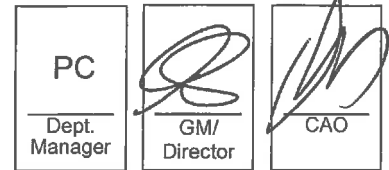


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Date:



The District of North Vancouver INFORMATION REPORT TO COUNCIL

December 6, 2023

File: 16.8450.30/034.000

AUTHOR: Shane Devine, Senior Project Manager

SUBJECT: Mount Seymour Parkway Active Transportation Rapid Implementation Project

REASON FOR REPORT:

This report provides an update on the Mount Seymour Parkway Active Transportation Rapid Implementation Project.

SUMMARY:

As Council is aware, District staff receive a large volume of correspondence from the community about the less than desirable active transportation facilities east of the Seymour River. Staff have identified that improving the Mount Seymour Parkway corridor is the best opportunity to cost-effectively improve safety and respond to community concerns.

The Mount Seymour Parkway Active Transportation Rapid Implementation Project will result in significant improvements to safety of all users and will result in significantly improved cycling facilities along the entire corridor with no reduction in vehicle lane capacity – a 'win' for all road users. To achieve this, a small amount of width from each motor vehicle lane will be reallocated towards existing cycling facilities (the existing lanes are wider than necessary). That space will be used to provide buffer space and provide physical separation between vehicles and cyclists. This will have no change to the vehicle carrying capacity of Mount Seymour Parkway but will provide considerable improvements in comfort and safety for cyclists that choose to use this corridor.

The improvements have the added benefit of addressing known speeding issues on Mount Seymour Parkway. More typical lane widths will discourage speeding and increase safety for cyclists, pedestrians, and drivers. Additionally, staff propose adjusting the posted speed limits around Windsor Secondary to 50km/h. This aligns with efforts to find opportunities to encourage better driving behaviour around schools.

Currently, only 7% of Mount Seymour Parkway between Seymour Boulevard and Mount Seymour Road is considered 'comfortable for most' according to the criteria defined by TransLink and HUB Cycling. The proposed safety improvements will result in a substantial increase to 97% of the corridor becoming 'comfortable for most'.

This project is being designed and delivered in a rapid fashion with low-investment, easy-to-implement solutions in accordance with TransLink's rapid implementation framework. Construction is therefore planned to begin in the spring of 2024. By using the existing roadway, traditional civil excavation and construction will be avoided. A benefit to this approach is that the resulting infrastructure will be easily modifiable through its lifespan, and it can respond to field observations and user feedback. It is anticipated that 90% or more of the project's \$1 Million cost could be funded through by TransLink.

The planned improvements along Mount Seymour Parkway aim to enhance safety for cyclists choosing to use this route. The improvements will ensure there are safe connections to the Spirit Trail as it is implemented over time. However, it's important to note that while these enhancements will benefit cyclists, they cannot replace the Spirit Trail. The Spirit Trail has complimentary but distinct objectives (like connections to nature) from the Mount Seymour Parkway project, and it serves a wider variety of users (such as pedestrians of all ages).

BACKGROUND:

Cycling Volume:

Recent data collection indicates Mount Seymour Parkway is one of the District's most highly used cycling corridors, seeing between 300-500 cyclists per day in both directions on both weekends and weekdays. The corridor is well used by both commuter and recreational cyclists. There has been an increase in cycling along Mount Seymour Parkway since the completion of the Highway 1 Lower Lynn Interchange Improvements and associated active transportation connections across the highway footprint.

Observed Vehicle Speeds:

Mount Seymour Parkway is classified as a major arterial road with average daily traffic volumes exceeding 20,000 vehicles per day. Of particular note is that the observed 85th percentile speeds are between 73 km/h and 77 km/h, well in excess of the posted speed limits and among the highest observed speeds on District roads. These speeds are not safe for any users of Mount Seymour Parkway, particularly given the high cycling demand.

Contributing Factors to Road Fatalities:

Speeding continues to be the largest contributing factor for fatalities, more than distracted or impaired driving. On average, 81 people die every year in speed-related crashes in British Columbia.

District Crash Statistics:

Staff recently completed a detailed review of a decade of collision data. Approximately 3,900 collisions occur on the District's road network each year. The majority of those collisions occur on arterial roads, including Mount Seymour Parkway. When looking specifically at pedestrian and cyclist crashes, 87% of incidents occurred on arterial roads. This suggests that pedestrians and cyclists are more likely to be injured along arterial roads due to a combination of higher traffic volumes and vehicle speeds. Almost 90% of motor vehicle incidents involving cyclists or pedestrians result in injury to the cyclist or pedestrian.

In the past five years, there have been 29 collisions on Mount Seymour Parkway between Seymour Boulevard and Deep Cove Road involving cyclists or pedestrians. In other words, a driver collides with a cyclist or pedestrian about six times per year, or every couple of months, on Mount Seymour Parkway.

EXISTING POLICY:

Safety improvements to Mount Seymour Parkway is supported by the Official Community Plan, the OCP Action Plan, Transportation Plan, Bicycle Master Plan, Pedestrian Master Plan, Road Safety Plan, Safe Routes to School studies, Priority Cycling Routes, Community Energy and Emissions Plan, and the 2023-2027 Financial Plan.

ANALYSIS:

The case for improving safety for cyclists and all users on Mount Seymour Parkway is compelling. There is significant cycling volume on Mount Seymour Parkway, and high vehicle speeds are prevalent. Too many crashes occur on Mount Seymour Parkway, and it is well known that there is a strong correlation between vehicle speed and collision incidents. Available data shows that in a collision between a vehicle driver and a cyclist or pedestrian, the cyclist or pedestrian is injured in 90% of instances.

Given the length of the corridor, improvements to the cycling infrastructure using traditional means is cost-prohibitive. Recently, a rapid implementation approach of installing cycling infrastructure using surface-mounted materials to the existing roadway has seen success in the region. An analysis of District cycling corridors identified Mount Seymour Parkway as the best candidate for this lower-cost and easy-to-implement approach, due in part to the wider than needed vehicle lanes on Mount Seymour Parkway.

A design has been progressed that will create a continuous and improved cycling facility, improve safety for all users and reduce vehicle speeds between the Seymour River and Mount Seymour Road. The rapid implementation approach has facilitated design to progress quickly, and the low-impact construction will result in a lower capital cost compared to traditional construction or widening. TransLink's rapid implementation funding stream also presents a significant opportunity to minimize cost to District taxpayers.

Design:

The project will use the existing curb-to-curb width, a critical aspect to rapid implementation and reducing overall cost. Construction will mostly consist of eradicating, relocating, and adding pavement markings, as well as fastening flex posts or precast concrete elements to the road to create separation. The figure below shows where various separation is planned and possible.



Figure 1. Proposed Cycling Safety Improvements on Mount Seymour Parkway

As can be seen in Figure 1 above, enough space exists in some locations for low concrete barriers or precast curbs. In other locations, there is only enough existing road space for flexible delineator posts and painted buffers.

The proposed separation will encourage slower vehicle speeds. In certain locations, a reduction in the posted speed limit to 50km/h is proposed for two reasons: (1) to provide sufficient lateral clearances from curbs as required by engineering guidelines and by funding partners and (2) to support the District's broader strategy to encourage better driver behaviour around schools (such as Windsor Secondary). These posted speed changes will result in more space for physical separation between vehicles and cyclists, and also result in safer pedestrian routes to nearby schools, fields, parks, and neighbourhoods.

This will bring the posted speed on Mount Seymour Parkway into alignment with posted speed limits on other District arterial roads. Currently, Mount Seymour Parkway is the only roadway under DNV jurisdiction with a posted speed of 60 km/hr.

If the speed limit is not reduced, only flex posts would be possible in many places, rather than curbs. This would risk the grant funding that is expected to fund the project as described in the Financial Impacts section below and substantially increase the District's share of funding.

Operational Impacts:

Travel time impacts associated with a posted speed reduction from 60 km/hr to 50 km/hr are expected to be negligible. The speed reduction will result in, at maximum, 45 additional seconds of travel for vehicles between Seymour Blvd and Deep Cove Road. As previously noted, the proposed improvements will have almost no impact to vehicle capacity of the Parkway.

The project will include important lessons learned from similar past projects related to solid waste collection, snow removal, and design around on-street parking, including the 29th Street and Lynn Valley Road projects. Most solid waste collection routes are on local roads adjacent to Mount Seymour Parkway. In sections where solid waste collects from the Parkway, posts would not be installed. Posts would also not be installed in any areas with driveways or bus stops.

Construction Impacts:

The materials and methodology used for this project are intended to be flexible and nimble, and able to respond to user feedback once implemented. It follows TransLink's rapid implementation design guidelines for bikeways, meaning heavy construction (and its associated impacts) has been ruled out. This results in a financially feasible project, a faster design process, and a shorter construction duration with less impacts. Vastly fewer traffic impacts are expected when compared to traditional construction.

Timing/Approval Process:

Work is expected to begin in the spring of 2024, with a target of completing construction by the end of the summer.

Concurrence:

This report has been prepared by the Regional Transportation team in collaboration with Project Delivery, Transportation, Solid Waste, Streets, Construction, Communications and Finance.

Financial Impacts:

During budget deliberations in early 2023, Council provided direction to staff to proceed with improving cycling safety on the corridor. Planning started immediately, and a preliminary design has now been developed. The total estimated cost of this project is \$1 Million.

It is expected that nearly the entire \$1 Million cost will be funded through the Rapid Implementation stream of TransLink's Bicycling Infrastructures Capital Cost Share program. In discussions with TransLink, staff have confidence that the project, as designed, should successfully receive funding of approximately 90% in the spring of 2024.

In order to be funded by TransLink, the cycling lanes must meet "comfortable for most" criteria. Physical separation and speed limit reductions are necessary to achieve a facility that is "comfortable for most". Any portion of this project that is not funded by TransLink will be funded through a reallocation of funding from the Spirit Trail Eastern Extension program because of the benefits that these improvements would bring to the phasing and implementation of the Spirit Trail Eastern Extension.

If the project is not successful in receiving grant funding *from external partners*, an alternative financial strategy will be brought forward for Council's consideration through the spring financial plan amendment.

Liability/Risk:

The project design incorporates safety measures to mitigate risks associated with cycling and pedestrian accidents as well as speeding.

Social Policy Implications:

Promoting active transportation supports broader social policy goals of enhancing community health and reducing traffic congestion.

Environmental Impact:

The project is an action in alignment with the OCP Action Plan, the Community Energy and Emissions Plan, and a number of other policies and planning documents to reduce greenhouse gas emissions by encouraging a mode shift away from motor vehicle trips and towards active transportation trips.

Public Input:

Because the proposed changes to the corridor are safety and operational in nature, along with having minimal to no impacts to motor vehicle lanes during construction or after completion, initial public engagement for this project will be at an "inform" level for the period leading up to and including implementation.

A range of communications tactics will be used to ensure audiences are aware of the project and its scope and rapid implementation methodology, including signage along the corridor, a project webpage with a fillable feedback form, and social media.

Feedback collected through the District's report a problem (RAP) system and the project webform throughout summer 2024 will be analysed to assess whether any additional public engagement is required to determine what, if any, further improvements or modifications may be desired.

Conclusion:

The Mount Seymour Parkway Active Transportation Rapid Implementation Project will make cycling along the Parkway much safer and comfortable, without removing any vehicle lanes. This will be done by slightly narrowing the vehicle lanes and using that space for barriers, curbs, and flex posts. It is expected that almost 100% of the parkway, west of Mount Seymour Road, will become comfortable for most cyclists (a substantial increase from this being 7% today). Construction is planned to start in late spring 2024 and will use a quick and cost-effective building method, which will also help to slow vehicle speeds, making the road safer for everyone. It is expected that almost the entire \$1 Million total estimated cost will be eligible for TransLink grant funding.

Respectfully submitted,



Shane Devine
Senior Project Manager, Spirit Trail Eastern Extension

Attachment 1: Gallery of Similar Facilities

REVIEWED WITH:		
<input type="checkbox"/> Sustainable Community	_____	<input type="checkbox"/> Clerk's Office
<input type="checkbox"/> Development Services	_____	<input checked="" type="checkbox"/> Communications
<input type="checkbox"/> Utilities	_____	<input checked="" type="checkbox"/> Finance
<input type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> Fire Services
<input type="checkbox"/> Parks	_____	<input type="checkbox"/> IPG
<input type="checkbox"/> Environment	_____	<input type="checkbox"/> Solicitor
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> GIS
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Real Estate

External Agencies:

<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> RCMP	_____
<input type="checkbox"/> NVRC	_____
<input type="checkbox"/> Museum & Arch.	_____
<input type="checkbox"/> Other:	_____

Attachment 1 – Gallery of Similar Facilities



Example 1: Flex posts on painted buffer (Lynn Valley Road)



Example 3: Precast curbs with flex posts (2nd St W, City of North Vancouver)



Example 2: Parking protected bike lanes (Agnes Greenway interim condition, New Westminster)



Example 4: Concrete low barriers (Agnes Greenway interim condition, New Westminster)