

CITY OF FORT SASKATCHEWAN

SCHOOL BUS FLASHING LIGHTS

Motions:

Following the Non-Statutory Public Hearing:

1. That Council give second reading to Bylaw C21-14, which repeals Bylaw C28-85 and amends Traffic Bylaw C4-09 – Flashing Warning Lights on School Buses, with an effective date of August 24, 2015.
2. That Council give third reading to Bylaw C21-14, which repeals Bylaw C28-85 and amends Traffic Bylaw C4-09 – Flashing Warning Lights on School Buses, with an effective date of August 24, 2015.

Administrative Recommendation:

That Council not approve second and third reading of Bylaw C21-14.

Background:

At the August 26, 2014 regular Council meeting Bylaw C21-14 was given first reading. Council also directed that a Non-Statutory Public Hearing be scheduled for October 14, 2014 prior to second reading of the bylaw. If approved, Bylaw C21-14 would remove the current restriction on school buses from using their flashing amber and red lights, and stop arm, while loading and unloading students within the City. The removal of this legislation would effectively require all school buses to use their lights and stop arms at each school bus stop, with the exception of the loading zones at the schools.

In 1986 the Provincial Government removed their legislation relating to school bus operations and encouraged municipalities to consider prohibiting the use of the traffic control equipment by school buses within urban areas. The City of Fort Saskatchewan followed this recommendation and created Bylaw C28-86 at that time. In 2009, Council passed Traffic Bylaw C4-09 which further prohibited the use of school bus flashing lights and stop arms within the City limits.

The use of amber and red flashing lights and stop arms by school buses was originally intended for rural areas as they typically have higher speed limits with no curbs, stop signs, signals, crosswalks, or other traffic control devices to properly assist pedestrians to cross the road.

Topic Identification/Outcomes:

Traffic safety, including safe student transportation is a priority for our School Boards, the City of Fort Saskatchewan and the RCMP. Administration has investigated the use of flashing lights and stop arms by school buses and consultations were held with important stakeholders: the Provincial Office of Traffic Safety, Fort Saskatchewan Traffic Safety Working Group, Fort Saskatchewan Policing Committee, Elk Island Catholic and Public Student Transportation Authorities, the Provincial School Bus Operators Association, and other municipalities. Everyone agrees that our shared goal is to create the safest environment possible for our children to travel to and from school.

Some incidents involving students crossing roadways at or near bus stops have occurred, which have raised concerns, and resulted in reviews and reports to ensure we are doing our best to protect children. Camrose conducted a review in 2011 that resulted in them retaining their

practice of prohibiting the use of lights and stop arms. Red Deer also prohibits use of this equipment, and conducted a review in 2011 as a result of citizen concerns. A copy of Red Deer's report is attached as Appendix "A". The City reconfirmed the prohibition of the use of flashing lights as appropriate for the safety of students. Calgary recently reviewed their practice of not using flashing lights, and their comprehensive report is attached as Appendix "B". As a result of an incident, St. Albert conducted a review of their school bus operations, resulting in retaining their practice of not using flashing lights. They have undertaken an extensive public education campaign called "Safe Journeys to School."

Although there are a variety of practices for school bus operations in Alberta, the majority of larger centers, Calgary, Edmonton, Red Deer, Lethbridge, St. Albert, Camrose, Strathcona (urban area only) and Grande Prairie do not use flashing lights and stop arms. The rationale followed is:

1. The use of flashing lights and stop arms encourages students to cross the street at bus stop locations, rather than crosswalks or intersections. This can create a false sense of security with an expectation that traffic will always stop. There may be decreased pedestrian vigilance in these situations.
2. Drivers failing to stop when lights are activated are referred to by the industry as "fly byes", and they are a growing problem across the province.
3. There are frequent opportunities for safe crossing in an urban setting.
4. The school bus creates a visibility barrier for approaching vehicles, whereas crossing at intersections results in the improved visibility of pedestrians.
5. Stopping traffic in both directions when a school bus loads or unloads children impacts vehicular traffic flow and may increase the chance of rear end collisions.

It was identified, during stakeholder consultations that there would be a benefit to having the School Board Transportation Authority groups meet regularly with the Traffic Safety Working Group. This would promote the shared goal of safe student transportation by jointly reviewing the City's bus stops, crosswalks and practices. Increased efforts could focus on public education and promoting safe practices, including slowing down when passing school buses.

Should Council enact legislation requiring a change in school bus operations in Fort Saskatchewan, Protective Services and the Traffic Safety Working Group will develop an action plan to prepare for the smooth transition to this new requirement.

Alternatives:

City Council may recommend:

1. That Council give second and third reading to Bylaw C21-14, which repeals Bylaw C28-85 and amends Traffic Bylaw C4-09 – Flashing Warning Lights on School Buses, with an effective date of August 24, 2015.
2. That Council not approve second and third reading of Bylaw C21-14.

Preferred Alternative:

That Council not approve second and third reading of Bylaw C21-14, for the following reasons:

1. There is not substantive evidence that a change is needed or will result in a safer environment for bus users or the motoring public.
2. Based on safe pedestrian practices and the good safety record of our School Boards in managing safe student transportation, a change in practice is not warranted.
3. The likelihood of safety concerns arising due to traffic congestion during peak periods or risky driver behavior, such as passing when unsafe.
4. Stakeholder consultation agreed that the current practice is safest for our community.
5. Other major communities in close proximity have the same current practice as Fort Saskatchewan, and change could cause driver confusion. If a change is to be made it needs to be done across the region, preferably through standardized Provincial legislation.

Staff Capacity:

Should Fort Saskatchewan make this change in school bus operating requirements, Elk Island School Boards would take on the task of re-educating bus drivers and students on safe practices.

City of Fort Saskatchewan Protective Services staff and RCMP hold the responsibility to educate citizens and drivers of any new bylaw and driver requirements in our City, and enforce all regulations. As this is a substantive change there will be an impact on RCMP and Municipal Enforcement hours. Further allocation of internal resources would be required and would take staff away from other priorities.

Financial Implications:

Public education and advertising would be required for a minimum three month period prior to implementation of the new bylaw. Drivers in the City come from many locations and an education campaign would need to extend beyond the City's borders. This campaign would require \$10,000 for a variety of multi-media advertising, roadside signage and educational materials/presentations.

Community Sustainability Plan:

Consideration of this issue speaks to the City of Fort Saskatchewan being a safe and welcoming community.

External Communications/Participation:

Should the City decide to require school buses to use their traffic control equipment, significant driver education would be required for the community. The use of this equipment is not common in larger urban centers and drivers would need to be made aware of the requirement to stop at each bus loading and unloading location.

Enclosures:

1. Bylaw C21-14
 2. Appendix "A" – Red Deer School Bus Operations Report
 3. Appendix "B" – Calgary School Bus Operations Report
 4. Appendix "C" – Frequently Asked Questions
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Prepared/Approved by:	Josie Krokis Acting General Manager, Corporate & Protective Services	Date: October 7, 2014
Reviewed by:	Kelly Kloss City Manager	Date: October 8, 2014
Submitted to:	City Council	Date: October 14, 2014



November 02, 2011

School Bus Flashing Lights

Engineering Services

Report Summary & Recommendation:

A resolution was passed during the regular Council meeting held on Monday, October 17, 2011 directing the administration to review its prohibition of the activation of flashing red lights or stop arms of a school bus within the City in light of citizen concerns, and to consider revising Bylaw 3186/97 to permit their use within City limits; and provide a report to Council, by November 14, 2011.

After reviewing the history and the rationale for prohibiting the activation of flashing red lights or stop arms of a school bus on roads that have curbs and gutters within the City, Engineering reconfirmed that the current prohibition is appropriate for the safety of the students. Engineering does not support revising the current Traffic Bylaw to allow school buses to use flashing lights or stop arms to stop traffic on City's roads that have curbs and gutters.

City Manager Comments:

LGS Only - City Manager Comments

Proposed Resolution

LGS Only - Proposed Resolutions

Report Details

Background:

The practice of school buses stopping traffic with flashing red lights was originally intended for use on rural roads only. Rural roads usually have a higher operating speed limit, with no curbs and gutters, stop signs, signals, crosswalks or other traffic control devices to properly assist pedestrians to cross the road. In the rural application, the use of flashing red lights is extremely effective in providing safety for the children.

Due to safety concerns, the Provincial Government had never allowed school buses to stop traffic on roadways with a posted speed limit of 50km/h or lower until 1986. In 1986, the Provincial Government revised the then *Highway Traffic Act* to allow municipalities to regulate school bus flashing lights within their jurisdictions. The Minister of Transportation at the time also urged Alberta municipalities to incorporate the necessary regulations in their Traffic Bylaws before the revised *Highway Traffic Act* came into effect.

The safety reasons for not allowing school buses to stop traffic on City streets can best be summarized by one paragraph of the letter provided by the Minister of Transportation at the time:

“In some low speed urban situations, it is better to require students on school buses to use existing traffic controls such as stop signs or signals and crosswalks than to depend on school bus warning lights for protection. Where well marked intersections and roadways are present, it is actually safer to use those markings and devices than to use flashing school bus lights. With this in mind, the amendment authorizes large urban centres of 10,000 or more population to pass a bylaw that exempts school buses from the requirement to use alternately flashing lamps on any street or roadway where the speed limit is 50km/h or less.”

Major urban centres like Calgary, Edmonton, Red Deer, Lethbridge and St. Albert had subsequently adopted bylaws to prohibit school buses from using flashing red lights or stop arms to stop traffic within their cities.

Discussion:

The existing City Bylaw to prohibit school buses to use flashing lights and stop arms to stop traffic dates back to 1982. It was adopted by Council at the time based on consultation with the Prairie Bus Lines, the Transit Department, the RCMP, the City Solicitor and the Engineering Services Department. Traffic Bylaw 2800/82, Section 100.14 states the following:

“The use of school buses of flashing red lights or stop arms is prohibited on highways within the City having a speed limit of 50km/h or less.”

In 1995, it was updated to allow their use on City’s rural roads and adopted by Council at the time. Traffic Bylaw 2800/B-95, Section 21, Section 100.14 which states:

“The use of school buses of flashing red lights or stop arms is prohibited on highways that are constructed with curbs and gutters.”

It was further consolidated and adopted by Council in 1997 and the current Traffic Bylaw 3186/97, Part 10, Section 100 – Operation of School Buses, states:

“No person shall activate the flashing red lights or stop arms of a school bus on any highway where such highway has been constructed with curbs and gutters.”

Analysis:

In an urban environment, if school buses are allowed to stop traffic on major arterials like Gaetz Avenue, 30 Avenue, 32 Street, 67 Street, there will be serious disruption of traffic flow, signal coordination, and safety concern as most motorists would not be expecting a stop situation. On multi-lane or divided roads, some motorists in the opposing direction may be confused whether or not they should be stopping for children while they are still crossing in the opposing lanes. This increases the potential for rear-end collisions and the pedestrians may be placed in severe conflict with the motorists if they try to cross mid-blocks.

On local streets, allowing buses to stop randomly mid-block and have children cross the street in front of the school buses is unsafe and increases the pedestrian accident risk. This contradicts what children are learning about traffic safety (basically, to cross at the corner and not to cross the street from between parked cars). Children may rely on stop arms instead of other measures to cross the street (like school patrols, signals and pedestrian crosswalks) and develop a false sense of security that all drivers will stop when the stop arm is activated. The onus of safety has to be the responsibility of the pedestrian to be alert and cautious while crossing any street. Current education presented to children is to cross only at intersections, and signal their intentions to cross the street in accordance with the *Alberta Traffic Safety Act*. Although the alternative crossing location may not be the most direct route, it is felt to be the safest route and that safety, not convenience, is the purpose for the Traffic Bylaw.

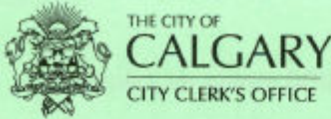
The Transit Department is under contract to the school boards in providing student ride services but does not have any buses equipped with flashing red lights and stop arms. Not only would adding flashing red lights and stop arms be an added capital expenditure, it would

also potentially cause confusion to the motorists and students as some buses having flashing red lights and others not.

Over the past years, there were one to two inquiries received by the Engineering Services Department on the same subject every year. Based on the low number of inquiries, it is a good indication that the Bylaw is adequate. Engineering Services does not support revising the current Traffic Bylaw to allow school buses to use flashing lights or stop arms to stop traffic on City's roads that have curbs and gutters. Transportation staffs of both the public and catholic schools have been consulted on this matter. Both parties are in support with the recommendation being presented in this report.

Financial Implications

There are no financial implications with the recommendation in this report.

NM 2014-16
RECEIVED

2014 MAR 20 A 9:46

THE CITY OF CALGARY
CITY CLERK'S
BA**NOTICE OF MOTION**
CC 661 (R2009-05)

NM2014 – March 20

RE: USE OF FLASHING LIGHTS ON SCHOOL BUSES

COUNCILLOR JOE MAGLIOCCA & COUNCILLOR PETER DEMONG

WHEREAS currently Bylaw 26M96 requires school buses to use flashing lights in only a few select areas of the City while picking up or dropping off of school children;

AND WHEREAS there has recently been another incident where a 7 year old child was struck by a vehicle while exiting a school bus in the community of Kincora;

AND WHEREAS tragedies of this nature are completely preventable;

AND WHEREAS the City of Calgary has been granted the authority to adjust the operating times of playground zones city wide;

AND WHEREAS the City of Calgary will be implementing and signing these new times in the fall of 2014;

AND WHEREAS most school buses pick up and drop off children in playground zones;

AND WHEREAS the City of Calgary currently has a Bylaw regarding the added protective benefit of regulating the use of flashing lights on school buses when loading and unloading children in only some areas of the City.

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 the school boards;

AND FURTHER BE IT RESOLVED that this report return concurrently with the upcoming report on the implementation of the new playground zone times.

Signature of Member(s) of Council

USE OF FLASHING LIGHTS ON SCHOOL BUSES

EXECUTIVE SUMMARY

Administration has investigated the use of flashing lights and stop arms by school buses when they are loading or unloading children in the City. It has been found that the perceived benefits of using these mechanisms do not outweigh the risks they create for children and road users. A public education campaign should be developed for educating motorists, parents and children about safe procedures to be followed around school buses loading or unloading, and proper methods for crossing a roadway.

ADMINISTRATION RECOMMENDATION(S)

That the SPC on Transportation and Transit recommends that Council:

1. Direct administration to review Schedule L of the Calgary Traffic Bylaw 26M96;
2. Direct administration to work collaboratively with external stakeholders to develop a public awareness campaign regarding school bus safety; and
3. Direct administration to work collaboratively with external stakeholders to ensure that the most appropriate pick-up and drop-off locations for school buses are selected.

RECOMMENDATION OF THE SPC ON TRANSPORTATION AND TRANSIT, DATED 2014 JUNE 18:

That the Administration Recommendations contained in Report TT2014-0467 be approved.

Oppositions to Recommendation 1:

Opposed: P. Demong, J. Magliocca

PREVIOUS COUNCIL DIRECTION / POLICY

At the 2014, March 31, Regular Meeting of Council, Notice of Motion 2014-16 was carried and directed administration as follows: (Attachment 1)

“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;

AND FURTHER BE IT RESOLVED that this report return concurrently with the upcoming report on the implementation of the new playground zone times.”

BACKGROUND

The Traffic Bylaw 26M96 prohibits the use of the red and yellow flashing light system by a school bus when it is loading or unloading passengers in the city. Since 1999 there have been two incidents involving student-vehicle collisions near school bus drop-offs. On March 13, 2014, in the community of Kincora, a seven year old child was struck by a vehicle while crossing mid-block after exiting a school bus. Fortunately this incident did not result in a serious injury. A similar incident in the community of Erin Woods in 1999 resulted in a report to investigate the

Approval(s): Logan, Malcolm concurs with this report. Author: Hewitt, Chris
City Clerk's: D. Williams

USE OF FLASHING LIGHTS ON SCHOOL BUSES

use of flashing lights and stop arms by school buses unloading children in the City. The recommendations of the 1999 study were that the bylaw continue to prohibit the use of flashing lights and stop arms.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The use of the red and yellow flashing light system by a school bus when it is loading or unloading passengers in the city is prohibited, with some exceptions. Schedule L of the Calgary Traffic Bylaw 26M96 makes exceptions for rural-style roads, without safe crossing locations or signage, within the city. This schedule requires updating as some of these roads have changed and new rural roads have been annexed into the city.

To investigate the use of flashing lights by school buses, Administration conducted a review of current practices in other urban municipalities, reviewed the 1999 report to the SPC on Transportation, Transit and Parking, TTP99-06, and engaged important internal and external stakeholders (see Attachment 2).

The rationale for the prohibition of use of flashing lights and stop arms by buses includes 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.

It was identified by administration during consultation with stakeholders that there would be a benefit to annually reviewing the exact locations of school bus pick-up and drop-off zones with the school boards, to optimize safety. It may be possible to change the exact location of some of these zones to improve sight lines and bring them closer to crosswalks, making it easier for children to use the proper crossing locations.

The review of other jurisdictions in North America showed that many municipalities in Alberta and Saskatchewan, including Edmonton, Red Deer and Lethbridge, prohibit the use of flashing lights and stop arms. In Ontario, California and New York State the use of flashing lights and stop arms is required by law. Recent studies in the United States have brought into question the use of these tools and attributed their use to six child fatalities during the 2011-2012 school year.

The technical report does recommend the use of flashing amber hazard lights when school buses are loading and unloading passengers. This is to increase driver attentiveness when passing school buses and reduce the seriousness of collisions, should they occur.

USE OF FLASHING LIGHTS ON SCHOOL BUSES

Stakeholder Engagement, Research and Communication

Administration has engaged 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. These stakeholders have all stated that they would not support changes to current practices. ASTAC further stated that vehicles failing to stop for flashing red lights and stop arms are a significant concern in rural Alberta. Some motorists ignore these devices which can increase the hazard to school children who perceive they are protected.

A public education campaign, including the creation of public and school focused video material, should be developed and implemented by Roads in collaboration with CPS and external stakeholders. The campaign should focus on the responsibilities of drivers, parents/caregivers and children when school buses are loading and unloading. Ideally the program would be ready for the fall school semester.

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.

Increased safety for children when loading and unloading school buses may encourage increased use of buses as the transportation of choice to schools. This could reduce greenhouse gas emissions and congestion by motor vehicles when children are driven to school alone by parents or caregivers.

No quantifiable external economic implications are identified in this report.

Financial Capacity

Current and Future Operating Budget:

The cost estimate to create video material for a public education campaign is approximately \$10,000. This cost would normally be within Roads operating budget however the 2014 Snow and Ice Control expenditures place us over budget.

Current and Future Capital Budget:

There are no identified impacts to Capital Budget as a result of this report.

Risk Assessment

The risks 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 further endangering children.

USE OF FLASHING LIGHTS ON SCHOOL BUSES

REASON(S) FOR RECOMMENDATION(S):

Administration has investigated the use of flashing lights on school buses when loading and unloading children and this is not considered an overall safer system for all road users.

Consultation with stakeholders also contribute to the recommendations.

A public education campaign aimed at increasing awareness for children and drivers regarding school bus safety could benefit all road users.

ATTACHMENT(S)

1. Notice of Motion 2014-16
2. Use of Flashing Lights and Stop Arms for School Buses Technical Report

Use of Flashing Lights and Stop Arms for School Buses

Technical Report

Traffic Engineering

Roads

The City of Calgary

May 2014

EXECUTIVE SUMMARY

This report summarizes safety and operational issues related to the use of flashing red lights and bus-mounted stop signs for school buses within the city of Calgary. A review of current practice in other urban municipalities in Alberta, Saskatchewan, and Ontario and in the United States (US) was completed. During the past 20 years there have been two documented collisions involving children being struck while crossing near a school bus in the City of Calgary (September 17, 1998 and March 13, 2014).

In summary, the rationales for prohibition of use of flashing red lights and bus-mounted stop sign in an urban setting are as follows:

- There are frequent opportunities for safe crossing of roadways at intersections in an urban setting;
- Traffic Safety Act – Alberta mandates the right of way to the pedestrians at uncontrolled crossings, which provides ample crossing opportunities at marked mid-block crosswalks; and
- Stopping traffic when a school bus loads or unloads would result in impacts to vehicular traffic flow.

State laws in US mandating the use of flashing red lights and the stop arms on school buses were intended to increase the safety of the passengers. However, a number of negative safety results of the operation were observed due to non-compliance with the law by motorists. In one survey in the US, 108,000 school bus drivers reported 85,279 violations by motorists in a single school day. Similar violations have resulted in a number of fatalities (e.g. six fatalities in the 2011-2012 school year in the US) of children in different states of US.

Options for bylaw revision are as follows:

1. Maintain existing bylaw and continue to prohibit the use of flashing red lights and bus mounted stop signs during loading and unloading of school buses in urban setting.
2. Amend the bylaw to allow the use of flashing red lights and bus-mounted stop sign.

Based on the potential negative impacts of allowing the use of flashing red lights and bus-mounted stop signs in an urban setting, and the safety issues experienced in other urban jurisdictions within Canada and US due to non-compliance to the law, it is suggested that the bylaw (Calgary Traffic Bylaw 26M96) continue to prohibit the use of flashing red lights and bus-mounted stop signs. It is also recommended that the Schedule “L” of Calgary Traffic Bylaw 26M96 be reviewed and updated if required.

Use of Flashing Lights and Stop Arms for School Buses Technical Report

It is suggested that the pick-up/drop-off locations of school buses be reviewed annually with the school board in order to ensure safety of the pick-up/drop-off locations.

Any speed reduction when passing school buses would result in a safety improvement over the current operations. Reduced speed increases the drivers' cone of vision and reduces the likelihood of a collision as well as the severity level of a collision should it occur. Therefore, it is recommended that a public awareness campaign be contemplated to increase public awareness to slow down while passing a school bus during its loading/unloading operation.

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1.0 INTRODUCTION

This report summarizes safety and operational issues related to the use of flashing red lights and bus-mounted stop signs for school buses within the City of Calgary. This issue was examined in 1999 by the Transportation Department and reported to the Council via the S.P.C. on Transportation, Transit and Parking; a summary of item TTP99-06 is included in Appendix A. An update to the previous summary has been completed to review current practice in other urban municipalities in Alberta, Saskatchewan and Ontario. The current practices in selected states in the United States (US) were also reviewed as a part of this exercise. Based on the review, an expanded discussion on pedestrian crossing safety associated with the loading/unloading of school buses in an urban setting is included in this report.

During the past 20 years there have been two documented collisions involving children being struck while crossing a roadway near a school bus in the City of Calgary (September 17, 1998 and March 13, 2014). The most recent collision occurred in the community of Kincora when a student ran across the road in front of a bus to a relative who had parked on the opposite side of the road. There were no sight distance obstructions, other than the bus, and a safe crossing location at the intersection is available near the bus stop. The police investigation noted that the driver was not exceeding the speed limit, but 'should have slowed down a bit more', and that the child ran into the side of the car and was struck by the rear-view mirror. The injury was a minor concussion. This collision may have been prevented if the relative had not parked in a location which encouraged crossing the road in front of the school bus.

Transportation Department of the City of Calgary has completed a review of the existing bylaw (Calgary Traffic Bylaw 26M96) and current practices in other jurisdictions with a view to improving safety of the students during the loading/unloading of school buses. The objective of this report was to review the safety effects of the flashing red lights and stop arms on school buses and recommend any amendment(s) to the Calgary Traffic Bylaw 26M96 to improve the safety of the students during the loading and unloading of school buses in urban settings.

The use of flashing red lights and bus-mounted stop sign effectively creates a mid-block crossing, and is used primarily in rural settings where no crosswalks are provided. In the urban setting, however, crossing opportunities at intersections are frequent as either unmarked or marked crosswalks. Bus stop locations are generally near an intersection. Provision of adequate sight distance at intersections results in improved visibility of pedestrians as compared to mid-block locations where sight distance limitations may exist due to the geometry of the roadway or on-street parking. Drivers are also more likely to expect pedestrians at an intersection or crosswalk as opposed to a mid-block location. Introduction of a mid-block crossing when a school bus is loading or unloading may also create a false sense of security and decreased pedestrian vigilance which would in turn place children at an increased

risk if stop compliance is low. Drivers may not notice the stop arm and/or the flashing red lights in a busy urban setting due to higher driver workload compared to the rural setting, where driver workload is much lower.

Allowing children to cross the road at mid-block locations contradicts what students are taught about traffic safety (i.e., to cross the road at the intersections and painted cross-walk) at school. Again, children (students) may rely on stop arms and flashing red lights instead of paying attention to the oncoming motor vehicles before crossing the road. Overall children (students) may develop a false sense of safety that all the drivers will stop when the stop arm and/or the red-flashing lights are activated; however, some drivers may not stop even when the stop arm is down and the flashing red lights are activated.

Stopping traffic for school buses to load or unload would frequently occur during peak traffic times. The need to stop near an intersection may be unexpected, particularly if the flashing red lights and bus-mounted stop sign are not visible to vehicles at the end of a queue of stopped traffic; this may lead to an increase in rear-end collisions and further traffic flow impacts.

Enforcement of the requirement to stop for a school bus with flashing red lights and a bus-mounted stop sign may be difficult due to the transient nature, in time and space, of the requirement to stop.

2.0 JURISDICTIONAL REVIEW

2.1 City of Calgary

The existing City bylaw, Bylaw Number 26M96, reads as follows with respect to school buses:

SCHOOL BUSES

38. (1) The operator of a vehicle bearing the sign “School Bus” shall not activate the alternately flashing red or yellow lights on the vehicle while loading or unloading passengers on a highway in the City except on those highways listed in Schedule “L” of this Bylaw.
- (2) The requirement under the Act for the operator of a school bus to make a mandatory stop at a railway crossing not controlled by a traffic control signal shall not apply to such uncontrolled crossings within the corporate limits.

The Schedule “L” of the bylaw should be reviewed and updated if required in order to ensure the safe operation of the school buses on the highways.

Use of Flashing Lights and Stop Arms for School Buses Technical Report

It is of paramount importance to ensure the safety of the pick-up/drop-off locations of the school buses for the safety of the students. The pick-up/drop-off locations of the school buses should be reviewed annually with the school board in order to ensure safe loading/unloading operation of the school buses.

It is important to note that the current Alberta Use of Highway and Rules of the Road Regulation (Section 71 and Section 72) and Driver's Guide (Section 8) differentiate between the use of alternate flashing amber (yellow) lights and alternately flashing red lights. When passing a school bus with alternately flashing amber lights drivers must reduce the speed of the vehicle so that if it passes the school bus it does so in a cautious manner. When flashing red lights are displayed drivers must stop, unless traveling in the opposite direction of the bus on a divided roadway.

Traffic Safety Act – Alberta mandates the right of way to the pedestrians at uncontrolled marked pedestrian crossing.

Traffic Safety Act – Alberta

Yielding to pedestrians 41(1)

A person driving a vehicle shall yield the right of way to a pedestrian crossing the roadway within a crosswalk.

Pedestrians' right of way 93(1)

At a place where there is a crosswalk, a pedestrian has, unless otherwise directed by a peace officer or a traffic control device, the right of way over vehicles for the purpose of crossing the roadway within the crosswalk.

According to Alberta Traffic Safety Act 1(d) "crosswalk" means

- (i) that part of a roadway at an intersection included within the connection of the lateral line of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the roadway, or
- (ii) any part of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by signs or by lines or by other markings on the road surface.

Therefore, Traffic Safety Act – Alberta mandates the right of way to the pedestrians even at uncontrolled crossings, which provides ample crossing opportunities at intersections and/or marked crosswalks. Therefore, it is not necessary to create a controlled crossing with the use of flashing red lights and/or the stop arm on school buses during loading and unloading.

2.2 Traffic Laws and Bylaws in Different Jurisdictions of Canada

A rigorous review of the traffic laws and bylaws in other jurisdictions of Canada was completed as a part of this exercise.

The following sections present the summary of associated laws and bylaws in the selected municipalities in Alberta, Saskatchewan, and Ontario.

2.3 Other Urban Municipalities in Alberta

Traffic bylaws in a selection of other Alberta urban municipalities were reviewed and are as follows:

City of Edmonton (Bylaw 5590)

SCHOOL BUS LIGHTS

83	A person operating a school bus shall not activate the alternately flashing lights or the stop arm on a highway unless the highway is one designated as permitting this activity.
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City of Red Deer (Bylaw No. 3186/97)

OPERATION OF SCHOOL BUSES

100	No person shall activate the flashing red lights or stop arms of a school bus on any highway where such highway has been constructed with curbs and gutters.
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City of Lethbridge (Bylaw 4122)

B/L 4122 9/1/86	1614	No person shall activate alternating flashing lights and stop arms on a school bus upon any highway in the City of Lethbridge where that highway has a posted speed limit of 50 kilometres or less.
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All of the reviewed bylaws in Alberta consistently prohibit the use of flashing red lights or the use of the stop arm with some exceptions based on specific designation of the roadway, the posted speed or the physical characteristics of the roadway.

2.4 Urban Municipalities in Saskatchewan

Traffic bylaws in some urban municipalities of other provinces within Canada were reviewed as a part of this exercise. The summary is presented below:

City of Regina (Bylaw No. 9900)

SCHOOL BUS SAFETY LIGHTS

- 28 No person shall activate the safety lights or stop sign on a school bus when loading or unloading passengers.

City of Saskatoon (Bylaw No. 7200)

SCHOOL BUS SAFETY LIGHTS

- 32(1) Notwithstanding Section 22 of *The Traffic Safety Act*, the driver of a school bus shall not use the safety lights on the bus while operating the bus within the corporate limits of the City of Saskatoon.

2.5 Urban Municipalities in Ontario

Bylaws of a few selected urban municipalities in Ontario (City of Toronto, City of London, and City of Waterloo) were reviewed. It was found that these urban municipalities do not have a bylaw in effect prohibiting the use of overhead flashing red lights and the stop arm on school buses during loading and unloading of passengers. The Highway Traffic Act regulated by the Ministry of Transportation, Ontario mandates the usage of the overhead flashing red lights and the stop arm on school buses during the loading and unloading of passengers:

HIGHWAY TRAFFIC ACT (Ontario) – RELATING TO SCHOOL BUSES

- Section 175 (6) Subject to subsection (9), every school bus driver:
- a. Who is about to stop on a highway for the purpose of receiving or discharging children or receiving adults who have developmental disabilities, shall actuate the overhead red signal-lights on the bus.
 - b. As soon as the bus is stopped for a purpose set out in the clause (a), shall actuate the school bus stop arm; and
 - c. While the bus is stopped for a purpose set out in clause (a) on a highway, shall continue to operate the overhead red signal-lights and stop arm until all passengers having to cross the highway have completed the crossing.

2.6 Summary of Jurisdictional Reviews within Canada

The review of the laws and bylaws in other jurisdictions within Canada provided mixed results. The City of Regina and the City of Saskatoon prohibit the use of flashing red lights and/or the stop arm on school buses during loading and unloading of passengers within the city limits which is consistent with the City of Calgary and other municipalities in Alberta with some exceptions based on specific designation of the roadways. However, the municipalities in Ontario that were included in the jurisdictional review (the City of Toronto, the City of London, and the City of Waterloo) allow the usage of the flashing red lights and the stop arm on the school buses during loading and unloading of children (students) by virtue of the Highway Traffic Act regulated by the Ministry of Transportation, Ontario.

However, the need for flashing red lights and/or the stop arms on school buses during loading and unloading of students in the municipalities of Ontario can be explained by the differences in Ontario's Highway Traffic Act and Alberta's Highway Traffic Safety Act.

Highway Traffic Act - Ontario rules of the road indicate that when a pedestrian is about to step from the side of the road onto the roadway, there are fundamentally two distinct categories of pedestrian crossings. The crossing may be either:

1. A controlled crossing - where vehicles are required to stop or yield to traffic legally in the intersection, which includes pedestrians, or
2. An uncontrolled crossing - where pedestrians must wait for safe gaps in traffic, sufficient for them to cross the roadway.

An uncontrolled crossing is a crossing that does not have any traffic control measure to provide a dedicated pedestrian right-of-way. Pedestrians must wait for a safe gap sufficient to fully cross the roadway or for vehicles to stop before crossing. In accordance with Ontario's Highway Traffic Safety Act, protected pedestrian crossings in the Province of Ontario are only at locations where vehicles are controlled by any of the following: traffic signals, intersection pedestrian signals, mid-block pedestrian signals, pedestrian crossovers, stop signs, yield signs or school crossings when an adult school crossing guard is supervising the crossing¹.

Table 1 summarizes those conditions where there are controlled crossings and those that are uncontrolled.

¹ *Ontario Traffic Manual – Pedestrian Crossing Facilities (2010)*.

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Table 1 – Controlled and Uncontrolled Crossings¹

Controlled Crossings	Uncontrolled Crossings
<ul style="list-style-type: none">• Traffic Control Signals• Intersection Pedestrian Signals• Pedestrian Crossover• STOP Sign• YIELD Sign• Designated School Crossing with Crossing Guard	<ul style="list-style-type: none">• Mid-block Crossings (in the absence of traffic control signals, intersection pedestrian signals or pedestrian crossover)• Designated School Crossing (in the absence of a crossing guard and without other forms of control such as traffic control signals, intersection pedestrian signals, pedestrian crossover, STOP signs or YIELD signs)• Marked Crossing (at intersection in the absence of STOP or YIELD signs)

The types of controlled crossing and the pertinent right-of-way rules as proclaimed in the Highway Traffic Safety Act – Ontario are presented in Appendix B.

Therefore, in the province of Ontario, it is the shared responsibility between the pedestrians and drivers at the uncontrolled crossings i.e. the pedestrians do not have the right of way at uncontrolled crossings (see Table 1). If a driver is approaching an uncontrolled crossing and a pedestrian is already at the crossing and trying to cross it (i.e. the pedestrian has not yet begun crossing), the driver is not lawfully required to yield to the pedestrian. However, if the pedestrian has already started crossing the intersection, the driver does have to yield. The pedestrian, however, has to make sure that there is a safe gap in the traffic before starting to cross.

The discussion above reveals that because of the pedestrians not having the right of way at the uncontrolled crossing, the use of flashing red lights and/or stop arms on school buses during loading and unloading of students (children) is justified in order to provide a controlled crossing to the students in the municipalities of Ontario.

However, in contrast to the province of Ontario, the Traffic Safety Act – Alberta mandates the right of way to the pedestrians at uncontrolled marked pedestrian crossing. This provides ample crossing opportunities to pedestrians at intersections and/or marked crosswalks. Therefore, it is not necessary to create a controlled crossing with the use of flashing red lights and/or stop arms on school buses during loading and unloading as it is necessary in Ontario.

2.7 Urban Municipalities in United States (US)

Traffic laws and bylaws in selected urban municipalities (New York City, the City of San Jose, the City of San Francisco, and the City of San Diego) in the US were also reviewed. The use of flashing red lights and stop arm on school buses during loading and unloading of passengers is mandated by state laws in these urban municipalities. The state laws in New York and California regarding the use of flashing red lights and stop arms on school buses are presented below:

Vehicle and Traffic Law – New York State

Article 29 & Section 1174(b)

The drivers of school buses, when receiving or discharging passengers who must cross a public highway, street or private road, shall instruct such passengers to cross in front of the bus and the driver thereof shall keep such school bus halted with red signal lights flashing until such passengers have reached the opposite side of such highway, street or private road. Whether such passengers are crossing such highway street or private road or discharging to the same side of such highway, street or private road, the driver of such bus shall keep such school bus halted with red signal lights flashing until such passengers are at least fifteen feet from the bus and either off the highway, street or private road or on a sidewalk.

California Law

Vehicle Code Section – 22112(c)

When a school bus is stopped on a highway or private road for the purpose of loading or unloading pupils, at a location where traffic is not controlled by a traffic officer, the driver shall, before opening the door, ensure that the flashing red light signal system and stop signal arm are activated, and that it is safe to enter or exit the school bus.

The laws and bylaws in different jurisdictions of US included in this review (New York City, the City of San Jose, the City of San Francisco, and the City of San Diego) allow the use of flashing red lights and stop arm on the school buses during loading and unloading of children. However, different states in US are currently facing stiff challenges in mandating the laws associated with the use of flashing red lights and/or the stop arm on school buses during loading and unloading of students (children).

2.8 Challenges When Use of Flashing Lights and Bus-Mounted Stop Permitted

State laws in US mandating the use of flashing red lights and the stop arms on school buses were intended to increase the safety of the passengers during the loading and unloading operation. A number of negative safety results of the operation have been observed. Most of the negative safety results were due to non-compliance with the law by motorists that led to collisions. In a survey conducted on speeding and other unsafe driving behaviours in 1997, about 99 percent of the drivers interviewed felt that the most dangerous unsafe driving behaviour was passing a school bus with its lights flashing and stop arm extended². The use of flashing red lights and stop arm on school buses provides passengers a sense of safety to cross the road at a mid-block location even though the high violation rate of stop arm and flashing red light on school buses put passengers at a high risk of severe collisions. The National Association of State Directors of Pupil Transportation Services (NASDPTS) conducted an annual survey in 2013 on the violation of stop-arm and flashing red lights on school buses in 29 states throughout the US where 23 percent of the nation's school bus drivers participated. In the survey, 108,000 school bus drivers reported 85,279 stop arm and flashing red light violations by motorists in a single school day³. Over the years the violation of stop arm and flashing red lights on school buses has resulted in a number of fatalities (e.g. six fatalities in the 2011-12 school year in the US⁴) of children (students) in different states of US. The states are facing strong challenges in mandating the laws regarding the school bus stop arm and flashing red lights on school buses. It draws passengers to mid-block locations for crossing, and becomes particularly unsafe when there is a significant violation rate of the stop arm and flashing red light on school buses.

Due to high non-compliance rate of flashing red light and stop arm on school buses, some states in US e.g. Texas, Georgia, Indiana, Iowa, South Carolina, Maryland, and New York are seriously considering the installation of cameras on stop arms of school buses. This clearly indicates that running stop arm on school buses has become a significant concern for the safety of the students (children) in US.

² *Best Practices Guide: Reducing the Illegal Passing of School Buses*, National Highway Traffic Safety Administration, USA.

³ *Motorists Still Endangering Children by Passing School Buses Illegally – Press Release: August 12, 2013*, National Association of State Directors of Pupil Transportation Services

⁴ *Kansas State Department of Education's (KSDE) Report 2011-2012*

<http://www.campusafetymagazine.com/article/6-of-9-danger-zone-deaths-were-by-other-vehicles>

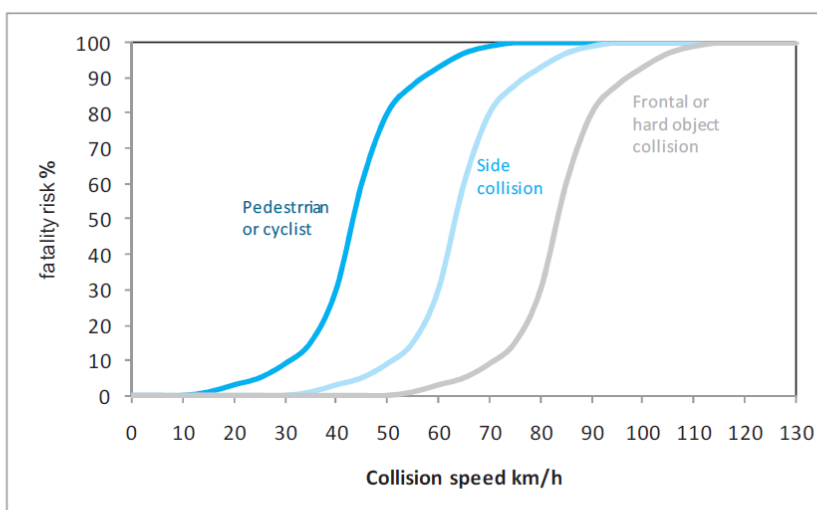
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The statistics presented above clearly indicates a continued lack of compliance of the flashing red light and stop arm on school buses. Therefore, mandating the use of flashing red light and stop arm cannot guarantee students safety during loading-unloading of the school buses; rather this could increase the risk of a collision by providing false notions of safety to the students while crossing the road.

3.0 RELATIONSHIP OF COLLISION SPEED AND PEDESTRIAN COLLISION SEVERITY

The relationship between pedestrian collision severity and collision speed has been proven internationally; this relationship, as shown in the Calgary Safer Mobility Plan, is presented graphically below.

The uniformity of international findings on the probability of a fatal collision as a function of collision speed is due to the physical limitations of the human body to handle the energy of a collision. This relationship illustrates that at 50 km/h there is a 20% chance of survival, compared to 30 km/h with a 90% chance of survival.



Source: Wramborg, P. (2005). *A New Approach to a Safe and Sustainable Road Structure and Street Design for Urban Areas*. Paper presented at Road Safety on Four Continents Conference, Warsaw Poland.

Any speed reduction when passing school buses would result in a safety improvement over the current operations. Reduced speed not only increases the drivers' cone of vision and reduces the likelihood of a collision, but also reduces the severity level of a collision should it occur. In this case during loading/unloading of a school bus, reduced speed of the approaching vehicles would significantly reduce the likelihood of a severe collision should a child run out from in front of a bus. Therefore, it is recommended that a public awareness campaign be contemplated to increase public awareness to slow down while passing a school bus during its loading/unloading operation.

4.0 CONCLUSIONS

Based on the potential negative impacts of allowing the use of flashing red lights and bus-mounted stop signs in an urban setting, and the safety issues experienced in other urban jurisdictions within Canada and US due to non-compliance to the law, it is suggested that the use of the flashing red lights and bus-mounted stop signs continue to be prohibited during the loading/unloading operation of school buses in urban setting.

5.0 RECOMMENDATIONS

1. It is recommended that Calgary Traffic Bylaw 26M96 continue to prohibit the use of flashing red lights and bus-mounted stop signs;
2. The Schedule “L” of Calgary Traffic Bylaw 26M96 should be reviewed and updated if required;
3. It is recommended that the pick-up/drop-off locations of school buses be reviewed annually with the school board in order to ensure safety.
4. It is suggested that a public awareness campaign be contemplated to increase public awareness to slow down while passing a school bus during its loading/unloading operation.

APPENDIX A – TTP99-06

S.P.C. ON TRANSPORTATION, TRANSIT AND PARKING

TTP99-06 FLASHING LIGHT POLICY - SCHOOL BUSES

ISSUE:

1999 FEBRUARY 09

A review of the current on and off loading procedures for buses and, specifically, whether there needs to be a change in the legislation with regards to the use of alternating flashing lights.

RECOMMENDATIONS:

That:

1. No changes be made to the Traffic Bylaw concerning alternating flashing lights on school buses and
2. The Transportation Department embark on an education program directed at motorists related to safe practices around school buses loading or unloading.

COMMISSIONER'S COMMENTS:

Commissioner Ward concurs with this report.

BACKGROUND:

At the 1998 September 28 Council meeting the following motion was adopted:

. . . that, with respect to Commissioners' Report TTP98-42, the Administration prepare a report on the recent school bus incident on Erin Woods Drive, with input from Calgary Police Service, Calgary Board of Education, and the school bus operator, and make recommendations on whether the flashing light policy needs to change, or not, and any other actions which would prevent further such actions.

Alderman Ceci prepared this motion as a result of a 1998 September 17 pedestrian accident that occurred on Erin Woods Boulevard. The student exited the bus onto the south side of Erin Woods Boulevard S.E. and then ran north in front of the parked bus without looking. The student then ran into an eastbound vehicle.

In 1986 September, Bill 17 was introduced which amended the Provincial Highway Traffic Act as it pertained to the loading and unloading of school buses utilizing the newly introduced alternating flashing warning light system . The legislation would have required school buses to activate their flashing lights and stop arms when loading or unloading passengers within the city. However, it also provided that a municipality could pass a bylaw prohibiting the use of flashing lights and stop arms within their corporate limits. Given that pedestrians have the right-of-way at all intersections with or without marked crosswalks and the extent of pedestrian crossing protection that exists within the city (i.e . crosswalks, intersection and corridors), the use of the flashing lights and stop arms was considered superfluous.

In 1986 November Council approved an amendment to the Traffic Bylaw 40M80 whereby drivers of school buses were prohibited from activating the alternating flashing lights or stop arms on roadways within the city, except for those roadways listed in Schedule "K" of the Traffic Bylaw. The current Traffic Bylaw Section 38(l) states the operator of a vehicle bearing the sign "School Bus" shall not activate the alternating flashing red or yellow lights on the vehicle while loading and unloading passengers on a highway in the city except on those highways listed in Schedule "U" of this bylaw. Schedule "L" (see Attachment) now lists all roadways on which the alternating flashing lights are required. The list of roads in Schedule "L" where drivers of school buses would be required to activate the alternating flashing lights and stop arms was developed by the Transportation Department in consultation with the Public and Catholic School Boards and the school bus operators. Typically, the roadways listed in Schedule "U" are rural in nature, i.e. without sidewalks and pedestrian facilities usually found in an urban environment.

INVESTIGATION:

The Transportation Department contacted the Calgary Police Service, the Calgary Board of Education, the Calgary Catholic School District, the three major school bus operators and Calgary Transit for their input and all agree that the current legislation is appropriate.

There are currently 764 school bus routes in the city. On average, there are seven stops per route which means in excess of 5,000 stops in the morning and a similar number in the afternoon. If the flashing light system was activated at each and every one of these 10,000 stops, it would result in unnecessary traffic congestion.

The majority of stops are located at the far side of intersections so passengers can disembark and walk back to the intersection to cross the roadway safely.

The consensus was that the use of the alternating flashing light system should occur only on roadways that are rural in nature where pedestrian facilities, which would alert drivers to the potential presence of pedestrians, are absent. It was considered prudent to have school buses continue to activate the flashing lights and stop arms while loading/unloading passengers on all roads listed on Schedule "L".

An awareness program promoted by Alberta Transportation and Utilities addresses only the procedures to be followed by motorists encountering a school bus in rural Alberta and no mention is made of urban centres. An information brochure, produced by the Transportation Department, can be developed for educating motorists about safe practices to be followed around school buses loading or unloading in an urban area. Students are continually trained and retrained on safe procedures for loading and unloading of school buses, as well as the proper methods for crossing a roadway.

On 1999 January 19, Transportation Department and Calgary Police Service representatives met with the Erinwoods' School Council to discuss the pedestrian vehicle accident of 1998 September 17. Numerous issues were discussed to improve pedestrian safety around Erinwoods School. These concerns will be addressed through the normal procedures currently in place to deal with school issues.

The Transportation Department representative presented the existing legislation with respect to flashing school bus lights. The School Council appreciated the information

and agreed to work with the Transportation Department on safety related issues around the school.

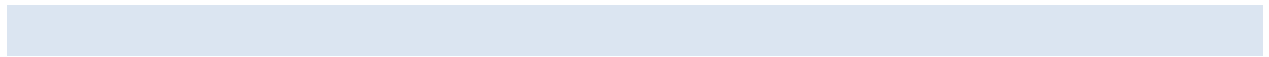
CONCLUSION:

Most roadways in Calgary have sidewalks and pedestrian crossing protection in various forms at the nearest intersection to the school bus stop. The use of flashing lights and stop arms on school buses is not necessary on these roadways and, in fact, creates a safety hazard by stopping the traffic flow unnecessarily and by encouraging mid-block crossing.

It is important to continue with the operation of the flashing lights on all roadways listed in Schedule "L". However, the Transportation Department should embark on an educational awareness program for motorists related to safe practices to be followed around school buses loading or unloading in an urban area.

ATTACHMENT:

Schedule "L" Bylaw 26M96



APPENDIX B – Highway Traffic Safety Act - Ontario

Highway Traffic Act – Ontario

According to the **Highway Traffic Act Section 144 – Traffic Control Signals and Pedestrian Control Signals**, a pedestrian crossing is controlled by the WALK, FLASHING DON'T WALK and the DON'T WALK indicators:

Pedestrian Crossing

(22) Where portions of a roadway are marked for pedestrian use, no pedestrian shall cross the roadway except within a portion so marked. R.S.O. 1990, c. H.8, s. 144 (22).

Pedestrian Control Signals - Walk

(26) Where pedestrian control signals are installed and show a “walk” indication, every pedestrian facing the indication may cross the roadway in the direction of the indication despite subsections (24) and (25). R.S.O. 1990, c. H.8, s. 144 (26).

Pedestrian Control Signals – Don't Walk (27) No pedestrian approaching pedestrian control signals and facing a solid or flashing “don't walk” indication shall enter the roadway. R.S.O. 1990, c. H.8, s. 144 (27).

Pedestrian Right of Way

(28) Every pedestrian who lawfully enters a roadway in order to cross may continue the crossing as quickly as reasonably possible despite a change in the indication he or she is facing and, for purposes of the crossing, has the right of way over vehicles. R.S.O. 1990, c. H.8, s. 144 (28).

According to the **Highway Traffic Act Section 140 – Pedestrian crossover, duties of driver**:

(1) Subject to subsection (2), when a pedestrian or a person in a wheelchair crossing a roadway within a pedestrian crossover,

(a) is upon the half of the roadway upon which a vehicle or street car is travelling; or

(b) is upon half of the roadway and is approaching the other half of the roadway on which a vehicle or street car is approaching so closely to the pedestrian crossover as to endanger him or her,

the driver of the vehicle or street car shall yield the right of way to the pedestrian or a person in a wheelchair by slowing down or stopping if necessary. R.S.O. 1990, c. H.8, s. 140 (1).

According to the **Highway Traffic Act Section 136 – Stop at through highway:**

- (1) Every driver or street car operator approaching a stop sign at an intersection,
- (a) shall stop his or her vehicle or street car at a marked stop line or, if none, then immediately before entering the nearest crosswalk or, if none, then immediately before entering the intersection; and
- (b) shall yield the right of way to traffic in the intersection or approaching the intersection on another highway so closely that to proceed would constitute an immediate hazard and, having so yielded the right of way, may proceed. R.S.O. 1990, c. H.8, s. 136(1).

Interpretation

Traffic includes pedestrians, ridden or herded animals, vehicles, bicycles, inline skaters, scooters and other conveyances, either singly or together, while using a highway for purposes of travel.

According to the **Highway Traffic Act Section 138 – Yield right-of-way signs:**

- (1) The driver or operator of a vehicle or street car approaching a yield right-of-way sign shall slow down to a speed reasonable for the existing conditions or shall stop if necessary as provided in clause 136 (1) (a) and shall yield the right of way
- to traffic in the intersection or approaching on the intersecting highway so closely that it constitutes an immediate hazard and having so yielded may proceed with caution. R.S.O. 1990, c. H.8, s. 138 (1).

Interpretation

Traffic includes pedestrians, ridden or herded animals, vehicles, bicycles, inline skaters, scooters and other conveyances, either singly or together, while using a highway for purposes of travel.

Adult school crossing guards may also provide a designated right-of-way for school children as vehicles must yield to a crossing guard. According to the **Highway Traffic Act Section 176 – School crossings:**

School crossing guard shall display sign

(2) A school crossing guard about to direct persons across a highway with a speed limit not in excess of 60 kilometres per hour shall, prior to entering the roadway, display a school crossing stop sign in an upright position so that it is visible to vehicles approaching from each direction and shall continue to so display the school crossing stop sign until all persons, including the school crossing guard, have cleared the roadway. 2005, c. 26, Sched. A, s. 29 (1).

Vehicles approaching guard displaying sign

(3) Where a school crossing guard displays a school crossing stop sign as provided in subsection (2), the driver of any vehicle or street car approaching the school crossing guard shall stop before reaching the crossing and shall remain stopped until all persons, including the school crossing guard, have cleared the

half of the roadway upon which the vehicle or street car is travelling and it is safe to proceed. 2005, c. 26, Sched. A, s. 29 (1).

Appendix "C"

Frequently Asked Questions

School Bus Operations – Flashing Lights and Stop Arm

October 14, 2014 regular Council Meeting

School Bus Flashing Lights

1. Is it safer for school buses to operate within the City using their flashing red and amber lights and stop arm extension?

There is no clear answer to this question. There is support for the thinking that traffic stopping in all directions when students are loading and unloading creates a safer environment for them and allows for some unpredictable student behavior. There is an equal amount of support for the thinking that existing traffic controls in urban areas, such as marked intersections, crosswalks, stop signs and traffic lights provide the safest means of crossing a roadway, as opposed to in front of a school bus.

2. What is the provincial practice for school bus operations?

By far the majority of larger urban centres prohibit the use of school bus flashing lights and stop arms while loading and unloading students. The goal of this practice is to allow the free flow of traffic and prevent congestion. Some school boards practice the use of this equipment in municipalities of 10,000 population or less. All rural areas require the use of the flashing lights and stop arms to stop traffic in all directions and allow students to cross the road at the location of the bus stop. The majority of these stops are at locations with no other traffic control devices. Provincial legislation requires traffic travelling in the same direction to stop if on a divided highway and traffic travelling in both directions to stop if on an undivided highway, when the flashing red lights are activated on a school bus.

3. What is the risk of changing our practice to require school buses to use flashing lights and stop arms?

Allowing students to cross roadways at bus stop locations contradicts what they are taught about traffic safety, (i.e. to cross the road at the intersections and painting cross walks) at school. We may create a false sense of security and decreased pedestrian vigilance in students in that they will trust that all traffic will stop for them.

4. Does Fort Saskatchewan require a new bylaw to require school buses to use their traffic control equipment within the City?

No, the amendment of our existing bylaw prohibiting use of this equipment, will effectively require all school buses to use their equipment when loading and unloading students.

5. What could Fort Saskatchewan do to alleviate potential traffic congestion that may result from school buses using their traffic control equipment?

Appendix "C"

Frequently Asked Questions

School Bus Operations – Flashing Lights and Stop Arm

October 14, 2014 regular Council Meeting

The use of flashing lights and stop arms by school buses will impede traffic within our City. Many school buses transport students to more than one school, so staggering school start times or changing bus schedules is not a viable traffic management option. Our best approach is to communicate and educate all drivers, both residents and non-residents of the school bus operations within our City, should they change. Ongoing communication with both school boards will be required to coordinate this change in operation.

6. How many vehicles are passing school buses while the lights and arm are activated?

These are referred to as "fly-bys" in the school bus industry. They are on the increase in all areas. This was an agenda item at a recent meeting of the Alberta School Bus Operators Association. They are working on improving systems for tracking and reporting vehicles that fly by the buses while they have lights activated. Beaumont reported 101 fly-bys last school year in the urban area. Leduc had 64 in the urban area and 60 in the County. Black Gold reported 72 last school year.

7. Information from other regions.

Ontario has different legislation. They require school buses to use their flashing lights and stop arm in all locations. Their pedestrian legislation is different than Alberta's. If pedestrians are crossing at marked crossings they have the right of way. If they are crossing at unmarked locations, they must yield to the traffic and cross whenever there is a safe gap to allow them to do so. Because of this difference the use of traffic control equipment on buses creates a controlled crossing for students. United States has a variety of practices, however due to high non-compliance rate of vehicles passing school buses with lights activated, several states are looking at installing cameras on stop arms of buses to enforce the requirement. This is a significant concern for safety of students.