

DATE OF MEETING MAY 3, 2021
AUTHORED BY BARBARA THOMAS, ASSISTANT MANAGER, TRANSPORTATION
SUBJECT DEPARTURE BAY ROAD SEASONAL TRAFFIC CALMING

OVERVIEW

Purpose of Report

To provide Council with an update on the outcomes of the seasonal traffic calming used in 2020, and to receive direction on the next steps for summer 2021.

Recommendation

That Council direct Staff to implement 2021 seasonal traffic calming measures using the same layout as used in 2020.

BACKGROUND

In 2019, members of the Departure Bay Neighbourhood Association (DBNA) approached the City with a request to seek out a solution to their concerns with traffic patterns on Departure Bay Road. They felt that the speeds were excessive and of particular risk during the busy summer months when pedestrian and cyclist activity increases. In response to this, Staff proceeded with a trial speed reduction to 40 km/h in the beach area during the summer of 2019. The reduced speed limit proved ineffective with only a 1 km/h reduction in travel speeds. This information was presented to Council in December 2019 along with a plan to add traffic calming curbs for the summer 2020 seasonal traffic calming. With summer 2021 just ahead, Staff are now seeking direction on next steps.

DISCUSSION

In recent months, the Transportation section has received numerous requests for speed management on many roads, from local residential roads to arterials. The City's Traffic Calming Guidelines have limited support to apply traffic calming on major roads such as Departure Bay Road. The primary concern with applying traffic calming on major roads is the introduction of excessive delay to those vehicles which are strictly necessary including transit, emergency services, and goods movement. However, it sometimes happens that land use generates local busy-ness which is at odds with the function of major roads. This is the case at the beachfront on Departure Bay Road. The use of seasonal traffic calming is a compromise which addresses neighbourhood concerns and still permits road function.

The seasonal traffic calming for last year, summer 2020, included the reduced speed limit (40 km/h), and traffic calming curbs at the pedestrian crossings. This installation was approved by Council at their regular meeting on June 22, 2020. These measures were left in place until

October 2020. Before and during the installation, traffic data were collected, including speeds and volumes. This information, summarized below in Table 1, showed a small change in speeds.

TABLE 1 Comparison of Speeds and Volumes by Year

Year	Details	Volumes (Average Vehicles per Weekday)		Speeds (85 th percentile, km/h)		Impact
		Northbound	Southbound	Northbound	Southbound	
2015	50 km/h speed limit	5242	6005	59	56	6 to 9 km/h over the posted speed limit
2019	40 km/h speed limit	6457	7950	56	55	1 – 3 km/h reduction; 15 – 16 km/h over the posted speed limit
August 2020	50 km/h speed limit	6346	7251	57	55	5 – 7 km/h over the posted speed limit
September 2020	40 km/h speed limit; traffic calming curbs at pedestrian crossings	6039	6255	54	54	1 to 3 km/h reduction; 14 km/h over the posted speed limit

The data indicate that drivers are not responding effectively to reduced speed limits and horizontal deflections. Generally, in this situation, the next step in traffic calming is vertical deflection, such as speed humps, bumps, and tables, which has been proven effective both locally and through transportation safety research. However, because Departure Bay Road is currently classified as a Major road, it would be inconsistent with the City's traffic calming guidelines and industry best practices.

Further enhanced, non-vertical, measures could be undertaken, including:

- Additional traffic calming curbs, beyond that used in 2020;
- Additional speed limit signing; and,
- Temporary speed reader boards.

Vertical deflections are viewed as highly disruptive to the driving experience and the adjacent neighbourhood. Impacts cited include delay, noise, and issues with rideability. However, vertical deflections would likely have the greatest effect on reducing speeds. They would also be least favoured by stakeholders such as transit operators and riders, and emergency vehicles. They are typically applied on major roads only when warranted by specific circumstances. If vertical deflection were to be considered for Departure Bay Road, substantial consultation with the DBNA, City Public Works, and Emergency Services would be needed.

The effects of the 2020 seasonal traffic calming were small: 1 to 3 km/h reduction in 85th percentile speeds over non-traffic calmed travel speeds, and low compliance with the reduced speed limit. While this is only a marginal improvement, given the Major road status of Departure Bay Road, horizontal deflections are the preferred form of traffic calming.

Staff are prepared to repeat the 2020 seasonal traffic calming in early summer, leave in place until October, and to monitor the outcomes again. If the results are weak, then through fall and winter, a revised plan can be developed and more stakeholder consultation undertaken before bringing the information forward to Council for review, prior to summer 2022.

OPTIONS

1. That Council direct Staff to implement the same seasonal traffic calming measures as used in 2020.
 - The advantages of this option: The installation is already planned out and can be completed with minimal Staff time and cost. It will also allow time for the Staff to research a fresh approach, carry out stakeholder consultation, and present to Council before summer 2022.
 - The disadvantages of this option: It is unlikely to be satisfactory in managing speeds.
 - Financial Implications: None.

2. That Council direct Staff to apply additional seasonal traffic calming measures for summer 2021.
 - The advantages of this option: It may be more likely to reduce travel speeds.
 - The disadvantages of this option: Installation will be delayed as additional engineering design and sourcing materials will take an appreciable amount of time.
 - Financial Implications: There would be an additional, but at this stage, unknown cost for this additional material. Funding would need to be found for the additional costs.

3. That Council direct Staff to take no action for summer 2021 and initiate stakeholder consultation regarding vertical deflections in time for summer 2022.
 - The advantages of this option: It will allow time for the Staff to research a fresh approach, carry out stakeholder consultation related to vertical deflections, and present to Council before summer 2022.
 - The disadvantages of this option: The DBNA and other concerned citizens may perceive this as a backslide for road safety in this neighbourhood.
 - Financial implications: None.

4. That Council direct Staff to take no action for summer 2021 and beyond.
 - The advantages of this option: It acknowledges the limited effectiveness of the seasonal traffic calming. It allows Staff to focus on other Council strategic priorities.
 - The disadvantages of this option: The DBNA and other concerned citizens may perceive this as a backslide for road safety in this neighbourhood.
 - Financial implications: None.

SUMMARY POINTS

- Traffic calming is an important tool for managing travel speeds on public roadways.
- Careful consideration is needed when deciding where and how traffic calming should be applied.
- The City is committed to improving livability for citizens of Nanaimo.

Submitted by:

Barbara Thomas
Assistant Manager, Transportation |

Concurrence by:

Poul Rosen
Director, Engineering |