

**CITY OF SASKATOON**  
**2015 NEIGHBOURHOOD TRAFFIC REVIEWS**

**Meadowgreen**

**January 14, 2016**

## Meadowgreen Neighbourhood Traffic Review

January 14, 2016

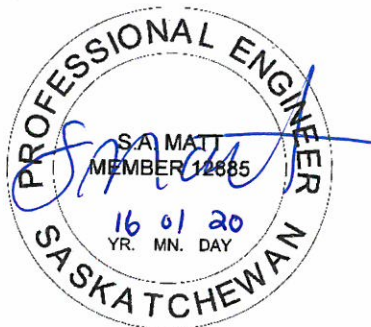
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## Acknowledgements

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*Cover Photograph Kara Toews*



## EXECUTIVE SUMMARY

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

A public meeting was held in January of 2015 to identify traffic concerns and potential solutions within the Meadowgreen neighbourhood. As a result of the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input and the completed traffic assessments, a Traffic Management Plan was developed and presented to the community at a follow-up meeting held in September 2015.

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

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

**Table ES-1: Meadowgreen Neighbourhood Recommended Improvements**

Item	Location	Recommendation	Reason
1	Witney Avenue & 19 <sup>th</sup> Street	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue
2	Witney Avenue & 20 <sup>th</sup> Street	4-way stop	Improve driver & pedestrian safety (visibility concerns due to parked cars & high collisions)
3	Avenue W & 18 <sup>th</sup> Street	Install active pedestrian corridor	Improve pedestrian safety
4	18 <sup>th</sup> Street & Avenue Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
5	21 <sup>st</sup> Street between Witney Avenue & Avenue W	Install sidewalk on south side	Improve pedestrian safety near park
6	Avenue X between 2 <sup>nd</sup> driveway (behind 'Touch of Ukraine') south of 22 <sup>nd</sup> Street to 125 Avenue X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200 states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)
7	21 <sup>st</sup> Street & Avenue W	Add hazard boards to stop signs & enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety
8	21 <sup>st</sup> Street & Avenue Y	Change yield signs to stop signs	Enhance driver compliance
9	Witney Avenue & 21 <sup>st</sup> Street	Install curb extension (northeast corner)	Reduce speed & discourage shortcutting on Witney Ave
10	18 <sup>th</sup> Street - Avenue W to Vancouver Avenue	Install sidewalk on north side (with priority for area in front of school - Ave X to Montreal Ave)	Improve pedestrian safety & connectivity on school route



MEADOWGREEN TRAFFIC PLAN

City of  
Saskatoon



Item	Location	Recommendation	Reason
1	Winney Avenue & 18th Street	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Winney Avenue
2	Winney Avenue & 20th Street	4-way stop	Improve driver & pedestrian safety (visibility concerns due to parked cars & high collisions)
3	Avenue W & 18th Street	Install active pedestrian corridor	Improve pedestrian safety
4	18th Street & Avenue Y (southeast corner) & median island (east side)	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
5	21st Street between Winney Avenue & Avenue W	Install sidewalk on south side	Improve pedestrian safety near park
6	Avenue X between 2nd driveway (behind Ukraine) south of 22nd Street to 125 Avenue X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200 states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)
7	21st Street & Avenue W	Add hazard boards to stop signs & enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety
8	Avenue Y & 18th Street	Change yield signs to stop signs	Enhance driver compliance
9	Winney Avenue & 21st Street	Install curb extension (northeast corner)	Reduce speed & discourage shortcutting on Winney Ave
10	18th Street & Avenue W to Vancouver Avenue	Install sidewalk on north side (with priority for area in front of school - Ave X to Montreal Ave)	Improve pedestrian safety & connectivity on school route



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## 1 INTRODUCTION

As the City of Saskatoon continues to grow many neighbourhoods face growing issues such as pedestrian safety, cut-through traffic, and increased speeds on local roads within neighbourhoods. In August 2013, City Council adopted the *City of Saskatoon Traffic Guidelines and Tools* that outlined 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 that were developed by the Administration and residents in collaborative fashion. Accordingly, this report provides the Traffic Management Plan for Meadowgreen.

The Meadowgreen neighbourhood is located on the west side of the South Saskatchewan River and is bound by railway line to the south, Avenue W to the east, Circle Drive to the west, and 22<sup>nd</sup> Street to the north. The area use is mostly residential, with an elementary school (W.P. Bate School) on 18<sup>th</sup> Street, and some commercial land use along 22<sup>nd</sup> Street.

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

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

## 2 IDENTIFYING ISSUES, CONCERNS, AND POSSIBLE SOLUTIONS

A public meeting was held in January of 2015 to identify traffic concerns within the neighbourhood. At the meeting, residents were given the opportunity to express their concerns and suggest possible solutions. The meeting minutes are included in **Appendix A**.

The following pages summarize the concerns and suggested solutions identified during the initial consultation with the neighbourhood 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). In the case of Meadowgreen, the bordering arterial streets (22<sup>nd</sup> Street and Avenue W) are designated to accommodate larger traffic volumes.

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

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

- Witney Ave between 18<sup>th</sup> Street & 20<sup>th</sup> Street
- Montreal Avenue
- 18<sup>th</sup> Street
- 21<sup>st</sup> Street (near park)
- Avenue X between 20<sup>th</sup> Street & 22<sup>nd</sup> Street
- Avenue Y between 20<sup>th</sup> Street & 22<sup>nd</sup> Street
- Back lane west of Witney Ave (south of 22<sup>nd</sup> Street)

Proposed solutions identified by residents:

- Install traffic calming (i.e. median islands, roundabouts, speed humps)
- Install four-way stop
- Provide more links in and out of Meadowgreen
- Create connections to Circle Drive

## 2.2 Concern 2 – Pedestrian Safety

It is important to address pedestrian safety concerns to support active transportation. 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:

- 18<sup>th</sup> Street & Avenue W
- Witney Avenue & 20<sup>th</sup> Street
- 22<sup>nd</sup> Street – dips in median are not safe to cross at; crosswalk lights take too long to activate

Proposed solutions identified by residents:

- 18<sup>th</sup> Street & Avenue W – install pedestrian signal; install bus shelter
- 21<sup>st</sup> Street (near park) – install sidewalk

## 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 volume, collision history, and must have a balanced volume from each leg to operate sufficiently.

Neighbourhood concerns regarding traffic controls were at the following locations:

- Witney Avenue & 20<sup>th</sup> Street
- Witney Avenue & 19<sup>th</sup> Street

Proposed solutions identified by residents:

- Install four-way stop (Witney Avenue & 20<sup>th</sup> Street, 21<sup>st</sup> Street & Avenue Y, 21<sup>st</sup> Street & Avenue X)
- Change the direction of the stop signs (Witney Avenue & 19<sup>th</sup> Street)

## 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 crossing.

Neighbourhood concerns regarding parking were at the following locations:

- Avenue X (near Sarcan)
- Witney Avenue & 20<sup>th</sup> Street
- Back lane near Avenue X & 22<sup>nd</sup> Street

Proposed solutions identified by residents:

- Parking restrictions
- Parking enforcement
- Back lane closure
- Blocking driveways

## 2.5 Concern 5 – Maintenance

Condition of the streets in Meadowgreen was identified as a concern (i.e. snow clearing, potholes, tree trimming, and temporary traffic calming devices).

Neighbourhood concerns regarding maintenance were:

- Back lane maintenance
- Snow removal (especially on bus routes)
- Trees blocking signs

## 2.6 Concern 6 – Major Intersections

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

Neighbourhood concerns regarding major intersections:

- 22<sup>nd</sup> Street & Witney Avenue
- 22<sup>nd</sup> Street & Avenue W

Proposed solutions identified by residents:

- 22<sup>nd</sup> Street & Witney Avenue:
  - Install a right-turn lane on 22<sup>nd</sup> Street to accommodate eastbound traffic to turn southbound onto Witney Avenue.
  - Move the lane marking on Witney Avenue to the centre of the road. It is offset to the west to make that side of the street narrower.
  - The intersection requires an advance left-turn signal for south bound traffic on Witney Avenue.
  - Install an advanced green turning light for traffic turning west (left) onto 22<sup>nd</sup> Street from Witney Avenue.
  - Install concrete barriers on Witney Avenue in front of gas station access to restrict entering and exiting going southbound.
  - No left turns allowed between 4:00pm – 6:00 pm.
  - Add another southbound lane.
- 22<sup>nd</sup> Street & Avenue W:
  - North traffic should be one lane for left turn, one lane for straight or right.
  - Remove the traffic calming at 23<sup>rd</sup> Street (causes queuing at 22<sup>nd</sup> Street)
  - Even though there is a left hand turning arrow, it is not long enough. There is so much traffic (vehicular and pedestrian) from the Agrium buses coming from the parking lot (No Frills parking lot) it can be dangerous.
  - Walk light northbound should be longer.

## 3 ASSESSMENT

### 3.1 Methodology

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

- Create a detailed list of all the issues provided by the residents.
- Collect historical traffic 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:
  - Intersection turning moving counts
  - Pedestrian counts
  - Daily and weekly traffic counts
  - Average speed measurements
- Assess the issues by using the information in reference with City policies, bylaws, and guidelines, transportation engineering design guidelines and technical documents, and professional engineering judgement.

The following sections provide details on the data collected for traffic volumes (peak hours, daily, and weekly), travel speed, and pedestrian movements. A map of the traffic data collection is shown in **Appendix B**.

### 3.2 Travel Volumes and Travel Speeds

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



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

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

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

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

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

Street	Between	Class	Average Daily Traffic (vpd)	Speed (kph)
Back lane south of 22 <sup>nd</sup> Street	Witney Avenue & Vancouver Avenue	lane	<100	NA
Witney Avenue	21 <sup>st</sup> Street to 20 <sup>th</sup> Street	local	4,100	48.7
Witney Avenue	19 <sup>th</sup> Street to 20 <sup>th</sup> Street		1,100	46.5
Montreal Avenue	19 <sup>th</sup> Street to 20 <sup>th</sup> Street		459	49.8
21 <sup>st</sup> Street	Avenue Y to Avenue X		510	39.9
Avenue X	20 <sup>th</sup> Street to 21 <sup>st</sup> Street		635	45.6
Avenue Y	21 <sup>st</sup> Street & 20 <sup>th</sup> Street		922	38.7
18 <sup>th</sup> Street	Avenue Y to Avenue X	collector	1,600	school=42.9; regular=49.1
18 <sup>th</sup> Street	Ottawa Avenue to Montreal Avenue		786	47.2
20 <sup>th</sup> Street	Witney Avenue to Montreal Avenue	minor arterial	1,845	51.6
20 <sup>th</sup> Street	Witney Avenue to Vancouver Avenue		2,511	52.3

### 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 or 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 200m.

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

**Table 3-3: All-Way Stop Assessments**

Location	Criteria 1: Peak Hour Count	Criteria 2: Average Daily Traffic (vpd)	Criteria 3: # of Collisions within most recent 12 months	Condition 1: % of Traffic from minor street	Condition 2: Traffic Signals or all-way stop within 200m	All-Way Stop Warrant
18 <sup>th</sup> Street & Avenue W	561	6,260	2	18%	no	All-Way Stop Not Warranted
Avenue W & 21 <sup>st</sup> Street	875	8,770	5	16%	yes	
21 <sup>st</sup> Street & Avenue Y	138	1,440	1	30%	no	
20 <sup>th</sup> Street & Witney Avenue	488	5,600	4	46%	no	Additional Review

20<sup>th</sup> Street & Witney Avenue was further reviewed due to high collisions and concerns raised during the public consultation. Since the additional conditions (percent of traffic on the minor street and distance from the nearest traffic signals or all-way stop) are met, a four-way stop should improve safety while maintaining adequate traffic flow. For these reasons, a four-way stop will be included in the recommendations. Traffic volumes will be monitored after the installation to determine the effectiveness.

Details of the all-way stop assessments are provided in **Appendix C**.

### 3.4 Pedestrian Assessments

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

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

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

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

**Table 3-4: Pedestrian Assessment**

Location	Number of Pedestrians Crossing During Peak Hours	Results
18 <sup>th</sup> Street & Avenue W	172	Active Pedestrian Corridor Warranted
Avenue W & 21 <sup>st</sup> Street	86	Pedestrian Device Not Warranted
20 <sup>th</sup> Street & Witney Avenue	33	

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

### **3.5 Collision Analysis**

The most recently available five year collision statistics (2009 to 2013) were 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. These include:

- Avenue W & 21<sup>st</sup> Street
- 20<sup>th</sup> Street & Witney Avenue
- Avenue W & 18<sup>th</sup> Street
- Avenue X & 19<sup>th</sup> Street
- Avenue W & 19<sup>th</sup> Street

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

## 4 PLAN DEVELOPMENT

### 4.1 Methodology

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

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

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

### 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 Speeding and Shortcutting Improvements**

Location	Recommended Improvement	Justification
18 <sup>th</sup> Street & Avenue Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
Witney Avenue & 21 <sup>st</sup> Street	Install curb extension (northeast corner)	Reduce speed & discourage shortcutting on Witney Avenue



### 4.3 Pedestrian Safety

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

**Table 4-2: Recommended Pedestrian Safety Improvements**

Location	Recommended Improvement	Justification
Avenue W & 18 <sup>th</sup> Street	Install active pedestrian corridor	Improve pedestrian safety
18 <sup>th</sup> Street & Avenue Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
21 <sup>st</sup> Street between Witney Avenue & Avenue W	Install sidewalk on south side	Improve pedestrian safety near park
21 <sup>st</sup> Street & Avenue W	Enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety
18 <sup>th</sup> Street - Avenue W to Vancouver Avenue	Install sidewalk on north side	Improve pedestrian safety & connectivity on school route

### 4.4 Traffic Control

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

**Table 4-3: Recommended Traffic Control Improvements**

Location	Recommended Improvement	Justification
Witney Avenue & 19 <sup>th</sup> Street	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue
Witney Avenue & 20 <sup>th</sup> Street	four-way stop	Improve driver safety
21 <sup>st</sup> Street & Avenue W	Add hazard boards to stop signs	Enhance visibility of stop signs & driver compliance
21 <sup>st</sup> Street & Avenue Y	Change yield signs to stop signs	Enhance driver compliance

## 4.5 Parking Improvements

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

**Table 4-4: Recommended Parking Improvements**

Location	Recommended Improvement	Justification
Avenue X between 2nd driveway (behind 'Touch of Ukraine') south of 22nd Street to 125 Avenue X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200, The Traffic Bylaw states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)

## 4.6 Transit Improvements

During the consultation a bus shelter was requested at the bus stop north of 18<sup>th</sup> Street on the east side of Avenue W. During the site reviews it was noted that this location had many riders waiting to get on the bus. Unfortunately the stop is not ideal for a bus shelter, as the space is limited due to the narrow boulevard. A bus shelter is recommended on the south side of the intersection, as there is adequate space for implementation. Furthermore, the active pedestrian corridor at 18<sup>th</sup> Street and Avenue W is recommended to be installed on the south side, which will provide a better connection. These comments were forwarded to Transit Services for further consideration of installation of the bus shelter through their programs.

## 4.7 Follow Up Consultation – Presentation of Traffic Management Plan

The initial recommended improvements were presented at a follow-up public meeting in September 2015. Recommended improvements that were not supported by the residents were eliminated or altered accordingly. A decision matrix detailing the list of recommended improvements presented at the follow-up meeting are included in **Appendix E**. A decision matrix for additional comments received after the draft traffic plan is also included in **Appendix E**.

The recommendations were circulated to the Civic Divisions (including Police Service, Light & Power, Saskatoon Fire Department, Environmental Services, and Transit) to gather comments and concerns. General support was received.

## **4.8 Major Intersection Reviews and Corridor Studies**

The mandate for the Neighbourhood Traffic Management Reviews is to focus on neighbourhood streets such as local roads and collector roads. As almost all neighbourhoods are bound by arterial streets, such as 22<sup>nd</sup> Street or Avenue W, it is not uncommon to have residents raise issues regarding these streets. However, arterial streets are much more complex than local or collector streets due to larger traffic volumes, different types of drivers (commuters), coordinated traffic signals, transit accommodation, and potentially many commercial accesses. To properly address these, the typical transportation engineering approach would require a corridor study or a major intersection review, both of which are expensive and require significant resources. Through the Neighbourhood Traffic Reviews, the City is compiling a list of issues on arterial streets. The Transportation Division is working to prioritize the issues, identify the work requirements, and secure funding to complete these types of assessments.

## 5 RECOMMENDED PLAN & COST ESTIMATES

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

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

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

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

- **Table 5-1:** Traffic Control Signs Cost Estimate
- **Table 5-2:** Pedestrian Devices Cost Estimate
- **Table 5-3:** Miscellaneous Signs Cost Estimate
- **Table 5-4:** Sidewalk Cost Estimate
- **Table 5-5:** Total Cost Estimate

**Table 5-1: Traffic Control Signs Cost Estimate**

Location	Device	Number of Signs	Cost Estimate	Time Frame
Witney Avenue & 19 <sup>th</sup> Street	Stop signs	2	\$500	1 to 2 years
Witney Avenue & 20 <sup>th</sup> Street	Stop signs	4	\$1,000	
21 <sup>st</sup> Street & Avenue Y	Stop signs	2	\$500	
<b>Totals</b>		<b>8</b>	<b>\$2,000</b>	

**Table 5-2: Pedestrian Devices Cost Estimate**

Location	Device	Cost Estimate	Time Frame
Avenue W & 18 <sup>th</sup> Street	Active pedestrian corridor	\$20,000	1 to 5 years
<b>Total</b>		<b>\$20,000</b>	

**Table 5-3: Miscellaneous Signs Cost Estimate**

Location	Device	Number of Signs	Cost Estimate	Time Frame
21 <sup>st</sup> Street & Avenue W	Add hazard boards to stop signs	2	\$500	1 to 2 years
21 <sup>st</sup> Street & Avenue W	Oversized pedestrian signs	4	\$1,000	
Avenue X between 2nd driveway (behind 'Touch of Ukraine') south of 22 <sup>nd</sup> Street to 125 Avenue X	"No Parking" sign	2	\$500	
Back lane south of 22 <sup>nd</sup> Street - access from Witney Avenue	20kph speed sign	1	\$250	
<b>Totals</b>		<b>9</b>	<b>\$2,250</b>	

**Table 5-4: Sidewalk Cost Estimate**

Street	Between	Length (metres)	Cost Estimate	Time Frame
21 <sup>st</sup> Street	Witney Avenue & Avenue W (south side only)	270	\$94,500	5 years plus
18 <sup>th</sup> Street	Avenue W to Vancouver Avenue (north side only)	630	\$220,500	
<b>Totals</b>		<b>900</b>	<b>\$315,000</b>	

**Table 5-5: Total Cost Estimate**

Category	Signing & Temporary Traffic Calming	Permanent
Traffic Calming	\$1,500	\$95,000
Traffic Control Signs	\$2,000	0
Pedestrian Devices	\$0	\$20,000
Miscellaneous Signs	\$2,000	0
Sidewalk	\$0	\$315,000
<b>Totals</b>	<b>\$5,500</b>	<b>\$430,000</b>

The total cost estimate for the signage and temporary traffic calming to be installed in 2016 is **\$5,500**. The total cost estimate for the installation of future permanent devices, including the active pedestrian corridor, and sidewalks, is **\$430,000**.

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



MEADOWGREEN TRAFFIC PLAN

City of  
Saskatoon





**Table 5-6: Meadowgreen Neighbourhood Recommended Improvements**

Item	Location	Recommendation	Reason
1	Witney Avenue & 19 <sup>th</sup> Street	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue
2	Witney Avenue & 20 <sup>th</sup> Street	four-way stop	Improve driver & pedestrian safety (visibility concerns due to parked cars & high collisions)
3	Avenue W & 18 <sup>th</sup> Street	Install active pedestrian corridor	Improve pedestrian safety
4	18 <sup>th</sup> Street & Avenue Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
5	21 <sup>st</sup> Street between Witney Avenue & Avenue W	Install sidewalk on south side	Improve pedestrian safety near park
6	Avenue X between 2nd driveway (behind 'Touch of Ukraine') south of 22 <sup>nd</sup> Street to 125 Avenue X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200 states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)
7	21 <sup>st</sup> Street & Avenue W	Add hazard boards to stop signs & enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety
8	21 <sup>st</sup> Street & Avenue Y	Change yield signs to stop signs	Enhance driver compliance
9	Witney Avenue & 21 <sup>st</sup> Street	Install curb extension (northeast corner)	Reduce speed & discourage shortcutting on Witney Ave
10	18 <sup>th</sup> Street - Avenue W to Vancouver Avenue	Install sidewalk on north side (with priority for area in front of school - Ave X to Montreal Ave)	Improve pedestrian safety & connectivity on school route

## APPENDIX A: MEETING MINUTES

**Meadowgreen LAP Meeting #7**  
**Neighbourhood Traffic Review Meeting**  
**W. P. Bate School Community Room**  
**2515 18th St West**  
**January 14, 2015**  
**7:00 pm**

**Attendees:** Pat Tymchatyn, Vasanth Iynkaran, Diane Tate, Cindy Friesen, George Henderson, Jeff Kolody, Yvonne Boehn, Raichelle Bueckert, Allan Alexander, Morgan Wolochuk, Orest Ewaniuk, Nicola Lawson, George Benden, Seling Drake, R. Russell, R. Dueck, Nicole Simpson, Hannah Chukwu, Sultan Ali Sadat, Rina Veltkamp, Gilbert Ouellette, Lisa Neudorf, Michael Greene, Hugh Pingue, Mark Emmons - Senior Planner, Mark Wilson - Planner, Justine Nyen & Lanre Akindipe - Traffic Engineers, Angela Gardiner - Director of Transportation Division, Constable Brad Tuck - Traffic Safety Division, Councillor Pat Lorje, Shirlene Palmer – Recording Secretary

**1. Welcome, Introductions & Agenda**

Meeting called to order at 7:00 p.m.

Mark Emmons introduced himself as the lead planner of the Meadowgreen Local Area Plan and thanked everyone for coming out to tonight's meeting. Thanks to W.P. Bates School for hosting the meeting.

Councillor Lorje has been a great support throughout the LAP process. She has to leave early tonight to attend another meeting, but will be around for the beginning of our meeting.

Meadowgreen neighbourhood goes from 22nd Street in the north to Avenue W to the east, the railway tracks to the south and Circle Drive to the west. This is the area we will be focusing on tonight. We know there are traffic issues on 11th Street and because that corridor spans several neighbourhoods, it's being dealt with at a separate meeting with several neighbourhoods.

This meeting is also part of the ongoing Meadowgreen Local Area Plan. Through the LAP process, we have a series of topic-based meetings to talk about what the neighbourhood wants to discuss, such as neighbourhood safety, parks, culture, municipal services. With the new neighbourhood-level traffic review program, we are utilizing this process to contribute to the overall LAP project.

Mark is the lead of the LAP and through community input he will work with the community to develop a plan to help the neighbourhood address challenges/opportunities. The plan will result in a document filled with recommendations that will be implemented. Every recommendation is a local improvement project that is assigned to a City department or community organization.

Mark noted there is a great turn out for tonight's meeting and hopes some of these attendees will continue working on the LAP.

Mitch Riabko & Kathy Dahl, Great Works Consulting, will facilitate tonight's meeting. They help you get to where you want to be. There are a number of traffic concerns that will be looked at tonight. First we will start with sharing information through a short presentation so everyone is on the same page followed by small group work and there will then be a time for questions. Not only discuss the issues, but what are some solutions that may address them. The attendees are asked to please follow the Foundations of Success that are posted.

## **2. Foundations for Success**

Foundations for Successful Meetings specify how the meeting will be conducted. They are used to ensure that attendees feel comfortable sharing their concerns, opinions and ideas with the group here tonight.

The Foundations for Success are:

### **1. Information Sharing & Gathering**

- Share what you think is important
- Everyone works together to make decisions

### **2. Respect**

- Respect every comment or idea that comes forward
- Respect each other's opinions and perceptions

### **3. Integrity**

- Speak your mind respectfully
- Honesty is the best policy!
- Your voice is not heard if you don't participate

### **4. Fair and Equal Representation**

- Everyone will have their opportunity to share
- Everyone has something important to contribute
- Strive for equal representation from all stakeholders within the area

### **5. No Repetitive Discussion**

- There is limited time within meetings, discussion of topics already covered may have to occur outside scheduled meeting time

### **6. Orderly Participation**

- Listen when others are speaking
- Please raise hand to share your thoughts

## **Councillor Lorje Opening Comments**

Councillor Lorje thanked Pat Tymchatyn, Community Association President for being so involved with the LAP. She also thanked all the attendees for taking part, it is always exciting to hear what people have to say.

She noted the City, CN and CP rails have agreed to begin meeting on a senior level to negotiate and try to resolve some of the traffic issues throughout the city. If anyone is experiencing traffic delays please note the specific details (day, time, location and length of delay) and email to Councillor Lorje who will pass it along to the committee.

She also noted there is a separate meeting being held in June to address the concern of increased traffic on 11th Street due in part to the new south bridge.

### **3.a. Traffic Management Presentation** **Justine Nyen, Traffic Engineer**

#### **11th Street Review**

- A separate meeting has been scheduled for June 3<sup>rd</sup>, 2015 at W.P. Bate School to assess the corridor from Circle Drive to Avenue H.
- The meeting will address issues, such as:
  - Number of Lanes
  - Pedestrian accommodation
  - Type of traffic control (signals vs. signs)
  - Type of intersections
  - Access management

#### **Neighbourhood Traffic Management**

- Address neighbourhood traffic issues:
  - Speeding concerns
  - Short-cutting concerns
  - Pedestrian safety
  - Intersection safety
- In August 2013 there was a program change that now includes a Neighbourhood-wide review which gives more community/stakeholder feedback and at the same time efficient use of staff resources.
- Timeline for Meadowgreen Traffic Review:
  - January 2015 is this initial Traffic Meeting
  - January to Fall 2015 we will gather feedback, conduct traffic studies, collect data, develop traffic plan
  - Fall 2015 there will be a follow up Traffic Meeting with a display of the proposed traffic plan and feedback will be gathered.
  - There will then be approximately one month to continue gathering feedback and the plan will be finalized.
  - The Traffic Plan will then be presented to City Council for approval, with implementation to follow.

#### **Sources of Information**

- Information has been collected from collision statistics, Community Engagement Online Tool, phone calls and emails received by the Transportation Division since neighbourhood-wide traffic program was developed in August 2013.

- In the future, information will be gathered from public consultations (meetings, correspondence, Shaping Saskatoon discussion and traffic counts and assessments).

### **Description of Traffic Calming**

Traffic calming is intended to slow speeds, reduce collisions, enhance safety for pedestrians and reduce shortcutting. Some of the traffic calming is relatively inexpensive.

#### **Types:**

- Curb Extensions
  - Zebra/stripped crosswalk – enhance visibility
  - Landscaping can improve appearance
- Raised Median
  - Can also serve as a refuge when pedestrian crossing
- Roundabouts
  - Very nice landscaping can be done.
- Speed Humps
  - Not recommended on transit routes
  - Can increase emergency response times
  - Creates some noise
- Raised Cross Walk
- Diverter
- Right In Right Out Island
- Directional Closure
  - Large curb extensions with one-way street which eliminates shortcutting
- Raised Median Through Intersection
- Full Closure

### **Pedestrian Safety Around Parks & Playgrounds**

- A report was submitted to City Council in March 2014 responding to an inquiry regarding implementation of “Children at Play Speed Zones” around pools, playgrounds and water parks located outside of school zones or school hours.
- Rather than commissioning a study, City Council has advised we gather feedback directly from communities to address their concerns
- We want to know:
  - Are there any parks/playgrounds in your area that you have concerns about?
  - What are your solutions?

- Opportunity to discuss in small groups

**b. Saskatoon Police Service Presentations**  
**Constable Brad Tuck**

Constable Tuck stated this is his third year involved with Traffic Safety for Meadowgreen and 8th year with Police Services. Meadowgreen is a unique neighbourhood as you don't have major roadway going through but are surrounded by them.

Although he does not have the numbers with him at the meeting, there is generally a lot of enforcement at 22nd and Witney as it is a High Collision Enforcement Intersection so it gets a lot of attention. On 11th Street there is a lot of laser/radar enforcement done as well. We do not get a lot of complaints about the school zone, but will do drive throughs regularly.

**Questions:**

- **If someone has a concern about speeding or other traffic concerns what number should they contact?**

They should contact the main number, (306) 975-8300 which is the Communication Centre and say they would like to report a traffic complaint and they will be forwarded to the appropriated department. These complaints are then reviewed daily.

- **Do you ever set up speed traps down back lanes? Some back lanes are like speedways.**

Radar is not set up in back lanes, but if there are concerns contact the 8300 number so it can be reviewed. The more specific you are about an issue the better; if it is a particular vehicle that races daily down the lane ensure you give time of day, type/color of vehicle, etc.

**Comments:**

- On Avenue W and 22nd Street, even though there is a left hand turning arrow, it is not long enough. There is so much traffic (vehicular and pedestrian) from the Agrium buses coming from the parking lot (No Frills parking lot) it can be dangerous. Pedestrians cross wherever they want and police presence does not seem to be there.

Constable Tuck noted this is the first time he has heard of this concern. This is something he can look into if he knows what time of day these concerns usually are.

- When previously contacting Communication Centre about a specific driver and their speed I was told I would have to go into Police Services and officially lay a complaint and might even have to go to court. I don't want to have to do this so I don't call.



Constable Tuck stated if you are just calling in a traffic complaint you can just do this anonymously by saying you want to report a traffic complaint. If you want to specifically report one person then you do have to come into Police Services, in order for consideration of laying charges against the driver.

### **c. Traffic Issues in Meadowgreen Discussion Seeking Your Ideas & Solutions**

The attendees were divided into three groups and asked to discuss the following:

1. What ideas or solutions do you have to improve traffic flow/safety in your neighbourhood (what's working or not working)?
2. Identify additional traffic issues and solutions in Meadowgreen.

Following the discussion they were asked to then prioritize the concerns. This does not mean that anything will get dropped for the list but shows where the most concern is. Everything is important, but what are your priorities?

#### Mark Emmons Group

1. Southbound on Witney turning into CreeWay backs up when turning left. Barricade maybe?
2. Northbound Witney turning left onto 22<sup>nd</sup>. Light too short. Needs left turn arrow. Parked vehicles on east side of Witney near 22<sup>nd</sup> also an issue.
3. 20<sup>th</sup> & Witney vehicles nose too far out into 20<sup>th</sup> at stop sign. Possibly due to visibility issues.
4. CNR trains idling between 18<sup>th</sup> St and south end of Meadowgreen. Idle for hours, noise pollution for adjacent homes. Dangerous fumes too.

General comment: People drive different in winter. Often ignoring rules of road. Traffic education and enforcement issue.

5. Bus stop on north Witney (west side) is across from CreeWay where drivers are backed up, as noted in #1. So right lane has bus & left turning vehicles bog down Witney, leaving no room for southbound drivers to get through. Maybe add another southbound lane by shaving off edge of recycling depot.
6. 21<sup>st</sup> St homes by Montreal & Vancouver with rear garages need access to Witney to go northbound. Currently come out of back lane because other accesses are closed to vehicles and only other option is 20<sup>th</sup> St. Barricade at CreeWay would create new problems for those north end homeowners.
7. Trains blocking 11<sup>th</sup> Street
8. 11<sup>th</sup> & W intersection impossible to turn left onto 11<sup>th</sup> at rush hour, even tough to turn right onto 11th at that time too.
9. Snow removal needed on bus routes.

General Comment: Visibility of signage in many locations is an issue, overgrown trees

10. 18<sup>th</sup> St at Circle or 20<sup>th</sup> at Circle would provide another exit from neighbourhood. Concerned about impacting school or residents through. Complex challenge. No consensus on how to proceed. Would like to see feasible options for neighbourhood to consider.

#### Landre Akindipe Group

- Witney/22<sup>nd</sup> Street
  - Driveway Issues
  - LT traffic northbound/southbound
  - Signal timing review
  - Red light running motorists
- 18<sup>th</sup> St (Winnipeg-Ave W)
  - Speeding Concerns
- 18<sup>th</sup> St/Ave W
  - Traffic calming devices
  - Ped actuated signal
  - Lots of Ped activities
- Witney/20<sup>th</sup>
  - Speeding issues/shortcutting/traffic calming
- Creating outlets/options for traffic from the neighbourhood
  - Links to Circle (18<sup>th</sup>/20<sup>th</sup>)
- Noise Reduction on Circle Drive (18<sup>th</sup> & 20<sup>th</sup>)
  - Sound walls
- Playground Issues
  - Speeding isn't an issue due to proximity to schools.

#### Mark Wilson/Justine Nyen Group

- McDonalds access on W, south of 22<sup>nd</sup> Street. Creates vehicle back up when people are trying to turn in. 100 block south.
- Traffic noise from Circle Drive, due to no sound attenuation. Across from 18<sup>th</sup> and from Clancy.
- Volume and speed off of 22<sup>nd</sup> Street and onto Ave Y and X. Doing a loop around to get to bar and Sarcan and 21<sup>st</sup> St.
- Need for a sidewalk on 21st Street, near park\Stop signs or 21<sup>st</sup> Street on Ave X possibly 4 way stop)
- Rear lane, shortcutting, speeding, block driveway specifically rear lane off of 22<sup>nd</sup> Street, between Ave X & Y. Maybe a need to close the rear lane.
- North on W toward 22<sup>nd</sup> St is a great system. But, walk light going south is too short.
- Review of signal timing between 4 and 6 pm at Witney and 22<sup>nd</sup> and at 22<sup>nd</sup> Street and Ave W.
- Transit route on Witney, can it be on W instead?
- Difficulty turning left on 22<sup>nd</sup> Street and Ave W, right of way arrows more frequently between 4 & 6 pm, should have left turn or left lane turn only.
- Rear lane assessment, backs onto 22<sup>nd</sup> Street, west of Witney.
- Concern with parked cars blocking driveways. Need for "no parking between signs" signs.
- Witney and 20<sup>th</sup> Street. No following stop signs on Witney and speeding on 20<sup>th</sup> (both directions) Solution: Four way stop, round-about, more studies here.
- Alternate sign at 19<sup>th</sup> and Witney or something to decrease speeds.
- Snow is being piled on the parking lane on 20<sup>th</sup> Street
- 18<sup>th</sup> and W. Something to improve the crossing.
- Need for bus shelter on Ave W and 18<sup>th</sup> Street
- Railway track, need for sound attenuation 18<sup>th</sup> to 22<sup>nd</sup>.

- On 22<sup>nd</sup> pedestrian crossing, dips, middle of the medians. Not safe to cross the street.
- Crosswalk lights on 22<sup>nd</sup> Street takes too long to engage.

#### 4. Next Steps

**Angela Gardiner, Director, Transportation Division**

- a. Continue monitoring traffic issues in your neighbourhood
- b. Mail-in comments no later than February 14/15
- c. Additional public input via City on-line Community Engagement webpage no later than February 14/15

<http://shapingsaskatoon.ca/discussions/meadowgreen-neighbourhood-traffic-review-meeting>

- d. Traffic count data collection - spring 2015
- e. City review of public input and data collected from traffic studies and prepare draft Traffic Plan
  - Follow-up public input meeting to provide input on draft
  - Determine revisions and finalize Traffic Plan
  - Present Traffic Plan to City Council for approval

Angela stated once all information is collected a neighbourhood wide plan will be drafted. Unfortunately not able to do everything that is suggested as there needs to be balance for the overall neighbourhood.

The proposed plan will then be brought back to groups and usually there are only a few minor tweaks that need to be done prior to bringing to City Council.

Important to note, depending on the nature of the modification things will not happen overnight. Temporary measures are usually put into place and monitored for about a year to ensure change does not affect another part of the neighbourhood in a negative manner. Once decided should be permanent then it will be added to the budgets for completion.

Thanks for everyone's input tonight. This is the beginning point of the process and we are moving towards a traffic-safe neighbourhood.

#### **Comments:**

- The issue at intersection of Witney Ave and 22<sup>nd</sup> Street has been going on for quite awhile and don't know if it can wait for another year before something is done.

Angela noted there may be some "low hanging fruit" that can be dealt with some quick fixes. If it is a matter of signal timing can be done quicker, but may take longer if more significant changes are required.

- Challenges in dealing with railways are noted.

Angela noted the City is very encouraged they have the ear of both CN and CP Rails and they have committed to working with us. The City has been collecting data since August 2013, documenting delays, time of delays, etc. Other municipalities have done this with positive outcomes. Also able to lobby for funding from provincial government to help with solutions.

## **8. Closing**

Mitch thanked everyone for coming out to the meeting. A meeting will be held in fall of 2015 for residents to review the proposed draft Traffic Plan, so watch for flyers.

Mark also thanked everyone for attending. He noted it has been a struggle to get people out to the other LAP meetings and really hoped some of tonight residents would continue coming to future LAP meetings.

**Next Meeting:      Wednesday, February 25, 2015, W.P. Bate School**

**Meeting adjourned at 8:45 pm.**

**Meadowgreen LAP Meeting #12  
Neighbourhood Traffic Review Meeting  
W. P. Bate School Community Room  
2515 18th St West  
September 15, 2015  
7:00 pm**

**Attendance:** 23

Mark Emmons - Senior Planner, Ellen Pearson - Planner, Justine Nyen & Goran Lazic - Traffic Engineers, Jay Magus - Engineering Manager , Constables S. Talic & R. Kuny - Saskatoon Police Services, Councillor Pat Lorje, Shirlene Palmer – Recording Secretary

**1. Welcome, Introductions & Agenda**

Meeting called to order at 7:00 p.m.

Mitch Riabko & Kathy Dahl from Great Works Consulting will facilitate tonight's meeting.

Mitch Riabko Opening Comments

As part of developing the LAP for Meadowgreen neighbourhood, there were a variety of traffic issues to resolve. The first meeting was held last January and attendees were asked to provide feedback on traffic issues and more importantly, identify solutions.

Feedback collect from the meeting, observations over the last few months, as well as information collected via email, phone calls and on-line were analyzed and considered by City staff when creating this proposed Traffic Plan.

Tonight a presentation will be given to attendees to see the proposed Traffic Plan and to give your feedback. The goal of this meeting is to hear what residents have to say.

At the January meeting it was brought up that traffic is not the only issue in the neighbourhood but also there was a lot of traffic violation that added to the problems. Constables S. Talic and R. Kuny are with us tonight to help answer any questions that might arise.

The purpose of tonight's meeting:

1. To present the new neighbourhood traffic plan based on input received from the community; provide reasoning for decisions. and
2. Gain focused feedback from the community about each plan proposal.

To ensure you are successful the attendees are encouraged to follow some simple Foundations for Success

Mark Emmons introduced himself as the lead planner of the Meadowgreen Local Area Plan and thanked everyone for coming out to tonight's meeting. Through the LAP process, we are looking for local improvements for your neighbourhood. The LAPC has already had meetings on Land Use, Parks, Community Gardens & Open Spaces, Culture, Heritage & New Canadians, Neighbourhood Safety, Municipal Services and the first Traffic meeting. Upcoming meetings will be Property Maintenance, Vacant Lots, Brownfields, Housing Incentive Programs and Neighbourhood Safety.

If you have not been to an LAP meeting prior to today give your email to Shirlene to be added to the email distribution list in order to be kept informed about the LAP.

## **2. Foundations for Success**

Foundations for Successful Meetings specify how the meeting will be conducted. They are used to ensure that we feel comfortable sharing their concerns, opinions and ideas with the group here tonight.

The Foundations for Success are:

### **1. Information Sharing & Gathering**

- Share what you think is important
- Everyone works together to make decisions

### **2. Respect**

- Respect every comment or idea that comes forward
- Respect each other's opinions and perceptions

### **3. Integrity**

- Speak your mind respectfully
- Honesty is the best policy!
- Your voice is not heard if you don't participate

### **4. Fair and Equal Representation**

- Everyone will have their opportunity to share
- Everyone has something important to contribute
- Strive for equal representation from all stakeholders within the area

### **5. No Repetitive Discussion**

- There is limited time within meetings, discussion of topics already covered may have to occur outside scheduled meeting time

### **6. Orderly Participation**

- Listen when others are speaking
- Please raise hand to share your thoughts

### Councillor Pat Lorje Comments

Slowly but surely the City of Saskatoon is undergoing a new process for planning ahead and growth. She is seeing signs that services are better spread throughout the city but still a long way to go. The landscaping on the west side of the Circle Drive South Bridge did not come as it should have and this will be corrected next year.

There have been concerns brought to her about the noise and fumes from the trains and she is meeting with CN at the end of September to discuss this matter. There is also a lot of concern from Montgomery as they are trapped when trains run through. She hopes there can be at least a short term solution until a long term solution can be found. In closing, if anyone has any concerns they can call or email her.

### **3.a. Traffic Management Presentation Justine Nyen, Traffic Engineer**

#### **Neighbourhood Traffic Management Program**

- Address neighbourhood traffic issues:
  - Speeding concerns
  - Shortcutting concerns
  - Pedestrian safety
  - Intersection safety
- August 2013 - changes to program:
  - Neighbourhood-wide review
  - More community/stakeholder feedback
  - Efficient use of staff resources

#### **How We Got Here**

- January 2015 - Initial Traffic Meeting
- January to September 2015 - gather feedback, conduct traffic studies, collect data, develop traffic plan
- September 2015 - Follow Up Traffic Meeting - display proposed traffic plan and gather feedback.

#### **What We Heard**

1. Speeding/Shortcutting
  - Montreal Avenue
  - 18th Street
  - 21st Street (near park)
  - Avenue X (between 20th St & 22nd St)
  - Avenue Y (between 20th St & 22nd St)
  - Back lane west of Witney Ave (south 22nd St)
2. Pedestrian Safety
  - 18th Street & Avenue W
  - Crossing 20th Street

3. Intersection Safety
  - 22nd Street & Witney Avenue
  - 22nd St & Avenue W
4. Parking
  - Avenue X (near Sarcan)
5. Other Issues
  - Other links in/out of Meadowgreen
  - Snow removal
  - Trees blocking signs
  - Noise reduction
  - Bus routes/shelters

### **What We Did**

- Collected data
  - Past study
  - 25 attendees at initial meeting
  - Resident responses - phone calls, emails, letters (8)
  - Recorded comments from Shaping Saskatoon discussions
  - Intersection/pedestrian counts (5)
  - 7 day, 24 hour, traffic count (10) & Average Speed measurements
  - Back lane traffic volume count (1)
  - Collision history
- Field Reviews
- Assessed the issues
- Generated proposed recommendations

### **What we Propose**

See Appendix A for list of proposed recommendations.

#### **3.b. Traffic Operation** **Goran Lazic, Traffic Engineer**

It can be difficult to make changes to arterial roads at a neighbourhood level as they usually affect more than one neighbourhood and corridor so need to be careful when requesting changes. Information gathered from Shaping Saskatoon helps us to look at these issues on a larger scale.

A concern heard in the neighbourhood was the back up of traffic at Witney and 22nd Street. Issue is turning left onto Witney from 22nd Street as traffic being held up by people turning into gas station at corner as well as turning left onto 22nd Street from Witney due to increase traffic coming from Shoppers. Also length of pedestrian walk light not long enough for slower crossers.

Goran noted the issue is most older intersections are not made for the traffic volumes using them. It can be challenging to change access to businesses due to the geometry



of their lots/entrances. He noted making major changes to intersection configuration can be very costly, require lots of planning and still may not be possible.

Some changes that could be looked at are lane labeling to ensure proper use of lanes, stating one is left turn lane and other is straight and right turn. This may alleviate some of the traffic moving south and north from Witney to 22nd Street. The timing of the pedestrian walk lights could be increase to accommodate slower crossers.

These changes could also be done at Avenue W & 22nd Street.

In summary, we can make small improvements to alleviate some of the concerns but any more drastic changes will need to wait to see what larger plans are in store in the future plan of 22nd Street overall.

**Comments:**

- The north/south traffic movement light seems to take a long to time to change to green.

Goran noted there is a traffic loop overhead that signals when there is a vehicle there. It may not be working properly they can take a look at this.

**4. Small Groups:**

The attendees were broken into 3 groups and asked to review the recommendations and make supply comments to facilitators.

See Appendix B for results of small group discussions.

**5. Next Steps**

**Jay Magus, Engineering Manager  
Transportation & Utilities Division**

1. Mail-in or email comments no later than October 15/15
2. Additional public input via Shaping Saskatoon no later than October 15/15  
<http://shapingsaskatoon.ca/discussions/meadowgreen-neighbourhood-traffic-review-meeting>
3. Additional consultation if required
4. Present traffic plan to City Council for approval
5. Once approved then will become part of neighbourhood LAP document for implementation.

Jay noted there is a meeting scheduled on Tuesday, October 27, 7:00 pm at St. John School to address the comprehensive plan for 11th Street from Circle Drive to Avenue H. This meeting is identical to the one held earlier this year so there is no need to attend if you attended the previous one.

## 8. Question & Answer

### Questions:

- **What happened to the plan to connect 17th Street to Circle Drive?**

Jay noted this is back on the table again so will be discussed.

- **What is happening with Active Transportation in the area as the above connection was taking it into consideration, a safe path right to the river.**

Jay noted the City is currently working on an overall bike/pedestrian trail system. There will be some public events this fall.

- **With the Growth Plan of 500,000 maybe we need more bridges?**

There are Growth Plan/Come & Go Public Events planned that would give a better answer to this question.

- Wednesday, October 21, 4:30 - 8:30 pm, Mayfair United Church
- Thursday, October 22, 4:30 - 8:30 pm, Saskatoon Field House, Lobby

- **There is a lot of speeding on Avenue W between 11th and 22nd Street. Can something be done to slow the traffic down?**

Justine stated Avenue W is an arterial road so traffic calming is not recommended. Enforcement would be the best for this area; she will pass along this information to Saskatoon Police Services and they can do a speed study.

- **Can the stop signs at 11th Street and Fletcher Avenue be removed? They were originally only to be temporary while South Bridge was built; now they are affecting traffic in the area in a negative way when people are trying to turn east from Avenue W to 11th Street.**

Justine will pass along to be looked into.

## 9. Closing

Mitch thanked everyone for coming out to the meeting.

Mark also thanked everyone for attending. He passed along the message from Pat Tymchatyn that the Meadowgreen Community Association AGM is scheduled for October 6, 7:00 pm, W.P. Bate School, Community Room.

**Next Meeting:**      **Wednesday, October 28, 2015, W.P. Bate School**  
                             **Wednesday, November 4, 2015, W.P. Bate School**

**Meeting adjourned at 9:00 pm.**

## Appendix A - Meadowgreen Draft Traffic Recommendations - Sept 15/2015

Item	Location	Recommendation	Reason
1	Witney Ave & 19th St	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue
2	Witney Ave & 20th St	4-way stop	Improve driver & pedestrian safety (visibility concerns due to parked cars & high collisions)
3	Avenue W & 18th St	Install active pedestrian corridor	Improve pedestrian safety
4	18th St & Ave Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school
5	21st St between Witney Ave & Ave W	Install sidewalk on south side	Improve pedestrian safety near park
6	Ave X between 2nd driveway south of 22nd St to 125 Ave X	Install parking restrictions on west side	Improve visibility for driveways
7	21st St & Ave W	Add hazard boards to stop signs & enhance pedestrian signs	Improve visibility at intersection (including enhance visibility of stop signs), enhance driver compliance & improve pedestrian safety
8	21st St & Ave Y	Change yield signs to stop signs	Enhance driver compliance
9	Back lane south of 22nd St - access from Witney Ave	Install 20kph speed sign	Reduce speed
10	Witney Ave & 21st St	Install curb extensions (south side) & standard pedestrian crosswalk	Reduce speed, discourage shortcutting on Witney Ave & improve pedestrian safety

### Major intersections

22nd St & Ave W  
22nd St & Witney Ave

### Other departments

Request bus shelter on Ave W north of 18th St

**Appendix B – Meadowgreen Traffic Recommendations**

Sept 15/2015

Item	Location	Recommendation	Reason	Group 1 - Ellen Pearson	Group 2 - Mark Emmons	Group 3 - Jay Magus
1	Witney Ave & 19th St	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue	Yes	Should measure 19th St because of multi-block free-flow. Could be new issue.	
2	Witney Ave & 20th St	4-way stop	Improve driver & pedestrian safety (visibility concerns due to parked cars & high collisions)	are the curbs coloured to prevent parking close?	Yes	
3	Avenue W & 18th St	Install active pedestrian corridor	Improve pedestrian safety	Yes	Yes	
4	18th St & Ave Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school	how do curb extensions effect cyclists turning radii? Median islands are good.	Indifferent. Uncertain that it's needed. Could effect on-street parking negatively.	
5	21st St between Witney Ave & Ave W	Install sidewalk on south side	Improve pedestrian safety near park	Also install sidewalk on north side of 20th/Montreal	Who'll maintain it? City doesn't clear snow from sidewalk. Putting it on the north side may be better.	
6	Ave X between 2nd driveway (behind 'Touch of Ukraine') south of 22nd St to 125 Ave X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200 states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)	Yes	Good plan. Sarcan needs to do better job of maintaining their site. Maybe they could do angle parking on their site. Major traffic generator and not enough on-site parking.	
7	21st St & Ave W	Add hazard boards to stop signs & enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety	Yes	Better than nothing. Would prefer active crossing.	
8	21st St & Ave Y	Change yield signs to stop signs	Enhance driver compliance	Yes	Not against it but not sure if it will have any effect.	
9	Back lane south of 22nd St - access from Witney Ave	Install 20kph speed sign	Reduce speed; enhance compliance of speed limit in back lane	Prostitution in back alley, needles - install "Local Traffic Only"	May already have 15kph signs posted here.	
10	Witney Ave & 21st St	Install curb extensions (south side) & standard pedestrian crosswalk	Reduce speed, discourage shortcutting on Witney Ave & improve pedestrian safety	maintain bushes to increase visibility	Doesn't seem needed. May effect buses negatively.	Trim hedges on southeast corner

**Other departments**

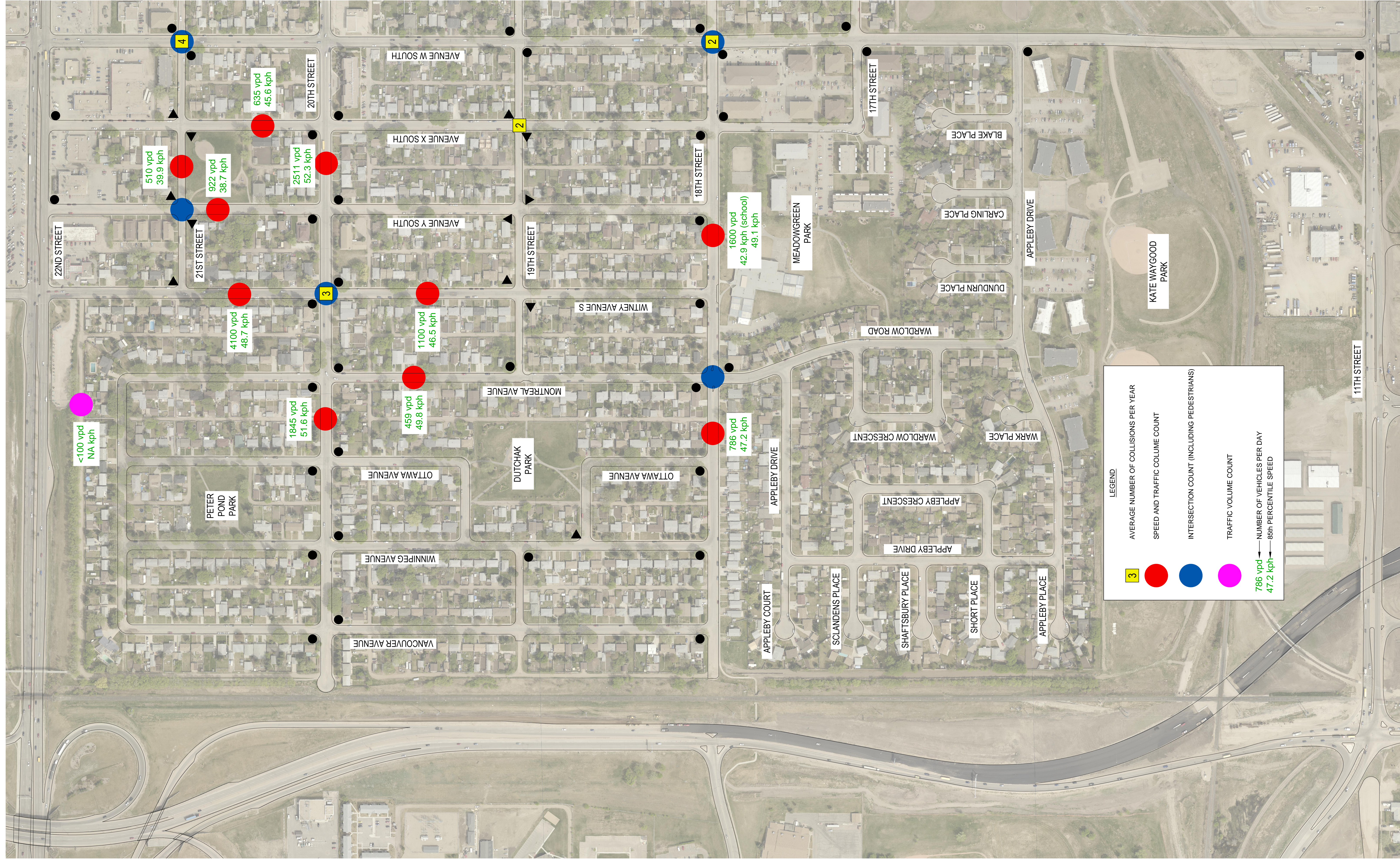
Request bus shelter on Ave W north of 18th St

	Location	Concern
1	Various	tree maintenance to prevent visibility issues, pedestrian enforcement, cycling enforcement/training
2	22nd St & Witney Ave	possible to use jersey barriers; loop detection is broken
3	Witney Ave between 20th-22nd	lane painting
4	18th St across from school (north side)	sidewalk needed
5	Ave W & 22nd St (facing northbound)	needs signs identifying lanes
6	Ave W	speeding
7	21st St & Ave X	trim tree on northwest corner
8	Wardlow Cres & Wardlow Rd	trim evergreen on northwest corner
9	Back lanes	speed limit signs
10	22nd St & Ave W	make inside lane left turn & outside lane Thru/Right Turn

## APPENDIX B: TRAFFIC DATA COLLECTION



*City of*  
**Saskatoon**





## APPENDIX C: ALL-WAY STOP ASSESSMENTS



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

### Step 1:

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

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

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

Location	Condition 1: % of Traffic from minor street	Condition 2: Traffic Signals or all-way stop within 200m	All-Way Stop Warrant
18th Street & Ave W	18% (no)	no	Conditions NOT met.
Ave W & 21st St	16% (no)	yes	
21st St & Ave Y	30% (no)	no	
20th St & Witney Ave	46% (yes)	no	Conditions met. Proceed to Step 2.

### Step 2:

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

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

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

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

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

Location	Condition 1: 5 or more collisions in most recent 12 months	Condition 2: total number of vehicles entering the intersection from all approaches averages at least 600 per hour for the peak hour	Condition 3: total intersection entering volume exceeds 6,000 vehicles per day	Results
20th St & Witney Ave	4 - Condition NOT met	488 - Condition NOT met	5,600 - Condition NOT met	Further consideration due to high collisions.

## APPENDIX D: PEDESTRIAN DEVICE ASSESSMENTS

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

### **Witney Avenue & 20th Street:**

#### **1. Lanes Priority Points:**

$L = 2$  lanes = number of lanes.

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

#### **2. Median Priority Points:**

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

#### **3. Speed Priority Points:**

$S = 50$  kph = speed limit or 85th percentile speed.

$SPDF = 6.7$  points =  $(S-30) / 3$  to a maximum of 10 points.

#### **4. Pedestrian Protection Location:**

$D = 340$  m = distance from study location to nearest protected crosswalk.

$LOCF = 10.5$  points =  $(D-200) / 13.3$  to a maximum of 15 points.

#### **5. Pedestrian/Vehicle Volume Priority Points:**

$H = 5.0$  = ( hours ) duration of counting period.

$Ps = 33.0$  = total number of children, teenagers, seniors and/or impaired counted.

$Pa = 0.0$  = total number of adults counted.

$Pw = 49.5$  = weighted average of pedestrians crossing the main street.

$Pcm = 9.9$  = weighted average hourly pedestrian volume crossing the main street.

$V = 2042.0$  = volume of traffic passing through the crossing(s).

$V_{am} = 408.4$  = average hourly volume of traffic passing through the crossing(s).

$$VOLF = 8.1 \text{ points} = V_{am} \times P_{cm} / 500$$

6. Satisfaction of Installation Criteria:

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

$$SUMF = 31 \text{ points}$$

(P.A. Signal Warrant Points)

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

**Avenue W & 18th Street:**

1. Lanes Priority Points:

$$L = 2 \text{ lanes} = \text{number of lanes.}$$

$$LANF = 0.0 \text{ points} = (L-2) \times 3.6 \text{ to a max of 15 points, urban x-section only.}$$

2. Median Priority Points:

$$MEDF = 6.0 \text{ points} = \text{indicating there is no physical median here.}$$

3. Speed Priority Points:

$$S = 50 \text{ kph} = \text{speed limit or 85th percentile speed.}$$

$$SPDF = 6.7 \text{ points} = (S-30) / 3 \text{ to a maximum of 10 points.}$$

4. Pedestrian Protection Location:

$D = 410 \text{ m}$  = distance from study location to nearest protected crosswalk.

$LOCF = 15.0 \text{ points}$  =  $(D-200) / 13.3$  to a maximum of 15 points.

Actual value = 15.78947 points.

5. Pedestrian/Vehicle Volume Priority Points:

$H = 5.0$  = ( hours ) duration of counting period.

$P_s = 113.0$  = total number of children, teenagers, seniors and/or impaired counted.

$P_a = 60.0$  = total number of adults counted.

$P_w = 229.5$  = weighted average of pedestrians crossing the main street.

$P_{cm} = 45.9$  = weighted average hourly pedestrian volume crossing the main street.

$V = 2481.0$  = volume of traffic passing through the crossing(s).

$V_{am} = 496.2$  = average hourly volume of traffic passing through the crossing(s).

$VOLF = 45.6 \text{ points}$  =  $V_{am} \times P_{cm} / 500$

6. Satisfaction of Installation Criteria:

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

$SUMF = 73 \text{ points}$

(P.A. Signal Warrant Points)

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

**18th Street & Wardlow Ave:**

1. Lanes Priority Points:

$L = 2 \text{ lanes}$  = number of lanes.

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

2. Median Priority Points:

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

3. Speed Priority Points:

S =      50      kph      = speed limit or 85th percentile speed.

SPDF = 6.7      points =  $(S-30) / 3$  to a maximum of 10 points.

4. Pedestrian Protection Location:

D =      103      m      = distance from study location to nearest protected crosswalk.

LOCF = 0.0      points =  $(D-200) / 13.3$  to a maximum of 15 points.

5. Pedestrian/Vehicle Volume Priority Points:

H =      5.0                      = ( hours ) duration of counting period.

Ps =      25.0                      = total number of children, teenagers, seniors and/or impaired  
counted.

Pa =      0.0                      = total number of adults counted.

Pw =      37.5                      = weighted average of pedestrians crossing the main street.

Pcm =      7.5                      = weighted average hourly pedestrian volume crossing the  
main street.

V =      225.0                      = volume of traffic passing through the crossing(s).

Vam =      45.0                      = average hourly volume of traffic passing through the  
crossing(s).

VOLF = 0.7      points =  $Vam \times Pcm / 500$

6. Satisfaction of Installation Criteria:

$$\text{SUMF} = (\text{LANF} + \text{MEDF} + \text{SPDF} + \text{LOCF} + \text{VOLF})$$

$$\text{SUMF} = 10 \text{ points}$$

(P.A. Signal Warrant Points)

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

#### **Avenue W & 21st St:**

##### 1. Lanes Priority Points:

$$L = 2 \text{ lanes} = \text{number of lanes.}$$

$$\text{LANF} = 0.0 \text{ points} = (L-2) \times 3.6 \text{ to a max of 15 points, urban x-section only.}$$

##### 2. Median Priority Points:

$$\text{MEDF} = 6.0 \text{ points} = \text{indicating there is no physical median here.}$$

##### 3. Speed Priority Points:

$$S = 50 \text{ kph} = \text{speed limit or 85th percentile speed.}$$

$$\text{SPDF} = 6.7 \text{ points} = (S-30) / 3 \text{ to a maximum of 10 points.}$$

##### 4. Pedestrian Protection Location:

$$D = 170 \text{ m} = \text{distance from study location to nearest protected crosswalk.}$$

$$\text{LOCF} = 0.0 \text{ points} = (D-200) / 13.3 \text{ to a maximum of 15 points.}$$

##### 5. Pedestrian/Vehicle Volume Priority Points:

$$H = 5.0 = (\text{hours}) \text{ duration of counting period.}$$



counted.  $P_s = 40.0$  = total number of children, teenagers, seniors and/or impaired

$P_a = 46.0$  = total number of adults counted.

$P_w = 106.0$  = weighted average of pedestrians crossing the main street.

main street.  $P_{cm} = 21.2$  = weighted average hourly pedestrian volume crossing the

$V = 3036.0$  = volume of traffic passing through the crossing(s).

crossing(s).  $V_{am} = 607.2$  = average hourly volume of traffic passing through the

$VOLF = 25.7$  points =  $V_{am} \times P_{cm} / 500$

#### 6. Satisfaction of Installation Criteria:

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

$SUMF = 38$  points

(P.A. Signal Warrant Points)

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

## Pedestrian Corridor Warrant Calculation

### Witney Avenue & 20th Street:

Time

(15 minute intervals) of	Vehicle Counts		Pedestrian Counts				P.C.	Periods Points	
	Total Both Sides		Factored Counts				Warrant	Wrnt'd	Wrnt'd
	15 min. Points	30 min. (1=Yes)	Child Periods	Teen	Adult	Senior / Impaired		Total	15 min. 30 min.
7:00									
7:15									
7:30									
7:45									
8:00	79	79							
8:15	85	164							
8:30	132	217	1			1	1	1	217
8:45	123	255	2			2	2	3	765
9:00	44	167						2	334
9:15		44							
9:30									
9:45									
AM Totals	463			3			3		
11:30	69		1			1	1		
11:45	83	152	2			2	2	3	456
12:00	82	165	3			3	3	5	825
12:15	83	165	1			1	1	4	660
12:30	65	148	4			4	4	5	740
12:45	90	155	3			3	3	7	1,085
13:00	79	169						3	507

13:15	88	167	1		1	1	1	167
Noon Totals		639		15			15	
14:00								
14:15								
14:30								
14:45								
15:00	81	81						
15:15	116	197	4		4	4	4	788
15:30	127	243	4		4	4	8	1,944
15:45	136	263	3		3	3	7	1,841
16:00	113	249					3	747
16:15	124	237	1		1	1	1	237
16:30	109	233	3		3	3	4	932
16:45	134	243					3	729
17:00		134						
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        940                    15    15

Totals   2,042                    33    33  
   100%    100%

West Crosswalk =                    13

on this side of the int.                    East Crosswalk =                    20        <<< install crosswalk

SUMMARY

Total Warranted PC Points:                    or                    / period

Highest PC point value: 1,944    at

Average PC point value: 865

No. of periods warranted:

**Avenue W & 18th Street:**

Time

(15 minute intervals)    Vehicle Counts                    Pedestrian Counts                    P.C.    Periods Points  
of

   Total Both SidesFactored Counts                    Warrant                    Wrnt'd Wrnt'd  
   15 min. 30 min.Child    Teen    Adult    Senior / Impaired                    Total    15 min.                    30 min.  
Points    (1=Yes) Periods

7:00

7:15

7:30

7:45

8:00	110	110			5	2	7	4.5	4.5	495
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8:15	117	227	6	2	2	2	12	10.34	14.84	3,369
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8:30	129	246	6		5	2	13	10.5	20.84	5,127	1	5,127
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8:45	134	263	6		5		11	8.5	19	4,997
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9:00		134							8.5	1,139
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9:15

9:30

9:45

AM Totals	490			18	2	17	6	43		
	5,127									

11:30	98			4	7	4	15	10.18		
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11:45	121	219	4		5	2	11	8.5	18.68	4,091
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12:00	120	241	8		2		10	9	17.5	4,218
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12:15	99	219	5		1		6	5.5	14.5	3,176
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12:30	117	216	4				4	4	9.5	2,052
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12:45	95	212	8	1			9	8.67	12.67	2,686
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13:00	109	204	1	2	3		6	3.84	12.51	2,552
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13:15	94	203		1			1	0.67	4.51	916
-------	----	-----	--	---	--	--	---	------	------	-----

Noon Totals	853			30	8	18	6	62		
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14:00

14:15

14:30

14:45

15:00	131	131	3				3	3	3	393
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15:15	125	256	4		2	2	8	7	10	2,560
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15:30	171	296	10	4	3	2	19	16.18	23.18	6,861	1	6,861
15:45	151	322	3		5	1	9	6.5	22.68	7,303	1	7,303
16:00	138	289			4		4	2	8.5	2,457		
16:15	143	281	5				5	5	7	1,967		
16:30	140	283	4		1		5	4.5	9.5	2,689		
16:45	139	279	2		10	3	15	10	14.5	4,046		
17:00		139							10	1,390		
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		1,138		31	4	25	8	68				
		14,164										
Totals	2,481		79	14	60	20	173					
			46%	8%	35%	12%	100%					
					North Crosswalk =					60		

on this side of the int. South Crosswalk = 113 <<< install crosswalk

## SUMMARY

Total Warranted PC Points: 19,291 or 6,430 / period

Highest PC point value: 7,303 at

Average PC point value: 4,299

No. of periods warranted: 3

## Wardlow Ave & 18th St:

Time

(15 minute intervals) of	Vehicle Counts				Pedestrian Counts			P.C.	Periods	Points
	Total Both SidesFactored Counts				Warrant			Wrnt'd	Wrnt'd	
	15 min. Points	30 min. (1=Yes)	Child Periods	Teen	Adult	Senior / Impaired		Total	15 min.	30 min.
7:00										
7:15										
7:30										
7:45										
8:00	12	12								
8:15	17	29	1			1	1	1	29	
8:30	9	26	1			1	1	2	52	
8:45	22	31						1	31	
9:00		22								

9:15

9:30

9:45

AM Totals      60                      2

2

11:30   8                      2

2

2

11:45   5           13      1

1

1

3

39

12:00   14           19

1

19

12:15   11           25      1

1

1

1

25

12:30   8           19      1

1

1

2

38

12:45   4           12

1

12

13:00   7           11

13:15   6           13

Noon Totals      63                      5

5

14:00

14:15

14:30

14:45

15:00   13           13

15:15   10           23      4

4

4

4

92

15:30   10           20      8

8

8

12

240

15:45   15           25      4

4

4

12

300

16:00   7           22      1

1

1

5

110

16:15   16           23      1

1

1

2

46

16:30   15           31

1

31

16:45   16           31

17:00               16

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	102	18	18
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Totals	225	25	25
		100%	100%

on this side of the int.      West Crosswalk =      16      <<< install crosswalk

East Crosswalk =      9

## SUMMARY

Total Warranted PC Points:      or      / period

Highest PC point value: 300      at

Average PC point value: 71

No. of periods warranted:

**Avenue W & 21st St:**

Time

(15 minute intervals) of	Vehicle Counts			Pedestrian Counts			P.C.	Periods	Points
	Total Both Sides			Factored Counts			Warrant	Wrnt'd	Wrnt'd
	15 min. Points	30 min. (1=Yes)	Child Periods	Teen	Adult	Senior / Impaired	Total	15 min.	30 min.
7:00									
7:15									
7:30									
7:45									
8:00	105	105			1	1	0.5	0.5	53
8:15	103	208	1		3	4	2.5	3	624
8:30	135	238		1	1	2	1.17	3.67	873
8:45	150	285	2		2	4	3	4.17	1,188
9:00		150						3	450
9:15									
9:30									
9:45									
AM Totals		493		3	1	7		11	
11:30	106			1	1	2	1.17		
11:45	127	233			2	2	1	2.17	506
12:00	126	253	2		1	3	2.5	3.5	886
12:15	139	265	1		3	4	2.5	5	1,325
12:30	116	255	1		3	4	2.5	5	1,275

[illegible]

20:00

20:15

20:30

20:45

PM Totals	1,535	23	5	26	54
	7,832				

Totals	3,036	33	7	46	86
		38%	8%	53%	100%

on this side of the int.

North Crosswalk =	66	<<< install crosswalk
-------------------	----	-----------------------

South Crosswalk =	20
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## SUMMARY

Total Warranted PC Points: 7,832 or 7,832 / period

Highest PC point value: 7,832 at

Average PC point value: 2,420

No. of periods warranted: 1

## APPENDIX E: COLLISION ANALYSIS

## Collision Analysis

*Collision data provided by SGI (2009 to 2013)*

Street 1	Street 2	Ugrid	All Collisions	All collisions - 2013	RA, LT, RT	RA, LT, RT - 2013 only	Collector or Arterial	Ave
21st St	Avenue W	D8-53	20	5	10	5	yes	4
20th St	Witney Avenue	C8-8	17	3	11	2	yes	3
18th St	Avenue W	D9-29	12	2	5	1	yes	2
19th St	Avenue X	C8-1	11	2	8	2	no	2
19th St	Avenue W	D8-36	11	2	7	1	yes	2
21st St	Avenue Y	C8-5	6	1	5	1	no	1
20th St	Avenue Y	C8-3	4	1	2	1	yes	1
Appleby Dr	Wardlow Rd	C9-32	4	1	1	1	no	1
21st St	Avenue X	C8-45	3	0	3	0	no	1
20th St	Montreal Avenue	C8-25	3	0	2	0	yes	1
20th St	Avenue X	C8-2	3	0	0	0	no	1
20th St	Ottawa Avenue	C8-20	3	1	0	0	no	1
19th St	Witney Avenue	C8-66	2	0	2	0	no	0
19th St	Avenue Y	C8-29	2	1	1	0	no	0
18th St	Avenue X	C9-19	2	0	1	0	yes	0
18th St	Montreal Avenue	C9-20	2	0	1	0	yes	0
18th St	Witney Avenue	C9-2	2	0	0	0	no	0
Appleby Dr	Wardlow Rd	C9-37	1	0	1	0	no	0
21st St	Witney Avenue	C8-10	1	1	0	0	no	0
Montreal Avenue	Winnipeg Avenue	C8-70	1	1	0	0	no	0
19th St	Vancouver Avenue	C8-72	1	0	0	0	no	0
18th St	Ottawa Avenue	C9-10	1	0	0	0	no	0
18th St	Winnipeg Avenue	C9-38	1	0	0	0	no	0
Appleby Dr	Dundurn Pl	C9-28	1	0	0	0	no	0
Appleby Dr	Blake Pl	C9-25	1	0	0	0	no	0

20th St	Winnipeg Avenue	C8-11	0	0	0	0	no	0
20th St	Vancouver Avenue	C8-12	0	0	0	0	no	0
Vancouver Avenue	Ottawa Avenue	NA	0	0	0	0	no	0
19th St	Montreal Avenue	C8-79	0	0	0	0	no	0
19th St	Winnipeg Avenue	C8-91	0	0	0	0	no	0
18th St	Avenue Y	C9-48	0	0	0	0	no	0
18th St	Vancouver Avenue	C9-84	0	0	0	0	no	0
Ottawa Avenue	Winnipeg Avenue	NA	0	0	0	0	no	0
Ottawa Avenue	Winnipeg Avenue	NA	0	0	0	0	no	0
Appleby Dr	Wardlow Cres (north leg)	NA	0	0	0	0	no	0
Appleby Dr	Wardlow Rd (south leg)	NA	0	0	0	0	no	0
Appleby Dr	Appleby Crt	C9-41	0	0	0	0	no	0
Appleby Dr	Sclandens Pl	C9-57	0	0	0	0	no	0
Appleby Dr	Shaftsbury Pl	NA	0	0	0	0	no	0
Appleby Dr	Short Pl	NA	0	0	0	0	no	0
Appleby Dr	Appleby Dr	C9-42	0	0	0	0	no	0
Appleby Dr	Wark Pl	C9-59	0	0	0	0	no	0
Appleby Dr	Carling Pl	C9-55	0	0	0	0	no	0

APPENDIX F: DECISION MATRIX



Decision Matrix - Recommendations proposed at the September 15, 2015 meeting

Item	Location	Recommendation	Reason	Group 1 - Ellen Pearson	Group 2 - Mark Emmons	Group 3 - Jay Magus	Decision
1	Witney Ave & 19th St	Change east-west yield to north-south stop	Improve safety at intersection & discourage speeding on Witney Avenue		Should measure 19th St because of multi-block free-flow. Could be new issue.		Carried. Continue to monitor traffic patterns after installation.
2	Witney Ave & 20th St	4-way stop	Improve driver & pedestrian safety (visiblilty concerns due to parked cars & high collisions)	are the curbs coloured to prevent parking close?			Carried.
3	Avenue W & 18th St	Install active pedestrian corridor	Improve pedestrian safety				Carried.
4	18th St & Ave Y	Install curb extension (southeast corner) & median island (east side)	Improve pedestrian safety & reduce speed near elementary school	how do curb extensions effect cyclists turning radii? Median islands are good.	Indifferent. Uncertain that it's needed. Could effect on-street parking negatively.		Carried.
5	21st St between Witney Ave & Ave W	Install sidewalk on south side	Improve pedestrian safety near park	Also install sidewalk on north side of 20th/Montreal	Who'll maintain it? City doesn't clear snow from sidewalk. Putting it on the north side may be better.		Changed to sidewalk installation on north side.
6	Ave X between 2nd driveway (behind 'Touch of Ukraine') south of 22nd St to 125 Ave X	Install parking restrictions on west side	Improve visibility for driveways (Bylaw 7200 states that motorists cannot park within 1m of a driveway due to safety reasons/visibility. Beginning at the driveway behind 'Touch of Ukraine' to 125 Avenue X South, motorists do not have adequate space to legally park because they're encroaching 1m from a driveway.)		Good plan. Sarcan needs to do better job of maintaining their site. Maybe they could do angle parking on their site. Major traffic generator and not enough on-site parking.		Carried.
7	21st St & Ave W	Add hazard boards to stop signs & enhance pedestrian signs	Enhance visibility of stop signs & driver compliance; improve pedestrian safety		Better than nothing. Would prefer active crossing.		Carried.
8	21st St & Ave Y	Change yield signs to stop signs	Enhance driver compliance		Not against it but not sure if it will have any effect.		Carried.
9	Back lane south of 22nd St - access from Witney Ave	Install 20kph speed sign	Reduce speed; enhance compliance of speed limit in back lane	Prostitution in back alley, needles - install "Local Traffic Only"	May already have 15kph signs posted here.		Removed. 20kph sign is already installed.
10	Witney Ave & 21st St	Install curb extensions (south side) & standard pedestrian crosswalk	Reduce speed, discourage shortcutting on Witney Ave & improve pedestrian safety	maintain bushes to increase visibility	Doesn't seem needed. May effect buses negatively.	Trim hedges on southeast corner	Remove standard crosswalk from recommendation. No sidewalk connections. May consider crosswalk once sidewalk is installed. Install curb extension on north east corner to address speeding/shortcutting concerns. Forward request for tree trimming to Parks.
11	Ave W - north of 18th St	Forward information to Transit for further consideration - install bus shelter on east side	Many transit users				Carried.

**Decision Matrix - Additional Issues raised at the September 15, 2015 meeting**

Item	Location	Concern	Decision
1	Various	tree maintenance to prevent visibility issues, pedestrian enforcement, cycling enforcement/training	Noted.
2	22nd St & Witney Ave	possible to use jersey barriers; loop detection is broken	Documented for further consideration as part of the Major Intersection Reviews
3	Witney Ave between 20th-22nd	lane painting	Not recommended because Witney Avenue is a local roadway.
4	18th St between Ave W to Vancouver Ave	sidewalk needed	Added to recommendations. Priority 1 - in front of school between Ave X and Montreal Ave; Priority 2 - Ave X to Ave W and Montreal Ave to Vancouver Ave
5	22nd St & Ave W (facing northbound)	needs signs identifying lanes: make inside lane left turn & outside lane Thru/Right Turn	Documented for further consideration as part of the Major Intersection Reviews
6	Ave W	speeding	Traffic calming devices not recommended on arterials. No further recommendations.
7	21st St & Ave X	trim tree on northwest corner	Site check determined trimming not needed.
8	Wardlow Cres & Wardlow Rd	trim evergreen on northwest corner	Site check determined trimming not needed.
9	Back lanes	speed limit signs	Need specific locations.

## Decision Matrix – Additional comments

Item	Location	Concern	Decision
1	Various	tree maintenance to prevent visibility issues, pedestrian enforcement, cycling enforcement/training	Noted.
2	22nd St & Witney Ave	possible to use jersey barriers; loop detection is broken	Documented for further consideration as part of the Major Intersection Reviews
3	Witney Ave between 20th-22nd	lane painting	Not recommended because Witney Avenue is a local roadway.
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