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The Corporation of **THE CITY OF NORTH VANCOUVER**
ENGINEERING, PARKS & ENVIRONMENT DEPARTMENT

REPORT

To: Mayor Linda Buchanan and Members of Council

From: Mo Bot, Project Manager

Subject: ESPLANADE COMPLETE STREET – PROJECT UPDATE

Date: June 16, 2021 File No: 16-8350-20-0034/1

The following is a suggested recommendation only. Refer to Council Minutes for adopted resolution.

RECOMMENDATION

PURSUANT to the report of the Project Manager, dated June 16, 2021, entitled “Esplanade Complete Street – Project Update”:

THAT the Esplanade Complete Street design to improve the comfort and safety of vulnerable road users, provide good business access and create a more vibrant street while maintaining the existing roadway capacity and level of service for transit, trucks and passenger vehicles, be endorsed;

THAT (Funding Appropriation # 2130) an amount of \$3,100,000 be appropriated from the Civic Amenity Fund for the purpose of funding the Esplanade Complete Street project;

THAT \$450,000 of existing funding be reallocated from “New Traffic Signals” (Project #53266) for the purpose of funding the Esplanade Complete Street project;

THAT \$350,000 of existing funding be reallocated from “Priority Mobility Network (Project #53255) for the purpose of funding the Esplanade Complete Street project;

THAT \$280,000 of existing funding be reallocated from “Marine-Main Corridor: Queensbury to Heywood” (Project #51162) for the purpose of funding the Esplanade Complete Street project;

THAT \$100,000 of existing funding be reallocated from “Traffic Signal System Upgrades” (Project #53269) for the purpose of funding the Esplanade Complete Street project;

THAT \$100,000 of existing funding be reallocated from “Chesterfield AAA Bike Route: 2nd-4th” (Project #53307) for the purpose of funding the Esplanade Complete Street project;

THAT \$75,000 of existing funding be reallocated from “Marine-Main Corridor Improvements” (Project #51172) for the purpose of funding the Esplanade Complete Street project;

THAT \$50,000 of existing funding be reallocated from “Existing Infrastructure Safety Improvements” (Project #53265) for the purpose of funding the Esplanade Complete Street project;

THAT \$40,000 of existing funding be reallocated from “Transit Stop Improvements” (Project #53239) for the purpose of funding the Esplanade Complete Street project;

THAT \$30,000 of existing funding be reallocated from “New Pedestrian Crossing Facilities” (Project #53263) for the purpose of funding the Esplanade Complete Street project;

THAT \$14,000 of existing funding be reallocated from “Irrigation Installation” (Project #53307) for the purpose of funding the Esplanade Complete Street project;

THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2018, No. 8690, Amendment Bylaw, 2021, No. 8859” (Funding Reallocation), a Bylaw to reallocate an amount of \$138,600 from the “Marine-Main Corridor: Queensbury to Heywood” project for the purpose of funding the “Esplanade Complete Street” project, be considered;

THAT “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2018, No. 8623, Amendment Bylaw, 2021, No. 8860” (Funding Reallocation), a Bylaw to reallocate an amount of \$49,500 from the “Chesterfield AAA Bike Route 2nd to 4th Street” project for the purpose of funding the “Esplanade Complete Street” project, be considered;

THAT should any of the amounts remain unexpended as at December 31, 2024, the unexpended balances shall be returned to the credit of the respective fund;

AND THAT staff initiate the tender and construction phase.

ATTACHMENTS

1. “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2018, No. 8690, Amendment Bylaw, 2021, No. 8859” (Funding Reallocation) (CityDocs [2065395](#))
2. “Development Cost Charge (Transportation) Reserve Fund Bylaw, 2018, No. 8623, Amendment Bylaw, 2021, No. 8860” (Funding Reallocation) (CityDocs [2065628](#))

SUMMARY

The Esplanade Complete Street project has advanced through detailed design and public engagement and is ready to proceed to construction. The Project delivers on the design and approach goals endorsed by Council in fall 2020 including:

- Improving the comfort and safety for vulnerable road users;
- Ensuring good business access; and,
- Creating a more vibrant street, while maintaining existing road capacity and service levels for transit, trucks and passenger vehicles.

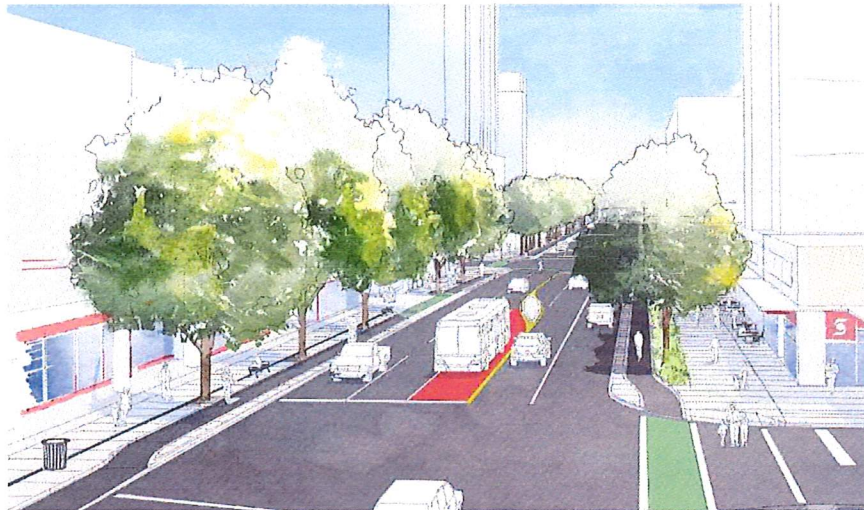


Figure 1. Esplanade looking east from the Rogers Overpass towards Lonsdale

Staff recommend that the project advance to tender for construction to commence works later this summer. Staff will report back to Council in Q3 with an updated construction schedule and provide regular updates as construction milestones are met.

BACKGROUND

Esplanade is a priority corridor for improvement

The Esplanade corridor was identified as an early east-west priority of the All Ages and Abilities Priority Mobility Network Plan, approved by Council in November 2019. The objective of the Priority Mobility Network is to build a system of safe and comfortable infrastructure for a growing variety of active transportation users and electrified mobility devices. Recognizing that Esplanade is an important corridor for many travel modes, staff

have adopted a *Complete Street* design approach to ensure the needs of all road users are considered throughout the project.

Esplanade serves a wide range of users as a critical east-west corridor and commercial street

Esplanade serves a wide range of motorized and non-motorized users and is part of only a few continuous east-west people and goods movement corridors across the North Shore, accommodating:

- Motor Vehicles – part of TransLink's Major Road Network and one of few connected east-west corridors;
- Trucks and Goods Movement – part of the only municipal east-west truck route through the City; the other being the highway;
- Transit – part of TransLink's RapidBus corridor, providing direct connections to SeaBus and east-west travel;
- Cycling – topography and directness make Esplanade the preferred route for cyclists and has been identified in the Priority Mobility Network Strategy as a priority corridor; and,
- Pedestrians – designated as part of the pedestrian precinct, this area has high walking mode share.

In addition to the importance of a through corridor, Esplanade is a street with moderate density commercial and residential buildings. Therefore, the design must consider the local needs for access and desire for improved vibrancy.

Existing conditions are good for some users but not all

Staff completed an assessment of the existing conditions on Esplanade for each user group and determined that Esplanade is good for some users, but is in need of improvement for others.

Generally, Esplanade provides a high level of service for east-west motor vehicle travel due to a four lane plus left turn bay cross-section, coordination of traffic signals and recent improvements for the R2 RapidBus project. Staff identified pedestrian and cyclist comfort, road safety and local business activity as key areas for improvement. The painted bike lanes along Esplanade were implemented almost a decade ago and although they met best practices of the day, the safety and comfort standards have advanced. From today's design guidance, we know that cycling facilities separate from motor vehicles and pedestrians are safer and more comfortable for all modes. Both user groups have noted the experience of large trucks adjacent to cycling lanes as problematic.

The pedestrian experience on Esplanade can be uncomfortable at times, often due to road noise and vehicle speeds. Staff identify the need to increase pedestrian comfort and improve the crossing experience for pedestrians.

This project provides a unique opportunity to support the prosperity of area businesses through improvements to the street.

The Project Team has implemented a design and engagement process that has ensured all interested community members and stakeholders have had an opportunity to share input on the project.

In summer 2020, the project began with preliminary engagement with key stakeholders on the corridor. It then moved from conceptual to detailed design with two additional periods of public and stakeholder engagement shaping and refining the project priorities and design elements.

TIMELINE FOR THE PUBLIC CONSULTATION AND CONSTRUCTION

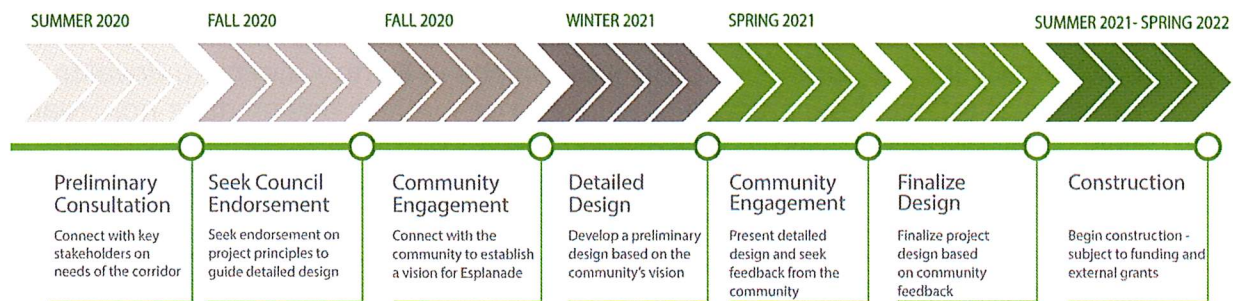


Figure 2. Project Timeline

Public involvement through the project indicated a significant interest in making improvements to the Esplanade Corridor with record-breaking reach for project engagement.

- 5,100 visits to the Let's Talk project page with 4,160 aware participants, 662 informed participants and 320 engaged participants asking questions, responding to a poll or contributing direct feedback.
- 104,448 combined views through social and digital media campaigns, driving over 1,600 participants to Let's Talk.
- 7,000+ views of the project video.
- 3 print ads in the North Shore news.
- 4,000 postcards mailed.
- 27 Stakeholder meetings.
- Numerous 1:1 meetings and conversations with interested businesses and residents.

Public feedback was detailed and thoughtful, coalescing around common themes that the Project Team has addressed through the design.

- **Safety** – A broad cross-section of stakeholders and public expressed strong support for providing dedicated, separated space for all modes as a way to increase safety, minimize conflict between users, and create a truly All Ages and Abilities street. The Project Team has approached developing a design with a lens of safety for all as a guiding principle for design decision making and managing trade-offs.

- **Speeding and Enforcement** - Many stakeholders expressed frustration and concern regarding speeding on Esplanade and a perceived lack of enforcement, with many requesting to lower the posted speed limit. The design of the corridor will support a lowered posted speed limit, but a change to the speed limit will need to be considered in consultation with TransLink's Major Road Network team. North Vancouver RCMP have reviewed the design and support the use of design interventions to encourage slower speeds. The Project Team will continue to engage with TransLink about studies required to consider and establish a different future posted speed on Esplanade.
- **Accessible and Inclusive Design** – The Esplanade project will be implementing new infrastructure designs, including the first protected intersection on the North Shore. The Project Team has engaged with the North Shore Advisory Committee on Disability Issues, as well as other jurisdictions in North America to develop a design that reflects best practice guidance to ensure this design does not create new problems when trying to fix existing ones.
- **On-Street Parking and Curb Access** - The Project Team received significant feedback about proposed changes to on-street parking that are required to provide space for protected and separated infrastructure. A majority of stakeholders are in support of rebalancing the street to prioritize safe movement of all modes over the storage of vehicles on street; however, some respondents felt any reduction in on-street parking availability would impede customer access and hurt businesses. The proposed design provides dedicated on-street parking on every block where it was physically feasible without compromising safety improvements for vulnerable road users. The remaining on-street spaces will be regulated to ensure they are used for short-term visits only, encouraging higher turnover for people stopping for quick pick-up or drop-off activities. Through wayfinding, drivers seeking longer-term parking will be directed to over 2,000 off-street parking spaces in a mix of City-owned and private lots available within a 3-minute walk of Esplanade.
- **Lane Changes on Forbes Avenue** - Feedback was received from residents concerned that the changes proposed for Forbes Avenue will create too much vehicle congestion. The project team has used industry standard traffic modelling software to analyze traffic flow along the corridor. The analysis indicates that with the proposed changes, even when factoring in a traffic volume increase to account for the growth of the area, the corridor will continue to function well.

Where engagement identified design issues requiring resolution, the Project Team has worked directly with affected businesses and stakeholders to develop appropriate adjustments to the design while still ensuring the safety benefits for separated and protected mobility infrastructure are maintained.

The final design balances a wide range of Council-approved policy objectives related to goals in support of a safer, healthier, more sustainable City.

The design considers a range of trade-offs between how constrained urban public space is allocated between different modes of travel while also responding to the needs of the adjacent land uses in this commercial business district and growing residential neighbourhood. The final design includes:

Esplanade – Mahon Avenue to St. Andrews Avenue

- Creating fully separated and protected mobility lanes on both sides of the street – including separating the bike spaces from both vehicles (using a raised curb) and the sidewalk (with planted boulevards and furnishing areas).
- Close Mahon Avenue to through vehicle traffic to create safer public realm outside of Alcuin College (63 Mahon – under development).
- Right out only laneway accessing Forbes Avenue between 1st Street and Esplanade.
- Introduction of protected intersection design at Chesterfield and Lonsdale Avenues to provide dedicated space for bike and walk crossings at the busiest crossings on the corridor.
- Addition of centre medians to prevent illegal and dangerous left turn movements:
 - Between mid-block crosswalk and Rogers;
 - Between Lonsdale and St. Georges Avenues.
- Upgrading existing separated mobility lanes to address safety issues, conflicts between users, and provide more accessible protected but separated spaces:
 - Between Mahon Avenue to Semisch Avenue westbound;
 - Between Rogers to Lonsdale Avenue eastbound.
- Additional of eastbound and westbound left turn lanes and protected left turn signal phases at St. Georges Avenue to address safety at this higher collision area.
- Upgrading pedestrian walk signals to audible, programmable, and tactile standard for accessibility.
- Inclusion of best practice streetscape elements to support navigability of the infrastructure for people with physical and cognitive disabilities (tactile walking indicators, vertical height separation, and differentiation of spaces with materials for visibility).
- Implementing floating bus stops providing space for bikes to move behind the bus platform and to support ease of boarding and alighting for transit passengers.
- Upgrades to, and additional, pedestrian scale lighting.
- Incorporation of advance walk signals to allow more time for pedestrian crossings.

Forbes Avenue – 3rd Street W to Esplanade

- Install new cycling facility adjacent to sidewalk, protected by concrete barriers, on the west side (southbound) portion of the corridor.
- Shift east side (northbound) curb lane west to accommodate the separation of multi-use path into bike and pedestrian dedicated spaces (current condition is a shared space multi-use path).
- Remove southbound left turn lanes at 1st and 2nd Streets and restrict left turns from 7am-7pm to support vehicle movement for transit, commercial, and private vehicles.
- 30km/hr curve warning signs to be installed where Forbes Avenue meets Esplanade.

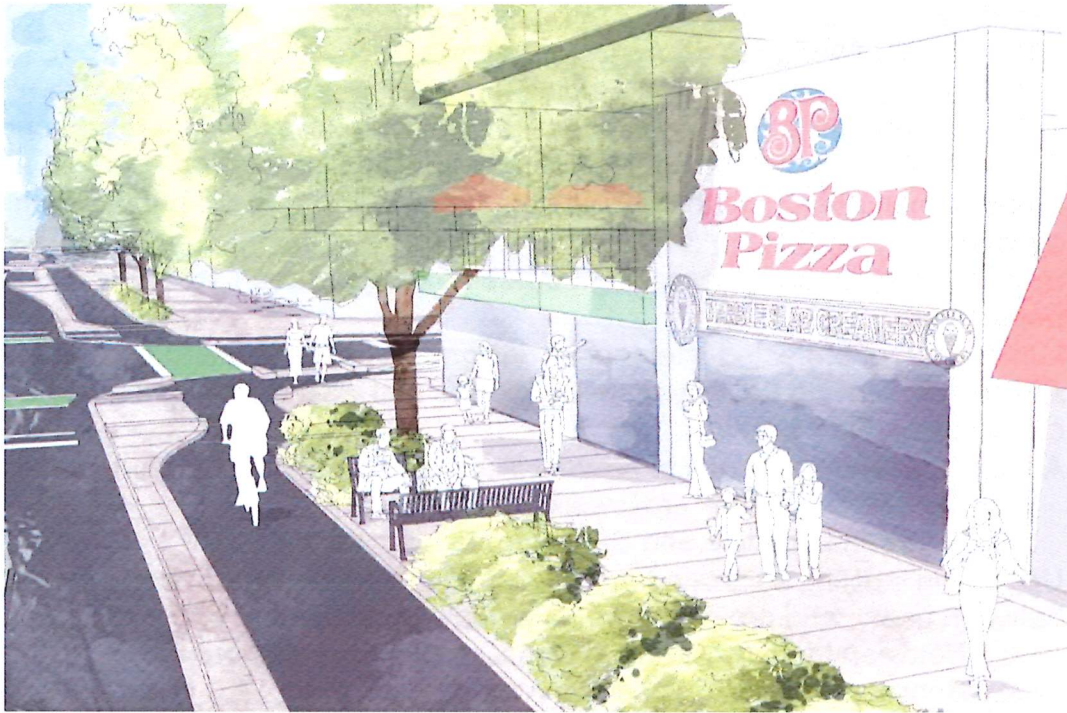


Figure 3. Mobility lanes separated from wide, clear sidewalks with new trees and planted boulevards

The Project Team is preparing a construction approach to minimize the impact to local residents and businesses.

Staff are seeking Council endorsement to proceed to tender and commence construction this summer. Reconstruction of the corridor is anticipated to take 10 months depending on weather conditions. The Project Team also intends to pause construction during the December holiday season to minimize impact to businesses during the busiest shopping season.

Through construction, the following principles are identified as critical to managing a successful construction phase that minimizes impacts to local residents and businesses:

- Maintain safe and direct pedestrian and mobility device access to and through the project area;
- Maintain two-way traffic along Forbes Avenue and Esplanade throughout construction;
- Limit construction to regular hours of work without significant overnight work requirements; and,
- Provide regular community project updates across a range of platforms.
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The Project Team, in partnership with Community and Partner Engagement, will continue to advance a multi-pronged communications strategy to ensure residents and businesses have easy access to relevant construction information. Tactics will include a social and digital media campaign, advertisements in the North Shore News, mailing lists, on the ground wayfinding, and outreach through the Lower Lonsdale BIA.

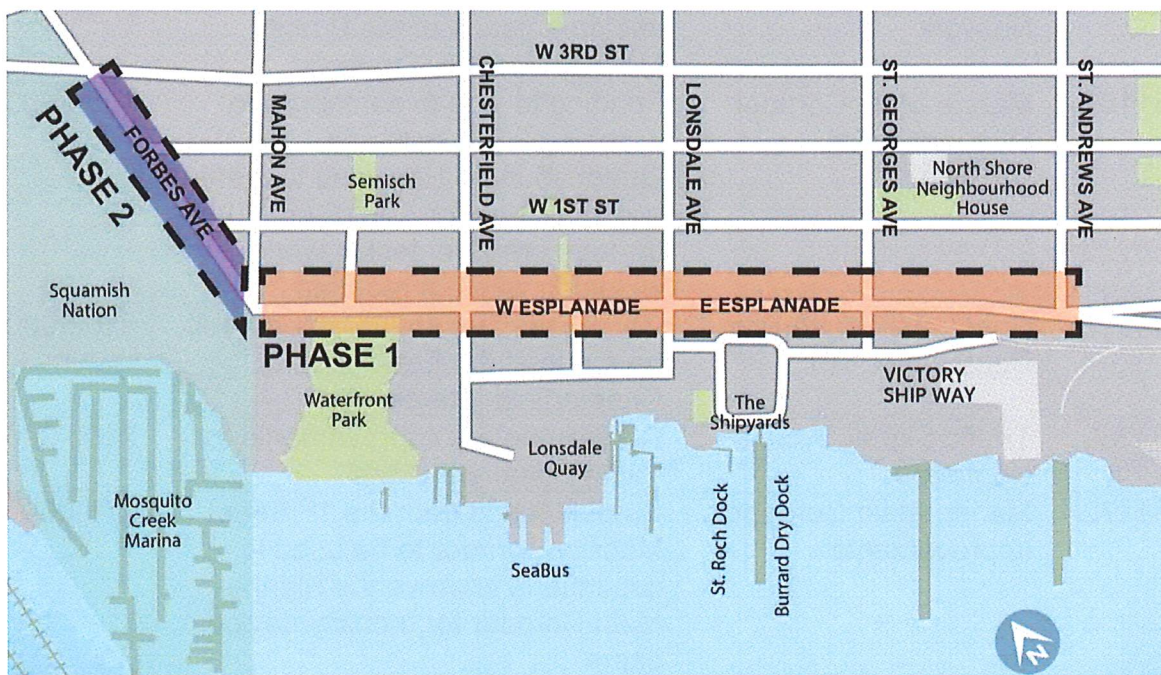
The Project Team is aware of a minority of concerns about changes coming to the area with respect to parking. The construction phase will be an opportunity to begin normalizing new parking behavior in the area. Access to area parkades will remain available during construction. The Project Team will be working with the BIA to educate businesses about available parking in the area and support communications with their clients and customers. Wayfinding signage and online information will direct people to available parking during construction and after project completion.

Staff will report back to Council in Q3 with an updated construction schedule and will provide regular updates as construction milestones are met.

FINANCIAL IMPLICATIONS

The cost to deliver on the project's design goals within a complex corridor context is higher than anticipated at the outset of the project – in part due to COVID-19 related construction cost escalation. Despite staff's efforts to convey the value of the project to higher levels of government, we have been unsuccessful in covering the budget shortfall through external funding. Staff also wish to proceed to construction with a healthy contingency of 30% given the complexity of the corridor and in anticipation of necessary changes to the design in response to site conditions.

The Project Team has evaluated options available to proceed with the core scope of the project between Mahon and St. Andrews Avenues where safety improvements will have the greatest impact and phase the construction of the Forbes corridor (see Table 1).



PHASE I – Core Project Scope	
Funding Source	Amount
2021 Capital Budget	\$3,100,000
TransLink Grants	\$1,795,000
Reallocated funds from projects with complimentary objectives (for details see table 2)	\$1,489,000
Total Funding for Phase I	\$6,219,000
PHASE II – Forbes Avenue	
Funding for Phase II to be incorporated into the 2022 Capital plan for Council's consideration	\$1,345,200
Total Funding for Phase II	\$1,180,200
Total Project Funding	\$7,564,000

Table 1. Funding Sources

Should tender prices be submitted low or contingency prove to be overly cautious, staff will proceed with completing elements or all of Phase II rather than seeking additional funding in the 2022 Capital Plan.

Reallocated Funds			
Project #	Funding Source	Description	Amount
53266	New Traffic Signals	To make improvements to the Esplanade and St Georges Intersection	\$450,000
53255	Priority Mobility Network	The project contributes to the implementation of the Priority Mobility Network Strategy	\$350,000
51162	Marine-Main Corridor: Queensbury to Heywood	Funding to was to contribute to widening 3 rd St between Queensbury to Heywood to create a priority lane for RapidBus, but through creative design work widening was not required	\$280,000
53307	Chesterfield AAA Bike Route	Complimentary improvements will be made at the Esplanade at Chesterfield Intersection	\$100,000
53259	Traffic Signal System Upgrades	Complimentary improvements to traffic signal upgrades	\$100,000
51172	Marine-Main Corridor Improvements	Surplus funds from the 1 st Street Mobility Corridor to be used to continue to improve the Marine-Main Corridor for mobility device users	\$75,000
53265	Existing Infrastructure Safety Improvements	Complimentary safety improvements to existing infrastructure	\$50,000

53239	Transit Stop Improvements	Complimentary project to be used to improve conditions for transit users on the corridor	\$40,000
53263	New Pedestrian Crossing Facilities	Complimentary project to improve pedestrian crossings	\$30,000
50161	Irrigation Installation	Funding to be used to improve conditions for street trees on Esplanade	\$14,000
Total Reallocated Funds			\$1,489,000

Table 2. Reallocated Funds

INTER-DEPARTMENTAL IMPLICATIONS

This report was prepared in collaboration with the Finance Department.

Engineering, Parks and Environment will continue to lead the delivery of the Esplanade Complete Street with ongoing support from:

- Community and Partner Engagement – Supporting public and stakeholder communications through construction;
- Development Services – Coordinating construction activities with active redevelopment sites along the corridor; and,
- Engineering, Parks and Environment Operations – Supporting site inspections of specialized streetscape and landscape installations or other civil works as required.

STRATEGIC PLAN, OCP OR POLICY IMPLICATIONS

This project supports a Connected, Vibrant and Prosperous City, provides active and sustainable ways for people to move to, from and within the City safely and efficiently, and results in an increase in kilometers of protected mobility lanes to support increased active mode share.

Delivering a Complete Street also aligns with key actions outlined in the Safe Mobility Strategy.

RESPECTFULLY SUBMITTED:



Mo Bot, PMP, RPP, MCIP
Project Manager – Public Realm
Infrastructure