

Public and Internal Engagement on Residential Speed Limits

Recommendation:

That the April 18, 2018, City Operations report CR_4956 be received for information.

Previous Council/Committee Action

At the April 10, 2018, Agenda Review Committee meeting, the City Operations report CR_4956 was re-routed to the April 18, 2018, Community and Public Services Committee meeting.

At the June 7, 2017, Urban Planning Committee meeting, the following motion was passed:

That Administration conduct a more comprehensive public and internal engagement and provide a report on:

- potential options for residential speed limits
- identification of appropriate speed limits depending on roadway classification and geometric conditions
- a plan to move forward on new default speed limit including potential costs of implementation
- identification of related safety targets, data and countermeasures that align with the Vision Zero Road Safety Strategy.

Executive Summary

In 2015, the City of Edmonton adopted Vision Zero, which has the long-term goal of zero traffic-related serious injuries and fatalities. Since then, Administration has assessed, guided and implemented traffic safety countermeasures by taking into account all road users, with an extra emphasis on vulnerable groups such as pedestrians (particularly children and seniors) and those engaged in active transportation. Recognizing that human error on roadways is a given, planning and designing an inherently-safe road and transportation system helps to prevent collisions from occurring or reduces their severity. As part of Administration's full implementation of the Vision Zero initiative, public engagement on reducing speed limits on some roadways encouraged input from citizens and stakeholders.

In 2017, Administration presented a report on Public Engagement on Residential Speeds (CR_4266) that showed strong support for reduced speeds on residential roads. This report provides additional comprehensive engagement with citizens and stakeholders and surveys responses to decreasing speed limits within residential areas in the City of Edmonton.

Report Body

Background

Livable, safe and healthy communities contribute to a better quality of life. As Edmonton's population grows, the amount of congestion on the city's roads also increases. Neighbourhoods adjacent to arterial roads often face increased traffic volume, safety concerns, additional traffic noise and speeding when drivers shortcut through residential areas.

In 2015, Edmonton became the first major Canadian city to adopt Vision Zero, a global initiative to eliminate fatalities and major injuries that result from motor vehicle collisions. In adopting this road safety initiative, Administration committed to improving roadway safety for all Edmontonians. Part of that commitment involves shifting the priority from vehicle mobility to an increased safety and awareness of more vulnerable road users such as children, seniors and those engaged in active transportation.

Currently, speed limits below the default 50 km/h are in place for school zones and playground zones. Local communities concerned about speeding in residential areas can contact the Community Traffic Management Program (CTMP) to reduce speeding and traffic shortcutting in their neighbourhoods. Residential areas in Edmonton that have 40 km/h speed limits include Ottewell, King Edward Park and Woodcroft.

On June 7, 2017, Administration presented a report on Public Engagement on Residential Speed Limits (CR_4266). The report included results from two separate engagement surveys, completed in 2016 and 2017. Participants were asked their knowledge of the different roadway classifications—arterial, collector and local (or residential)—if they believed speeding on local roads was an issue, and if their driving behaviour included driving over the speed limit and, if so, by how much.

The 2016 survey revealed as many as 18 percent of those surveyed online drive 6-15 km/h or more above the speed limit on residential (local) streets. The 2017 survey revealed 80 percent of the public believe speeding on local roads is an issue that should be addressed, and 19 percent believe speeding is an important issue. Respondents did not identify any particular factors that would make them more likely to follow the speed limit, which suggests a multifaceted speed reduction strategy may be required.

Current Status

The City of Edmonton roadways are classified as arterials, collectors and locals. Arterial roads typically have multiple lanes and carry higher volumes of traffic; speed limits on arterials range from 50 km/h to 80 km/h. There is no separate classification for residential roadways as both collector and local roads can be residential. Any changes to residential speed limits, then, would impact some collector roads.

After its June 7, 2017 meeting, the Urban Planning Committee requested Administration conduct more comprehensive public engagement for speed limit options on both residential (local) and collector roads to gather the public's perspective on changing speed limits to support the principles of Vision Zero speed limits:

- 30 km/h where there are vulnerable road users (typically applies to residential roads, school zones and playground zones);
- 50 km/h where there is a possibility of side impact between vehicles; and
- 70 km/h where there is a possibility of head-on impact between vehicles.

Summary of Public Engagement Activities

In the fall of 2017 and early 2018, Administration carried out a series of public engagement activities to gauge public support of potential changes to residential speed limits.

Traffic safety initiatives often are implemented to protect vulnerable road users. The focus group participants representing vulnerable road users included persons meeting at least one of the following criteria:

- is aged 65 or older;
- has children under age 10 in the household;
- has a mobility issue that makes getting around outside more challenging (or has someone in their household who does); and/or
- owns a pet that requires regular walking outdoors.

The objectives of the public engagement were as follows:

- To solicit feedback from a cross-section of Edmontonians around the City that includes the views of not only drivers but vulnerable road users as well.
- To engage with a cross-section of stakeholder groups and other organizations—including business organizations, schools, houses of worship, healthcare providers and other associations—that represent communities that could be affected by speed limit changes.
- To understand the preference for a city-wide standard for speed limits to be set at either 30 km/h or 40 km/h for residential streets and 40 km/h or 50 km/h for collector roads.

Administration used a variety of methods to secure feedback, including intercept surveys and stakeholder conversations.

Intercept Surveys

An intercept survey is conducted in person. Potential respondents are approached (or “intercepted”) in public and asked to participate in a survey. If they fit the criteria, they are administered the survey. A total of 676 intercept surveys were conducted throughout the City of Edmonton at various locations including Clareview LRT station, Century Park LRT station, Southgate Mall, ACT Fitness and Leisure Centre, Terwillegar Community Recreation Centre, Enterprise Square (Downtown) Public Library, Lois Hole (Callingwood) Public Library, Mill Woods Public Library, Highlands Public Library and Castle Downs Public Library. In order to qualify for the survey, participants needed to be city residents.

Stakeholder Conversations

The stakeholder conversation tapped into businesses or gathering areas accessed by people travelling by car, transit, bike and on foot. These included local businesses, schools, childcare facilities, community groups (including seniors) and houses of worship. Five geographic areas of the city were consulted: Southeast, South Central, Northeast, Northwest and West.

Results

The Edmontonians who participated in intercept surveys were asked questions about speed limits on residential and collector roads and about their feelings of personal safety.

Intercept survey question (676 respondents):	Residential Roads	Collector Roads
Generally, how safe do you feel when crossing residential streets in your neighborhood? Collector roads?	<ul style="list-style-type: none"> 41 percent (277) feel unsafe when crossing residential streets in their neighbourhood. 	<ul style="list-style-type: none"> 62 percent (419) feel unsafe when crossing collector roads in their neighbourhood.
Currently, the speed limits on residential streets in Edmonton is 50 km/h unless otherwise posted. If the speed limit was changed to 30 km/h, how much safer do you think you would feel when crossing residential streets?	<ul style="list-style-type: none"> 50 percent (338) would feel safer with a lower residential speed limit of 30 km/h 	N/A
Currently, the speed limits on residential streets in Edmonton	<ul style="list-style-type: none"> 51 percent (345) would feel safer with a lower residential 	N/A

<p>is 50 km/h unless otherwise posted. If the speed limit was changed to 40 km/h, how much safer do you think you would feel when crossing residential streets?</p>	<p>speed limit of 40km/h</p>	
<p>Currently, the speed limits on collector roads in Edmonton is 50 km/h unless otherwise posted. If the speed limit was changed to 40 km/h, how much safer do you think you would feel when crossing collector roads?</p>	<p>N/A</p>	<ul style="list-style-type: none"> 40 percent (270) would feel safer if the speed limit on collector roads changed to 40 km/h from 50 km/h.
<p>Would you prefer to have the speed limits on collector roads changed to 40 km/h?</p>	<p>N/A</p>	<ul style="list-style-type: none"> 18 percent (122) would prefer to have the speed limits changed to 40 km/h on collector roads
<p>Final question: Please look at this graphic. This shows the number of pedestrians who would survive a collision with a vehicle travelling at each speed. Now that you've seen this, which option for speed limits would you prefer to see...</p>	<ul style="list-style-type: none"> 38 percent (257) would prefer speed limits of 30 km/h on residential streets and 40 km/h on collector roads. 34 percent (230) would prefer speed limits of 40 km/h on residential streets and 50 km/h on collector roads. Total: 72 percent (483) would prefer a lower residential speed (either 30 km/h or 40 km/h). 	

It is worth noting that after viewing the [survivability graphic](#) that shows the number of pedestrians who would survive a collision with a vehicle travelling at different speeds (Attachment 1), support for speed limits of 30 km/h on residential roads and 40 km/h on collector roads increased from 50 to 72 percent.

Of the Edmontonians who participated in stakeholder conversations, most of the groups (listed below) supported a reduction in speed limits. Stakeholders had strong opinions about reducing the speed limits to the standards recommended by Vision Zero on local and collector roads. Those who disagreed with the suggested changes to decrease speed limits fundamentally disagree with City Council's vision on sustainable transportation and oppose extending greater priorities to pedestrians, cyclists and non-car commuters. Stakeholders who agreed with the reduced speed limits support

the principles of Vision Zero and believe City Council has a responsibility to act on proven facts that show lives are saved when speed limits are reduced to 30 km/h on local streets, and 30 km/h or 40 km/h on collector roads.

The stakeholder groups **in favour** of reducing residential speed limits to 30 km/h on local/residential roads, and 40 km/h on collector roads were primarily from:

- Newer communities
- Organizations that had a lot of foot traffic
 - houses of worship that saw people parking or walking to services
 - daycare centres that took children on regular outings
 - community leagues that had sport and recreation programs
 - businesses that relied on foot traffic
 - seniors' organizations
- And mature neighbourhoods

The stakeholder groups **not in favour** of reducing speed limits to 30 km/h on local/residential roads and 40 km/h on collector roads identified as drivers and firmly believe Edmonton is and should remain a city built for cars. They believed tools such as driver feedback signs, designated crosswalks and more enforcement by Edmonton Police Service would increase safety and ensure people do not speed through residential areas.

Internal Engagement

In addition to public engagement, Administration, including Law and Intergovernmental Affairs, has been monitoring the progress of the development of the City Charter Regulation, which may permit the City to vary the default speed limits in the Traffic Safety Act by bylaw. Currently, the City can set speed limits for roadways under its direction, control and management; however, any roadways where the speed is not the default 50 km/h must be signed. Varying the default speed limit by bylaw could permit the City to vary speed limits without requiring signage on every affected roadway.

Administration is also aware that speed reductions on residential roads could impact Edmonton Transit Service scheduling. However, data collected since the recent implementation of 30 km/h playground zones city-wide indicates that travel impacts for drivers are minimal. Additional internal engagement would be necessary prior to any speed limit changes to determine travel impacts for transit should a significant number of collector roads see speed reductions.

Collision Data in Residential Neighbourhoods

Administration has estimated potential collision reductions for collector and local roadways in Edmonton neighbourhoods based on the reduced speed limits of 40 km/h and 30 km/h. These collision reduction estimates exclude collisions previously

estimated for playground zones. Only collision data from collector roads and local roads in neighbourhoods from 2012 to 2016 was reviewed. The following tables estimate collision reductions for collector roads and local roads by speed limit reduction.

Estimated Reduction in Residential Neighbourhood Collisions					
Collector Roadways					
Collision Type	Yearly Collisions 2012-2016 (total for 228 neighbourhoods)	Estimated Collisions After Speed Limit Reduction			
		Reduce speed limit from 50 km/h to 40 km/h		Reduce speed limit from 50 km/h to 30 km/h	
Major Injury & Fatal Collisions	23 (22 + 1)	21 (20 + 1)	9% ↓	14 (14 + 0)	39% ↓
Minor Injury Collisions	134	125	7% ↓	98	27% ↓
Property Damage Collisions	1,286	1,213	6% ↓	1,000	22% ↓
TOTAL	1,443	1,359	6% ↓	1,112	23% ↓

Estimated Reduction in Residential Neighbourhood Collisions					
Local Roadways					
Collision Type	Yearly Collisions 2012-2016 (total for 228 neighbourhoods)	Estimated Collisions After Speed Limit Reduction			
		Reduce speed limit from 50 km/h to 40 km/h		Reduce speed limit from 50 km/h to 30 km/h	
Major Injury & Fatal Collisions	11 (average fatalities 0.2)	10	9% ↓	7	36% ↓
Minor Injury Collisions	73	68	7% ↓	53	27% ↓
Property Damage Collisions	2,215	2,090	6% ↓	1,722	22% ↓
TOTAL	2,299	2,168	6% ↓	1,782	22% ↓

Options for consideration

The results of the public engagement presented to Urban Planning Committee in June 7, 2017 (CR_4266) showed that 80 percent of Edmontonians surveyed believe speeding on residential roads is an issue that should be addressed, and 72 percent support a speed of 30 or 40 km/h. Such a reduction to residential speed limits may result in the above-noted estimated collision reductions based on either speed limit. The safest speed-based survivability would be 30 km/h, which aligns with Vision Zero speed limits for vulnerable road users. Given current legislation, signing the approximately 228 neighbourhoods to a 30 or 40 km/h speed limit would cost approximately \$20,000 per neighbourhood or \$4.56 million total.

Based on the estimated injury reductions presented in the table above, Administration presents three options for Committee to consider:

1. Defer a speed reduction decision on residential roads until the appropriate legislation is in place that would allow the City to set its own default speed limit.
2. Complete the implementation of the playground zones based on the outcome of report CR_5352 Playground Zones - Definitions and Options, and conduct an evaluation of speed and collision reductions one year after implementation , noting any potential safety improvements across neighbourhoods such as extended reductions in vehicle speeds leading into and out of playground zones.
3. Complete an evaluation of neighbourhood collector roads one year after implementation of speed limit reductions on residential roads to determine if additional speed limit changes need to be implemented for collector roads.

Conclusion

In setting safety targets and countermeasures that align with the Vision Zero Road Safety Strategy, Administration has collected collision reduction data from Edmonton’s 30 km/h school zones. City Council’s approval to implement playground zones in September 2017 enables Administration to gather more information on collision and injury reduction in residential areas with reduced speed limits because of playground zones.

The implementation of 30 km/h playground zones began in September 2017. As many of the school zones transitioned into playground zones, Administration will review applicable collision data to measure the effectiveness of 30 km/h speed limits in residential areas, as well as the additional effective time from 7:30 to 21:00. Once Administration has time to assess the collision data at playground zones, it will have better measures to support an adjustment to the default speed limit, should the City Charter Regulation give the City the ability to do so. Administration plans to return to Committee with this information in Q2 2019.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is a safe city			
Outcome(s)	Measure(s)	Result(s)	Target(s)
The City’s programs and services promote safety and security for all Edmontonians.	To be determined based on selected option	TBD	TBD

Attachment

1. [Approximate Survival Rate at Different Speeds](#)

Others Reviewing this Report

- T. Burge, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- C. Campbell, Deputy City Manager, Communications and Engagement
- A. Laughlin, Deputy City Manager, Integrated Infrastructure Services
- R. Smyth, Deputy City Manager, Citizen Services