

Residential Speed Limits: Increasing Safety and Livability in Edmonton's Neighbourhoods

Recommendation

That the February 26, 2020, City Operations report CR_7769, be received for information.

Executive Summary

Reducing residential speeds can make Edmonton's streets calmer, quieter, and safer for people walking, biking, driving, and enjoying their neighbourhood. Safe, livable streets contribute toward Vision Zero, one of the strategic actions outlined in the City of Edmonton's Corporate Business Plan 2019-2022. Vision Zero will help the City achieve transformational impacts toward the goals of Healthy City, Urban Places, Regional Prosperity and Climate Resilience.

This report provides an summary of analysis to understand the impacts of reducing speed limits as detailed within:

- CR_7257 Speed Limit Reductions on Main Streets and Other High Pedestrian Locations Report; and
- CR_7258 Default Speed Limits - Draft Bylaws Report.

Speed limit reductions support the City's public safety service outcome of ensuring Edmontonians are safe and secure in their community. Subject to the approval of the Safe Mobility Strategy 2021-2025, speed limit reduction implementation, monitoring and evaluation will be included as a primary action. In partnership with post-secondary institutions, Administration will assess the outcomes of lowering speed limits by analyzing quantitative and qualitative data. A holistic enforcement strategy will be developed in collaboration with Edmonton Police Service and a joint public education campaign will communicate expectations and raise awareness of changes.

Report

Edmonton's streets are for everyone. The new Safe Mobility Strategy 2021-2025 will set out a collaborative and integrated set of actions and strategies that aim to achieve Vision Zero through safe and livable streets in Edmonton, founded on the following key principles:

- We all move;
- We all deserve to move safely;

- We are connected;
- We are successful when we work together; and
- We are informed by analytics, lived experience and research.

The outcomes of reducing residential speed limits align with the purpose and principles of the forthcoming Safe Mobility Strategy. Safe speeds positively impact collision frequency and outcomes and increase active modes of travel, narrow inequities, create greater social inclusion and support community cohesion. Changing public understanding and expectations for what constitutes safe and acceptable speeds in Edmonton's neighbourhoods contributes to a larger shift in traffic safety culture.

Understanding Edmonton's Streets

To better understand the impacts of lowering speed limits in residential areas, Main Streets and high pedestrian areas, Administration undertook the following:

- Engaged the Urban Traffic Safety Research Chair at the University of Alberta to identify potential collision reductions (fatalities, injuries, and property damage only) and quantify associated social and economic cost avoidance;
- Partnered with TELUS Insights to review vehicle travel speeds by analyzing mobile network data in two sample neighborhoods (one within the Core Zone and one outside). Cellular data gathered throughout the month of November 2019 indicated that 75 to 78 percent of vehicle trips taken were below the speed limit and average speeds were below 40 km/hr.;
- Developed the Estimated Time of Arrival Tool (available on edmonton.ca), which models the impact of reducing speed limits on vehicle travel times in Edmonton. Various test scenarios found that travel times are unlikely to be significantly affected;
- Analyzed collision frequency and severity, adjacent land use, traffic volume and existing speed limits, primary use and design of the road, and presence of mixed transportation modes and other speed reduction zones (such as playground zones) through a systematic road network review. In depth analysis can be found in reports CR_7257 Speed Limit Reductions on Main Streets and Other High Pedestrian Locations and CR_7258 Default Speed Limits - Draft Bylaws Report; and
- Consulted with the Edmonton Police Service (EPS) on the potential approach and implementation. As a key traffic safety partner, EPS emphasized the importance of consistency, education and engagement to ensure driver comprehension, acceptance and compliance of new speed limits. EPS advised that enforcement is more effective when expectations are understood, and this is achieved by reducing driver confusion.

Attachment 1 provides a glossary of terms found within, and the reports cross-referenced with, this report.

Residential Speed Limit Reduction Approaches: Considerations

Council directed Administration to bring forward two residential speed limit reduction approaches for consideration: a 40 km/hr residential speed limit citywide and a 30 km/hr residential speed limit within a centrally located Core Zone.

In review of each approach, Administration considered the following:

1. **Safety takes priority over convenience** - no matter who we are or how we travel, everyone deserves to travel safely.
2. **Consistency matters** - reducing driver confusion through consistent expectations has been prioritized to increase understanding and support adoption of new speed limits, including:
 - A refreshed signage strategy to reduce the number of signs on our streets;
 - Holistic consideration of the Downtown neighbourhood, the City's highest concentration of pedestrians (CR_7257 Speed Limit Reductions on Main Streets and Other High Pedestrian Locations provides detailed analysis and excluded roads);
 - Exclusion of roads in residential areas that will not naturally support a reduced speed limit due to design and function (CR_7258 Default Speed Limits - Draft Bylaws Attachment 4, Exception Roadways provides detailed criteria and excluded roads); and
 - Alignment of proposed speed limit reductions for Main Streets that include adjacent roadways and other high pedestrian locations to support the enhancement of pedestrian oriented places and prioritize moving people, not just vehicles (CR_7257 Speed Limit Reductions on Main Streets and Other Pedestrian Locations provides roads and proposed speed limits).
 - *30 km/hr Core Zone*: Initially proposed Core Zone boundaries have been adjusted to align with neighborhood boundaries to avoid bisecting neighborhoods and utilize arterial roads and natural features to increase consistency. Attachment 2 provides a map of the proposed Core Zone.
 - *40 km/hr Citywide Default*: Given its citywide application, this approach may require less effort for drivers to adjust behavior and understanding.

A summary of each approach, including potential collision reductions, social impacts, number of signs and costs can be found in Attachment 3. Attachment 4 shows roadways with speed limits that may change as a result of forthcoming bylaw changes.

Implementation & Monitoring

The implementation plans and timelines for each speed limit reduction approach are outlined within Attachment 5.

To assess the outcomes of lowering speed limits, Administration's implementation and monitoring plan will include a Gender Based Analysis Plus (GBA+) review to analyze quantitative and qualitative data (including requests from the public and councillors to review specific roads) to be tracked over the first year of implementation. An in depth review will then be completed and recommendations for any necessary adjustments will be brought forward for Council's consideration.

Administration will continue to partner with post-secondary institutions to undertake research and analysis that improves data-based decision making and supports a proactive approach to safe mobility. Collaboration opportunities to support the monitoring and evaluation of reduced speed limits include:

- Continued partnership with the University of Alberta to leverage data and evidence to effectively monitor and evaluate safety programs; and
- Resuming work with the University of British Columbia to study and quantify near-misses and traffic conflicts. Vision equipment at different locations allows the impact of speed limit reductions on near-misses and potential collisions to be better understood.

Holistic Enforcement Strategy

Administration and EPS are working closely to develop a holistic enforcement strategy that considers community involvement, driver feedback signs, automated enforcement, and EPS enforcement to support successful implementation of this project. Additionally, GBA+ will inform the development of a joint public education to communicate expectations and raise awareness of changes. By leveraging data and insights, Administration and EPS will integrate efforts to achieve the shared outcomes outlined within the Safe Mobility Strategy.

Next Steps

Throughout 2020, Administration will work collaboratively with citizens and community, business and education partners to develop the Safe Mobility Strategy 2021-2025. Should Council proceed with speed limit reductions, implementation and monitoring will be included as a primary action.

Financial/Budget Implications

Implementing either approach to reducing speed limits can be funded through the Traffic Safety and Automated Enforcement Reserve (TSAER). Should Council wish to proceed with speed limit reductions, Administration will bring forward a Capital Budget request with the 2020 Spring Capital Budget Adjustment. CR_7853 Traffic Safety Automated Enforcement Reserve Update provides an update on TSAER and outlines an opportunity to adjust the Operating Budget to address some of the impact from Provincial Budget reductions to the municipal share of fine revenue on the reserve.

Public Engagement

Attachment 6 provides a summary of integrated public engagement activities and results undertaken since 2018 that captured resident input into traffic safety initiatives and provided insights into community priorities for renewal projects. Improving safety, mobility and accessibility are recurring themes that have emerged from these various forms of public engagement.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is a safe city			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Edmonton is a safe city	Road Safety Strategy, Fatalities	TBD (2019) 19 (2018) 27 (2017) 22 (2016)	17 (2020)
	Road Safety Strategy, Serious Injuries	TBD (2019) 319 (2018) 341 (2017) 325 (2016)	293 (2020)
	Road Safety Strategy, Collision Injuries/1,000 people	TBD (2019) 3.4 (2018) 3.9 (2017) 3.5 (2016)	3.0 (2020)
	Road Safety Strategy, Collisions at Intersections/1,000 people	TBD (2019) 13.9 (2018) 14.6 (2017) 14.4 (2016)	13.5 (2020)
Corporate Outcome(s): Edmontonians are connected to the city in which they live, work and play			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Edmontonians are connected to the city in which they live, work and play	Percentage of respondents who report, overall, they feel connected to community	47% (2017)	45% (2018)

Attachments

1. Glossary of Terms
2. Core Zone Map
3. Approach Summary
4. Road Network Ward Maps (*To be distributed when available*)
5. Implementation Timeline
6. Public Engagement Summary

Others Reviewing this Report

- M. Persson, Deputy City Manager, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- J. Meliefste, Acting Deputy City Manager, Integrated Infrastructure Services
- S. McCabe, Deputy City Manager, Urban Form and Corporate Strategic Development
- B. Andriachuk, City Solicitor