

NO: R182

COUNCIL DATE: December 7, 2020

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## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **December 3, 2020**

FROM: **General Manager, Engineering**

FILE: **5460-19**

SUBJECT: **Residential Area Speed Limit Reduction Pilot**

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## RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report for information; and
2. Approve the implementation of the Residential Area Speed Limit Reduction Pilot, as described in this report.

## INTENT

The purpose of this report is to seek Council approval to implement a comprehensive pilot project for reduced speed limits in six residential areas. The pilot project has been carefully designed to test the impacts of reduced speed limits such that staff can make informed recommendations with regards to residential area speed limits City-wide.

## BACKGROUND

The Vision Zero Surrey Safe Mobility Plan (2019 – 2023) (the “Plan”), launched in February 2019, outlines the overarching approach of the City to move towards the zero people killed and seriously injured (“KSI”) within the transportation network. The Plan outlines strategic work under each of the four pillars of the internationally recognized Safe Systems Approach: Safe Roads, Safe Speeds, Safe Road Users, and Safe Vehicles. The Plan also outlines data-driven focus areas for action:

- Victims of Harm: Pedestrians, Cyclists, and Motorcyclists
- Locations of Harm: Intersections
- Perpetrators of Harm: High Risk Driving (e.g., speeding, distracted, impaired)
- Overarching: Equity, which recognizes that some sub-groups of the population are disproportionately impacted by KSI collisions.

Under the Safe Speeds Pillar, staff identified best practices research on national and international speed limit reduction projects as a key initiative to support Vision Zero in Surrey. In April 2020, this action was brought forward to Council as a 2020 workplan item as part of Corporate Report No. R065; 2020, attached as Appendix “I”.

## DISCUSSION

### Rationale for Reduced Residential Area Speed Limits

Research has consistently demonstrated that vehicle speeds are strongly associated with the frequency of KSI crashes. Further, relatively small changes in travel speeds can greatly increase the chances of survival for those involved in collisions, particularly for vulnerable road users such as pedestrians, cyclists or motorcyclists who do not have the protective infrastructure of a vehicle.

The American Association of State Highway and Transportation Officials Highway Safety Manual states that just a 2 km/h reduction in operating speeds can result in a 17 percent decrease in fatal collisions. It is also widely accepted that a pedestrian struck at 50 km/h has just a 15 percent chance of survival, while a pedestrian struck at 30 km/h has a 90 percent chance of survival.

This data highlights the significance of speed management in reducing KSI crashes and achieving the City's Vision Zero goal. Beyond reductions in people killed and injured, reduced speed limits in residential areas also support other City priorities. Lower speeds are associated with reduced greenhouse gas emissions, reduced traffic noise, enhanced liveability, and increases in active transportation, such as walking and cycling. Many public health officials, in Canada and elsewhere, have long supported reducing speed limits in urban areas, citing the potential to save lives and promote public health. A 2016 report from B.C.'s Office of the Provincial Health Officer called for reducing default speed limit on roads within municipalities from 50 km/h to 30 km/h.

### Case Studies

Below are examples of other Vision Zero municipalities across Canada that have successfully implemented reduced speed limit pilot projects as part of their speed management efforts:

#### Toronto

The City of Toronto used a blanket approach and reduced the posted speed limit from 40 km/h to 30 km/h on all local roads within 12 Municipal Wards in the Toronto and East York District. Speed limits were lowered from 40 km/h to 30 km/h in residential areas resulting in a 28 percent decrease in pedestrian motor vehicle collisions. Notably, these results were achieved solely with changes to the posted speed limit, and without the implementation of traffic calming or other supporting infrastructure.

#### Edmonton

Speed limits were lowered from 50 km/h to 30 km/h in school zones. This resulted in a 45 percent reduction in fatal and injury crashes, and a 55 percent reduction in injury and death to vulnerable road users. The main contributor to this reduction in serious collisions was an observed average 12 km/h reduction in actual vehicle operating speeds.

Analysis from other municipalities has also demonstrated that in urban areas, changes to speed limits in residential areas has a negligible impact on people's travel times. For example, in order to track the possibility of delays caused by reduced speed limits, the City of Edmonton developed a web application combining their City data with Google maps. Results show that reduced speed limits on residential roads near schools added less than one minute to most trips.

## Vancouver

In July 2020, Vancouver City Council approved a 30 km/h residential area speed limit demonstration project. The City of Vancouver is planning to implement reduced speed limits using a zone-based approach, with busier roads forming the boundaries of each zone. The zones for their pilot project were selected through a data driven framework that prioritizes areas where data shows the reduced speed limits are most needed.

Further, there is growing momentum for reduced residential area speed limits among municipalities in British Columbia and across Canada. In 2019, a UBCM resolution called for amendments to the Motor Vehicle Act to allow municipalities the ability to institute blanket speed limits applying to all residential area roads.

## **Made for Surrey Approach**

In developing the plan for the proposed reduced residential area speed limit pilot, staff utilized information gained from the best practices review while recognizing the importance of a 'Made for Surrey' approach:

- Each jurisdiction has a unique legislative context related to speed limits. In British Columbia, the Ministry of Transportation and Infrastructure is responsible for setting the default speed limit. Hence, speed limits other than 50 km/h within municipal boundaries must be implemented through the installation of speed limit signs.
- Each community has unique attitudes and perceptions to speed limits in residential areas. Surveys completed in Surrey have shown close to 60 percent of respondents in favor of reduced speed limits on residential roads.
- Each municipality has unique demographics, land uses, and other considerations. Surrey has both urban and rural areas, a rapidly growing population, and is home to people with diverse cultural backgrounds. Surrey's pilot project must be designed to account for these factors.

To inform Surrey's pilot project, interviews were conducted with municipalities across Canada that have either implemented reduced residential area speed limits, or are in the planning stages for reduced residential area speed limits. While learnings from many of these case studies were incorporated into the pilot project design for Surrey, particular attention was placed on the City of Vancouver's pilot project design given the similarity in legislative context and geographic proximity. Further details of case study interviews are shown in Appendix "II".

As a result, the City's approach to the residential area speed limit pilot project design balances research evidence, Surrey-specific data, input from stakeholders, and evaluation requirements.

In line with Vision Zero Surrey practices, data is a foundational input to the design of the pilot project. This data-driven approach is inclusive, equitable, and ensures resources are targeted where they are needed most. Each stage of the pilot project design relies on a variety of internal and external datasets that ensure impacts across the system are measured and accounted for.

## Stakeholders

The Vision Zero Action Team (“VZAT”) is a multi-sectoral group that works collaboratively to reduce KSI crashes in the City of Surrey. Members from Fire Services, RCMP, Surrey Schools, ICBC, Fraser Health, various City departments and others meet monthly, and work together on projects that contribute to Vision Zero Surrey goals throughout the year.

Input from the VZAT was incorporated into the pilot project design at various stages in the planning process. This ensures that the pilot design addresses the concerns of all stakeholders and allows for collaborative efforts that will ensure pilot project success if it is approved by Council.

## Data Driven Evaluation

Foundational to any pilot project is monitoring and evaluation. Since the pilot project is intended to inform the City’s approach to speed limits in residential areas more broadly, it is essential that the pilot project is designed in a way that allows for a robust evaluation. Proper evaluation requires careful consideration of all pilot project design parameters including selection process, data collection requirements, and project duration. As a result, mechanisms for monitoring and evaluation have been embedded throughout the design.

## **Recommended Residential Area Reduced Speed Limit Pilot**

The recommended residential reduced speed limit pilot will be implemented in eight zones for a duration of one year. Three zones will have 30 km/h speed limits, three will have 40 km/h speed limits, and two will be control zones, with similar characteristics to the other zones, and maintain a 50 km/h speed limit. These speed limits will only apply to the roads classified as local roads; arterial and collector roads will retain their existing speed limits.

The purpose of the pilot project is to understand the impacts of reduced residential area speed limits in the Surrey context.

The pilot project includes three stages: planning, implementation and monitoring, and evaluation.

The following sections provide further details on the pilot project and decision-making processes used by staff in developing this project:

1. General Approach
2. Selection Process
3. Pilot Project Timelines
4. Evaluation Framework
5. Consultation and Engagement

## 1. General Approach

The recent National Association of City Transportation Officials document *City Limits – Setting Safe Speed Limits on Urban Streets*, outlines three primary tools for setting speed limits in urban areas, as summarized below:

- Default speed limits can be considered in jurisdictions that have the authority to set default speed limits.
- Slow Zones are specifically designated areas with slower speeds than otherwise similar streets in the same jurisdiction. Neighbourhood-scale or site-specific zones are useful for addressing high priority areas, such as areas with elevated collision rates or land uses, such as schools or parks. Municipalities can define the geography of slow zones based on their own location-specific needs.
- Corridor speed limits set speed limits on high priority major streets.

In reviewing the literature and the approaches taken by other municipalities across Canada, a “Slow Zone” approach was selected as the most appropriate for Surrey’s pilot project design. Changes to default speed limits are currently not possible for municipalities in British Columbia, and the corridor speed limit approach is best suited for major roads rather than residential areas with few long, continuous road segments.

## 2. Selection Process

Surrey’s selection process followed an equitable, data driven approach to ensure the pilot project can be properly evaluated. Staff began by identifying candidate zones, then developed a data driven GIS analysis to score and select the recommended zones for inclusion in the pilot project.

### *Identification*

Overall, 128 candidate “speed zones” were identified throughout the City, and each zone shared the following general characteristics:

- Bounded by arterial roads or significant water bodies; and
- Predominantly residential land use.

### *Scoring*

Based on a comprehensive review of the literature and interviews with other municipalities, categories suitable for evaluating/scoring each zone were:

- Need: Analysis has shown that some sub-groups of the population suffer disproportionate harm from traffic collisions. Given the safety benefits of this pilot project, data related to seniors, youth, recent immigrants, Indigenous people and prevalence of low-income was used to prioritize zones with higher proportions of these populations.
- Safety Risk: Data on actual measured traffic speeds and crash frequencies was incorporated into the zone selection process to prioritize zones with a documented safety issue. Focussing on zones without speeding or safety issues has important impacts on project evaluation.

- Demand: The presence of community amenities, such as schools, parks, recreation centres or libraries, was used as an indication of the demand for walking and biking.



Data was compiled and analyzed to generate a score. Scores were then used to prioritize and identify which zones are proposed for the pilot project.

### *Selection*

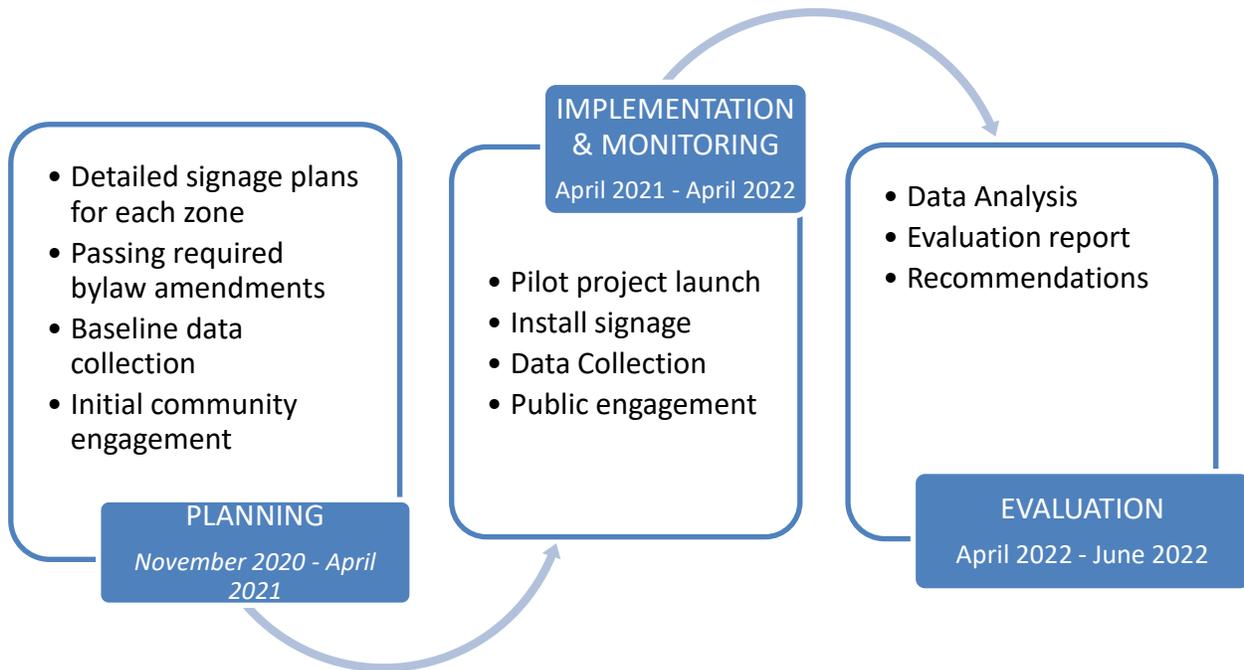
The detailed review resulted in the following eight zones being recommended for inclusion in the proposed pilot project. Each zone has both a park and an elementary school and has similar characteristics (see exact boundaries on map in Appendix “III”):

- Zone 1:** Between 96 Avenue and 100 Avenue from 124 Street and 128 Street
- Zone 2:** Between 75 Avenue and 80 Avenue from 120A Street and 124 Street
- Zone 3:** Between Rosemary Heights Crescent and 40 Avenue from 153 Street and 156B Street
- Zone 4:** Between 56 Avenue and 60 Avenue from 180 Street and 184 Street
- Zone 5:** Between 60 Avenue and 64 Avenue from 132 Street and 136 Street
- Zone 6:** Between 88 Avenue and 92 Avenue from King George Boulevard and 140 Street
- Zone 7:** Between 104 Avenue and 108 Avenue from 128 Street and 132 Street
- Zone 8:** Between 100 Avenue and 104 Avenue from 140 Street and 144 Street

Of the eight zones, three will have the speed limit reduced to 30 km/h, three zones will have the speed limit reduced to 40 km/h, and two zones will be control sites to remain at 50 km/h.

### 3. Pilot Project Timelines

The proposed pilot project has been split into three phases. Details of these phases and planned timelines are shown in the figure below.



### 4. Evaluation Framework

The pilot study is a safety effectiveness evaluation of reduced posted speed limits from 50 km/h to either 40 and 30 km/h on local roadways. The safety effectiveness of the reduced speed limits will be measured in the short-term (less than three months) by the reduction in travel speed and the perceived safety of neighbourhood residents as a surrogate safety treatment. The pilot will employ observations before and after study design with a comparison-group for all analysis.

The evaluation methodology is designed to balance quantitative data on actual changes in vehicle travel speeds, with qualitative data from the community:

- **Travel Speed Data:** Vehicle speeds on various road segments throughout each of the selected zones will be measured at regular intervals throughout the pilot project. Data for at least 400 vehicles on about five road segments per zone are required to ensure that results are statistically significant.
- **Community Surveys:** Three surveys are planned for each selected zone. The surveys allow for an evaluation of community perceptions, community support, and changes in behaviour including the level of confidence amongst communities to adopt more active travel modes such as cycling and walking.

The specific factors that will be measured and quantified are shown in the following table:

Factor to be Quantified	Expected Outcome	Indicator of Success	Timeline
Traffic speeds	Reduced operating speeds	<ul style="list-style-type: none"> <li>Change in daily weekday average speeds in each zone</li> <li>Change in daily 85<sup>th</sup> percentile speeds in each zone</li> <li>Standard deviation of speeds in each zone</li> </ul>	<ul style="list-style-type: none"> <li>Baseline</li> <li>Ongoing</li> <li>Post-Project</li> </ul>
Neighbourhood Perceptions	Perception of reduced speeds, improved safety, and overall success of pilot project	<ul style="list-style-type: none"> <li>Support for pilot project in each zone</li> <li>Perception of reduced speeds in each zone</li> <li>Perception of improved safety in each zone</li> <li>Change in travel patterns including a shift to increased walking and cycling in each zone</li> </ul>	<ul style="list-style-type: none"> <li>Baseline</li> <li>Ongoing</li> <li>Post-Project</li> </ul>

### 1. Consultation and Engagement

A project consultation and engagement plan has been drafted. The plan outlines an approach to informing residents of the identified neighbourhoods, as well as the community at large about the Residential Area Speed Limit Reduction Pilot Project, why it is important, and how it is being implemented.

Consultation and engagement will occur with two primary groups:

- **Road Safety and Transportation Organizations:** This group includes emergency services, Surrey Schools, TransLink, ICBC, business associations, and academic partners, among others.
- **Surrey Residents and Community Groups:** This group includes the general public, community associations, parent advisory councils, senior’s associations, and volunteer groups.

The tools used to engage with these two groups will be matched to the level of engagement required, and the level of impact of the pilot project on each stakeholder. Further, the consultation and engagement will occur in two phases; one before the pilot and one at the pilot launch.

While the consultation and engagement plan has been developed in consideration of current COVID-19 public health recommendations, it is expected that revisions and changes to the plan will be required as health recommendations adapt to changing pandemic trends.

## Next Steps

If the pilot is approved, staff will initiate the following next steps:

- Initial stages of community outreach;
- Creation of a detailed signage plan for each pilot project zone;
- Drafting of required Bylaw amendments to support the pilot project;
- Bringing Bylaw amendments to Council for approval;
- Undertake pilot and evaluate impacts; and
- Present evaluation findings and recommendations to Council in December 2022.

## SUSTAINABILITY CONSIDERATIONS

The proposed pilot project supports the objectives of the City's Sustainability Charter 2.0. In particular, this initiative supports the Sustainability Charter 2.0 themes of Public Safety, and Inclusion. Specifically, the initiative supports the following Desired Outcomes ("DO"):

- Age-Friendly Community DO<sub>15</sub>: Surrey's youngest and oldest residents are valued community members;
- Transportation Safety DO<sub>9</sub>: Transportation network supports and provides safe mobility for all ages and abilities; and
- Transportation Safety DO<sub>10</sub>: Surrey is part of a coordinated effort to reduce the risk of harm for all road users, with attention to those who are most vulnerable, including pedestrians and cyclists;

## CONCLUSION

Based on the above discussion, implementation of this pilot will help to support the City's Vision Zero Strategy targets and help to inform the City's approach to speed limits in residential areas City-wide.

Scott Neuman, P.Eng.  
General Manager, Engineering

SSL/SA/cc

Appendix "I" – Corporate Report No. R065; 2020

Appendix "II" – Case Study Findings

Appendix "III" - Map of Recommended Zones

NO: **R025** COUNCIL DATE: **April 20, 2020**

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**REGULAR COUNCIL**

TO: **Mayor & Council**

DATE: **April 15, 2020**

FROM: **General Manager, Engineering**

FILE: **6020-001**

SUBJECT: **Vision Zero Surrey 2019: A Year in Review**

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**RECOMMENDATION**

The Engineering Department recommends that Council receive this report for information.

**INTENT**

The purpose of this report is to highlight the significant road safety achievements in 2019 by the Vision Zero Surrey Strategy in its first year, as summarized below, as well as to outline the plans for 2020.

**BACKGROUND**

On January 30, 2019, Council approved the Vision Zero Surrey Safe Mobility Plan 2019–2023 (the “Plan”), as described in Corporate Report No. R010; 2019 attached to this report as Appendix “I”.

The Plan outlines the overarching approach of the City to move towards the concept of zero people killed and seriously injured (“KSIs”) within the transportation network. The Plan sets out the vision, mission and identifies key focus areas to prioritize for action in order to move Surrey towards having the safest roads in British Columbia.

**Our Vision**

That Surrey has zero people killed and seriously injured on its roads, and that human life is valued above all else in Surrey’s transportation network.

**Our Mission**

Working in collaboration with the City’s partners, staff will take equitable, data-driven and evidence-based actions to ensure that City resources are spent where they will have the greatest impact on creating safer streets.

**Key Focus Areas**

Using a holistic, data-driven and evidence-led approach, informed by international best practice research, the City will:

- Target high risk intersections (Locations of Harm) where almost 80% of KSI collisions occur;
- Prioritize the City’s most vulnerable road users, including pedestrians, cyclists and motorcyclists (Victims of Harm), who account for 50% of Surrey’s KSI collisions, and

- Prioritize the City's most vulnerable road users, including pedestrians, cyclists and motorcyclists (Victims of Harm), who account for 50% of Surrey's KSI collisions, and
- Create a community mindset where 'accidents' no longer happen and high-risk driving behaviours (Perpetrators of Harm), which contribute to about 66% of Surrey's KSI crashes, are no longer tolerated.

## **Our Target**

The City's goal is an achievable and measurable shorter-term target: to reverse the trend of rising injuries and deaths on Surrey's roads and achieve a minimum 15% reduction in injury collisions over the next five years (2019-2023).

## **DISCUSSION**

### **Year in Review – 2019 Major Accomplishments**

City staff and partner organizations have all contributed significantly to the success of Vision Zero in Surrey in 2019. Together, staff and partners have taken a multi-sectoral, strategic approach to reducing death and serious injury, and have established Surrey as a Provincial and National leader in road safety.

Beyond the achievements noted below, staff have been working to enhance City processes, conduct data analysis and research, develop partnerships with organizations in diverse sectors, and create a detailed work plan for Vision Zero Surrey.

It is recognized that plans for 2020 will be adaptable due to COVID-19.

### **Award for Road Safety Project of the Year**

In December 2019, the Plan was awarded the Greater Vancouver Institute of Transportation Engineers Mavis Johnson Award for Road Safety Project of the Year. The Mavis Johnson Award celebrates technical excellence in the field of road safety. The award highlights the high quality of work completed by the Vision Zero Surrey Action Team and showcases the important, life-changing efforts undertaken to ensure safe roads for everyone.

In the year since launching Vision Zero, Surrey has become a leader in the field of road safety at both a Provincial and National level, as demonstrated by their involvement in various committees and boards. These include:

- Chair of the Safe Roads and Communities Committee of the BC Road Safety Strategy;
- Member of the Transportation Association of Canada Road Safety Committee;
- Co-Chair of the Transportation Association of Canada Vision Zero and Safe Systems Committee; and
- Vice President of the Board of Directors for the Canadian Association of Road Safety Professionals.

Surrey's involvement provides opportunities to shape policy, provide direction, and advocate for key strategic outcomes.

## **Hosted BC's First Vision Zero Summit**

Vision Zero success in Surrey requires learning from leading Vision Zero jurisdictions and inspiring action by other road safety stakeholders. In February 2019, the City and the Provincial Health Services Authority partnered to deliver BC's First Vision Zero Summit. Recognizing that death and injury resulting from collisions is as much a public health emergency as it is an issue of public safety, BC's Provincial Health Officer, Dr. Bonnie Henry, opened the Summit proceedings with a keynote address. Over 150 attendees (civic leaders, transportation and health professionals) heard from international experts (San Francisco, Portland, Washington State) and champions active in implementing Vision Zero and the Safe Systems Approach. The Summit helped to build and sustain leadership, collaboration, and accountability for the elimination of serious injuries and fatalities on the road system and marked Surrey as a leader in road safety.

## **Data Driven Improvements**

Vision Zero Surrey is committed to an evidence-led and data-driven approach. Research evidence and data informs the work that is done, the decisions that are made, and the policies that are implemented. Surrey has been recognized as a Provincial leader in crash data analysis. In 2019, staff continued to make improvements to the City's datasets and have been working closely with partners to improve the quality of the data and to help shape policy and practice with regards to crash data in BC.

Based on RCMP data, in 2019 there were 16 fatalities on streets in Surrey, which is a 23% decrease from 21 in 2018.

## **Established Vision Zero Action Team and Working Groups**

The mandate for road safety does not rest solely on one level of government, nor with a single agency. Rather, it is a dispersed responsibility, and so collaboration is critical in order to successfully implement road safety programs and initiatives under Vision Zero Surrey. Following intense stakeholder engagement and development, a partnership was formed between key internal and external agencies/departments. The governance structure includes a City-led Vision Zero Action Team along with two supporting Working Groups: one focused on Education and Engagement, and the other on Research and Evaluation. This structure brings partner agencies together so challenges and opportunities can be determined, and progress measured to ensure staff are heading towards the goal of zero KSIs.

## **Enhanced Safety at Nine High Collision Intersections**

Data shows that close to 80% of Surrey's KSI collisions occur at intersections. Analysis has identified the top 50 locations where serious collisions occur most frequently, and through 2019, safety upgrades have been completed at nine locations:

1. King George Boulevard and 128 Street;
2. 96 Avenue and 152 Street;
3. 88 Avenue and 152 Street;
4. 88 Avenue and 128 Street;
5. 80 Avenue and 120 Street;
6. 76 Avenue and King George Boulevard;
7. 64 Avenue and King George Boulevard;
8. 64 Avenue and Fraser Highway; and
9. 72 Avenue and 128 Street.

Common safety measures that are being installed at Surrey's high collision intersections include:

- Improved streetlighting: Wherever possible, streetlighting is upgraded to have a minimum of one streetlight illuminating each crosswalk, thus helping to improve the visibility of pedestrians.
- Fully protected left turns: Fully protected left turns are implemented at locations where the collision history shows a high frequency of collisions involving left-turning drivers. This signal operation provides a dedicated set of signal indications for left-turning vehicles which separates the movement of pedestrians and oncoming traffic from the movement of left-turning drivers.
- Removed or re-designed channelized right-turn lanes: Channelized right-turn lanes increase the speed of right-turning vehicles and the angle of entry can make it challenging for right-turning drivers to see vehicles on the road they are entering. The program is removing right-turn channels, or where this is not feasible, smart right-turn channels are being implemented, which improve the angle of entry and hence sight lines.

### **Leading Pedestrian Intervals**

Pedestrians and vehicles normally enter the intersection at the same time. The light changes green for drivers and the "WALK" sign illuminates for pedestrians. This is when conflicts can occur. Leading Pedestrian Intervals ("LPIs") are traffic signal timing features that give pedestrians a head start into the crosswalk before the vehicle is given the green light. This allows pedestrians to move into the sight line of drivers and be seen more easily. LPIs have been shown to reduce pedestrian-vehicle crashes by up to 60%. At minimal cost and with the ease of application, these measures have been rapidly deployed at locations throughout Surrey. The City is currently leading the Province with over 70 LPIs in place.

### **Other Key Accomplishments**

Other key accomplishments achieved through Vision Zero in 2019 include:

- Installed 33 speed humps;
- Installed 11 traffic signals;
- Installed 36 left-turn signals;
- Installed flashing lights at 13 crosswalks;
- Completed 450 traffic sign improvements;
- Investigated and responded to over 2,300 resident concerns;
- Distributed 6,100 Reflectors;
- RCMP and SCPS volunteers contributed over 3,400 hours to road safety initiatives; and
- Collected vehicle speed data at 335 sites.

### **The Year Ahead**

The work plan for 2020 includes a continued focus on building infrastructure that is safe for all road users, undertaking collaborative multi-sectoral work to create safe speeds, and targeted, pro-active campaigns that help drive changes to road user behaviour. Specifically, the Vision Zero 2020 work plan includes:

- Infrastructure safety improvements at additional high collision locations;
- Reduced Residential Area Speed Limit Pilot Project Proposal;

- Conversion to fully protected left-turn signals at locations with high left-turn collision frequency;
- Work with University partners to conduct evaluation of the Vision Zero Team's work;
- Development of a Critical Collision Response Protocol to work collaboratively to address safety issues at high collision locations; and
- Monitoring of road safety issues during COVID-19 to assess impacts on Vision Zero goals and targets.

## SUSTAINABILITY CONSIDERATIONS

The work of Vision Zero Surrey supports the objectives of the City's Sustainability Charter 2.0. In particular, this initiative supports the Sustainability Charter 2.0 themes of Public Safety, Infrastructure, Inclusion, Built Environment and Neighbourhoods, and Education and Culture. Specifically, the initiative supports the following Desired Outcomes ("DO") and Strategic Direction ("SD"):

- Age-Friendly Community DO15: Surrey's youngest and oldest residents are valued community members;
- Neighbourhoods and Urban Design DO8: The built environment enhances quality of life, happiness and well-being;
- Transportation Safety DO9: Transportation network supports and provides safe mobility for all ages and abilities;
- Transportation Safety DO10: Surrey is part of a coordinated effort to reduce the risk of harm for all road users, with attention to those who are most vulnerable, including pedestrians and cyclists;
- Economy SD4: Support low barrier, diverse, inclusive and informal learning opportunities across all communities; and
- Transportation DO11: An integrated and multi-modal transportation network offers affordable, convenient, accessible and safe transportation choices within the community and to regional destinations.

## CONCLUSION

The Vision Zero Surrey 2019: A Year in Review document attached as Appendix "II" demonstrates that the City's commitment to realizing its Vision Zero goals. Staff have implemented some successful measure to address critical road safety issues. In addition to the initiatives outlined, Surrey has begun the journey to "Zero" by enhancing internal processes and using evidence-led decision making and RCMP data has identified a 23% reduction in fatalities on Surrey streets from 2018 to 2019.



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General Manager, Engineering

SSL/JB/SA/cc

Appendix "I" – Corporate Report No. R010; 2019  
Appendix "II" - Vision Zero Surrey 2019: A Year in Review

**Note: Appendices available upon request**

## APPENDIX “II”

### Case Study Findings

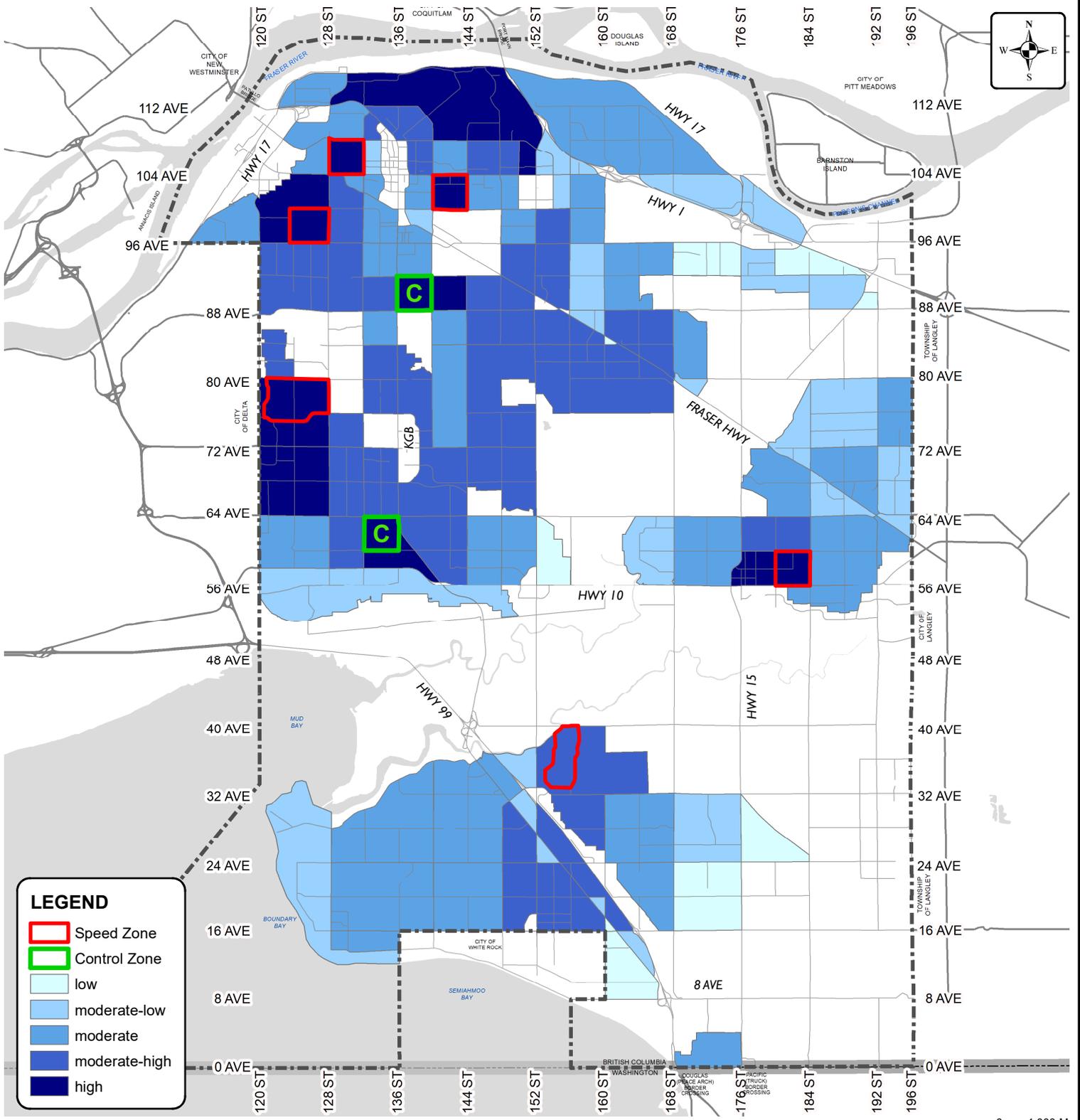
Jurisdiction	Speed Limit being Implemented	General Approach (e.g. Zone, Corridor, Default)	Zone Selection Methodology	Effectiveness	Key Learnings
<p>City of Vancouver - Council has approved the pilot project. Exact implementation timelines to be determined.</p>	<p>30 km/h</p>	<p>Slow Zone Pilot Project</p> <p>Speeds within selected zones will be reduced to 30 km/h</p>	<ol style="list-style-type: none"> <li>1. Divide city into zones</li> <li>2. Categorize zones based on speed data:               <ol style="list-style-type: none"> <li>a. Group 1 – areas with operating speeds already below 50 km/h</li> <li>b. Group 2 – areas most in need of a speed reduction</li> </ol> </li> <li>3. Rank zones within Group 1 and Group 2 separately based on:               <ol style="list-style-type: none"> <li>a. Collision History</li> <li>b. Vulnerable Road Users</li> <li>c. Community Amenities</li> <li>d. Traffic Calming (Group 1 only)</li> <li>e. Operating Speeds (Group 2 only)</li> </ol> </li> <li>4. Select highest priority Group 1 and Group 2 zones for pilot project</li> </ol>	<p>The city will report back on the effectiveness of the slow zone project in 2022</p>	<ul style="list-style-type: none"> <li>• Data driven zone selection process leads to better outcomes in evaluation</li> <li>• Data driven zone selection leads to higher community acceptance as zones most in need are identified</li> <li>• Incorporate evaluation requirements into pilot project design</li> </ul>

Jurisdiction	Speed Limit being Implemented	General Approach (e.g. Zone, Corridor, Default)	Zone Selection Methodology	Effectiveness	Key Learnings
<p>City of Calgary - In planning stages and not yet imitated. Exact implementation timelines currently unknown.</p>	<p>40 km/h</p>	<p>Default Citywide Reduced Speed Limits (Alberta Charter City legislation permits this approach)</p> <p>All roads with no posted speed limit sign will become 40 kilometers per hour by default. Through changes to existing signage, the new default will only apply to local roads with a few exceptions on certain collector roads.</p>	<ul style="list-style-type: none"> <li>Not Applicable</li> </ul>	<p>The effectiveness of this program will be monitored and reported to Council through subsequent reports on the Safer Mobility Plan</p>	<p>Different legislative environment, but:</p> <ul style="list-style-type: none"> <li>Web application showing change in travel time before and after reduced speed limits was effective means of public engagement</li> <li>Evaluation process developed prior to implementation is critical for project success</li> </ul>
<p>City of Edmonton - Expected to launch in Spring 2021</p>	<p>40 km/h</p>	<p>Default Citywide Reduced Speed Limits (Alberta Charter City legislation permits this approach)</p> <p>The city is planning:</p> <ul style="list-style-type: none"> <li>A default speed limit of 40 km/h for residential roads throughout Edmonton</li> <li>A 40 km/h speed limit</li> </ul>	<p>The city completed a systematic road network review to identify where reduced speed limits could increase safety and livability and identified “exception roadways” that would not support a lowered speed limit. The following factors were considered:</p> <ul style="list-style-type: none"> <li>existing safety considerations (e.g., high collision frequency</li> </ul>	<p>The effectiveness of this program is not yet known</p>	<p>Different legislative environment, but:</p> <ul style="list-style-type: none"> <li>Engagement and collaboration with police and other partners is foundational to smooth implementation process</li> <li>Data driven decision making leads to defensible and high-quality projects</li> <li>Web application showing change in travel time before and after reduced speed limits was</li> </ul>

Jurisdiction	Speed Limit being Implemented	General Approach (e.g. Zone, Corridor, Default)	Zone Selection Methodology	Effectiveness	Key Learnings
		<p>in a number of high pedestrian areas</p>	<p>or severity)</p> <ul style="list-style-type: none"> <li>• presence of mixed transportation modes</li> <li>• adjacent land use (e.g., residential or vulnerable road users)</li> <li>• presence of speed reduction zones (e.g., playground zones)</li> <li>• traffic volume and existing speed limit</li> <li>• primary use of road and design intent/function</li> </ul> <p>existing road design (e.g. divided/undivided, lane width)</p>		<p>effective means of public engagement</p>

Jurisdiction	Speed Limit being Implemented	General Approach (e.g. Zone, Corridor, Default)	Zone Selection Methodology	Effectiveness	Key Learnings
City of Hamilton - Early stages of city-wide implementation that will continue over the next three years.	40 km/h	<p>Citywide reduced speed limits are being implemented on a neighbourhood by neighbourhood basis</p> <p>Ontario legislation does not require speed limit signage at every block. As a result, reduced speeds will be implemented through 40 km/h signage at neighborhood gateways.</p>	<p>Zones were originally selected on a ward basis with an effort to distribute priority speed reduction zones throughout each ward.</p> <p>In the first year, staff identified three neighbourhoods per ward primarily based on the presence of speed complaints</p>	The effectiveness is not yet known	Different legislative environment and different approach taken.
City of Toronto - Local road speed limit changes expected to begin in 2021.	All local roads recommended to be 30 km/h	Eventual Citywide approach being implemented	Unknown whether order of implementation will follow zone prioritization approach	28 percent decrease in pedestrian motor vehicle collisions	<p>Different legislative environment and different approach taken, but:</p> <ul style="list-style-type: none"> <li>• Strong education and engagement messaging have helped build public awareness and support</li> </ul>
City of Ottawa - Ongoing and is considered to be a long-term project	Various reductions in local road speed limits	Citywide with implementation occurring on a ward by ward basis	Candidate slow speed zones are defined based on Major Collector roadways, and zone selection is on a ward by ward basis and most commonly driven by Ward Councillors	No evaluation is completed as part of this ongoing speed reduction work	<ul style="list-style-type: none"> <li>• Politically driven zones can lead to frustration and challenges with evaluation</li> </ul>

SITE MAP



Produced by GIS Section: 27-Nov-2020, JJR

Scale: 1:126,000 0 1,000 M



**Recommend Speed Reduction Pilot Zones**

**ENGINEERING DEPARTMENT**

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, Legal descriptions and encumbrances must be confirmed at the Land Title Office.