



THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council

File No.: 5400-13

From: City Manager (CAO)

Date: October 25, 2023

Subject: Crown Isle Speed Limit Reduction Pilot Project

PURPOSE:

This report provides information on a local initiative focused in the neighbourhood of Crown Isle and background to keep Council informed on related road safety issues, updates and successes.

BACKGROUND:

Prior to the implementation of the Crown Isle Speed Limit Reduction Pilot Project, Crown Isle neighbourhood residents contacted the City with concerns about speeding on Crown Isle Drive and Royal Vista Way, throughout a five (5) year period. Starting in the summer of 2016, members of the Crown Isle community connected with both City Council and Staff on a semiregular basis to discuss a variety of traffic related concerns, including but not limited to; traffic volumes, traffic speeds, construction vehicle traffic, construction noise, street lighting, and pedestrian crossings.

In response, Staff reviewed each concern as it was raised by the residents of the Crown Isle community and responded to each request with an appropriate review and actions as required, including formal responses when reasonable and Council updates as required. A summary of the timeline is provided below:

- In July of 2016, City staff reviewed traffic patterns and found the 85th percentile was 54 km/h with an average of 1.6 incidents per year, over the preceding 5 years. The RCMP confirmed that zero incidents were speed related and no traffic calming measures were recommended at the time.
- In October 2016, a delegation of Crown Isle neighbourhood residents met with the Mayor to discuss concerns about speeding. The delegation requested that the City review Crown Isle Drive and Royal Vista Way and narrow both roadways in order to slow down traffic.
- A delegation of Royal Vista Way residents appeared before Council on Nov 7, 2016, and suggested traffic calming and speed limit reductions be implemented. At the following Council meeting on November 21, 2016, Council resolved to install a 50 km/h sign on Royal Vista Way, and to place a speed reader board in the area. In the summer of 2016, the 85th percentile speed on Royal Vista Way was determined to be 54 km/h.
- In August 2017, a Briefing Note went to Council to address ongoing complaints regarding truck traffic in the Crown Isle area to let Council know that City staff had contacted construction companies to ask that they assist in dealing with these concerns.
- Residents of Royal Vista Way continued to contact the City with their concerns about speeding, and in March 2017, a Briefing Note went to Council with speed and incident data that showed that Royal Vista Way was operating within accepted industry parameters.
- The Briefing Note also committed to setting up the speed reader board in the spring of 2017, in order to track speeds and speed changes on Royal Vista Way. Speed data showed that the 85th percentile speed on Royal Vista Way from June 30 to July 7, 2017 was 52 km/h.
- At the November 20, 2017, Council meeting, a delegation from Royal Vista Way appeared before Council to discuss their concerns with commercial and heavy vehicle traffic on Crown Isle Drive and

Royal Vista Way. At that same meeting Council resolved to consider the request and asked staff to prepare a report with options to resolve the heavy traffic issue as presented by the delegation.

- In the summer of 2018, Royal Vista Way residents contacted the City to request the speed reader boards be installed in the Crown Isle neighbourhood once again. The speed reader boards were installed on Royal Vista Way in the fall of 2018, and the findings were shared with residents. The 85th percentile speed between October 5 and November 27, 2018 was 52 km/h.
- In the winter of 2020 the Crown Isle neighbourhood renewed their concerns in a submission through the OCP process. This submission included the names of 224 residents who supported a request to reduce the posted speed limit in the Crown Isle neighbourhood from 50 km/h to 40 km/h. Speed data collected between January 1 and March 10, 2020, and between November 20 and December 4, 2020, determined that the 85th percentile speeds on Crown Isle Drive ranged between 44 and 52 km/h. This data was relayed to Crown Isle residents in December 2020, along with the City's plan to review traffic safety on Cycling Network Plan routes, such as Crown Isle Drive and Royal Vista Way.

At the February 16, 2021 Council meeting, Council resolved:

WHEREAS Local Governments on Vancouver Island, Municipalities throughout British Columbia and Canada have reduced speed limits on local roads to improve liveability and increase safety, and,

WHEREAS the Crown Isle Community has expressed a strong desire to reduce the speed limit within its neighbourhood, and,

WHEREAS reducing the speed limit in the Crown Isle Community to 40 km/h will improve neighbourhood liveability, increase road safety, support non-vehicular use such as cyclists and pedestrians, reduce neighbourhood noise levels, increase community interaction and reduce infrastructure costs;

THEREFORE BE IT RESOLVED THAT Council direct Staff to report on a strategy to implement a three year reduced speed limit Pilot Project in the Crown Isle Community.

A staff report at the September 27, 2021 Council meeting outlined recommendations for a speed limit reduction pilot project in Crown Isle. Following this report, Council resolved the following, reducing the timelines for the pilot from three years to one year:

THAT Council direct staff to install 40 km/h signs on Crown Isle Drive and Royal Vista Way, including ongoing maintenance and evaluation, for one year and report back to determine if the speed limit reduction is effective.

After collecting preliminary data at 50 km/h, as well as a public notification phase, the speed limit in the Crown Isle neighbourhood was reduced to 40 km/h, on April 19, 2022, as shown in the map in Appendix A.

Following the one-year pilot period which ended April 19, 2023, staff delivered a survey to residents in the study area. The survey is provided in Appendix B with results summarized in Appendix C.

DISCUSSION:

Reducing speed limits provides many benefits, including reducing vehicle operating speeds, improving road safety, and improving neighbourhood liveability. It can have safety benefits in terms of fewer collisions, as well as less severe collisions when they do occur, in turn this improves comfort for those traveling on foot, bike, or with mobility aids.

Pilot Project Description and Scope

The Crown Isle Speed Limit Reduction Pilot Project began on Tuesday, April 19, 2022. The two main roads in the study area are Crown Isle Drive and Royal Vista Way, as shown in the map in Appendix A. While the Pilot concluded after one year, the posted speed limit and road conditions remain in place today.

Crown Isle Drive and Royal Vista Way are local collector streets, with one lane of traffic in each direction and parking permitted on both sides. Other streets in the pilot project are local residential streets, with one lane of traffic in each direction, and parking permitted on both sides.

Pilot Project Impact on Speed and Traffic

Traffic data, including traffic volumes and speed data, was collected at various locations in the Crown Isle neighbourhood before and during the pilot project. In this report, travelled speed is expressed as a percentile speed. The 85th percentile speed indicates the speed not exceeded by 85% of the traffic surveyed.

Previously collected traffic data was available along Crown Isle Drive and Royal Vista Way for comparison. The data ranges from 2016 to 2023, covering time periods before and after the implementation of the speed reduction pilot program. The data was collected at various times throughout the year.

Speed readers were setup to collect data before, during and after the pilot study. The results are illustrated in Appendix D and indicate:

- Vehicle speeds in residential areas reduced 1-4 km/h, depending on the road, with the most notable reduction occurring on Royal Vista Way. As such, a reduction in the posted speed from 50km/h to 40 km/h did not translate to a significant reduction in vehicle speed, regardless of the speed limit signage.
- The level of non-compliance with the posted speed limit increased substantially from approximately 20% before the pilot project to approximately 60% after the posted speed limit was reduced from 50km/h to 40km/h, however driver speeds decreased by approximately 1-4 km/h, indicating drivers were slower overall. Given the scope of this project, this result suggests future changes to the posted speed limit should be combined with speed enforcement and a diverse number of speed management measures such as educational programs and other engineering measures to effect driver behaviour in slowing the travel speed to acceptable levels.
- Daily vehicle volumes increased between 11% - 15% on Crown Isle Drive whereas the number of vehicles per day on Royal Vista Way saw a reduction of 15%. These changes could be attributed to traffic counts being done in different months that are already typically below-average.

The post pilot resident satisfaction survey indicated the following about speed and traffic:

- Majority of residents (45% - 90%) are satisfied with the pilot's impact on speed and traffic.
- Residents in the study area generally agree with 40km/h speed limits as 65% of responses indicated they would like to keep the reduced speed limit of 40 km/h compared to 22% requesting a return to 50 km/h and 13% requesting further reductions to 30km/h.

Pilot Project Impact on Collisions

Collision data along the study corridors was obtained from ICBC over a 5-year period, from 2018 through 2022. Currently, data is only available until December 31, 2022 which indicates no incidents were reported for the first 8 months of the pilot project as summarized in the table below.

Table 1: 2018-2022 Collision Data, Crowne Isle Speed Limit Reduction Pilot Project

Road Name	2018	2019	2020	2021	2022
Crown Isle Drive	2	0	0	1	0
Royal Vista Way	0	0	0	1	0
Idiens Way	1	1	0	0	0

Unfortunately, the pilot data does not provide conclusive information regarding the net impact of reducing the posted speed limit on collision severity (e.g., beyond the number of collisions resulting in injury, fatality, or property damage only). Additional research would be required to substantiate the impact of the pilot project on collision severity. However, for the collision data in the table above, it can be noted that:

- No incidents involved pedestrians or cyclists, and there were no serious injuries or fatalities.
- All three incidents on Crown Isle Drive were property damage incidents only.
- The 2021 incident on Royal Vista Way was a property damage incident only.
- Of the two incidents on Idiens Way, the 2018 incident was a property damage incident, while the 2019 incident was an injury incident.

Pilot Project Impact on Community Perceptions of Traffic Safety

The results of the satisfaction survey indicated the following:

- A majority (96%) of respondents were aware of their community's involvement in the pilot project.
- A majority (38%) of respondents rated traffic speeds as improved after the pilot project.
- A majority of respondents (45% - 90%) are satisfied with the pilot's impact on speed and traffic.
- Residents in the study area generally agree with 40km/h speed limits as 65% of responses indicated they would like to keep the reduced speed limit of 40 km/h compared to 22% requesting a return to 50 km/h and 13% requesting further reductions to 30km/h.
- A majority (88% - 91%) of respondents indicated they feel safe or very safe when walking (88%), cycling (90%), rolling (91%) or driving (91%).
- A very small subset (1% - 2%) of respondents feel less safe following pilot project when asked about the impact on children (2%), pedestrians (1%), cyclists (2%) or vehicle drivers (2%).
- After reducing speed limit from 50km/h to 40km/h, 38% - 46% of the public feel safer, 53% - 59% feel the same as before, and 1% - 2% feel less safe, depending on what type of commuter they are responding for (children, pedestrians, cyclists, vehicle drivers).

Pilot Project Conclusions

Generally speaking, the Crown Isle Speed Limit Reduction Pilot Project was successful following one year of data. Awareness of the pilot project was very high with 96% of respondents being aware that their community was participating in the Crown Isle Speed Limit Reduction Pilot Project.

The realized benefits from the pilot project are focused most predominantly on the community perception of traffic safety with limited impacts to speed and traffic reductions. A total of 38%-46% of respondents to

the satisfaction survey indicated they feel safer today than before. The 85th percentile speeds for roads in the pilot project were observed to fall between 2% and 7% compared to speeds before the pilot project.

Further analysis would be required to provide conclusive statements about collisions, however preliminary data suggests that zero collisions occurred during the first 8 months of the pilot project.

Next Steps

Given the positive feedback and satisfaction with the impacts from this one-year pilot study, staff have developed a preliminary roll out plan for the same speed reduction initiative. The roll out of speed reductions from 50km/h to 40km/h are proposed to only be applied to residential neighbourhoods, with new signs and posted speed limits within each neighbourhood.

The cost and count of signs required to implement the program are summarized in the table below and provided with greater detail by road type in Appendix D. The summary provided for each school area are not mutually exclusive as the school areas overlap when applying a 1km radius for estimating costs.

Table 2: Speed Reduction Program Implementation, by School Area and City-wide

Area	Sign Count	Install Costs
Arden Elementary School (1km radius)	26	\$ 7,488
Courtenay Elementary School (1km radius)	276	\$ 79,488
Glacier View Secondary School (1km radius)	133	\$ 38,304
Lake Trail Community School (1km radius)	174	\$ 50,112
Mark R. Isfeld Secondary School (1km radius)	157	\$ 45,216
Ecole Puntledge Park Elementary School (1km radius)	141	\$ 40,608
Queneesh Elementary School (1km radius)	75	\$ 21,600
Valley View Elementary School (1km radius)	164	\$ 47,232
Vanier Secondary School (1km radius)	34	\$ 9,792
All School Areas (1km radius)	670	\$ 192,960
City-wide (remainder, excluding the above school areas)	187	\$ 53,856
City-wide (all)	857	\$ 246,816

Note that each school area could have a more robust approach to identifying which roads need proactive speed reductions. The identification of these roads is intended to be defined and delivered in a separate program to be delivered through closer engagement with Parent Advisory Councils (PACs) and the impending Safe and Active Schools Program. An example of a safe routes to school map is provided in Appendix E as an example.

The above numbers are provided to support a Council decision to direct staff on a desired implementation strategy. e.g. Speed Reduction deployment across the City as a whole (residential neighbourhoods only), or a more focused deployment within school zones and CNP bikeways being the implementation priorities.

POLICY ANALYSIS:

Currently the B.C. Motor Vehicle Act (MVA) sets a default speed limit of 50 km/h on municipal streets when a different speed limit has not been posted by signs. In 2013, the City of Victoria made a motion at the Association of Vancouver Island and Coastal Communities (AVICC) convention to invite motions of support for their resolution to reduce default speed limits for municipal roads.

During the fall of 2020 the Union of B.C. Municipalities resolved to ask the B.C. Minister of Transportation and Infrastructure to amend the MVA to allow municipalities to institute a default speed limit of 30 km/h for local (no centre line) streets.

Currently, municipalities have the authority to regulate the use and enforcement of traffic on roads through Bylaw under the context of the “parent” provincial legislation, primarily the MVA. Reducing speed limits below those set by the MVA can be achieved under the City’s current authority anywhere within its boundaries through the use of signage on each individual street.

Given the scope of this pilot project, results suggest future changes to the posted speed limit should be combined with speed enforcement and a diverse number of speed management measures such as educational programs and other engineering measures to effect driver behaviour in slowing the travel speed to acceptable levels. For example, changing driver behaviours may be more effective with a higher likelihood of being cited for speeding. The trade-offs however are an onerous increase in enforcement requests. Policy decisions that divert police resources away from major roadways (e.g., arterials and rural roads, especially those with the bulk of collisions) may not serve the goal of improving overall safety.

Older neighbourhoods that do not have sidewalks, locations with substandard geometry which have evidence of collision problems, and areas around schools on local streets are specific conditions where the general use of 40 km/h speed limits is recommended for local policies. These specific locations are recommended to be determined through the impending Safe and Active Schools Program. For other locations on local roads, alternative approaches to reducing travel speeds are suggested as preferable and likely far more effective to improve the speed compliance and safety of a road, neighbourhood and system.

FINANCIAL IMPLICATIONS:

The use of 40 km/h speed limits on local neighbourhood streets will require installing signing at significant costs. Using a 1-km radius, the cost to implement a similar program around the City’s schools is expected to range from \$7,448 - \$79,488 each for a total of approximately \$192,960. The cost to implement a similar program city-wide is expected to be approximately \$246,816. While these costs are not currently included in the 2024 operational or capital budgets, staff can allocate resources and budget for this program should Council provide such direction.

ADMINISTRATIVE IMPLICATIONS:

Implementing a City-wide change in the default speed limits will require a preceding communications strategy as a robust public education effort is recommended. As such, additional staff capacity would be required to respond to concerns and questions from a variety of user groups. Therefore, delivering an expedited city-wide program would require additional staff resources, with the net result being a possible delay the delivery other strategic initiatives.

Further, changes to the Motor Vehicle Act have been requested by various local governments. Amendments to the Motor Vehicle Act by the province could materially affect the assumptions in this report. The cost estimates for delivering a speed limit reduction program would change if this occurred.

Last, there are administrative implications related to meeting public expectations with a larger rollout of this initiative. For example, effectively engaging the local RCMP detachment for additional enforcement needs will be critical to the long term success of an implementation plan and have potential resource implications for the RCMP. As such, should Council consider further implementation, staff do recommend requesting the RCMP consider identifying this program with a commitment to enforcement as an annual priority during the annual performance planning process in the fall of 2023.

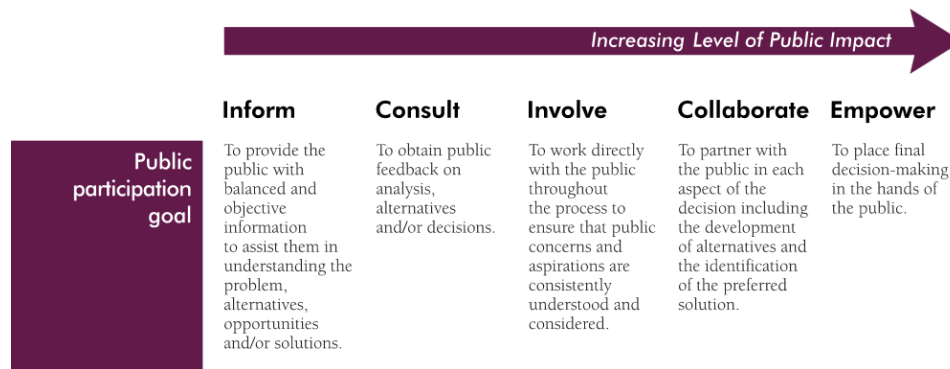
STRATEGIC PRIORITIES REFERENCE:

This initiative addresses the following strategic priorities:

- Streets and Transportation - Develop traffic calming plans, related policies, and specific implementation when and where, speed limits, school zones, cycling education/awareness

PUBLIC ENGAGEMENT:

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



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OPTIONS:

1. THAT Council direct staff to retain the 40km/h speed reduction for the trial area located within the Crown Isle neighbourhood, and;

That staff be directed to expand the speed reduction program to include all residential

neighbourhoods within the City of Courtenay's jurisdictional boundary, with the exclusion of all roads classified as either arterial and industrial or designated as a truck route, as time and resources allow and;

FURTHER THAT staff be directed to prioritize the implementation of an expanded speed reduction program with installation focused on the Safe Active Schools Program and the Cycling Network Plan.

2. THAT Council direct staff to retain the 40km/h speed reduction for the trial area located within the Crown Isle neighbourhood, and;

THAT staff be further directed to develop a City-wide speed reduction program for all residential neighborhoods within the City of Courtenay's jurisdictional boundary, with the exclusion of all roads classified as either arterial and industrial or designated as a truck route, and report back to Council with an implementation plan, including financial impacts.

3. THAT Council provide alternative direction to staff.
4. THAT Council receives this report for information only.

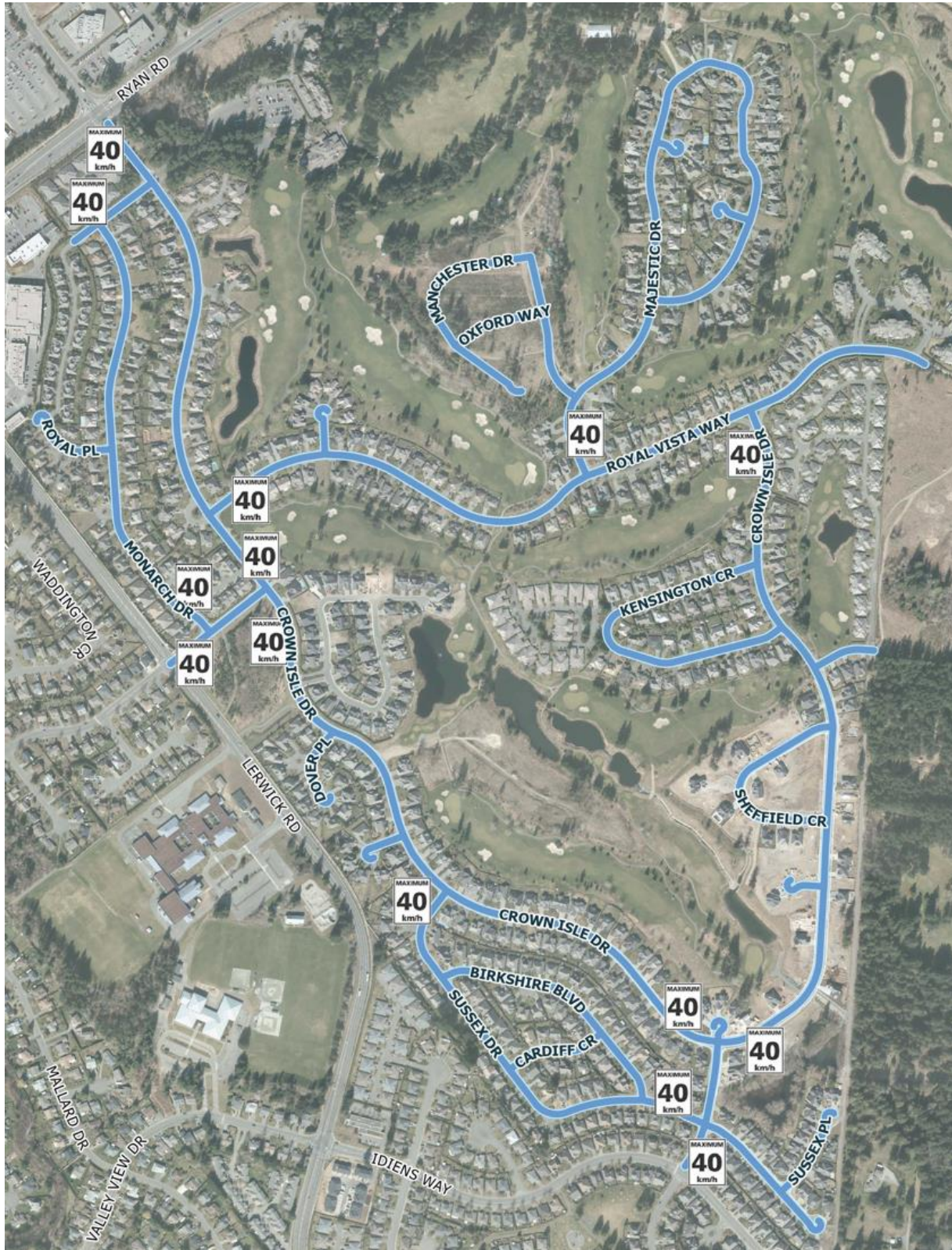
Prepared by: Michael Wright, MPA, P. Eng, Manager of Transportation & Fleet

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Concurrence: Geoff Garbutt, M.Pl., MCIP, RPP, City Manager (CAO)

Appendix A

Crown Isle Speed Reduction Pilot Project Study Area



Appendix B

Crown Isle Speed Limit Reduction Pilot Project Resident Satisfaction Survey

Speed Limit Reduction Pilot Project



Crown Isle Resident Survey

In April 2022, the City of Courtenay launched a pilot project in your neighbourhood, reducing the posted vehicle speed limit on streets within Crown Isle and improving comfort for those traveling on foot, by bike, or with mobility aids.

During this period, speed limits were reduced from Courtenay's default speed of 50 km/hour to **40 km/hour**.

**We want to
hear from you!**

Please take the quick survey.



Your input is important!

Your feedback will help us determine if the reduced speed limit has been effective in slowing vehicles down, and will be included in an upcoming report to Council.

Results from the speed limit reduction pilot project will be used to determine the best course of action for other residential neighbourhoods.



To participate in the survey, scan the QR code and complete the survey, or complete the attached paper copy and return it to City Hall or the Public Works Yard.

The survey will be open until to August 16th, 2023, please drop off completed paper copy responses by 4:00 p.m.



If you have any questions
or concerns, please contact us.

Tel. 250-338-1525 | Email publiworks@courtenay.ca

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Crown Isle Speed Limit Reduction Pilot Project

Satisfaction Survey

Please return by 4pm on August 16, 2023

1. Are you aware that your neighbourhood has been participating in a City of Courtenay speed limit reduction pilot project since April 2022, testing the impact of reducing residential speed limits to 40km/hour?

Yes No

2. How often do you or the members of your household travel in the Crown Isle neighbourhood in the following ways?

	Never	Daily	Multiple times per day	Weekly	Multiple times per week
Walk, includes using a mobility aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roll, includes scooters, balancing boards, and roller blades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. How safe do you and the members of your household feel when:

	Very Unsafe	Unsafe	Safe	Very Safe
Walking and/or using mobility aids in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cycling in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rolling in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**If you selected "Unsafe" or "Very Unsafe", please tell us why:

4. What is your level of satisfaction with:

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
The general design of your neighbourhood, including road width, on street parking, cross-walks, intersections.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The number of speeding vehicles in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The current speed limit in your neighbourhood (40km/hr)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of traffic in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The number of near misses and/or collisions in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of unsafe driving in your neighbourhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Thinking about your driving in the last year, how often do you drive at the following speeds in your neighbourhood?

	Never	Rarely	Often	Daily
Under the speed limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right on the speed limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Up to 5 km/hr over the speed limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 – 10 km/hr over the speed limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More than 10 km/hr over the speed limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Since the speed limit reduction pilot project started, how do you think the reduced vehicle speed limit has impacted commuters sharing these transportation corridors?

	More Safe	Same as before	Less Safe
Children feel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrians feel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclists feel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle drivers feel:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How would you rate traffic speeds in your neighbourhood compared to before the new speed limit was implemented?

- No improvement Minimal improvement Improved Significant improvement

8. Would you like to keep the reduced speed limit of 40 km/hr, or return the speed limit to 50 km/hr or further reduce it to 30km/hr?

30 km/hr

40 km/hr

50 km/hr

9. How long have you lived in the Crown Isle neighbourhood? _____

Less than 1 year

1 to 5 years

5 to 15 years

15+ years

Appendix C

Crown Isle Speed Limit Reduction Pilot Project

Resident Satisfaction Survey Results

Summary:

This section summarizes the results of the Resident Satisfaction Survey conducted between July 30 and August 16, 2023, post pilot project. 771 surveys were hand delivered to residents in the pilot project area. Surveys could be completed by hand or online. 377 surveys were submitted. Below is a summary of the key findings.

Results:

Question 1: Are you aware that your neighbourhood has been participating in a City of Courtenay Speed Limit Reduction Pilot Project since April 2002?

The majority of respondents (96%) indicated they were aware their community had been chosen to participate in a pilot project.

Figure 1: Are you aware that your neighbourhood has been participating in a City of Courtenay Speed Limit Reduction Pilot Project since April 2002?

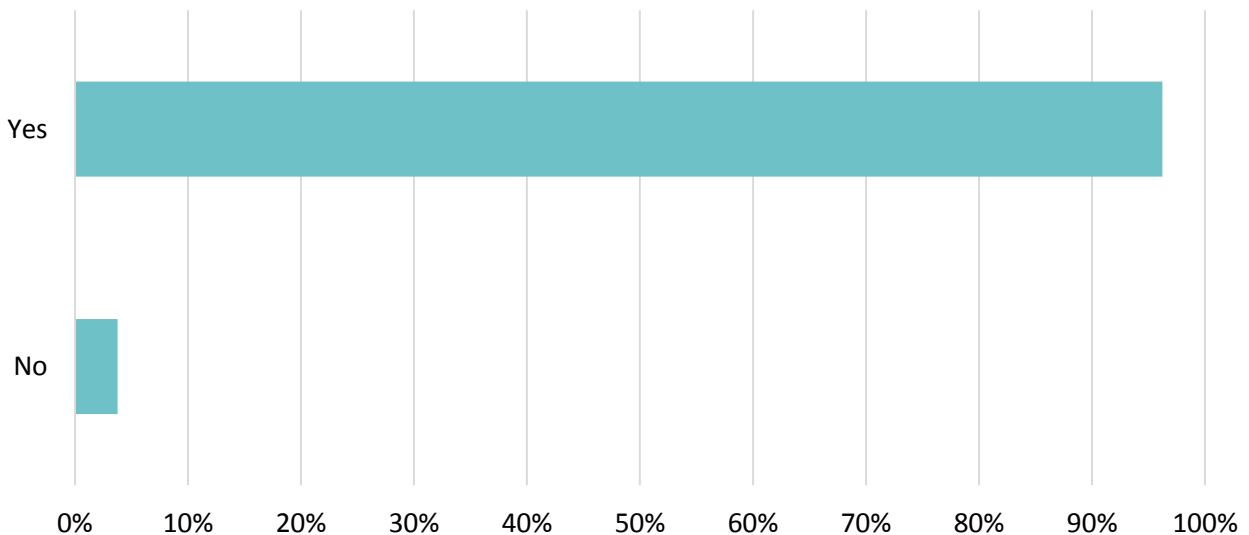


Table 1: Are you aware that your neighbourhood has been participating in a City of Courtenay Speed Limit Reduction Pilot Project since April 2002?

Response	Frequency
Yes	96%
No	4%

Question 2: How often do you or the members of your household travel in the Crown Isle neighbourhood in the following ways?

Residents were asked to identify how often they, or a member of their household, walks, cycles, rolls, drives, or uses other modes of transportation. Respondents most frequently stated they drive in their neighbourhood multiple times per week (44%), walk daily (40%), and rarely roll in their community (including scooters, balancing boards, and rollerblades).

Figure 2: How often do you or the members of your household travel in the Crown Isle neighbourhood in the following ways?

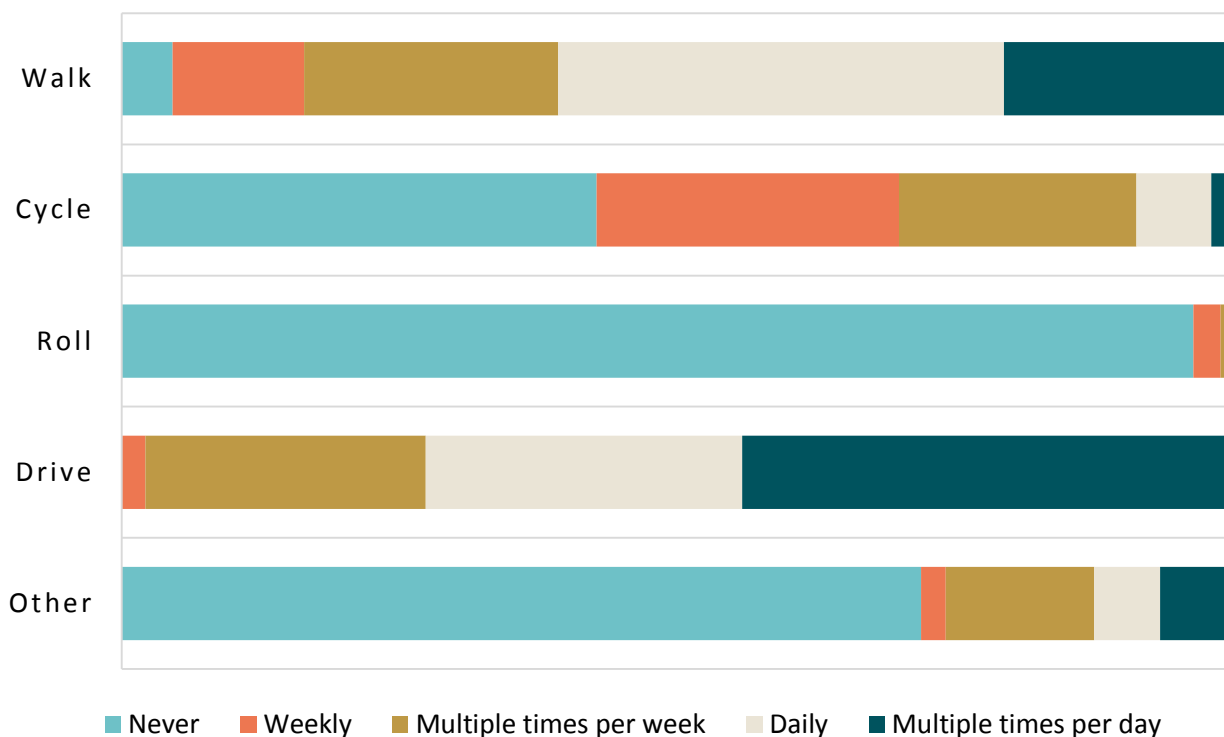


Table 2: How often do you or the members of your household travel in the Crown Isle neighbourhood in the following ways?

	Never	Weekly	Multiple times per week	Daily	Multiple times per day
Walk	5%	12%	23%	40%	21%
Cycle	43%	27%	21%	7%	2%
Roll	96%	2%	1%	1%	0%
Drive	0%	2%	25%	28%	44%
Other	72%	2%	13%	6%	7%

Question 3: How safe do you and the members of your household feel when?

Respondents were most likely to indicate that they felt safe rolling in their community (58%), followed by cycling (52%). Residents indicated that they feel very safe walking and driving in their community (46%).

Figure 3: How safe do you and the members of your household feel when?

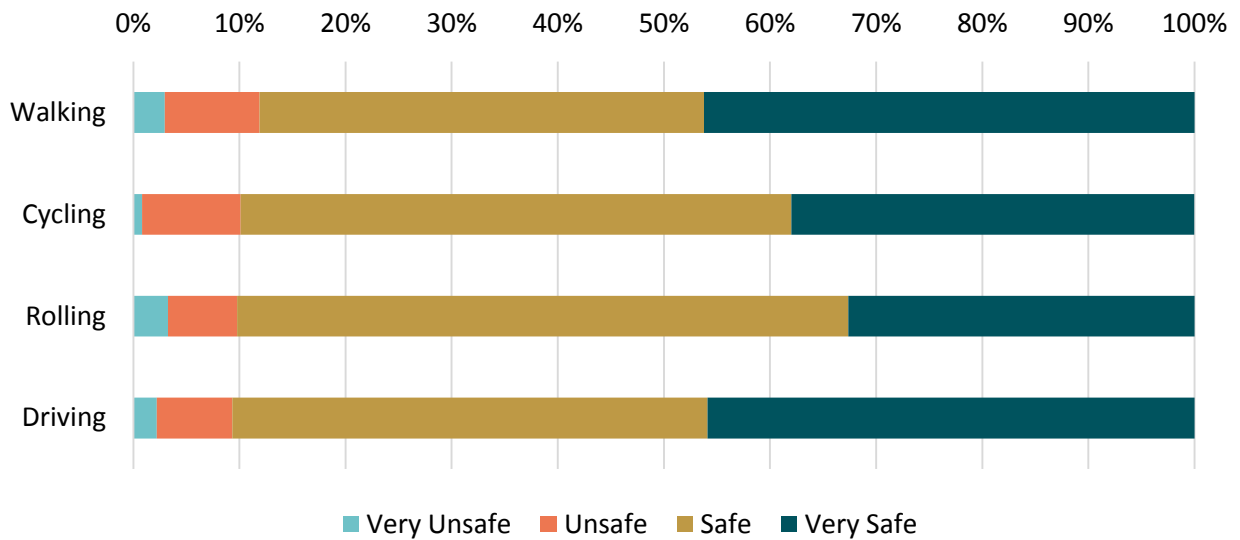


Table 3: How safe do you and the members of your household feel when?

	Very Unsafe	Unsafe	Safe	Very Safe
Walking	3%	9%	42%	46%
Cycling	1%	9%	52%	38%
Rolling	3%	7%	58%	33%
Driving	2%	7%	45%	46%

Question 4: What is your level of satisfaction with?

Respondents were asked to rate their level of satisfaction with a number of factors. Respondents were the most satisfied with the general design of their neighbourhood, including road width, on-street parking, crosswalks and intersections (90%), and the least satisfied with the number of speeding vehicles in their neighbourhood (45%).

Figure 4: What is your level of satisfaction with?

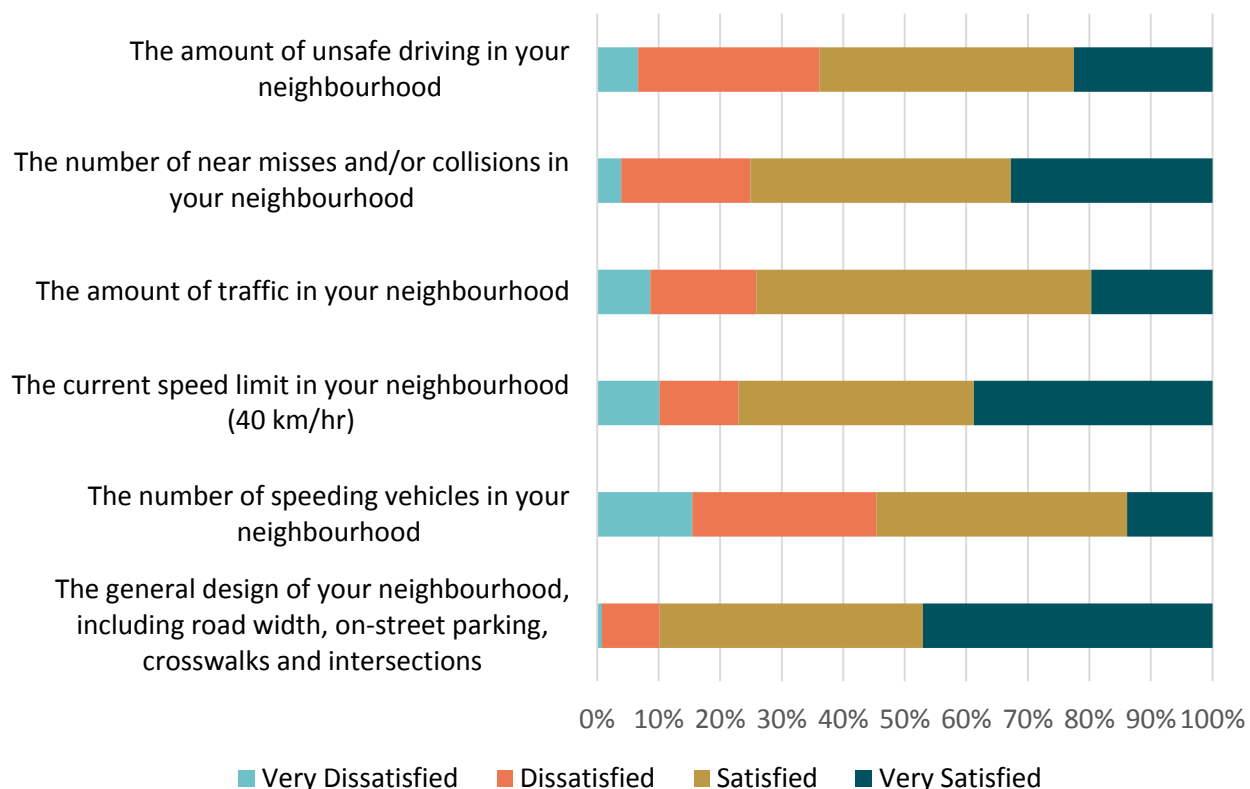


Table 4: What is your level of satisfaction with?

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
The general design of your neighbourhood, including road width, on-street parking, crosswalks and intersections	1%	9%	43%	47%
The number of speeding vehicles in your neighbourhood	15%	30%	41%	14%
The current speed limit in your neighbourhood (40 km/h)	10%	13%	38%	39%
The amount of traffic in your neighbourhood	9%	17%	54%	20%
The number of near misses and/or collisions in your neighbourhood	4%	21%	42%	33%
The amount of unsafe driving in your neighbourhood	7%	29%	41%	23%

Question 5: Thinking about your driving in the last year, how often do you drive at the following speeds in your neighbourhood?

Considering their driving in the past 12 months, respondents were most likely to indicate that they drive right at the speed limit daily (41%) and rarely or never between 6 – 10 km/h over the speed limit (59%), or more than 10 km/h over the speed limit (87%).

Figure 1: Thinking about your driving in the last year, how often do you drive at the following speeds in your neighbourhood?

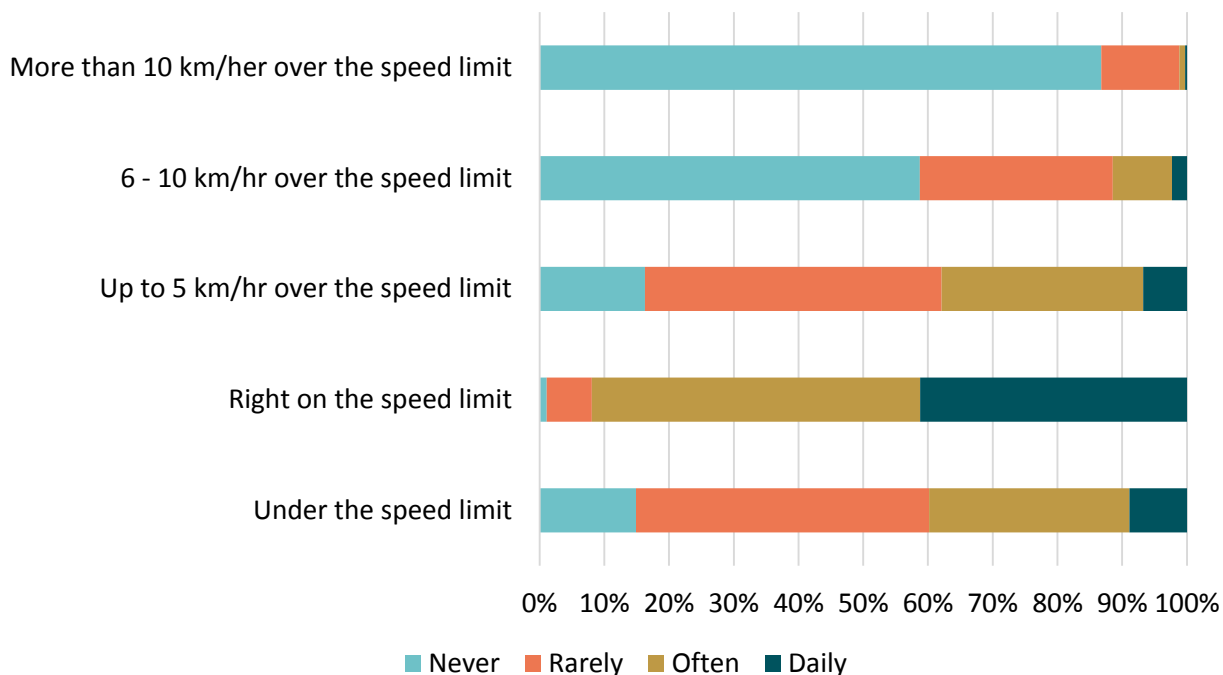


Table 5: Thinking about your driving in the last year, how often do you drive at the following speeds in your neighbourhood?

	Never	Rarely	Often	Daily
Under the speed limit	15%	45%	31%	9%
Right on the speed limit	1%	7%	51%	41%
Up to 5 km/h over the speed limit	16%	46%	21%	7%
6 - 10 km/h over the speed limit	59%	30%	9%	2%
More than 10 km/her over the speed limit	87%	12%	1%	0%

Question 6: Since the speed limit reduction pilot project started, how do you think the reduced vehicle speed limit has impacted commuters sharing these transportation corridors?

Since the implementation of the pilot project, the majority of children, pedestrians, cyclists, and drivers feel that the reduced speed limit has not made a difference in safety in the Crown Isle neighbourhood (53-59%), while 38-46% feel safer than before the pilot project.

Figure 2: Since the speed limit reduction pilot project started, how do you think the reduced vehicle speed limit has impacted commuters sharing these transportation corridors?

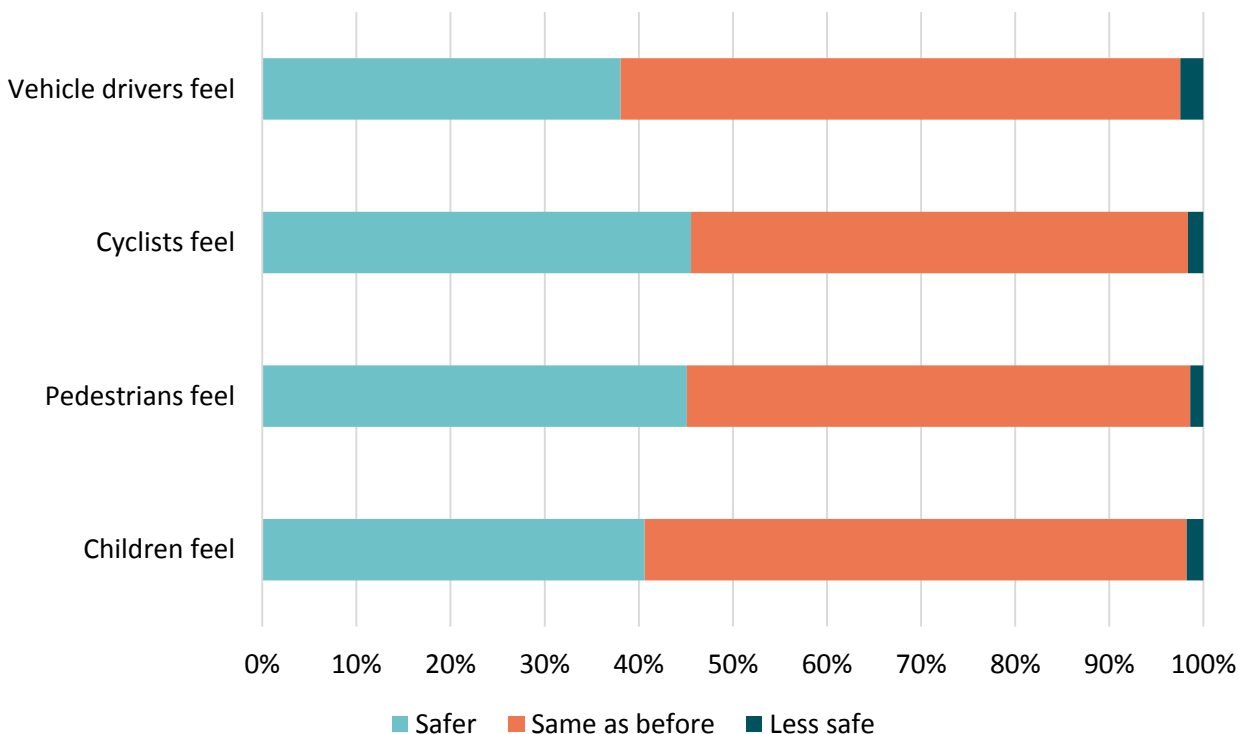


Table 6: Since the speed limit reduction pilot project started, how do you think the reduced vehicle speed limit has impacted commuters sharing these transportation corridors?

	Safer	Same as before	Less safe
Children feel	41%	58%	2%
Pedestrians feel	45%	54%	1%
Cyclists feel	46%	53%	2%
Vehicle drivers feel	38%	59%	2%

Question 7: How would you rate traffic speeds in your neighbourhood compared to before the new speed limit was implemented?

Thirty-eight percent (38%) of respondents felt reducing the speed limit from 50 km/h to 40 km/h improved traffic speeds in their neighbourhood, while 33% felt there was only minimal improvement, and 20% felt there was no improvement at all.

Figure 3: How would you rate traffic speeds in your neighbourhood compared to before the new speed limit was implemented?

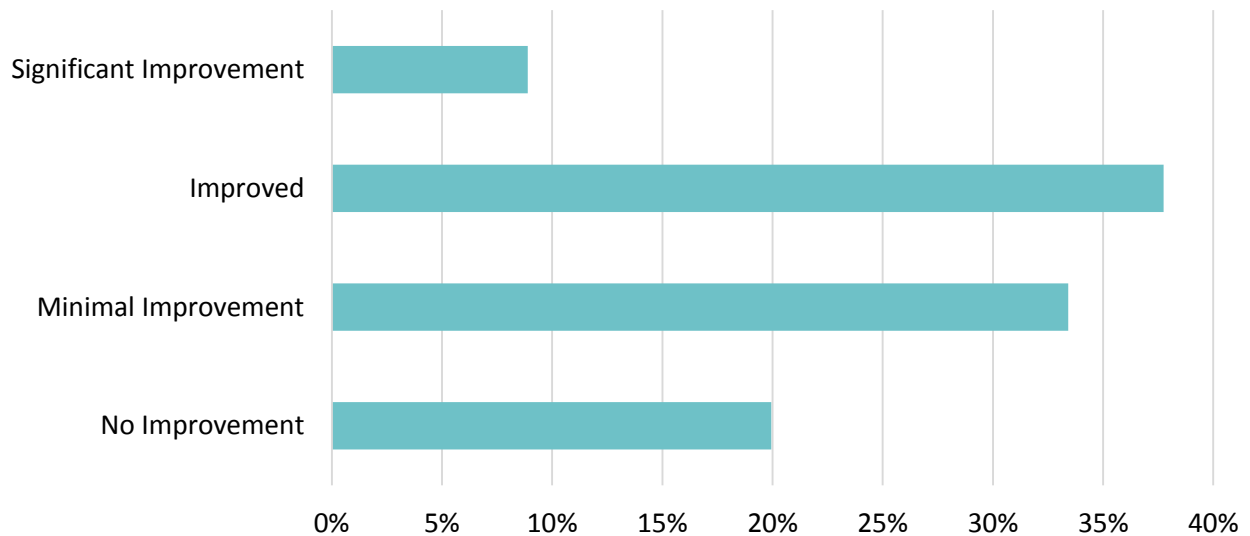


Table 7: How would you rate traffic speeds in your neighbourhood compared to before the new speed limit was implemented?

No Improvement	20%
Minimal Improvement	33%
Improved	38%
Significant Improvement	9%

Question 8: Would you like to keep the reduced speed limit of 40 km/h, return the speed limit to 50 km/h, or further reduce it to 30 km/h?

More than half of respondents (65%) felt the new speed limit was just right, while 22% felt it was too low.

Figure 4: Would you like to keep the reduced speed limit of 40 km/h, return the speed limit to 50 km/h, or further reduce it to 30 km/h?

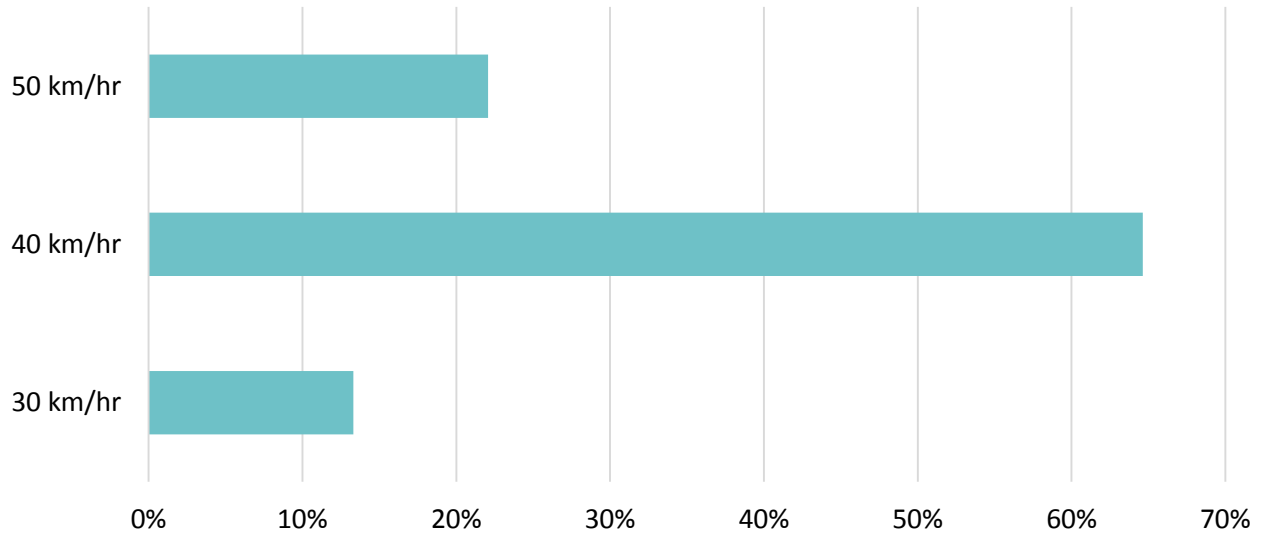


Table 8: Would you like to keep the reduced speed limit of 40 km/h, return the speed limit to 50 km/h, or further reduce it to 30 km/h?

30 km/h	13%
40 km/h	65%
50 km/h	22%

Question 9: How long have you lived in the Crown Isle neighbourhood?

The majority of respondents (41%) indicated that they have lived in the Crown Isle Neighbourhood between 5-15 years.

Figure 5: How long have you lived in the Crown Isle neighbourhood?

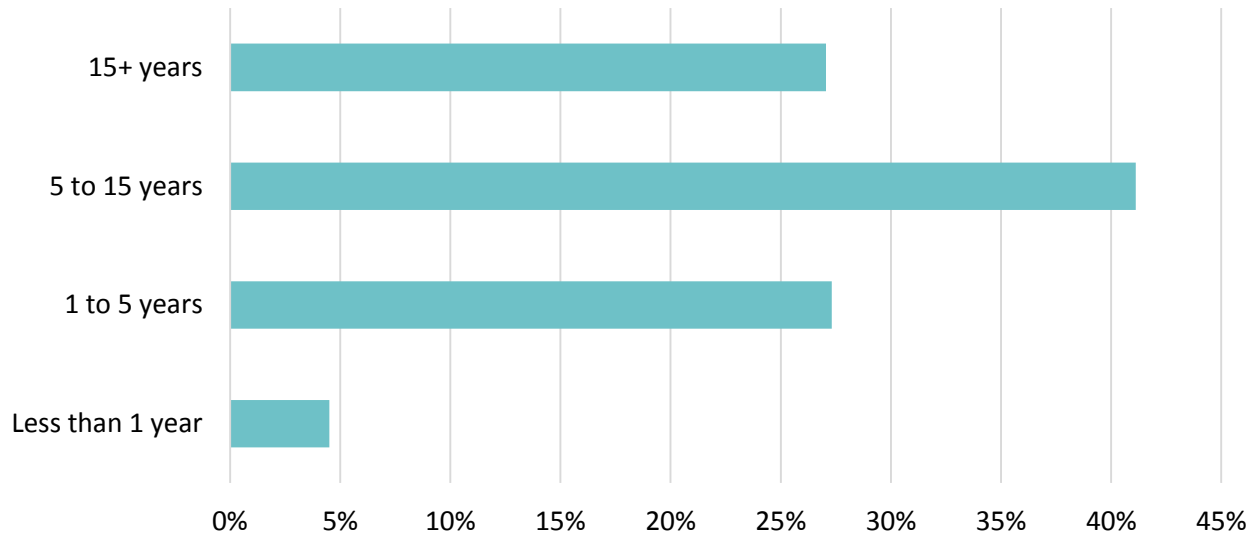


Table 9: How long have you lived in the Crown Isle neighbourhood?

Less than 1 year	5%
1 to 5 years	27%
5 to 15 years	41%
15+ years	27%

Appendix D

Crown Isle Speed Limit Reduction Pilot Project

Speed and Collision Data

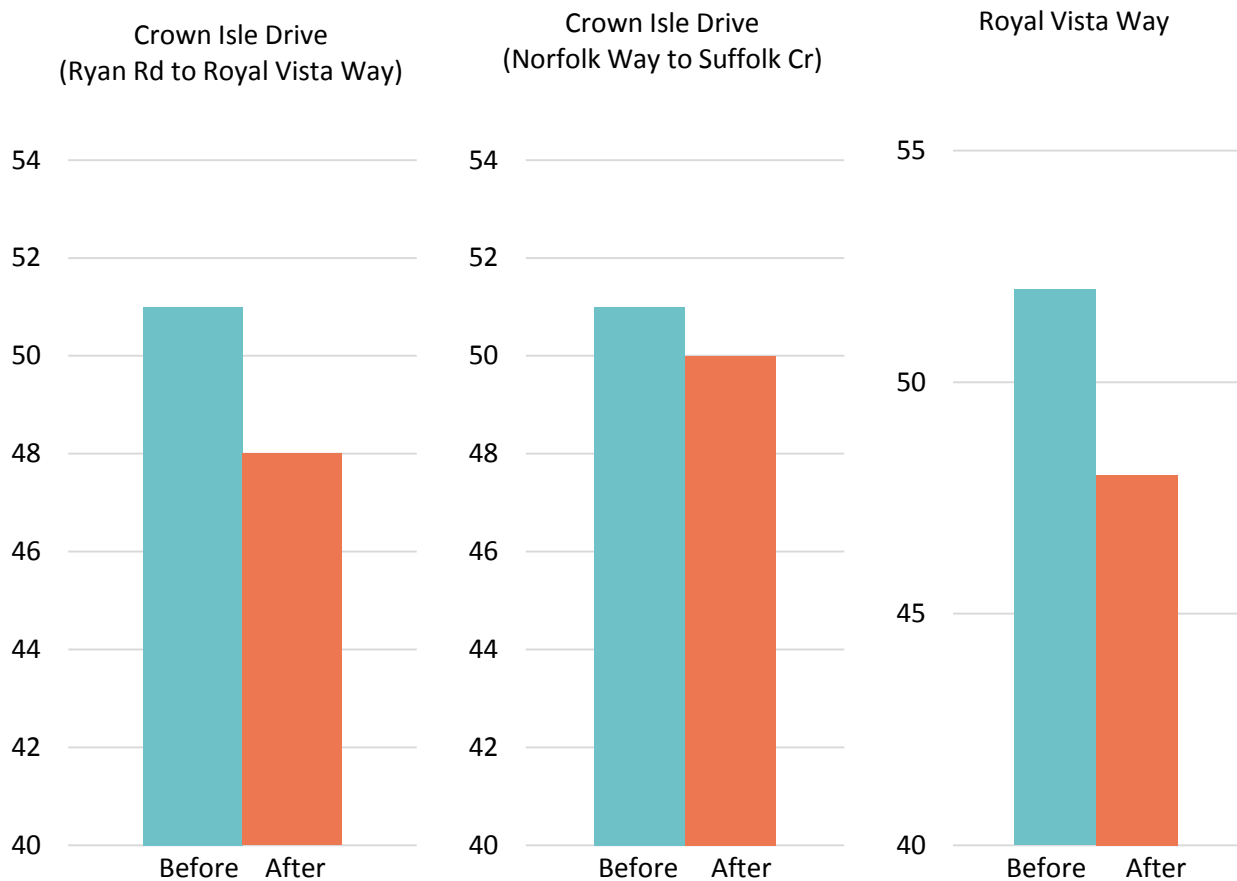
Summary:

This appendix provides detailed speed and traffic results for the pilot project community in Crown Isle. Measurements were taken before and after the posted speed limit changed from 50 km/h to 40 km/h.

Operating Speed (85th Percentile Speed)

Operating speeds in the Crown Isle neighbourhood decreased between 1-4 km/h after the implementation of the reduced speed limit. Concurrently, operating speeds on Crown Isle Drive between Norfolk Way and Suffolk Crescent reduced between 3-4 km/h. Royal Vista Way saw the largest reduction in operating speeds of 4 km/h.

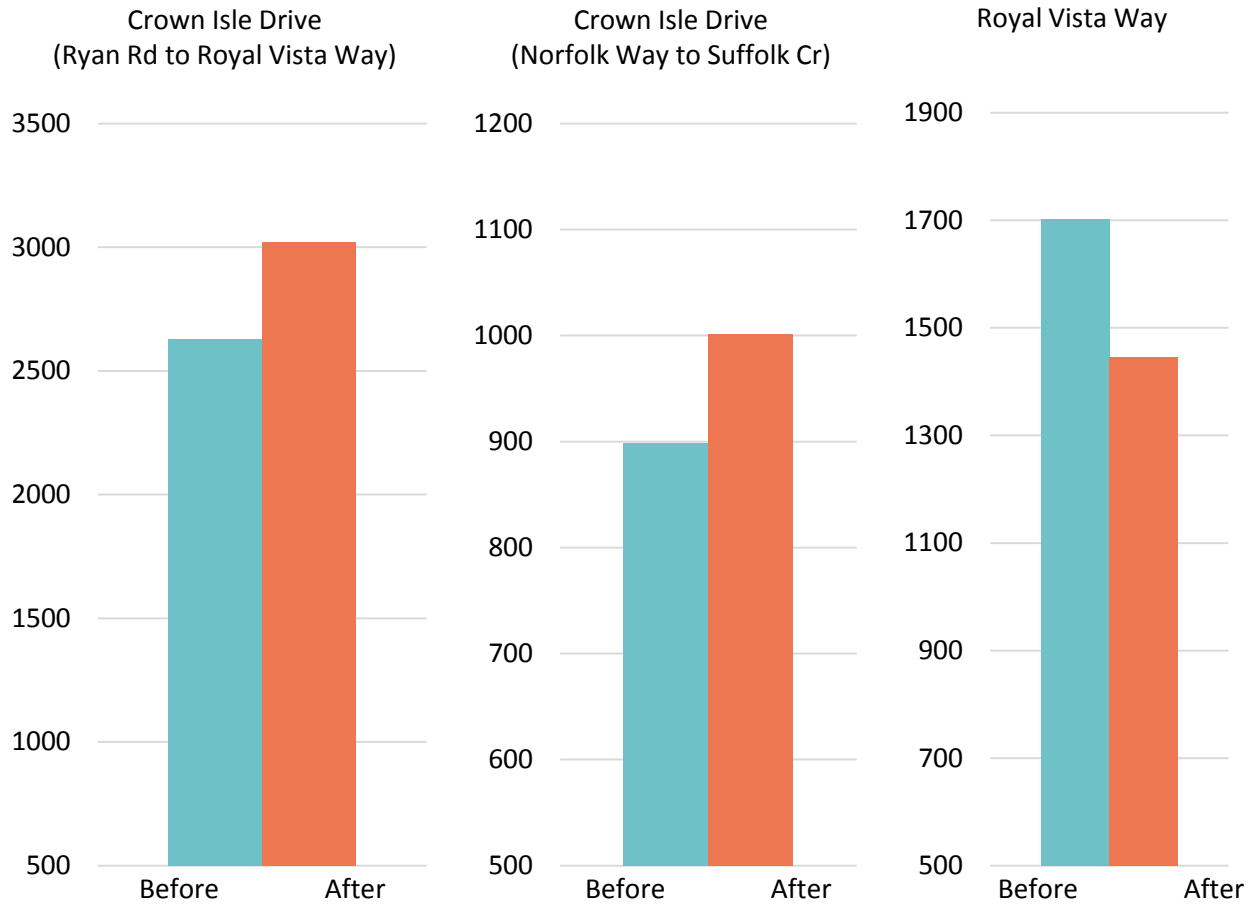
Figure 1: Operating Speed (85th Percentile Speed)



Daily Vehicle Volumes

Once the 40 km/h reduced speed limit was implemented, the average number of vehicles per day increased by 15% on Crown Isle Drive between Ryan Road and Royal Vista Way, and by 11% on Crown Isle Drive between Norfolk Way and Suffolk Crescent. The average number of vehicles on Royal Vista Way decreased by 15%.

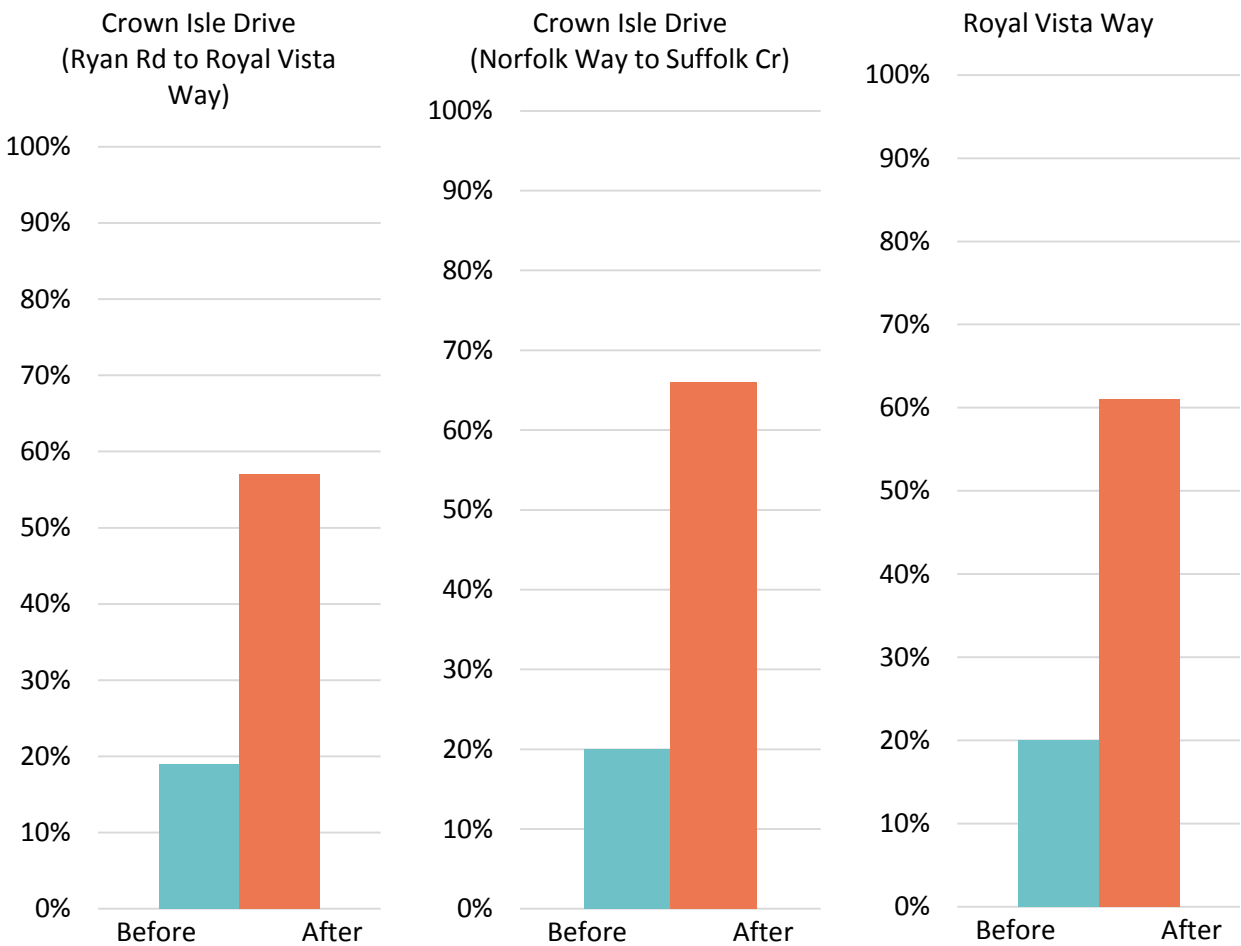
Figure 2: Daily Vehicle Volumes



Percent Compliance with Reduced Speed Limit

The percent compliance to the posted speed limit decreased substantially after the implementation of the pilot project. Before the pilot project 19-20% of vehicles were speeding on Crown Isle Drive. Once the reduced speed limit was established the number of speeding vehicles increased to 57-66%. On Royal Vista Way the pre-pilot compliance was 20% and once the speed limit was reduced that increased to 61%.

Figure 3: Percent Compliance with Reduced Speed Limit



Appendix E
City-Wide Speed Reduction Roll Out
Cost Analysis

Summary:

This appendix provides implementation costs to roll out a similar pilot project across the City and in specific areas around schools (using a 1-km radius). School areas overlap and as a result are not mutually exclusive.

Table 1: All City Implementation Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	87	323	447	0	51	105	857	\$246,816
Subtotals - sign counts	87	323	447	0	51	105		
Subtotals - install costs	\$25,056	\$93,024	\$128,736	\$0	\$14,688	\$30,240		
Grand Total							857	\$246,816

Table 2: School Zone 1: Arden Elementary Area Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	2	12	12	0	4	3	26	\$7,488
Subtotals - sign counts	2	12	12	0	4	3		
Subtotals - install costs	\$576	\$3,456	\$3,456	\$0	\$1,152	\$864		
Grand Total							26	\$7,488

Table 3: School Zone 2: Courtenay Elementary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead- Ends	Cul-de- sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	42	109	125	0	7	7	276	\$79,488
Subtotals - sign counts	42	109	125	0	7	7		
Subtotals - install costs	\$12,096	\$31,392	\$36,000	\$0	\$2,016	\$2,016		
Grand Total							276	\$79,488

Table 4: School Zone 3: Glacier View Secondary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead- Ends	Cul-de- sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	4	44	85	0	9	34	133	\$38,304
Subtotals - sign counts	4	44	85	0	9	34		
Subtotals - install costs	\$1,152	\$12,672	\$24,480	\$0	\$2,592	\$9,792		
Grand Total							133	\$38,304

Table 5: School Zone 4: Lake Trail Community School Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	21	74	79	0	12	10	174	\$50,112
Subtotals - sign counts	21	74	79	0	12	10		
Subtotals - install costs	\$6,048	\$21,312	\$22,752	\$0	\$3,456	\$2,880		
Grand Total							174	\$50,112

Table 6: School Zone 5: Mark. R. Isfeld Secondary School Ecole Secondaire Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	6	67	84	0	2	22	157	\$45,216
Subtotals - sign counts	6	67	84	0	2	22		
Subtotals - install costs	\$1,728	\$19,296	\$24,192	\$0	\$576	\$6,336		
Grand Total							157	\$45,216

Table 7: School Zone 6: Ecole Puntledge Park Elementary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	20	58	63	0	14	9	141	\$40,608
Subtotals - sign counts	20	58	63	0	14	9		
Subtotals - install costs	\$5,760	\$16,704	\$18,144	\$0	\$4,032	\$2,592		
Grand Total							141	\$40,608

Table 8: School Zone 7: Queneesh Elementary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead-Ends	Cul-de-sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	2	28	45	0	2	18	75	\$21,600
Subtotals - sign counts	2	28	45	0	2	18		
Subtotals - install costs	\$576	\$8,064	\$12,960	\$0	\$576	\$5,184		
Grand Total							75	\$21,600

Table 9: School Zone 8: Valley View Elementary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead- Ends	Cul-de- sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	5	66	93	0	2	28	164	\$47,232
Subtotals - sign counts	5	66	93	0	2	28		
Subtotals - install costs	\$1,440	\$19,008	\$26,784	\$0	\$576	\$8,064		
Grand Total							164	\$47,232

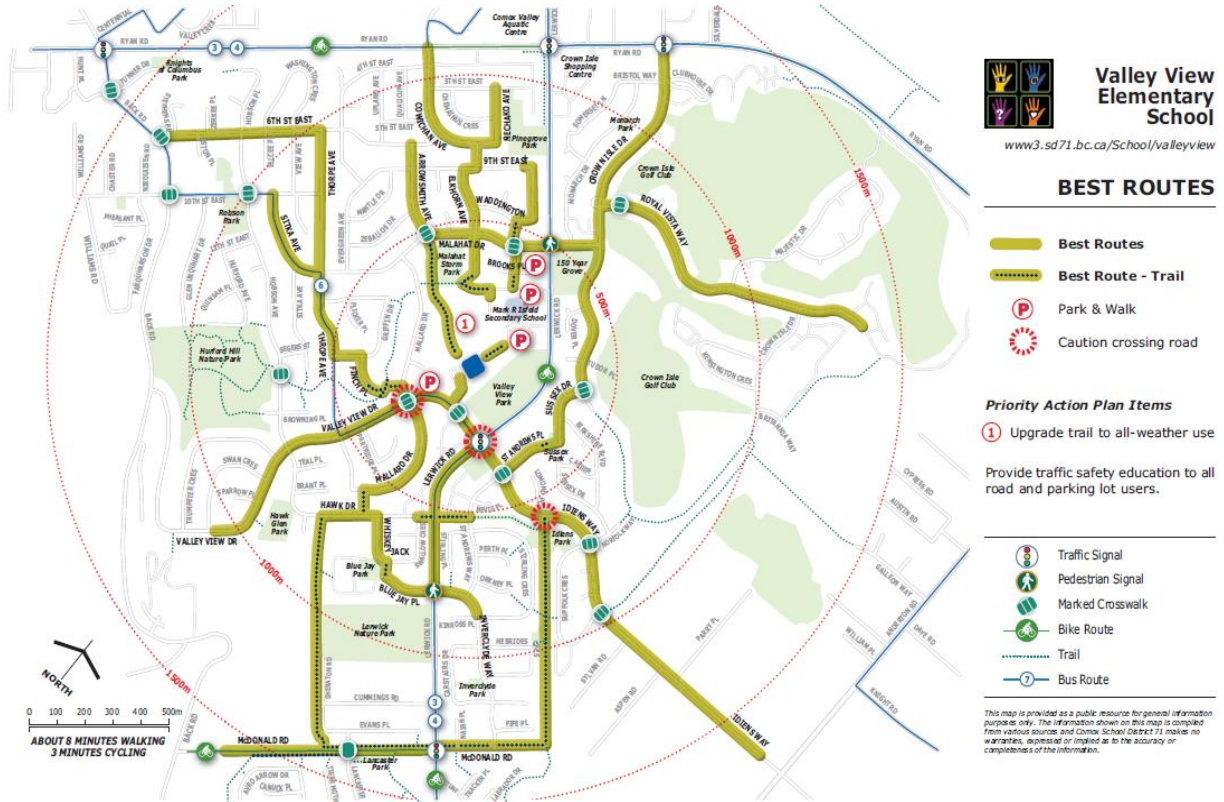
Table 10: School Zone 9: Vanier Secondary Costs of Posted Speed Reduction from 50km/h to 40km/h

Road Classification	Number of Signs by Road Length (centre-line)			Number of Signs by Road Type			Subtotals	
	Under 100m	Under 200m	Over 200m	Entry Points	Dead- Ends	Cul-de- sacs	Sign Count	Install Costs
Arterial Major	0	0	0	0	0	0	0	\$0
Arterial Minor	0	0	0	0	0	0	0	\$0
Collector Industrial/Commercial	0	0	0	0	0	0	0	\$0
Collector Residential	0	0	0	0	0	0	0	\$0
Local Industrial/Commercial	0	0	0	0	0	0	0	\$0
Local Residential	2	8	24	0	4	11	34	\$9,792
Subtotals - sign counts	2	8	24	0	4	11		
Subtotals - install costs	\$576	\$2,304	\$6,912	\$0	\$1,152	\$3,168		
Grand Total							34	\$9,792

Appendix F

Example Best Routes to School Maps

1. Valley View Elementary School (2016)



2. Ecole Puntledge Park Elementary School (2016)

