

SCHOOL & PARK ROAD SAFETY IMPROVEMENTS

Department	Engineering & Public Works	Starting Quarter	2022 Q1
Project Manager	Manager Capital Projects	Completion Quarter	2023 Q4
Asset Group	Transportation	Estimated Life	25 Years
Project Type	New	Reference	20-80-26

Project Description

This program targets road safety improvements in school and park zones. It proposes works in addition to those included in the 2021 Sidewalk and Pedestrian Safety and Traffic Calming programs. This request was put forth by Mayor West and is supported by staff.

The City has been investing in infrastructure to improve pedestrian safety while mitigating speeding and driver compliance. Providing sidewalks and safe road crossing points keeps pedestrians separated from traffic and reduces the risk of conflicts. Streetlights, flashing beacons and curb bulges also increase pedestrian visibility and result in higher driver compliance rates at road crossings. As an additional measure, traffic calming infrastructure can be introduced where driver adherence to the posted speed zones is low and the risk is higher – such as in speed restricted school or playground zones (30km/hr) where there is a higher volume of vulnerable pedestrians who may be crossing the road.

Uncontrolled crossings on roads around schools and parks present risk points with a higher potential for conflicts between traffic and pedestrians. Providing appropriate infrastructure at these locations is an effective way to bring about meaningful and targeted road safety improvements. Roads around all the schools and parks in the city were reviewed for speed restrictions and pedestrian crossings. Raised crosswalks are proposed at all uncontrolled crossings in speed restricted (e.g. 30km/hr) zones on local and collector roads around schools or parks. Pedestrian flashing beacons (also known as Rectangular Rapid Flashing Beacons or RRFB's) are proposed for regular speed zones on collector or arterial roads. Beacons effectively address the challenges at those locations: vehicles not stopping for pedestrians waiting to cross, vehicles needing advance notice to brake effectively in time, and preserving the function and speeds on large roads necessary to move large volumes of traffic. Schools and parks that are not on the list already have controlled crossings (signal, stop sign) or planned works at uncontrolled crossings.

In combination with other infrastructure being implemented throughout the city intended to improve road safety (sidewalks, pedestrian safety improvements, traffic calming, streetlights), these additional works will serve to increase driver compliance and pedestrian safety in school and playground zones. For a strategic approach to City wide improvements that is consistent, cost effective, and sustainable, it is recommended that these changes be introduced and monitored for effectiveness before considering additional measures.

The following road safety improvements are proposed around schools in 2021:

- Archbishop Carney – RRFB
- Birchland Elementary - raised crosswalk
- Blakeburn Elementary - raised crosswalk
- Castle Park Elementary - raised crosswalk
- Central Elementary – raised crosswalk
- James Park Elementary - raised crosswalk
- Kilmer Elementary - raised crosswalk
- Kwaykwitlum Middle - 2 raised crosswalks, 2 RRFB's
- BC Christian Academy - 1 raised crosswalk
- Pitt River Middle - 2 raised crosswalks, 1 RRFB
- Terry Fox High School - 2 raised crosswalks
- Westwood Elementary - 1 raised crosswalks

Project Description

Hazel Trembath Elementary - 1 raised crosswalk
Hope Lutheran Christian School - raised crosswalk

The 2022 park safety improvement projects were estimated to cost \$275,000 in 2019. Additional funds in the amount of \$130,000 are required for the construction of roadside rectangular flashing beacons (RRFB's). Through the design work completed in 2020, it was determined that RRFB construction costs are higher than estimated. The units are newly introduced assets that were budgeted at \$20,000 per location. A cost of \$30,000 per RRFB is required for locations that have existing street lighting while \$50,000 per RRFB is required for locations that require a streetlight/RRFB configuration.

The following road safety improvements were proposed around parks in 2022:

- Aggie Park – 1 crosswalk (Flint/Fraser), raised crosswalk (Flint/Manning)
- Blakeburn Park – 2 RRFB's (Riverside/Skeena & Riverside/Elbow) \$50,000 each
- Cameron Park – 1 RRFB (Pitt River Rd/Cameron) \$30,000
- Birchland Park & Cascara Park – raised crosswalk (Ellis Dr)
- Coutts Park – raised crosswalk (Fort Fraser Rise)
- Donald Park – 3 raised crosswalks (Atkins, Kelly, Welcher) + 1 RRFB (Wilson) \$50,000
- Elks Park – 1 RRFB (Shaughnessy/Kelly Ave) \$30,000
- Kroeker Park – 1 RRFB (Pitt River Rd/Harbour) – by development
- McLean Park – 2 raised crosswalks (York/Grant, Wellington/Grant)
- Nacht Park – 1 RRFB (Shaughnessy/Nacht) \$30,000
- Wellington Park – 1 RRFB (Wellington/Patricia) \$30,000

Design fees (\$25k) for the 2021 school and 2022 park improvements were included in the 2021 budget.