016 Neighbourhood Traffic Reviews

CITY OF SASKATOON

February 10, 2017

Parkridge Neighbourhood Traffic Review

February 10, 2017

Authorization

Prepared By:

*Original stamped
and signed*

Mariniel Flores, P. Eng.
Transportation Engineer

Checked By:

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Transportation Engineering Manager

Acknowledgements

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

- Parkridge residents
- Parkridge Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Planning & Development
- City of Saskatoon Roadways & Operations
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Ann Iwanchuk

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 program involves additional community and stakeholder consultation that provides opportunity for residents and City of Saskatoon (City) staff to work together in developing solutions that address traffic concerns within their neighbourhood. The process is outlined in *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2016.

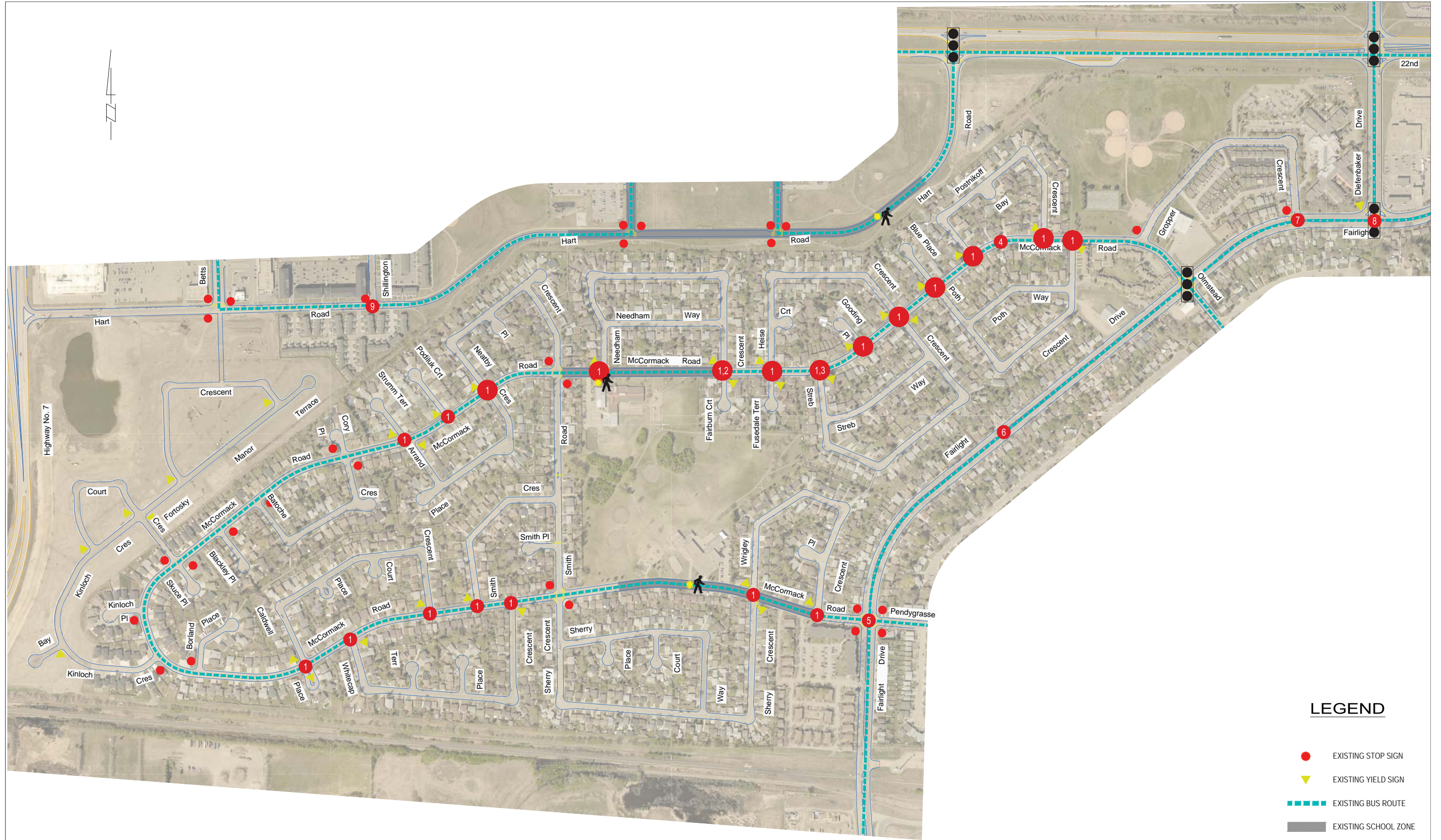
A public meeting was held in April 2016 to identify traffic concerns and potential solutions within the Parkridge neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Plan was developed and presented to the community at a follow-up meeting held in December 2016.

A summary of recommended improvements for the Parkridge neighbourhood are included in **Table ES-1**. The summary identifies the location, recommended improvement, the reason for implementing, and a schedule for implementation. The schedule to implement the Traffic 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 years); medium-term (3 to 5 years) and long-term (more than 5 years). Accordingly, the specific time frame to implement the improvements ranges from 1 to 5 years.

The Parkridge Traffic Plan is illustrated in **Exhibit ES-1**.

Table ES-1: Parkridge Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
McCormack Road			
1	Various locations	Replace yield sign with stop sign	Improve safety
2	Needham Crescent (East) / Fairburn Court	Median island & curb extensions on west leg of McCormack Road	Reduce speed
3	Streb Crescent (West)	Median island on east leg of McCormack Road	Reduce speed
4	Postnikoff Crescent (West) to Postnikoff Crescent (East)	Mid-block median island	Reduce speed
Fairlight Drive			
5	McCormack Road (South) / Pedygrasse Road	Hazard board signs	Improve visibility of four-way stop signs
6	McCormack Road (North) / Olmstead Road to McCormack Road (South) / Pedygrasse Road	Speed display board facing southbound traffic	Reduce speed
7	Gropper Crescent	Zebra crosswalk on west leg of Fairlight Drive	Improve pedestrian safety
8	Diefenbaker Drive	Protected left-turn for eastbound left turning traffic	Improve traffic flow
Hart Road			
9	Shillington Crescent	"No Parking" sign on Hart Road 10 metres from intersection on northeast corner	Improve visibility / sight line



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- EXISTING SCHOOL ZONE
- EXISTING TRAFFIC SIGNAL
- EXISTING ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION
- # RECOMMENDATION

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I INTRODUCTION

As the City of Saskatoon continues to grow, many neighbourhoods face issues such as pedestrian safety, cut-through traffic, and increased speeds. In August 2013, City Council adopted the City of Saskatoon *Traffic Guidelines and Tools* document that outlines a procedure for completing traffic reviews on a neighbourhood-wide basis. Prior to this, neighbourhood traffic issues were dealt with on a case-by-case basis with mixed results. Since 2013, the formal process has proven to be very successful in providing recommendations that improve neighbourhood traffic conditions and pedestrian safety. Recommendations are developed by the Administration and residents in a collaborative fashion. Accordingly, this report provides the Traffic Plan for the Parkridge neighbourhood.

The Parkridge neighbourhood is located in the west portion of Saskatoon and is south of 22nd Street and Hart Road, west of Fairlight Drive, north of CP rail lines and east of Highway 7. The land use is mostly residential with elementary schools on McCormack Road (James L. Alexander School and St. Marguerite School).

The Parkridge neighbourhood traffic review includes four stages:

- **Stage 1** - Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon online discussion.
- **Stage 2** - Develop a draft traffic plan based on residents' 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 a specific time frame, short-term (1 to 2 years), medium-term (3 to 5 years) or long-term (more than 5 years).

This report presents the study findings and recommendations.

2 STAGE 1: IDENTIFYING ISSUES, CONCERNS, AND POSSIBLE SOLUTIONS

A public meeting was held in April 2016 to identify traffic concerns within the Parkridge neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions. The meeting minutes are provided in **Appendix A**.

The following pages summarize the concerns and suggested solutions identified during the initial consultation (including all correspondence and Shaping Saskatoon discussion comments received prior to the follow-up meeting) with the residents.

2.1 Concern 1 – Speeding and Shortcutting

Shortcutting occurs when non-local traffic passes through the neighbourhood on streets that are designed and intended for low volumes of traffic (i.e. local streets). As speeding often accompanies shortcutting, these concerns have been grouped into one category.

Parkridge neighborhood speeding and shortcutting concerns were at the following locations:

- McCormack Road:
 - Speeding [curved sections, southwest portion, Streb Way, Skuce Place, the 200 block of McCormack Road, Kinloch Place to Kinloch Crescent, Smith Road to Neatby Crescent (East), and in the westbound direction
 - Speeding through school zones at James L. Alexander School and St. Marguerite School
 - Speeding by parks and playgrounds
 - Buses speeding across schools
- Gropper Crescent Back Lane - Speeding
- Sherry Crescent:
 - Speeding
 - High school kids and others shortcutting to avoid school zone in front of St. Marguerite School
- Smith Road:
 - Speeding
 - Parents are shortcutting and using this road to drop off kids to school

- Needham Way:
 - Speeding
 - Shortcutting during school hours
- Fairlight Drive - Speeding
- Hart Road - Speeding

The following solutions were proposed by residents:

- McCormack Road:
 - Relocate school zone signs prior to Smith Road and Sherry Crescent intersections
 - Reduce speed limit to 30 kilometres per hour (kph) near parks and playgrounds
 - Install speed bumps along southwest curve of McCormack Road, along the 200 block of McCormack Road and westbound on McCormack Road
 - Install speed humps to slow down vehicles approaching school zones
 - Install speed display boards for vehicles approaching school zones
 - Install rumble strips for vehicles approaching school zones
 - Install flashing signs for vehicles approaching school zones
 - Install traffic calming devices (i.e. curb extensions) between Kinloch Place and Kinloch Crescent and along the 200 block of McCormack Road
 - Increase enforcement
- Gropper Crescent Back Lane - Install signs to reduce speeding
- Fairlight Drive - Install a crosswalk half way along Fairlight Drive
- Hart Road:
 - Install speed bumps
 - Increase enforcement
- General - Implement 24 hour year-long reduced speed limit

2.2 Concern 2 – Pedestrian Safety

It is important to address pedestrian safety concerns to support active transportation as encouraging walking to nearby amenities, as opposed to driving, reduces traffic volumes.

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.”

Parkridge neighborhood pedestrian safety concerns were noted at the following locations:

- Fairlight Drive & McCormack Road (South) / Pendygrasse Road - Vehicles are not stopping to allow pedestrians to cross at the four-way stop
- McCormack Road:
 - Curves make it difficult to see pedestrians
 - Improve crossing at Blue Place connecting to the Hart Road walkway since vehicles are not stopping for pedestrians
 - Improve crossing at Gropper Crescent
 - Improve crossing at Needham Crescent (West)
- Smith Road - Pedestrians are unable to cross because vehicles are parking too close to the mid-block crosswalk
- Fairlight Drive:
 - There is a long distance without controlled pedestrian crosswalks
 - Improve crossing at Gropper Crescent
 - North sidewalk from Gropper Crescent to Diefenbaker Drive is unlevelled and cracking
- Fairlight Drive & Diefenbaker Drive - Improve crossing since vehicles are not stopping for pedestrians
- Hart Road - Pedestrians are not visible

The following solutions were proposed by residents:

- Fairlight Drive & McCormack Road (South) / Pendygrasse Road
 - Install traffic signals
 - Install advance warning signs
 - Install a roundabout

- McCormack Road:
 - Install crosswalk at Gropper Crescent
 - Upgrade crossing at Needham Crescent (West) to an Active Pedestrian Corridor
- Fairlight Drive:
 - Install crosswalk half way along Fairlight Drive
 - Install Active Pedestrian Corridor at Gropper Crescent
 - Replace north sidewalk from Gropper Crescent to Diefenbaker Drive
- Fairlight Drive & Diefenbaker Drive - Install a walk light or Rectangular Rapid Flash Beacon (RRFB)
- Hart Road - Install crosswalk between Neatby Crescent and Needham Crescent walkway

2.3 Concern 3 – Traffic Control

Traffic control signs are used in order to assign the right-of-way. City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009 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.

Neighbourhood concerns regarding traffic controls were at the following locations:

- Fairlight Drive & McCormack Road (South) / Pandygrasse Road:
 - Vehicles are not stopping at the four-way stop especially if traffic is backed up due to the train
 - Vehicles are completing U-turns at the four-way stop
- McCormack Road:
 - Improve safety at Borland Place
 - Difficult to turn left during peak hours at Sherry Crescent
 - Inconsistent traffic control on side streets

The following solutions were proposed by residents:

- Fairlight Drive & McCormack Road (South) / Pendencygrasse Road:
 - Install traffic signals
 - Install a roundabout
- McCormack Road - Install a yield or stop sign at Borland Place

2.4 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 within a driveway or back lane.

Neighbourhood concerns regarding parking were at the following locations:

- Smith Road - Vehicles are parking too close to the mid-block crosswalk
- Neatby Place - Improve parking
- Arrand Place - Improve parking

The following solutions were proposed by residents:

- Neatby Place - Allow nose-in parking in cul-de-sacs
- Arrand Place - Allow nose-in parking in cul-de-sacs

2.5 Concern 5 – Maintenance

Maintenance is requested throughout the consultation process that reflects the work of other civic departments. These include the condition of the street signs (i.e. knocked over, damaged, obstructed by trees), trees obstructing driver's view, or roadway maintenance (i.e. snow clearing, potholes, sanding).

Parkridge neighbourhood maintenance concerns were at the following locations:

- Poor road condition along 11th Street (Fairlight Drive to Highway 7), Fairlight Drive, McCormack Road (Gropper Crescent to Postnikoff Crescent, at the four-way stop on Fairlight Drive, Olmstead Road to Postnikoff Crescent, at Sherry Crescent, 100 block, Fairlight Drive to Heise Crescent), Smith Road/Crescent, and Gropper Crescent Back Lane
- Catch basins along McCormack Road at St. Marguerite School, Arrand Crescent, Arrand Court and mid-block catch basin in Arrand Place
- Trees are obstructing street signs at McCormack Road & Batoche Crescent

- Lack of snow removal

Neighbourhood solutions identified by residents:

- Repave and resurface roadways
- Repair potholes
- Clean out catch basins
- Improve snow removal
- Trim tree at McCormack Road & Batoche Crescent

2.6 Concern 6 – Major Intersections & Corridors

Major intersections include roadways with higher traffic volumes (i.e. arterials, collectors) or intersections with an existing traffic signal.

Parkridge neighbourhood concerns regarding major intersections were identified at the following locations:

- 22nd Street & Diefenbaker Drive:
 - Difficult and long to get onto 22nd Street
 - Eastbound vehicles from Blairmore use right lane as a through lane during noon and afternoon peak hours due to congestion
 - Short walk light
- 22nd Street & Confederation Drive:
 - Congestion
 - Large trucks hit concrete barriers
- 22nd Street:
 - Speed limit in between Betts Avenue and Diefenbaker Drive is too low
 - Congestion
 - Increase in traffic from the west
- 11th Street - Congestion

The following solutions were proposed by residents:

- 22nd Street & Diefenbaker Drive:
 - Construct a proper right turning lane
 - Block the shoulder lane
 - Improve traffic signal timing especially for left turning vehicles
 - Add a northbound right-turn lane rather than requiring vehicles to merge
 - Install Pedestrian Actuated Signals
 - Increase walk light
 - Install audible pedestrian signals
 - Construct an overpass
- 22nd Street & Confederation Drive:
 - Relocate concrete barriers to other side of 22nd Street
 - Extend concrete barriers to the intersection
 - Create a formal lane and install signs
 - Improve traffic signal timing
- 22nd Street:
 - Increase speed limit to 70 kph or 80 kph in between Betts Avenue and Diefenbaker Drive
 - Widen 22nd Street
 - Create a bypass off Highway 7 to Valley Road to alleviate congestion
- 11th Street - Create a bypass off Highway 7 to Valley Road to alleviate congestion
- Fairlight Drive & Diefenbaker Drive - Install a left-turn signal
- General - Open an access onto 11th Street

2.7 Concern 7 – Access

Although opening or closing roads is not part of the Neighbourhood Traffic Reviews, some residents were concerned with the lack of access between Parkridge and Blairmore Suburban Centre.

Comments were received from residents who want additional access and from residents who do not want additional access due to concerns about shortcutting through the neighbourhood and increased traffic.

The following provides information on City Council's prior decision to approve plans without an additional access.

In 2004, extensive public consultation was conducted during the review of the Blairmore Suburban Centre and the Integrated Community Centre (the Shaw Centre and high schools). Consultation included, but was not limited to, a one day visioning session and survey brochures made available on the City's website and at Cosmo Civic Centre and distributed to schools in the area and eight community associations located west of Circle Drive. The feedback from the surveys reinforced key issues to consider for development of the suburban centre, uses to be included in the integrated community centre and items such as safety and ease of access and egress for vehicle and pedestrian traffic.

In response to concerns raised with access to the suburban centre, a meeting was held in April 2005 to obtain feedback from area residents on the potential for local roadway access from Parkridge and Fairhaven neighbourhoods to the Blairmore Suburban Centre. Records indicate that 75 people attended the meeting and that those in attendance confirmed that they did not want to have any local roadways branch off McCormack Road to access the suburban centre and that they preferred two intersections off of 22nd Street (Hart Road and Betts Avenue) as the main entry points into the suburban centre.

Following review and public engagement, City Council made an informed decision and approved the concept plan for the Blairmore Suburban Centre. The approved plan did not have access between the Blairmore Suburban Centre and Parkridge neighbourhood.

In 2013, an application was submitted by Saskatoon Land to amend the Parkridge neighbourhood Concept Plan to provide for development of land in the westerly edge of the neighbourhood for additional residential development. The issue of access to the Blairmore Suburban Centre from Parkridge was again raised during review of this application.

A Public Information Meeting was held in June 2013 related to this application. 146 notices were sent out to property owners and 45 residents attended the meeting. At this meeting, it was noted that the road network being proposed was based upon feedback from area residents in 2005 and the approved Blairmore Suburban Centre Concept Plan. Comments were received from this meeting that provided both views – those who would like access and those who did not.

Major concerns identified at the meeting included impact of shortcutting through the neighbourhood and additional traffic in the neighbourhood.

Following review and public engagement, City Council made an informed decision and approved the application to provide for the additional residential development on the west end of Parkridge. The approved plan did not have access between the Blairmore Suburban centre and Parkridge neighbourhood.

3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

3.1 Methodology

Stage 2 of the neighbourhood traffic review included developing a draft Traffic Plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic studies 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:
 - Daily and weekly traffic counts
 - Speed measurements
 - Intersection turning movement counts
 - Pedestrian counts
 - Site observations
 - Collision analysis
- 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 judgment.

The following sections provide details on the data collected for traffic volume and speed assessments, traffic control assessments, pedestrian crossing assessments, traffic signal assessment and collision analysis. A map of the traffic data collection is shown in **Appendix B**.

3.2 Traffic Volume and Speed Assessments

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. Neighbourhood streets are classified typically as either local or collector streets. Traffic volumes [referred to as Average Daily Traffic (ADT)] 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 Parkridge neighbourhood is 50 kph, except for school zones where the speed limit is 30 kph from September to June, Monday to Friday, 8:00am to 5:00pm.

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 (2016)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
Gropper Crescent Back Lane	Gropper Crescent (West) to Gropper Crescent (East)	Back Lane	60	24
Needham Way	Needham Crescent (West) to Needham Crescent (East)	Local	200	42
Sherry Crescent	Sherry Way (East) to McCormack Road		800	44
McCormack Road	Postnikoff Crescent (West) to Postnikoff Crescent (East)	Collector	4950	56
McCormack Road	Streb Crescent (West) to Gooding Place		4100	58
McCormack Road	Needham Crescent (West) to Needham Crescent (East)		3100	School = 42 Regular = 57
Smith Road	McCormack Road (North) to McCormack Road (South)		850	47
McCormack Road	Kinloch Place to Kinloch Crescent (South)		750	49
McCormack Road	Sherry Crescent (West) to Sherry Crescent (East)		3650	School = 39 Regular = 55
Fairlight Drive	McCormack Road (North) / Olmstead Road to McCormack Road (South) / Pendency Road		Minor Arterial	6300

3.3 Pedestrian Assessments

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

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

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

A standard pedestrian crosswalk or a zebra crosswalk (i.e. striped) may be considered when a signalized crosswalk is not warranted. A summary of the pedestrian studies are provided in **Table 3-3**.

Table 3-3: Pedestrian Assessments

Location	Number of Pedestrians Crossing During Peak Hours	Results
Fairlight Drive & McCormack Road (South) / Pandygrasse Road (West & East Crosswalks)	55	Pedestrian Device Warranted
Fairlight Drive & McCormack Road (South) / Pandygrasse Road (North & South Crosswalks)	119	Pedestrian Device Not Warranted
Fairlight Drive & Gropper Crescent	20	
Hart Road & Neatby Crescent and Needham Crescent Walkway	24	

Details of the pedestrian actuated signal and active pedestrian corridor assessments are provided in **Appendix C**.

3.4 Traffic Signal Assessments

Assessments are conducted to determine the need for traffic signals, in adherence to the Traffic Signal and Pedestrian Signal Head Warrant Handbook. A warrant system assigns points for a variety of conditions including:

- Number of traffic lanes;
- posted speed limit of the street;
- distance to the nearest traffic signal; and
- number of pedestrians and vehicles at the location.

Pedestrian and traffic data is collected during the six peak hours of: 7:00am to 9:00am, 11:30am to 1:30pm, and 4:00pm to 6:00pm.

If a traffic signal is not warranted, additional measures to improve safety (i.e. parking restrictions, oversized stop signs) may be considered. A summary of the traffic signal assessment is provided in **Table 3-4**.

Table 3-4: Traffic Signal Assessment

Location	Traffic Signal Warrant Points	Results
Fairlight Drive & McCormack Road (South) / Pedygrasse Road	48	Traffic Signal Not Warranted

Details of the traffic signal assessment are provided in **Appendix D**.

3.5 Collision Analysis

The most recently available five year collision data (2011 to 2015) was provided by SGI. High-collision intersections, typically noted as the intersections with an average of two or more collisions per year, were reviewed in more depth to identify trends and possible improvements. Intersections with two or more collisions per year include:

- Fairlight Drive & Diefenbaker Drive
- Fairlight Drive & McCormack Road (North) / Olmstead Road
- Fairlight Drive & McCormack Road (South) / Pedygrasse Road
- Fairlight Drive & Gropper Crescent
- Hart Road & Shillington Crescent

Details of the collision analysis are provided in **Appendix E**.

4 STAGE 3: PRESENTATION OF TRAFFIC PLAN

4.1 Methodology

Stage 3 of the neighbourhood traffic 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 improvements
- 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 Plan, including the location, recommended improvement, and reason for the recommended improvement.

4.2 Speeding and Shortcutting

As stated in Council Policy C07-007 Traffic Control – Use of Stop and Yield Signs, January 6, 2009, “stop signs are not to be used as speed control devices.”

The recommended improvements to address speeding and shortcutting are detailed in **Table 4-1**.

Table 4-1: Recommended Improvements – Speeding and Shortcutting

Location	Recommended Improvement	Reason
McCormack Road & Needham Crescent (East) / Fairburn Court	Median island & curb extensions on west leg of McCormack Road	Reduce speed
McCormack Road & Streb Crescent (West)	Median island on east leg of McCormack Road	Reduce speed
McCormack Road [Postnikoff Crescent (West) to Postnikoff Crescent (East)]	Mid-block median island	Reduce speed
Fairlight Drive [McCormack Road (North) / Olmstead Road to McCormack Road (South) / Pendency Road]	Temporary speed display board facing southbound traffic	Reduce speed

4.3 Pedestrian Safety

The recommended improvements to increase pedestrian safety are listed in **Table 4-2**.

Table 4-2: Recommended Improvements - Pedestrian Safety

Location	Recommended Improvement	Reason
Fairlight Drive & Gropper Crescent	Zebra crosswalk on west leg of Fairlight Drive	Improve pedestrian safety

4.4 Intersection Safety

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 Improvements – Intersection Safety

Location	Recommended Improvement	Reason
Various locations	Replace yield sign with stop sign	Improve safety
Fairlight Drive & McCormack Road (South) / Pedygrasse Road	Hazard board signs	Improve visibility of four-way stop signs
Fairlight Drive & Diefenbaker Drive	Protected left-turn for eastbound left turning traffic	Improve traffic flow

4.5 Parking

The recommended improvements to parking that will improve the level of safety are provided in **Table 4-4**.

Table 4-4: Recommended Improvements – Parking

Location	Recommended Improvement	Reason
Hart Road & Shillington Crescent	“No Parking” sign on Hart Road 10 metres from intersection on northeast corner	Improve visibility / sight line

4.6 Follow Up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting in December 2016. Meeting minutes are provided in **Appendix F**. Recommended improvements that were not supported were eliminated or altered accordingly.

A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix G**. Additional issues raised after the follow-up meeting were considered and outlined in **Appendix H**. Recommendations were added to the list of improvements if necessary.

The revised list of recommendations was then circulated to the civic divisions (including Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Parking Services, Roadways & Operations and Transit) to gather comments and concerns. General support was received.

5 STAGE 4: IMPLEMENTATION

Stage 4, the final stage of the Neighbourhood Traffic Review, is to install the recommended improvements within the specified time frame. The time frame 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 more than 5 years.

The placement of signs, pavement markings and temporary traffic calming will be completed short-term (1 to 2 years). Most often the installations take place in spring / summer of the following year. Therefore, installations for Parkridge are likely to take place in spring / summer 2017.

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

- **Table 5-1:** Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate
- **Table 5-2:** Speed Display Board Cost Estimate
- **Table 5-3:** Permanent Traffic Calming Cost Estimate
- **Table 5-4:** Traffic Signal Improvement Cost Estimate
- **Table 5-5:** Total Cost Estimate

Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Various locations	Stop sign (28)	\$7,000	1 to 2 years
McCormack Road & Needham Crescent (East) / Fairburn Court	Median island (1)	\$500	1 to 5 years (traffic calming devices will be installed temporarily until proven effective)
	Curb extension (2)	\$1,000	
McCormack Road & Streb Crescent (West)	Median island (1)	\$500	
McCormack Road [Postnikoff Crescent (West) to Postnikoff Crescent (East)]	Median island (1)	\$500	
Fairlight Drive & McCormack Road (South) / Pedygrasse Road	Hazard board sign (4)	\$1,000	1 to 2 years
Fairlight Drive & Gropper Crescent	Zebra crosswalk (1)	\$250	
Hart Road & Shillington Crescent	“No Parking” sign (1)	\$250	
Total		\$11,000	

Table 5-2: Speed Display Board Cost Estimate

Location	Device	Cost Estimate	Time Frame
Fairlight Drive [McCormack Road (North) / Olmstead Road to McCormack Road (South) / Pedygrasse Road]	Speed display board	\$0 (funded through Speed Program)	1 to 2 years
Total		\$0	

Table 5-3: Permanent Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
McCormack Road & Needham Crescent (East) / Fairburn Court	Median island (1)	\$5,000	3 to 5 years
	Curb extension (2)	\$90,000	
McCormack Road & Streb Crescent (West)	Median island (1)	\$5,000	
McCormack Road [Postnikoff Crescent (West) to Postnikoff Crescent (East)]	Median island (1)	\$5,000	
Total		\$105,000	

Table 5-4: Traffic Signal Improvement Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Fairlight Drive & Diefenbaker Drive	Protected left-turn signal (1)	\$5,000	1 to 2 years
Total		\$5,000	

Table 5-5: Total Cost Estimate

Category	Time Frame	
	Short-Term (1 to 2 years)	Medium-Term (3 to 5 years)
Signs, Pavement Markings & Temporary Traffic Calming	\$11,000	NA
Temporary Speed Display Board	\$0	NA
Permanent Traffic Calming	NA	\$105,000
Traffic Signal Improvement	\$5,000	NA
Total	\$16,000	\$105,000

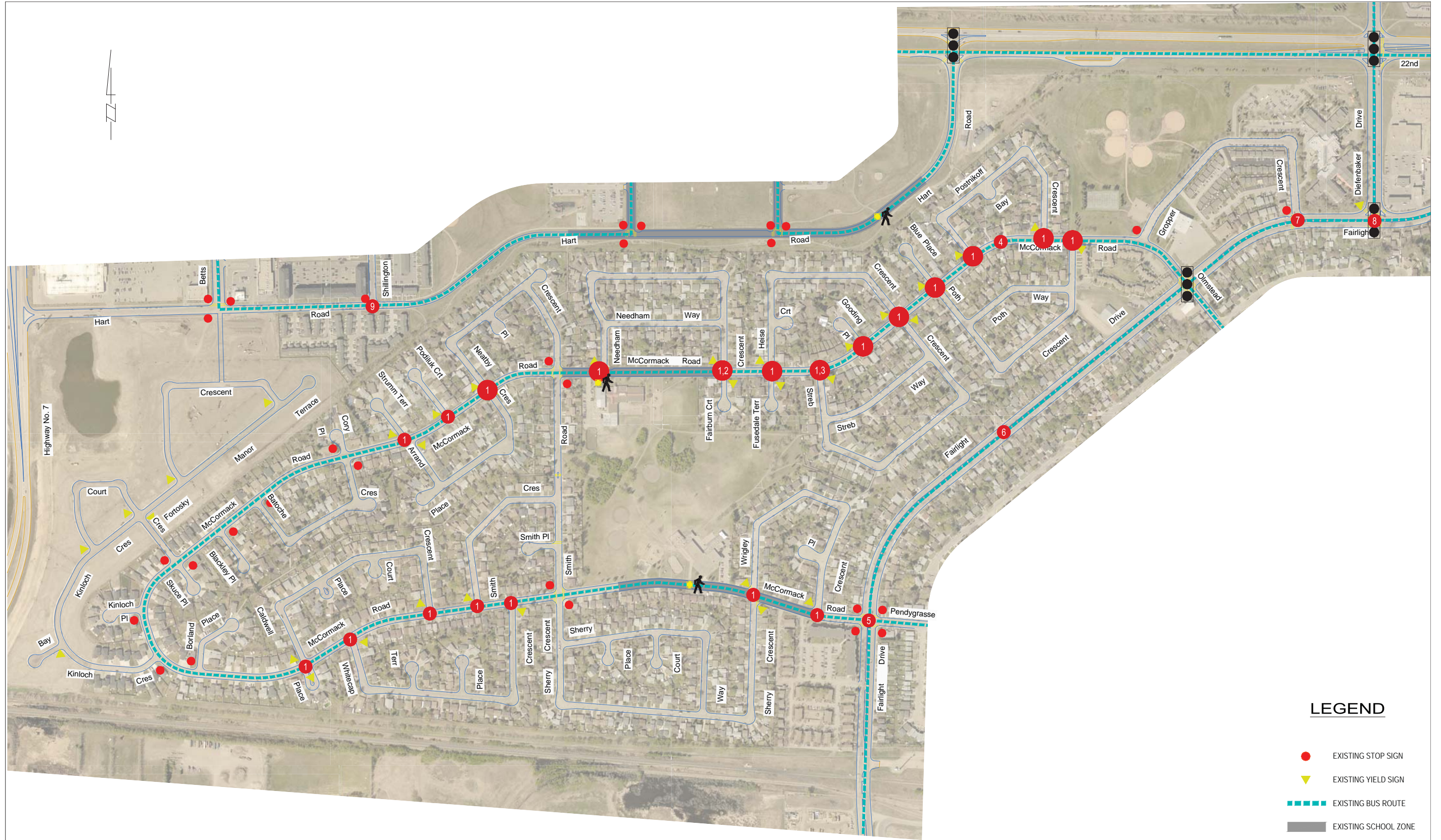
The total cost estimate for short-term improvements (signs, pavement markings and temporary traffic calming) is **\$16,000**. The total cost estimate for long-term improvements (permanent traffic calming and traffic signal improvement) is **\$105,000**.

Resulting from the Neighbourhood Traffic Review is a list of recommended improvements, including the location, reason and time frame as summarized in **Table 5-6**.

The resulting recommended Parkridge Neighborhood Traffic Plan is illustrated in **Exhibit 5-1**.

Table 5-6: Parkridge Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
McCormack Road			
1	Various locations	Replace yield sign with stop sign	Improve safety
2	Needham Crescent (East) / Fairburn Court	Median island & curb extensions on west leg of McCormack Road	Reduce speed
3	Streb Crescent (West)	Median island on east leg of McCormack Road	Reduce speed
4	Postnikoff Crescent (West) to Postnikoff Crescent (East)	Mid-block median island	Reduce speed
Fairlight Drive			
5	McCormack Road (South) / Pedygrasse Road	Hazard board signs	Improve visibility of four-way stop signs
6	McCormack Road (North) / Olmstead Road to McCormack Road (South) / Pedygrasse Road	Speed display board facing southbound traffic	Reduce speed
7	Gropper Crescent	Zebra crosswalk on west leg of Fairlight Drive	Improve pedestrian safety
8	Diefenbaker Drive	Protected left-turn for eastbound left-turning traffic	Improve traffic flow
Hart Road			
9	Shillington Crescent	"No Parking" sign on Hart Road 10 metres from intersection on northeast corner	Improve visibility / sight line



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- EXISTING SCHOOL ZONE
- EXISTING TRAFFIC SIGNAL
- EXISTING ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION
- # RECOMMENDATION

APPENDIX A: PUBLIC MEETING #1 – APRIL 21, 2016 MINUTES

Parkridge Neighbourhood Traffic Review
Thursday, April 21, 2016, 7:00 PM – 9:00 PM
St. Marguerite Elementary School

Agenda

1. Welcome & Introductions
2. Presentation from Transportation Division
3. Small Group Discussions & Report Back to Large Group
4. Next Steps
5. Large Group Discussion – Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Parkridge Neighbourhood Traffic Review

(Presented by Mariniel Flores, Engineer-in-Training, Transportation Engineer)

- Presentation Outline
 - Neighbourhood Traffic Review Process
 - Parkridge Review Schedule
 - Sources of Information
 - Past Concerns Received
 - Description of Traffic Calming & Pedestrian Safety Devices
 - Blairmore Concept Plan
 - Corridor Reviews & Major Intersection Reviews
- Neighbourhood Traffic Review Process
 - August 2013 – New process
 - Mandate – Reduce and calm traffic, and improve safety within neighbourhoods
 - 2014 – Reviewed 11 neighbourhoods
 - 2015 – Reviewed 8 neighbourhoods
 - 2016 – Parkridge, Sutherland, Willowgrove, Stonebridge, Hampton Village, Grosvenor Park, Silverspring, Lakeridge
- Parkridge Review Schedule
 - Stage 1 – Identify issues & possible solutions through community consultation (April to Fall 2016)
 - Stage 2 – Develop a draft traffic plan
 - Stage 3 – Present draft traffic plan to community for feedback (Fall 2016)
 - Stage 4 – Implement changes over time (Beginning Spring 2017)
- Sources of Information
 - Past studies
 - Collision analysis

- Feedback from public consultation
- Traffic counts & assessments
- Past Concerns Received
 - Speeding – McCormack Road, Gropper Crescent
 - Fairlight Drive & McCormack Road / Pendencygrasse Road
 - 22nd Street & Diefenbaker Drive
 - 22nd Street & Confederation Drive
 - Lack of access into Blairmore
- Traffic Calming Devices
 - Speed Display Board
 - Curb Extension
 - Raised Median Island
 - Roundabout
 - Diverter
 - Right-In/Right-Out Island
 - Directional Closure
 - Raised Median Through Intersection
 - Full Closure
- Pedestrian Devices
 - Standard Crosswalk
 - Zebra Crosswalk
 - Active Pedestrian Corridor
 - Pedestrian Actuated Signal
- Blairmore Concept Plan
 - In September 2005, City Council approved Blairmore Concept Plan
 - April 2005 Public Meeting
 - June 2005 Open House
 - In December 2013, City Council approved Blairmore Concept Plan Amendment (Parkridge Extension)
 - June 2013 Public Information Meeting
- Corridor Reviews & Major Intersection Reviews
 - Created to address issues at intersections along arterial streets as Neighbourhood Traffic Reviews addresses local and collector streets within neighbourhoods
 - Recommendations will be identified and projects will be prioritized for funding approval
 - Report will be presented to City Council

3. Small Group Discussions

- Residents were divided into small groups to discuss traffic concerns in Parkridge and potential solutions

- Group 1: Karen Farmer (City Facilitator)
 - Access into Blairmore
 - Six against and nine for the access into Blairmore
 - Prefer a road into Blairmore. More exit points. Will decrease congestion.
 - Against access into Blairmore due to traffic flowing from other neighbourhoods into Blairmore
 - Concern about new houses in Parkridge Extension using McCormack Road only to enter and exit. Need to quickly open up exit onto Betts Avenue.
 - 22nd Street
 - Getting onto 22nd Street is a nightmare (have to leave 20 minutes earlier to get through)
 - Have to go through Clancy Drive to get to Circle Drive in the winter
 - Speed limit needs to be increased from Diefenbaker Drive to Blairmore. The speed is too slow to get to the commercial area conveniently. There is no reason that the speed should be that slow. There are no pedestrians and no school zones.
 - 22nd Street & Diefenbaker Drive
 - Traffic is so backed up that eastbound vehicles from Blairmore use right lane as a through lane especially during rush hour (noon and 4pm)
 - Need a proper right-turning lane
 - The shoulder lane needs to be blocked so vehicles can't go straight
 - This section of 22nd Street needs to be wider
 - 11th Street
 - State of 11th Street from Fairlight Drive to Highway 7 is terrible
 - There are many accidents resulting from vehicles avoiding potholes. Vehicles are driving in the centre to avoid crumbling pavement edge.
 - Include shoulder so it is safe for cyclists. There are many cyclists that ride here.
 - Fairlight Drive & McCormack Road / Pendencygrasse Road
 - Lights are needed. People fly through especially if traffic is backed up due to the train.
 - Fairlight Drive
 - Full of potholes. The southbound lanes are in terrible condition.
 - McCormack Road
 - Road condition is so terrible from Gropper Crescent to Postnikoff Crescent that people are trying to avoid it. This is not on the list for the next three years.
 - Hart Road
 - Add lights and improve drainage in walkways connecting to Hart Road
 - General

- Catch basins need to be cleaned out especially in front of Catholic school and in Arrand Crescent
- Group 2: Lanre Akindipe (City Facilitator)
 - Access into Blairmore
 - Disappointed there isn't an access into Blairmore
 - McCormack Road
 - Illegal u-turns in front of school near Smith Crescent
 - Illegal u-turns in front of school near Sherry Crescent
 - Suggested 30 km/hr all through school zones
 - Speeding issues after Streb Way. Dangerous curve.
 - Speeding issues at Skuce Place
 - Speed signs should be moved prior to Smith Road & Sherry Crescent intersection
 - Diefenbaker Drive & Fairlight Drive
 - Left-turn signal needed
 - 22nd Street & Diefenbaker Drive
 - Traffic signals need to be reviewed, especially left-turns
 - General
 - Speeds along parks/playgrounds should be 30 km/hr
 - Train delays
 - Need to maintain train tracks
 - Some residents did not receive flyers about the meeting
 - Speed signs should be effective 24/7 not just during school hours
 - Transit buses speed across schools
- Group 3: Mitch Riabko (City Facilitator)
 - Sherry Crescent
 - High schools kids and others use Sherry Crescent to avoid travelling through the school zone adjacent to St. Marguerite School. Lots of traffic and some speeding.
 - McCormack Road
 - Road conditions just off of Fairlight Drive and Smith Road are very poor. Vehicles are forced to dodge potholes near crosswalks.
 - Speeding through school zones at St. Marguerite and James L. Alexander Schools.
 - Speeding concerns along southwest curve of McCormack Road. Need to slow traffic down. Speed bumps suggested.
 - Kids are dropped off by parents in front of St. Marguerite School. Parents are making u-turns to travel east to Fairlight Drive. This is a significant enforcement concern.
 - Fairlight Drive & McCormack Road / Pendencygrasse Road
 - Vehicles are driving straight through the four-way stop without stopping. Some sort of advanced notice/signal/sign post/traffic lights is needed.

- Vehicles are making u-turns at this four-way stop. Potential solution is to install a roundabout.
 - Access into Blairmore
 - Increase traffic volumes from Parkridge Extension (175 homes). This will increase traffic along McCormack Road and onto Fairlight Drive. There is already heavy traffic congestion during peak hours at Diefenbaker Drive & Fairlight Drive and at Fairlight Drive & Fairmont Drive. Vehicles accessing 22nd Street via Fairlight Drive /Fairmont Drive can be backed up along Diefenbaker Drive/Fairlight Drive all the way to the Co-op Service Station. The solution is to open the Blairmore access.
 - A comment was made that the road to Blairmore should be closed
 - Train crossing north of 11th Street backs up traffic on Fairlight Drive. This creates a bottleneck for the entire neighbourhood. An access via Blairmore (exit only) would take pressure off.
 - 22nd Street
 - Congestion. Create bypass off Highway 7 to Valley Road to alleviate congestion.
 - Traffic travelling east on 22nd Street turning south onto Diefenbaker Drive needs a defined turning lane
 - Turning lane needs to be extended for traffic turning right from Diefenbaker Drive east on 22nd Street
 - Speed limit on 22nd Street travelling west between Diefenbaker Drive and Highway 7 needs to be increased from 60 km/hr to 70km/hr or 80km/hr
 - 11th Street
 - Congestion. Create bypass off Highway 7 to Valley Road to alleviate congestion.
 - Fairlight Drive
 - Traffic from 11th Street and Dundonald Avenue diverts via Fairlight Drive due to train delays. This creates significant congestion along Fairlight Drive.
 - Right hand side of the roadway from four-way stop at Pandygrasse Road north to the lights at Diefenbaker Drive is under disrepair. The road is crumbling and needs fixing.
 - Traffic along Fairlight Drive is steady and fast. It is a long distance without controlled pedestrian crosswalks. There is nowhere for pedestrians to cross. Potential solution is to install a pedestrian crosswalk half way up Fairlight Drive. This installation will also slow down traffic.
 - Smith Road
 - Speeding issues between McCormack Road and traffic calming device between 3:30pm and 5pm. Vehicles speed up to the traffic calming device, slow down and then speed up again.
 - 22nd Street & Fairmont Drive

- Barricades at this intersection is a major concern. Vehicle damage, congestion, vehicles backed up, and large semis running into concrete barricades are some of the concerns. These barricades were installed to keep traffic from cutting across 22nd Street to turn left at Confederation Drive. Potential solution is to relocate barricades to other side of 22nd Street to create a turning lane only for traffic turning north on Confederation Drive. This will alleviate congestion for traffic only wanting to turn right and travel east along 22nd Street.
 - 11th Street
 - 11th Street to Highway 7 is under major disrepair
 - General
 - Potential solutions for slowing down traffic include flashing billboard and installation of rumble strips as vehicles approach school zones
- Group 4: Shirley Matt (City Facilitator)
 - McCormack Road
 - Speeding issues between Kinloch Place and Kinloch Crescent (South). Curb extensions or other types of traffic calming is suggested.
 - Speeding issues between Smith Road and Neatby Crescent (North)
 - Speeding issues by schools and parks
 - Poor road surface between Olmstead Road and Postnikoff Crescent curve
 - Needham Way
 - Speeding issues
 - Shortcutting issues during school times
 - Smith Road
 - Parking issues midblock leading to walkway. Vehicles are parking too close and pedestrians unable to cross.
 - Poor road surface between Sherry Crescent and McCormack Road
 - Parents are shortcutting and using this road to drop off kids to school
 - Poor walkway lighting in the long walkway behind Smith Road
 - Neatby Place
 - Residents want nose-in parking in cul-de-sacs
 - Arrand Place
 - Residents want nose-in parking in cul-de-sacs
 - Midblock catch basin needs cleaning
 - 11th Street
 - Poor road surface
 - Fairlight Drive & McCormack Road / Pendencygrasse Road
 - People are not stopping to allow pedestrians to cross at this four-way stop intersection
 - Borland Place
 - Intersection needs to have a stop or yield sign

- Sherry Crescent
 - Difficult to turn left during peak hours
- General
 - Curb cuts are missing at Smith Crescent, Caldwell Crescent, Strumm Terrace
 - Garbage is dumped in the back of 2014 Kinloch Place
 - Many residents attended to discuss the access into Blairmore
- Group 5: Mariniel Flores (City Facilitator)
 - 22nd Street
 - A paved lane should be added for vehicles travelling in the eastbound direction turning right onto Diefenbaker Drive. The right lane currently ends.
 - 22nd Street & Diefenbaker Drive
 - A northbound right-turn free flow lane should be added instead of requiring vehicles to merge
 - Access into Blairmore
 - Many of the residents in the group would like access into Blairmore
 - Parkridge Extension will create a lot of congestion. Open the access onto Hart Road.
 - 25 residents in the group want an access and three residents were neutral
 - Fairlight Drive
 - Southeast section needs resurfacing. There are many potholes.
 - Southbound between McCormack Road and 11th Street needs resurfacing.
 - Fairlight Drive & McCormack Road / Pendencygrasse Road
 - Vehicles are not yielding. Traffic signals suggested.
 - Fairmont Drive
 - People are treating this roadway near 22nd Street as three lanes. Make the barricades go all the way to intersection or make another formal lane and put signs up.
 - Bowling Alley Lane
 - People are treating this lane like two or three lanes
 - McCormack Road
 - Speeding concerns near 200 McCormack Road. There have been many collisions and rollovers. Road narrowing, speed bumps or traffic calming is needed.
 - 100 block of McCormack Road needs to be paved
 - Need to resurface Fairlight Drive to Heise Crescent
 - Vehicles are making u-turns in front of St. Marguerite and James L. Alexander Schools
 - Speeding along curved sections on McCormack Road and Fairlight Drive
 - Smith Road
 - Needs resurfacing from McCormack Road to McCormack Road

- Repair potholes in front of 439 Smith Crescent
 - 11th Street
 - Resurfacing and major improvements needed from Elevator Road to Highway 7
 - General
 - A solution to congestion would be to open access onto 11th Street. However, there are train tracks.
 - Fairhaven will impact Parkridge
- Group 6: Jay Magus (City Facilitator)
 - Hart Road & Neatby Crescent/Shillington Crescent
 - Hard to see cars
 - McCormack Road
 - Speeding along curves. It is very dangerous. Traffic needs to slow down.
 - Pedestrian safety concerns
 - Curves make it difficult to see pedestrians
 - Large amount of traffic during rush hour
 - City buses speed down McCormack Road. Situation is worse with curves.
 - Speed bumps suggested westbound on McCormack Road
 - 22nd Street & Diefenbaker Drive
 - Walk light is too short
 - Need Actuated Pedestrian Signals
 - Excessive noise (i.e., brakes) on 22nd Street
 - Blue Place
 - Pedestrian safety concerns at access pathway
 - Difficult to cross
 - Fairlight Drive
 - Large amount of traffic during rush hour
 - Access into Blairmore
 - Want connection to Hart Road/Betts Avenue
 - A resident on Kinloch Crescent is not in support of a through road
 - Large area promotes the need for another access. Need another way out since the neighbourhood is too big.
 - What will the emergency access look like?
 - Gropper Crescent
 - Crosswalk needed
 - Batoche Crescent
 - Trees are blocking street signs
 - Fairlight Drive & Diefenbaker Drive
 - Want left-turn across from Fairlight Drive to Diefenbaker Drive
 - Pedestrian crossing issues
 - General
 - Additional homes in Parkridge Extension will generate more traffic

4. Next Steps

(Presented by Jay Magus, Transportation Engineering Manager)

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than May 20, 2016
3. Additional public input via City on-line Community Engagement webpage no later than May 20, 2016 at <http://shapingsaskatoon.ca/discussions/parkridge-neighbourhood-traffic-review>
4. Traffic & pedestrian data collection, analysis
5. Develop recommendations and prepare draft Traffic Plan
6. Follow-up public input meeting to provide input on draft Traffic Plan
7. Determine revisions and finalize Traffic Plan
8. Present Traffic Plan to City Council for approval

5. Large Group Discussion – Questions & Answers

- Question/Comment 1:
 - Resident: What does emergency/pedestrian access route look like?
 - City: We will provide more details about the emergency/pedestrian access route at the follow-up Parkridge meeting.
- Question/Comment 2:
 - Resident: Catch basins along McCormack Road (i.e., in front of St. Marguerite School, Arrand Court) need to be cleaned out. Lack of snow removal is causing floods.
 - City: This concern will be passed onto Public Works.
- Question/Comment 3:
 - Resident: 75 people attended the 2005 meeting about the access. The access wasn't the main focus of that meeting. In June 2013, residents within a 75 metre buffer received flyers not everyone. That was eight years ago. This issue has to be dealt with now.
 - City: Opening/closing roads is not part of the Parkridge Neighbourhood Traffic Review Process. The Parkridge Traffic Plan report will be presented to the Transportation Committee and Council. The public can request to speak at those meetings.
- Question/Comment 4:
 - Resident: We didn't know anything about the access. We are concerned with traffic flow and safety. It might not be an issue now but it will be an issue later when Parkridge Extension opens. We don't want any severe collisions to occur.

- Question/Comment 5:
 - Resident: There are many issues at the intersection of Clancy Drive and Circle Drive, especially when it is icy. 22nd Street and Tim Hortons exit is also a big issue.

- Question/Comment 6:
 - Resident: I have lived here since I was 13 years old. There are heavy trucks on McCormack Road. Open the emergency/pedestrian access route and slow traffic on McCormack Road.

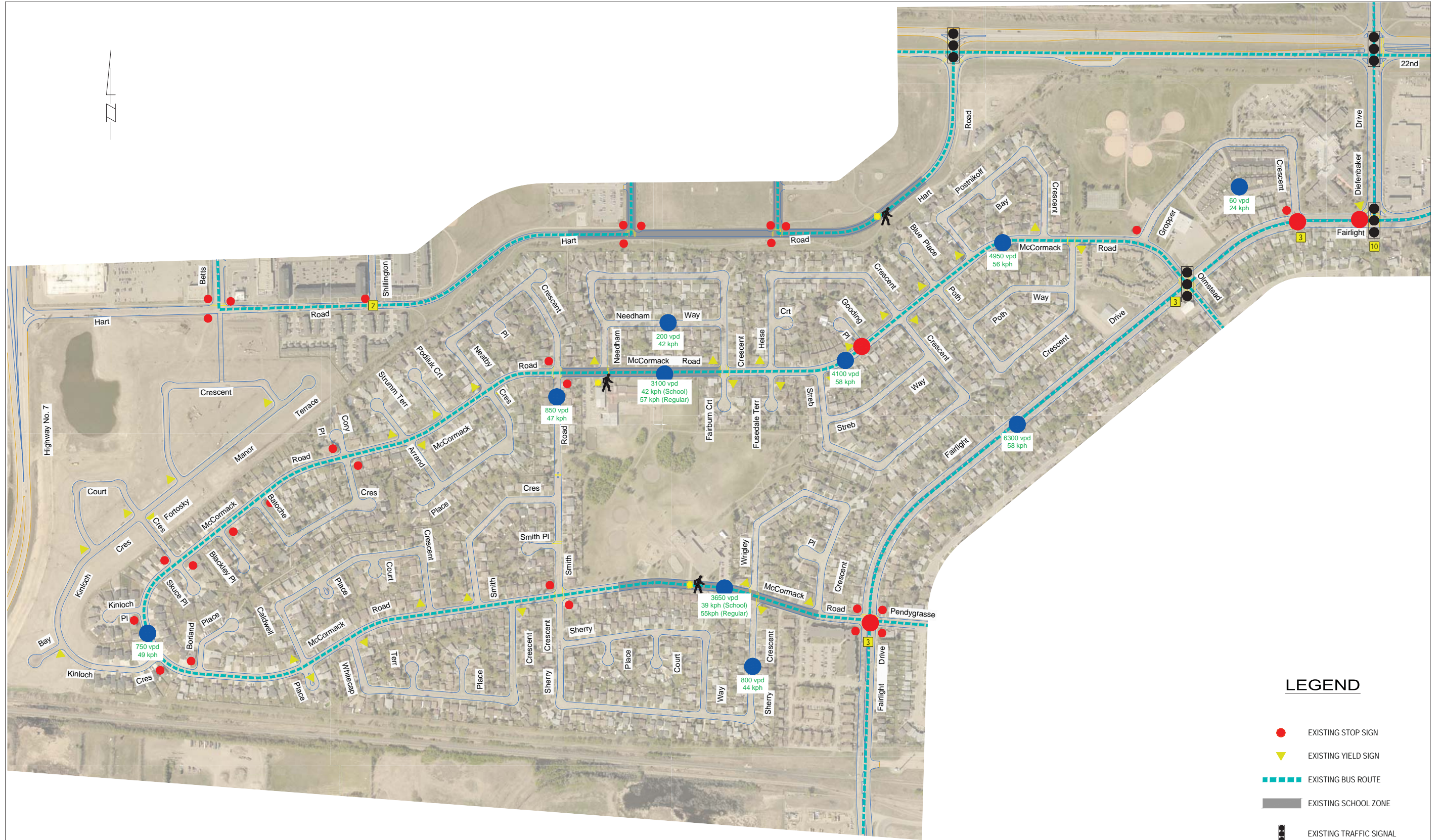
- Question/Comment 7:
 - Resident: Why can't emergency access be opened up during construction?
 - City: This might not be feasible (e.g., who would be responsible for locking/unlocking it?).

- Question/Comment 8:
 - Resident: It's not a "we" versus "they" in addressing these concerns and issues. We're the "we" and we're the "they". We are the solutions to speeding and safety. Keep this in mind when we look at these issues.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Jay Magus – City of Saskatoon, Transportation & Utilities, Transportation Engineering Manager
- Mariniel Flores – City of Saskatoon, Transportation & Utilities, Engineer-in-Training, Transportation Engineer
- Shirley Matt – City of Saskatoon, Transportation & Utilities, Senior Transportation Engineer
- Lanre Akindipe – City of Saskatoon, Transportation & Utilities, Transportation Engineer
- Karen Farmer – City of Saskatoon, Community Services, Community Consultant

APPENDIX B: TRAFFIC DATA COLLECTION MAP



LEGEND

- EXISTING STOP SIGN
- ▼ EXISTING YIELD SIGN
- EXISTING BUS ROUTE
- EXISTING SCHOOL ZONE
- EXISTING TRAFFIC SIGNAL
- EXISTING ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION
- 3 AVERAGE NUMBER OF COLLISIONS PER YEAR (2011-2015)
- TRAFFIC MOVEMENT COUNT
- SPEED STUDY
- 786 vpd — NUMBER OF VEHICLES PER DAY
- 47.2 kph — 85th PERCENTILE SPEED

PARKRIDGE TRAFFIC DATA

APPENDIX C: PEDESTRIAN DEVICE ASSESSMENTS

Pedestrian Actuated Signal Warrants

Fairlight Drive & McCormack Road (South) / Pendency Road

Prepared By: Mariniel Flores Date: Wednesday, October 12, 2016

Location & Roadway Classification: Fairlight Drive (Minor Arterial) & McCormack Road (South) / Pendency Road (Major Collector)

Date of Count: Day of wk: Wednesday & Thursday Mth, Day, Yr: Wednesday, September 21, 2016 & Thursday, September 22, 2016

Weather: 10.6°C, Clear/Cloudy

Traffic Control Devices: Four-way stop

Current Pedestrian Control: Standard crosswalks

Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 3 lanes

Is there a physical median in this crosswalk(s)? y (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 200 m

Location: McCormack Road & Sherry Crescent (East) / Wrigley Crescent (West)

Type: Two-way yield signs & zebra crosswalk

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:	38	Total Warranted PC Points:	23,143	or	7,714	/ period
High School:	1	Highest PC point value:	9,454	at		
Adult:	13	Active Ped Corridor Points:	3			
Senior:	3	Pedestrian Actuated Signal Points:	35			
Vehicles passing through crosswalk(s):	3,570					

ACTIVE PEDESTRIAN CORRIDOR WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

****Install device at the West Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal.)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts									
	SB	WB	NB	EB	West Crosswalk				East Crosswalk					
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child		
7:00														
7:15														
7:30														
7:45														
8:00	39	48	30	87			1							
8:15	53	36	34	79							1			
8:30	59	43	37	72	2		1						1	
8:45	41	28	29	69	1						1		1	
9:00														
9:15														
9:30														
9:45														
AM Totals	192	155	130	307	3		1				1	1	2	
11:30	36	31	30	31			1				1			
11:45	32	24	29	39										
12:00	34	28	39	22										
12:15	37	23	36	45						1				
12:30	43	14	44	31			2							
12:45	29	28	27	29										
13:00	36	15	24	36									1	
13:15	26	18	28	19										
Noon Totals	273	181	257	252							1		1	
14:00														
14:15														
14:30														
14:45														
15:00	60	35	43	35			1				1		1	
15:15	63	47	38	32	1					2			8	
15:30	68	49	74	71	1						1		1	
15:45	78	48	73	50	16									
16:00	70	51	46	52			1							
16:15	57	46	70	46							2		1	
16:30	82	47	73	57									1	
16:45	81	63	88	30									2	
17:00														
17:15														
17:30														
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19:45														
20:00														
20:15														
20:30														
20:45														
PM Totals	559	386	505	373	18						4		14	
Totals	1,024	722	892	932	21		7			3	6	1	17	
					West Crosswalk =				28	East Crosswalk =				27

Fairlight Drive & McCormack Road (South) / Pandygrasse Road

Prepared By: Mariniel Flores Date: Wednesday, October 12, 2016

Location & Roadway Classification: Fairlight Drive (Minor Arterial) & McCormack Road (South) / Pandygrasse Road (Major Collector)

Date of Count: Day of wk: Wednesday & Thursday Mth, Day, Yr: Wednesday, September 21, 2016 & Thursday, September 22, 2016

Weather: 10.6°C, Clear/Cloudy

Traffic Control Devices: Four-way stop

Current Pedestrian Control: Standard crosswalks

Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 5 lanes

Is there a physical median in this crosswalk(s)? y (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 200 m

Location: McCormack Road & Sherry Crescent (East) / Wrigley Crescent (West)

Type: Two-way yield signs & zebra crosswalk

Is the orientation of this crosswalk(s) N-S? n (y or n)

Duration of pedestrian count 5 hrs

Elementary:	119	Total Warranted PC Points:	13,190	or	6,595	/ period
High School:		Highest PC point value:	7,280	at		
Adult:		Active Ped Corridor Points:	2			
Senior:		Pedestrian Actuated Signal Points:	45			

Vehicles passing through crosswalk(s): 1,702

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the South Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal.)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts									
	SB	WB	NB	EB	North Crosswalk				South Crosswalk					
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child		
7:00														
7:15														
7:30														
7:45														
8:00	14	17	30	34	1								9	
8:15	20	15	34	26	6								6	
8:30	21	11	37	15	6								7	
8:45	13	5	29	13	1								4	
9:00														
9:15														
9:30														
9:45														
AM Totals	68	48	130	88	14								26	
11:30	9	15	30	7	1								1	
11:45	10	5	29	4	1								5	
12:00	10	10	39	10									2	
12:15	10	5	36	13	1								3	
12:30	16	5	44	12									2	
12:45	10	10	27	8									3	
13:00	18	5	24	12	2								2	
13:15	11	10	28	1										
Noon Totals	94	65	257	67	5								18	
14:00														
14:15														
14:30														
14:45														
15:00	16	8	43	12									2	
15:15	11	11	38	9	4								10	
15:30	24	12	74	18	9								7	
15:45	29	14	73	16	5								7	
16:00	22	16	46	11	1								2	
16:15	19	10	70	13	4								3	
16:30	26	14	73	15	2									
16:45	21	25	88	8										
17:00														
17:15														
17:30														
17:45														
18:00														
18:15														
18:30														
18:45														
19:00														
19:15														
19:30														
19:45														
20:00														
20:15														
20:30														
20:45														
PM Totals	168	110	505	102	25								31	
Totals	330	223	892	257	44								75	
					North Crosswalk =				44	South Crosswalk =				75

Fairlight Drive & Gropper Crescent

Prepared By: Mariniel Flores **Date:** Thursday, October 20, 2016

Location & Roadway Classification: Fairlight Drive (Major Arterial) & Gropper Crescent (Local)

Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, September 20, 2016

Weather: 9.5°C, Clear/Cloudy

Traffic Control Devices: Stop sign on Gropper Crescent assigning right-of-way to Fairlight Drive

Current Pedestrian Control: Standard crosswalk on west side

Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 5 lanes

Is there a physical median in this crosswalk(s)? y (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 150 m

Location: Fairlight Drive & Diefenbaker Drive

Type: Traffic Signals

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:	20	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	4,320	at	
Adult:		Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	32		
Vehicles passing through crosswalk(s):	4,765				

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the West Crosswalk ****

(Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal.)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts									
	SB	WB	NB	EB	West Crosswalk				East Crosswalk					
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child		
7:00														
7:15														
7:30														
7:45														
8:00	3	74		172										
8:15		72		169										
8:30	4	87		168										
8:45	1	87		154	1									
9:00														
9:15														
9:30														
9:45														
AM Totals	8	320		663	1									
11:30	2	95		78										
11:45		90		88										
12:00		99		82	1									
12:15	1	109		89										
12:30	1	87		112	1									
12:45	1	80		118										
13:00		79		97	3									
13:15	1	97		79										
Noon Totals	6	736		743	5									
14:00														
14:15														
14:30														
14:45														
15:00		110		95										
15:15		146		97	6									
15:30	3	143		151	2									
15:45	1	160		157	3									
16:00		171		120	2									
16:15	1	184		134										
16:30	1	163		119									1	
16:45	2	198		133										
17:00														
17:15														
17:30														
17:45														
18:00														
18:15														
18:30														
18:45														
19:00														
19:15														
19:30														
19:45														
20:00														
20:15														
20:30														
20:45														
PM Totals	8	1,275		1,006	13								1	
Totals	22	2,331		2,412	19								1	
West Crosswalk =									19	East Crosswalk =				1

Hart Road & Neatby Crescent and Needham Crescent Walkway

Prepared By: Mariniel Flores **Date:** Friday, November 18, 2016

Location & Roadway Classification: Hart Road (Minor Collector) & Neatby Crescent and Needham Crescent Walkway
Date of Count: Day of wk: Tuesday Mth, Day, Yr: Tuesday, November 08, 2016
Weather: 6.8°C, Clear/Cloudy
Traffic Control Devices: None
Current Pedestrian Control: None
Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? n (y or n)

Speed limit (or 85th percentile speed) 50 km/h
 85th percentile (check one)
 Posted Limit

Distance to nearest protected crosswalk 110 m
Location: Hart Road & Bowlt Crescent
Type: Three-way stop & standard crosswalks

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:	24	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	1,512	at	
Adult:		Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	17		
Vehicles passing through crosswalk(s):	1,500				

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
 PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

****Install device at the West Crosswalk ****
 (Note: Standard and Zebra crosswalks can be installed on both sides if pedestrian volumes are approximately equal.)

Time (15 minute intervals)	Vehicle Counts				Pedestrian Counts								
	SB	WB	NB	EB	West Crosswalk				East Crosswalk				
					Child	Teen	Adult	Senior / Impaired	Senior / Impaired	Adult	Teen	Child	
7:00													
7:15													
7:30													
7:45													
8:00		24		37									
8:15		62		70	1								
8:30		93		83	2								
8:45		46		37									
9:00													
9:15													
9:30													
9:45													
AM Totals		225		227	3								
11:30		21		11									
11:45		22		15									
12:00		13		17	2								
12:15		29		26	1								
12:30		48		40	7								
12:45		22		30									
13:00		25		33	2								
13:15		13		19	1								
Noon Totals		193		191	13								
14:00													
14:15													
14:30													
14:45													
15:00		15		16									
15:15		52		38	1								
15:30		91		71	5								
15:45		60		47									
16:00		37		33									
16:15		50		35									
16:30		32		17									
16:45		45		25	2								
17:00													
17:15													
17:30													
17:45													
18:00													
18:15													
18:30													
18:45													
19:00													
19:15													
19:30													
19:45													
20:00													
20:15													
20:30													
20:45													
PM Totals		382		282	8								
Totals		800		700	24								
					West Crosswalk = 24				East Crosswalk =				

Pedestrian Corridor Warrants

Fairlight Drive & McCormack Road (South) / Pendency Road

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts						P.C. Warrant Points	Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides				Factored Counts					
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00												
7:15												
7:30												
7:45												
8:00	204	204			1		1	0.5	0.5	102		
8:15	202	406		1			1	0.67	1.17	475		
8:30	211	413	3		1		4	3.5	4.17	1,722		
8:45	167	378	2		1		3	2.5	6	2,268		
9:00		167							2.5	418		
9:15												
9:30												
9:45												
AM Totals	784		5	1	3		9					
11:30	128				2		2	1				
11:45	124	252							1	252		
12:00	123	247										
12:15	141	264				1	1	1	1	264		
12:30	132	273			2		2	1	2	546		
12:45	113	245							1	245		
13:00	111	224	1				1	1	1	224		
13:15	91	202							1	202		
Noon Totals	963		1		4	1	6					
14:00												
14:15												
14:30												
14:45												
15:00	173	173	1		2		3	2	2	346		
15:15	180	353	9			2	11	11	13	4,589		
15:30	262	442	2		1		3	2.5	13.5	5,967	1	
15:45	249	511	16				16	16	18.5	9,454	1	
16:00	219	468			1		1	0.5	16.5	7,722	1	
16:15	219	438	1		2		3	2	2.5	1,095		
16:30	259	478	1				1	1	3	1,434		
16:45	262	521	2				2	2	3	1,563		
17:00		262							2	524		
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	1,823		32		6	2	40				23,143	
Totals	3,570		38	1	13	3	55					
			69%	2%	24%	5%	100%					
			West Crosswalk =				28	<<< install crosswalk on this side of the int.				
			East Crosswalk =				27					

SUMMARY

Total Warranted PC Points: 23,143 or 7,714 / period
Highest PC point value: 9,454 at
Average PC point value: 2,627
No. of periods warranted: 3

Fairlight Drive & McCormack Road (South) / Pedygrasse Road

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Counts				Warrant
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			Points
7:00												
7:15												
7:30												
7:45												
8:00	95	95	10				10	10	10	950		
8:15	95	190	12				12	12	22	4,180		
8:30	84	179	13				13	13	25	4,475		
8:45	60	144	5				5	5	18	2,592		
9:00		60							5	300		
9:15												
9:30												
9:45												
AM Totals	334		40				40					
11:30	61		2				2	2				
11:45	48	109	6				6	6	8	872		
12:00	69	117	2				2	2	8	936		
12:15	64	133	4				4	4	6	798		
12:30	77	141	2				2	2	6	846		
12:45	55	132	3				3	3	5	660		
13:00	59	114	4				4	4	7	798		
13:15	50	109							4	436		
Noon Totals	483		23				23					
14:00												
14:15												
14:30												
14:45												
15:00	79	79	2				2	2	2	158		
15:15	69	148	14				14	14	16	2,368		
15:30	128	197	16				16	16	30	5,910	1	
15:45	132	260	12				12	12	28	7,280	1	
16:00	95	227	3				3	3	15	3,405		
16:15	112	207	7				7	7	10	2,070		
16:30	128	240	2				2	2	9	2,160		
16:45	142	270							2	540		
17:00		142										
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	885		56				56					
Totals	1,702		119				119					
			100%				100%					
			North Crosswalk =				44					
			South Crosswalk =				75	<<< install crosswalk on this side of the int.				

SUMMARY

Total Warranted PC Points: 13,190 or 6,595 / period
Highest PC point value: 7,280 at
Average PC point value: 2,782
No. of periods warranted: 2

APPENDIX D: TRAFFIC SIGNAL ASSESSMENT

Fairlight Drive & McCormack Road (South) / Pendency Road

Main Street (name)	Fairlight Drive	Direction (EW or NS)	NS
Side Street (name)	McCormack Road (South) / Pendency Road	Direction (EW or NS)	EW
Quadrant / Int #		Comments	

Road Authority:	City of Saskatoon
City:	City of Saskatoon
Analysis Date:	2016 Oct 17, Mon
Count Date:	2016 Sep 21, Wed
Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	Up/Street Signal (m)	# of Thru Lanes
Fairlight Drive	NB	1		1		1		840	2
Fairlight Drive	SB	1		1		1			
McCormack Road (South) / Pendency Road	WB				1				
McCormack Road (South) / Pendency Road	EB				1				

Are the McCormack Road (South) / Pendency Road WB right turns significantly impeded by through movements? (y/n) n
 Are the McCormack Road (South) / Pendency Road EB right turns significantly impeded by through movements? (y/n) n

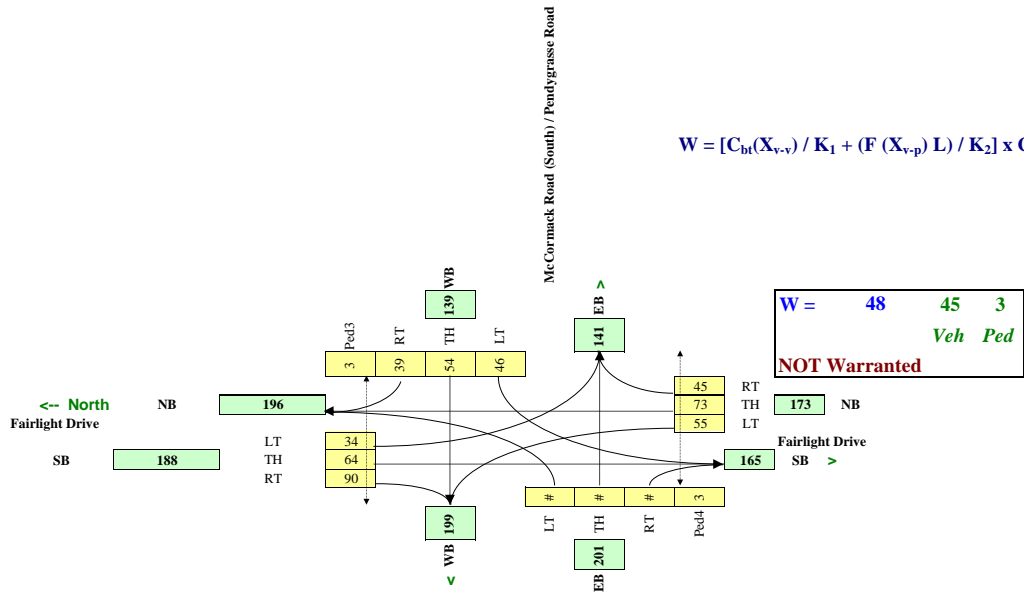
Demographics		
Elem. School/Mobility Challen	(y/n)	y
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	y
Metro Area Population	(#)	265,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Fairlight Drive	NS	50	2.0%	y	1.5
McCormack Road (South) / Pendency Road	EW	50	1.0%	y	2.0

Traffic Input	NB			SB			WB			EB			Ped1	Ped2	Ped3	Ped4
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	19	64	31	16	48	33	44	24	31	107	105	72	4	5	4	3
8:00 - 9:00	53	46	31	36	68	88	48	53	54	132	87	88	14	26	4	5
11:30 - 12:30	36	72	26	23	39	77	35	30	41	53	50	34	3	11	2	1
12:30 - 13:30	36	61	26	20	55	59	30	24	21	45	37	33	2	7	1	2
16:00 - 17:00	100	94	83	46	88	156	65	100	42	93	45	47	7	5	6	1
17:00 - 18:00	86	100	74	62	84	127	55	90	47	74	47	57	4	7	2	7
Total (6-hour peak)	330	437	271	203	382	540	277	321	236	504	371	331	34	61	19	19
Average (6-hour peak)	55	73	45	34	64	90	46	54	39	84	62	55	6	10	3	3

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v,v}) / K_1 + (F(X_{v,p}) L) / K_2] \times C_i$$



APPENDIX E: COLLISION ANALYSIS

Street 1	Street 2	UGRID	2011	2012	2013	2014	2015	Total Number of Collisions (2011 - 2015)	Total Number of Collisions (2015)	Right Angle, Left Turn & Right Turn Collisions Only (2011 - 2015)	Right Angle, Left Turn & Right Turn Collisions Only (2015)	Average Number of Collisions (2011 - 2015)
Diefenbaker Drive	Fairlight Drive	SKB8-20	7	11	9	9	15	51	15	15	4	10
Fairlight Drive	McCormack Road / Olmstead Road	SKA8-7	4	2	6	4	1	17	1	10	1	3
Fairlight Drive	McCormack Road / Pendencygrasse Road	SKA9-13	2	2	4	4	3	15	3	4	0	3
Fairlight Drive	Gropper Crescent	SKA8-40	1	2	4	2	5	14	5	8	3	3
Hart Road	Shillington Crescent	SKBB8-14	0	2	2	3	1	8	1	1	0	2
McCormack Road	Smith Road	SKAA9-8	1	0	1	1	2	5	2	1	0	1
McCormack Road	Sherry Crescent East / Wrigley Crescent West	SKAA9-17	0	1	0	1	2	4	2	0	0	1
McCormack Road	Postnikoff Crescent East	SKA8-17	0	0	0	2	1	3	1	0	0	1
Heise Crescent / McCormack Road	Streb Crescent	SKA8-18	0	0	2	0	0	2	0	0	0	0
McCormack Road	Podiluk Court	SKAA8-28	1	1	0	0	0	2	0	0	0	0
McCormack Road	Neatby Crescent East / Smith Road	SKAA8-8	0	1	0	0	1	2	1	1	0	0
McCormack Road	Sherry Crescent West / Smith Road	SKAA9-11	0	0	0	1	1	2	1	1	0	0

Street 1	Street 2	UGRID	2011	2012	2013	2014	2015	Total Number of Collisions (2011 - 2015)	Total Number of Collisions (2015)	Right Angle, Left Turn & Right Turn Collisions Only (2011 - 2015)	Right Angle, Left Turn & Right Turn Collisions Only (2015)	Average Number of Collisions (2011 - 2015)
McCormack Road	Wrigley Crescent East	SKAA9-7	1	0	1	0	0	2	0	1	0	0
Gropper Crescent	McCormack Road	SKA8-39	1	0	0	0	0	1	0	0	0	0
McCormack Road	Postnikoff Crescent West	SKA8-45	0	0	0	1	0	1	0	0	0	0
McCormack Road	Streb Crescent West	SKAA8-10	0	0	0	0	1	1	1	0	0	0
McCormack Road	Needham Crescent East	SKAA8-2	0	1	0	0	0	1	0	0	0	0
Fusedale Terrace / Heise Crescent West	McCormack Road	SKAA8-23	1	0	0	0	0	1	0	0	0	0

APPENDIX F: PUBLIC MEETING #2 – DECEMBER 7, 2016 MINUTES

Parkridge Neighbourhood Traffic Review
Wednesday, December 7, 2016, 7:00 PM – 9:00 PM
Bethlehem Catholic High School - Library

Agenda

1. Welcome & Introductions
2. Presentation from Transportation Division
3. Small Group Discussions & Report Back to Large Group
4. Next Steps
5. Questions & Answers

1. Welcome & Introductions

(Presented by Mitch Riabko and Kathy Dahl, Facilitators)

2. Presentation from Transportation Division – Parkridge Neighbourhood Traffic Review

(Presented by Mariniel Flores, Engineer-in-Training, Transportation Engineer)

- Presentation Outline
 - Neighbourhood Traffic Review Process
 - Parkridge Review Schedule
 - What We Heard
 - What We Did
 - What We Propose
- Neighbourhood Traffic Review Process
 - August 2013 – New process
 - Mandate – Improve safety for all road users within neighbourhoods, reduce traffic volumes, slow vehicular speeds, improve pedestrian crossings & intersections where necessary
 - 2014 – Reviewed 11 neighbourhoods
 - 2015 – Reviewed 8 neighbourhoods
 - 2016 – Parkridge, Sutherland, Willowgrove, Stonebridge, Hampton Village, Grosvenor Park, Silverspring, Lakeridge
- Parkridge Review Schedule
 - Stage 1 – Identify issues & possible solutions through community consultation (April to December 2016)
 - Stage 2 – Develop a draft traffic plan
 - Stage 3 – Present draft traffic plan to community for feedback (December 2016)
 - Stage 4 – Implement changes over time (Beginning Spring 2017)
- What We Heard
 - Speeding Concerns
 - McCormack Road

- Gropper Crescent
 - Fairlight Drive
 - Shortcutting Concerns
 - Needham Crescent
 - Sherry Crescent
 - Pedestrian Safety & Intersection Concerns
 - Fairlight Drive & McCormack Road (S) / Pandygrasse Road
 - Fairlight Drive & Gropper Crescent
 - McCormack Road & Blue Place
 - Fairlight Drive & Diefenbaker Drive
 - Parking Concerns
 - Smith Road
 - Other Concerns
 - Tree obstructing sign
 - Snow removal
 - Road condition
 - Sidewalk repair
 - Catch basins
 - Walkway drainage & lighting
 - Missing curb cuts
 - 22nd Street & Diefenbaker Drive
 - 22nd Street & Confederation Drive
 - Lack of access into Blairmore
- What We Did
 - Compiled Information Received
 - Past studies
 - Comments from initial meeting
 - Resident responses (phone calls, emails, letters)
 - Comments from Shaping Saskatoon
 - Collected Data
 - 5 intersection/pedestrian counts
 - 10 – 3-day/7-day traffic counts (24 hour) & speed measurements
 - Collision data
 - Site Visits / Field Reviews
 - Assessed Concerns
 - Generated Proposed Recommendations
- What We Propose
 - Zebra Crosswalks
 - Stop Signs
 - Raised Median Islands
 - Curb Extensions
 - Speed Display Board
 - Parking Restriction
 - Protected Left-Turn

3. Small Group Discussions

- Residents were divided into small groups to discuss the proposed recommendations

Refer to separate attachment for small group comments

4. Next Steps

(Presented by Mariniel Flores, Engineer-in-Training, Transportation Engineer)

1. Send comments no later than January 6, 2017
2. Additional public input via City on-line Community Engagement webpage no later than January 6, 2017 at <http://shapingsaskatoon.ca/discussions/parkridge-neighbourhood-traffic-review>
3. Additional consultation if required
4. Present Traffic Plan to Transportation Committee
5. Present Traffic Plan to City Council for approval
6. What happens after City Council approval?
 - Recommendations are implemented. Traffic calming devices are installed on a temporary basis using rubber curbs for a trial period of at least one year so we can determine if they are effective.
 - If at any point throughout the process you don't agree with the recommendations, there are opportunities to voice your opinion. You can reserve five minutes to speak during the Transportation Committee or City Council meetings. After City Council approves, installations begin. Please let us know if something is not working or needs to be changed or removed.

5. Large Group Discussion – Questions & Answers

Q: How do major intersections get reviewed if it is not included in the Neighbourhood Traffic Reviews?

A: Major intersections such as 22nd Street & Diefenbaker Drive are reviewed by a different process. More information is available online or we can send you the link.

- The link is: <https://www.saskatoon.ca/moving-around/driving-roadways/road-maintenance-repair/construction-projects/intersection-improvements/>

Q: Snow removal only occurs on major streets. Why does the City not plow the snow on crescents (i.e., Sherry Crescent and other crescents)? It is a major contributing factor of accidents and SGI should provide snow plows to reduce accidents in the winter. Don't leave the snow on my sidewalk when you grade the snow.

A: We will pass your comments to Public Works who look after the winter roadway maintenance.

Q: How does the walkway issue get addressed? There is vandalism on the walkway between Caldwell Crescent and Smith Crescent. Can you close it to keep our area safe?

A: We have a Crime Prevention through Environmental Design (CPTED) review process to reduce crimes in walkways. The walkway on Needham Crescent and on Neatby Crescent were review under this program. We will pass your comments to our colleagues that manage the CPTED reviews.

Councillor: We have considered the snow & ice program during budget deliberations. 0.55% budget increase for snow removal next year for a better service level. We are always looking for ways to improve snow clearing. Removing the snow off the street is costly as we have to find a place to put the snow. I will pass along the walkway issue comment at the Community Association meeting.

Police: You are welcome to call us if you have any traffic concerns. We need your input.

List of Representatives

- Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators
- Mariniel Flores, Lanre Akindipe, David LeBoutillier, Yang Li, Justine Marcoux – City of Saskatoon, Transportation & Utilities
- Vicky Reaney, City of Saskatoon, Community Services

Parkridge Neighbourhood Traffic Review- Small Group Discussions

Item	Location	Recommendations	Reasons	Group 1: Lanre Akindipe	Group 2: David LeBoutillier	Group 3: Yang Li	Group 4: Justine Marcoux	Group 5: Vicky Reaney	Group 6: Marmel Flores
1	Fairlight Dr & McCormack Rd (S) / Penygrasse Rd	Paint zebra crosswalks	Improve pedestrian safety	Why not traffic signal? Consider sanding	In favour	In favour: Install traffic signal or add reflective hazard board to increase the visibility of stop sign		Most not in favour; People don't stop. Enforcement; Police lights; 12 lanes of traffic in total; Roundabout suggested; Light is needed; Consensus on lights; Woman at the stop. Currently not safe to cross; School buses stop at intersection.	In favour
2.1	McCormack Rd & Wrigley Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Good but enforcement is an issue at stop signs. Sherry Cres is still in the middle of the road. School bus stop.	In favour
2.2	McCormack Rd & Wrigley Cres (W) / Sherry Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway	In favour	In favour			Speed control.	In favour
2.3	McCormack Rd & Whitecap Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.4	McCormack Rd & Smith Cres	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.5	McCormack Rd & Caldwell Cres	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.6	McCormack Rd & Whitecap Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.7	McCormack Rd & Caldwell Cres (W) / Parr Pl	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.8	McCormack Rd & Strumm Terr / Arrand Cres (W)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.9	McCormack Rd & Poolluk Ct	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.10	McCormack Rd & Neaby Cres (W) / Arrand Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.11	McCormack Rd & Needham Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.12	McCormack Rd & Needham Cres (E) / Fairburn Ct	Install temporary median island & curb extensions on west leg of McCormack Rd	Reduce driver speed	Okay; Yellow lights in school zone; Majority in favour	Not good in winter; Not necessary as there are some traffic calming on this section of road			Generally makes sense	In favour
2.13	McCormack Rd & Hease Cres (W) / Fusedale Terr	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok	In favour
2.14	McCormack Rd & Streb Cres (W)	Replace yield sign with stop sign; Install temporary median island on east leg of McCormack Rd	Improve safety; Local roadway intersects collector roadway; Reduce driver speed	In favour	Not good in winter; Not necessary as there are some traffic calming on this section of road			Generally ok; Enforcement is an issue	In favour
2.15	McCormack Rd & Gooding Pl	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.16	McCormack Rd & Hease Cres (E) / Streb Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.17	McCormack Rd & Blue Pl / Poth Cres (W)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.18	McCormack Rd & Postnikoff Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway	In favour	In favour			Generally ok; Enforcement is an issue; Opens McCormack Rd as a race track; Too many stop signs on local roads; Speeding issue is not on McCormack Rd. Are stop signs necessary?	In favour
2.19	McCormack Rd & Postnikoff Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
2.20	McCormack Rd & Poth Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway.	In favour	In favour			Generally ok; Enforcement is an issue	In favour
3	McCormack Rd / Postnikoff Cres (W) to Postnikoff Cres (E)	Install mid-block temporary median island	Reduce driver speed	Problem in winter, snow clearing issue; Eastbound speed display	Not necessary; Move to 2.19 or 2.20			Too many medians; Makes sense on a curved portion of road where vehicles on north side of McCormack Rd / Penygrasse Rd are not speeding too much; Flashing lights when you're speeding is more effective	In favour
4	Fairlight Dr / McCormack Rd (N) / Omstead Rd to McCormack Rd (S) / Penygrasse Rd	Install speed display board facing southbound traffic	Reduce driver speed	Okay; May be better to move board further south closer to curve	In favour; Add one more northbound before the curve			Should be further from light as cars are not speeding too much; Flashing lights when you're speeding is more effective	Most in favour; One resident suggested speed bumps
5	Hart Rd & Shillington Cres	Install "No Parking" sign on Hart Rd 10m from intersection on northeast corner.	Improve visibility / sight line	In favour	In favour			Generally ok	In favour
6	Fairlight Dr & Diefenbaker Dr	Install protected left-turn for eastbound left-turning traffic.	Improve traffic flow	In favour	In favour			Generally ok	In favour

Parkridge Neighbourhood Traffic Review: Small Group Discussions

Additional Comments		
Item	Location	Comments
1	School Zone	Lights when reduced speed is in effect rather than 8am to 5pm; 24/7 speed reduction; Tree obstructs westbound school zone sign
2	22nd St & Diefenbaker Dr	Difficult to make northbound right turn onto 22nd St; Issues with westbound left turn; Lanes don't line up southbound and northbound on Diefenbaker Dr; Interchange suggested
3	McCormack Rd & Streb Cres	Tree blocking street name sign in summer
4	McCormack Rd & Parr Pl	Speeding
5	Arrand Cres	Close calls at this corner
6	Highway 7	Rail crossing arms are suggested
7	Fairlight Dr & Gropper Cres	Dangerous turning left onto Fairlight Dr; Pedestrian safety
8	Fairlight Dr & McCormack Rd (S) / Pendygrasse Rd	Sanding needed; Long queues
9	Fairlight Dr & Diefenbaker Dr	Safety issues making a southbound right turn
10	22nd St & Fairmont Dr	Make sure northbound right turn yield; Add right turn curbside lane; Remove dangerous barrier curb at Fairmont Dr
11	22nd St	Finish widening
12	Kinloch Cres	Enforcement needed
13	McCormack Rd (Cory Cres to Caldwell Cres)	Speeding
14	General	Concerns for new subdivision at northwest portion of neighbourhood; Speed limit should be 60 kph on 11th St and 70 kph on 22nd St (Diefenbaker Dr to City Limits); More medians needed on west side of McCormack Rd (too many medians on east side); Lack of access into Blairmore; Need to pave Smith Rd, McCormack Rd and 11th St; Narrow median islands at Smith Cres and at Smith Rd; Poor sidewalks in neighbourhood; Reduce speed limit in neighbourhood

APPENDIX G: DECISION MATRIX

Item	Location	Recommendations	Reasons	Group 1: Lanre Akindipe	Group 2: David LeBoutillier	Group 3: Yang Li	Group 4: Justine Marcoux	Group 5: Vicky Reaney	Group 6: Mariniel Flores	Decision
1	Fairlight Dr & McCormack Rd (S) / Pendygrasse Rd	Paint zebra crosswalks	Improve pedestrian safety		Why not traffic signal?; Consider sanding	In favour; Install traffic signal or add reflective hazard board to increase the visibility of stop sign		Most not in favour; People don't stop; Enforcement; Police lights; 12 lanes of traffic in total; Roundabout suggested; Light is needed; Consensus on lights; Woman at the table was hit as a driver at this stop; Currently not safe to cross; School buses stop at intersection	In favour	Zebra crosswalks removed. Hazard board signs recommended.
2.1	McCormack Rd & Wrigley Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Enforcement is an issue at stop signs	In favour	Carried
2.2	McCormack Rd & Wrigley Cres (W) / Sherry Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Good but enforcement is an issue at stop signs; Sherry Cres is still lacking speed bumps; School bus route; Speed control	In favour	Carried
2.3	McCormack Rd & Whitecap Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.4	McCormack Rd & Smith Cres	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.5	McCormack Rd & Caldwell Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.6	McCormack Rd & Whitecap Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.7	McCormack Rd & Caldwell Cres (W) / Parr Pl	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.8	McCormack Rd & Strumm Terr / Arrand Cres (W)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.9	McCormack Rd & Podiluk Crt	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.10	McCormack Rd & Neatby Cres (W) / Arrand Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.11	McCormack Rd & Needham Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.12	McCormack Rd & Needham Cres (E) / Fairburn Crt	Replace two-way yield signs with two-way stop signs; Install temporary median island & curb extensions on west leg of McCormack Rd	Improve safety; Local roadway intersects collector roadway; Reduce driver speed		Okay; Yellow lights in school zone; Majority in favour	Not good in winter; Not necessary as there are some traffic calming on this section of road	In favour; Enforcement needed also; Needham Way being used as a loop and shortcut to avoid school zone; Low counts may be due to the summer season; These are the same issues on Sherry Cres	Generally makes sense	In favour	Carried
2.13	McCormack Rd & Heise Cres (W) / Fusedale Terr	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok	In favour	Carried
2.14	McCormack Rd & Streb Cres (W)	Replace yield sign with stop sign; Install temporary median island on east leg of McCormack Rd	Improve safety; Local roadway intersects collector roadway; Reduce driver speed		In favour	Not good in winter; Not necessary as there are some traffic calming on this section of road	In favour; Good for preventing drivers from driving into oncoming lane	Generally ok; Enforcement is an issue	In favour	Carried
2.15	McCormack Rd & Gooding Pl	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.16	McCormack Rd & Heise Cres (E) / Streb Cres (E)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.17	McCormack Rd & Blue Pl / Poth Cres (W)	Replace two-way yield signs with two-way stop signs	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.18	McCormack Rd & Postnikoff Cres (W)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue; Opens McCormack Rd as a race track; Too many stop signs on locals; Speeding issue is not on local roads; Are stop signs necessary?	In favour	Carried
2.19	McCormack Rd & Postnikoff Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
2.20	McCormack Rd & Poth Cres (E)	Replace yield sign with stop sign	Improve safety; Local roadway intersects collector roadway		In favour	In favour		Generally ok; Enforcement is an issue	In favour	Carried
3	McCormack Rd [Postnikoff Cres (W) to Postnikoff Cres (E)]	Install mid-block temporary median island	Reduce driver speed	Problem in winter, snow clearing issue; Eastbound speed display board more effective	In favour	Not necessary; Move to 2.19 or 2.20	In favour; Ok if parking isn't too close; Has to be wide enough to pass	Too many medians; Makes sense on a curved portion of road where car collisions happened	In favour	Carried
4	Fairlight Dr [McCormack Rd (N) / Olmstead Rd to McCormack Rd (S) / Pendygrasse Rd]	Install speed display board facing southbound traffic	Reduce driver speed		Okay; May be better to move board further south closer to curve	In favour; Add one more northbound before the curve	In favour; Add one for northbound vehicles on north side of McCormack Rd / Pendygrasse Rd	Should be further from light as cars are not speeding too much; Flashing lights when you're speeding is more effective	Most in favour; One resident suggested speed bumps	Carried. Speed display board location revised.

Item	Location	Recommendations	Reasons	Group 1: Lanre Akindipe	Group 2: David LeBoutillier	Group 3: Yang Li	Group 4: Justine Marcoux	Group 5: Vicky Reaney	Group 6: Mariniel Flores	Decision
5	Hart Rd & Shillington Cres	Install "No Parking" sign on Hart Rd 10m from intersection on northeast corner	Improve visibility / sight line		In favour	In favour		Generally ok	In favour	Carried
6	Fairlight Dr & Diefenbaker Dr	Install protected left-turn for eastbound left-turning traffic	Improve traffic flow		In favour	In favour	In favour; Would help (traffic gets backed up to McCormack Rd)	Generally ok	In favour	Carried

APPENDIX H: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
PLAN

Item	Location	Comments
1	School Zone	Lights when reduced speed is in effect rather than 8am to 5pm; 24/7 speed reduction; Tree obstructs westbound school zone sign
2	22nd St & Diefenbaker Dr	Difficult to make northbound right turn onto 22nd St; Issues with westbound left turn; Lanes don't line up southbound and northbound on Diefenbaker Dr; Interchange suggested
3	McCormack Rd & Streb Cres	Tree blocking street name sign in summer
4	McCormack Rd & Parr Pl	Speeding
5	Arrand Cres	Close calls at this corner
6	Highway 7	Rail crossing arms are suggested
7	Fairlight Dr & Gropper Cres	Dangerous turning left onto Fairlight Dr; Pedestrian safety
8	Fairlight Dr & McCormack Rd (S) / Pedygrasse Rd	Sanding needed; Long queues; Install larger stop signs
9	Fairlight Dr & Diefenbaker Dr	Safety issues making a southbound right turn
10	22nd St & Fairmont Dr	Make sure northbound right turn yield; Add right turn curbside lane; Remove dangerous barrier curb at Fairmont Dr
11	22nd St	Finish widening
12	Kinloch Cres	Enforcement needed
13	McCormack Rd (Cory Cres to Caldwell Cres)	Speeding
14	General	Concerns for new subdivision at northwest portion of neighbourhood; Speed limit should be 60 kph on 11th St and 70 kph on 22nd St (Diefenbaker Dr to City Limits); More medians needed on west side of McCormack Rd (too many medians on east side); Lack of access into Blairmore; Need to pave Smith Rd, McCormack Rd and 11th St; Narrow median islands at Smith Cres and at Smith Rd; Poor sidewalks in neighbourhood; Reduce speed limit in neighbourhood

Willowgrove Neighbourhood Traffic Review

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Neighbourhood Traffic Review for the Willowgrove 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 (NTR) for the Willowgrove neighbourhood.

Report Highlights

A Neighbourhood Traffic Plan for the Willowgrove 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 safety of pedestrians, motorists, and cyclists.

Background

A public meeting was held in June 2016 to identify traffic concerns and potential solutions within the Willowgrove 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 Neighbourhood Traffic Plan was developed and presented to the community at a second public meeting held in November 2016.

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, and make adjustments as needed to 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 during the consultation included shortcutting, speeding, pedestrian safety, and parking.

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

- Median islands
- Curb extensions
- Active Pedestrian Corridors
- Zebra crosswalks
- Parking restrictions
- Yield signs
- 20 kph speed signs (back lanes)
- Playground signs
- Cul-de-sac signs
- Lane designation signs & pavement markings
- Speed display boards
- Enforcement

The 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, enforcement, speed display boards
Medium-term (3 to 5 years)	Permanent traffic calming devices, Active Pedestrian Corridors
Long-term (more than 5 years)	Permanent traffic calming devices, roadway realignment, sidewalks

The Willowgrove Neighbourhood Traffic Review is included in Attachment 1.

If approved by City Council, all of the temporary traffic calming measures will be installed in 2017. An annual report on the NTRs will provide an update on the status of converting the temporary measures to a permanent condition.

Conducting an NTR in an existing recently developed neighbourhood provides an opportunity to adjust development standards and design review processes in an attempt to minimize the occurrence of future problems. Considering the changes desired by the residents of Willowgrove, the Administration will ensure that all development reviews and approvals include the following considerations:

- Where feasible avoid a single, long collector roadway that winds through a neighbourhood. This was acceptable planning 10 to 15 years ago when Willowgrove was planned; however, modern planning principles support a grid-type style neighbourhood with multiple points of access and egress that spread traffic out through a neighbourhood and provide drivers with multiple route choices.

- Include features such as curb extensions and centre medians where required in all new development roadway designs, and ensure these are properly referenced in Neighbourhood Concept Plans.

Public and/or Stakeholder Involvement

In June 2016, 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 November 2016. Additional feedback received at the follow-up public meeting was also incorporated into the NTR.

Feedback was provided by internal civic stakeholders of various divisions and departments: Roadways & Operations, Saskatoon Transit, Planning & Development, Saskatoon Light & Power, Saskatoon Police Service, and the Saskatoon Fire Department on the proposed improvements, which was incorporated into the recommended Neighbourhood Traffic 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, has not been quantified at this time.

Financial Implications

The implementation of the Neighbourhood Traffic Plan will have financial implications. The costs are summarized in the following table:

Category	2017	Beyond 2017
Signs, Pavement Markings & Temporary Traffic Calming	\$7,750	NA
Permanent Traffic Calming	NA	\$265,000
Pedestrian Safety Devices	NA	\$40,000
TOTALS	\$7,750	\$305,000

There is sufficient funding within Capital Project #1512 – Neighbourhood Traffic Management to undertake the work in 2017, which includes implementation of all signage, pavement markings, and temporary traffic calming measures.

The remainder of the work beyond 2017 includes the construction of permanent traffic calming measures and installation of pedestrian devices, which will be considered alongside all other improvements identified through the NTR Program. The Administration will include in their annual budget submission package 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 implications or considerations.

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 2017 construction season.

Public Notice

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

Attachment

1. Willowgrove Neighbourhood Traffic Review, February 9, 2017

Report Approval

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

TRANS JMar – Willowgrove Neighbourhood Traffic Review

WILLOWGROVE

2016 Neighbourhood Traffic Reviews

CITY OF SASKATOON

February 9, 2017

Willowgrove Neighbourhood Traffic Review

February 9, 2017

Authorization

Prepared By:

*Original stamped
and sealed*

Justine Marcoux, P. Eng.
Transportation Engineer

Checked By:

*Original stamped
and sealed*

Jay Magus, P. Eng.
Transportation Engineering Manager

Acknowledgements

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

- Willowgrove residents
- Willowgrove Community Association
- Saskatoon Police Service
- Saskatoon Light & Power
- Saskatoon Fire Department
- City of Saskatoon Environmental Services
- City of Saskatoon Transit
- City of Saskatoon Planning & Development
- City of Saskatoon Roadways & Operations
- City of Saskatoon Community Standards
- City of Saskatoon Transportation
- Great Works Consulting
- Councillor Zach Jeffries

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 program involves additional community and stakeholder consultation that provides opportunity for residents and City staff to work together in developing solutions that address traffic concerns within their neighbourhood. The process is outlined in the *Traffic Calming Guidelines and Tools*, City of Saskatoon, 2016.

A public meeting was held in June 2016 to identify traffic concerns and potential solutions within the Willowgrove 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 Plan was developed and presented to the community at a follow-up meeting held in November 2016.

A summary of recommended improvements for the Willowgrove 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 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 years); medium-term (3 to 5 years) and long-term (5 years plus). Accordingly, the specific time frame to implement the improvements ranges from 1 to 5 years.

The Willowgrove Traffic Plan is illustrated in **Exhibit ES-1**.


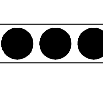

Table ES-I: Willowgrove Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	Stensrud Road & Muzyka Road	Add temporary curb extension on southeast corner; permanent median island; zebra crosswalks	Reduce driver speed; improve pedestrian safety near park
2	Stensrud Road - north of Keewell Street	Temporary speed display board facing southbound traffic	Reduce driver speed
3	Stensrud Road & Van Impe Court / Lamarsh Road	Permanent median island	Reduce driver speed & improve pedestrian safety
4	Stensrud Road & Willowgrove Boulevard / Square (east side)	Lane designation for Willowgrove Boulevard - left lane is left turn only, right lane is shared through / right turn	Improve traffic flow
5	Stensrud Road & Willowgrove Boulevard / Square (west side)	Active Pedestrian Corridor	Improve pedestrian safety near park / school
6	Stensrud Road & Addison Road / Shepherd Crescent	Permanent median islands	Enhance visibility of stop signs; improve pedestrian safety near school
7	Stensrud Road & Paton Crescent (south)	Permanent median island	Reduce driver speed & improve pedestrian safety near park
8	Addison Road & Waters Crescent (east)	Permanent median island & curb extension; Active Pedestrian Corridor; parking restrictions on southeast corner (park side)	Reduce driver speed & improve pedestrian safety near park / school; ensure clearance for buses to pass through median island & parked vehicles
9	Addison Road between Waters Crescent (east) & Waters Crescent (west)	Temporary speed display board facing eastbound traffic; forward speed data to Saskatoon Police Service for enforcement	Reduce driver speed near park
10	Willowgrove Boulevard & Maguire Crescent (east)	Permanent curb extensions	Reduce driver speed & improve pedestrian safety near park / school
11	Willowgrove Boulevard & Maguire Crescent (east)	No Parking sign on Willowgrove Boulevard 10 m from intersection on southwest corner	Enhance visibility / sightlines
12	Willowgrove Boulevard at midblock crosswalk between Maguire Crescent & Stensrud Road	No Stopping signs on the south side (northbound side) 10 m on either side of the crosswalk	Enhance visibility / sightlines
13	Muzyka Road & Patrick Crescent (south)	Permanent median island	Reduce driver speed for right turn onto Patrick Cres
14	Patrick Crescent (north) & Patrick Lane	No Parking signs on Patrick Crescent 20 m from intersection on southeast corner	Enhance visibility / sightlines
15	Patrick Crescent - driveways to Ginger Loft condominiums	No Parking signs 5 m on either side	Enhance visibility / sightlines
16	Patrick Crescent & Patrick Lane / Stefaniuk Crescent	Yield signs (facing Patrick Lane / Stefaniuk Crescent)	Improve intersection safety
17	Patrick Avenue & Patrick Crescent (north)	Yield sign	Improve intersection safety

Table ES-I Continued

Item	Location	Recommendation	Reason
18	Patrick Avenue & Patrick Crescent (south)	Yield sign	Improve intersection safety
19	Paton Crescent (south) east of Paton Avenue	Playground Ahead sign facing westbound traffic	Improve pedestrian safety near park
20	Willowgrove Terrace & Willowgrove Court	Yield signs (facing Willowgrove Court)	Improve intersection safety
21	Willowgrove Avenue & Willowgrove Crescent	Yield signs (facing Willowgrove Avenue)	Improve intersection safety
22	Back lane behind 510 Stensrud Road	20 kph sign	Reduce driver speed
23	Back lane behind 810 Stensrud Road	20 kph signs	Reduce driver speed
24	Lamarsh Terrace	Cul-de-sac sign	Reduce traffic volumes
25	Paton Place		
26	Willowgrove Terrace		

LEGEND

-  EXISTING STOP SIGN
-  EXISTING YIELD SIGN
-  BUS ROUTE
-  SCHOOL ZONE
-  EXISTING TRAFFIC SIGNAL
-  PEDESTRIAN ACTUATED SIGNAL LOCATION
-  ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION

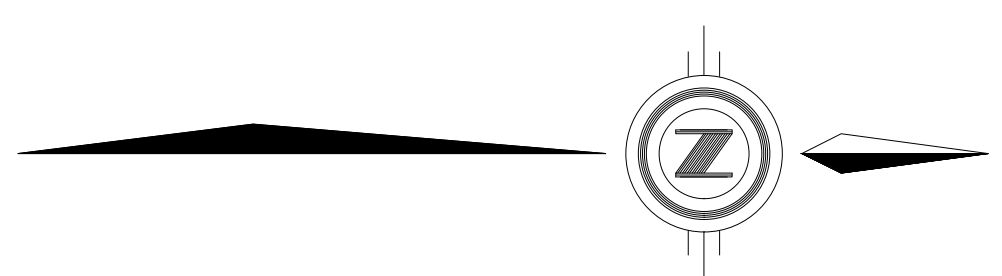


Exhibit ES-1

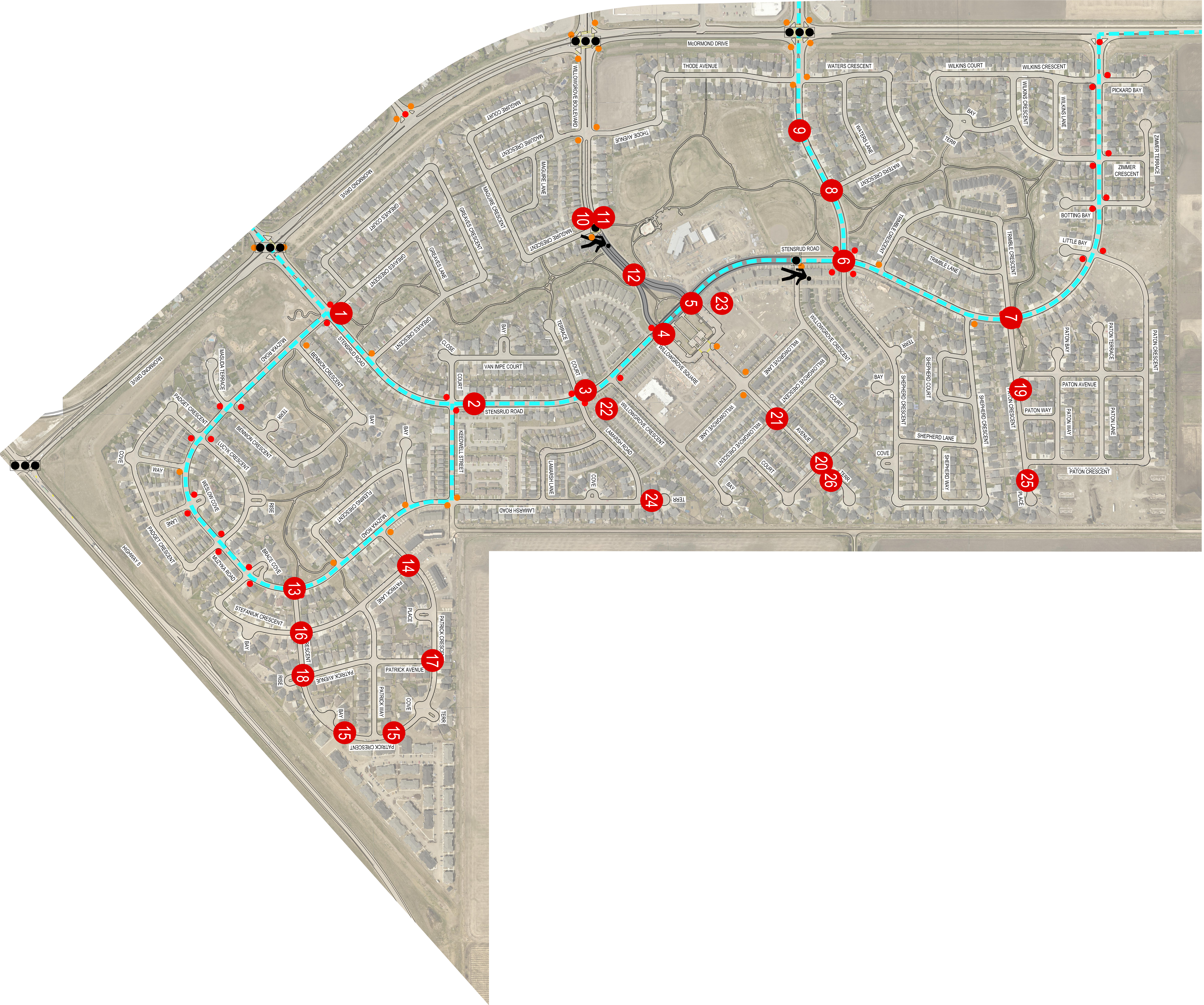


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I INTRODUCTION

As the City of Saskatoon continues to grow, many neighbourhoods face issues such as pedestrian safety, cut-through traffic, and increased speeds. In August 2013, City Council adopted the City of Saskatoon *Traffic Guidelines and Tools* document that outlines a procedure for completing traffic reviews on a neighbourhood-wide basis. Prior to this, neighbourhood traffic issues were dealt with on a case-by-case basis with mixed results. Since 2013 the formal process has proven to be very successful in providing recommendations that improve neighbourhood traffic conditions and pedestrian safety. Recommendations are developed by the Administration and residents in a collaborative fashion. Accordingly, this report provides the Traffic Plan for the Willowgrove neighbourhood.

The Willowgrove neighbourhood is located on the east portion of Saskatoon and is bound by McOrmond Drive to the west, Highway 5 to the south, and the city limits to the east. The land use is mostly residential, with an elementary school on Stensrud Road (Willowgrove School) and some commercial on Willowgrove Square.

The neighbourhood traffic review includes four stages:

- **Stage 1** - Identify issues, concerns and possible solutions through the initial neighbourhood consultation and the Shaping Saskatoon online discussion.
- **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).

This report presents the study findings and recommendations.

2 STAGE 1: IDENTIFYING ISSUES, CONCERNS, AND POSSIBLE SOLUTIONS

A public meeting was held in June 2016 to identify traffic concerns within the Willowgrove neighbourhood. At the meeting, residents were given the opportunity to express concerns and suggest possible solutions. The meeting minutes are provided in **Appendix A**.

The following pages summarize the concerns and suggested solutions identified during the initial consultation (including all correspondence and Shaping Saskatoon discussion comments received prior to the follow-up meeting) with the residents.

2.1 Concern 1 – Speeding and Shortcutting

Shortcutting occurs when non-local traffic passes through the neighbourhood on streets that are designed and intended for low volumes of traffic (i.e. local streets). As speeding often accompanies shortcutting, these concerns have been grouped into one category.

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

- Addison Road
- Stensrud Road
- Keedwell Street
- Paton Crescent
- Lamarsh Road
- Patrick Crescent
- Willowgrove Square
- Back lanes:
 - Behind 510 Stensrud Road
 - Near Willowgrove School
- Cul-de-sacs:
 - Lamarsh Terrace
 - Paton Crescent
 - Willowgrove Terrace

Proposed solutions identified by residents:

- Enforcement throughout neighbourhood
- Implement 40 kph speed limit neighbourhood-wide
- Include another access to Highway 5 from Willowgrove
- Addison Road – install speed humps, cameras, extend school zone
- Stensrud Road near Willowgrove School – install more signs or enforcement to address U-turns
- Stensrud Road between Keedwell Street and Greaves Crescent - install speed humps, speed display board or speed camera
- Patrick Crescent – install signs to remind people to slow down or “children at play”, speed bumps or speed indicator signs
- Cul-de-sacs – install a "Cul-de-Sac" sign or "No Throughway" sign

2.2 Concern 2 – Pedestrian Safety

It is important to address pedestrian safety concerns to support active transportation as encouraging walking to nearby amenities, as opposed to driving, reduces traffic volumes.

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.”

Willowgrove neighborhood pedestrian safety concerns were noted at the following locations:

- Addison Road & Waters Crescent (east) - a park connecting Willowgrove Park to Willowgrove School has pathways sloped to the crosswalk making it difficult to see pedestrians on the pathway resulting in vehicles not stopping for pedestrians
- Addison Road & Waters Crescent (west) – high volume of traffic makes it difficult to cross
- Stensrud Road & Muzyka Road / Greaves Crescent – dangerous for pedestrians; drivers don’t slow down
- Stensrud Road near the Willowgrove School – vehicles don’t stop for pedestrians
- Stensrud Road & Willowgrove Square – people often cross here to park and go to the school (difficult to cross); highly used pedestrian crossing (primarily children) especially at the start and end of the school day for both schools and day care
- Stensrud Road & Lamarsh Road – difficult to cross

Proposed solutions identified by residents:

- Addison Road & Waters Crescent (east) – lighted crosswalk or active pedestrian signal
- Addison Road & Waters Crescent (west) – mark crosswalk with pavement markings and signs; crosswalk needed on the east side
- Stensrud Road & Muzyka Road / Greaves Crescent – crosswalk lights are ideal or more signage and painted lines on all four sides
- Stensrud Road near the Willowgrove School – extend school zone hours (i.e. all day and all year) and location because there are playgrounds, ball diamonds and lots of kids
- Stensrud Road & Willowgrove Square – install Pedestrian Actuated Signal
- Stensrud Road & Lamarsh Road – install Pedestrian Actuated Signal
- Patrick Crescent – install crosswalk signs at intersections
- Install speed bumps at active pedestrian signal locations

2.3 Concern 3 – Traffic Control

Traffic control signs are used in order to assign the right-of-way. City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, April 26, 2009 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 volumes, collision history, and a balanced volume from each leg to operate sufficiently.

Concerns regarding traffic control in the Willowgrove neighborhood were identified at the following locations:

- Keedwell Street & Muzyka Road / Lamarsh Road – lack of adherence to yield signs; yield signs face busier street
- Stensrud Road & Keedwell Street – left-turn onto Stensrud Road is a challenge
- Patrick Avenue & Patrick Way – no one yields
- Stensrud Road & Willowgrove Square – vehicles driving the wrong way
- Willowgrove Avenue & Willowgrove Crescent – few people yield to oncoming traffic

Proposed solutions identified by residents:

- Stensrud Road & Muzyka Road / Greaves Crescent – install four-way stop
- Willowgrove Boulevard & Maguire Crescent (south) – install stop signs
- Patrick Avenue & Patrick Way – uncontrolled intersections need to be signed; install yield signs
- Patrick Crescent & Patrick Avenue – install four-way stop; install yield signs
- Patrick Crescent & Patrick Lane / Stefaniuk Crescent – install stop or yield signs
- Stensrud Road & Willowgrove Square - need some type of control, lane markings or signage to delineate traffic; more signage needed; pavement markings needed
- Willowgrove Avenue & Willowgrove Crescent – install stop or yield signs

2.4 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 within one metre of a driveway or back lane.

Willowgrove neighborhood parking concerns were at the following locations:

- Addison Road & Waters Crescent (east) – vehicles parking on south side blocking crosswalk (east leg)
- Stensrud Road & Muzyka Road / Greaves Crescent – parking too close to the intersection
- Stensrud Road & Willowgrove Crescent (north leg) – vehicles parking along west side of intersection blocking the Active Pedestrian Corridor; parking too close to the intersection
- Stensrud Road & Willowgrove Square – parking too close to the intersection
- Keedwell Street – parking on both sides of the street makes it very narrow
- Stensrud Road & Keedwell Street – parking blocking the view
- Patrick Avenue & Patrick Way – large vehicles parked next to intersection
- Patrick Crescent & Patrick Lane – large vehicles parked on bend making it difficult to see
- Willowgrove Avenue – narrow due to parking
- Willowgrove Boulevard & Maguire Crescent (east) – parking is blocking crosswalk
- Willowgrove Boulevard at midblock crosswalk between Maguire Crescent & Stensrud Road – parking is blocking crosswalk
- Residential parking in front of community mailboxes (i.e. Stensrud Road & Pickard Bay). Many elderly residents find it hard to walk to mailboxes in the winter.

Proposed solutions identified by residents:

- Addison Road & Waters Crescent (east) – “No parking” signs to delineate the restricted parking areas at the T-intersection; buses have difficulty passing temporary median island when vehicles are parked
- Stensrud Road near the Willowgrove School – curb side parking should be eliminated on both sides by the east side of the school property
- Stensrud Road & Willowgrove Crescent (north leg) – “No parking” signs recommended to clarify the restrictions of a T-intersection
- Keedwell Street – remove parking on one side of the street; remove parking on the south side of the street
- Patrick Crescent & Patrick Lane – limit parking to north side of street
- Patrick Crescent at Ginger Lofts – “No Parking” signs needed to improve visibility at driveways
- Willowgrove Avenue – prohibit parking on one side
- Install 5-minute parking zones in front of mailboxes

2.5 Concern 5 – Maintenance

Maintenance is requested throughout the consultation process that reflects the work of other civic departments. These include the condition of the street signs (i.e. knocked over, damaged, obstructed by trees), trees obstructing driver’s view, or roadway maintenance (i.e. snow clearing, potholes, sanding).

Willowgrove neighborhood maintenance concerns were at the following locations:

- Stensrud Road & Willowgrove Square – bushes obstruct visibility and need trimming
- Muzyka Road & Patrick Crescent – large concrete barriers are unsightly

Willowgrove neighborhood solutions identified by residents:

- All median island locations (Stensrud Road & Paton Crescent for example) – wrap signs with reflective tape so they are visible at all sides.

2.6 Concern 6 – Major Intersections & Corridors

Major intersections include roadways with higher traffic volumes (i.e. arterials, collectors) or intersections with an existing traffic signal.

Willowgrove neighborhood concerns regarding major intersection concerns were identified at the following locations:

- McOrmond Road & Addison Road - difficult to make right-turn from Addison Road (westbound) onto McOrmond Road
- McOrmond Road & Willowgrove Boulevard / Attridge Drive – long waits to get in / out of Willowgrove

Proposed solutions identified by residents:

- McOrmond Road & Addison Road - add right-turn merge lane (westbound to northbound)

3 STAGE 2: DEVELOPMENT OF DRAFT TRAFFIC PLAN

3.1 Methodology

Stage 2 of the Neighborhood Traffic Review included developing a draft Traffic Plan. This was completed through the following actions:

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic studies 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:
 - Daily and weekly traffic counts
 - Speed measurements
 - Intersection turning movement counts
 - Pedestrian counts
 - Site observations
 - Collision analysis
- 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 judgment.

The following sections provide details on the data collected for traffic volume and speed assessments, traffic control assessments, pedestrian crossing assessments, traffic signal assessments and collision analysis. A map of the traffic data collection is shown in **Appendix B**.

3.2 Traffic Volume and Speed Assessments

Traffic volumes and travel speeds were measured to assist in determining the need for traffic calming devices. Neighborhood streets are classified typically as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic) on local / collector 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 Willowgrove neighbourhood is 50 kph, except for school zones where the speed limit is 30 kph from September and June, Monday to Friday, 8:00am to 5:00pm.

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 (2016)

Street	Between	Class	Average Daily Traffic (vehicles per day)	Speed (kph)
Keedwell Street	Stensrud Road & Larmarsh Road	Local	1,850	42
Patrick Crescent	Patrick Lane & Patrick Place		650	45
Patrick Crescent	Patrick Rise & Patrick Bay		600	44
Stensrud Road	Greaves Crescent & Keedwell Street	Collector	4,200	49
Stensrud Road	Greaves Crescent & Greaves Crescent		5,050	56
Addison Road	Waters Crescent & Waters Crescent		6,050	51
Muzyka Road	Bennion Crescent & Bennion Crescent		1,750	52
Muzyka Road	Lucyk Crescent & Lucyk Crescent		1,900	52
Willowgrove Boulevard	Maguire Crescent & Maguire Crescent		2,100	44

A number of traffic studies were completed in Willowgrove prior to the Neighborhood Traffic Review to address speeding and shortcutting concerns. Locations of concern included:

- Muzyka Road
- Stensrud Road
- Addison Road
- Patrick Crescent
- Willowgrove Boulevard

As a result temporary traffic calming was installed at the following locations:

- Stensrud Road – median islands at Muzyka Road, Van Impe Crescent / Lamarsh Road, Paton Crescent / Trimble Crescent and Addison Road / Shepherd Road
- Addison Road - curb extension and median island at Waters Crescent (east)
- Willowgrove Boulevard – curb extensions at Maguire Crescent (east)
- Patrick Crescent – median island at Muzyka Road

3.3 Traffic Control Assessments

Yield, stop, and all-way stop controls need to meet City of Saskatoon Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009.

Turning movement counts were completed to determine the need for an all-way (i.e. three-way or four-way) stop control. Criteria outlined in Council Policy C07-007 that may warrant an all-way stop include:

- A peak hour count greater than 600 vehicles;
- an ADT greater than 6,000 vehicles per day; or
- 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.

Further conditions that must be met for an all-way stop to be warranted are:

1. Traffic entering the intersection from the minor street must be at least 35% for a four-way stop and 25% for a three-way stop.
2. No other all-way stop or traffic signals within 200 m.

Results of the studies are shown in **Table 3-3**.

Table 3-3: All-Way Stop Warrant Criteria

Location	Criteria 1: Peak Hour Count (greater than 600)	Criteria 2: Average Daily Traffic (greater than 6,000vpd)	Criteria 3: Collisions within most recent 12 months (5 or more)	Results
Stensrud Road & Muzyka Road / Greaves Crescent	1,036 (yes)	13,770 vpd (yes)	0 (no)	Continue to Step 2.
Keedwell Street & Muzyka Road / Lamarsh Road	120 (no)	1,830 vpd (no)	0 (no)	All-Way Stop Not Warranted
Stensrud Road & Lamarsh Road	452 (no)	4,600 vpd (no)	0 (no)	
Stensrud Road & Willowgrove Square (north)	362 (no)	3,740 vpd (no)	3 (no)	

Provided one of the above criteria are met, continue to Step 2 to check the condition requirements.

Table 3-4: All-Way Stop Warrant Condition Requirements

Location	Condition 1: Traffic on minor street is at least 35%	Condition 2: No all-way stop or traffic signals within 200 metres	Results
Stensrud Road & Muzyka Road / Greaves Crescent	28% (no)	160m (no)	All-Way Stop Not Warranted

3.4 Pedestrian Assessments

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

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

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

A standard pedestrian crosswalk or a zebra crosswalk (i.e. striped) may be considered when a signalized crosswalk is not warranted. A summary of the pedestrian studies are provided in **Table 3-5**.

Table 3-5: Pedestrian Assessments

Location	Number of Pedestrians Crossing During Peak Hours	Results
Addison Road & Water Crescent (east)	128	Active Pedestrian Corridor Warranted
Stensrud Road & Willowgrove Square (north)	345	
Stensrud Road & Muzyka Road / Greaves Crescent	38	Pedestrian Device Not Warranted
Keedwell Street & Muzyka Road / Greaves Crescent	16	
Stensrud Road & Lamarsh Road	14	

Details of the pedestrian actuated signal and active pedestrian corridor assessments are provided in **Appendix C**.

3.5 Traffic Signal Assessments

Assessments are conducted to determine the need for traffic signals, in adherence to the Traffic Signal and Pedestrian Signal Head Warrant Handbook. A warrant system assigns points for a variety of conditions including:

- Number of traffic lanes;
- posted speed limit of the street;
- distance to the nearest traffic signal; and
- number of pedestrians and vehicles at the location.

Pedestrian and traffic data is collected during the five peak hours of: 8:00am to 9:00am, 11:30am to 1:30pm, and 4:00pm to 6:00pm.

If a traffic signal is not warranted, additional measures to improve safety (i.e. parking restrictions, oversized stop signs) may be considered. A summary of the traffic signal assessments is provided in **Table 3-6**.

Table 3-6: Traffic Signal Assessments

Location	Traffic Signal Warrant Points	Results
Stensrud Road & Muzyka Road / Greaves Crescent	56	Traffic Signal Not Warranted

Details of the traffic signal assessments are provided in **Appendix D**.

3.6 Collision Analysis

The most recently available five year collision data (2011 to 2015) was provided by SGI. High-collision locations, typically noted as the locations with an average of two or more collisions per year, were reviewed in more depth to identify trends and possible improvements. Locations with two or more collisions per year include:

- Stensrud Road & Muzyka Road / Greaves Crescent
- Stensrud Road & Willowgrove Square (west)
- Stensrud Road & Willowgrove Square (east)

Details of the collision analysis are provided in **Appendix E**.

4 STAGE 3: PRESENTATION OF TRAFFIC PLAN

4.1 Methodology

Stage 3 of the neighbourhood traffic 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 Plan, including the location, recommended improvement, and the justification of the recommended improvement.

4.2 Speeding and Shortcutting

As stated in Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*, January 26, 2009, “stop signs are not to be used as speed control devices.”

The recommended improvements to address speeding and shortcutting are detailed in **Table 4-1**.

Table 4-1: Recommended Improvements – Speeding and Shortcutting

Location	Recommended Improvement	Justification
Stensrud Road & Muzyka Road	Add temporary curb extension on southeast corner; permanent median island	Reduce driver speed near park
Stensrud Road - north of Keedwell Street	Temporary speed display board facing southbound traffic	Reduce driver speed
Stensrud Road & Van Impe Court / Lamarsh Road	Permanent median island	Reduce driver speed
Stensrud Road & Paton Crescent (south)	Permanent median island	Reduce driver speed near park
Addison Road & Waters Crescent (east)	Permanent median island & curb extension	Reduce driver speed near park / school
Addison Road between Waters Crescent (east) & Waters Crescent (west)	Temporary speed display board facing eastbound traffic; forward speed data to Saskatoon Police Service for enforcement	Reduce driver speed near park
Willowgrove Boulevard & Maguire Crescent (east)	Permanent curb extensions	Reduce driver speed near park / school
Muzyka Road & Patrick Crescent (south)	Permanent median island	Reduce driver speed for right turn onto Patrick Crescent
Back lane behind 510 Stensrud Road	20 kph sign	Reduce driver speed
Back lane behind 810 Stensrud Road		
Lamarsh Terrace	Cul-de-sac sign	Reduce traffic volumes
Paton Place		
Willowgrove Terrace		

4.3 Pedestrian Safety

The recommended improvements to increase pedestrian safety are detailed in **Table 4-2**.

Table 4-2: Recommended Improvements - Pedestrian Safety

Location	Recommended Improvement	Justification
Stensrud Road & Muzyka Road	Add temporary curb extension on southeast corner (existing median island) & zebra crosswalks	Improve pedestrian safety near park
Stensrud Road & Van Impe Court / Lamarsh Road	Permanent median island	Improve pedestrian safety
Stensrud Road & Willowgrove Boulevard (west side)	Active pedestrian corridor	Improve pedestrian safety near park / school
Stensrud Road & Addison Road / Shepherd Crescent	Permanent median islands	Improve pedestrian safety near school
Stensrud Road & Paton Crescent (south)	Permanent median island	Improve pedestrian safety near park
Addison Road & Waters Crescent (east)	Permanent median island & curb extension; active pedestrian corridor	Improve pedestrian safety near park / school

4.4 Intersection Safety

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 Improvements – Intersection Safety

Location	Recommended Improvement	Justification
Stensrud Road & Willowgrove Boulevard / Square (east side)	Lane designation for Willowgrove Boulevard - left lane is left-turn only, right lane is shared through / right-turn	Improve traffic flow
Stensrud Road & Addison Road / Shepherd Crescent	Permanent median islands	Enhance visibility of stop signs
Patrick Crescent & Patrick Lane / Stefaniuk Crescent	Yield signs (facing Patrick Lane / Stefaniuk Crescent)	Improve intersection safety
Patrick Avenue & Patrick Crescent (north)	Yield sign	Improve intersection safety
Patrick Avenue & Patrick Crescent (south)	Yield sign	Improve intersection safety
Willowgrove Terrace & Willowgrove Court	Yield signs (facing Willowgrove Court)	Improve intersection safety
Willowgrove Avenue & Willowgrove Crescent	Yield signs (facing Willowgrove Avenue)	Improve intersection safety

4.5 Parking

The recommended improvements to parking that will improve the level of safety are provided in **Table 4-4**.

Table 4-4: Recommended Improvements – Parking

Location	Recommended Improvement	Justification
Addison Road & Waters Crescent (east)	Parking restrictions on southeast corner (park side)	Ensure clearance for buses to pass through median island & parked vehicles
Willowgrove Boulevard & Maguire Crescent (east)	“No Parking” sign on Willowgrove Boulevard 10 m from intersection on southwest corner	Enhance visibility / sightlines
Willowgrove Boulevard at midblock crosswalk between Maguire Crescent & Stensrud Road	No Stopping signs on the south side (northbound side) 10 m on either side of the crosswalk	Enhance visibility / sightlines
Patrick Crescent (north) & Patrick Lane	“No Parking” signs on Patrick Crescent 20 m from intersection on southeast corner	Enhance visibility / sightlines
Patrick Crescent - driveways to Ginger Loft condominiums	“No Parking” signs 5 m on either side	Enhance visibility / sightlines

4.6 Follow Up Consultation – Presentation of Traffic Plan

The recommended improvements were presented to residents and stakeholders at a follow-up public meeting in November 2016. Meeting minutes are provided in **Appendix F**. Recommended improvements that were not supported were eliminated or altered accordingly.

A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix G**. Additional issues raised during the follow-up meeting were assessed and outlined in **Appendix H**. Recommendations were added to the list of improvements if necessary.

The revised list of recommendations was then circulated to the civic divisions (including Saskatoon Police Service, Saskatoon Light & Power, Saskatoon Fire Department, Environmental Services, Parking Services, Roadways & Operations and Transit) to gather comments and concerns. General support was received.

5 STAGE 4: IMPLEMENTATION

Stage 4, the final stage of the Neighborhood Traffic Review, is to install the recommended improvements within the specified time frame. The time frame depends upon the complexity and cost of the solution. A short-term time frame is defined by implementing the improvements within short-term (1 to 2 years); medium-term (3 to 5 years); and long-term (5 years plus).

The placement of signs, pavement markings and temporary traffic calming will be completed short-term (1 to 2 years). Most often the installations take place in spring / summer of the following year. Therefore installations for Willowgrove are likely to take place in spring / summer 2017.

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

- **Table 5-1:** Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate
- **Table 5-2:** Speed Enforcement & Speed Display Boards Cost Estimate
- **Table 5-3:** Pedestrian Safety Devices Cost Estimate
- **Table 5-4:** Permanent Traffic Calming Cost Estimate
- **Table 5-5:** Total Cost Estimate

Table 5-1: Signs, Pavement Markings & Temporary Traffic Calming Cost Estimate

Location	Device (No. of Devices)	Cost Estimate	Time Frame
Stensrud Road & Muzyka Road	Curb extension (1)	\$500	1 to 5 years (traffic calming devices will be installed temporarily until proven effective)
Back lane behind 510 Stensrud Road	20 kph sign (1)	\$250	1 to 2 years
Back lane behind 810 Stensrud Road	20 kph signs (2)	\$250	
Lamarsh Terrace	Cul-de-sac sign (3)	\$250	
Paton Place		\$250	
Willowgrove Terrace		\$250	
Stensrud Road & Muzyka Road	Zebra crosswalks (2)	\$500	
Paton Crescent (south) east of Paton Avenue	Playground Ahead sign (1)	\$250	
Stensrud Road & Willowgrove Boulevard / Square (east side)	Lane designation signs (2) & pavement markings	\$750	
Patrick Crescent & Patrick Lane / Stefaniuk Crescent	Yield signs (2)	\$500	
Patrick Avenue & Patrick Crescent (north)	Yield sign (1)	\$250	
Patrick Avenue & Patrick Crescent (south)	Yield sign (1)	\$250	
Willowgrove Terrace & Willowgrove Court	Yield signs (2)	\$500	
Willowgrove Avenue & Willowgrove Crescent	Yield signs (2)	\$500	
Addison Road & Waters Crescent (east)	"No Parking" signs (2)	\$500	
Willowgrove Boulevard & Maguire Crescent (east)	"No Parking" sign (1)	\$500	
Willowgrove Boulevard at midblock crosswalk between Maguire Crescent & Stensrud Road	No Stopping signs (2)	\$500	
Patrick Crescent (north) & Patrick Lane	"No Parking" sign (1)	\$500	
Patrick Crescent - driveways to Ginger Loft condominiums	"No Parking" signs (2)	\$500	
Total		\$7,750	

Table 5-2: Speed Enforcement & Speed Display Boards Cost Estimate

Location	Device	Cost Estimate	Time Frame
Stensrud Road - north of Keedwell Street	Temporary speed display board	\$0 (funded through Speed Program)	1 to 2 years
Addison Road between Waters Crescent (east) & Waters Crescent (west)	Temporary speed display board; Saskatoon Police Service enforcement	\$0 (provided by Saskatoon Police Service)	
Total		\$0	

Table 5-3: Pedestrian Safety Devices Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Stensrud Road & Willowgrove Boulevard (west side)	Active Pedestrian Corridor (1)	\$20,000	3 to 5 years
Addison Road & Waters Crescent (east)	Active Pedestrian Corridor (1)	\$20,000	
Total		\$40,000	

Table 5-4: Permanent Traffic Calming Cost Estimate

Location	Device (# of Devices)	Cost Estimate	Time Frame
Stensrud Road & Muzyka Road	Curb extension (1) & median island (1)	\$ 45,000	3 to 5 years
Stensrud Road & Van Impe Court / Lamarsh Road	Median island (1)	\$ 5,000	
Stensrud Road & Paton Crescent (south)	Median island (1)	\$ 5,000	
Willowgrove Boulevard & Maguire Crescent (east)	Curb extensions (2)	\$ 90,000	
Muzyka Road & Patrick Crescent (south)	Median island (1)	\$ 5,000	
Addison Road & Waters Crescent (east)	Median island (1) & curb extension (1)	\$ 95,000	
Stensrud Road & Addison Road / Shepherd Crescent	Median islands (4)	\$ 20,000	
Total		\$265,000	

Table 5-5: Total Cost Estimate

Category	Time Frame	
	Short-Term (1 to 2 years)	Medium-Term (3 to 5 years)
Signs, Pavement Markings & Temporary Traffic Calming	\$7,750	NA
Speed Enforcement & Temporary Speed Display Boards	\$0	NA
Pedestrian Safety Devices	NA	\$ 265,000
Permanent Traffic Calming	NA	\$ 40,000
Total	\$7,750	\$305,000

The total cost estimate for short-term improvements (signs, pavement markings and temporary traffic calming) is **\$7,750**. The total cost estimate for long-term improvements (permanent traffic calming and pedestrian safety devices) is **\$305,000**.

Resulting from the Neighborhood Traffic Review is a list of recommended improvements, including the location and justification as summarized in **Table 5-6**.

The resulting recommended Willowgrove Neighbourhood Traffic Plan is illustrated in **Exhibit 5-1**.




Table 5-6: Willowgrove Neighbourhood Recommended Improvements

Item	Location	Recommendation	Reason
1	Stensrud Road & Muzyka Road	Add temporary curb extension on southeast corner; permanent median island; zebra crosswalks	Reduce driver speed; improve pedestrian safety near park
2	Stensrud Road - north of Keewell Street	Temporary speed display board facing southbound traffic	Reduce driver speed
3	Stensrud Road & Van Impe Court / Lamarsh Road	Permanent median island	Reduce driver speed & improve pedestrian safety
4	Stensrud Road & Willowgrove Boulevard / Square (east side)	Lane designation for Willowgrove Boulevard - left lane is left-turn only, right lane is shared through / right-turn	Improve traffic flow
5	Stensrud Road & Willowgrove Boulevard / Square (west side)	Active pedestrian corridor	Improve pedestrian safety near park / school
6	Stensrud Road & Addison Road / Shepherd Crescent	Permanent median islands	Enhance visibility of stop signs; improve pedestrian safety near school
7	Stensrud Road & Paton Crescent (south)	Permanent median island	Reduce driver speed & improve pedestrian safety near park
8	Addison Road & Waters Crescent (east)	Permanent median island & curb extension; Active pedestrian corridor; parking restrictions on southeast corner (park side)	Reduce driver speed & improve pedestrian safety near park / school; ensure clearance for buses to pass through median island & parked vehicles
9	Addison Road between Waters Crescent (east) & Waters Crescent (west)	Temporary speed display board facing eastbound traffic; forward speed data to Saskatoon Police Service for enforcement	Reduce driver speed near park
10	Willowgrove Boulevard & Maguire Crescent (east)	Permanent curb extensions	Reduce driver speed & improve pedestrian safety near park / school
11	Willowgrove Boulevard & Maguire Crescent (east)	"No Parking" sign on Willowgrove Boulevard 10 m from intersection on southwest corner	Enhance visibility / sightlines
12	Willowgrove Boulevard at midblock crosswalk between Maguire Crescent & Stensrud Road	No Stopping signs on the south side (northbound side) 10 m on either side of the crosswalk	Enhance visibility / sightlines
13	Muzyka Road & Patrick Crescent (south)	Permanent median island	Reduce driver speed for right-turn onto Patrick Cres
14	Patrick Crescent (north) & Patrick Lane	"No Parking" signs on Patrick Crescent 20 m from intersection on southeast corner	Enhance visibility / sightlines
15	Patrick Crescent - driveways to Ginger Loft condominiums	"No Parking" signs 5 m on either side	Enhance visibility / sightlines
16	Patrick Crescent & Patrick Lane / Stefaniuk Crescent	Yield signs (facing Patrick Lane / Stefaniuk Crescent)	Improve intersection safety
17	Patrick Avenue & Patrick Crescent (north)	Yield sign	Improve intersection safety

Table 5-6 Continued

Item	Location	Recommendation	Reason
18	Patrick Avenue & Patrick Crescent (south)	Yield sign	Improve intersection safety
19	Paton Crescent (south) east of Paton Avenue	Playground Ahead sign facing westbound traffic	Improve pedestrian safety near park
20	Willowgrove Terrace & Willowgrove Court	Yield signs (facing Willowgrove Court)	Improve intersection safety
21	Willowgrove Avenue & Willowgrove Crescent	Yield signs (facing Willowgrove Avenue)	Improve intersection safety
22	Back lane behind 510 Stensrud Road	20 kph sign	Reduce driver speed
23	Back lane behind 810 Stensrud Road	20 kph signs	Reduce driver speed
24	Lamarsh Terrace	Cul-de-sac sign	Reduce traffic volumes
25	Paton Place		
26	Willowgrove Terrace		

LEGEND

-  EXISTING STOP SIGN
-  EXISTING YIELD SIGN
-  BUS ROUTE
-  SCHOOL ZONE
-  EXISTING TRAFFIC SIGNAL
-  PEDESTRIAN ACTUATED SIGNAL LOCATION
-  ACTIVE PEDESTRIAN CORRIDOR SIGNAL LOCATION

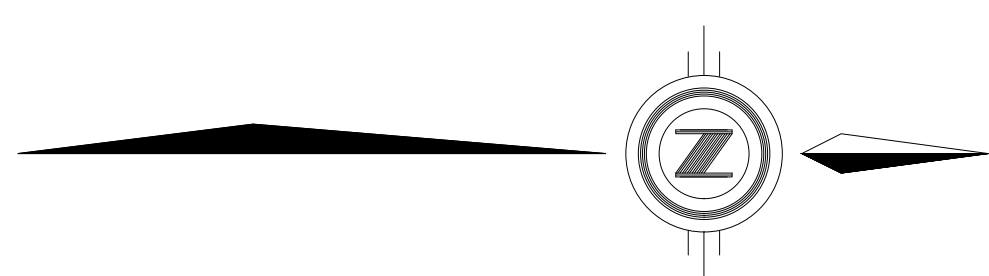
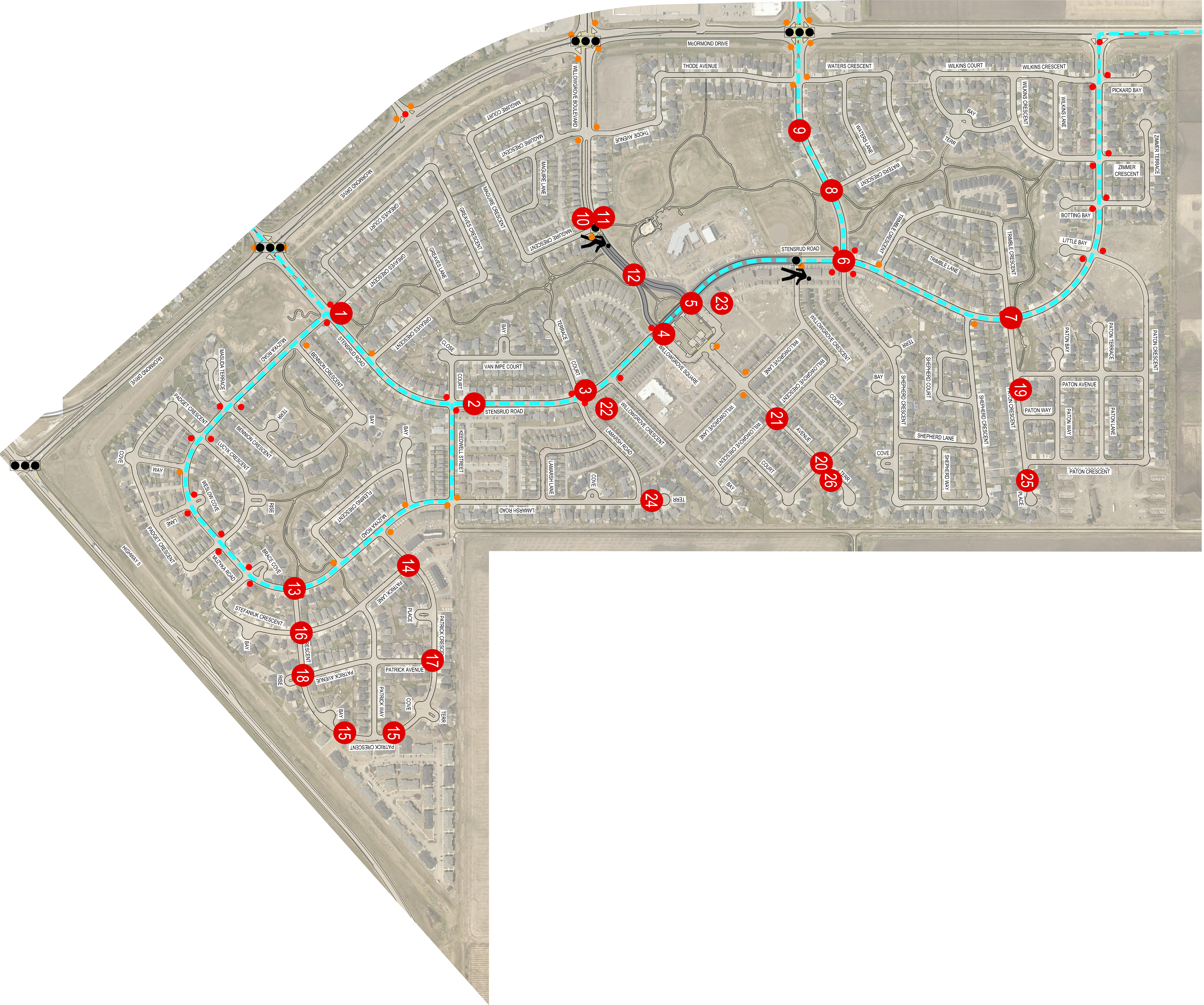


Exhibit 5-1



APPENDIX A: PUBLIC MEETING No.1 – JUNE 7, 2016 MINUTES

**Willowgrove Neighbourhood
Traffic Review
Tuesday, June 7, 2016, 7:00 – 9:00 P.M.
Holy Family School**

Facilitators:

- Mitch Riabko & Kathy Dahl (Great Works Consulting)

City of Saskatoon Representatives:

- Jay Magus, Mariniel Flores, Yang Li

Councillor Clark attended.

Agenda

- Welcome & introductions
- Presentation from the Transportation Division
- Small group discussions
- Small group discussion – report back to large group
- Next Steps
- Question / Answers

Presentation from Transportation Division – Willowgrove Neighbourhood Traffic Review
(Presented by Jay Magus – Transportation Engineer)

Presentation Outline:

- Neighbourhood Traffic Review Process
- Willowgrove Review Schedule
- Sources of Information
- Past Concerns Received
- Description of Traffic Calming & Pedestrian Safety Devices
- Corridor & Major Intersection Reviews

Neighbourhood Review Process:

- **August 2013** – New process; neighbourhood review vs issue by issue; eight neighbourhoods reviewed per year
- **Mandate** – Reduce & calm traffic, improve safety within neighbourhoods
- **2014** – 11 neighbourhoods
- **2015** – 8 neighbourhoods
- **2016** – Willowgrove, Sutherland, Parkridge, Hampton Village, Grosvenor Park, Stonebridge, Silverspring, Lakeridge

Timeline for Willowgrove Review:

- **Stage 1** – Identify issues & possible solutions through community consultation (June to fall 2016)

- **Stage 2** – Develop a draft traffic plan (fall 2016)
- **Stage 3** – Present draft traffic plan to community for feedback (fall 2016)
- **Stage 4** – Implement the changes over time

Sources of Information:

- Past Studies
- Collision Analysis
- Feedback from Public Consultation
- Traffic Counts & Assessments

Past Concerns Received:

- Muzyka Road - speeding
- Stensrud Road - speeding, pedestrian safety
- Willowgrove Boulevard - speeding, pedestrian safety
- Addison Road – speeding, pedestrian safety
- Patrick Crescent - speeding

Interim Measures:

- Stensrud Road:
 - Median islands (Muzyka Road, Van Impe Court/Lamarsh Road, Addison Road)
 - 4-way stop (Addison Road)
 - Active pedestrian corridor (Willowgrove Crescent)
 - Speed display board
- Addison Road & Waters Crescent – zebra crosswalk, median island & curb extension
- Willowgrove Boulevard & Maguire Crescent – curb extensions & active pedestrian corridor
- Patrick Crescent & Muzyka Road – median island

Traffic Calming Devices (Examples of devices used in Saskatoon):

1. Speed Display Boards
2. Raised Median Island – narrows road; provides center refuge for pedestrians
3. Curb Extensions – narrows road
4. Roundabouts
5. Diverter – used to address high traffic volumes
6. Right-in/right-out island - used to address high traffic volumes
7. Directional Closure – restrict movements onto the street from one direction
8. Raised median through intersection – restrict movements
9. Full closure

Pedestrian Devices:

1. Standard crosswalk
2. Zebra crosswalk (striped pavement markings)
3. Active pedestrian corridor (flashing yellow lights)
4. Pedestrian-activated signals

Corridor Reviews & Major Intersection Review:

- Created to address issues at intersections along arterial streets as Neighbourhood Traffic Reviews address local and collector streets
- Recommendations will be identified and projects will be prioritized for funding approval

Presentation from Islamic Association of Saskatchewan/Neighbourhood Committee
Members provided information on the history of their group and initiatives.

Saskatoon Police Services: 306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.

Small Group Discussions

- Breakout into small groups to discuss traffic concerns in Willowgrove and potential solutions

Group 1: Mariniel Flores

- Stensrud Rd:
 - install active pedestrian corridor, zebra crosswalks
 - U-turns in school zone – install more signs or enforcement
 - School zone is only from 8am to 5pm, extend school zone hours (ie. all day and all year) and location because there are playgrounds, ball diamonds and lots of kids
 - No cars are stopping for pedestrians
 - Paton Crescent – park with many children; speeding; speed bumps suggested
 - Speeding to McOrmond Dr to catch green light
 - Install speed display board between Greaves Cres (south) and Greaves Crescent (north)
 - Muzyka Rd – rubber median island might not be that effective; not safe to stand here
 - Transit speeding
- Waters Crescent & Addison Road (east) – pedestrian issues; extend school zone here; parking restrictions needed; active pedestrian signal suggested
- Speed bumps suggested at active pedestrian signal locations
- Waters Crescent & Addison Road (west) – mark the crosswalk with pavement markings and signs; lots of traffic
- More enforcement in neighbourhood needed
- Willowgrove Square “y” roadway – need some type of control, lane markings or signage to delineate traffic; car mirrors are getting side-swiped; southbound speeding
- Crosswalk at Willowgrove Square:
 - bushes obstruct visibility and need trimming
 - signage, and pavement markings needed
 - Break in median

- Vehicles driving the wrong way. More signage needed.
- No close to the nice pathway to Attridge Dr. Have to go through commercial area.
- Implement 40kph speed limit neighbourhood-wide
- Another access to Highway 5 is needed

Group 2: Yang Li

Location	Issue	Suggestion
Stensrud Rd	Speeding on entire Stensrud Rd, include transit bus	Increase enforcement, install speed camera, speed hump
Muzyka Rd & Stensrud Rd intersection	cars parking too close to this intersection on Muzyka SB	install no parking sign, increase enforcement
Stensrud Rd & Willowgrove Cres & Square	cars parking too close to this intersection on Stensrud Rd, block the sight line, sight line is very bad on this curve	prohibit parking on this section of Stensrud Rd, install no parking sign at each intersection to improve sight line
Patrick Ave & Way, Cres & Ave, Way & Cres	few people yield the oncoming traffic	install stop or yield sign
Willowgrove Blvd	people drive into the wrong way, wrong lane	bigger signs, pavement marking
Willowgrove Square & Stensrud Rd	difficult to cross the Stensrud Rd, people often cross from here to park and school	install ped actuated signal
Addison Rd	speeding, dangerous for kids	enforcement, speed hump, speed camera, extend the school zone to Addison Rd
Willowgrove Ave btw Cres and Terrace	too narrow, dangerous to pass by each other	prohibit one side parking
Willowgrove Ave & Cres	few people yield the oncoming traffic	install yield sign or stop sign
Lamarsh Rd	hard to cross Stensrud Rd	install ped actuated signal
Lamarsh Terr	lots people drive down here from Lamarsh Rd and make u turn here, dangerous for people living here	use garbage bin to block the non-local traffic
Addison Rd & McOrmond Rd intersection	hard to make right turn from Addison Rd EB onto McOrmond Rd	Add right turn merge lane
	date magnet on street sweeping sign is too small	need larger date

Next Steps

1. Continue monitoring traffic issues in your neighbourhood
2. Mail-in or email comments no later than July 7/16
3. Additional public input via City on-line Community Engagement webpage no later than July 7/16

<http://shapingsaskatoon.ca/discussions/willowgrove-neighbourhood-traffic-review>

4. Traffic count data collection – summer/fall 2016
5. City review of public input and data collected from traffic studies and prepare draft Traffic Plan

6. Follow-up public input meeting to provide input on draft
7. Determine revisions and finalize Traffic Plan
8. Present Traffic Plan to City Council for approval

Question & Answer

Resident: Has the city ever tried speed humps in a community?

City: Westmount has them. We typically don't recommend these devices due to concerns with Fire & Emergency response times, as well as concerns from citizens regarding noise (ie. stopping/starting and cargo in trucks).

Resident: 4-way stop at Stensrud & Shepherd. Any data that it's effective to address speeding?

City: We don't have data now. It's a temporary measure with the median islands. We have the 'before' data and will be doing 'after' studies going forward.

Resident: If we want speed humps, what would it take? Not neighbourhood-wide. Just a few specific locations.

City: Present petition to Council. Give us a chance to present data and suggest solutions like we are doing in other neighbourhoods first.

Resident: Time frame concern. People are driving fast and lots of pedestrians. What will it take to address these issues now?

City: As part of the process, we have to look at data.

Resident: If not speed humps, then how about 'Playground' signs?

City: We'll consider that.

Resident: Why are school zones not in effect all year?

City: Council set them in 2001. It was researched and decided back then. Transportation is not reviewing it. Not just in Willowgrove. It's a city-wide initiative.

Resident: Are there any communities that have 40kph speed limits?

City: Montgomery will this fall. Based on research, does not reduce collisions of reduce speeds. But Montgomery has no sidewalks.

Resident: What resources are spent in neighbourhood traffic?

Police: Case-by-case. Complaint-based. Call Police Services and provide information such as name, address, and the traffic issue.

Resident: Are there areas in Willowgrove where enforcement is set up?

Police: None that come to mind. Priority are arterials and collectors. McOrmond Drive for example.

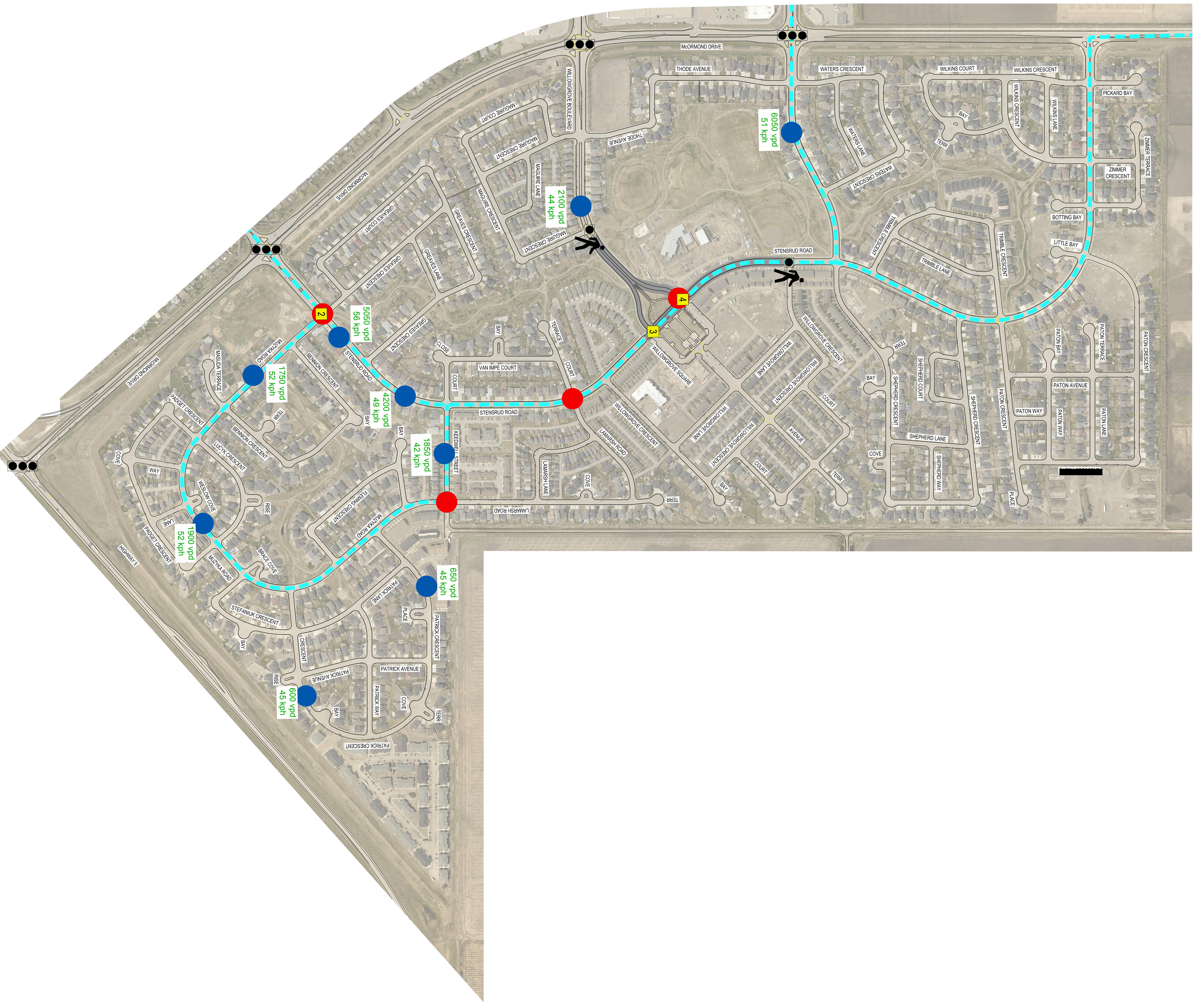
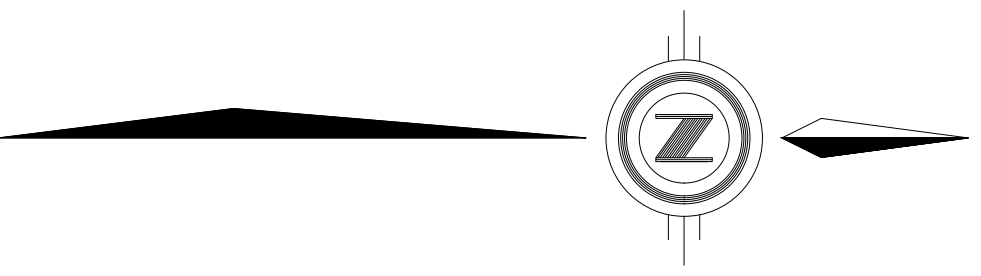
APPENDIX B: TRAFFIC DATA COLLECTION

WILLOWGROVE TRAFFIC DATA



LEGEND

- 3 AVERAGE NUMBER OF COLLISIONS PER YEAR [2011-2015]
- ● TRAFFIC + PEDESTRIAN COUNT
- 7-DAY TRAFFIC VOLUME + SPEED STUDY
- 786 vpd — NUMBER OF VEHICLES PER DAY
- 47.2 kph — 85th PERCENTILE SPEED



APPENDIX C: PEDESTRIAN DEVICE ASSESSMENTS

Addison Rd & Water Cres (east):

Location & Roadway Classification: Addison Rd & Waters Cres (east)
Date of Count: Day of wk: Wed Mth, Day, Yr: Sep 9/15
Weather: fair
Traffic Control Devices: stop sign
Current Pedestrian Control: zebra
Other Notes: median island & curb extension; lots of kids on bikes; lots of strollers; park paths on both sides

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? y (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 150 m

Location: Stensrud

Type: 4-way stop

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:	95	Total Warranted PC Points:	22,340	or	5,585	/ period
High School:		Highest PC point value:	6,728	at		
Adult:	41	Active Ped Corridor Points:	4			
Senior:		Pedestrian Actuated Signal Points:	29			
Vehicles passing through crosswalk(s):	1,288					

ACTIVE PEDESTRIAN CORRIDOR WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C. Warrant Points	Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods		
			Total Both Sides			Factored Counts						
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00												
7:15												
7:30												
7:45												
8:00	75	75			1		1	0.5	0.5	38		
8:15	102	177	13		3		16	14.5	15	2,655		
8:30	93	195	17		6		23	20	34.5	6,728	1	
8:45	55	148	13		3		16	14.5	34.5	5,106	1	
9:00		55							14.5	798		
9:15												
9:30												
9:45												
AM Totals	325		43		13		56					
11:30	38											
11:45	40	78										
12:00	49	89										
12:15	37	86										
12:30	62	99										
12:45	43	105										
13:00	53	96										
13:15	38	91										
Noon Totals	360											
14:00												
14:15												
14:30												
14:45												
15:00	66	66	4		5		9	6.5	6.5	429		
15:15	74	140	9		1		10	9.5	16	2,240		
15:30	98	172	18		5		23	20.5	30	5,160	1	
15:45	64	162	10		5		15	12.5	33	5,346	1	
16:00	70	134	2				2	2	14.5	1,943		
16:15	73	143	5		4		9	7	9	1,287		
16:30	94	167	2		3		5	3.5	10.5	1,754		
16:45	64	158	2		5		7	4.5	8	1,264		
17:00		64							4.5	288		
17:15												
17:30												
17:45												
18:00												
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18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	603		52		28		80					
Totals	1,288		95		41		136					
			70%		30%	284	100%					
			West Crosswalk =				1					
			East Crosswalk =				135					

<<< install crosswalk on this side of the int.

Stensrud Rd & Muzyka Rd / Greaves Cres:

tion & Roadway Classification: Stensrud & Muzyka / Greaves - collector / collector
Date of Count: Day of wk: Tues Mth, Day, Yr: Sep 13/16
Weather: fair
Traffic Control Devices: stop sign
Current Pedestrian Control: standard (north side)
Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? y (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 230 m

Location: McOrmond

Type: TS

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:		Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	2,490	at	
Adult:	38	Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	23		
Vehicles passing through crosswalk(s):	3,571				

**ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED**

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Counts				Warrant
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.	Points		
7:00												
7:15												
7:30												
7:45												
8:00	244	244										
8:15	238	482										
8:30	202	440			2		2	1	1	440		
8:45	158	360							1	360		
9:00		158										
9:15												
9:30												
9:45												
AM Totals	842				2		2					
11:30	94				1		1	0.5				
11:45	111	205							0.5	103		
12:00	144	255			1		1	0.5	0.5	128		
12:15	131	275			1		1	0.5	1	275		
12:30	140	271			1		1	0.5	1	271		
12:45	157	297							0.5	149		
13:00	121	278										
13:15	112	233			1		1	0.5	0.5	117		
Noon Totals	1,010				5		5					
14:00												
14:15												
14:30												
14:45												
15:00	152	152			4		4	2	2	304		
15:15	167	319			7		7	3.5	5.5	1,755		
15:30	221	388			3		3	1.5	5	1,940		
15:45	194	415			9		9	4.5	6	2,490		
16:00	215	409			2		2	1	5.5	2,250		
16:15	254	469			1		1	0.5	1.5	704		
16:30	248	502			3		3	1.5	2	1,004		
16:45	268	516			2		2	1	2.5	1,290		
17:00		268							1	268		
17:15												
17:30												
17:45												
18:00												
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19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	1,719				31		31					
Totals	3,571				38		38					
					100%	286	100%					
					West Crosswalk =		1					
					East Crosswalk =		37					

<<< install crosswalk on this side of the int.

Keedwell St & Muzyka Rd / Lamarsh Rd:

Location & Roadway Classification: Keedwell & Muzyka/Lamarsh
Date of Count: Day of wk: Wed Mth, Day, Yr: Jul 6/16
Weather: fair
Traffic Control Devices: yield sign
Current Pedestrian Control: none
Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? n (y or n)

Speed limit (or 85th percentile speed) 50 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 1,000 m

Location: _____

Type: _____

Is the orientation of this crosswalk(s) N-S? y (y or n)

Duration of pedestrian count 5 hrs

Elementary:	5	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	266	at	
Adult:	11	Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	28		
Vehicles passing through crosswalk(s):	490				

ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					Factored Counts		P.C. Warrant Points	Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods
			Total Both Sides									
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00												
7:15												
7:30												
7:45												
8:00	17	17										
8:15	17	34										
8:30	23	40										
8:45	23	46										
9:00		23										
9:15												
9:30												
9:45												
AM Totals	80											
11:30	20											
11:45	24	44										
12:00	31	55										
12:15	27	58										
12:30	22	49										
12:45	24	46										
13:00	27	51			1		1	0.5	0.5	26		
13:15	19	46			1		1	0.5	1	46		
Noon Totals	194				2		2					
14:00												
14:15												
14:30												
14:45												
15:00	14	14			1		1	0.5	0.5	7		
15:15	23	37			1		1	0.5	1	37		
15:30	22	45	1				1	1	1.5	68		
15:45	29	51	2				2	2	3	153		
16:00	30	59	2		1		3	2.5	4.5	266		
16:15	29	59							2.5	148		
16:30	44	73			3		3	1.5	1.5	110		
16:45	25	69			3		3	1.5	3	207		
17:00		25							1.5	38		
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	216		5		9		14					
Totals	490		5		11		16					
			31%		69%	288	100%					
			West Crosswalk =				11	<<< install crosswalk on this side of the int.				
			East Crosswalk =				5					

Stensrud Rd & Lamarsh Rd

tion & Roadway Classification: Stensrud & Lamarsh - collector / local
Date of Count: Day of wk: Wed Mth, Day, Yr: Jul 6/16
Weather: fair
Traffic Control Devices: stop sign
Current Pedestrian Control: standard (north side)
Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? n (y or n)

Speed limit (or 85th percentile speed) 50 km/h
 85th percentile (check one)
 Posted Limit

Distance to nearest protected crosswalk 500 m
Location: NA
Type: _____

Is the orientation of this crosswalk(s) N-S? n (y or n)

Duration of pedestrian count 5 hrs

Elementary:	5	Total Warranted PC Points:		or	/ period
High School:		Highest PC point value:	471	at	
Adult:	9	Active Ped Corridor Points:			
Senior:		Pedestrian Actuated Signal Points:	30		
Vehicles passing through crosswalk(s):	1,419				

ACTIVE PEDESTRIAN CORRIDOR NOT WARRANTED
PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C.		Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods	
			Total Both Sides					Factored Counts				Warrant
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.	Points		
7:00												
7:15												
7:30												
7:45												
8:00	61	61										
8:15	67	128										
8:30	64	131	2				2	2	2	262		
8:45	64	128							2	256		
9:00		64										
9:15												
9:30												
9:45												
AM Totals	256		2				2					
11:30	62											
11:45	74	136			1		1	0.5	0.5	68		
12:00	59	133			4		4	2	2.5	333		
12:15	53	112							2	224		
12:30	62	115										
12:45	60	122										
13:00	54	114										
13:15	68	122										
Noon Totals	492				5		5					
14:00												
14:15												
14:30												
14:45												
15:00	61	61			1		1	0.5	0.5	31		
15:15	73	134	1				1	1	1.5	201		
15:30	71	144							1	144		
15:45	78	149	2		1		3	2.5	2.5	373		
16:00	79	157			1		1	0.5	3	471		
16:15	89	168							0.5	84		
16:30	107	196										
16:45	113	220			1		1	0.5	0.5	110		
17:00		113							0.5	57		
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	671		3		4		7					
Totals	1,419		5		9		14					
			36%		64%	290	100%					
			North Crosswalk =				13	<<< install crosswalk on this side of the int.				
			South Crosswalk =				1					

Stensrud Rd & Willowgrove Blvd / Square (west):

Location & Roadway Classification: Stensrud & Willowgrove Square (east)
Date of Count: Day of wk: Tues Mth, Day, Yr: Jan 24/17
Weather: fair
Traffic Control Devices: stop sign
Current Pedestrian Control: zebras, curb extensions
Other Notes: _____

Number of travel lanes passing through the crosswalk(s) 2 lanes

Is there a physical median in this crosswalk(s)? n (y or n)

Speed limit (or 85th percentile speed) 30 km/h

85th percentile (check one)

Posted Limit

Distance to nearest protected crosswalk 210 m

Location: Willowgrove Cres

Type: APC

Is the orientation of this crosswalk(s) N-S? n (y or n)

Duration of pedestrian count 5 hrs

Elementary:	225	Total Warranted PC Points:	108,888	or	15,555	/ period
High School:		Highest PC point value:	27,547	at		
Adult:	120	Active Ped Corridor Points:	7			
Senior:		Pedestrian Actuated Signal Points:	74			
Vehicles passing through crosswalk(s):	1,841					

ACTIVE PEDESTRIAN CORRIDOR WARRANTED

PEDESTRIAN ACTUATED SIGNAL NOT WARRANTED

Time (15 minute intervals)	Vehicle Counts		Pedestrian Counts					P.C. Warrant Points	Periods Wrnt'd (1=Yes)	Points of Wrnt'd Periods		
			Total Both Sides			Factored Counts						
	15 min.	30 min.	Child	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.			
7:00												
7:15												
7:30												
7:45												
8:00	134	134			2		2	1	1	134		
8:15	120	254	17		4		21	19	20	5,080	1	
8:30	176	296	44		10		54	49	68	20,128	1	
8:45	150	326	29		13		42	35.5	84.5	27,547	1	
9:00		150							35.5	5,325	1	
9:15												
9:30												
9:45												
AM Totals	580		90		29		119					
11:30	49		3		10		13	8				
11:45	46	95			1		1	0.5	8.5	808		
12:00	49	95	2		2		4	3	3.5	333		
12:15	65	114	5		3		8	6.5	9.5	1,083		
12:30	71	136	5		3		8	6.5	13	1,768		
12:45	54	125	2		4		6	4	10.5	1,313		
13:00	49	103			1		1	0.5	4.5	464		
13:15	45	94							0.5	47		
Noon Totals	428		17		24		41					
14:00												
14:15												
14:30												
14:45												
15:00	73	73	25		16		41	33	33	2,409		
15:15	112	185	66		20		86	76	109	20,165	1	
15:30	121	233	19		15		34	26.5	102.5	23,883	1	
15:45	87	208	4		4		8	6	32.5	6,760	1	
16:00	116	203			6		6	3	9	1,827		
16:15	118	234	2		2		4	3	6	1,404		
16:30	92	210	2		2		4	3	6	1,260		
16:45	114	206			2		2	1	4	824		
17:00		114							1	114		
17:15												
17:30												
17:45												
18:00												
18:15												
18:30												
18:45												
19:00												
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
PM Totals	833		118		67		185					
Totals	1,841		225		120		345					
			65%		35%	292	100%					
			North Crosswalk =				319	<<< install crosswalk on this side of the int.				
			South Crosswalk =				26					

APPENDIX D: TRAFFIC SIGNALS ASSESSMENTS

Main Street (name)	Stensrud	Direction (EW or NS)	EW
Side Street (name)	Muzyka	Direction (EW or NS)	NS
Quadrant / Int #		Comments	JM
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET		

Road Authority:	City of Saskatoon
City:	Saskatoon
Analysis Date:	11/14/2016
Count Date:	09/13/2016
Date Entry Format:	(yyyy-mm-dd)

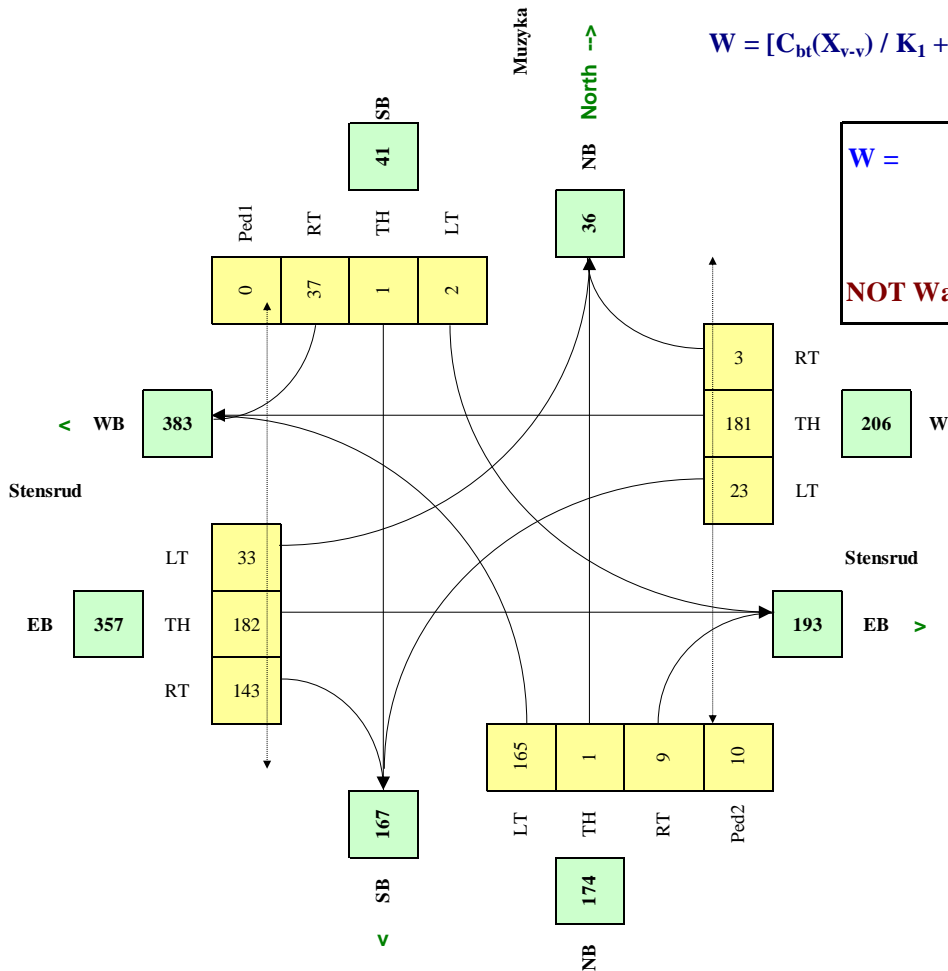
Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes
Stensrud	WB		1				1	800	1
Stensrud	EB		1				1	300	1
Muzyka	NB		1				1		
Muzyka	SB		1				1		

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	250,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Stensrud	EW	50	1.0%	y	
Muzyka	NS	50	1.0%	y	

Traffic Input	Set Peak Hours												Ped1	Ped2	Ped3	Ped4
	NB			SB			WB			EB			NS	NS	EW	EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
7:00 - 8:00	292	0	4	2	1	59	1	333	0	4	57	34		12	1	
8:00 - 9:00	226	2	22	4	2	53	8	306	4	9	127	79		5	3	
11:30 - 12:30	97	0	5	1	3	18	97	0	5	26	130	108		5	2	
12:30 - 13:30	118	0	0	2	0	23	5	120	1	27	126	108		3	1	
4:00 - 5:00	134	0	12	2	0	35	14	162	3	59	318	246	1	13	12	
5:00 - 6:00	121	2	10	2	2	36	11	165	2	70	334	281	1	19	19	
Total (6-hour peak)	988	4	53	13	8	224	136	1,086	15	195	1,092	856	2	57	38	0
Average (6-hour peak)	165	1	9	2	1	37	23	181	3	33	182	143	0	10	6	0

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v-v}) / K_1 + (F(X_{v-p}) L) / K_2] \times C_i$$

W =	56	52	4
		<i>Veh</i>	<i>Ped</i>
NOT Warranted			

RESET SHEET

APPENDIX E: COLLISION ANALYSIS

Street 1	Street 2	Ugrid	All collisions (2011-2015)	All collisions (2015)	Right Angle, Left Turn & Right Turn only (2011-2015)	Right Angle, Left Turn & Right Turn only (2015)	Average # of Collisions (2011 - 2015)
Stensrud Rd	Pickard Bay	P4-8	1	0	0	0	0
Stensrud Rd	Pickard Bay to Zimmer Cres	P4-3	2	0	0	0	0
Stensrud Rd	Paton Cres / Trimble Cres	Q4-1	7	1	2	0	1
Stensrud Rd	Addison Rd	Q5-8	7	0	2	0	1
Stensrud Rd	Addison Rd to Willowgrove Blvd	Q5-26	1	0	0	0	0
Stensrud Rd	Willowgrove Blvd / Square (west)	Q5-7	18	3	7	1	4
Stensrud Rd	Willowgrove Blvd / Square (east)	Q5-34	17	0	7	0	3
Stensrud Rd	Willowgrove Blvd to Willowgrove Cres	Q5-22	4	2	1	0	1
Stensrud Rd	Lamarsh Rd	Q5-16	7	2	2	1	1
Stensrud Rd	Lamarsh Rd to Keedwell St	Q5-15	7	1	0	0	1
Stensrud Rd	Muzyka Rd / Greaves Cres	Q6-24	8	1	4	1	2
Zimmer Terrace	midblock	Q4-6	2	1	0	0	0
Paton Ave	Paton Way	Q4-7	2	0	1	0	0
Shepherd Terrace	midblock	Q4-5	6	1	1	0	1
Shepherd Cres	100 block	Q4-8	1	0	0	0	0
Wilkins Crt	midblock	P4-4	2	0	0	0	0
Waters Lane	midblock	Q5-29	1	0	0	0	0
Addison Rd	Water Cres to Waters Cres	Q5-30	1	0	0	0	0
Addison Rd	Waters Cres (east)	Q5-35	1	1	0	0	0
Willowgrove Cres	900 block	Q5-23	2	0	0	0	0
Willowgrove Ave	700 block	Q5-31	1	0	0	0	0
Willowgrove Cres	800 block	Q5-10	3	0	0	0	1
Willowgrove Lane	midblock	Q5-28	1	0	0	0	0
Willowgrove Cres	100 block	Q5-24	3	0	0	0	1
Willowgrove Blvd	McOrmond Dr to Maguire Cres	P5-42	7	4	0	0	1
Willowgrove Blvd	Maguire Cres to Maguire Cres	Q5-4	5	0	0	0	1
Willowgrove Blvd	Maguire Cres (east)	Q5-21	5	2	1	0	1
Maguire Cres	600 block	Q5-5	1	0	0	0	0
Maguire Cres	900 block	Q5-6	2	0	1	0	0
Van Impe Terr	midblock	Q5-32	1	0	0	0	0
Lamarsh Rd	600 block	Q5-20	2	1	0	0	0
Lamarsh Rd	Lamarsh Lane	Q5-33	1	0	0	0	0
Lamarsh Rd	100 block	Q5-25	1	0	0	0	0
Keedwell St	Lamarsh Rd / Muzyka Rd	Q6-29	2	0	1	0	0
Keedwell St	100 block	Q6-26	5	5	1	0	1
Greaves Cres	700 block	Q5-3	2	0	1	0	0
Greaves Cres	900 block	Q6-28	1	0	0	0	0
Greaves Cres	100 block	Q6-35	1	1	0	0	0
Patrick Cres	Patrick Pl	R6-3	2	0	0	0	0
Patrick Cres	Patrick Ave (north)	R6-1	2	0	0	0	0
Patrick Cres	Patrick Way	R6-2	1	0	0	0	0
Patrick Way	Patrick Cres to Patrick Ave	R6-6	1	0	0	0	0
Patrick Cres	Patrick Lane to Patrick Ave (south)	R6-5	1	0	1	0	0
Patrick Rise	midblock	R6-4	3	1	0	0	1
Muzyka Rd	Patrick Cres (north)	R6-9	1	0	0	0	0
Muzyka Rd	Patrick Cres (north) to Fleming Cres (south)	R6-8	3	2	0	0	1
Brace Cove	midblock	R6-7	1	0	0	0	0
Muzyka Rd	Padget Way (south)	Q6-34	1	0	0	0	0
Bennion Cres	600 block	Q6-33	1	0	0	0	0

APPENDIX F: PUBLIC MEETING No. 2 – NOVEMBER 23, 2016 MINUTES

**Willowgrove Neighbourhood
Traffic Review
Wednesday, November 23, 2016, 7:00 – 9:00 P.M.
SaskTel Sports Centre
150 Nelson Road**

Facilitators:

- Mitch Riabko & Kathy Dahl (Great Works Consulting)

Agenda

- Welcome & introductions
- Presentation from the Transportation Division
- Small group discussions
- Small group discussion – report back to large group
- Next Steps
- Question / Answers

Presentation from Transportation Division – Willowgrove Neighbourhood Traffic Review
(Presented by Justine Marcoux – Transportation Engineer)

Presentation Outline:

- Neighbourhood Traffic Review Process
- Willowgrove Review Schedule
- What We Heard
- What We Did
- What We Propose

Neighbourhood Traffic Review Process:

- August 2013 – changes to program
 - Neighbourhood-wide review rather than street-by-street or intersection-by-intersection
 - More community / stakeholder feedback
 - Efficient use of staff resources
- Mandate: improve safety for all road users within neighbourhoods; reduce traffic volumes where necessary, slow vehicular speeds, improve pedestrian crossings & intersections
- 2014 – 11 neighbourhoods
- 2015 – 8 neighbourhoods
- 2016 – Willowgrove, Grosvenor Park, Hampton Village, Sutherland, Parkridge, Silverspring, Lakeridge, Stonebridge

How We Got Here:

- June 2016 – Initial Traffic Meeting
- June to November 2016 – gather feedback, conduct traffic studies, collect data, develop traffic plan
- November 2016 – Follow Up Traffic Meeting - present draft traffic plan and gather feedback
- 2017 – Revise draft traffic plan, approval from Council, implement recommendations

What We Heard:

A. Speeding / Pedestrian Safety:

- Muzyka Rd
- Stensrud Rd
- Willowgrove Blvd
- Addison Rd
- Patrick Cres
- Paton Cres
- Lamarsh Rd

B. Other:

- Keedwell St – high traffic volumes; road is narrow due to parking on both sides
- Cul-de-sacs – drivers entering thinking it's a through road and speeding out
- Back lanes – speeding
- Patrick Ave / Lane / Way – danger at uncontrolled intersections
- Willowgrove Square – lane designation needed

What We Did:

- Collected Data:
 - Past studies
 - Comments from initial meeting
 - Resident responses (phone calls, emails, letters)
 - Recorded comments from Shaping Saskatoon discussions
 - 4 Intersection / Pedestrian counts
 - 9 – 7 day traffic count (24 hour) & Average Speed measurements
 - Collision history
- Field Reviews
- Assessed the Issues
- Generated proposed recommendations

What We Propose:

- Raised Median Islands & Curb Extensions
- Directional Closure
- Speed Display Board
- Active Pedestrian Corridor
- Crosswalks
- Yield signs
- Parking restrictions
- General signs (cul-de-sacs, 20kph, playground)
- **Saskatoon Police Services: 306-975-8300 OR 306-975-8068 to report a traffic complaint or a concern.**

Small Group Discussions

- Breakout into small groups to discuss traffic concerns in Willowgrove and potential solutions

Refer to separate attachment for small group comments.

Next Steps

1. Send comments no later than Dec 23/16
2. Additional public input via City on-line Community Engagement webpage no later than Dec 23/16

<http://shapingsaskatoon.ca/discussions/willowgrove-neighbourhood-traffic-review-meeting>

3. Additional consultation if required
4. Present traffic plan to Transportation Committee
5. Present traffic plan to City Council for approval
6. What happens after City Council approval?
 - Implementation begins. Signs and temporary traffic calming will be installed as early as next spring (2017)
7. What if I don't agree?
 - Opportunities to speak to Transportation Committee as well as Council,
 - After Council approval recommendations are installed temporary. Opportunity to provide feedback on how the devices are working. Feedback will help us decide whether to remove or install permanent.

Q&A

Resident: Will Lowe Road and Nelson Road (currently a 4-way stop) have traffic signals?

Councillor Jeffries: I put in a request to the Administration to review the intersection and traffic signals were recommended.

City: This location is on the city-wide priority list for traffic signals and will be installed when funded.

Resident: When will the McOrmond / Highway 5 Interchange be built?

City: Construction is expected to begin in spring 2017 and wrap up in October 2018. Bids on the project need to be in by December. At that time there will be more information on the design, construction, and public consultation. Information will be posted to the Shaping Saskatoon website if there's any information currently available.

Resident: How will the interchange line up with Brighton? Will it connect to 8th St?

City: Information will be posted to Shaping Saskatoon if available. If information has not yet been released, it will be in the future as part of that project. (Additional information: the interchange will provide a connection to the Brighton neighbourhood and McOrmond Rd

from Highway 5. There is currently a heavy demand for the left turn movement from Highway 5 that needs to be addressed due to safety. The interchange will address these issues.)

List of Representatives

Mitch Riabko, Kathy Dahl – Great Works Consulting, Facilitators

Justine Marcoux, Lanre Akindipe, Yang Li – City of Saskatoon, Transportation & Utilities

APPENDIX G: DECISION MATRIX

APPENDIX G: DECISION MATRIX

Item	Location	Recommendation	Reason	Group 1: Yang Li	Group 2: Lanre Akindipe	Group 3: Justine Marcoux	Additional Comments Received	Decision
1	Stensrud Rd & Muzyka Rd	Add temporary curb extensions on the northeast & southeast corners (existing median island); zebra crosswalk	Reduce driver speed; improve pedestrian safety near park	support recommendation; install 4-way stop or pedestrian light	Need to consider turning radius for buses / fire trucks (southwest corner); crosswalk on the northwest side connecting to the park needed	do not support curb extensions; speeding in northbound is major concern (accelerating) so consider speed display board facing northbound traffic; pedestrian safety is a concern; add zebra crosswalk to south side; trim vegetation on median south of the intersection; parking on Greaves Cres is a concern	This is a really bad intersection to turn left at in the winter. You need to find a way to slow cars down going south bound on Stensrud so that people can have extra time to turn left and leave the neighbourhood. What you are proposing is great for pedestrians and park crossings but does not solve all the issues at this intersection. In addition, the southwest corner of the intersection has a bulb-out which causes problems for large vehicles to turn this corner.	Traffic signals, four-way stop and pedestrian devices are not warranted. No changes recommended to the southwest curb extension as there is a catch basin that requires moving so costs would be high. New curb extensions will be designed taking buses / fire trucks into account. Crosswalks aren't necessary on the same road where a stop sign is facing (ie. northwest side). Remove northeast curb extension from recommendation (because Group 3 did not support) but keep southeast curb extension to address northbound speeding. Add zebra crosswalk on west leg. A request will be sent to Parks to trim the hedges on the median to improve visibility during the spring / summer months if needed. No Parking signs on Greaves Crescent will not improve visibility on the major roadway (ie. Stensrud Rd) therefore signs are not needed.
2	Stensrud Rd - north of Keewell St	Speed display board facing southbound traffic	Reduce driver speed					Carried.
3	Stensrud Rd & Van Impe Cr / Lamarsh Rd	Permanent median island	Reduce driver speed & improve pedestrian safety					Carried.
4	Stensrud Rd & Willowgrove Blvd / Square (east side)	Lane designation for Willowgrove Blvd - left lane is left turn only, right lane is shared through / right turn	Improve traffic flow		Do Not Enter signs need to be more visible; check signs; visibility issues for left turning vehicles due to vegetation; dangerous intersection due to speeding and jaywalking on Stensrud	trim hedge on left side of intersection to improve visibility		Carried. Site check determined Do Not Enter signs were visible (already double signed / signs on both sides of the road). Site check determined hedges / vegetation did not obstruct driver's view. Conditions may be worse in summer. No further recommendations.
5	Stensrud Rd & Addison Rd / Shepherd Cres	Permanent median islands	Enhance visibility of stop signs; improve pedestrian safety near school	add reflective strip to sign post		rolling through stop signs		Carried.
6	Stensrud Rd & Paton Cres (south)	Permanent median island	Reduce driver speed & improve pedestrian safety near park	add reflective strip to sign post		include area in school zone		Carried.
7	Addison Rd & Waters Cres (east)	Permanent median island & curb extension; Active Pedestrian Corridor; Parking restrictions on southeast corner (park side)	Improve pedestrian safety near park / school; ensure clearance for buses to pass through median island & parked vehicles		include Addison Rd in school zone			Carried. School Zone not needed with these additional measures.
8	Addison Rd between Waters Cres (east) & Waters Cres (west)	Speed display board facing eastbound traffic; forward speed data to Saskatoon Police Service for enforcement	Reduce driver speed near park	not necessary when there is Active Pedestrian Corridor				Carried.
9	Willowgrove Blvd & Maguire Cres (east)	Permanent curb extensions	Improve pedestrian safety near park / school					Carried.
10	Keedwell St & Larmarsh Rd / Muzyka Rd	Directional closure (restrict all southbound movements onto Muzyka Rd); change yield signs to stop signs	Reduce traffic volume on Keedwell St (approximately 40% of the traffic at Keedwell & Muzyka / Lamarsh makes an eastbound right turn from Keedwell to Muzyka; encourage drivers to use Muzyka Rd to access properties south of Keedwell); improve intersection safety on Transit route	Keedwell St is too narrow; want less traffic on Keedwell; direct traffic to Muzyka; move southbound traffic onto Muzyka from Stensrud		Not in support; directional closure will move traffic to Lamarsh Rd; parking on Keedwell St makes it too narrow to pass oncoming vehicle; issues with fire / emergency vehicles getting through; restrict parking on one side of Keedwell St	NO SUPPORT. Don't want to take away parking from anyone but if there was an option to create three or four alternating no parking areas along the road (similar to a bus stop zone) where people can pull over as they go through the gauntlet, this could work. Could the Transportation Division look at making the dead-end of Keedwell and RR 3045 a visitor short term angled parking area for any cars that would have parked on Keedwell but now can't? I know the City is not in the business of providing on-street parking for suburban areas but this may be a way to allow traffic to flow on Keedwell and also make the dead-end look finished	Removed. Do not support removal of parking on Keedwell Street as it may create speeding and penalizes residents living on Keedwell Street (ie. less parking). Continue to monitor the area (ie. collisions) to see if changes are needed.

Item	Location	Recommendation	Reason	Group 1: Yang Li	Group 2: Lanre Akindipe	Group 3: Justine Marcoux	Additional Comments Received	Decision
11	Muzyka Rd & Patrick Cres (south)	Permanent median island; add temporary curb extension on park side	Reduce driver speed for right turn onto Patrick Cres			No need for curb extension; speed display board needed for northbound prior to intersection	I am not against making the temp. median permanent but instead of temp. curb extensions, have the same crew that is installing the permanent median, install a permanent curb extension that also includes five or six decorative black bollards. These bollards could be the same as the ones on 25th street and Broadway so that the City has replacement bollards if damage occurs. The existing industrial barricades are unsightly, and get graffitied multiply times a year.	Removed curb extension from recommendation. Median island will address issues.
12	Patrick Cres (north) & Patrick Lane	No Parking signs on Patrick Cres 20m from intersection on southeast corner	Enhance visibility/sightlines					Carried.
13	Patrick Ave & Patrick Way	Yield signs (facing Patrick Ave)	Improve intersection safety		yield signs at each Avenue; shortcutting & slow down speeds on Patrick Cres; look for options		Resident not in favour of yield sign installed on their lawn; visibility is fine, collisions are low therefore removed from recommendations	Yield signs are not used as speed control devices; visibility is good and collisions are low therefore removed from recommendations.
14	Paton Cres (south) east of Paton Ave	Playground Ahead sign facing westbound traffic	Reduce driver speed near park					Carried.
15	Willowgrove Terr & Willowgrove Crt	Yield signs (facing Willowgrove Crt)	Improve intersection safety					Carried.
16	Willowgrove Ave & Willowgrove Cres	Yield signs (facing Willowgrove Ave)	Improve intersection safety					Carried.
17	Back lane behind 510 Stensrud Rd	20kph sign	Reduce driver speed					Carried.
18	Lamarsh Terr	Cul-de-sac sign	Reduce traffic volumes					Carried.
19	Paton Pl							Carried.
20	Willowgrove Terr							Carried.

APPENDIX H: ADDITIONAL CONCERNS RECEIVED AFTER PRESENTATION OF DRAFT
PLAN

APPENDIX H: ADDITIONAL CONCERNS

Item	Location	Comments	Response	Added to Final Recommendations
1	Stensrud & McOrmond	Install Traffic Signals	Traffic signals already proposed in 2018	
2	Back lanes in front of schools on Stensrud	Speeding / shortcutting	Add 20kph signs in the back lane behind 810 Stensrud Road (across from Willowgrove School)	X
3	Patrick Cres at Ginger Loft driveways	No Parking signs needed to improve visibility; the amount of on-street parking restricts visibility for those leaving the Ginger Lots and also those trying to turn onto Patrick Cres. from Patrick Way.	Install No Parking signs on either side of both driveways to the Ginger Lofts on Patrick Crescent	X
4	Willowgrove Blvd / Attridge Dr & McOrmond	Long waits to get in / out of Willowgrove	Comments noted for further consideration as part of the Major Intersection Reviews	
5	Addison & Waters / Thoede	Crosswalk on the east side needed	Only 70 metres from a protected crossing at McOrmond Drive. Encourage crossing at Waters Crescent (east) instead. No further recommendations.	
6	Willowgrove Blvd & Maguire Cres (east)	Parking is blocking crosswalks	Add No Parking sign on the southwest corner on the Willowgrove Blvd to denote 10m	X
7	Willowgrove Blvd at midblock crosswalk between Maguire Cres & Stensrud	Parking is blocking crosswalk	Existing No Stopping signs on north side (southbound side). Add No Stopping signs on the south side (northbound side) 10m on either side of the crosswalk	X
8	Patrick Cres & Patrick Lane / Stefaniuk Cres	Stop or yield signs needed	Install yield signs facing Patrick Lane / Stefaniuk Cres. Only one collision noted therefore stop signs and 4-way stop are not warranted.	X
9	Muzyka & Patrick	Large concrete barricades are unsightly	Jersey barriers were installed to protect the adjacent property owners fence; discussions will need to take place outside of the Willowgrove Neighbourhood Traffic Review with the property owner to discuss other devices	
10	Patrick Ave & Patrick Cres (north); Patrick Ave & Patrick Cres (south)	Install yield signs	As outlined in Policy C07-007, yield signs are warranted where a unique problem exists. In this case, Patrick Crescent is a curved road making it difficult to see from Patrick Avenue, therefore yield signs are recommended at both locations	X
11	Stensrud Rd & Willowgrove Blvd (north side)	Pedestrian controlled lights needed - this is a highly used pedestrian crossing (primarily children), especially at the start and end of a school day for both schools as well as the day care	Active Pedestrian Corridor warranted	X
12	All median island locations	Wrap sign posts with reflective tape so that is visible at all sides. The sign at Paton/Trimble and Stensrud was recently knocked down and you can tell by the tire tracks that it was from someone turning left off of Trimble. These posts are not always clear on the side and there is really next to no cost for the tape.	Comments noted for further consideration for all locations city-wide.	