

**TO:** CHAIR AND MEMBERS  
TRAFFIC SAFETY COMMITTEE

**DATE:** 2021 March 22

**FROM:** DIRECTOR ENGINEERING

**FILE:** 38000 20  
*Ref: Traffic Safety*

**SUBJECT:** 2021 TRAFFIC SAFETY INITIATIVES

**PURPOSE:** To inform the Committee about various traffic safety initiatives being implemented in 2021.

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**RECOMMENDATION:**

1. **THAT** the Committee receive this report for information.

**REPORT**

**INTRODUCTION**

The Engineering Department receives and reviews numerous requests for traffic safety improvements on an ongoing basis. In addition, crash history and problem areas are monitored for possible traffic safety enhancements. Based on reviews to date, a number of safety improvements have been prioritized for implementation. This report provides information on the traffic safety improvements planned for this year, including a few general transportation initiatives of potential interest.

**POLICY SECTION**

The planned traffic safety initiatives for 2021 are aligned with the City of Burnaby Corporate Strategic Plan by supporting the following goal and sub-goal of the plan:

**Goal**

- A Safe Community
  - Transportation safety –  
Make City streets, pathways, trails and sidewalks safer

Relevant City plans include:

- The Climate Action Framework to accelerate mode shift to reduce emissions in response to the City's declaration of a climate emergency.
- The Draft Transportation Plan's Vision Zero target to reduce deaths and serious injuries, and mode split target to increase use of more sustainable modes such as cycling.

## DISCUSSION

A list of the planned 2021 initiatives is provided below. Some of the initiatives are carried over from 2020.

### 1.0 Traffic Signals

Traffic signals are used to control right-of-way at intersections among the various users. Traffic signals are installed when warranted based on guiding principles from the Transportation Association of Canada. Factors include crash history, traffic and pedestrian volumes, congestion, street classification, roadway characteristics, surrounding road network and land uses. Signal installations planned for this year are listed below.

- **Byrne Road/Market Crossing** (full signal)
- **Gilley Avenue/Imperial Street (Windsor Elementary School)** (full signal)
- **Moscrop Street/Barker Crescent (Moscrop Secondary School)** (pedestrian signal, recently completed)

Other traffic signals to be installed this year as part of land developments include:

- **Dawson Avenue/Alpha Avenue** (full signal)
- **Kingsborough Street/Silver Drive** (full signal)
- **McKay Avenue/Assembly Way** (full signal)

### 2.0 Intersection Improvements

#### **Arcola Way and Hall Avenue**

Installation of all-way stop controls and potential curb extensions to better manage traffic and enhance pedestrian safety.

#### **Arcola Way and Walker Avenue**

Installation of all-way stop controls to better manage traffic and enhance pedestrian safety.

### **Beaverbrook Drive and Beaverbrook Crescent**

Curb bulges will be added to the existing pedestrian signal at this intersection to reduce crossing distances and narrow the roadway to calm traffic. This intersection is frequently used by school children.

### **Broadway and Duthie Avenue**

As part of the Broadway upgrades between Bainbridge Avenue and Underhill Avenue, a roundabout will be built at the intersection of Broadway and Duthie Avenue to replace the existing all-way stop controls.

### **Canada Way and 10th Avenue**

Design work will be undertaken this year for the intersection of Canada Way and 10<sup>th</sup> Avenue to add left turn bays on all four legs in 2022. This will involve land acquisition from an adjacent property.

### **Imperial Street and Nelson Avenue**

Geometric changes incorporating separated left turn bays along Imperial Street and Nelson Avenue are proposed to improve traffic operations and safety.

### **Imperial Street and Royal Oak Avenue**

Geometric changes incorporating separated left turn bays along Royal Oak are proposed to improve traffic operations and safety.

### **Lougheed Highway and Gagliardi Way**

As part of the Lougheed Highway upgrades, dual westbound left turn lanes will be added to reduce congestion and delays at this busy intersection, along with dedicated walking and cycling facilities.

### **Marine Way and Byrne Road**

Due to the high volume of eastbound left turns at Marine Way and Byrne Road, dual eastbound left turn bays and associated traffic signal changes are planned to help reduce congestion and delays at this intersection. This project was carried forward from last year.

### **Royal Oak Avenue and Laurel Street**

Stop Signs and a median barrier are proposed to reduce traffic conflicts at the intersection.

### **Southpoint Drive and Sandborne Avenue**

Installation of all-way stop controls and curb extensions to better manage traffic and enhance pedestrian safety.

### **3.0 Cycling Improvements**

#### **Broadway Urban Trail**

As part of the Broadway upgrades, an urban trail will be constructed on the north side between Bainbridge Avenue and Underhill Avenue to provide an off-street shared cycling and pedestrian facility. This trail will provide an east-west connection between Burnaby Mountain Urban Trail to the east and Bainbridge Avenue. Future extension along Bainbridge Avenue will provide a connection to the Lougheed Highway bike lanes.

#### **Deer Lake Avenue Urban Trail**

Deer Lake Avenue between Deer Lake Parkway and Kensington Avenue is being reconstructed to incorporate an urban trail along the south side to provide a protected bicycle facility. It replaces the existing on street bikeway along this section of Deer Lake Avenue. This project started in 2020 and will be completed in 2021.

#### **Fraser River Dyke Urban Trail**

As part of the upgrade to the 900 metre section of Fraser River Dyke between Glenlyon Creek to Byrne Creek, a 4 kilometre paved urban trail will be created between Boundary Road and Fraser Park Drive. This project was recently completed.

#### **Gilmore Avenue Urban Trail**

An urban trail on the west side of Gilmore Avenue between Dominion Street and Still Creek Avenue is being constructed to provide a protected cycling and pedestrian facility. This will extend the existing Gilmore Way Urban Trail northward from Dominion Street and connect it to the popular Central Valley Greenway at Still Creek Avenue. This project was started in 2020 and will be completed in 2021.

#### **Lougheed Highway Buffered Bike Lanes, Cycle Tracks and Green Conflict Zones**

As part of the Lougheed Highway upgrades, buffered bike lanes will be installed in both directions of Lougheed Highway between Underhill Avenue and Gaglardi Way, and separated cycle tracks will be installed in both directions of Lougheed Highway between Gaglardi Way and Austin Road. At potential high conflict areas green pavement marking will be used along the bike lanes to alert both cyclists and drivers. These new facilities will replace the existing bike lanes and increase cyclist comfort and safety. This project started in 2020 and will be completed in 2021.

Additionally, green pavement marking will be used along the existing Lougheed Highway bike lanes at potential high conflict areas. This includes the right turn lane to access Kensington Avenue southbound, the slip lane to access Winston Street, and the lane merge in front of Sperling SkyTrain station.

### **Marine Drive Urban Trail**

As part of the Marine Drive upgrades between Boundary Road and Greenall Avenue, a new urban trail will be built along the north side. Currently there are no bike facilities along Marine Drive. This urban trail will be extended east the length of Marine Drive in future projects to create a new east-west bike facility.

### **Southpoint Drive Buffered Bike Lanes**

Traffic lanes along Southpoint Drive between Station Hill Drive and Griffiths Drive will be restriped to provide buffered bike lanes in both directions. It will enhance cycling comfort and safety by replacing the shared roadway facility. The reconfiguration will include dual northbound left turn lanes at Griffiths to improve intersection operations.

## **4.0 Pedestrian and Bicycle Crossing Upgrades**

Enhanced pedestrian or bike crossing facilities are proposed where warranted based on applicable standards. These take into account traffic speeds, pedestrian and cyclist volumes, road width, motorist behaviour, safety records, and sightlines. Some of the upgrades involve the installation of push button activated Rectangular Rapid Flashing Beacons (RRFB). RRFBs are an effective upgrade to existing marked crosswalks where a signal is not warranted. For bike crossings, crossbike or elephant's feet pavement markings and signs will be added. Center refuge medians are another tool to facilitate crossings that also calm traffic. These can be installed independently without a crosswalk.

Crossing upgrades planned for this year are listed below.

- **BC Parkway trail/Central Boulevard** (crossbike and trail widening)
- **BC Parkway trail/Royal Oak Avenue** (crossbike and trail realignment)
- **BC Parkway (Station Hill Drive)/Southpoint Drive** (RRFB and crossbike)
- **Bell Avenue/Hunter Street** (center median)
- **Cardston Court/Keswick Park** (center median)
- **Central Valley Greenway/Cariboo Road** (RRFB, crossbike and median)
- **Curtis Street/Sherlock Avenue** (RRFB)
- **Halifax Street/Cliff Avenue** (center median)
- **Rumble Street/Hedley Avenue** (center median)

## **5.0 Transit Improvements**

### **Bus Stop Upgrades**

Several new bus shelters are proposed for this year at various locations throughout Burnaby. New shelter installations are generally prioritized based on the number of daily bus boarding to maximize the benefits to transit users. Planned locations for this year include:

- **Canada Way/Spruce Street**
- **Curtis Street/Kensington Avenue** (recently completed)
- **Deer Lake Avenue/Shadbolt Centre and RCMP Detachment.**
- **Hastings Street/Duthie Avenue**
- **Hastings Street/Gilmore Avenue**
- **Kensington Avenue/Hammarskjold Drive** (recently completed)
- **North Fraser Way/Tillicum Street** (recently completed)

### **Bus Priority Measures**

- **Broadway (South)/Gagardi Way** (bus only lane on Broadway)
- **Central Boulevard/Metrotown Bus Loop** (bus detection system, recently completed)
- **Edmonds Street/Griffiths Drive** (bus only lane on Edmonds Street)
- **Imperial Street/Boundary Road** (bus only lane on Imperial Street)

## **6.0 Other Roadway Improvements**

### **Beresford Street Traffic Calming**

To help calm traffic and facilitate pedestrian crossings, center medians are proposed at Magnolia Terrace and at Hawthorne Terrace. All-way stop controls will also be installed at Hawthorne Terrace to regulate traffic.

### **Elwell Street Traffic Calming**

Elwell Street adjacent to Edmonds Park will be traffic calmed with traffic circles and medians to help slow down the speed of vehicles.

### **Illuminated Street Name Signs**

To enhance the night-time visibility of overhead street name signs at intersections, internally lit signs will be installed along Lougheed Highway at Production Way, Gagardi Way, Bell Avenue, and Austin Road as an initial trial. If successful these could become a template for future installations throughout Burnaby.

### **Mobile Speed Reader Board**

To support the RCMP's Speed Watch Program, a trailer-mounted speed reader board will be purchased for deployment at school and park zones to remind drivers to obey the speed limit. This mobile unit can also be deployed at any other problematic location. It will have the ability to collect data to review and monitor results.

### **Sidewalk Widening along Burris**

The narrow sidewalk along the east side of Burris just south of Canada Way will be widened to better accommodate pedestrians.

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### **Wheelchair Ramps**

Work to improve sidewalk accessibility for all pedestrians is planned to continue with the installation of additional wheelchair ramps throughout the City. This year approximately 80 wheelchair ramps are proposed at existing sidewalk locations where ramps are missing. Priority is given to locations near transit stops and where requests have been received.

### **CONCLUSIONS**

Several traffic safety and operational improvements are being implemented this year as outlined in this report. They are based on public requests and traffic engineering reviews. The implementation timing will depend on the scheduling of other priorities and availability of resources to do the work. Adjustments may be needed as circumstances require.

The initiatives are funded from existing Capital or Operating Budgets. Request for funding contributions from TransLink and ICBC's Road Improvement Program will be sought where applicable to help offset some of the costs.

This report is submitted to the Committee for information.



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