



**PUBLIC AGENDA  
TRAFFIC SAFETY COMMITTEE**

**Tuesday, June 14, 2016, 8:45 a.m.  
Committee Room E, Ground Floor, City Hall  
Members**

**Ms. C. Janzen, Chair  
Mr. C. Kuhnke, Vice-Chair  
Councillor A. Iwanchuk  
Mr. K. Claffey  
Sergeant D. Bryden  
Mr. J. Chan  
Mr. B. Girling  
Mr. D. Hingston  
Mr. R. Meier  
Mr. A. Reichert  
Ms. D. Taylor  
Mr. S. Shannon**

**Pages**

**1. CALL TO ORDER**

**2. CONFIRMATION OF AGENDA**

**Recommendation**

That the agenda be confirmed as presented.

**3. ADOPTION OF MINUTES**

**Recommendation**

That the minutes of regular meeting of the Traffic Safety Committee held on May 10, 2016 be adopted.

**4. REPORT OF THE CHAIR**

**5. TRAFFIC SAFETY COMMUNICATION/EDUCATION [File No. CK. 255-8]**

The Traffic Safety Committee, at its meeting held on May 10, 2016 resolved, in part, that bicycle bells and lights be purchased for distribution through the Saskatoon Police Service Bike Unit.

The Committee also considered the purchase of children's bicycle helmets, which could be distributed through the School Resource Officers beginning with the new school year this fall.

Also discussed at the May 10th meeting was the City's pedestrian awareness campaign, and the Committee may wish to further discuss joining with this initiative.

### **Recommendation**

That the Committee finalize its communication/education initiatives for 2016 along with the appropriate funding.

## **6. PROPOSED BUDGET FOR 2017 [File No. CK. 1704-5]**

The Committee is requested to put forward a proposed budget submission for 2017 for inclusion in the 2017 Operating Budget Review. For the Committee's information the 2016 approved budget was \$6,500 for traffic safety education/awareness initiatives.

### **Recommendation**

That the Committee provide direction.

## **7. REPORTS FROM ADMINISTRATION**

### **7.1 Transportation 2015 Annual Report [File No. CK. 430-37]**

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Attached for the Committee's information is a copy of the above-noted report.

### **Recommendation**

That the information be received.

## **8. NEW ISSUES RAISED BY COMMITTEE MEMBERS**

### **8.1 Bike Lanes on 4th Avenue (K. Claffey)**

### **8.2 Crosswalk on Clarence Avenue (S. Shannon)**

### **8.3 25th Street and Spadina Crescent (A. Reichert on behalf of 55 Alive Driving Instructor)**

The intersection of 25<sup>th</sup> Street and Spadina Crescent has only a "merge" sign to indicate to motorists in the right lane travelling east on 25<sup>th</sup> Street that they are expected to yield to traffic entering 25<sup>th</sup> from Spadina Crescent.

A yield sign on Spadina would only make the problem worse by backing traffic up for blocks.

Recently seen signs at a construction zone on Circle Drive directing motorists to ZIPPER MERGE AHEAD and TAKE TURNS MERGING

would educate drivers as to the best method of merging at 25<sup>th</sup> Street and Spadina Crescent.

During 55 Alive Mature Driving Courses this intersection is used to illustrate the “Right of Way” rules. Very little cost would be involved in placing new signs to educate drivers using the right lane on 25<sup>th</sup> Street.

#### **8.4 Traffic Concerns (K. Claffey on behalf of Driving Instructors)**

- 23rd Street and 5th Avenue should be a four-way stop due to limited visibility with the bike lanes in place.
- Dedicated bike lane confusion on 4th Avenue. Signs are inconsistent and confusing. Poles should be painted yellow in areas where parking is not allowed.
- 1st Avenue and 19th Street going south onto Idylwyld; the light needs to be longer for the vehicles going south. At rush hour the little on-ramp is backed up to 20th Street at times.
- 51st Street and Warman/Wanuskewin Road; the lights need to be green/flashing turn signal heading north and south longer. Rush hour time the vehicles travelling north are backed up to Primrose Drive at times. Vehicles heading south on Wanuskewin are backed up to Goerzen Street.
- Primrose Drive - line painting since this road is becoming busier.
- 24th Street between 1st Avenue and 4th Avenue - line painting - there's three lanes there but not marked.
- Circle Drive heading north then exiting onto 8th Street - line painting in the exit ramp; there are three lanes but not marked and vehicles are getting confused.
- Is it possible to ask if whoever planned 4th Avenue with the new traffic pattern if they actually go and drive on that road during rush hour? Grid locked and backed up for an hour when its rush hour, the no right turn on red lights has zero safety advantage.
- Is Victoria Avenue between Taylor and 8th Street on the radar for new pavement?
- 5th Avenue between 22nd Street and 25th Street – radar for new pavement?

## **9. ADJOURNMENT**

# Transportation

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## 2015 Annual Report



# Transportation Division 2015 Annual Report

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## MESSAGE FROM THE DIRECTOR

Transportation division's management and staff are stewards of Saskatoon's transportation network and are committed to providing safe, reliable, and timely options for travel in the City. The division provides expertise and direction to City Council, colleagues, property and business owners, and other organizations. I am pleased to present our results in the Transportation Division 2015 Annual Report on behalf of our division.

The report describes our contributions to achieving the City's Strategic Plan. We take great pride in providing leadership, education, and engagement on City transportation systems. Several initiatives have been completed and more are underway that will further enhance service to citizens, increase efficiencies and reduce costs.

Our financial statements show responsible stewardship of the resources that Saskatoon citizens have entrusted to us. We continue to provide excellent value to our citizens as we identify opportunities to improve efficiencies, reduce capital costs and minimize impacts to ongoing operating expenditures.

Our key focus has been on proactively managing the performance of the transportation network, the development of a strategy for prioritizing infrastructure investments, and providing more choice to move around the city using alternative modes of transportation.

Our emphasis on safety has also paid off in 2015 through a reduction in lost time frequency, medical aid frequency, and injury severity.

The division will continue to plan for the future and make needed investments to our transportation infrastructure to manage existing demands and address the challenges of growth.



Angela Gardiner  
Director of Transportation

## **1.0 EXECUTIVE SUMMARY**

The division contributes to the City's Strategic Goal of Moving Around and Sustainable Growth by providing services for the safe and efficient movement of people, goods and services within and through the city in a cost-effective manner. The division is responsible for the planning, design, regulation and operation of the city's transportation network. The division has 80 to 85 employees during peak season. In 2015, the division's operating budget increased by 3.21% with operating expenses of \$7.82 Million. Capital Investments included 20 funded projects totalling \$73.07 Million, a significant increase over 2014 due to the funding of two major interchange projects.

The division's focus in 2015 was on improving the safety and efficiency of the transportation network through the Neighbourhood Traffic Reviews and developing a strategy for prioritization of improvements on the network. Projects related to supporting active transportation were also undertaken.



## 2.0 TRANSPORTATION DIVISION

As part of the City of Saskatoon, the division provides services for the safe and efficient movement of people, goods and services within and through the city in a cost-effective manner.

### 2.1 Our Mission

The division are stewards of Saskatoon's transportation network. We are responsible to citizens and visitors to provide:

- Safe, reliable, and timely options for travel in the city.
- Expertise and direction to City Council, colleagues, property and business owners, and other organizations.
- Leadership, education, and engagement on City transportation systems.
- Injury-free work places.

### 2.2 Our Guiding Principles

- **Safety:** through due diligence we plan for a safe city. We maintain a safe workplace and environment for workers and the public in everything that we do.
- **Trust & Reliability:** we are competent, reliable, and proven in the service that we provide. To maintain our integrity we have a transparent process. Citizens trust us to make good decisions.
- **Continuous Improvement:** we keep with the growth of the City while improving our processes, education, team work, public input: we identify and improve efficiencies.
- **Accountability:** we honour commitments through public service. We build and maintain public confidence through consistent and timely feedback and delivery.
- **Teamwork:** we work together as a team. We communicate, cooperate, engage and gather input from others when making decisions.

### 2.3 Our Core Services

- Planning and designing safe, reliable and timely options for travel in the city.
- Installing and maintaining safe, reliable and timely options for travel in the city.
- Providing leadership, education and engagement on City transportation systems.
- Providing oversight and strategies to ensure the City's Transportation network and systems are in alignment with the Corporate Strategic Plan.

## 2.4 Our Corporate Values

**Trust:** We build trust with citizens and colleagues by providing accurate technical information, analysis and responses in a timely manner.

**Integrity:** We lead by example, making the best decisions and striving to work beyond the scope of the position.

**Respect:** We build on each other's strengths, respectfully acknowledging individual beliefs.

**Honesty:** We are honest to each other, and encourage frank, honest discussions while being sincere, admitting mistakes and learning from them.

**Courage:** We take smart risks, thinking through challenges, suggesting new approaches and embracing change to enhance our level of service.

### 3.0 OUR PEOPLE

#### 3.1 Number of Employees

The division had 50 permanent and 30 seasonal staff in 2015.

#### 3.2 Representative Workforce

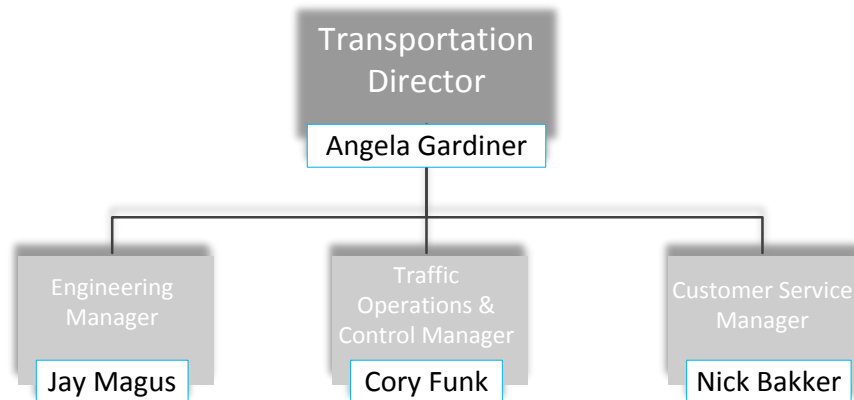
Equity Group	Permanent Staff	All Staff (including seasonal)	Saskatchewan Human Rights Commission
Women	17.5%	19.5%	46%
Aboriginal	1.8%	6.9%	14%
Disability	0.0%	0.0%	12.4%
Visible Minority	10.5%	9.2%	11%

#### 3.3 Staff Education and Certifications

Courses offered internally are relevant and immediately applicable for the majority of City of Saskatoon staff. These courses offer staff an opportunity to build a career with the City of Saskatoon while they learn from experts, share experiences, and develop networks with colleagues across the organization. Some of the education and certifications our staff have acquired are outlined below:

- P. Eng. - Professional Engineer
- A.Sc.T. - Applied Science Technologist
- PTOE - Professional Traffic Operations Engineer
- EIT - Engineer in Training
- B.E. – Bachelor of Science in Engineering degree
- B. Comm. – Bachelor of Commerce degree
- M.Sc. – Master of Science degree
- MBA – Master of Business Administration degree
- Six Sigma Green Belt – American Society for Quality
- Certified Associate in Project Management – Project Management Institute
- IMSA - International Municipal Safety Association – various certifications
- CPTED - Crime Prevention through Environmental Design
- Leadership Development Program

### 3.4 Organizational Chart



### 3.5 Employee Safety

In 2015, we undertook the following initiatives to reach a goal of ZERO incidents:

- Identified and evaluated our critical tasks
- Documented a workplace inspection program
- Provided training for incident investigation to all managers and supervisors
- Conducted job safety analysis of our critical tasks
- Created an emergency response plan for the Sign Shop, Electronics Shop, and Transportation & Utilities area on 3<sup>rd</sup> floor of City Hall
- Compiled a critical tool list
- Participated in Safety Audit
- Reported and documented near misses



#### Leading Indicators

Topic	2015	2014
Safety Meetings	96%	87%
Tool Box Talks	77%	24%
Work Observations Completed	113	19
Workplace Inspections	91%	0%

#### Lagging Indicators

- 50% reduction in lost time frequency
- 100% reduction in medical aid frequency
- 81% reduction in injury severity (19% increase in injury severity)



## 4.0 OUR FINANCES

### 4.1 Revenues

The division's revenues for external sources in 2015 were \$0.11 Million, a decrease of 1.22% from 2014. This slight decrease was due to less revenue from newspaper vending machine fees.

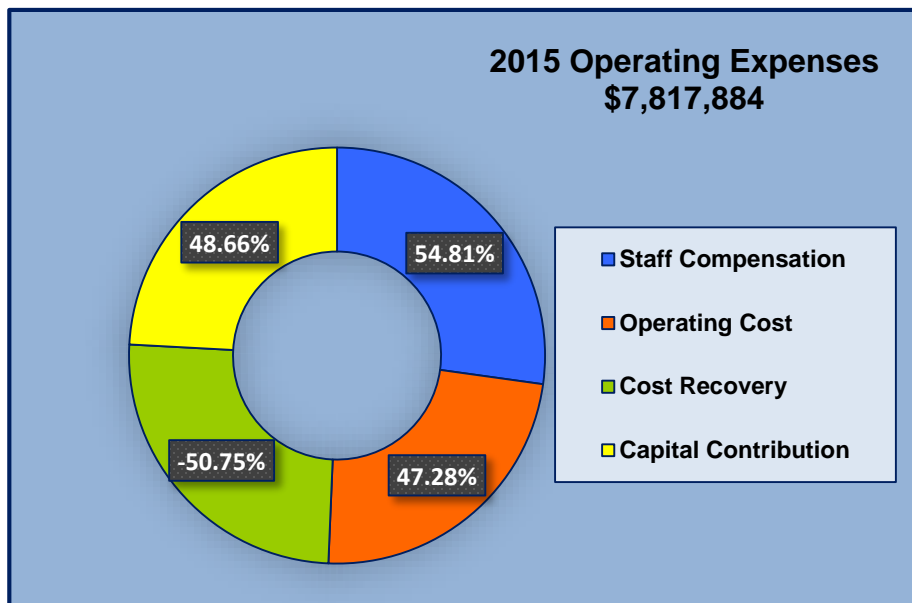
Compared to the 2015 budget, actual revenues were very close to the budgeted amount of \$0.11 Million.

The main source of revenue is from the Urban Highway Connector Program, an annual operating grant for the traffic signing and pavement marking services done on provincial connectors' roadways. Other revenues include road/lane closure application fees, boulevard leases and newspaper vending machine fees.

### 4.2 Expenses

The division's 2015 operating expenses were \$7.82 Million or 3.21% more than 2014 operating expenses of \$7.56 Million. Compared to the 2015 Operating Budget, expenses were 0.78% higher than the budgeted amount of \$7.56 Million, mainly due to extra staff needed for the increase in Sign & Paint Shop operations.

The distribution of the division's 2015 operating expenses are illustrated in the following chart:



Staff compensation of \$4.29 Million includes total wages and salaries, payroll costs and benefits associated with staff allocated to operations; planning, design and regulations; and permit issuance for the following uses: private use of public right of way, commercial vehicle travel and curb/sidewalk crossing.

The operating cost of \$3.70 Million includes total cost for materials and supplies, equipment, contractual services, utilities/electricity, administration and other miscellaneous expenses. These expenses have been incurred for monitoring the existing transportation network and planning for future expansion; for maintaining and operating the traffic signal system; for manufacturing, installation and maintenance of traffic signs; for marking of street lines, crosswalk and parking stalls; and for the planning and coordination of detours.

Cost recovery of \$3.97 Million is related to charges applied to other divisions and departments, to some external customers, and to certain capital work projects for the following services: construction sign rental; sign and barricades installation; underground infrastructure; traffic counts; signs installation in new neighbourhoods, repairs for damages of City property etc.

Capital contribution of \$3.80 Million includes \$0.06 Million contribution to Departmental Capital Reserve; \$0.05 Million contribution to Transportation Infrastructure Reserve (IR); \$0.33 Million to Active Transportation Reserve; \$1.92 Million to Transportation Infrastructure Expansion Reserve (TIER); and \$1.44 Million to Traffic Noise Attenuation Reserve.

Higher operating cost and cost recovery in 2015 is due to growth and expansion which increased the volume of work for traffic operations and control, customer support as well for planning of future developments.

<b>Transportation Division Statement of Operations For the Year Ended December 31, 2015 (\$000's)</b>			
	2015 Budget	2015 Actuals	2014 Actuals
<b>Revenue</b>	<b>\$(113.9)</b>	<b>\$(113.7)</b>	<b>\$(115.1)</b>
<b>Expenses</b>			
Staff Compensation	3,666.3	4,284.9	3,666.9
Operating Cost	3,079.0	3,696.4	3,708.8
Cost Recovery	\$(2,792.3)	\$(3,967.7)	\$(3,001.3)
Capital Contribution	3,804.2	3,804.2	3,200.4
	<b>7,757.2</b>	<b>7,817.8</b>	<b>7,574.8</b>
<b>Total Operations</b>	<b>7,643.3</b>	<b>7,704.1</b>	<b>7,459.7</b>

### 4.3 Capital Investments

The division's Capital Investments in 2015 includes 19 funded projects totalling \$73.0 Million. The number of funded projects is similar to 2014 but the investment is higher by \$51.20 Million. This is due to new design and construction of grade separations at both the College Drive and McOrmond Drive intersection, and the Boychuk Drive and Highway 16 intersection for a total of \$70 Million.

A summary of capital investments for 2015 compared to 2014 is presented in the following table:

<b>Transportation Division Capital Investments (\$000's)</b>			
<b>Funded Capital Projects</b>		<b>2015 Budget</b>	<b>2014 Budget</b>
P0631	TU-TRAFFIC SAFETY IMPROVEMENTS	\$60.0	\$90.0
P1036	TU-TRAFFIC CONTROL UPGRADES	100.0	0.0
P1137	TU-BICYCLE FACILITIES	75.0	375.0
P1456	TU-RAILWAY CROSSING SAFETY IMPROVEMENT	75.0	50.0
P1505	TU-TRAFFIC SIGNAL UPGRADE-INFRA	400.0	300.0
P1506	TU-TRAFFIC SIGNING REPLACE-INFRA	400.0	425.0
P1507	TU-GUARDRAILS	240.0	60.0
P1512	TU-NEIGHBOURHOOD TRAFFIC REVIEW	350.0	290.0
P1513	TU-PAVEMENT MARKING PROGRAM	200.0	210.0
P1522	TU-TRAFFIC NOISE ATTENUATION	423.0	550.0
P1556	TU-SYSTEM UPGRADES/REPLACEMENTS	50.0	0.0
P1963	TU- CORP. ACCESSIBILITY IMPLEMENTATION	140.0	220.0
P2233	TU- ADVANCED TRAFFIC MGT SYS ENHANCEMENTS	60.0	0.0
P2234	TU- WALKWAY MANAGEMENT	0.0	50.0
P2016	TU-BOYCHUK DR/HWY 16 GRADE SEPARATION	35,000.0	0.0
P2017	TU-MCORMOND DRIVE/HWY 5 GRADE SEPARATION	35,000.0	415.0
P2235	TU- MAJOR RDWY/INTERSECTION IMPROVEMNTS	0.0	50.0
P2236	TU-STNBRDG DIAMOND INTRCHNG AT HWY 11	0.0	15,800.0
P2428	TU-FUNCTIONAL PLANNING STUDIES	50.0	0.0
P2435	TU-AIRPORT DRIVE ARTERIAL EXPANSION	0.0	2,720.0
P2446	TU-PEDEST'N UPGD'S&ENHANCED PED'N SAFETY	170.0	80.0
P2549	TU-STOP/YIELD INFILL PROGRAM	65.0	65.0
P2550	TU-WEST/CENTRAL MULTI-USE CORRIDOR	150.0	50.0
<b>Total</b>		<b>\$73,008.0</b>	<b>\$21,800.0</b>

## 5.0 OUR WORK

### 5.1. Community Engagement/Awareness

In keeping with our corporate values, we recognize the importance of engaging citizens. For this reason, engaging with the community is a priority. In 2015, the division staff attended a total of 21 public meetings throughout the city (approximately 140 staff hours). The majority of engagement was coordinated with the Neighbourhood Traffic Review (NTR) Program.

Meeting	Staff Attending
Sound Attenuation Projects	4
Nutana NTR	2
Meadowgreen NTR	2
Avalon NTR	5
Confederation Park NTR	2
Lakeview NTR	2
Greystone Heights NTR	4
Mount Royal NTR	3
Montgomery NTR	3
Adelaide-Churchill NTR	4
Meadowgreen NTR (2 <sup>nd</sup> meeting)	3
Avalon NTR (2 <sup>nd</sup> meeting)	5
Confederation Park NTR (2 <sup>nd</sup> meeting)	3
Lakeview NTR (2 <sup>nd</sup> meeting)	3
Greystone Heights NTR (2 <sup>nd</sup> meeting)	4
Mount Royal NTR (2 <sup>nd</sup> meeting)	3
Montgomery NTR (2 <sup>nd</sup> meeting)	5
Adelaide-Churchill NTR (2 <sup>nd</sup> meeting)	3
11 <sup>th</sup> Street Corridor Review	4
33 <sup>rd</sup> Street Corridor Review	4
Varsity View NTR	1

#### 5.1.1 Learn to Ride Safe Program

As a child, our first vehicle is learning to ride a bicycle and how to apply the rules of the road. The Learn to Ride Safe Program is an important step in ensuring that they develop safe and responsible cycling habits. This program was developed in 2009 and aims at presenting effective skills to prevent cycling injuries to grade three children, aged eight and nine. This program introduces children to the proper use of a bicycle, the attitudes, knowledge and skills, which can be applied later in life when learning to use a motor vehicle.

This program is based on principles of the Canadian Cycling Association CAN-BIKE Program and was presented to students by trained and certified CAN-BIKE instructors. Since the program was implemented, 12,391 students have taken part.



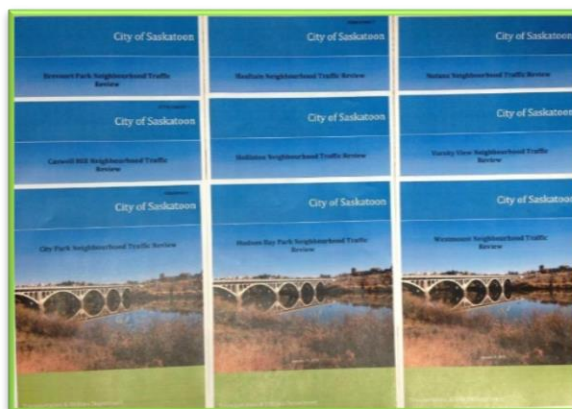
In 2015, this program was delivered to 73 classrooms in 42 schools for a total of 1,596 students. Following the program's delivery, a survey was undertaken of the teachers whose pupil's participated, and they overwhelmingly welcomed the program back in future years.

### 5.1.2 2015 Neighbourhood Traffic Reviews

The objective of the Neighbourhood Traffic Review Program is to address traffic concerns within residential 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 enhanced 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 Traffic Calming Guidelines and Tools, City of Saskatoon, 2013 outlines the process.

In 2015, traffic plans were developed for the following neighborhoods:

- Avalon
- Confederation Park
- Adelaide-Churchill
- Greystone Heights
- Lakeview
- Meadowgreen
- Montgomery Place
- Mount Royal



Since the program was initiated in late 2013, a number of recommendations have been implemented as shown in the table below:

Neighbourhood	No. of Proposed Recommendations	No. Completed
Brevoort Park	17	15
Caswell Hill	21	13
City Park	11	10
Haultain	17	11
Holliston	14	10
Hudson Bay Park	10	9
Mayfair	37	30
Kelsey-Woodlawn	11	5
Nutana	26	Plans in progress
Varsity View	18	11
Westmount	13	12

## 5.2 Traffic Safety

### 5.2.1 Prioritization Strategy for Roadway Network Improvements

Transportation network improvement projects are brought forward as part of the annual budget process. There are many factors that are considered when bringing forward recommended projects. New initiatives, such as the Neighbourhood Traffic Review program, result in additional sources of projects that need to be considered by City Council during budget deliberations. Other identified sources of projects include:

- Intersection Improvement Reviews
- Corridor Reviews
- Pedestrian Crossing Control Reviews
- Major Infrastructure Reviews

Infrastructure improvement projects resulting from the various reviews will be placed in the appropriate Capital Budget program and prioritized largely based on safety, traffic volumes, funding availability, funding sources, and impact of adjacent projects. A formal policy framework will be developed in 2016 that will be used to prioritize projects within each of the categories listed above, and prioritize between categories. Other modes of travel such as walking, cycling and transit in Saskatoon are currently being examined by other significant transportation planning initiatives such as Growth Plan and the Active Transportation Plan.

### 5.2.2 Red Light Camera Program

In October 2005, the City installed Red Light Cameras (RLC) at the intersection of Avenue C and Circle Drive to improve traffic safety. Since then, RLC's have been installed at three other intersections:

- Preston Avenue and 8<sup>th</sup> Street East
- 51<sup>st</sup> Street and Warman Road
- Idylwyld Drive and 33<sup>rd</sup> Street



We continue to monitor the effectiveness of the RLC program. The collision history shows that overall the RLC program has been effective in reducing right angle collisions, which are considered to be the most serious type of collision. Injury and fatality rates at these locations have also been reduced. It is not uncommon for rear-end collisions to increase with the installation of RLC's which is intended to address the more serious right-angle collisions. The collision rate for an intersection is expressed as 'collisions per million entering vehicles', and is used to factor in the increase in traffic volumes through an intersection.

Since the cameras were installed in 2005:

- Right-angle collisions (most severe) have reduced by 25% on average
- Left-turn opposite collisions have reduced by 4% on average
- Rear-end collisions have increased by 27% on average

There were 15,116 tickets issued in 2015. Revenue from the RLC program is allocated into the Traffic Safety Reserve to fund safety improvement programs on the network for all users.

### **5.2.3 Automated Speed Enforcement Program (Two-Year SGI Pilot Program)**

In 2013, the Provincial Government set up an All Party Special Traffic Safety Committee that conducted extensive public consultation directed at enhancing public safety in Saskatchewan. As part of its recommendations, the committee supported Saskatchewan Government Insurance (SGI) implementing an Automated Speed Enforcement (ASE) pilot project in Saskatchewan.

Subsequently in 2013, the Government of Saskatchewan announced the implementation of a two year ASE pilot project to slow drivers down through high speed, high collision, and high traffic volume areas around the province. In Saskatoon, five locations on Circle Drive and five school zones were selected for the implementation of the two-year provincial pilot project.

The five camera locations on Circle Drive include:

- Airport Drive
- Circle Drive South Bridge
- Preston Avenue
- Taylor Street 108<sup>th</sup> Street

The five school zone locations selected are:

- St. Michael Community School located on 22 - 33<sup>rd</sup> Street East
- École Henry Kelsey School located on 16 Valens Drive (the camera will be installed on 33<sup>rd</sup> Street West)
- Brownell School located on 274 Russell Road
- École Canadienne-Française located on 1407 Albert Avenue (the camera will be installed on Clarence Avenue)
- Mother Teresa School located on 610 Konihowski Road and Silverspring School located on 738 Konihowski Road

The pilot program became operational in March 2015, and 13,839 tickets were issued. Revenue from the ASE program is allocated into the Traffic Safety Reserve to fund programs to improve safety on the network for all users.

## 5.3 Network Management

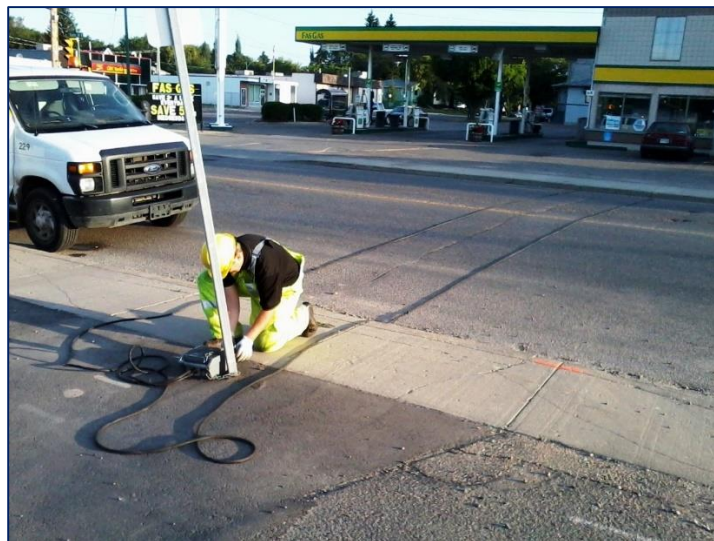
### 5.3.1 Network Monitoring

The division monitors the operation of the transportation network and has been carrying out traffic volume studies on Saskatoon streets extensively since 1960. This data, besides being used for traffic planning, control, and operations purposes by City staff, has been made available to commercial enterprises, other City departments, safety organizations, research groups, and the general public. It is not feasible to count all streets in Saskatoon daily for an entire year; therefore, a sampling and expansion procedure is used.

Eight permanent locations continually record traffic volumes on an hourly basis throughout the year. In addition to the permanent count stations, short-term count stations have been established at which seven-day counts are carried out with portable counters between April and October. These portable counters record hourly traffic volumes at the various locations including interchange ramps. Attempts are made to undertake counts at each station at least once every three years, with critical areas counted annually. In addition, a number of short-term monitoring activities occur for specific engineering and neighbourhood traffic monitoring purposes.

In 2015, the following counts were undertaken as part of the transportation network modelling program:

- 180 (7-day traffic counts)
- 27 (1-day traffic counts)
- 8 permanent traffic count stations
- 93 speed assessments
- 204 intersection counts
- 14 (7-day bike counts)
- 37 (1-day pathway counts - pedestrians and bikes)



## 5.4 Functional Planning

Functional planning studies are focused on facility design as they are multi-modal planning studies that try to balance the needs of all users. Some of the elements that are considered in this type of study include:

- The framework for livability, land use, development goals etc.
- The balance of access and mobility needs along the roadways
- The integration of pedestrian, transit and cycling users all the while maintaining sound engineering principles and practices
- The current City and national standards be met to plan a facility that is financially responsible

### 5.4.1 Interchanges

Functional designs were completed for the following interchanges in 2015:

- McOrmond Drive & College Drive
- Boychuk Drive & Highway 16

### 5.4.2 Arterials

Functional designs were completed for the following new arterial roadways in 2015:

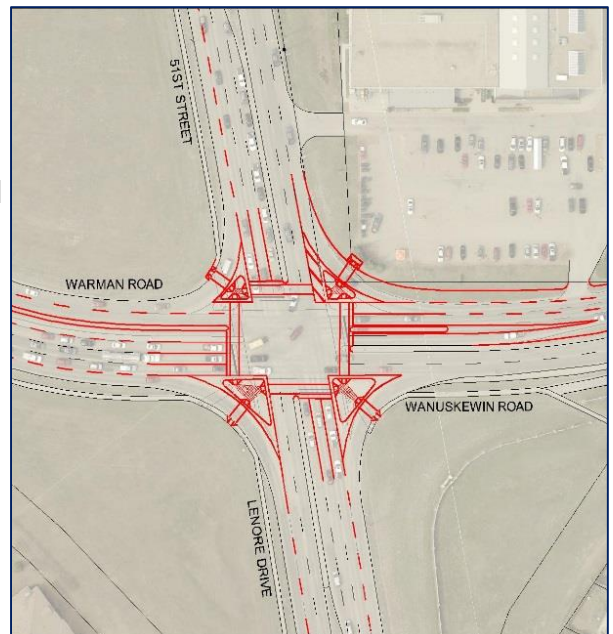
- Zimmerman Road
- McOrmond Drive through Aspen Ridge Neighbourhood
- McOrmond Drive through Brighton Neighbourhood

## 5.5 Intersection Improvements

Many intersections were constructed to service low-traffic volumes and are no longer capable of meeting the needs of modern traffic demands. The intersection modifications included in this project are operational improvements, such as the addition of turn lanes within right-of-way, curb radius improvements, lane designation, pavement marking changes, access management and construction of traffic islands and pedestrian ramps, where required. Construction of the modifications is undertaken as funding becomes available.

Intersections reviewed and re-designed in 2015 include:

- Warman Road & 51<sup>st</sup> Street
- Lorne Avenue & 9<sup>th</sup> Street East
- Brighton & College Drive
- Slimmon Road & Boychuk Drive
- Highway 16 & 71<sup>st</sup> Street





## 5.6 Traffic Signal System Upgrades – Maintaining and Upgrading

In 2015, 12 controllers were replaced as part of the traffic signal asset management program including:

- College Drive (11)
- 33<sup>rd</sup> Street & Quebec Avenue

## 5.7 New Traffic Signal Installations – Improving Traffic Flows

Traffic signals are used to control traffic and assign the right-of way at high volume intersections. Signals are installed at both existing intersections once sufficient traffic demands are reached or at newly constructed intersections as part of development. In 2015, traffic signals were installed at the following locations:

- Highway 16 & Marquis Drive
- Airport Drive & 45<sup>th</sup> Street
- McOrmond Drive & Evergreen Boulevard

## 5.8 New Active Pedestrian Corridors

An Active Pedestrian Corridor utilizes amber flashing Beacons to notify motorists that a pedestrian is at the crosswalk and intending to cross. The device flashes immediately when the pedestrians activate the button.

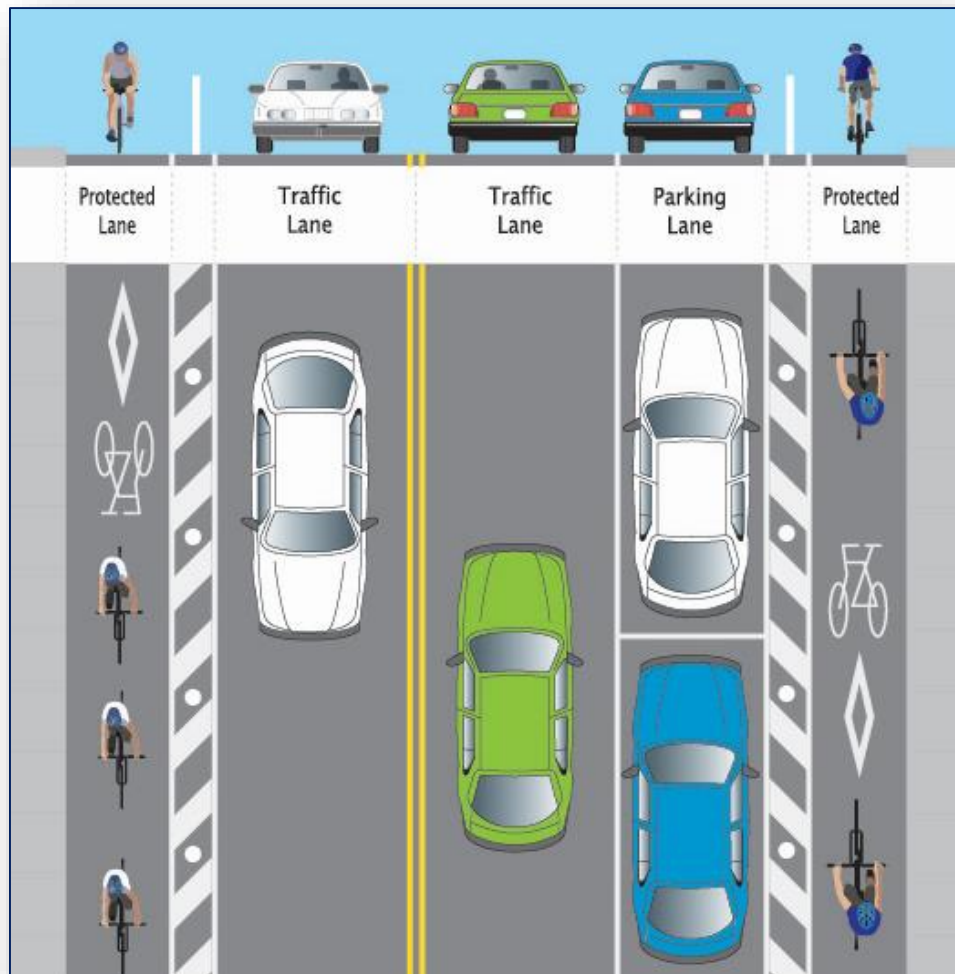
Active pedestrian corridors were installed at the following locations:

- Avenue P & 19<sup>th</sup> Street
- Avenue N & 20<sup>th</sup> Street
- Boychuk Drive & Laurentian Drive
- Lenore Drive & La Loche Road
- Clarence Avenue & 11<sup>th</sup> Street
- 29<sup>th</sup> Street & Avenue B
- Willowgrove Boulevard & Maguire Crescent
- Stensrud Road & Willowgrove Boulevard
- Kinsmen Park (Spadina Crescent)



## 5.9 Active Transportation

In 2015, the 'Protected Bike Lane Demonstration Project' kicked off. Lanes were installed on 23<sup>rd</sup> Street to encourage cyclists to use the roadway by creating a safer environment.



## 6.0 CONTINUOUS IMPROVEMENT

The division provides high quality services to meet the dynamic needs and high expectations of our citizens. We focus on continuous improvement and providing the best possible services using innovative and creative means. We go beyond conventional approaches to meet the changing needs of our city.

Some of the division's 2015 initiatives for continuous improvement are listed below:

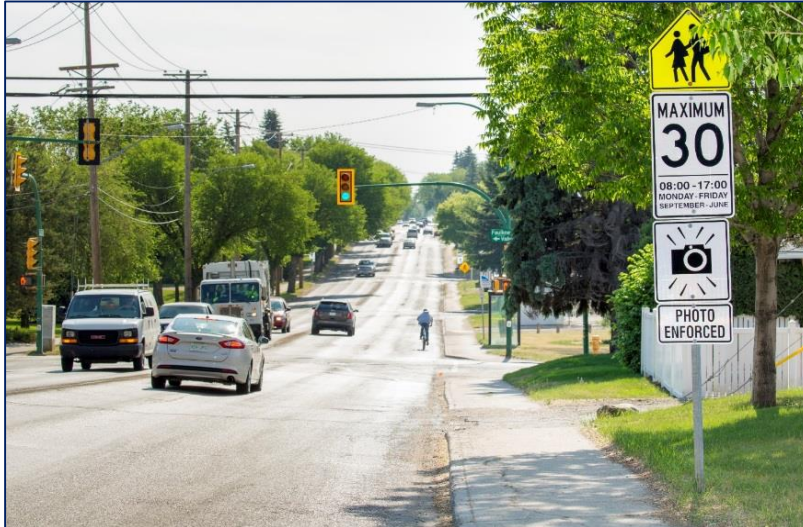
Initiative	Description	Benefit
Intersection Improvement Project Selection Process	Provided a prescribed process for undertaking intersection reviews considering the collision history, capacity of the intersection and coordination with other initiatives.	<ul style="list-style-type: none"> <li>Streamlined process for identifying intersection improvement project selection</li> <li>Saves staff time and costs</li> <li>Transparency to public</li> <li>Improved customer service</li> <li>Provides opportunity to coordinate with other City initiatives</li> </ul>
Pedestrian Crossing Control Criteria and Prioritization	Provides a criteria used to systematically determine the appropriate pedestrian crossing control devices	<ul style="list-style-type: none"> <li>Streamlined process for identifying pedestrian crossing control improvements</li> <li>Save staff time and costs</li> <li>Transparency to public</li> <li>Improved customer service</li> </ul>
Corridor Study Selection	Provides a criteria and process used to select and prioritize the Arterial street corridors requiring functional planning studies	<ul style="list-style-type: none"> <li>Streamlined process for identifying corridor functional planning studies</li> <li>Save staff time and costs</li> <li>Transparency to public</li> <li>Improved customer service</li> </ul>
Employee Satisfaction Survey	Conducted to ascertain employee satisfaction with management	<ul style="list-style-type: none"> <li>Improved staff morale is the goal</li> <li>Identify opportunities for improvement and celebrate successes</li> </ul>
Transportation Engineering Section Organizational Chart Revision	Removed the operational silos from the section	<ul style="list-style-type: none"> <li>Improve communication between staff</li> <li>Increase cross training</li> <li>Spreading and sharing of knowledge</li> <li>Increase the ability to succession plan</li> </ul>
Simplification of position titles	Renamed all professional engineers to either Senior Transportation Engineer or Transportation Engineer	<ul style="list-style-type: none"> <li>Increase clarity to other City Staff</li> <li>Reduces HR time as titles are simpler</li> </ul>
Consolidation of Job Descriptions (Transportation Engineer Position)	Instead of multiple job descriptions for various transportation engineering positions, consolidated to just use one.	<ul style="list-style-type: none"> <li>Increase clarity for the position</li> <li>Reduce HR time for future postings for Transportation Engineers</li> <li>Expands responsibilities of engineers to be more well-versed in all areas</li> </ul>
Introduction of Electronic Forms (Sign Shop Memos)	Instead of filling out a multi-page paper form for sign shop memos, an electronic fillable form was created which is then emailed.	<ul style="list-style-type: none"> <li>No longer need to pay for the paper forms</li> <li>Eliminates delays from un-readable printing</li> </ul>
Evaluation of Sign Shop operations	Reviewed and modified work shifts to reduce overtime hours and maximize existing resources	<ul style="list-style-type: none"> <li>Reduced overtime by 20% compared to 2014</li> </ul>



## 7.0 OUR STATISTICS

### 7.1 Signalized Intersections

There are 275 signalized intersections throughout the city (226 full, 49 pedestrian-actuated).



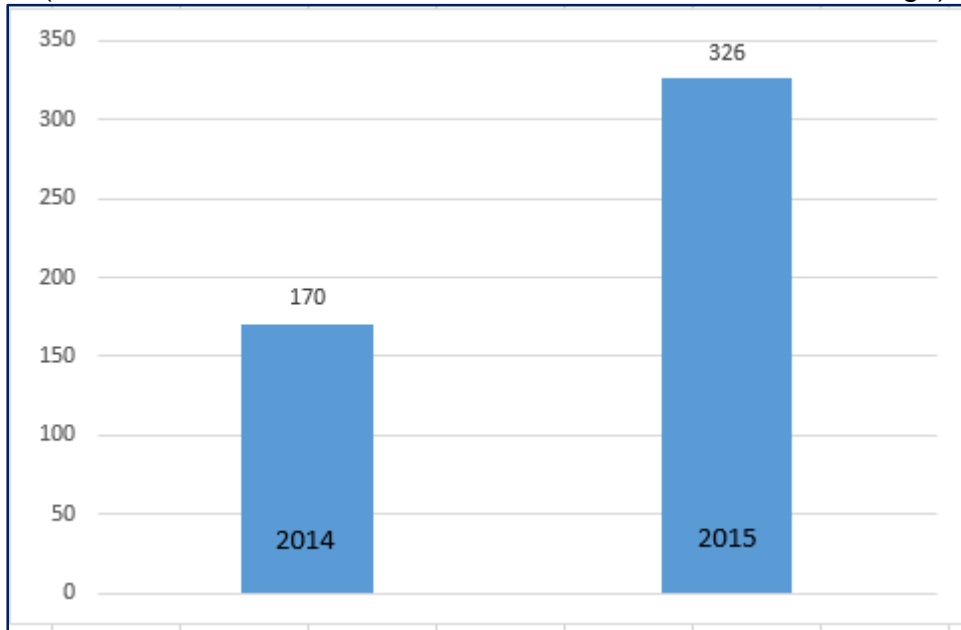
### 7.2 Pavement Markings

- Durable markings – 42 lane kilometres
- Annual Painting Program – 970 lane kilometres



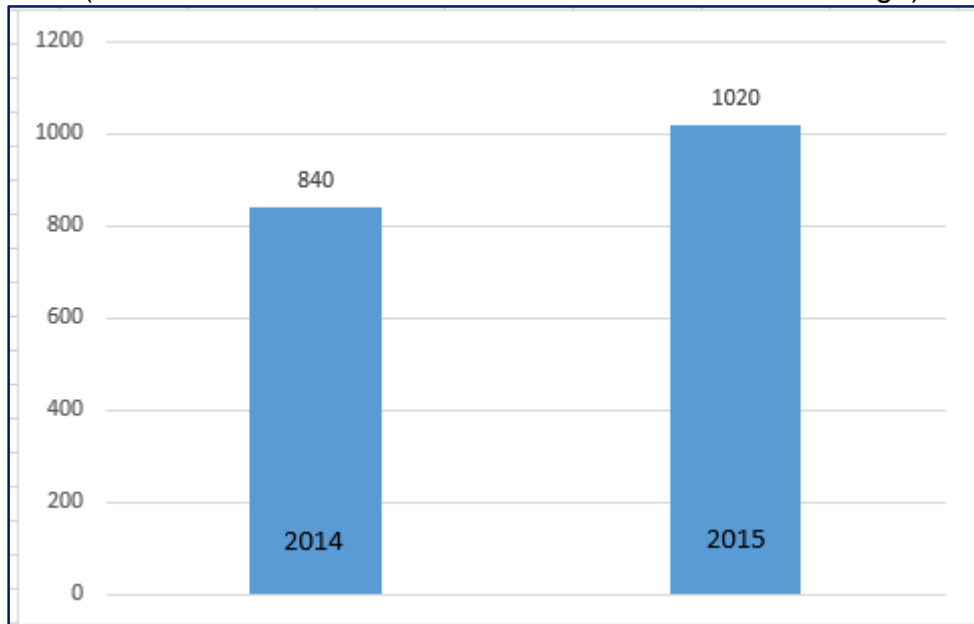
### 7.3 New Sign Installation Work Orders

\*(note: some work orders would involve more than one new sign)



### 7.4 Sign Repair Work Orders

\*(note: some work orders would involve more than one sign)



## 7.5 Crash Cushion Repairs

Crash cushions are used along high speed roadways to protect infrastructure and minimize the impact of a collision. There are currently 25 crash cushions throughout the city. The following repairs were made to crash attenuators throughout the city:

- 2014 – 3 repairs completed
- 2015 – 6 repairs completed



## 7.6 Electronics Shop after Hours Emergency Call-Outs

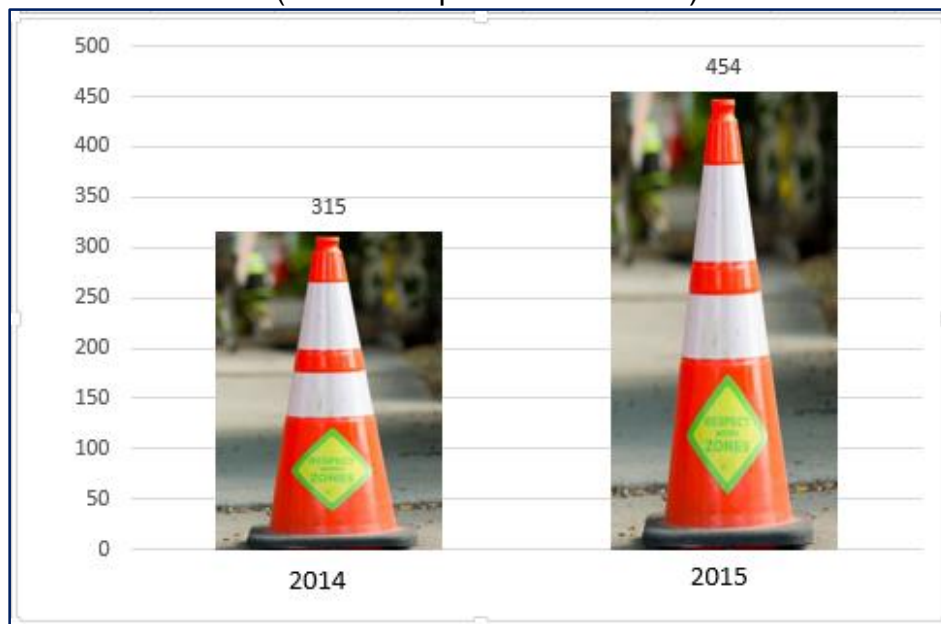
The Electronics Shop has a technician on stand-by to address emergency situations with the traffic signal infrastructure. The following call-outs occurred in 2014 and 2015:

- 2014 – 700 (maintenance/repair)
- 2015 – 750 (maintenance/repair)

## 7.7 Detour Coordination - External Lane Restriction Requests

Lane restrictions, or detours, are requested by third parties requiring the use of right-of-way to support construction work. The number of requests increased by 44% over 2014.

\*(internal requests not tracked)



## 7.8 Special Events Coordination

Many special events require closure of portions of the public right-of-way. These closures require a traffic accommodation plan and are coordinated with all other restrictions throughout the city. The following number of special events requiring lane closures occurred throughout the city:

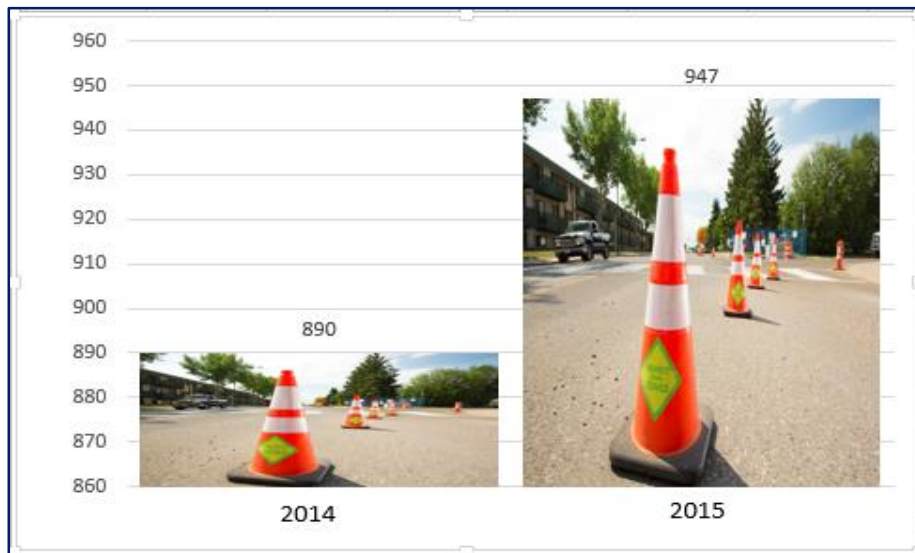
- 2014 – 117 special events
- 2015 – 124 special events



## 7.9 Number of Permits Issued

### 7.9.1 Right of Way Permits

Right-of-way permits are required when the public right-of-way is closed by a third party for construction or development and/or used for a specific purpose, such as for accommodating a waste disposal bin. The number of permits issued increased by 6% from 2014.



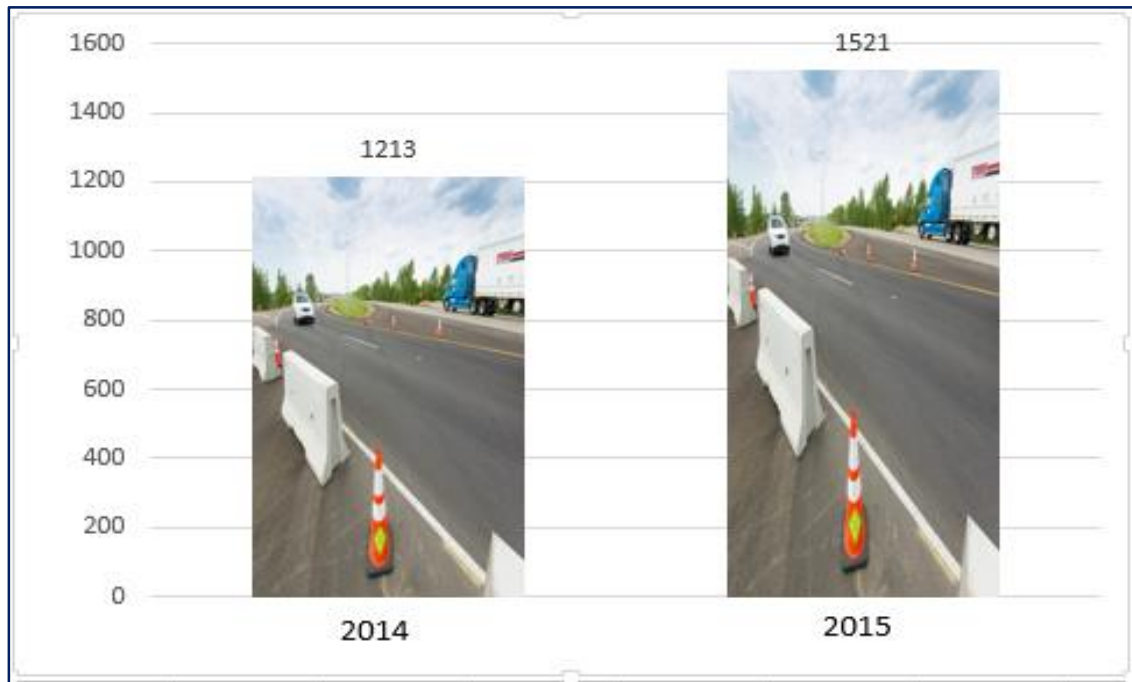
### 7.9.2 Curb Crossing Permits

Curb crossing permits are required by both commercial and residential property owners intending to construct a curb crossing (driveway) on a sidewalk containing vertical curbs. The number of permits issued decreased by 3% from 2014.



### 7.9.3 Vehicle Permits

Vehicle permits are issued to commercial vehicles that are over dimension or overweight, or intending to travel off a truck route. The number of permits issued increase by 25% from 2014.



## 8.0 OUR PERFORMANCE MEASURES

### 8.1 Kilometers of Cycling-Specific Infrastructure

Goal: 10-year target to increase the amount of cycling-specific infrastructure by 10%

- In 2015, 1.2 km of bike lanes and paths were added
- Some cycling infrastructure was upgraded
- First phase of protected bike lane on 23<sup>rd</sup> Street was implemented

### 8.2 Transportation Choices

Goal: Long-term target is to have 20% of people use cycling, walking, or transit to get to work

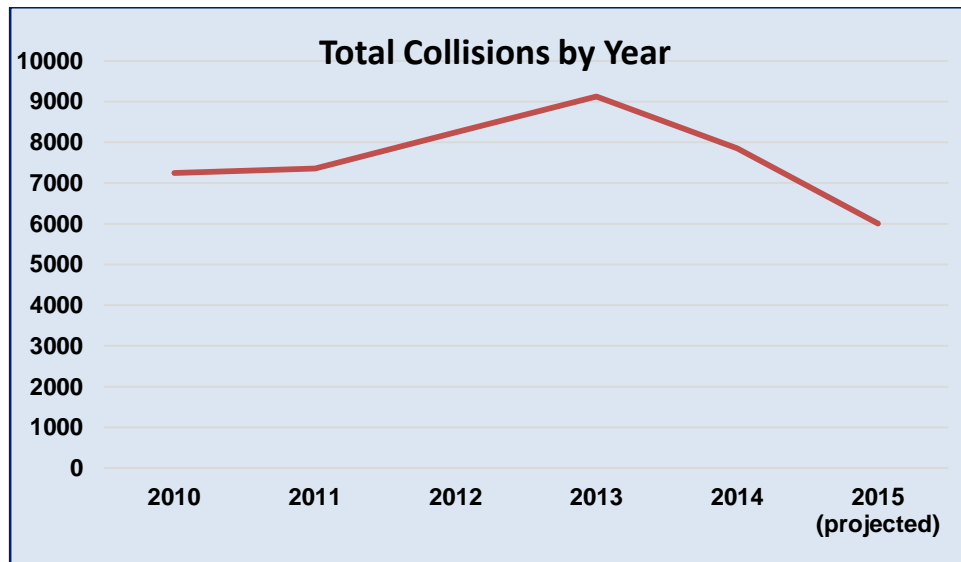
- In 2011, 11.5% used cycling, walking or transit to get to work (based on Census data)

### 8.3 Traffic Collisions

Goal: Decrease traffic collisions by 5% annually

Accident Severity	2010	2011	2012	2013	2014	2015*
Fatal	10	8	5	7	5	3
Personal Injury	1161	1275	1544	1382	1211	770
Property Damage	6074	6071	6697	7737	6635	3731
TOTAL	7245	7354	8246	9126	7851	4504

\*2015 to September inclusive, based on data from Saskatchewan Government Insurance



## 9.0 OUR FUTURE

### 9.1 Major Initiatives to Support the Corporate Strategic Plan

- Build the North Commuter Parkway & Traffic Bridge
- Continue with Neighbourhood Traffic Review Process
- Continue to support Province on the Saskatoon Freeway (formerly known as Perimeter Highway) project
- Plan and build interchanges at Boychuk Drive & Highway 16, and at College Drive & McOrmond Drive
- Improve traffic flows and enhance safety as these areas continue to develop

