

## USE OF FLASHING LIGHTS ON SCHOOL BUSES

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### EXECUTIVE SUMMARY

Administration has previously investigated the issue of allowing school buses to use flashing red lights and stop arms when children are getting on and off the bus. The City of Calgary amended its Traffic Bylaw in 1986 to prohibit the use of flashing lights on school buses within the city, except on rural-type roads. A similar prohibition is in place in Edmonton, Grande Prairie, Lethbridge, Medicine Hat and Red Deer, as well as other smaller urban centres in Alberta.

In their professional opinion, and with input from key stakeholders, Administration does not recommend lifting this prohibition. The perceived benefits of using these mechanisms in an urban environment do not outweigh the increased risks that the change in practice would create for children and road users in Calgary.

The main reasons behind the decision are that there are many safe crossings at marked crosswalks and intersections in an urban setting. Motorists generally expect pedestrians to cross the street at these locations, and school children are taught to properly use them. The use of flashing lights and stop arms on buses encourages children to cross the street mid-block instead, wherever the bus has stopped to load or unload passengers.

Many other Provinces and States do require buses to always use flashing lights and stop arms when children are boarding or leaving the vehicle, including British Columbia, Ontario, California and New York State. Motorists are required by law to stop in both directions of traffic when the flashing light systems are activated. However, reports of motorists that fail to stop for these warning lights are common, and cause for serious concern. A 2016 study conducted in Mississauga, Ontario revealed that on average a motorist failed to stop for the flashing lights and stop arm 2.5 times per bus per day. The Mayor of Mississauga had this response to the findings (April 12, 2017):

*"The pilot project shows that our children are being subjected to a high rate of risk of injury or fatality every time they exit school buses because a concerning number of drivers simply do not stop when school buses stop to let off."*

Due to the frequency of vehicles that fail to stop for school buses, many jurisdictions now require video cameras to be installed on the bus to record these incidents for the purpose of enforcement. This rate of non-compliance is a key consideration against making changes to the current practice in Calgary.

Administration believes the current approach and on-going pedestrian safety education efforts by all stakeholders have contributed to a safer environment for children by teaching proper methods for crossing a roadway at intersections where motorists expect to watch for pedestrians.

### ADMINISTRATION RECOMMENDATION(S)

That the SPC on Community and Protective Services recommend that Council receive this Report for information only.

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### **PREVIOUS COUNCIL DIRECTION / POLICY**

At the 1999 March 8 Regular Meeting of Council, report TTP99-06 Flashing Light Policy-School Buses was approved by Council. The accepted recommendations were that no changes be made to the Traffic Bylaw concerning alternating flashing lights on school buses, and that the Transportation Department embark on an education program directed at motorists to safe practices around school buses loading or unloading.

At the 2014 March 31 Regular Meeting of Council, the Notice of Motion 2014-16 Use of Flashing Lights on School Buses was approved by Council and directed Administration as follows:

“NOW THEREFORE BE IT RESOLVED that Administration explore amending Bylaw 26M96, permitting the use of flashing lights and/or similar such mechanism/s as described in the Traffic Safety Act, on school buses throughout the City of Calgary for the protection of children while entering and exiting, including but not limited to discussions with the school boards and Calgary Police Service.”

At the 2014 July 21 Combined Meeting of Council, report TT2014-0467 Use of Flashing Lights on School Buses was approved by Council. The accepted recommendations were that no changes be made to the Traffic Bylaw concerning the use of alternating flashing lights on school buses. Administration was to review the list of rural-type roads where flashing lights may be used, and to work with external stakeholders to increase public awareness of school bus safety and ensure the most appropriate pick-up and drop-off locations for school buses are selected.

At the 2017 July 31 Combined Meeting of Council, the Notice of Motion 2017-22 Use of Flashing Lights on School Buses was approved by Council. Administration was directed to return to Council in 2017 September with a response to the following:

“NOW THEREFORE BE IT RESOLVED that Administration explore amending Bylaw 26M96 mandating the use of flashing lights and/or similar such mechanism/s as described in the Traffic Safety Act, on school buses throughout the City of Calgary for the protection of children while entering and exiting, including but not limited to discussions with both school boards, private schools, The Calgary Police Service, and major bus companies operating within the City.”

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### **BACKGROUND**

The Use of Highway and Rules of the Road Regulation (AR 304/2002) of the Traffic Safety Act of Alberta mandates the use of alternately flashing red lights and a stop arm on all school buses when loading and unloading passengers on a highway. When these mechanisms are activated, motorists on both sides of the street are required to come to a stop, except where the street is divided by a median, and may not proceed to drive again until the lights stop flashing.

However, the Act does give a municipality the ability to waive this requirement by passing a bylaw to that effect. The Calgary Traffic Bylaw 26M96 prohibits the use of the flashing light system by a school bus in the city. This prohibition was first added to the Traffic Bylaw (then 40M80) by Council in 1986 November. The bylaw makes an exception for rural-style streets within the city that do not have a curb on both sides of the street, as these streets often lack safe crossing locations or signage. This exception was updated in 2015 June, replacing a list of rural-type roads that were in Schedule L of the bylaw. That list of specific roads was out of date, as roads had changed due to development and new rural roads had been annexed into the city.

Many other Provinces and States do require the use of flashing light systems on school buses in all urban areas, as well as rural highways. This includes British Columbia, Ontario, California and New York State.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

In 2014, Administration completed a study of the use of flashing lights by school buses (Attachment 2). Administration conducted research, reviewed the practices of other urban municipalities, and engaged key internal and external stakeholders, including the Calgary Board of Education, the Calgary Catholic School District, the Alberta Motor Association, the Alberta Student Transportation Advisory Council and the Calgary Police Service.

The rationale for the prohibition of use of flashing lights and stop arms by buses included five primary items:

1. The use of flashing red lights and stop arms effectively creates a mid-block crossing and encourages children to cross the street mid-block, rather than at crosswalks and intersections;
2. Non-compliance with flashing red lights and stop arms is an identified problem in jurisdictions that mandate their use. This puts children at risk for collisions;
3. There are frequent opportunities for safe crossing at marked crosswalks and intersections in an urban setting;
4. The bus itself creates a visibility barrier for approaching vehicles; and
5. Stopping traffic mid-block in both directions when a school bus loads or unloads children would result in impacts to vehicular traffic flow and may increase rear-end collisions.

Bus companies have shared that their stops last an average of 3 minutes each for regular routes, but can extend to 7 to 10 minutes when assisting students that have complex needs, including physical disabilities. The concern is that some drivers would not be patient with the length of time they would need to stop, causing poor and unsafe choices to be made in frustration.

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The 2014 technical report recommended the use of flashing amber hazard lights when school buses are loading and unloading passengers, as the Alberta Traffic Safety Act requires that motorists pass with care when the flashing amber lights are activated. This is to increase driver attentiveness which may reduce vehicle speeds when passing school buses and reduce the seriousness of collisions, should they occur.

### **Failing to Stop for Flashing Lights**

In cities that require school buses to use the flashing light system, reports of motorists that fail to stop for these warning lights are common, and cause for serious concern. In a 2013 nationwide survey, school bus drivers in the United States reported 85,279 incidents of motorists failing to stop in a single day. More recently, a Canadian study in 2015 found stop violation rates of 2.9 percent in rural areas and 7.1 percent in urban areas; only rural school districts were included from Alberta.

Due to concerns about the number of vehicles that do not stop for school buses, The Ontario government is currently considering Bill 94, The Highway Traffic Amendment Act (School Bus Camera Systems) which would allow for tickets to be issued to motorists who fail to stop, based on video evidence from cameras mounted on school buses. The 2016 camera pilot project conducted in Mississauga, Ontario revealed that on average a motorist failed to stop for the flashing lights and stop arm 2.5 times per bus per day. The Mayor of Mississauga had this response to the findings:

*"The pilot project shows that our children are being subjected to a high rate of risk of injury or fatality every time they exit school buses because a concerning number of drivers simply do not stop when school buses stop to let off."* (April 12, 2017)

The documented frequency of vehicles failing to stop for the flashing light system on school buses is a key consideration against making changes to the current practice in Calgary.

### **Low Frequency of Incidents in Calgary**

In the past 30 years, there have been five recorded incidents involving student-vehicle collisions near school bus drop-offs. None of these collisions have resulted in a fatality and the majority have been limited to minor injuries. Common to all of these collisions is that the children were crossing mid-block, contrary to school bus safety education and school bus company policies. On more than one occasion, the student was encouraged to cross by parents or caregivers on the opposite side of the road. The incident reviews found that the motorists were deemed to be passing the bus with care and at a reasonable speed.

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### **Safety Education and Action**

The City has been actively improving conditions for pedestrians in recent years. The Pedestrian Strategy that was adopted by Council in 2016 identified 49 actions which Administration is continuing to implement, including many safety focused initiatives. Some of these enhancements include the installation of Rectangular Rapid Flashing Beacons in high pedestrian volume areas, with 75 planned for 2017, and the addition of side-mounted flashers to existing pedestrian corridors with overhead flashing lights. The City is improving the visibility of pedestrians by piloting the use of fluorescent yellow-green crosswalk signs, crosswalk poles with reflective sleeves, and has completed the upgrade of 80,000 street lights to LED technology.

Beginning in 2014, The City harmonized the School Zone and Playground Zone times in Calgary to 7:30 AM-9:00 PM, and converted most School Zones to Playground Zones by the end of 2015, resulting in a reduced speed zone every day of the year. The University of Calgary recently evaluated the change to Playground Zones, and found that the change resulted in improved compliance, reduced speed, reduced collisions, and improved knowledge of start/end times, with respondents saying that having one zone and set times is easier to remember. Administration continues to support safe crossings for school children through the AMA Patrol Program, and collaborates with our partners at the Calgary Police Service, School Boards, and School Bus providers to ensure that our traffic safety messaging is consistent. As a community of organizations, we are all committed to continuous improvement in safety of school aged children, and we are collectively striving for zero injuries or fatalities, as identified in the Safer Mobility Plan.

### **Option to Reinstate Flashing Lights**

However, Council does have the option to amend the bylaw to require buses to use the flashing lights system, and align The City's practices with jurisdictions in other Provinces.

Council would need to amend the Calgary Traffic Bylaw 26M96 by removing sections 38(1) and 38(1.1). This would reinstate the requirement for school buses to always activate flashing red lights and stop arms while loading or unloading passengers on a street in the city, as per the provincial Act. All other vehicles on the street would be required to stop before reaching the school bus:

- a. When approaching the school bus from the rear, if the school bus is on a street that is divided by a median into two separate roadways, or
- b. When approaching the school bus from the front or rear, if the street is not divided by a median into two separate roadways.
- c. Once stopped, the vehicles shall not proceed to drive past the school bus until the flashing red lights are turned off, or the driver signals the vehicle to proceed.

The amendment should go into effect no earlier than 2018 September 1, to provide appropriate notice and information to the public, schools, and transportation companies prior to the next school year.

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Funding should be provided as part of the 2018 budget adjustment process to support the implementation of this decision, including public education campaigns, enforcement strategies, and video camera trials to appropriately manage the risks of non-compliance as Calgarians adjust to the change. A public education campaign is estimated to cost \$400,000, including video, web-based and printed materials, as well as paid advertising on television, radio and social media. The costs of additional public safety and enforcement resources that would be required to adequately monitor and respond to this change in practice have not been estimated at this time.

Capital funding should be provided as part of the 2018 budget adjustment to purchase video cameras for 25 school buses as a pilot project, to evaluate the feasibility of issuing tickets for illegal passing violations using video evidence. Estimated costs range up to \$15,000 per bus for hardware, software and operations, based on other pilot projects in Canada and the United States.

### **Stakeholder Engagement, Research and Communication**

Administration contacted key stakeholders involved in the safe transportation of school children in Calgary: The Calgary Police Service (CPS), the Calgary Board of Education (CBE), the Calgary Catholic School District (CCSD), the Alberta Motor Association (AMA), the Alberta Student Transportation Advisory Council (ASTAC) and the school bus industry Student Transportation Association of Alberta (STAA). The stakeholders did not recommend changes to require the use of the flashing red light system in Calgary.

The First Student school busing company commented on the importance of ongoing safety education and training for children and parents. They expressed that a change in the flashing light requirements would require significant effort and resources for both education and enforcement, and likely take 3 years or more to properly educate motorists and modify behaviour. During that time of transition, there would be increased risk to students due to a false sense of security that the flashing lights system provides.

### **Strategic Alignment**

The recommendations in this report align with the goals identified in the Calgary Transportation Plan as well as Sustainability Principles for Land Use and Mobility. These include promoting safety for all transportation system users and providing transportation services in a safe, effective, affordable and efficient manner.

### **Social, Environmental, Economic (External)**

The issue of child safety when loading or unloading from school buses is a key social issue, as is any matter regarding safety of children in the city.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

Administration's recommendations will have no impact to current or future operating budgets.

#### **Current and Future Capital Budget:**

Administration's recommendations will have no impact to current or future capital budgets.

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### **Risk Assessment**

Administration's recommendation is to maintain the current practice, which was supported by Council in 2014 July. The safety concerns associated with allowing the use of flashing lights on school buses and making changes to the Traffic Bylaw 26M96 are summarized in the technical report (Attachment 2). They include the promotion of mid-block crossing as an acceptable means to cross the roadway, and the possibility of driver error or inattention to the flashing light system creating an increased risk to children.

### **REASON(S) FOR RECOMMENDATION(S):**

Administration has investigated the use of flashing lights on school buses when loading and unloading children in Calgary, and consulted with key stakeholders. In their professional opinion, making a change to the requirements for buses to use the flashing lights is not considered to be a safer practice for students and other road users.

### **ATTACHMENT(S)**

1. Notice of Motion 2017-22
2. 2014 Technical Report – Use of Flashing Lights and Stop Arms for School Buses