

DATE OF MEETING NOVEMBER 8, 2021

AUTHORED BY MADELEINE KOCH, ACTIVE TRANSPORTATION PROJECT SPECIALIST

SUBJECT Pedestrian Infrastructure Prioritization Tool

OVERVIEW

Purpose of Report:

To update Council on the pedestrian infrastructure prioritization tool, and to receive input to inform further development and implementation of the tool.

BACKGROUND

The City of Nanaimo (the City) regularly receives requests to improve safety at crosswalks. Historically, Staff have used an evaluation tool to determine when crossing upgrades are warranted. While case study research revealed that Nanaimo's approach to crossing evaluation is consistent with peer communities, the approach relies on time consuming data collection, is quite complex, and is inaccessible to the general public. In addition, the current approach is only effective for addressing reactive issues and does not support proactive infrastructure improvement planning at the City-wide level.

As part of Reimagine Nanaimo, Staff are developing an automated crossing enhancement prioritization tool. Preliminary work on the tool, which was informed by Phase 1 of Reimagine Nanaimo, was presented to the Governance and Priorities Committee on 2021-MAY-31. Phase 2 of Reimagine Nanaimo has supported further evolution of a prioritization tool. Staff are seeking Council's feedback on the latest draft of the tool and the approach to implementation.

DISCUSSION

Updates to the Tool

The tool is GIS based and uses readily available geographical data that can be queried to produce automated "scoring" for either individual crossings, or all crossings within a geographic area.

The draft evaluation tool was refined to include:

Risk Factors	Trip Generator Factors
<ul style="list-style-type: none"> • Speed (posted speed limit) 	<ul style="list-style-type: none"> • Within or near a Mobility Hub (or alternate priority land use)
<ul style="list-style-type: none"> • Volume (road classification) 	<ul style="list-style-type: none"> • WalkScore (using WalkScore data)
<ul style="list-style-type: none"> • Safety (ICBC collision data) 	<ul style="list-style-type: none"> • Transit Score (proximity to a transit stop, plus useage levels)
<ul style="list-style-type: none"> • Crossing Distance (GIS data) 	<ul style="list-style-type: none"> • Equity Analysis (lower income areas, per Census data)
	<ul style="list-style-type: none"> • Proximity to a school

Each pedestrian crossing is assigned a score that informs the level of priority for improvements. This total score is calculated by assigning a value to each of the factors in the table above. Higher scores represent higher priority, and lower scores represent lower priority. It is important to note that this tool is for drawing attention and providing perspective and context to the location. Any intersection that receives a high score will still need site specific engineering assessment to evaluate the short comings and provide clear direction on mitigation efforts.

Weighting Options

While the current draft of the tool weighs risk and trip generation factors evenly, Council may wish to consider a different distribution of priorities. For example, if safety is seen as a greater priority, the risk factors could be weighted more heavily than the trip generator factors or vice-versa.

Council may also wish to explore an approach taken in some other communities where equity is given additional weight. With this approach, areas with lower income demographics are given some priority over areas with higher income demographics, in recognition that people with lower incomes are more likely to rely on walking as a primary mode of transportation, indicating probable latent demand.

Council has the opportunity to discuss weighting options in further detail during the presentation. (Attachment A).

Proposed Approach for Implementation

Staff propose that the tool be piloted for use in addressing reactive crossing issues and for proactive planning when recommending allocation of the 2022 Pedestrian Unallocated Funds. Piloting the tool may reveal the need for changes and/or additional considerations which could then be made prior to adoption, as part of a Reimagine Nanaimo action item. Proceeding with a pilot phase will also enable Staff to make use of the tool sooner, while preserving the ability to update or modify based on future Reimagine Nanaimo findings and direction. |

CONCLUSION

Following this meeting, the draft tool will be updated to reflect Council's input. Once the tool is updated and in working order, Staff will begin implementing the tool on a pilot basis for reactive issues and for proactively planning pedestrian unallocated projects in 2022. Following the pilot period, Staff will return to Council with an update and for consideration of adopting a policy regarding use of the tool.

SUMMARY POINTS

- Development of the tool has been informed through a combination of inputs from Reimagine Nanaimo and best industry practices.
- The tool will reduce demand on Staff time and will enable a more holistic approach to addressing pedestrian mobility.
- A pilot phase will enable Staff and Council to better understand the benefits of the tool prior to endorsement.

ATTACHMENTS

Attachment A – Pedestrian Planning Update Presentation |

Submitted by:

Madeleine Koch
Active Transportation Project Specialist

Concurrence by:

Jamie Rose
Manager, Transportation

Poul Rosen
Director, Engineering |