



# OPERATIONS COMMITTEE AGENDA

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Operations Committee Meeting  
**Monday, January 15, 2018**  
Tom Davies Square

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**COUNCILLOR ROBERT KIRWAN, CHAIR**

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**Evelyn Dutrisac, Vice-Chair**

4:00 p.m. OPERATIONS COMMITTEE MEETING  
COMMITTEE ROOM C-11

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## **DECLARATIONS OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF**

## **APPOINTMENT OF COMMITTEE CHAIR AND VICE-CHAIR**

Report dated December 11, 2017 from the General Manager of Corporate Services regarding Appointment of Chair and Vice-Chair - Operations Committee.

**4 - 5**

### **(RESOLUTION PREPARED)**

(The current Chair of the Operations Committee will call the meeting to order and preside until the Operations Committee Chair and Vice Chair have been appointed, at which time the newly appointed Chair will preside over the balance of the meeting.)

## **CONSENT AGENDA**

(For the purpose of convenience and for expediting meetings, matters of business of repetitive or routine nature are included in the Consent Agenda, and all such matters of business contained in the Consent Agenda are voted on collectively.

A particular matter of business may be singled out from the Consent Agenda for debate or for a separate vote upon the request of any Councillor. In the case of a separate vote, the excluded matter of business is severed from the Consent Agenda, and only the remaining matters of business contained in the Consent Agenda are voted on collectively.

Each and every matter of business contained in the Consent Agenda is recorded separately in the minutes of the meeting.)

## **CORRESPONDENCE FOR INFORMATION ONLY**

C-1. Report dated December 20, 2017 from the General Manager of Growth and Infrastructure regarding MacKenzie Street Connection (Val Caron).

**6 - 10**

### **(FOR INFORMATION ONLY)**

(This report responds to a petition submitted regarding the request for a connection between the existing MacKenzie Street and Leduc Avenue in ValCaron. )

## **REGULAR AGENDA**

## **MANAGERS' REPORTS**

R-1. Report dated December 18, 2017 from the General Manager of Growth and Infrastructure regarding Bill 65 - Safer School Zones Act.

**11 - 14**

### **(RESOLUTION PREPARED)**

(In May 2017, the Legislative Assembly of Ontario passed Bill 65, the Safer School Zones Act. This bill included provisions to allow more flexibility to establish speed limits for areas of the municipality and authorizes the use of automated speed enforcement systems in community safety zones. This report will provide an overview of Bill 65.)

R-2. Report dated December 18, 2017 from the General Manager of Growth and Infrastructure regarding Leading Pedestrian Interval Policy.

**15 - 23**

### **(RESOLUTION PREPARED)**

(This report introduces the concept of a Leading Pedestrian Interval (LPI) and provides an overview of the proposed LPI Policy, including a warrant process and implementation guidelines. This report also seeks committee approval to adopt the LPI Policy to be implemented consistently throughout the City of Greater Sudbury.)

## **ADDENDUM**

## **CIVIC PETITIONS**

## **QUESTION PERIOD AND ANNOUNCEMENTS**

## **NOTICES OF MOTION**

## **ADJOURNMENT**

## Request for Decision

### Appointment of Chair and Vice-Chair - Operations Committee

Presented To: Operations Committee

Presented: Monday, Jan 15, 2018

Report Date: Monday, Dec 11, 2017

Type: Appointment of Committee Chair and Vice-Chair

### Resolution

THAT the City of Greater Sudbury appoints Councillor \_\_\_\_\_ as Chair and Councillor \_\_\_\_\_ as Vice-Chair of the Operations Committee for the term ending November 30, 2018.

### Relationship to the Strategic Plan / Health Impact Assessment

This report refers to operational matters.

### Report Summary

This report sets out the procedure for the election by the Committee of the Chair and Vice-Chair of the Operations Committee for the term ending November 30, 2018.

### Financial Implications

Funding for the remuneration of the Chair is provided for within the operating budget.

#### Signed By

##### **Report Prepared By**

Brigitte Sobush  
Manager, Clerk's Services/Deputy City Clerk  
*Digitally Signed Dec 11, 17*

##### **Division Review**

Eric Labelle  
City Solicitor and Clerk  
*Digitally Signed Dec 15, 17*

##### **Financial Implications**

Apryl Lukezic  
Co-ordinator of Budgets  
*Digitally Signed Dec 20, 17*

##### **Recommended by the Department**

Kevin Fowke  
General Manager of Corporate Services  
*Digitally Signed Dec 20, 17*

##### **Recommended by the C.A.O.**

Ed Archer  
Chief Administrative Officer  
*Digitally Signed Dec 21, 17*

## **Background**

This report sets out the procedure for the election by the Committee of the Chair and Vice-Chair of the Operations Committee for the term ending November 30, 2018.

The Procedure By-law provides that a Member of the Committee shall be appointed annually by the Committee to serve as Chair of the Operations Committee. As well, a Vice-Chair is appointed annually.

The above appointments need only be confirmed by resolution.

## **Remuneration**

The Chair of the Operations Committee is paid \$2,091.55 per annum.

## **Selection**

The selection of the Chair and Vice-Chair is to be conducted in accordance with Articles 33 and 37 of the Procedure By-law.

Council's procedure requires that in the event more than one (1) candidate is nominated for either the Chair or Vice-Chair's position, a simultaneous recorded vote shall be used to select the Chair and Vice-Chair.

It is always in order for a Member of Council to nominate themselves and to vote for themselves.

Once the successful candidates have been selected, a recommendation will be introduced.

## **Resources Cited**

Council Procedure By-law 2011-235: <https://www.greatersudbury.ca/city-hall/by-laws/#frb>

## For Information Only

### Mackenzie Street Connection (Val Caron)

Presented To: Operations Committee

Presented: Monday, Jan 15, 2018

Report Date: Wednesday, Dec 20, 2017

Type: Correspondence for Information Only

#### Resolution

For Information Only.

#### Relationship to the Strategic Plan / Health Impact Assessment

This report refers to operational matters.

#### Report Summary

The Roads and Transportation Services Division received a request to open the section of MacKenzie Street located between Leduc Avenue and Lina Street in Val Caron. This report provides information as to how staff arrived at the decision to recommend this remain unopened.

#### Financial Implications

This report has no financial implications.

#### Signed By

**Report Prepared By**

LyAnne Chenier  
Co-Ordinator of Roads and  
Transportation Administration  
*Digitally Signed Dec 20, 17*

**Manager Review**

Joe Rocca  
Traffic and Asset Management  
Supervisor  
*Digitally Signed Dec 20, 17*

**Division Review**

Stephen Holmes  
Director of Infrastructure Capital  
Planning  
*Digitally Signed Dec 20, 17*

**Financial Implications**

Apryl Lukezic  
Co-ordinator of Budgets  
*Digitally Signed Dec 21, 17*

**Recommended by the Department**

Tony Cecutti  
General Manager of Growth and  
Infrastructure  
*Digitally Signed Dec 22, 17*

**Recommended by the C.A.O.**

Ed Archer  
Chief Administrative Officer  
*Digitally Signed Dec 22, 17*

## **MacKenzie Street Connection (Val Caron)**

### **Background**

A petition was submitted to Council by the residents of the neighborhood located North of Main Street and West of Municipal Road 80 in Val Caron with respect to opening the section of MacKenzie Street located between Leduc Avenue and Lina Street (See Figure 1). Local residents want this connection to be opened to provide an additional access point to the neighborhood and the Raymond Plourde Arena. The petition also brought forward concerns with Emergency Services response times.

It was suggested to staff that this road connection had previously existed. Conversations with long time area forepersons and a review of as-built drawings and street files did not provide any evidence that this road connection existed. The earliest as-built information indicates Leduc Avenue ended in a small cul-de-sac west of Lina Street.

Community Development has undertaken a comprehensive review of ice facilities. Council accepted a business case as part of the 2018 budget that provides an option to replace the Centennial and Raymond Plourde arenas with a new twin gold pad facility. The development of a new twin pad facility is proposed to be located at the Howard Armstrong Recreation Centre property. If the Raymond Plourde arena is closed, there will be a significant reduction in traffic in this area.

When reviewing a request such as this, the City must consider the benefit to the entire road network. As part of the review, the City completed a traffic study to evaluate the number of vehicles which would use this road connection and the impact to the existing road network. The results of the traffic study indicate that approximately 300 vehicles would utilize this road connection during the afternoon peak hour of each day. Approximately 50 vehicles currently travel on MacKenzie Street during the same time period.

More than 2,500 vehicles would be expected to use this street over a 24 hour period. A typical local roadway is designed to accommodate up to 1,000 vehicles. It has been our experience that when this type of road connection is created, residents will have concerns with the increase in vehicle volume and speeds. This may result in the need for traffic calming devices to be installed on MacKenzie Street.

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The operation of the proposed Municipal Road 80 and MacKenzie Street intersection needs to be considered. Residents can currently access Main Street (Municipal Road 15) at the signalized intersection at Marie Avenue and non-signalized intersection at Louis Street and Herve Avenue. If the identified road connection was created, we would not expect a traffic signal at the intersection of Municipal Road 80 and MacKenzie Street to be warranted.

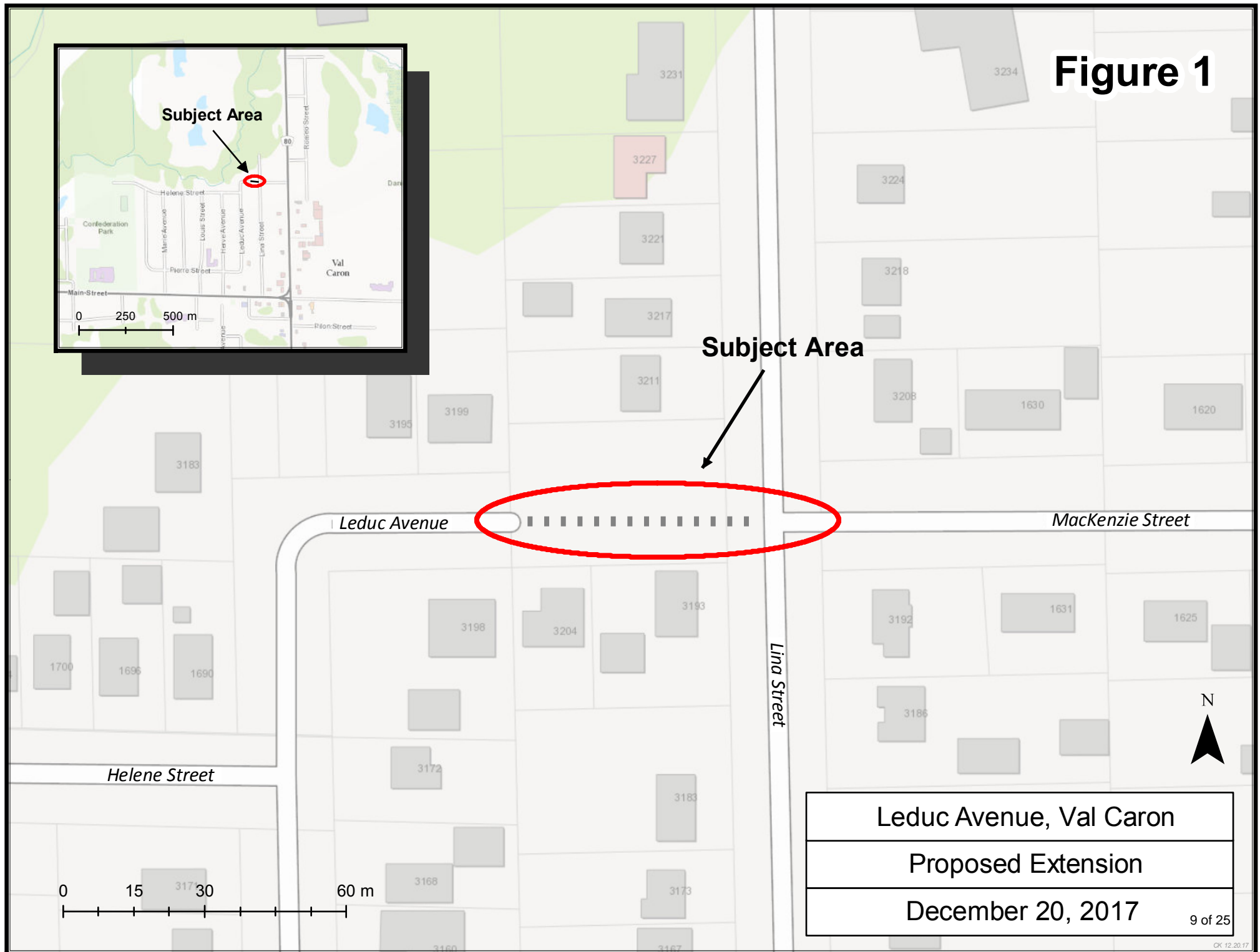
The petition indicated concerns with respect to Emergency Services and response times. The Ministry of Health and Long-Term Care have established a Response Time Standard (RTS) and since 2001 the municipal sector has had the legislated responsibility to provide proper land ambulance services to its residents. The RTS uses the Canadian Triage and Acuity Scale, a five-level triage scale with the highest severity level 1 (resuscitation) and the lowest severity levels 5 (non-urgent) to assign a level of acuity to patients and more accurately define the patient's need for care primarily based on the optimal time to medical intervention. Refer to Appendix A from the Ministry of Health and Long-Term Care website which indicates the RTS Reporting Table for the City of Greater Sudbury. In the case of a sudden cardiac arrest patient, classified as the most serious kind of call, the response time standard is six minutes. The existing response time is under six minutes as calculated using the posted speed limit and the distance between the Val Therese Emergency Services Station to the Raymond Plourde Arena which is the farthest distance in the subdivision to the station. The highest severity response time is met without the extension of Mackenzie Street. The actual response time from the station will be shorter than this theoretical calculation due to the ambulance's use of lights and sirens.

## **Conclusion**

In consideration of traffic impacts on the local road, the existing Emergency Services response times and the prioritization of the City's capital projects, staff does not recommend the opening of MacKenzie Street between Leduc Avenue and Lina Street.



**Figure 1**



# Appendix A

Name	2013 Response Time Standard		
Greater Sudbury, City of	Plan in Minutes	Plan in Percentage	Performance in Percentage Submitted March 31, 2014
SCA	6	70%	67.0%
CTAS 1	8	80%	73.0%
CTAS 2	10	85%	87.0%
CTAS 3	15	85%	97.0%
CTAS 4	15	85%	97.0%
CTAS 5	15	85%	97.0%

Name	2014 Response Time Standard		
Greater Sudbury, City of	Plan in Minutes	Plan in Percentage	Performance in Percentage Submitted March 31, 2015
SCA	6	70%	65.0%
CTAS 1	8	80%	80.0%
CTAS 2	10	85%	86.0%
CTAS 3	15	85%	97.0%
CTAS 4	15	85%	98.0%
CTAS 5	15	85%	97.0%

Name	2015 Response Time Standard		
Greater Sudbury, City of	Plan in Minutes	Plan in Percentage	Performance in Percentage Submitted March 31, 2016
SCA	6	70%	73.0%
CTAS 1	8	80%	81.0%
CTAS 2	10	85%	86.0%
CTAS 3	15	85%	97.0%
CTAS 4	15	85%	98.0%
CTAS 5	15	85%	97.0%

Name	2016 Response Time Standard		
Greater Sudbury, City of	Plan in Minutes	Plan in Percentage	Performance in Percentage
SCA	6	70%	Due March 31, 2017
CTAS 1	8	80%	
CTAS 2	10	85%	
CTAS 3	15	85%	
CTAS 4	15	85%	
CTAS 5	15	85%	

Presented To:	Operations Committee
Presented:	Monday, Jan 15, 2018
Report Date	Monday, Dec 18, 2017
Type:	Managers' Reports

## Request for Decision

### Bill 65 - Safer School Zones Act

#### Resolution

THAT the City of Greater Sudbury continues to work on the development of the Automated Speed Enforcement program through the Automated Speed Enforcement Working Group, as outlined in the report entitled "Bill 65 - Safer School Zones Act," from the General Manager of Growth and Infrastructure, presented at the Operations Committee meeting on January 15, 2018.

#### Relationship to the Strategic Plan / Health Impact Assessment

This report refers to operational matters.

#### Report Summary

In May 2017, the Legislative Assembly of Ontario passed Bill 65, the Safer School Zones Act. This bill included provisions to allow more flexibility to establish speed limits for areas within the municipality, provides a more streamlined process for municipalities to participate in Ontario's Red Light Camera program and authorizes the use of Automated Speed Enforcement systems in community safety zones. This report will provide an overview of Bill 65.

#### Financial Implications

Recommendations of this report may be carried out within existing approved Operations budget and staff complement.

#### Signed By

##### **Report Prepared By**

Joe Rocca  
Traffic and Asset Management  
Supervisor  
*Digitally Signed Dec 18, 17*

##### **Manager Review**

Joe Rocca  
Traffic and Asset Management  
Supervisor  
*Digitally Signed Dec 18, 17*

##### **Division Review**

Stephen Holmes  
Director of Infrastructure Capital  
Planning  
*Digitally Signed Dec 18, 17*

##### **Financial Implications**

Apryl Lukezic  
Co-ordinator of Budgets  
*Digitally Signed Dec 20, 17*

##### **Recommended by the Department**

Tony Cecutti  
General Manager of Growth and  
Infrastructure  
*Digitally Signed Dec 21, 17*

##### **Recommended by the C.A.O.**

Ed Archer  
Chief Administrative Officer  
*Digitally Signed Dec 21, 17*

## **Bill 65 - Safer School Zones Act**

### **Background**

In May 2017, the Legislative Assembly of Ontario passed Bill 65, the Safer School Zones Act. This bill included provisions to allow more flexibility to establish speed limits for areas within the municipality, provides a more streamlined process for municipalities to participate in Ontario's Red Light Camera program and authorizes the use of Automated Speed Enforcement systems in community safety zones. These amendments are described in more detail below.

### **Reduced Speed Limit Areas**

At the November 16, 2015 Operations Committee meeting, staff presented a report entitled "Speed Limits in the City of Greater Sudbury."

<http://agendasonline.greatersudbury.ca/index.cfm?pg=agenda&action=navigator&language=en&id=857&itemid=10396>

This report provided an overview of how speed limits are determined throughout the City and a summary of observed operating speeds based on posted speed limits. Bill 65 provides an amendment to the Ontario Highway Traffic Act (HTA) which allows municipalities to designate a speed limit within an area which differs from the statutory speed limit of 50 km/h. At this time, the regulation to enact this change has not been developed so it is unclear how municipalities will be permitted to designate these areas. Staff will bring forward a report describing how these reduced speed limit areas can be used within the City once the regulation has been developed.

### **Red Light Camera Systems**

Bill 65 provides a more streamlined process for municipalities to participate in Ontario's Red Light Camera (RLC) program. A study is underway to determine if any intersections within the City would benefit from the installation of a Red Light Camera system. A report on the findings of the study will be brought forward to the Operations Committee in Q2 of 2018.

### **Automated Speed Enforcement**

Bill 65 also allows municipalities to implement Automated Speed Enforcement (ASE) in school zones, as defined in the HTA, and in areas designated as a Community Safety Zone where the posted speed limit is below 80 km/h. ASE will provide municipalities another tool along with education, enforcement and engineering solutions to help control speeding in areas of concern. Similar to the Reduced Speed Limit Areas, the regulation that will enact the use of ASE has not been developed so it is unclear what options will be available to municipalities.

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## **Community Safety Zones**

While there will be support for implementing ASE within school zones, there will likely be strong demand to establish Community Safety Zones throughout the community so ASE equipment can be deployed to more areas.

An April 4, 2012 report to the Operations Committee provided an overview of what Community Safety Zones (CSZs) are and the experiences of other municipalities in the province.

<http://agendasonline.greatersudbury.ca/index.cfm?pg=agenda&action=navigator&lang=en&id=535&itemid=5262>

As described in the report, other municipalities in the province have found that CSZs have not been an effective tool to reduce speeds due to the high level of enforcement that is required. The introduction of ASE may help address the enforcement issue associated with CSZs.

## **Ontario Traffic Council Automated Speed Enforcement Working Group**

The Ontario Traffic Council (OTC) was formed in 1950 by a small group of municipal officials, who saw the need for a co-ordinated effort to improve traffic management in Ontario, by drawing together the knowledge and expertise of those in the field of Enforcement, Engineering and Education. The OTC mission statement is "OTC is the voice for enhancing the engineering, education and enforcement sectors of the traffic management sector in Ontario".

As part of their mandate, the OTC has organized an ASE Working Group that includes municipalities from across Ontario, the Ministry of Transportation and the Ministry of the Attorney General to discuss the development and implementation of the ASE program. The ASE Working Group is collaborating on where ASE should be implemented, how ASE should operate and the impact that ASE may have on municipalities. City staff have been part of this working group since its inception.

## **Provincial Offences Court Implications**

A major concern raised by the ASE Working Group is the impact that ASE will have on the existing court system. Speeding infractions are handled by municipal Provincial Offences Act (POA) courts pursuant to a Memorandum of Understanding with the province. There is concern that ASE infractions may overwhelm the court system in some municipalities and that the province will not be able to supply enough Justices of Peace for the trials.

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A potential solution to this problem that has been identified by the ASE Working Group is moving Red Light Camera and ASE infractions to an administrative monetary penalties system (AMPS). AMPS is similar to the existing POA Court system but the resources required to manage AMPS are solely the responsibility of the municipality. This would give municipalities the ability to adjust their resources depending on their needs. In 2015, the Ministry of the Attorney General undertook a public consultation regarding the implementation of an online AMP system for POA matters throughout the province. Based on the feedback received through this consultation, the ministry indicated that rather than pursuing an AMP model it intended to focus on improving the existing, court-based system for POA matters. Since the close of this consultation, and to date, the province has not expressed an interest in processing ASE or RLC infractions through an AMP system; however, the ASE Working Group intends to promote the use of AMPS for these types of charges.

## **Next Steps**

The ASE program may prove to be a valuable tool for municipalities to improve road safety and to help reduce the negative impacts of speeding vehicles on area roads. However, there are many unknowns regarding this program at this time. It is recommended that staff continue to participate in the development of the ASE program through the ASE Working Group. It should be noted that committing to participation in the development of the ASE program does not commit the City to implementing ASEs. As details regarding the ASE program are finalized, staff will bring forward another report to seek support for the implementation of an ASE program in the City and to adopt a policy for the designation of Community Safety Zones. In regards to the Reduced Speed Limit Areas, once the supporting regulation has been finalized staff will bring forward a report to the Operations Committee explaining how these areas can be designated.

## **References:**

Ontario Highway Traffic Act, Accessed online:  
<https://www.ontario.ca/laws/statute/90h08>

Presented To:	Operations Committee
Presented:	Monday, Jan 15, 2018
Report Date	Monday, Dec 18, 2017
Type:	Managers' Reports

## Request for Decision

### Leading Pedestrian Interval Policy

#### Resolution

THAT the City of Greater Sudbury approves the use of Leading Pedestrian Intervals at locations with a cumulative assessment score of 5 or more when using the Leading Pedestrian Interval Guidelines;

AND THAT The City of Greater Sudbury does not implement Leading Pedestrian Intervals at traffic signals that have a protected advanced left or right turn movement as outlined in the report entitled "Leading Pedestrian Interval Policy", from the General Manager of Growth and Infrastructure, presented at the Operations Committee meeting on January 15, 2018.

#### Relationship to the Strategic Plan / Health Impact Assessment

This report refers to "providing quality multimodal transportation alternatives for roads, transit, trails, paths, sidewalks and connecting neighborhoods and communities within Greater Sudbury" which is identified in the Strategic Plan under the key pillar of Sustainable Infrastructure.

#### Report Summary

This report introduces the concept of a Leading Pedestrian Interval (LPI) and provides an overview of the proposed LPI policy, including a warrant process and implementation guidelines. This report also seeks Committee approval to adopt the LPI policy to be implemented consistently throughout the City of Greater Sudbury.

#### Financial Implications

The cost to implement a Leading Pedestrian Interval ranges in cost from \$1,000 to \$18,000 per signalized intersection. Upgrades to existing intersections to introduce a Leading Pedestrian Interval will be funded from the approved Roads Capital Budget through the Traffic System Improvements budget.

#### Signed By

##### **Manager Review**

Joe Rocca  
Traffic and Asset Management  
Supervisor  
*Digitally Signed Dec 18, 17*

##### **Division Review**

Stephen Holmes  
Director of Infrastructure Capital  
Planning  
*Digitally Signed Dec 18, 17*

##### **Financial Implications**

Apryl Lukezic  
Co-ordinator of Budgets  
*Digitally Signed Dec 20, 17*

##### **Recommended by the Department**

Tony Cecutti  
General Manager of Growth and  
Infrastructure  
*Digitally Signed Dec 21, 17*

##### **Recommended by the C.A.O.**

Ed Archer  
Chief Administrative Officer  
*Digitally Signed Dec 21, 17*

# Leading Pedestrian Interval Policy

## Background:

Pedestrian safety has been and remains a primary focus of the City's Traffic and Transportation Engineering Services Division. Although many pedestrian safety initiatives have been implemented over the years, staff remains committed to researching and implementing new safety initiatives as they are developed throughout the industry with the goal of providing the safest transportation network for all road users.

In 2016, City Council adopted the Transportation Master Plan (TMP) which emphasizes the need to provide safe accommodation for pedestrians and cyclists in Greater Sudbury. Section 10.11 Pedestrian Safety, puts forth guidance to enhance pedestrian safety and recommends Leading Pedestrian Intervals (LPI) as a means to achieve this.

Conventional signalized intersections provide for a pedestrian crossing concurrently with the adjacent vehicle through movement. Right or left turning vehicles are required to yield to pedestrians in the crosswalk; however, in practice, it has been observed that turning vehicles often impede the path of pedestrians. The LPI is a technique that can be used to improve pedestrian safety by reducing vehicle turn conflicts with pedestrians at signalized intersections. By giving pedestrians a head start, this allows pedestrians to establish the right-of-way, which increases the visibility of pedestrians to motorists, and thereby reduces potential conflicts with turning vehicles.

## What is a Leading Pedestrian Interval?

A LPI is a pedestrian signal timing option in which the "walk" interval starts several seconds before the adjacent vehicle through movement phase thus providing a head start for pedestrians. Typically during this period, all traffic signals are red, while the pedestrian begins to cross. The purpose of an LPI is to provide pedestrians with the opportunity to begin crossing the street before adjacent through movement vehicles are permitted to proceed.

There are a number of advantages to providing LPIs at intersections with a known history of conflicts:

- LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles.
- The LPI is particularly helpful for older pedestrians, as they may take longer to occupy the crosswalk following the start of a "walk" indication, making them less obvious to turning motorists.
- LPIs typically require adjustments to existing signal timing that are relatively low cost compared to other countermeasures.

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- The LPI has also been recommended as a strategy for reducing pedestrian-vehicle collisions at signalized intersections. According to the Crash Modification Factor (CMF) Clearinghouse, maintained and administrated by the U.S. Federal Highway Administration (FHWA), a LPI implementation can be expected to reduce the number of pedestrian-vehicle collisions at an intersection with traffic signals by up to 45%.

While implementing LPIs have obvious advantages for improving pedestrian safety, it is important to also acknowledge potential disadvantages with this countermeasure:

- LPIs may create safety problems for vision-impaired pedestrians, since the sound of parallel moving traffic is delayed. Signals equipped with a LPI may cause pedestrians with a vision impairment to start crossing too late, leaving them with inadequate time to finish crossing safely. To address this issue, all intersections with a LPI must be equipped with an Audible Pedestrian Signal (APS) and the APS for parallel crossings must be timed exactly the same at the intersection, even if the LPI is only being implemented at one of two parallel crossings.
- It may negatively impact emergency vehicle response times by delaying automobile traffic by the amount of time allotted to the pedestrian signal lead.
- Use of multiple LPI locations in a single corridor may increase congestion by lengthening vehicular travel times for commuters and other drivers.

### **Leading Pedestrian Interval Warrant:**

With this report, staff are seeking to formalize the process for determining where to apply a LPI in Greater Sudbury through the creation of a warrant and implementation guidelines for LPIs. The Suitability Assessment Worksheet (warrant) presented in Exhibit A, is based on a review and adaptation of the Leading Pedestrian Interval Assessment and Implementation Guidelines from the City of Toronto. The purpose of the Guidelines is to assist staff in identifying suitable locations for LPIs using a checklist, and to further consider operational features that would maximize the positive safety effects and minimize any negative impacts on vehicular capacity. The Guidelines also provide a simple and easy to use tool for staff to assess the suitability of a location for application of an LPI without significant resource requirements.

The following list summarizes factors considered in the Suitability Assessment Worksheet (Exhibit A).

- Any intersection where drivers make left turns without the need to yield to oncoming traffic (i.e. T-intersections and intersections of two-way roads with one-way roads);

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- Presence of sight line or visibility issues due to irregular intersection geometry, wide turning radius, crosswalk placement, obstructions such as buildings or the base of a bridge, and blinding sun angle when the sun is low on the horizon;
  - High volume of pedestrians crossing;
  - High rate of collisions between pedestrians and turning vehicles or observed non-yield or near-miss incidents during a conflict analysis;
  - Close proximity to elementary schools;
  - High level of activity by elderly residents;
  - Impacts on vehicular traffic:
    - Increase in vehicular delay;
    - Negative impact on vehicular Level of Service; and
    - High vehicular traffic volume
  - To address the above potential capacity issues, the City shall only consider LPI at locations with a cumulative assessment score of 5 or more obtained when using the Leading Pedestrian Interval Guidelines as outlined in Exhibit A.

### **Pilot Project Results:**

In March 2017, the City of Greater Sudbury installed a Leading Pedestrian Interval at the intersection of Notre Dame Avenue and Kathleen Street as a pilot project. The goal of the pilot was to reduce the potential conflicts between pedestrians and turning vehicles at the intersection. In addition, staff sought to determine the impact of the LPI on pedestrian safety at the signalized intersection before determining whether implementation throughout the City would be an effective approach to increase pedestrian safety.

To evaluate the impact of the LPI, before and after vehicle–pedestrian conflict analysis was conducted at the intersection of Notre Dame Avenue and Kathleen Avenue using a video camera system to capture pedestrian and motorist conflicts at the crosswalks. Analysis presented within this report is based on observations and data collected from the intersection during the morning (AM), mid-day (MD) and evening (PM) peak hours. Table 1 below displays the number of pedestrians and vehicles observed during the before and after analysis.

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**Table 1. Volume of Pedestrians and Vehicles for Pedestrian-Vehicle Conflict Study**

Time Period	Before			After		
	Pedestrian volume	Left turn volume	Right turn volume	Pedestrian volume	Left turn volume	Right turn volume
AM Peak	45	304	261	29	197	188
MD Peak	112	321	214	56	222	192
PM Peak	160	609	352	104	428	291

To measure the impact of the LPI, a pedestrian-vehicle conflict rate was used. Conflict rates are preferred over conflict frequencies because they account for changes in volume of pedestrians and vehicles during the study periods. The pedestrian-vehicle conflict rates represent the number of conflicts observed per 1,000 pedestrians per turning vehicle volume. Reductions in pedestrian-vehicle conflict rates are considered positive safety impacts. Table 2 shows the pedestrian-vehicle conflict rates for the before and after evaluation periods. The conflict rates were reduced by 25% to 41% after the LPI was installed relative to those observed prior to installation.

**Table 2. Before and After Pedestrian-Vehicle Conflict Rates**

Study Period	Pedestrian-Vehicle Conflict Rate (conflicts /1000 pedestrians / turning vehicle volume)		
	Before	After	Conflict Reduction (%)
AM Peak	0.17	0.10	-41
MD Peak	0.04	0.03	-25
PM Peak	0.04	0.03	-25

### **Proposed 2018 Leading Pedestrian Interval Locations:**

Using the Suitability Assessment Worksheet presented in Exhibit A, staff have completed an evaluation of numerous signalized intersections throughout the community. While analysis indicates that seven (7) of the intersections qualified for an LPI, practically speaking, LPIs can only be implemented at the following four locations (Exhibit B):

- Brady Street at Minto Street
- Notre Dame Avenue at King Street
- Notre Dame Avenue at Ste. Anne Road/Louis Street
- Notre Dame Avenue at Wilma Street

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LPIs cannot be implemented at three other locations, including Elm Street at Regent Street, Frood Road at College Street and Notre Dame Avenue at Elm Street, due to protected advanced left turn movement (Exhibit C) that is provided at these traffic signals.

### **Next Steps**

While there is no one measure that could be implemented which could eliminate all pedestrian collisions, the City strives to use a variety of countermeasures to target specific issues. The City's goal is to provide the safest transportation network for all road users. As previously mentioned, Greater Sudbury has implemented many new pedestrian safety initiatives, such as pedestrian crossovers, pedestrian countdown signals, painted zebra crosswalks, pedestrian refuge island, etc. over the past number of years and is committed to researching and implementing new safety initiatives as they become available.

The addition of the Leading Pedestrian Interval to the municipal toolbox is one strategy for reducing pedestrian-vehicle crashes at signalized intersections. By adopting a consistent approach to implementation and continuing to expand the LPI program, pedestrian access and movement will continue to be prioritized which ultimately enhances pedestrian safety and enables a healthier lifestyle for Greater Sudbury residents.

### **Communication Plan**

Prior to implementation the City will issue a Public Service Announcement and inform the public via social media of the changes and when they will occur. Staff will further update the City's website to provide information about how an LPI works to educate all road users on their proper use and where they are located.

### **Resources Cited:**

Crash Modification Factors Clearinghouse, Access on line:

<http://www.cmfclearinghouse.org/results.cfm>

Leading Pedestrian Interval Assessment and Implementation Guidelines, Access online:

<http://docs.trb.org/prp/15-1579.pdf>

Ontario Traffic Manual, Book 12, Traffic Signals, Access online:

<https://www.library.mto.gov.on.ca/SydneyPLUS/Sydney/ViewRecord.aspx?template=Books&record=59cabe78-8aaf-4347-95ab-d6c066099015&lang=en-US>

EXHIBIT "A"

Leading Pedestrian Interval Suitability Assessment Worksheet						
	Description	Values	Score	Score Allocation Guide	Justification	Notes
1	Is the pedestrian crossing at a T-intersection (crossing is parallel to a road that ends at the intersection) and/or Is the pedestrian crossing parallel to a one-way road?		0 to 2	Yes = 2 No = 0	High level of potential safety improvement with LPI at T-intersections compared to regular intersections because all vehicles approaching a T-intersection make a left/right turn and left turning vehicles do not need to wait for and yield to vehicles in the opposing direction. Similarly, left turning vehicles travelling on a one-way road do not need to wait for and yield to vehicles in the opposing direction.	
2	Are there issues such as safety concerns verified by staff or visibility issues due to features such as irregular intersection geometry, wide turning radius, crosswalk placement, obstructions such as buildings or base of a bridge, blinding sun angle?		0 to 2	Yes (4 or more issues) = 2 Yes (Between 1 to 3 of issues) = 1 No = 0	High level of potential safety improvement	
3	8-Hour volume of pedestrians crossing the leg being considered for LPI (p)		0 to 2	2 if P > 1000 1 if 200 < P ≤ 1000 0 if P ≤ 200	High level of benefit for the highest number of pedestrians	
4	What is the overall total impact on vehicles using the intersection? What is the increase in intersection total or average delay (%) (a) What is the through phase V/C ratio of the signal with LPI (b) What is the total 8-Hour vehicular volume at the intersection (c)		0 to -6	Overall impact = -1 x  Min(A,B) x C  , where A={ 0 if a < 10%, -1 if 10% < a ≤ 30% -2 if a > 30%} B={ 0 if b < 0.9 -1 if b ≥ 0.9} C={-1 if C < 16,000 -2 if c ≥ 16,000 and < 30,000 -3 if c ≥ 30,000 }	High level of negative impact on traffic operations for a large number of drivers	
5	What is the rate of annual collisions between pedestrians and left or right turning vehicles per 1000 8-hour pedestrian crossings at the specific crossing in the past 5 years?		0 to 2	None = 0 Between 0 and 3 = 1 Greater than 3 = 2	High level of potential safety improvement	
6	What is the rate of conflicts* [conflicts per 1000 8-hour observations] between pedestrians and left or right turning vehicles at the specific crossing during 8 hours of observation during area specific pedestrian peak and non peak periods?**		0 to 2	None = 0 Between 0 and 3 = 1 Greater than 3 = 2		
7	How far is the location from the nearest elementary school?		0 to 2	2 if e = 5 1 if 4 ≤ e < 5 0 if e < 4	High level of benefit to slower walking pedestrians: elderly	
8	TOTAL SCORE					

EXHIBIT "B"

Pedestrian Leading Interval Warrant																											
#	Intersection	Left turn mode	Intersection		Safety concerns		Pedestrian Volume		% increase total delay		Through phase		Total 8 hour vehicular		Ped/turning vehicle per 1000 - 8hr ped crossing in the last 5 year			Rate of conflict		Distance from the		Elderly activity		Total Score	Warrant	Notes	
			Type	Score	Safety concerns	Score		Score	%	Score	%	Score		Score	Ped collision / 5 years		score		score		score		Score				
1	Brady @ Minto	Perm	c	0	None	0	1412	2	2.3	0	0.1	0	12324	-1	4	5.64	2	5.65	2	No	0	yes	2	7	YES	Crossing Brady	
2	Notre Dame @ King	Perm	c	0	V, CR, B, Bus location	2	588	1	1	0	1	0	19628	-2	5	2.94	1	2.94	1	No	0	yes	2	5	YES	Crossing Notre Dame	
3	Notre Dame @ St Anne	Perm	c	0	O B	1	743	1	1.4		1.1	0	17079	-2	3	2.23	1	2.23	1	350	1	yes	2	5	YES	Crossing Notre Dame	
4	Notre Dame @ Wilma	Perm	c	0	O	1	254	1	0		1	0	15996	-1	3	0.76	1	0.76	1	No	0	yes	2	5	YES	Crossing Notre Dame	

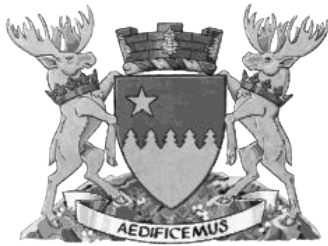
- Visibility
- Offset
- Wide Turning Radius
- Crosswalk Placement
- Obstruction
- Blind sun angle
- V
- O
- R
- C
- B
- S

EXHIBIT "C"

Leading Pedestrian Interval Suitability Assessment Work Sheet

#	Intersection	Left turn mode	Intersection		Safety concerns		Pedestrian Volume		% increase total delay		Through phase		Total 8 hour vehicular		Ped/turning vehicle per 1000 -8hr ped crossing			Rate of conflict		Distance from the		Elderly activity		Total Score	Warrant	Notes
			Type	Score	Safety concerns	Score		Score	%	Score	%	Score		Score	Ped collision / 5 years		score		score		score		Score			
1	Lasalle @ Lansing	Perm	C	0	None	0	303	1	10.7	0	11.1	-1	14,610	-1	5	1.51	1	1.51	1	No	0	yes	2	3	NO	Crossing Lasalle
2	Barrydowe @ Westmount	Perm	C	0	None	0	101	0	0.5	0	21	-1	12,324	-1	3	0.3	1	0.3	1	270	1	yes	2	3	NO	Crossing Barry Downe
3	Falconbridge @ Penman	Perm	T	2	None	0	105	0	0	0	0	0	9,781	-1	3	0.32	1	0.32	1	500	1	med	1	3	NO	Crossing Falconbridge
4	Lasalle @ Auger	Perm	T	2	None	1	195	0	1.2	0	0	-1	19,113	-2	4	0.78	1	0.78	1	535	1	yes	2	3	NO	Crossing Lasalle
5	MR80 @ Main	Prot	C	0	O	1	127	0	3.2	0	0	-1	19,722	-2	3	0.38	1	0.38	1	280	1	yes	2	3	NO	Crossing MR80
6	Paris @ Brady	Prot & Perm	C	0	B	1	688	1	2	0	0	-1	26,319	-2	3	2.06	1	2.06	1	No	0	yes	2	3	NO	Crossing Paris
7	Paris @ Walford	Perm	C	0	C,R, O	0	50	0	0.3	0	1	-1	19,781	-2	3	0.150	1	0.15	1	400	1	yes	2	2	NO	Crossing Paris
8	Regent @ Long Lake	Prot	C	0	O, R	1	453	1	5	0	3.5	-1	28,169	-2	5	2.27	1	2.27	1	No	0	yes	2	3	NO	Crossing Regent
9	Elm @ Regent	Prot & Perm	C	0	V,O, B	1	246	1					9,914	-1	3	0.73	1	0.74	1	No	0	yes	2	5	NO	Crossing Elm
10	Frood @ College	Prot & Perm	C	0	V,O, B	1	667	1	10.3				7,285	-1	3	2	1	2	1	250	1	yes	2	6	NO	Crossing College
11	Notre Dame @ Elm	Prot & Perm	C	0	R O B	1	1783	2					22,738	-2	3	5.35	2	5.35	2	No	0	yes	2	7	NO	Crossing Notre Dame Crossing Elm

- Visibility
- Offset
- Wide Turning Radius
- Crosswalk Placement
- Obstruction
- Blind sun angle
- V
- O
- R
- C
- B
- S



# City of Greater Sudbury Charter

**WHEREAS** Municipalities are governed by the Ontario Municipal Act, 2001;

**AND WHEREAS** the City of Greater Sudbury has established Vision, Mission and Values that give direction to staff and City Councillors;

**AND WHEREAS** City Council and its associated boards are guided by a Code of Ethics, as outlined in Appendix B of the City of Greater Sudbury's Procedure Bylaw, most recently updated in 2011;

**AND WHEREAS** the City of Greater Sudbury official motto is "Come, Let Us Build Together," and was chosen to celebrate our city's diversity and inspire collective effort and inclusion;

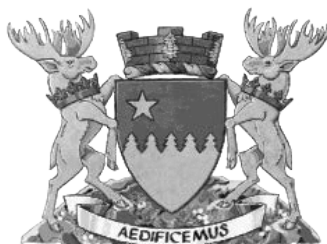
**THEREFORE BE IT RESOLVED THAT** Council for the City of Greater Sudbury approves, adopts and signs the following City of Greater Sudbury Charter to complement these guiding principles:

**As Members of Council, we hereby acknowledge** the privilege to be elected to the City of Greater Sudbury Council for the 2014-2018 term of office. During this time, we pledge to always represent the citizens and to work together always in the interest of the City of Greater Sudbury.

**Accordingly, we commit to:**

- Perform our roles, as defined in the Ontario Municipal Act (2001), the City's bylaws and City policies;
- Act with transparency, openness, accountability and dedication to our citizens, consistent with the City's Vision, Mission and Values and the City official motto;
- Follow the Code of Ethical Conduct for Members of Council, and all City policies that apply to Members of Council;
- Act today in the interest of tomorrow, by being responsible stewards of the City, including its finances, assets, services, public places, and the natural environment;
- Manage the resources in our trust efficiently, prudently, responsibly and to the best of our ability;
- Build a climate of trust, openness and transparency that sets a standard for all the City's goals and objectives;
- Always act with respect for all Council and for all persons who come before us;
- Ensure citizen engagement is encouraged and promoted;
- Advocate for economic development, encouraging innovation, productivity and job creation;
- Inspire cultural growth by promoting sports, film, the arts, music, theatre and architectural excellence;
- Respect our historical and natural heritage by protecting and preserving important buildings, landmarks, landscapes, lakes and water bodies;
- Promote unity through diversity as a characteristic of Greater Sudbury citizenship;
- Become civic and regional leaders by encouraging the sharing of ideas, knowledge and experience;
- Work towards achieving the best possible quality of life and standard of living for all Greater Sudbury residents;





# Charte de la Ville du Grand Sudbury

**ATTENDU QUE** les municipalités sont régies par la Loi de 2001 sur les municipalités (Ontario);

**ATTENDU QUE** la Ville du Grand Sudbury a élaboré une vision, une mission et des valeurs qui guident le personnel et les conseillers municipaux;

**ATTENDU QUE** le Conseil municipal et ses conseils sont guidés par un code d'éthique, comme l'indique l'annexe B du Règlement de procédure de la Ville du Grand Sudbury dont la dernière version date de 2011;

**ATTENDU QUE** la devise officielle de la Ville du Grand Sudbury, « Ensemble, bâtissons notre avenir », a été choisie afin de célébrer la diversité de notre municipalité ainsi que d'inspirer un effort collectif et l'inclusion;

**QU'IL SOIT RÉSOLU QUE** le Conseil de la Ville du Grand Sudbury approuve et adopte la charte suivante de la Ville du Grand Sudbury, qui sert de complément à ces principes directeurs, et qu'il y appose sa signature:

**À titre de membres du Conseil**, nous reconnaissons par la présente le privilège d'être élus au Conseil du Grand Sudbury pour le mandat de 2014-2018. Durant cette période, nous promettons de toujours représenter les citoyens et de travailler ensemble, sans cesse dans l'intérêt de la Ville du Grand Sudbury.

**Par conséquent, nous nous engageons à :**

- assumer nos rôles tels qu'ils sont définis dans la Loi de 2001 sur les municipalités, les règlements et les politiques de la Ville;
- faire preuve de transparence, d'ouverture, de responsabilité et de dévouement envers les citoyens, conformément à la vision, à la mission et aux valeurs ainsi qu'à la devise officielle de la municipalité;
- suivre le Code d'éthique des membres du Conseil et toutes les politiques de la municipalité qui s'appliquent à eux;
- agir aujourd'hui pour demain en étant des intendants responsables de la municipalité, y compris de ses finances, biens, services, endroits publics et du milieu naturel;
- gérer les ressources qui nous sont confiées de façon efficiente, prudente, responsable et de notre mieux;
- créer un climat de confiance, d'ouverture et de transparence qui établit une norme pour tous les objectifs de la municipalité;
- agir sans cesse en respectant tous les membres du Conseil et les gens se présentant devant eux;
- veiller à ce qu'on encourage et favorise l'engagement des citoyens;
- plaider pour le développement économique, à encourager l'innovation, la productivité et la création d'emplois;
- être une source d'inspiration pour la croissance culturelle en faisant la promotion de l'excellence dans les domaines du sport, du cinéma, des arts, de la musique, du théâtre et de l'architecture;
- respecter notre patrimoine historique et naturel en protégeant et en préservant les édifices, les lieux d'intérêt, les paysages, les lacs et les plans d'eau d'importance;
- favoriser l'unité par la diversité en tant que caractéristique de la citoyenneté au Grand Sudbury;
- devenir des chefs de file municipaux et régionaux en favorisant les échanges d'idées, de connaissances et concernant l'expérience;
- viser l'atteinte de la meilleure qualité et du meilleur niveau de vie possible pour tous les résidents du Grand Sudbury.