QUEENSBOROUGH TRANSPORTATION PLAN

FINAL PLAN



June 2024

NEW WESTMINSTER

PREPARED FOR:

NEW WESTMINSTER

City of New Westminster
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PART 1 | INTRODUCTION

Queensborough is a diverse and growing neighbourhood that has been evolving from a low-density residential and industrial community to a more dense, mixed-use community. With continued population growth in the community and region, new transportation challenges have arisen and increased pressure is being placed on the transportation network.

1.1 PURPOSE OF THE PLAN

The City has several city-wide transportation planning documents, including the Master Transportation Plan and the Active Transportation Network Plan. These plans provide direction and guidance for all neighbourhoods within the City, including Queensborough. The Queensborough Community Plan, a subarea plan of the City's Official Community Plan, explores the unique character of the Queensborough community and provides a policy framework for achieving the Queensborough Community Vision. The Queensborough Community Plan focuses on land use planning.

The Queensborough Transportation Plan will act as a guide for the City's transportation decisions within Queensborough, ensuring to balance the needs of all transportation users and prioritize investments that will help facilitate the safe, sustainable, and accessible movement of people and goods within and through Queensborough.

The purpose of the Queensborough Transportation Plan is to:

- Provide a strategic plan and vision for transportation in Queensborough for community members, city staff and Council.
- Support and further advance the goals and objectives of the Queensborough Community Plan, the City's Master Transportation Plan, and Climate Action Bold Steps.
- Identify projects and policies to address transportation challenges in Queensborough.
- Provide an implementation strategy of prioritized transportation investments to inform decision-making and the capital budget process going forward.

The Queensborough Transportation Plan is one of several community and city-wide transportation planning documents that identify priority infrastructure projects. The recommendations of this plan, and others, will then be reviewed and prioritized at a city-wide scale before capital funding is allocated.

1.2 GUIDING PRINCIPLES

The following principles guided the transportation direction included in the Queensborough Transportation Plan and transportation decisions in Queensborough.

- **Improve Safety and Universal Accessibility** - Improve safety and accessibility for people travelling in Queensborough ensuring the transportation network is comfortable for people of all ages and abilities, all year round.
- **Take Steps Towards Climate Action** - Identify transportation projects and initiatives that support active and sustainable transportation. Infrastructure recommendations will consider climate change resilience and mitigation and consider the impact of flooding, soil quality, and the important role watercourses have in the community.
- **Connect People to Destinations** - Provide infrastructure that improves access and connections to destinations in Queensborough and elsewhere in New Westminster by filling in gaps in the network.
- **Celebrate Queensborough** - Celebrate the unique history and diverse population of Queensborough. Consider innovative implementation techniques and materials that support and fit within the context and character of Queensborough.
- **Work Collaboratively with Partners** - Recognizing that there are transportation routes and services that are not within the City's jurisdiction, the City will need to work with the Ministry of Transportation and Infrastructure, TransLink, the Port of Vancouver, Southern Rail, and others to implement improvements identified in the Plan and advocate for safe, comfortable, and efficient transportation in Queensborough.

1.3 PROCESS

The Plan was developed through a four-phase process from Fall 2022 to the Spring of 2024. **Figure 1** illustrates the four phases of the planning process. The plan was developed using a combination of technical analyses grounded in best practices, ensuring alignment with the local and regional policy context, and input and direction from community members and interest groups.



Figure 1: Queensborough Transportation Plan Process

Summary of Engagement

An important component of developing the Queensborough Transportation Plan was engaging with community members and interest groups. There were two rounds of engagement during the project planning process and several methods were used to raise awareness about the project.

Raising Awareness

- **Be Heard New West project page** - A project page was set up on the City's Be Heard site. The project page shared background information and updates on the project, the engagement process, and relevant City documents. The project page included the community surveys and mapping activity. There was also a discussion forum and quick poll where specific questions were asked to community members.
- **Interest Group Outreach** – Emails were distributed to more than 25 identified interest groups during the first and second rounds of engagement. The emails included a link to the survey and information about other upcoming engagement events.
- **Community Pop-up** – New Westminster City staff conducted five pop-ups over at different locations in the City. At all pop-ups, staff handed out flyers that included the link to the Be Heard project page and had discussions about transportation in Queensborough.
  - Round 1 – two pop up locations on November 24, 2022
  - Round 2 – three pop up locations on three days in October 2023 (October 3, 4, and 10th)
- **Social Media** – The City promoted both rounds of engagement, including the survey and events on Facebook, Instagram, and X (formerly Twitter) pages.
- **Promotion:**
  - Citypage newsletter
  - The Record newspaper
  - New West Anchor e-newsletter
  - Digital signage
  - Posters
  - Letters to 3,939 households



Engagement Round #1 – Understanding Issues and Opportunities (Fall 2022)

The first round of engagement occurred from November through December 2022. The project team facilitated a variety of activities designed to educate and engage Queensborough community members and interest groups about the Queensborough Transportation Plan project. This round of engagement was designed to gather input on current transportation conditions, issues, and opportunities in Queensborough.

- **Community Survey #1** was available from November 7 and December 5, 2022 and received 213 responses.
- **Interactive Map (location specific feedback)** was also available from November 7 and December 5, 2022 and a total of 275 unique points were provided with information about strength or weakness related to cycling, transit, walking, driving, or "other".
- **Interest Group Meetings** involved meeting with the Queensborough Residents Association on November 8, 2022. The project team also met with Community Interest Groups on February 1, 2023 and Government Agency and Institutional Interest Groups on February 2, 2023. The purpose of these meetings was to present the findings of the existing conditions review, the first round of engagement, and collect input.

Engagement Round #2 – Options and Priorities (Fall 2023)

The second round of public engagement, which launched in September 2023, was designed to gauge community support for the preliminary recommendations and options identified for the Queensborough Transportation Plan and understand which options community members would like to see prioritized.

- **Community Survey #2** was available from September 26 and October 29, 2023 and received 255 responses.
- **Drop-in Sessions** were held at the Queensborough Community Centre on October 12 and 14, 2023. There were more than 50 people in attendance.
- **Interest Group Meetings** involved meeting with the Queensborough Residents Association on September 12, 2023 and on March 12, 2024. The project team also met with the Ministry of Transportation and Infrastructure and TransLink on December 8, 2023 to share the findings from the second round of engagement and discuss partnership opportunities.

1.4 PLAN STRUCTURE

The Queensborough Transportation Plan builds upon established city-wide policies and plans, and those specific to the neighbourhood. The Plan itself is organized into sections for Walking, Cycling, Bus Transit, Intersections, Streets, and Goods Movement, and Inter-Neighbourhood Access. Within each of these sections there is a summary of the current context, opportunities and issues, and the directions and actions identified for each. The Plan's final section includes the Implementation Plan which identifies an approach and timeline for implementation.



PART 2 | POLICY AND NEIGHBOURHOOD CONTEXT

2.1 POLICY CONTEXT

The Queensborough Transportation Plan was developed within the following existing City policy frameworks adopted by City Council.

Official Community Plan (OCP) - provides policies to guide decisions related to growth and land use management for New Westminster to the year 2041.

The OCP describes the type of city the community wishes to evolve into and acknowledges the importance of shaping growth in a way that is responsive to the City's distinct circumstances.

Per the Local Government Act, all bylaws and plans must be consistent with the City's OCP.

Climate Emergency Bold Steps - provides overarching guidance for all municipal activities and plans to achieve a carbon-neutral future by 2050.

The seven bold steps:

1. Carbon Free Corporation
2. Car Light Community
3. Carbon Free Homes and Buildings
4. Pollution Free Vehicles
5. Carbon Free Energy
6. Robust Urban Forest
7. Quality People-Centered Public Realm

Master Transportation Plan (MTP) – provides long-term guidance regarding transportation priorities and investments. MTP principles aim to create a more sustainable transportation network through more walkable, bikeable, and transit-oriented communities.

Queensborough Community Plan - establishes policies and land use designations to develop a sustainable neighbourhood. The Plan emphasizes pedestrian and bicycle connectivity through parks, trails, and greenway streets (**Figure 2**).

Active Transportation Network Plan (ATNP) - establishes a Core Cycling Network throughout the City for people of all ages and abilities (AAA) to be implemented within a five-year time frame **(Figure 3)**.

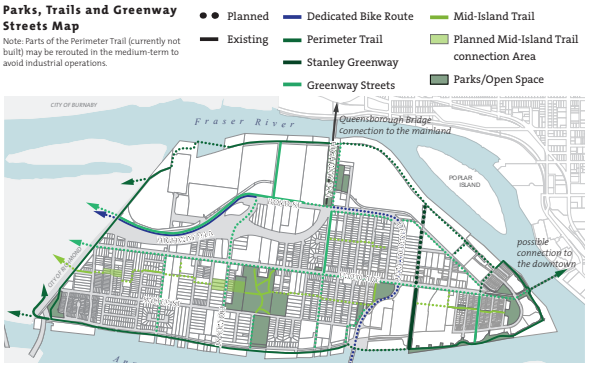
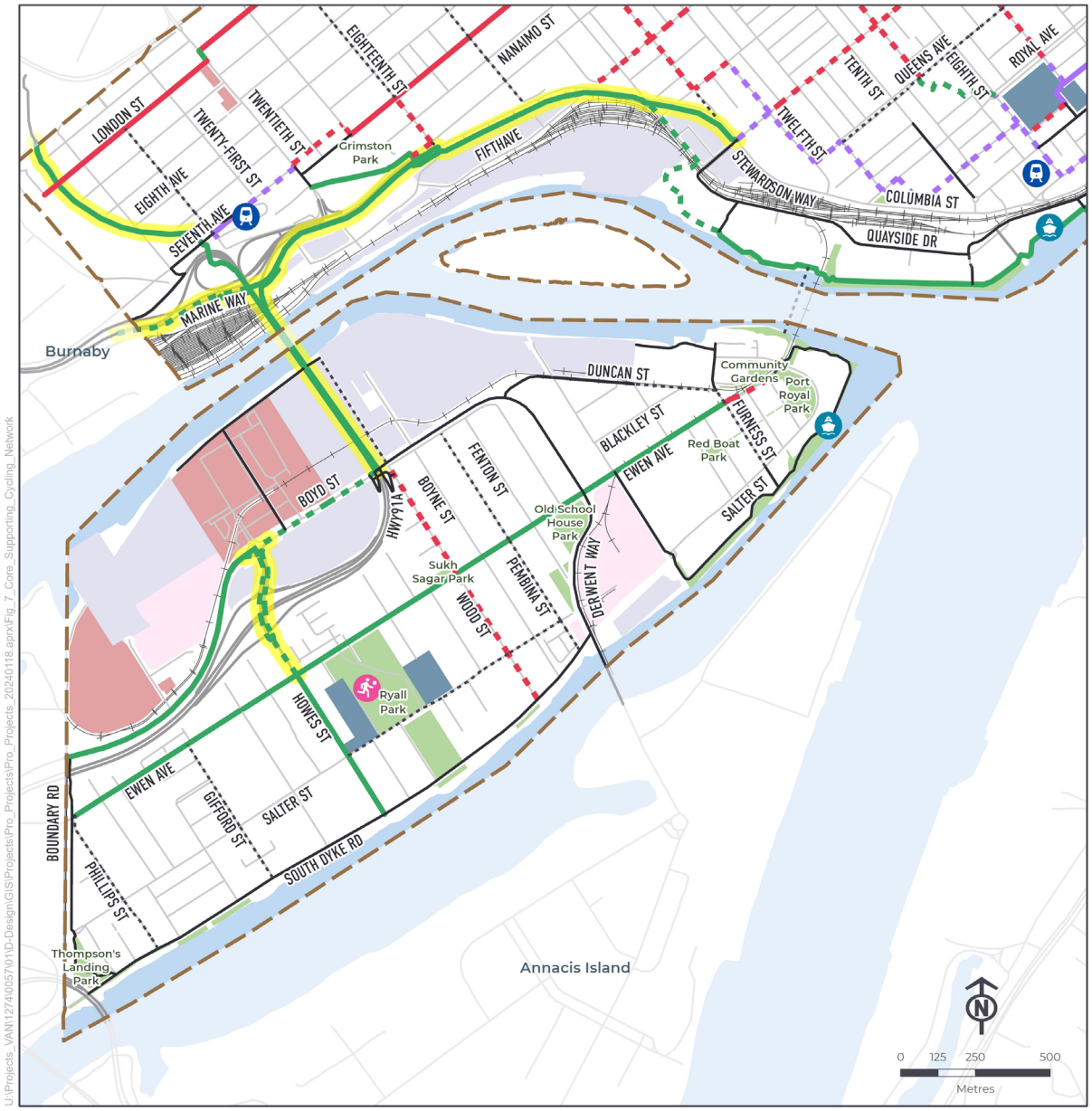


Figure 2: Parks, Trails and Greenway Streets Map (Source: Queensborough Community Plan

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CORE AND SUPPORTING CYCLING NETWORK

EXISTING PROPOSED

- Protected Bicycle Lane
- Off-Street Pathway
- Local Street Bikeway
- Supporting Network
- Other Agency

- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads

- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 3: Core and Supporting Cycling Network (Source: City of New Westminster All Ages and Abilities Active Transportation Network Plan)

Regional Initiatives

There are several regional policies, plans, and initiatives that were considered as part of the Queensborough Transportation Plan.

There are components of the Queensborough, and city-wide, transportation system where TransLink (transit service, frequency, and routing) and the Ministry of Transportation and Infrastructure (Queensborough Bridge, and Howes Street) have jurisdiction.

TRANSLINK

Burrard Peninsula Area Transport Plan

The Burrard Peninsula Area Transport Plan will identify and prioritize recommended actions related to transit, cycling, walking, driving, and goods movement for the transportation network within the Burrard Peninsula. This area encompasses Burnaby, New Westminster, Vancouver, and Electoral Area A, which includes the University of British Columbia and the surrounding University Endowment Lands, and First Nation reserve lands on Burrard Peninsula.

The findings of the Queensborough Transportation Plan, including technical review and input from community members and interest groups, have been shared with the TransLink team working on the Burrard Peninsula Area Transport Plan.

Transport 2050

Transport 2050 is a shared strategy for transportation in Metro Vancouver for the next 30 years. Transport 2050 identifies several regional targets including, having half of all trips in the region made by walking, cycling and transit, with taxi, ride-hailing, and car sharing accounting for most of the remainder.

- Transport 2050's **Reliable and Fast Transit Network** concept continues to identify service through Queensborough, enhancing service between Richmond- Brighouse Station and 22nd Street Station. This route leverages provincial highway infrastructure, Highway 91 corridor and Queensborough Bridge, to provide a fast and reliable bus service directly connecting the Expo Line in New Westminster with the Canada Line in north Richmond.
- Transport 2050 also proposes a **Major Bikeway Network** of approximately 850 kilometres, which builds on existing regional cycling networks, and connects urban centres and major destinations. Corridors in Queensborough identified as part of the Major Bikeway Network include Queensborough Bridge, Boyd Street, and Boundary Road.
- Together with local governments, TransLink co-funds and co-manages the **Major Road Network**, which includes hundreds of kilometres of key roads connecting major destinations for people and goods. Major Road Network corridors in Queensborough include Boyd Street and Derwent Way.

MINISTRY OF TRANSPORTATION & INFRASTRUCTURE

Provincial Highways are under Ministry of Transportation and Infrastructure's jurisdiction. Provincial highways are generally controlled access facilities that provide high speed connections to other parts of the region. Highway 91A is the provincial highway route that travels through Queensborough. Howes Street between Boyd Street and Ewen Avenue is also under provincial jurisdiction.

During the development of the Queensborough Transportation Plan, the Ministry of Transportation and Infrastructure was conducting a review of the Highway 91 Interchange, from a safety, operational, and geometric design perspective. The technical analysis and community input collected during the Queensborough Transportation Plan process was shared with the Ministry's project team.

Transportation Roles and Responsibilities

The transportation system is managed by multiple entities, each with a primary and supporting role. As such, collaboration is critical.

	CITY OF NEW WESTMINSTER	TRANSLINK	MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE	PORT OF VANCOUVER	RAIL OPERATORS
Pedestrian Network	★	⊕	⊕		
Bicycle Network	★	⊕	⊕		
Multi-Use Trails	★	⊕			
Transit Network	⊕	★	⊕		
Q to Q Ferry	★			⊕	
Road Network	★	⊕	⊕		
Major Road Network (MRN)*	★	★	⊕		
Hwy 91 Interchange and Queensborough Bridge	⊕	⊕	★		
Goods Movement	★	⊕	★	★	★
Curb Management	★	⊕			
Land Use	★	⊕		⊕	
Inter-neighbourhood Access**	★	⊕	★ ⊕		

★ Primary Role ⊕ Support Role

**Major Road Network (MRN) consists of major arterial roads in Metro Vancouver that play an important role in the movement of people and goods. The Major Road Network connects the provincial highway system with the local road network.)*

***Inter-neighbourhood Access refers to access and connections between Queensborough and other areas of New Westminster and the region.*

Figure 4: Summary of Transportation Roles and Responsibilities

2.1 NEIGHBOURHOOD CONTEXT

Queensborough is one of 12 neighbourhoods that make up the City of New Westminster. It is located on the eastern extent of Lulu Island, the largest island in the mouth of the Fraser River (**Figure 5**). This geography means Queensborough is physically separated from the rest of the City with reliance on the Queensborough Bridge, under provincial jurisdiction, and the Q to Q pedestrian ferry for access to many important destinations in New Westminster.

Queensborough's location in the Fraser River floodplain results in stunning views and unique character but it also creates infrastructure challenges that can have significant environmental and cost impacts.

There are important employment areas in Queensborough. Land uses in Queensborough, including industrial, mixed employment, commercial, and commercial entertainment, create places of employment for people in the neighbourhood and region.

The Port of Vancouver remains a key landowner in Queensborough and the movement of goods by trucks, trains, and ships is important for the city and region's economy.

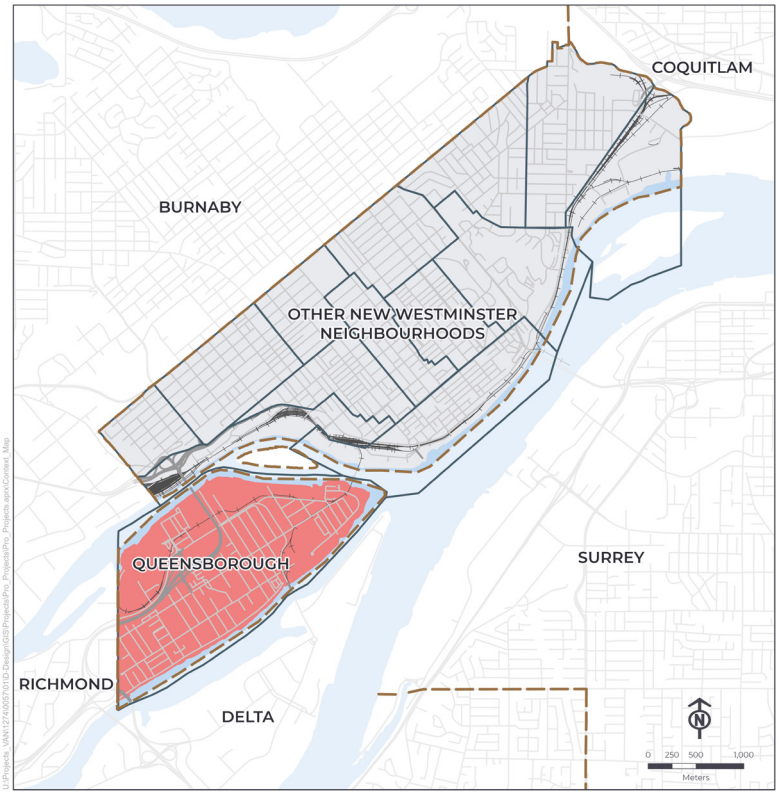


Figure 5: Queensborough Location within City of New Westminster

Land Use

The types of land use and destinations within a community influence how far community members must travel to access their daily needs.

Some of the community destinations within Queensborough include:

- Queensborough Community Centre, the Library, and Ryall Park
- Queensborough Landing Shopping Centre
- Businesses along Ewen Avenue
- Queen Elizabeth Elementary School & Queensborough Middle School
- Port Royal Park and the Port Royal ferry dock
- Old Schoolhouse Park
- Gurdwara Sahib Sukh Sagar

There are several important destinations that are not located within Queensborough. Some of the destinations that Queensborough residents leave the neighbourhood to access include high school, grocery stores, and medical services.

A lack of destinations within Queensborough means that to access their daily needs, Queensborough residents may need to travel outside of the community to other destinations in New Westminster or other nearby municipalities.

It also means that connections to other neighbourhoods in New Westminster and to other municipalities need to be reliable, safe, and efficient.

Travel Patterns

Several sources of data help to identify the mode of transportation people living in New Westminster and Queensborough are using to get around and where they are travelling to. The information presented in this section provides context on Queensborough travel patterns and how this compares to the City of New Westminster as a whole. The following is a summary of travel patterns in Queensborough.





- Census data (2021) shows that most journey to work trips by community members in the City of New Westminster and the Queensborough neighbourhood were by motor vehicle (Figure 6).
  - There is a higher percentage of trips being made by motor vehicles in Queensborough when compared to the City of New Westminster as a whole. This indicates more can be done to encourage additional trips by walking, cycling, and transit in Queensborough.
  - The percentage of trips made by transit decreased in Queensborough and within the City of New Westminster in 2021, dropping to 16% from 21% in Queensborough. COVID-19 may have been a factor.
- TransLink Trip Diary data (2017) highlights that Queensborough residents are often travelling outside of Queensborough and the City of New Westminster for most trip types (**Figure 7**). Most of these trips are currently being made by motor vehicle, and likely across the Queensborough Bridge given the destinations.
- Queensborough Transportation Plan Community Survey results indicate that community members are travelling to several destinations within Queensborough. Based on survey results, driving and walking were the most popular modes to travel to these destinations.

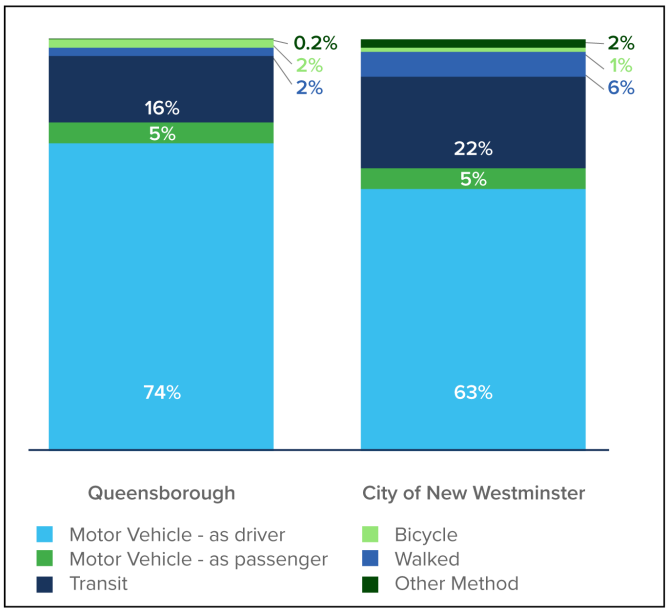


Figure 6: Queensborough & City of New Westminster 2021 Journey to Work Census Data

(Source: Statistics Canada 2021 – City of New Westminster & Queensborough Census Tracts)

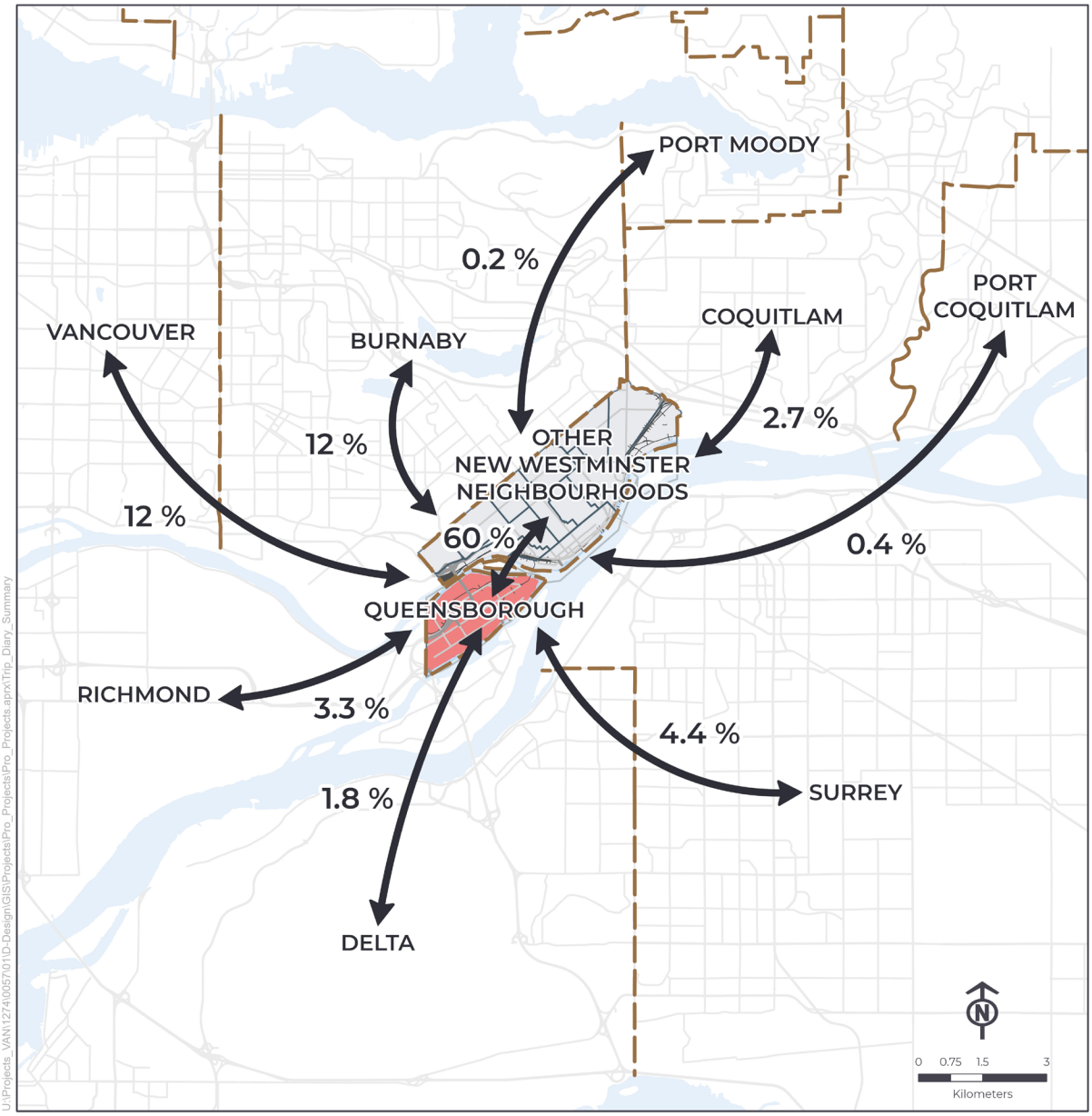


Figure 7: Trip Destinations Originating in the City of New Westminster

(Source: TransLink 2017 Metro Vancouver Regional Trip Diary)

PART 3 | WALKING

People walk for a variety of trip purposes, including trips for transportation and recreation. It also includes people using mobility devices such as wheelchairs, walkers, and strollers. Walking is the most fundamental form of transportation – every trip, regardless of mode, starts and ends with walking.

This section provides an overview of the current context, including issues and opportunities for walking in Queensborough. This section also includes the directions and actions specific to walking, including proposed infrastructure projects.

3.1 CURRENT CONTEXT

- Approximately 38% of streets in Queensborough (excluding Provincial Highways) have sidewalks on both sides
  - 82% of collector streets have sidewalks on one or both sides (Duncan Street, Ewen Avenue, Salter Street, and sections of Gifford Street, Howes Street, and Pembina Street).
  - 58% of local residential roads have sidewalks on one or both sides.
  - 59% of Major Road Network streets have sidewalks on one or both sides.
- The City requires new multi-unit residential developers to construct sidewalks along development site frontages.
- Watercourses (i.e., ditches) make it challenging and costly to implement concrete sidewalks with curb and drainage.
  - 55% of streets within Queensborough without sidewalks are located beside a watercourse.
  - Construction costs increase significantly where watercourses need to be enclosed (**Table 1**).

Table 1 - Estimated Cost for Concrete Sidewalk Construction

TYPE	COST ESTIMATE PER M² OR LINEAL METRE	COST ESTIMATE PER BLOCK*
Concrete Sidewalk (No Watercourse)	Starts at $500	Approximately $350,000
Concrete Sidewalk Adjacent to a Watercourse	$1,250 to $1,750	Approximately $875,000 to $1.2 million

**Assumes a 350 metre long block with sidewalks on both sides of the street*

3.2 OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- Many recreational and school destinations are within walking distance from residential areas in Queensborough.
- Queensborough is flat and compact, which makes walking a viable transportation choice.
- Queensborough has interesting and unique scenery making it an interesting place to walk.

CHALLENGES

- There are gaps in the walking network because of watercourses, roads that are managed by the province, and existing historic land use planning.
- Watercourses and the soil type in Queensborough (river sediment) increase construction and maintenance costs for sidewalks.
- Highway 91A and intersections under Provincial jurisdiction create barriers to walking and pedestrian access to Queensborough Landing and other parts of the City of New Westminster.
- There has historically been limited City budget for sidewalk and accessibility improvements across New Westminster.

3.3 WALKING DIRECTIONS AND ACTIONS

The Queensborough Transportation Plan builds upon the existing policies and plans that outline the overall direction for walking infrastructure in the City and Queensborough. These plans include the:

- Queensborough Community Plan
- Master Transportation Plan
- Age-Friendly Community Strategy
- Dementia Friendly Community Action Plan

This section outlines key areas and directions to improve the walking network at priority locations in Queensborough.

Walking Directions

W1. Implement, in a prioritized manner, a walking network that connects people to neighbourhood destinations.

W2. Create a community that is universally accessible and barrier-free.

W3. Make walking an enjoyable experience for people of all ages and abilities.



W1. IMPLEMENT, IN A PRIORITIZED MANNER, A WALKING NETWORK THAT CONNECTS PEOPLE TO NEIGHBOURHOOD DESTINATIONS.

The walking and pedestrian network in Queensborough includes sidewalks, multi-use pathways, and pedestrian trails. The following actions have been identified to address gaps in the walking network and to help create a safer, more comfortable, and enjoyable pedestrian experience in Queensborough.

Action W1.1: Complete gaps in the walking network on priority routes

Filling in gaps in the pedestrian network will create more continuous and accessible walking routes within Queensborough.

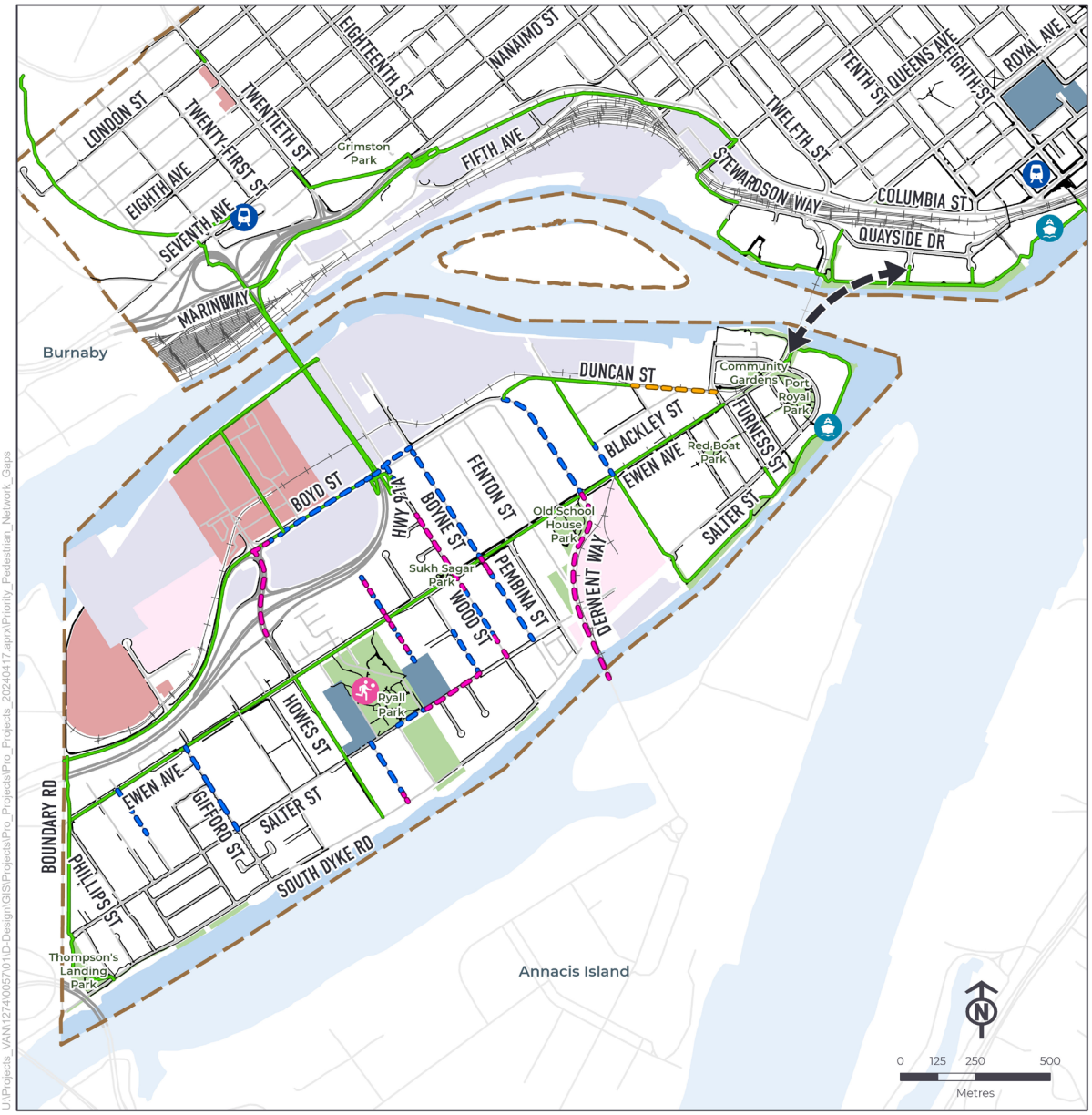
The City has been working to fill in gaps in the pedestrian network through road projects and new development. The presence of watercourses and the unique characteristics of Queensborough make it challenging and costly to implement sidewalks and pedestrian infrastructure.

To identify where it is the highest priority to fill in network gaps, a prioritization criteria was used to identify pedestrian priority locations. The priority walking network gaps can be seen in **Figure 8**.

The City will fill priority gaps in the walking network using a combination of quick-build and permanent treatments, discussed more in the implementation plan (Section 8.0).

PRIORITY ROUTES WERE IDENTIFIED BASED ON:

- Proximity to transit
- Proximity to schools
- Proximity to other community destinations (library, community centre, Gurdwara Sahib Sukh Sagar, commercial, retail, etc.)
- Network connectivity (connects to an existing sidewalk or multi-use pathway)
- Scale of impact (based on number of people impacted/ served)
- Safety improvement (level of comfort, presence of ICBC report collisions)



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PRIORITY PEDESTRIAN NETWORK GAPS

- Pedestrian Gap Location
- Pedestrian Gap Location Beside Watercourse
- Pedestrian Gap - Completed Soon
- Existing Off-Street Pathway
- Active Transportation Bridge - Alignment Unknown
- Existing Sidewalk
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 8: Priority Pedestrian Network Gaps



Action W1.2: Continue to complete pedestrian network gaps through required development frontage improvements

Properties under redevelopment must provide streetscape improvements on their frontage as regulated through the City's Subdivision and Development Control Bylaw (Bylaw No. 7142, 2007) as amended from time to time.

Pedestrian network gaps will continue to be implemented, in part, through development projects as part of frontage improvements.

Action W1.3: Implement the Mid-Island Trail

The Mid-Island trail, a concept also identified in the Queensborough Community Plan, will provide east/west off-street walking routes south of Ewen Avenue that connect residential neighbourhoods to the elementary and middle schools and community centre. A second walking route will connect east/west across the residential neighbourhood north of Ewen (**Figure 9**). There are sections of the Mid-Island Trail, including through Port Royal, that already exist providing mid-block and off-street connections through Queensborough.

The Mid-Island Trail primarily uses existing utility rights of ways on City-owned land. In some cases, additional property may need to be acquired through development. Intersection treatments, including crosswalks, will be implemented to ensure safe mid-block crossings where the trail intersects an existing roadway.

Action W1.4: Continue to pursue opportunities with shoreline property owners to implement the Perimeter trail

The Perimeter Trail, also identified in the Queensborough Community Plan, follows the edge of the Fraser River around the perimeter of Queensborough (**Figure 9**). Existing sections of the trail accommodate recreational trips for people walking and cycling. Once completed, the trail will be approximately 7.5 kilometres in length.

The City does not have jurisdiction over sections of land identified along the proposed trail alignment but will continue to pursue opportunities with property owners to implement the trail.

Action W1.5: In implementing the walking network, ensure natural ecosystem systems, and ecologically sensitive areas are protected

Watercourses (sometimes referred to as ditches) have an important role in storing stormwater and supporting the drainage system in Queensborough. They are also considered ecological features, supporting biodiversity. .

While implementing the walking network, the City will protect and enhance the ecological function of freshwater wetlands and watercourses. **Figure 10** illustrates the location of watercourses in Queensborough.

- Watercourses located in very low elevation areas, and an insufficient slope to enclose within a storm sewer system, would require fill to allow for appropriate drainage to a pump station.
- Watercourses with ecological value cannot be enclosed without review and assessment by a Qualified Environmental Professional (QEP) and approval by the Province to meet Riparian Area Protection Regulations (RAPR).
- Some watercourses are reservoirs for the four drainage pump stations in Queensborough and cannot be enclosed.

W2. CREATE A COMMUNITY THAT IS UNIVERSALLY ACCESSIBLE AND BARRIER FREE.

The following actions have been identified to create a community that is equitable, universally accessible, and barrier free. There are several existing City plans that provide detailed guidance and direction to create a universally accessible and barrier free community. These documents include the Master Transportation Plan (Policy: Improve Pedestrian Safety and Accessibility), Age-Friendly Community Strategy, the Dementia Friendly Community Action Plan, and the Signalized Intersections Policy.

Action W2.1: Use a universal accessibility lens and review current best practice design guidance during the planning, infrastructure design and construction

Universal design is a fundamental design principle that ensures the built environment is safe and accessible for all, regardless of age, language, background, or any type of physical or cognitive impairment. Chapter B.3 of the B.C. Active Transportation Design Guide provides a more detailed overview of universal design. The City will:

- Apply a universal accessibility lens when considering, planning and implementing projects (new infrastructure and infrastructure upgrades) to identify and understand:
  - The impacts on persons with disabilities.
  - Potential barriers created within the process and/or the design.
  - Steps to address potential barriers or remove existing ones.





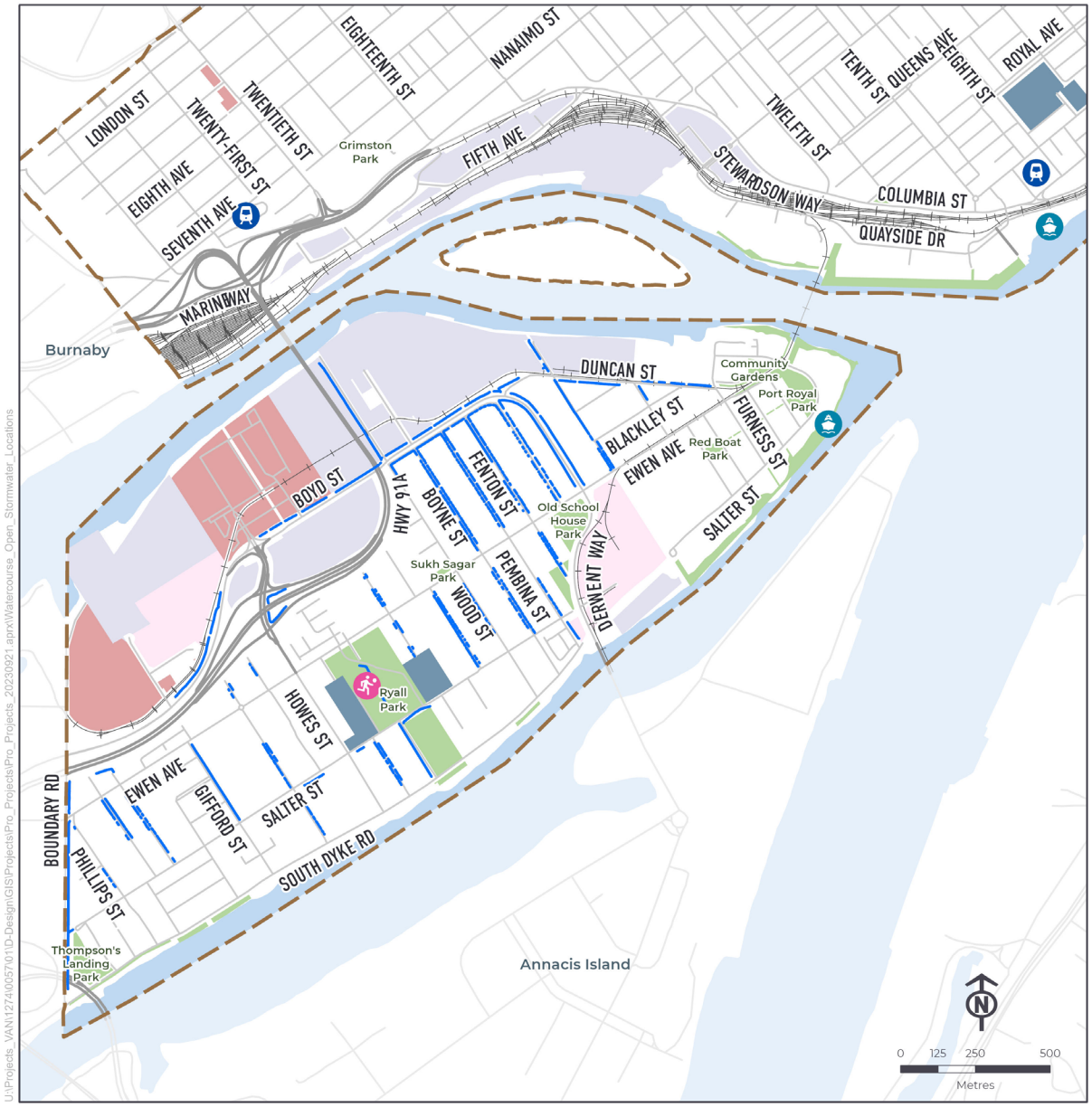
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PROPOSED MID-ISLAND AND PERIMETER TRAIL

- Existing Perimeter Trail
- Proposed Perimeter Trail
- Existing Mid-Island Trail
- Proposed Mid-Island Trail
- Active Transportation Bridge - Alignment Unknown
- Existing Sidewalk
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Parcel
- Municipal Boundary

Source: City of New Westminster

Figure 9: Mid-Island and Perimeter Trail



WATERCOURSE (OPEN STORMWATER) LOCATIONS

- Watercourse (Open Stormwater) Locations
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 10: Watercourse (Open Stormwater) Locations



- Continue to implement the recommendations of the Master Transportation Plan, Age-Friendly Community Strategy, Dementia Friendly Community Action Plan and the Signalized Intersections Policy and ensure best practices in accessibility are considered for all transportation infrastructure projects.
  - Design, continuity, and consistency (e.g., curb ramp design, surface treatments, barrier treatments, clear widths free of utility poles and boxes, rest areas, and information signage).
  - Maintenance and operations best practice (e.g., aging infrastructure, vegetation maintenance, leaf litter/debris, extended crossing times at intersections).
  - Infrastructure (e.g., electrical plug-ins for mobility aides/ scooter/electric wheelchairs).

W3. MAKE WALKING AN ENJOYABLE EXPERIENCE FOR PEOPLE OF ALL AGES AND ABILITIES.

Pedestrian amenities create more attractive, convenient, and lively public areas that encourage people to spend more time outdoors walking and to provide more opportunities for people to rest and socialize.

Action W3.1: Implement amenities and features that support walking

The City will continue to implement amenities that support cycling, including:

- Provide seating and pedestrian wayfinding signage along the multi-use pathways, including the Mid-Island Trail, and Perimeter Trail that reflect the character of Queensborough.
- Implement pedestrian crossing improvements that create a more comfortable walking experience in areas in Queensborough with high pedestrian volumes (see Section 6.3 for intersection recommendations).

PART 4 | CYCLING

The direction for cycling in the City comes from the Active Transportation Network Plan. The Plan identifies a core cycling network to be implemented over a five-year period along with supporting initiatives. The recommendations under cycling build on the directions of the Active Transportation Network plan specifically for Queensborough.

CURRENT CONTEXT

- Multi-use pathways are suitable for people of all ages and abilities, and are intended to be used by people walking, cycling, or rolling.
  - There are 9.4 km of existing multi-use pathways in Queensborough.
- Local street bikeways are streets with low vehicle volumes enhanced to prioritize biking and include traffic calming measures such as speed humps and curb bulges at intersections.
  - There are 3 km of existing local street bikeways in Queensborough.
- Painted bicycle lanes are a separate travel lane for bicycles marked by a painted line, a bicycle symbol, and signage.
  - There are 4 km of existing painted bicycle lanes in Queensborough.
- Protected bicycle lanes are physically separated from motor vehicles as well as pedestrians. There are currently no protected bicycle lanes in Queensborough.
- The Active Transportation Network Plan identifies a core cycling network to be implemented over a five-year period. The supporting network has yet to be confirmed.
  - The core network in Queensborough includes: Boyd Street, Howes Street, and Wood Street.
  - Boyd Street is included in Year 1 implementation followed by Wood Street in Year 2, and Howes Street in Year 3.

4.2 OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- Queensborough has a flat geography making it suitable for cycling.
- Community destinations within Queensborough are within cycling distance.
- Three Core Cycling routes in Queensborough will be implemented in the next five years: Boyd Street first, followed by Wood Street and then Howes Street.

CHALLENGES

- Cycling has a low mode share in Queensborough, with only 0.2% of residents cycling to work and school (based on 2021 Census data).
- Major intersections on Howes Street and the Queensborough bridge under Provincial jurisdiction create barriers to cycling and accessing Queensborough Landing shopping area and other parts of the City.
- Watercourses and the soil type in Queensborough (river sediment) increase construction and maintenance costs for a cycling network.

4.3 CYCLING DIRECTIONS AND ACTIONS

The Queensborough Transportation Plan builds upon the existing policies and plans that outline the overall direction for the City and Queensborough, particularly the City's Active Transportation Network Plan. This section outlines key areas and directions to improve cycling in Queensborough.

Cycling Directions

C1. Implement, in a prioritized manner, a cycling network that connects people to neighbourhood and city destinations.

C2. Make cycling an enjoyable experience for people of all ages and abilities.

C1. IMPLEMENT, IN A PRIORITIZED MANNER, A CYCLING NETWORK THAT CONNECTS PEOPLE TO NEIGHBOURHOOD AND CITY DESTINATIONS.

The City's All Ages and Abilities Active Transportation Network Plan identifies the core network for the City including Queensborough. The work completed as part of the Active Transportation Network Plan process directly fed into the Queensborough Transportation Plan and was expanded upon to include guidance on the supporting network.

Action C1.1: Implement core and supporting routes identified in the Active Transportation Network Plan

Building on the Active Transportation Network Plan, the proposed supporting cycling network that was identified for Queensborough includes priorities for implementation. The core and supporting bicycle network is illustrated in **Figure 11**.

Cycling facilities identified on Boyd Street, Howes Street, and Wood Street have been identified as core network projects to be implemented in the next five years.

The City will work to implement the core and supporting network based on the design guidelines identified in the Active Transportation Network Plan.



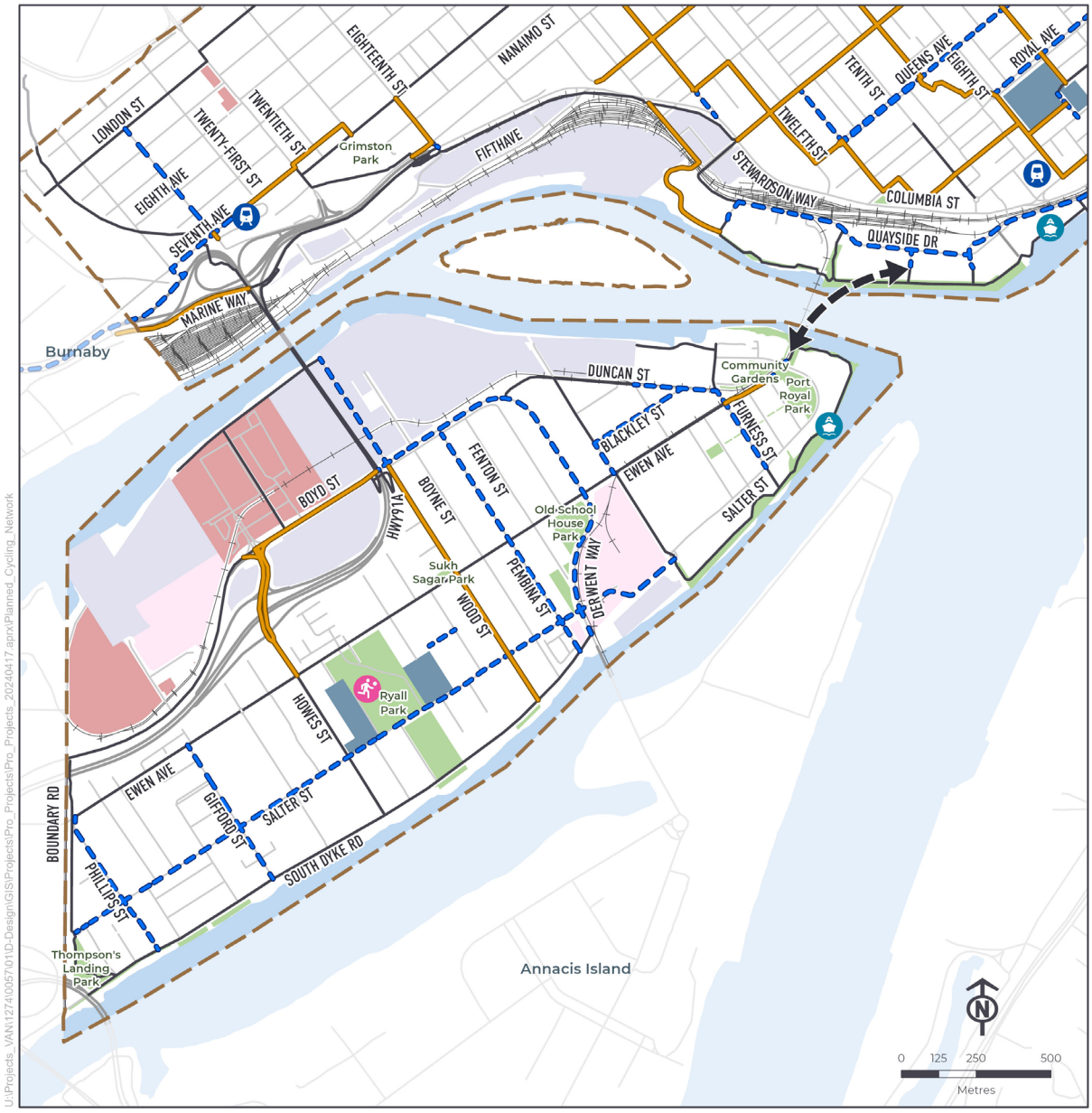
Multi-use pathways are facilities that are physically separated from motor vehicles and can be located within the road right-of-way or within parks and open spaces. They are shared with other users, such as pedestrians.



Local street bikeways are streets with low motor vehicle volumes and speeds that have been enhanced to varying degrees to prioritize bicycle traffic. People cycling and motor vehicle drivers share the roadway. Because motor vehicle volumes and speeds are relatively low, local street bikeways can be comfortable facilities for people of all ages and abilities.



Protected bicycle lanes provide physically separated space for people cycling and to create a comfortable cycling environment on major streets that have higher traffic volumes and speeds.



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PLANNED CYCLING NETWORK

- Existing Cycling Network
- Core Cycling Network
- Proposed Supporting Network
- Active Transportation Bridge - Alignment Unknown
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 11: Planned Cycling Network

C2. MAKE CYCLING AN ENJOYABLE EXPERIENCE FOR PEOPLE OF ALL AGES AND ABILITIES.

It is understood that while building a comfortable, complete, and connected active transportation network is critical to make active transportation safe and comfortable for people of all ages and abilities, there are support initiatives that can maximize the investment in cycling infrastructure.

WHAT DOES ALL AGES AND ABILITIES MEAN?

The All Ages and Abilities Active Transportation Network Plan focuses on creating a city-wide network of active transportation corridors that are comfortable for people of all ages and abilities – including children, and seniors. This means focusing on safe and comfortable facilities such as protected bicycle lanes and multi-use pathways that are physically separated from traffic on busy streets, and shared local street bikeways on streets with low traffic volumes and speeds.

Action C2.1: Implement amenities that support cycling

Building on the recommendations of the Active Transortation Network Plan the City will implement amenities that supporting cycling. This includes:

- Providing **wayfinding signage** along core and supporting routes. Providing wayfinding and network information, including signage, pavement markings, and maps, help people make decisions about how to navigate the cycling network. This information is key to make it easy to find the way to destinations. The City will continue to implement wayfinding with all core and supporting network projects.
- Providing secure **bicycle parking** at community destinations within Queensborough. Access to secure bicycle parking reduces the fear of theft or vandalism. Bicycle parking is critical to encourage people to bicycle as a primary mode of transportation. The City will provide secure bicycle parking such as bicycle enclosures at civic facilities, schools, and other major destination in Queensborough.
- Implementing a public **e-bike share system** with designated docking stations in Queensborough. In recent years, the transportation sector has witnessed an unprecedented increase in both the pace and scale of new technological innovations, including public bike share programs. Through these programs residents and visitors can sign-up to participate and have access to rent an e-bike from a fleet available at a variety of public locations. Members pick a bike up at one location and drop it off at another designated location, for a fee. E-bike share provides an easy, cost effective, environmentally sensitive transportation option.

PART 5 | BUS TRANSIT

Bus transit services in Queensborough are managed by TransLink and operated by Coast Mountain Bus Company. The City is responsible for providing amenities at bus stops such as benches, shelters and lighting. The City also operates the Q to Q Ferry service (discussed in the Inter-Neighbourhood Access section).

5.1 CURRENT CONTEXT

Bus Routes

- There are five bus routes that provide connections to Queensborough. Of the five:
  - One is part of the Frequent Transit Network (15 minute frequency throughout the day).
    - Route 410 – 22nd St Station / Brighouse Station
  - Two are limited to peak hour service only.
    - Routes 388 – 22nd St Station / Carvolth Exchange and 418 – 22nd St Station / Kingswood
  - Two provide 15 minute frequency during the AM and PM peak hours and 30 minute frequency during non-peak hours
    - Routes 104 - 22nd St Station / Annacis Island and 340 – 22nd St Station / Scottsdale
- All bus routes servicing Queensborough terminate at the 22nd Street SkyTrain Station in New Westminster and require transferring to access other areas of the City.

Bus Service Reliability

- Generally, most bus service in Queensborough is consistently reliable throughout the day.
- The section of Queensborough bus routes with the greatest unreliability is the Highway 91A on-ramp for buses heading to 22nd Street SkyTrain Station. Buses travelling in the opposite direction (22nd Street Station to Highway 91A) also experience reliability issues, though they are less significant.
  - Bus travel times through this area (between Highway 91A on-ramp for buses heading to 22nd Street SkyTrain Station) are four to five times greater during peak periods than off-peak periods.

Service Coverage Gaps

- There is no bus service to Queensborough Landing shopping services.
- There is no bus service to the Q to Q Ferry terminal.
- There are several areas in Queensborough that are more than 400-metres (a 5-minute walk) from a bus stop, including:
  - Southern Queensborough
  - Areas in Port Royal
  - 69% of land designated for employment (commercial/commercial entertainment, industrial, and mixed employment)

Bus Stop Accessibility and Amenities

- 23 of the 25 bus stops in Queensborough have a sidewalk adjacent to the stop (providing continuous access to the stop from the nearest intersection) with a paved waiting/landing area to support getting on and off the bus.
- 48% of bus stops have benches, 32% weather protection, and 24% provide a bus schedule.

ACCESSIBLE BUS STOPS

TransLink has guidelines (Bus Infrastructure Design Guidelines) for designing accessible bus stops.

The following features are desirable in the passenger zone to provide a minimum level of accessibility:

- **Passenger landing pad** (solid surface provided at a bus stop for customer waiting and loading/unloading activity);
- **Wheelchair pad** to ensure that the wheelchair ramp or lift is deployed safely and efficiently, and to facilitate the maneuverability of wheelchair users;
- **Tactile Walking Surface Indicators**; and
- **Benches**.

Additional features that can enhance accessibility, comfort, and safety include:

- **Bus shelter**; and
- **Benches of various seating heights**.

5.2 OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- Using the findings from the Queensborough Transportation Plan and bus speed and reliability studies, the City will work with TransLink and the Ministry of Transportation and Infrastructure to implement improvements.
- TransLink's 2022 Investment Plan identifies expanding to all-day service for the 388 bus route. No specific timeline for implementation has been confirmed.

CHALLENGES

- Transit is not seen as a viable alternative to driving by some.
- The majority of bus stops are located along Ewen Avenue meaning most residents have to walk to and from Ewen Avenue to access transit.
- There is currently no transit service to the Q to Q Ferry or Queensborough Landing.
- Making changes to transit service and improvements to bus speed and reliability requires leadership from jurisdictions outside the City (TransLink and Provincial Government).

5.3 TRANSIT DIRECTIONS AND ACTIONS

The Queensborough Transportation Plan builds upon the existing policies and plans that outline the overall direction for the City and Queensborough, particularly the Master Transportation Plan. It also reflects TransLink planning documents and future projects.

The following section outlines key areas and directions to improve the bus transit service and access in Queensborough.

Bus Transit Directions

BT1. Make transit accessible and comfortable for people of all ages and abilities.

BT2. Continually work to ensure that transit connects Queensborough residents and employees to destinations throughout the community and region.

BT1. MAKE TRANSIT ACCESSIBLE AND COMFORTABLE FOR PEOPLE OF ALL AGES AND ABILITIES.

While TransLink is responsible for funding, planning, operating, and maintaining transit services throughout Metro Vancouver, the City works to ensure residents can access transit stops and that there are amenities in place to make their transit experience more comfortable.

Action BT1.1: Complete the implementation of essential improvements that ensure bus stops are accessible

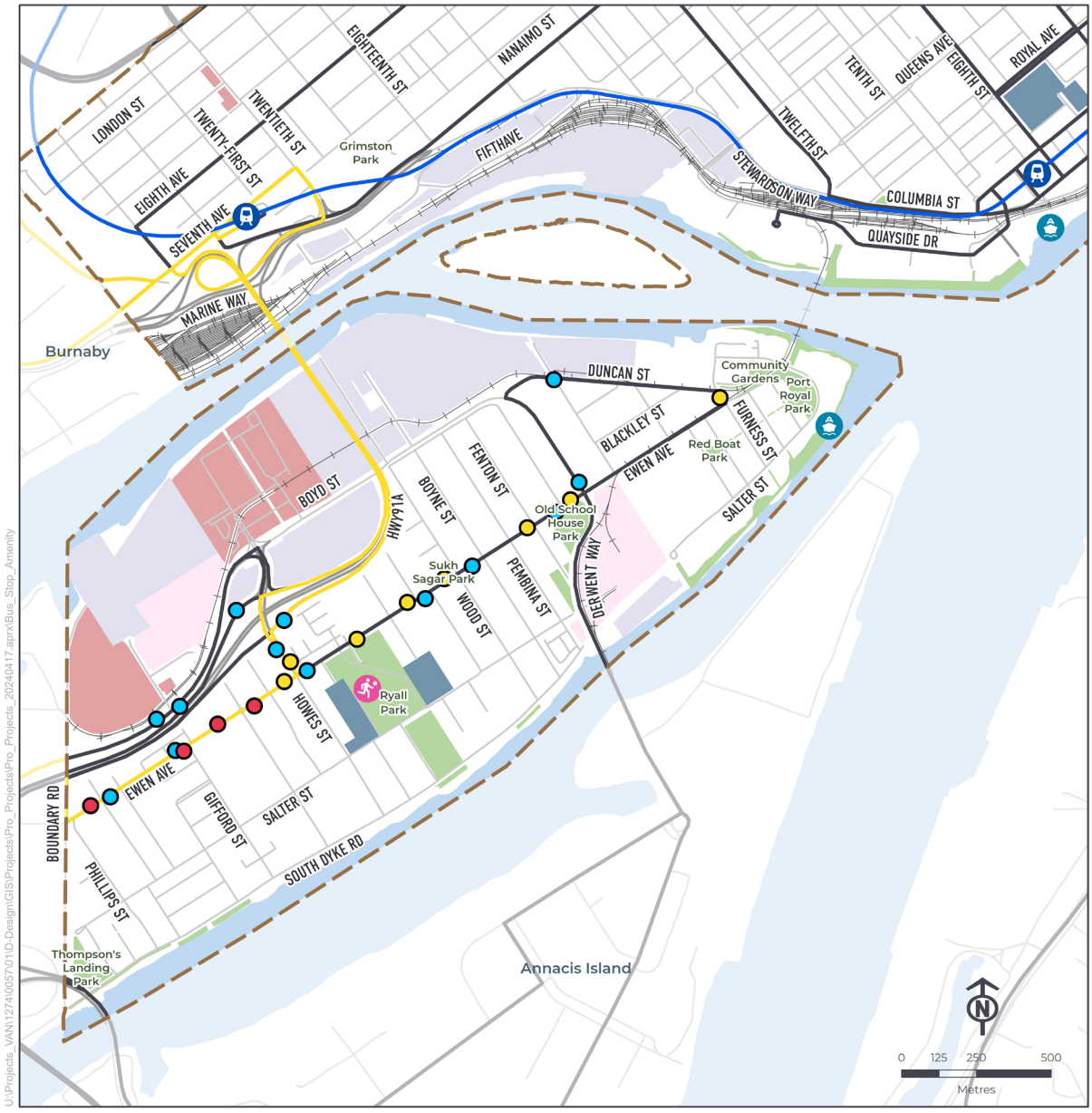
The City will work to provide a passenger landing pad, wheelchair pad, and a continuous sidewalk or pedestrian facility at bus stops within Queensborough to improve accessibility. The City will also work with TransLink and Coast Mountain Bus Company to implement additional features, including braille signage, Tactile Walking Surface Indicators (TWSI's), and benches at varying heights at bus stops in Queensborough.

Action BT1.2: Provide benches, shelters, and lighting at bus stops

There are several infrastructure treatments and amenities under municipal jurisdiction that can improve the transit customer experience, including ensuring transit stops provide amenities such as shelters, benches, and lighting. **Figure 12** illustrates the bus stops with benches and shelters, 48% of stops have benches and 32% have shelters. All stops with shelters have benches. The City will continue to work to provide benches, shelters or overhead awnings or canopies, and lighting at bus stops in Queensborough.

Action BT1.3: Continue to secure needed rights-of-way for bus shelters, through the development application review process

As development applications are reviewed, the City will ensure that enough space is allocated for transit facilities such as bus shelters and benches.



BUS STOP AMENITIES

- Bench Only
- Bench & Shelter
- No Bench or Shelter
- Frequent Transit Network Bus Route
- Conventional Bus Route
- SkyTrain Station
- SkyTrain Route
- Queensborough Community Centre
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster (2022)

Figure 12: Bus Stop Amenities



BT2. CONTINUALLY WORK TO ENSURE THAT TRANSIT CONNECTS QUEENSBOROUGH TO DESTINATIONS THROUGHOUT THE COMMUNITY AND REGION.

As bus service and routing are managed by TransLink, the City is limited in its ability to propose and implement changes to these areas. The City will continue to work with TransLink and the Province to advocate for Queensborough residents and businesses having access to reliable and frequent bus transit service within a 5-minute walk or less.

Action BT2.1: Work with TransLink to review bus routing and the location of bus stops

A 5-minute walk, typically 400 metres, is considered the longest distance people are willing to walk to a bus transit stop. **Figure 13**, illustrates the 400-metre walkshed around each of the transit stops in Queensborough highlighting areas that are outside of the desired walking distance to a bus stop.

- Areas in southern Queensborough, particularly along South Dyke Road and Salter Street (Port Royal) must walk more than 5-minutes to the closest bus stop.
- Approximately 31% of land designated for employment (commercial/commercial entertainment, industrial, and mixed employment) is within 400 metres walk of a bus stop. These are important employment destinations that may not feel accessible or convenient to access by transit.

The City will continually work with TransLink and Coast Mountain Bus Company to locate bus stops to ensure every resident and employee is within 400 metres of a bus stop.

Action BT2.2: Implement projects to improve bus speed and reliability within Queensborough

TransLink is continually looking for opportunities to work with municipalities and other government agencies to initiate measures and projects that will improve bus speed and reliability. The results from the city-wide Bus Speed and Reliability Study provides specific recommendations that can be implemented to make transit faster and more reliable.

Bus transit travel time unreliability on the Highway 91A on-ramp and Queensborough Bridge can be attributed to the absence of transit priority treatments and buses sharing lanes with general vehicle traffic.



EXISTING TRANSIT NETWORK WALKSHED

- Bus Stop
- Frequent Transit Network Bus Route
- Conventional Bus Route
- SkyTrain Station
- SkyTrain Route
- Walkshed from Transit Stops (400 m)
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Figure 13: Service Coverage Gaps (outside the 400 metre walkshed)



The City will work with TransLink and the Ministry of Transportation and Infrastructure to implement transit priority measures that improve bus speed and reliability on bus routes in Queensborough, based on the Bus Speed and Reliability Study. Bus priority measures can include treatments such as transit signal priority and dedicated transit lanes.

Action BT2.3: Continue to share community input on transit service with TransLink and the Ministry of Transportation and Infrastructure

As part of the planning process for the Queensborough Transportation Plan, input was collected from community members regarding bus transit service frequency and routing. We learned there is a desire for:

- Increasing the frequency of transit service, particularly evenings and weekends.
- Providing a community route that makes it easier to access community destinations, including providing bus stops at Queensborough Landing and the Q to Q Ferry terminal.

The City has, and will continue to, share the findings from the Queensborough Transportation Plan process (technical analysis and community input) with TransLink, the Ministry of Transportation and Infrastructure, and other interest groups. The information will be shared for consideration and incorporation into planning and design projects under their jurisdiction.

PART 6 | INTERSECTIONS, STREETS, & GOODS MOVEMENT NETWORK

The Ministry of Transportation and Infrastructure has jurisdiction over the provincial highways and interchanges through Queensborough. The City is jointly responsible with TransLink for the Major Road Network.

6.1 CURRENT CONTEXT

Intersections and Streets

- Traffic counts indicate the highest daily vehicle volumes occur near the Highway 91A interchange, mainly under Provincial jurisdiction.
- Spillback of traffic queues from the Queensborough Bridge contribute to motor vehicle congestion along Howes Street, Ewen Avenue, and Boyd Street.
- ICBC collision data indicates there are proportionally more collisions in Queensborough than the rest of the City of New Westminster, based on the number of ICBC reported collisions per 1,000 residents.
- Top collision locations in Queensborough are:
  - Boyd Street and Howes Street (a portion of the intersection is Ministry of Transportation and Infrastructure jurisdiction)
  - Howes Street and Highway 91A interchange intersections (Ministry of Transportation and Infrastructure jurisdiction)
  - Ewen Avenue and Howes Street (a portion of the intersection is Ministry of Transportation and Infrastructure jurisdiction)

Goods Movement

- Southern Railway of British Columbia, Port of Vancouver (Port), and the Province are community partners supporting goods movement within Queensborough.
- A current project underway by the Port is expected to increase rail capacity to Annacis Island starting next year. This project, called the Annacis Auto Terminal Optimization Project, is scheduled for completion in fall 2024.

- The City is working, on an ongoing basis, with Southern Railway to upgrade pedestrian, cyclist, and vehicle safety measures at rail crossings to meet current grade crossing standards as outlined by Transport Canada as well as achieve train whistle cessation where feasible.
- Highway 91A is an important provincial route for trucks and the movement of goods. Access to and from the highway from industrial sites in Queensborough is a critical transportation function in support of the regional economy.

6.2 OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- Community survey participants recognize that improving and encouraging conditions for walking, cycling, and transit will reduce the need to drive.

CHALLENGES

- Intersections with the highest number of reported collisions and congestion are under Provincial jurisdiction.
- Most congestion issues originate from the Queensborough Bridge (Highway 91A) under Provincial jurisdiction.

6.3 INTERSECTIONS, STREETS, & GOODS MOVEMENT DIRECTIONS AND ACTIONS

The Queensborough Transportation Plan builds upon the existing policies and plans that outline the overall direction for intersections, streets, and goods movement directions and actions for the City and Queensborough. Including the Queensborough Community Plan, Master Transportation Plan, and ongoing rail crossing upgrade projects.

The following section outlines key areas and directions to improve intersections, streets, and goods movement in Queensborough.

Intersections, Streets, & Goods Movement Directions

S1. Implement, in a prioritized manner, improvements to intersections and streets.

S2. Manage curbside space consistent with the hierarchy of curbside access.

S3. Provide improved transportation choices.

S4. Support the safe movement of goods.

S1. IMPLEMENT, IN A PRIORITIZED MANNER, IMPROVEMENTS TO INTERSECTIONS AND STREETS.

Intersection and street (road segment) projects have been identified to improve the transportation network for all road users, including pedestrians, cyclists, people taking transit, and goods movement.

Action S1.1: Implement identified intersection projects

Several intersection improvement projects have been identified based on technical analysis (traffic and safety), input from community members and agency partners, and discussions with City staff to try to address safety and operational issues. The map (**Figure 14**) and table (**Table 2**) identify intersection improvements by type, including those under Provincial jurisdiction. **Table 2** outlines the existing issues the project will try to address, and the proposed improvement that is recommended.

In most cases, the next step for each project is to monitor and conduct additional study to confirm issues. The City will share these findings and proposed improvements with the Ministry of Transportation and Infrastructure, TransLink, and Southern Rail and will continue to advocate for improvements at locations that are not within the City's jurisdiction.

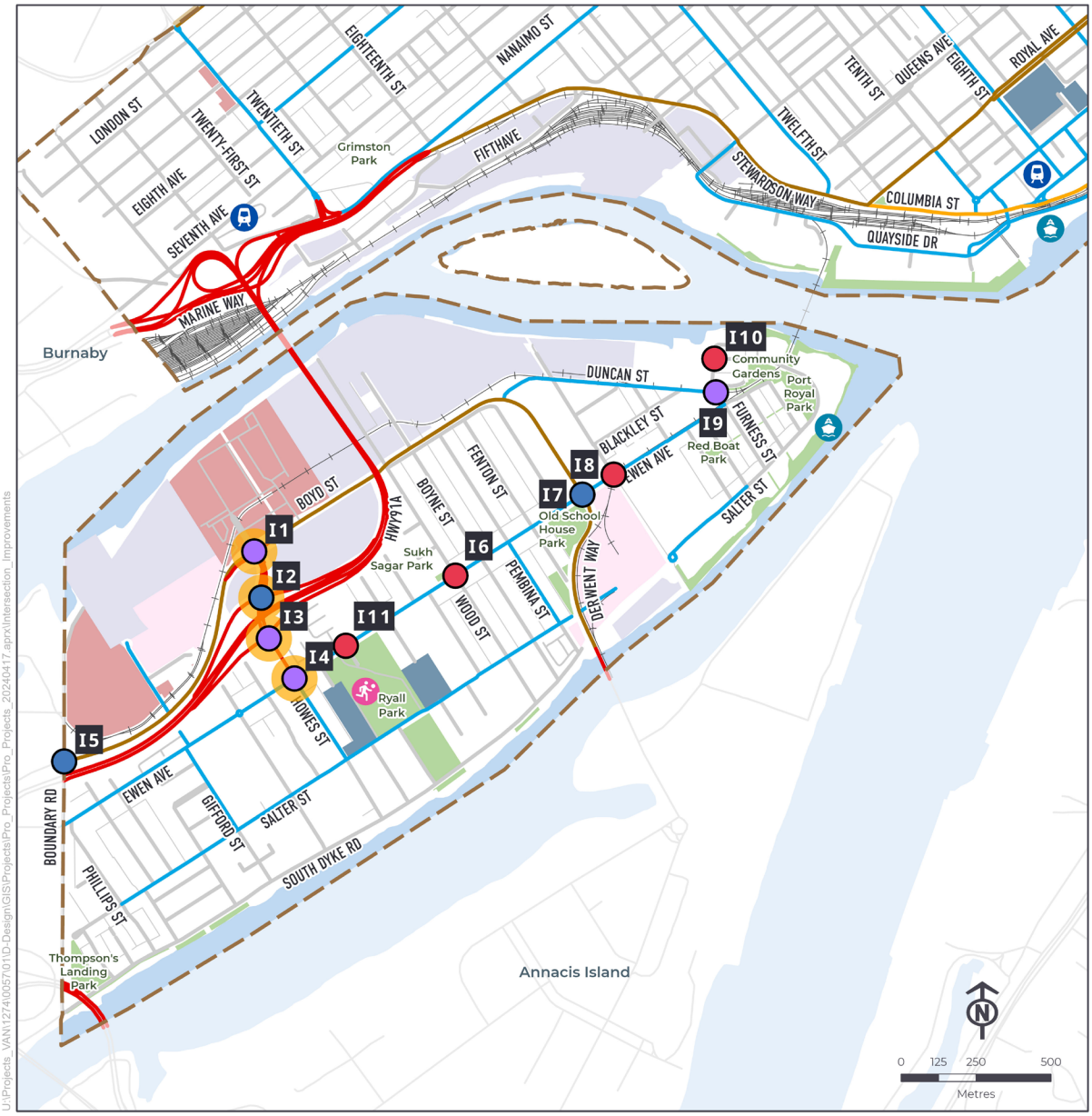


Table 2: Intersection Improvement Details

ID - INTERSECTION	NETWORK ROLE	EXISTING ISSUE(S)	PROPOSED IMPROVEMENT(S)
I1 - Howes Street @ Boyd Street	• **Provincial Highway** • Major Road Network • Bus Route • Truck Route • Cycling Route • High Pedestrian Activity	• Safety • Active transportation impediments • Operation - buses and goods movement are delayed and queuing at intersection	• Review the number of lanes and design of intersection • Review signal timing • Active transportation infrastructure improvements (priority cycling route already approved by Council)
I2 - Howes Street @ Highway 91A Westbound Ramps	• **Provincial Highway** • Bus Route • Truck Route • Cycling Route • High Pedestrian Activity	• Active Transportation impediments • Operation – buses and goods movement are delayed and queuing at intersections	• Review the number of lanes and design of intersection • Review signal timing. • Active transportation infrastructure improvements
I3 - Howes Street @ Highway 91A Eastbound Ramps	• **Provincial Highway** • Bus Route • Truck Route • Cycling Route • High Pedestrian Activity	• Safety • Active Transportation impediments • Operation - buses and goods movement are delayed and queuing at intersection	• Review the number of lanes and design of intersection • Review signal timing • Active transportation infrastructure improvements • Bus speed and reliability improvements
I4 - Howes Street @ Ewen Avenue	• **Provincial Highway** • Bus Route • Truck Route • Cycling Route • High Pedestrian Activity	• Safety • Active Transportation impediments • Operation - buses and goods movement are delayed and queuing at intersection	• Explore modifying right-turn-on-red restriction during off-peak periods. (Operational Study Currently Underway) • Review signal timing • Bus speed and reliability improvements

ID - INTERSECTION	NETWORK ROLE	EXISTING ISSUE(S)	PROPOSED IMPROVEMENT(S)
I5 - Boundary Road @ Boyd Street	• **City of Richmond** • Major Road Network • Bus Route • Cycling Route • Truck Route	• Operation - buses and goods movement may be delayed and queuing at intersection (based on traffic analysis)	• Monitor intersection traffic performance at periodic intervals to determine if modifications are required to signal timing or intersection design
I6 - Ewen Avenue @ Wood Street	• Collector Road • Cycling Route • Bus Route • High Pedestrian Activity	• Safety (trees and overgrown vegetation restrict sightlines and visibility of other road users) • Active transportation impediments	• Review intersection geometry, improve pedestrian crossing conditions. Install curb extensions and reposition crosswalk. Vegetation maintenance
I7 - Derwent Way @ Ewen Avenue	• Major Road Network • Bus Route • Cycling Route (supporting network) • Truck Route	• Operations – delays at the intersection	• Monitor intersection performance and explore signal timing improvements
I8 - Stanley Street @ Ewen Avenue	• Bus Route • Cycling Route (Multi-use Pathway Crossing) • Rail Crossing • Truck Route • High Pedestrian Activity	• Safety (complex intersection with multiple transportation modes)	• Review intersection design and safety concerns • Bring rail crossings at and around the intersection to current standards • Continue to work with Southern Rail to implement safety improvements

ID - INTERSECTION	NETWORK ROLE	EXISTING ISSUE(S)	PROPOSED IMPROVEMENT(S)
I9 - Duncan Street @ Furness Street	• Bus Route • Cycling Route • Rail Crossing • Pedestrian Activity	• Operations and Safety	• Monitor operations and conduct a geometric and operational review of the intersection if deemed appropriate • Bring rail crossing near the intersection to current standards
I10 - Star Crescent @ Furness Street	• Local Road • Cycling Route • Connects to the Riverside Walkway • Pedestrian Activity	• Safety (motor vehicles making turning movements at high speeds due to the large curb radius)	• Monitor operations and conduct a review of the intersection geometry
I11 - Ewen Avenue @ Carter Street	• Collector Road • Cycling Route • Bus Route • High Pedestrian Activity	• Safety (complex intersection with a high activity crosswalk, vehicles queuing and making turning movements) • Active transportation impediments	• Review intersection and explore if additional upgrades to the pedestrian crossing are warranted



INTERSECTION IMPROVEMENTS

- Operations
- Safety
- Safety and Operations
- Other Agency
- Provincial Highway
- Major Road Network
- Arterial

Source: City of New Westminster

- Collector
- Local
- Other Road
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway

- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Figure 14: Intersection Improvements

Action S1.2: Implement identified street and corridor projects

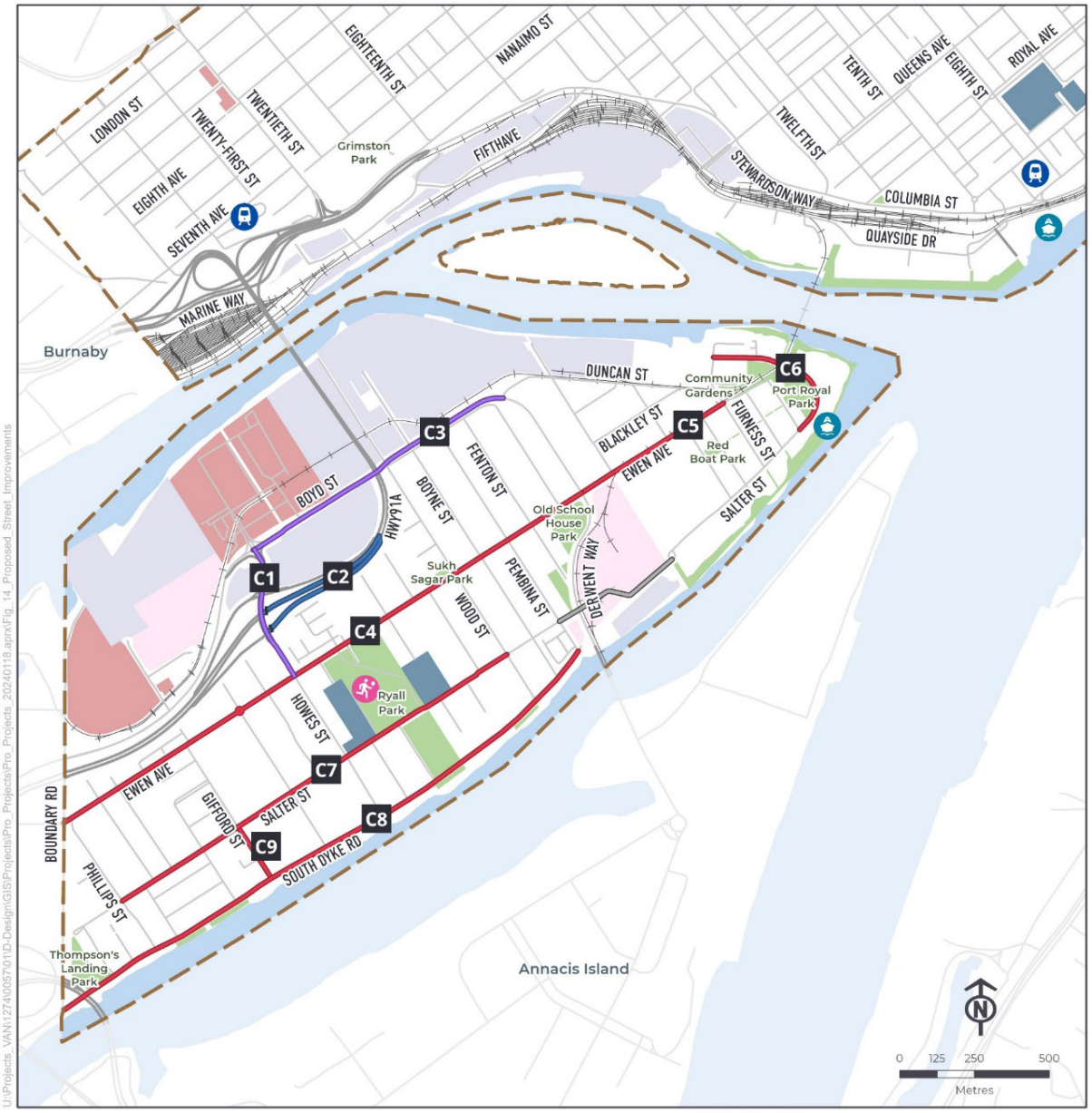
Several street (road segment) improvement projects have been identified to try to address safety and operational issues identified in Queensborough. The map (**Figure 15**) and table (**Table 3**) identify street improvements by type, including those under Provincial jurisdiction. **Table 3** outlines the existing issues the project will address, and the proposed improvement that is recommended.

In most cases, the next step for each project is to monitor and conduct additional study to confirm issues. The City will share these findings and proposed improvements with the Ministry of Transportation and Infrastructure and TransLink and will continue to advocate for improvements at locations that are not within the City's jurisdiction.

Table 3: Street (Road Segment) Improvement Details

ID – ROAD SEGMENT	NETWORK ROLE	EXISTING ISSUE(S)	PROPOSED IMPROVEMENT(S)
C1 - Howes Street (Ewen Avenue to Boyd Street)	• Provincial Highway • Bus route • Truck route • Cycling route • Pedestrian route	• Safety • Active transportation impediments • Operations (buses and trucks are queuing and delayed)	• Review and update the design of the road (Province) • Active transportation infrastructure improvements along the road segment (Province) • Bus speed and reliability improvements (Province)
C2- Hwy 91A, Eastbound On-ramp & Bridge	• Provincial Highway • Bus route • Truck route	• Operations (bus delays and unreliability)	• Provide dedicated bus lane on Hwy ramp to prioritize bus transit. (This would need to be undertaken by the Province)
C3 - Boyd Street (Boyne Street to Howes Street)	• Major Road Network • Bus route • Cycling route (identified Core Network) • Truck route • Pedestrian route	• Safety (multiple transportation modes)	• Active transportation improvements (Year 1 improvement as identified in the Active Transportation Network Plan)
C4 - Ewen Avenue (Boundary Road to Derwent Way)	• Collector Road • Bus route • Cycling route • Pedestrian route	• Safety (sightlines related to vegetation)	• Conduct safety assessment, including a review of sightlines and speed data, at intersections and mid-block locations

ID – ROAD SEGMENT	NETWORK ROLE	EXISTING ISSUE(S)	PROPOSED IMPROVEMENT(S)
C5 - Ewen Avenue (Derwent Way to Furness Street)	• Collector Road • Railway route • Truck route • Bus route • Cycling route • Pedestrian route	• Safety (vehicle speeds, sightlines, multiple transportation modes)	• Conduct a safety assessment, including review of sightlines and speed data, at intersections and mid-block locations • Consider in conjunction with Salter Street extension • Review rail crossing locations to current standards
C6 - Star Crescent / Salter Street (Furness Street to Brookes Street)	• Local Road • Pedestrian route	• Safety (steep grades vehicle speeds, high pedestrian activity)	• Continue to monitor and collect speed and volume data • Review if traffic calming treatments are warranted
C7 - Salter Street (Phillips Street to Wood Street)	• Collector Road • Pedestrian route • School zones	• Safety (speeding issues, obstructed sightlines, and motor vehicle drivers not obeying traffic controls at stop signs. Gaps in the pedestrian network)	• Continue to monitor and collect speed and volume data • Review if traffic calming treatments are warranted
C8 - South Dyke Road (Boundary Road to Wood Street)	• Local Road • Cycling route • Pedestrian route	• Safety (street has varying cross-sections and limited street lighting in some areas) • Sea level rise requires increasing South Dyke Road elevation	• Review existing street lighting • Explore road improvement options. that support walking and cycling as part of the dyke elevation improvements for South Dyke Road
C9 - Gifford Street (Salter Street to South Dyke Road	• Local road • Proposed Cycling Route	• Safety (speeding)	• Install traffic calming treatments



STREET IMPROVEMENTS

- Operations
- Safety
- Safety and Operations
- Future Street
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 15: Street Improvements

Action S1.3: Through future redevelopment opportunities, or capital projects, implement the Salter Street Extension

The Salter Street Extension continues to be identified as a future project (**Figure 15** – Future Street). The Salter Street Extension is recommended to provide a second east/west connection to provide an alternative route (relieving pressure from Ewen Avenue) for all modes of transportation to support safe and efficient travel.

This project is feasible from an engineering perspective however it is a complex project that will require consultation with Southern Rail and existing landowners in the area. It is expected that property acquisition will be required. Additional design work will need to be completed to understand the impacts on rail and the cost of the project. Due to the uncertainty and the need for continued community and interest group engagement, no timeline for implementation of this project has been identified.

Action S1.4: For areas included in the Advance Street Plan for Queensborough, ensure new development meets the requirements of the street map

Advance Street Plans have been prepared for parts of Queensborough to guide future development phasing. The purpose is to ensure development can advance in a way best suited to accessing and servicing the subject sites and neighbourhood.

As part of the Queensborough Transportation Planning process, an Advance Street Plan was developed for the area bordered by Salter Street, Sprice Street, Carter Street, and South Dyke Road. The Advance Street Plan provides guidance on how large parcels could subdivide and what the transportation network would look like in the area (**Figure 16**). The Advance Street Plan is included in **Appendix A**.



Figure 16: Advance Street Plan Street Map (Phase 1A, 1B, and 2)



S2. MANAGE CURBSIDE SPACE CONSISTENT WITH THE HIERARCHY OF CURBSIDE ACCESS.

As transportation options continue to evolve, there is increased demand for curbside space. The prioritization of curb space needs to account for the local context of land use and activity within street blocks.

At a general level, **Figure 17,** Hierarchy of Curbside Access, identifies the functional priorities for curbside uses. These priorities will assist with managing curbside use to help ensure in specific locations curb use meets the City's broader community, transportation, and livability goals.

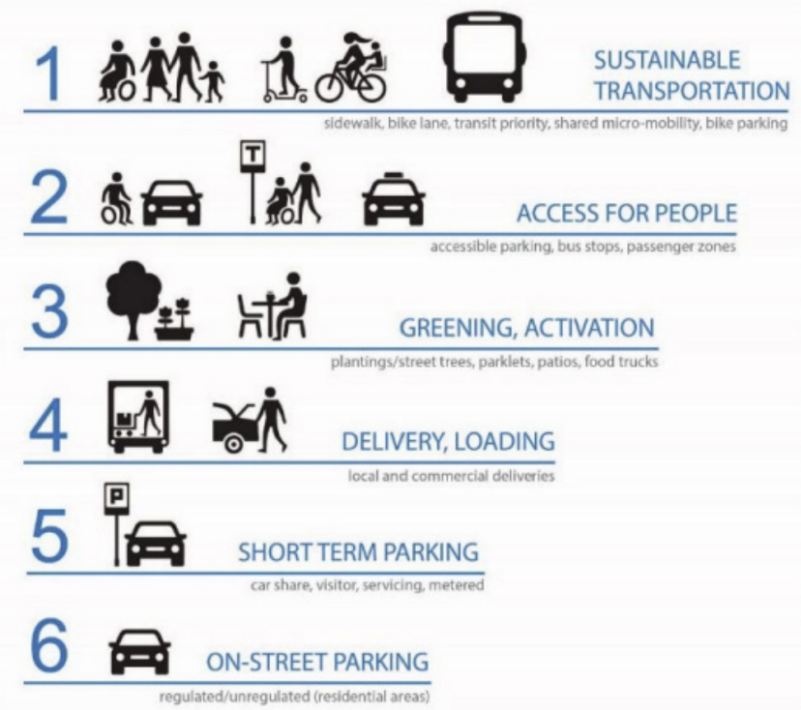


Figure 17: Hierarchy of Curbside Access
(Source: City of New Westminster Master Transportation Plan)

Action 9.1: Develop a curbside management strategy

During the Queensborough Transportation Plan process, concerns regarding curbside management and on-street parking were identified. It was noted that on-street parking is well utilized and on-street parking on both sides of narrow streets makes it difficult to drive down a street and pass a vehicle travelling in the opposite direction.

The City will incorporate the findings of the Queensborough Transportation Plan into a city-wide Curbside Management Strategy. The strategy will provide guidance on parking

restrictions (time and location), loading zones for service delivery vehicles (residential and commercial), and pick-up and drop off locations around schools, consistent with the curbside access hierarchy (**Figure 17**).

S3. PROVIDE IMPROVED TRANSPORTATION CHOICES.

Transportation is evolving as new technology emerges and creates new choices, opportunities, and challenges. These technologies will enable individuals to choose new modes that best fit their needs while responding to broader challenges, including climate change, affordability, and safety. Shared transportation systems can reduce the demand for vehicle storage, while providing convenient connections.

Action 10.1: Explore opportunities to expand car share services into Queensborough

Car share companies and cooperatives provide a valuable service to residents and may allow some households to own fewer vehicles. These companies typically locate in areas where their vehicles will be well used, including in denser, mixed-use areas. There are City and regional plans and initiatives that call for providing more car share services in the region and to provide parking and charging for car share vehicles.

The City will work with car share organizations and developers to eliminate the current barriers to extending services into Queensborough. Typical barriers include population density (number of potential members and demand for service), and designated parking locations.

S4. SUPPORT THE SAFE MOVEMENT OF GOODS.

Goods movement is an important component of the regional and municipal transportation network. Queensborough has several industrial zoned land uses, Port of Vancouver operations, Southern Rail regional rail connections, and the presence of large vehicles and trucks on designated truck routes in the community.

Action 11.1: Continue to work with Southern Rail to implement rail and street crossings safety improvements to achieve whistle cessation in Queensborough.

There are several locations where rail routes intersect Queensborough's street and pedestrian network (**Figure 18**). The City will continue to work with Southern Railway to upgrade pedestrian, cyclist, and vehicle safety measures at rail crossings to current rail crossing standards, and achieve train whistle cessation on an ongoing basis, where feasible.



AT GRADE RAIL CROSSING LOCATIONS

- Vehicle Crossing
- Upgrade Complete
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Figure 18: At Grade Rail Crossings

PART 7 | INTER-NEIGHBOURHOOD ACCESS

Improving access and connections between Queensborough and other areas of New Westminster is a focus area for the City. Creating a connected network of communities will support Queensborough residents in accessing economic and social opportunities throughout the city.

7.1 CURRENT CONTEXT

- There are five primary vehicle route options in and out of Queensborough:
  - Queensborough Bridge on the northern boundary (to the rest of New Westminster)
  - Derwent Way/Annacis Island Swing Bridge on the southern boundary (to Annacis Island)
  - Highway 91A on the western boundary (to Richmond)
  - Westminster Highway/Boyd Street on the western boundary (to Richmond)
  - South Dyke Road on the western boundary (to Richmond)

Q to Q Ferry

- Ridership dropped significantly in 2020 and 2021 due to COVID-19 and associated service disruptions. It increased in 2022 and 2023, but still has not recovered to pre-pandemic levels (ridership in 2023 was 80% of 2019 ridership levels).
- The cost for operating and maintaining the ferry in 2023 was approximately $727,000 (paid by the City). The costs were lower than expected due to a two week closure for dredging. The expected operating cost for 2024 is approximately $826,000. Future operating costs will not be known until a procurement process for the next operating term is undertaken. Current ridership generates approximately $100,000 in annual fare revenue.
- In 2023, dredging the river cost approximately $1.0 million. It is important to note that about half of the volume dredged was for Samson V. Museum.
  - It is expected that dredging will be required every 2 to 4 years depending on the location of the dock, the Samson V. Museum, disposal method required based on soil conditions, and the dredging depth required based on sedimentation rate.



- The operating cost per passenger, per one-way trip is $11.50 based on 2023 ridership levels (excluding fare revenue).
- The City pays for the operating and capital cost of the ferry service. The City has received cost share grants in the past to cover a portion of the capital costs.
- Trip duration is 5-10 minutes. The ferry service typically operates every 30 minutes. Service has operated every 15 minutes in the past during peak periods.
- Service hours vary depending on the time of year. Service hours are longer in the summer.

Active Transportation Bridge

- In 2016, design options for a Q to Q active transportation bridge, supporting walking and cycling, were presented to the public, but the bridge was deemed too costly for the City to pursue.
- The high capital cost of the bridge (approximately $40 million in 2016 dollars) is primarily due to the need for a design that provides sufficient clearance height for marine traffic along the Fraser River.

7.2 OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES

- The estimated long-term cost of implementing an active transportation bridge crossing is comparable to the cost of running the Q to Q Ferry service (based on the life span of a bridge crossing).
  - However, the bridge does require a significant one-time investment of approximately $40 million (2016 dollars).

CHALLENGES

- Access to the rest of New Westminster is challenging due to congestion issues and uncomfortable active transportation facilities that exist on the Queensborough Bridge.
- An external contractor operates the Q to Q Ferry, which leaves the City in a vulnerable position should the operator increase costs or choose to no longer provide service.
- Q to Q Ferry operation requires ongoing river dredging and other in-river works to maintain service; this impacts wildlife, wetlands, habitats, and raises overall operating costs.
- Implementing an active transportation bridge crossing over the Fraser River requires working with the Port of Vancouver and, possibly, Southern Railway to create a reliable and accessible connection.
- An active transportation bridge would require potential partnerships and funding from other entities, given its significant cost.

Existing ferry vessels operate on diesel fuel. New vessels would be required to reduce the carbon footprint.



7.3 INTER-NEIGHBOURHOOD ACCESS DIRECTIONS AND ACTIONS

The Queensborough Transportation Plan builds upon the existing policies and plans that outline the overall direction for inter-neighbourhood access directions and actions for the City and Queensborough, particularly the Queensborough Community Plan.

The following section outlines key areas and directions to improve inter-neighbourhood access between Queensborough, the City of New Westminster, and neighbouring communities.

Inter-Neighbourhood Access Directions

I1. ADVANCE OPTIONS FOR IMPROVED INTER-NEIGHBOURHOOD ACCESS.

Providing better connections between Queensborough and the City's mainland area has been identified as an aspiration in many existing planning documents and was explored again as part of the Queensborough Transportation Plan planning process.

Action I1.1: Advance the concept and implement an active transportation (walking and cycling) bridge crossing between the Queensborough and Quayside neighbourhoods

As part of the Queensborough Transportation Plan process, in 2023 an evaluation was completed to assess the feasibility of a bridge crossing between Queensborough and Quayside for pedestrians and cyclists. The evaluation concluded that although the cost and complexity of constructing a bridge structure is expected to be significant and no funding has been allocated towards it, there are several benefits that may make the bridge a viable option in the long-term. The detailed results of the evaluation can be found in **Appendix B**.

The City will build on this preliminary assessment and continue to advance the concept of an active transportation bridge crossing between the Queensborough and Quayside neighbourhoods. This will require ongoing collaboration with agency partners, including Southern Rail to explore opportunities.

KEY FINDINGS FROM INTER-NEIGHBOURHOOD CONNECTION EVALUATION:

Q to Q Ferry

- Under the current contracted service delivery model, service reliability, operations, and maintenance are the ultimate responsibility of the ferry operator and are subject to the existing contract. There is an ongoing risk of the ferry operator increasing operating/contract costs or discontinuing service.
- Operating the ferry requires ongoing dredging and other in-river works to maintain service which impacts local ecology and habitat.
- Vessel upgrades and implementing charging infrastructure is required to achieve low/zero carbon emission. Vessels currently runs on diesel.
- Ferry service provides a unique local attraction and destination for visitors with a minimal visual impact.
- Operating hours are limited to certain times of day and vary throughout the year.
- **Estimated annual cost (operating, maintenance, & capital)** The estimated annual cost for the Q to Q Ferry is approximately $1.45 million (2023 dollars).
  - This cost includes, operating and maintenance costs for the ferry operator, the cost of dredging the river on a recurring basis to maintain service, and ongoing capital investment.
  - Ongoing capital investments include constructing a new, more accessible, ferry dock, and to carry out additional maintenance and improvements to dock infrastructure. This includes signage, weather protection, and other infrastructure required for operations

Active Transportation (pedestrian and cycling) Bridge

- Service reliability, operations, and maintenance would be the responsibility of the City of New Westminster.
- Will require significant capital costs and currently no budget has been allocated towards exploring the bridge option or construction.
- Constructing the bridge may impact local ecology (during construction).
- A bridge will encourage more active transportation in the community and draw people from a larger area. It could be a very significant regional active transportation and cycle tourism draw.
- The bridge will result in a physical structure that may be quite large. The bridge could be designed to incorporate local culture and art and be aesthetically pleasing.
- There will be design and engineering constraints to provide sufficient clearance for marine traffic while also enabling accessibility.
- Coordination with multiple jurisdictions including the Port of Vancouver and Southern Rail is required.
- **Estimated annual cost (operating, maintenance, & capital)** The estimated annual cost for the active transportation bridge is approximately $0.8 million with inflation (2023 dollars).
  - This cost is based on the lifespan of a bridge crossing, which is estimated to be 100 years. The “lifespan” is the length of time the bridge is expected to be in operation. The annual cost has been based on the one-time investment and ongoing maintenance and rehabilitation costs over a 100 year period.
  - The estimated long-term cost of implementing an active transportation bridge crossing is comparable to the cost of running the Q to Q Ferry service. However, the active transportation bridge would require a significant one-time investment of over $40 million (2016 dollars).



Action I1.2: Undertake a procurement process to explore future Q to Q Ferry operators and costs

The Q to Q Ferry began as a two-month demonstration during Summer 2017, and was subsequently expanded to a full-scale pilot project into 2018 and 2019. On the initial positive response to the service, the City committed in late 2019 to a five-year business plan to continue operating the ferry. Under the current delivery model, the City entered into a five-year operating agreement with a third-party service provider, with operating funding subject to Council's annual budget approval. The current five-year operating term expires at the end of 2024 and Council approval is required to continue ferry operations for a new term. As recent operating costs have been higher than anticipated due to increasing fuel and labour costs, future operating costs (and the amount of funding needed from the City to sustain the service) are uncertain. The City will undertake a procurement process for the next operating period for the Q to Q Ferry to test the market for potential operators and future operating costs, which will inform the City's 2025 budget and enable Council to decide whether to continue funding the service.

Action I1.3: Work with the Ministry of Transportation and Infrastructure and TransLink to improve people-moving (persons per hour) capacity along the Queensborough Bridge

The Queensborough Bridge, due to congestion and a lack of comfortable active transportation facilities, can be a barrier to accessing other areas of New Westminster and the region. The City will work with the Ministry of Transportation and Infrastructure and TransLink to improve people moving (persons per hour) capacity along the Queensborough Bridge, in a cost effective and sustainable manner.

People-moving capacity considers the volume of people, by all modes of travel, using a roadway. There are opportunities to increase the number of people who travel on the Queensborough Bridge per hour without improving conditions for, or increasing the number of, single occupancy vehicles on the bridge. This can be done by implementing recommendations to improve bus speed and reliability (bus priority lane) and improving active transportation facilities.

PART 8 | IMPLEMENTATION PLAN

The Queensborough Transportation Plan is a long-term vision for transportation in Queensborough. As a long-term plan, the recommendations will be implemented over the next decade and beyond based on city-wide capital budget planning and access to funding.

This section summarizes the approach to prioritization, infrastructure priorities, priority policy directions and actions, and techniques to support the City to fund and implement the recommendations of the Queensborough Transportation Plan.

8.1 INFRASTRUCTURE PROJECTS

The Queensborough Transportation Plan identifies infrastructure projects for walking, cycling, bus transit, intersections, streets & goods movement, and inter-neighbourhood access. The following section outlines the implementation plan for infrastructure projects.

Prioritization Approach

Recognizing that the Queensborough Transportation Plan is a long-term plan and will take time to implement, a series of criteria was developed to guide the prioritization of proposed transportation infrastructure improvements in Queensborough. The criteria reviewed include:

- Proximity to transit
- Proximity to schools
- Proximity to other community destinations
- Network connectivity (fills in pedestrian or cycling network gaps)
- Scale of impact (based on number of people impacted/served)
- Safety improvement (level of comfort improvement and the presence of ICBC report collisions)
- Cost (estimated cost of the project)

This approach was used to identify the highest priority projects for implementation in Queensborough. Each variable contains scoreable information, and the results were combined to generate an overall score for the network.



While high, medium, and low priority infrastructure projects are identified, this does not mean that projects must be implemented in that order. If the opportunity is available, through another capital project or redevelopment, to implement a lower priority project sooner, the City will utilize that opportunity to implement a project.

The maps on the following pages (**Figure 19 to 24**) highlight the implementation approach for the different networks highlighting the level of priority for each proposed project. It is important to note that the Queensborough Transportation Plan is one of several community and city-wide transportation planning documents that identify priority infrastructure projects. The recommendations of this plan, and others, will be reviewed and prioritized at a city-wide scale before capital funding is allocated.

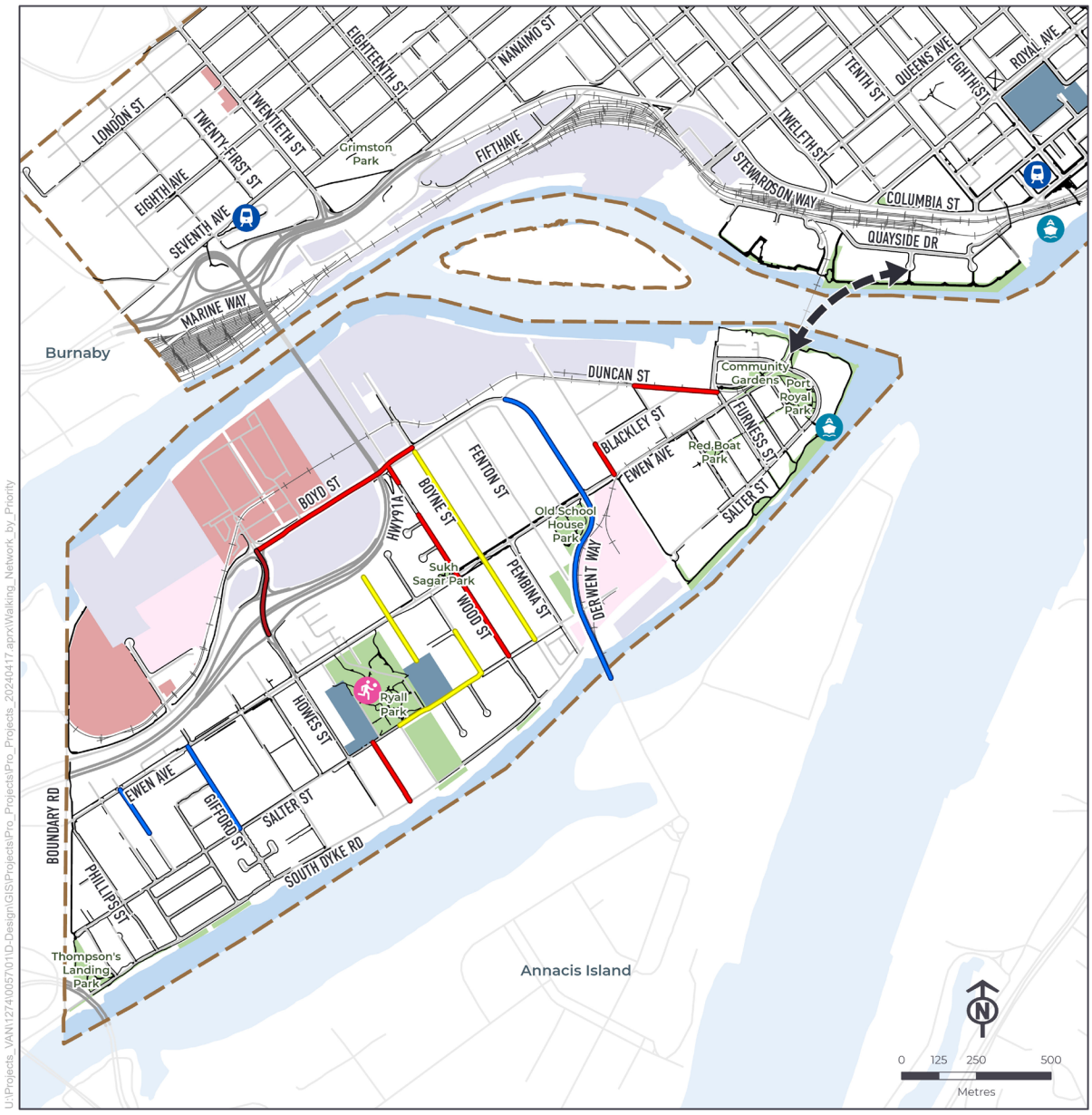
Projects that are under the Ministry of Transportation and Infrastructure's jurisdiction have been prioritized but it is important to note that the timeline for implementation is unknown. The City will advocate to the Province to implement improvements.

There are several infrastructure projects that have been identified in the plan that have not been prioritized due to several considerations. This includes the need for continued community, landowner, and agency engagement and collaboration. These projects include:

- Perimeter Trail
- Salter Street Extension
- Active Transportation Bridge
- Rail crossing upgrades

The City will continue to explore opportunities to progress the planning, design, and in many cases collaboration with partners, and engagement with property owners needed to advance these projects to implementation.

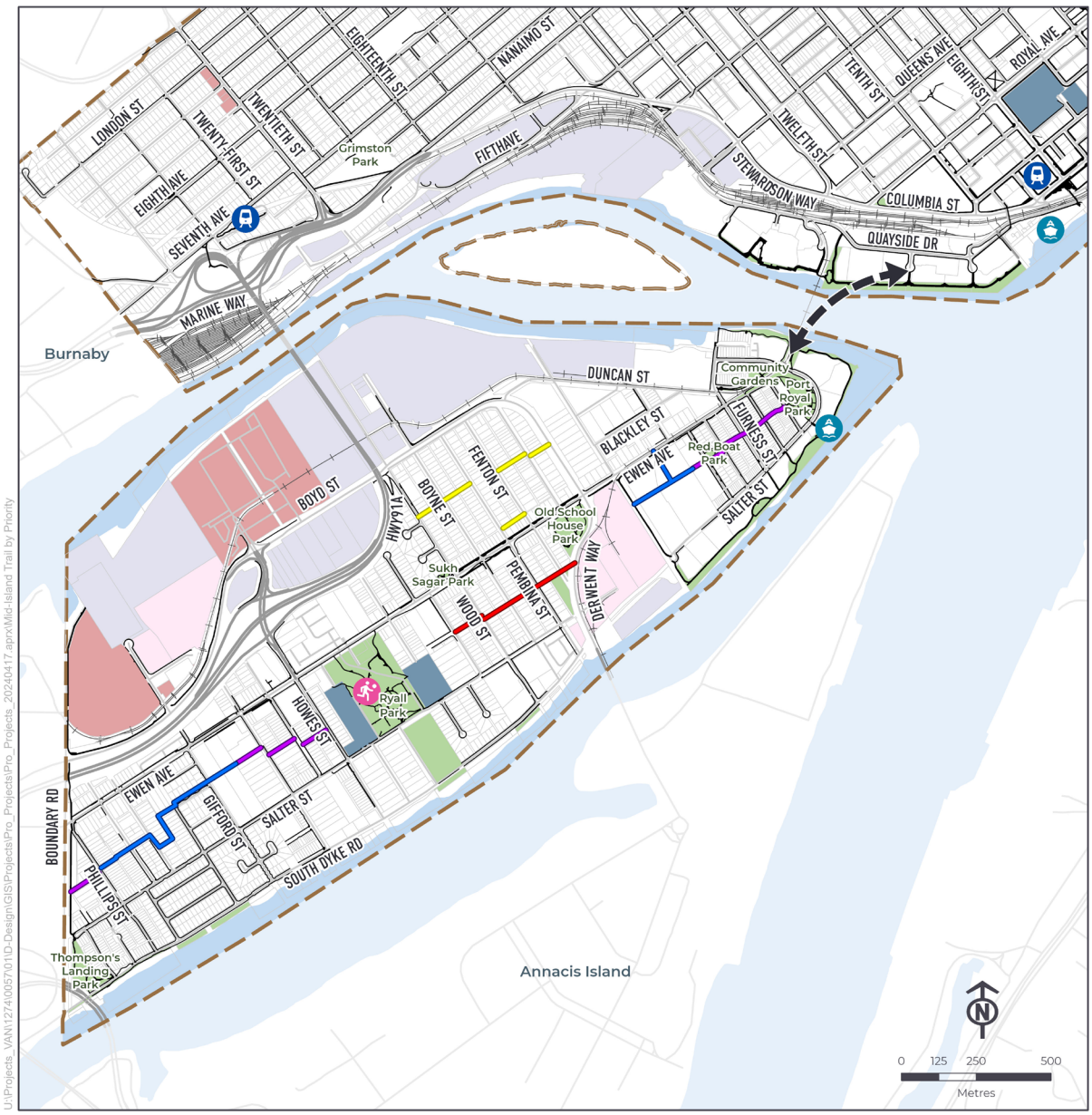
WALKING NETWORK PROJECTS



WALKING NETWORK BY PRIORITY

- High Priority - MoTI Jurisdiction
- High Priority
- Medium Priority
- Low Priority
- Active Transportation Bridge - Alignment Unknown
- Existing Sidewalk
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Figure 19: Walking Network by Priority



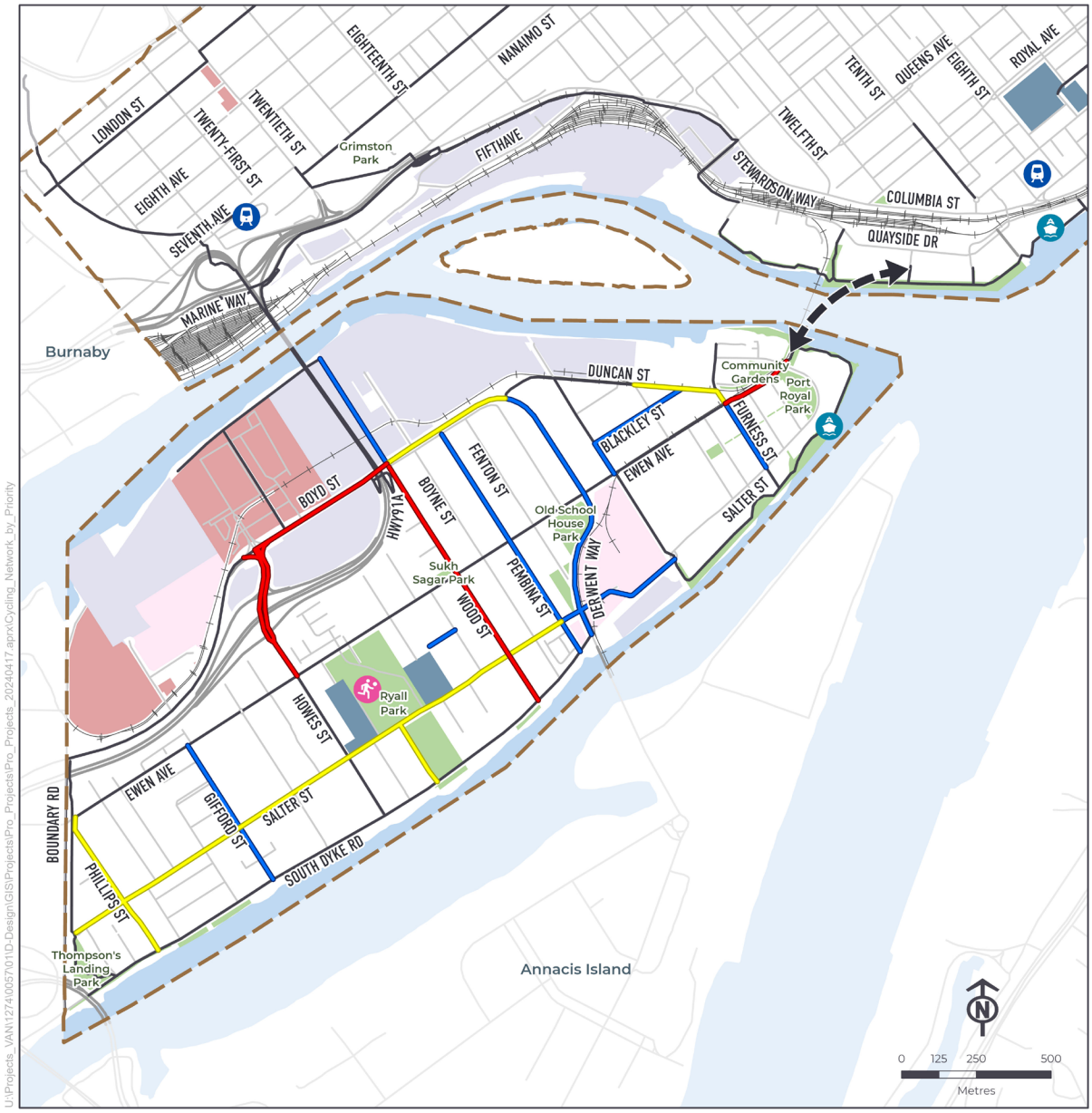
MID-ISLAND TRAIL BY PRIORITY

- High Priority
- Medium Priority
- Low Priority
- Existing Mid-Island Trail
- Active Transportation Bridge - Alignment Unknown
- Existing Sidewalk
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Parcel
- Municipal Boundary

Source: City of New Westminster

Figure 20: Mid-Island Trail by Priority

CYCLING NETWORK PROJECTS



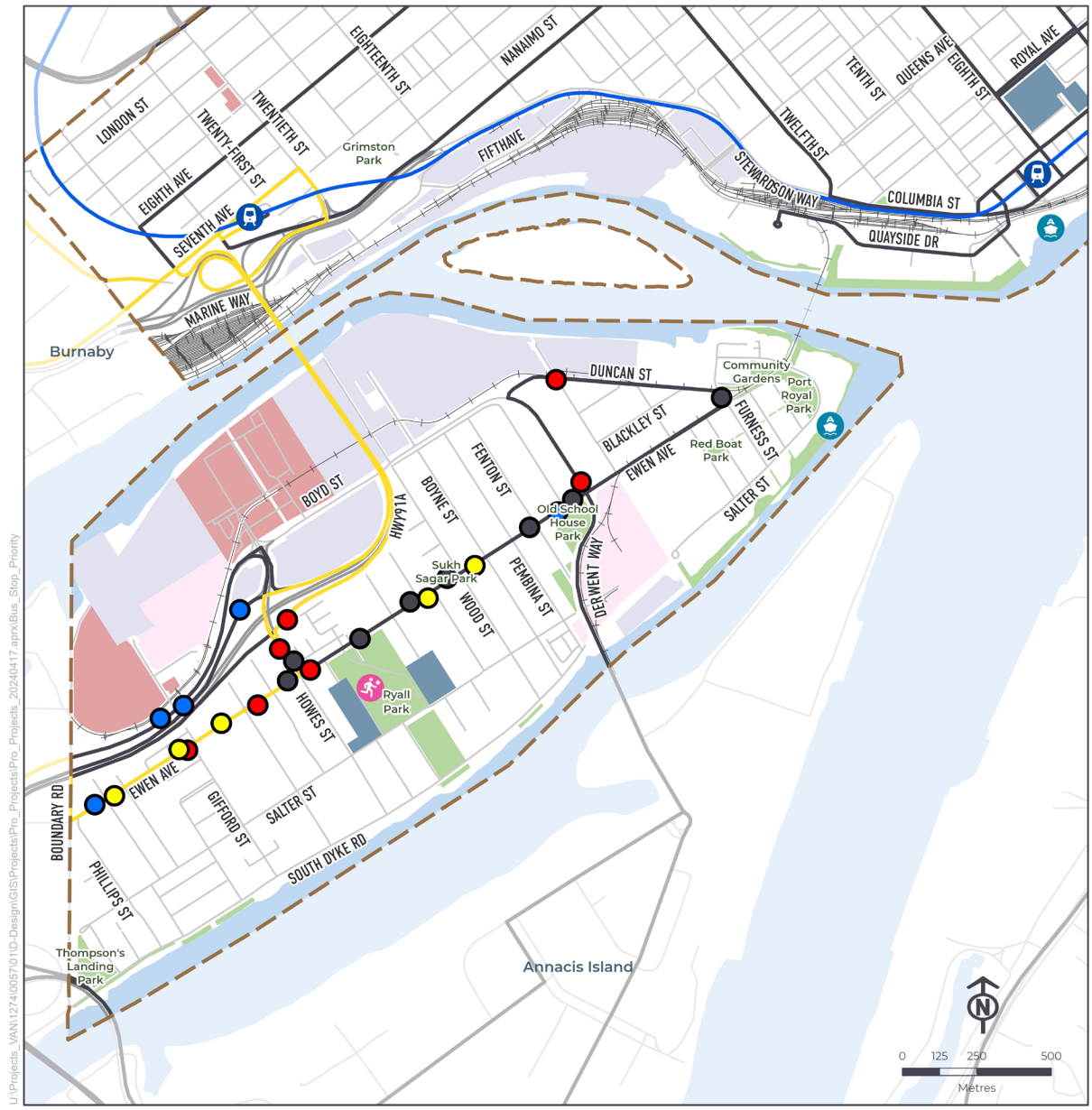
CYCLING NETWORK BY PRIORITY

- Core Network
- Medium Priority
- Low Priority
- Existing Cycling Network
- Active Transportation Bridge - Alignment Unknown
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- MoTI Roads
- Roads
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster

Figure 21: Cycling Network by Priority

BUS TRANSIT PROJECTS



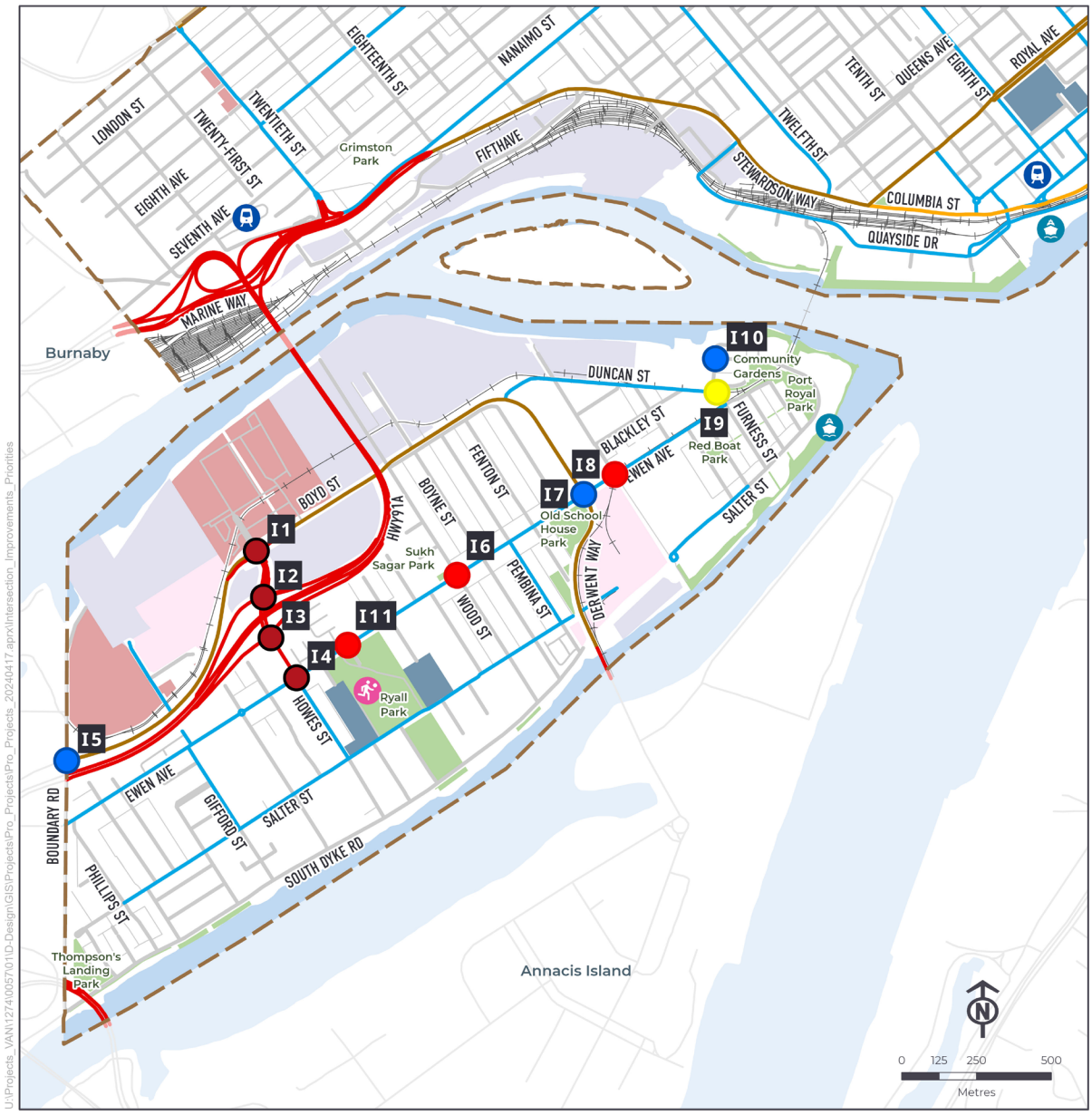
BUS STOP UPGRADE BY PRIORITY

- High Priority
- Medium Priority
- Low Priority
- No Improvement Required
- Frequent Transit Network Bus Route
- Conventional Bus Route
- SkyTrain Station
- SkyTrain Route
- Queensborough Community Centre
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Source: City of New Westminster, TransLink

Figure 22: Bus Stop Upgrade by Priority

INTERSECTION IMPROVEMENT PROJECTS



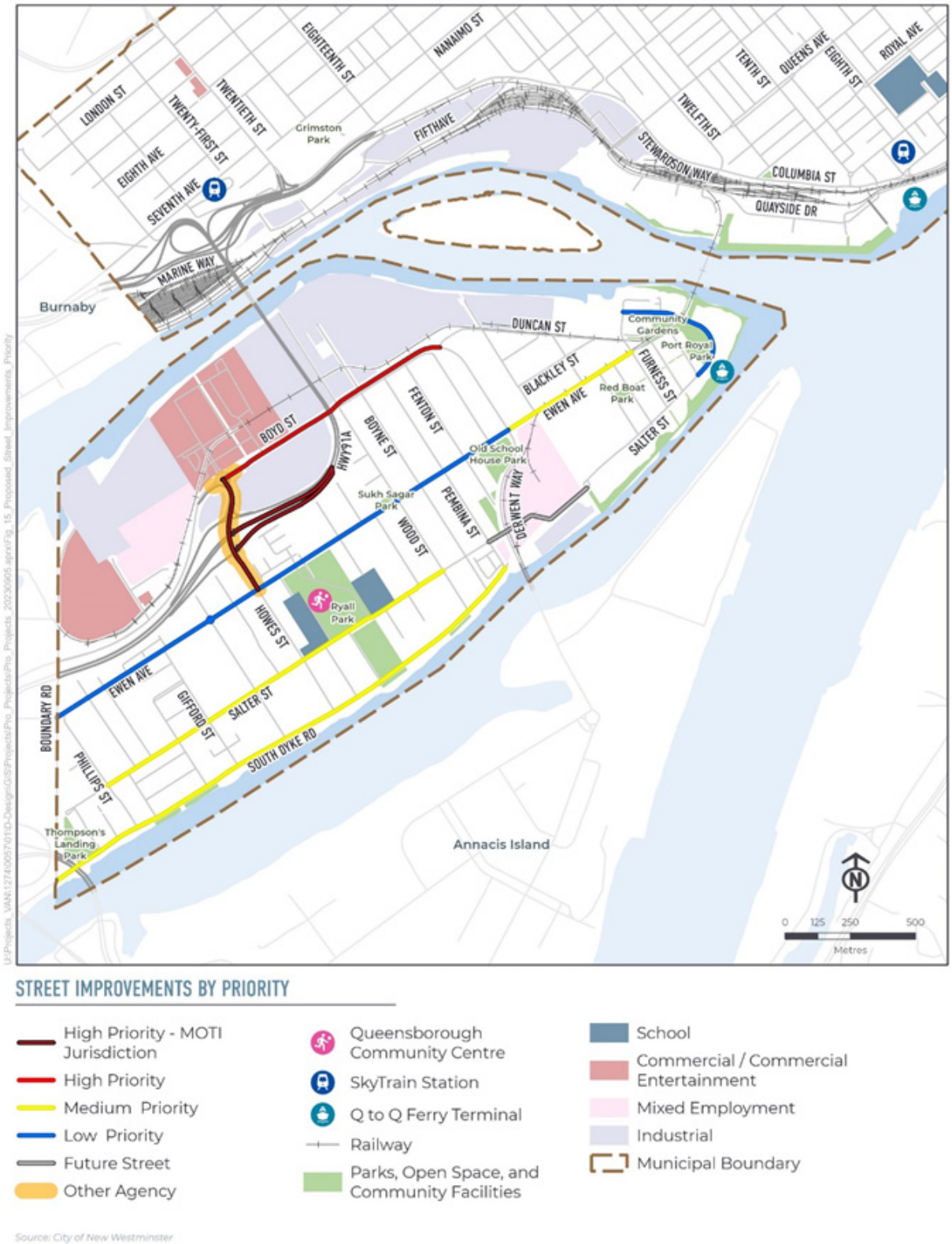
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INTERSECTION IMPROVEMENT BY PRIORITY

- High Priority - MOTI Jurisdiction
- High Priority
- Medium Priority
- Low Priority
- Provincial Highway
- Major Road Network
- Arterial
- Collector
- Local
- Other Road
- Queensborough Community Centre
- SkyTrain Station
- Q to Q Ferry Terminal
- Railway
- Parks, Open Space, and Community Facilities
- School
- Commercial / Commercial Entertainment
- Mixed Employment
- Industrial
- Municipal Boundary

Figure 23: Intersection Improvements by Priority

STREET IMPROVEMENT PROJECTS



Source: City of New Westminster

Figure 24: Street Improvements by Priority

INFRASTRUCTURE PRIORITIES BY LOCATION

This section summarizes infrastructure projects by priority and location.

HIGHEST PRIORITY INFRASTRUCTURE PROJECTS BY LOCATION:

- **Boyd Street**
  - Active Transportation Network Plan Year 2 improvements - between Howes Street and Wood Street
  - Bus stop upgrades at Boyd Street and Ewen Avenue
- **Duncan Street**
  - Pedestrian network – between Mercer Street to Ewen Avenue
  - Bus stop upgrade at Duncan Street and 400 Block
- **Ewen Avenue**
  - Active Transportation Network Plan improvements – between Furness St and Brookes Street
  - Bus stop upgrades at Ewen Avenue and:
    - Howes Street
    - Jardine Street
    - Gifford Street
  - Intersection improvements at Ewen Avenue and:
    - Derwent Way
    - Carter Street
    - Stanley Street
    - Wood Street (See also Wood Street below)
- **Gifford Street**
  - Street improvement – between Salter Street to South Dyke Road
- **Howes Street & Highway 91A Ramps (Ministry of Transportation and Infrastructure Jurisdiction)**
  - Active Transportation Network Plan Year 3 improvements – between Boyd Street and Ewen Avenue
  - Bus stop upgrades at Howes Street and:
    - Highway 91A Eastbound Ramp
    - South of Highway 91A Westbound Ramp



  - Intersection improvements at Howes Street and:
    - Boyd Street
    - Highway 91A Westbound Ramp
    - Highway 91A Eastbound Ramp
    - Ewen Avenue
  - Street improvements
    - Ewen Avenue to Boyd Street
    - Eastbound and Westbound Ramp (transit priority via a bus only lane)
- **Mid-Island Trail**
  - South of Ewen Avenue – between Campbell Street and Derwent Way
- **Sprice Street**
  - Pedestrian network– between Salter Street and South Dyke Road
- **Stanley Street / Greenway**
  - Pedestrian network– between existing Greenway and Ewen Avenue
- **Wood Street**
  - Active Transportation Network Plan Year 2 improvements and pedestrian facilities – between Boyd Street and South Dyke Road
  - Intersection improvement – Wood Street at Ewen Avenue

MEDIUM PRIORITY INFRASTRUCTURE PROJECTS BY LOCATION:

- **Boyd Street**
  - Cycling network – between Wood Street and Duncan Street
- **Boyne Street**
  - Pedestrian network – between Boyd Street to Salter Street
- **Campbell Street**
  - Pedestrian network – between Ewen Avenue to Salter Street
- **Duncan Street**
  - Cycling network – between Mercer Street and Ewen Avenue
  - Intersection improvement at Duncan Street and:
    - Boyd Street
    - Furness Street
- **Ewen Avenue**
  - Bus stop upgrades at Ewen Avenue and:
    - Jardine Street
    - McGillivary Place
    - Hume Street
    - Gifford Street
    - Wood Street
  - Street improvement – between Derwent Way and Furness Street
- **Lawrence Street**
  - Pedestrian network – between Queensborough Middle School / End of Street
- **Mid-Island Trail**
  - North of Ewen Avenue – between Wood Street and Derwent Way
- **Phillips Street**
  - Cycling network – between Ewen Avenue and South Dyke Road
- **Salter Street**
  - Cycling network – between Pembina Street and Mabel Street
  - Pedestrian network – between Carter Street and Campbell Street
  - Street improvement – between Phillips Street and Wood Street
- **South Dyke Road**
  - Street improvement – Boundary Road and Wood Street

LOW PRIORITY INFRASTRUCTURE PROJECTS BY LOCATION:

- **Blackley Street**
  - Cycling network – between Stanley Street Greenway and Duncan Street
- **Boyd Street**
  - Bus stop upgrades at Boyd Street and:
    - Gifford Street (2 locations)
- **Boundary Road**
  - Intersection improvement – Boundary Road at Boyd Street
    - Dawe Street
  - Pedestrian network – between Ewen Avenue and Slater Street
- **Derwent Way**
  - Cycling and pedestrian network – between Duncan Street and South Dyke Road/Annacis Island Swing Bridge
- **Ewen Avenue**
  - Bus stop upgrades at Ewen Avenue and:
    - Hume Street
    - Johnston Street
  - Street improvement – between Boundary Road and Derwent Way
- **Furness Street**
  - Cycling network – between Ewen Avenue and Salter Street
- **Gifford Street**
  - Cycling network – between Ewen Avenue and South Dyke Road
  - Pedestrian network – between Ewen Avenue and Salter Street
- **Highway 91A Westbound Ramp**
  - Bus stop upgrade – on ramp
- **Mid-Island Trail**
  - South of Ewen Avenue – between Phillips and West of Jardine Street (existing pathway)
  - South of Ewen Avenue – between Stanley Street Greenway and Camata Street Laneway

- **Ota Avenue**
  - Cycling Network – between Campbell Street and the end of Ota Avenue
- **Pembina Street**
  - Cycling Network – between Boyd Street and South Dyke Road
- **Star Crescent / Salter Street**
  - Street Improvement – between Furness Street and Brookes Street
- **Star Crescent**
  - Intersection Improvement at Star Crescent and Furness Street
- **Wood Street**
  - Cycling Network – between Perimeter Trail and Boyd Street



8.2 DIRECTIONS AND ACTIONS

This section includes the list of policy directions and actions that have been prioritized as part of the Queensborough Transportation Plan process. The tables of the follow pages provide guidance with respect to:

- **Method of Implementation:** This column identifies how each action will be implemented either as a capital project, through ongoing operations and maintenance, or as a policy and planning initiative.
- **Responsibility:** This column suggests the primary and secondary responsibility for each action. Many actions are the primary responsibility of the City of New Westminster (including the Engineering, Climate Action, Planning and Development, and Parks and Recreation). There are several actions identified in the Plan that other organizations can support the City implement. These organizations include TransLink, Ministry of Transportation and Infrastructure, Southern Rail, and/or Coast Mountain Bus Company.
- **Timeline:** The policy directions and actions identified in the plan will take interdepartmental collaboration and Council support to complete. The timeline for implementation is identified as:
  - 5 years
  - 5-10 years
  - 10+ years
  - Ongoing – These actions do not have a specific completion date because they are ongoing policy related actions or the timeline for completion is outside of the City's jurisdiction.
- **Budgeting:** The assumed order of magnitude cost for each action has been provided. These costs include capital and/or operational depending on applicability. The number of dollar signs indicates a high-level cost assumed for each action:
  - $$$$$ - $15 million+
  - $$$$ - $10 to15 million
  - $$$ – $5 to 10 million
  - $$ – $1 to 5 million
  - $ – Less than $1 million

Implementation of the Queensborough Transportation Plan will begin immediately and there are already several projects and initiatives underway.

#	DIRECTION	ACTION	NEXT STEPS	METHOD OF IMPLEMENTATION	RESPONSIBILITY		TIMELINE	COST
					PRIMARY	SECONDARY		
WALKING								
W1	• Implement, in a prioritized manner, a walking network that connects people to neighbourhood destinations.	• W1.1 - Complete gaps in the walking network on priority routes.	• Implement proposed walking network projects as identified by priority (Figure 19).	Capital / Operating	Engineering (Transportation)		10+ years	$$$
		• W1.2 Continue to complete pedestrian network gaps through required development frontage improvements.	• Ensure new development frontage designs include pedestrian facilities to fill in gaps in the pedestrian network.	Policy & Planning / Operating	Engineering (Transportation)	Climate Action, Planning and Development	Ongoing	$
		• W1.3 Implement the Mid-Island Trail.	• Implement the Mid-Island Trail as identified by priority on City owned land (Figure 20). Coordinate with other departments within the City.	Capital / Operating	Engineering (Transportation)	Parks and Recreation	10+ years	$$
		• W1.4 Continue to pursue opportunities with shoreline property owners to implement the Perimeter Trail.	• Work with property owners and other departments within the City to implement the Perimeter Trail.	Policy & Planning / Capital / Operating	Parks and Recreation	Engineering (Transportation)	Ongoing	$
		• W1.5 In implementing the walking network, ensure natural ecosystem systems, and ecologically sensitive areas are protected.	• Review the condition and classification of watercourses before initiating a project that may impact the ecology of the area.	Policy & Planning / Operating	Engineering (Transportation)	Parks and Recreation	Ongoing	$
W2	• Create a community that is universally accessible and barrier-free.	• W2.1 Use a universal accessibility lens and review current best practice design guidance during the planning, infrastructure design and construction.	• Implement the recommendations of the Master Transportation Plan and apply a universal accessibility lens when considering, planning and implementing projects.	Policy & Planning / Capital / Operating	Engineering (Transportation)		Ongoing	$$
W3	• Make walking an enjoyable experience for people of all ages and abilities.	• W3.1 Implement amenities and features that support walking.	• Develop a wayfinding plan to implement signage along the Mid-Island Trail.	Policy & Planning / Capital / Operating	Engineering (Transportation)	Parks and Recreation	5 years	$

NOTES::
MoTI - Ministry of Transportation and Infrastructure
CMBBC - Coast Mountain Bus Company

COST:
$ - Less than $1 million
$$ - $1 million to 5 million
$$$ - $5 to 10 million
$$$$ - $10 to 15 million
$$$$$ - 15 million +

#	DIRECTION	ACTION	NEXT STEPS	METHOD OF IMPLEMENTATION	RESPONSIBILITY		TIMELINE	COST
					PRIMARY	SECONDARY		
CYCLING								
C1	• Implement, in a prioritized manner, a cycling network that connects people to neighbourhood and city destinations.	• C1.1 Implement the core and supporting routes identified in the Active Transportation Network Plan.	• Implement the proposed cycling network projects as identified by priority (Figure 21).	Capital / Operating	Engineering (Transportation)		10+ years	$$$
C2	• Make cycling an enjoyable experience for people of all ages and abilities.	• C2.1 Implement amenities that support cycling.	• Implement a public e-bike share system with a stop in Queensborough. Review the inventory of bicycle parking and provide additional bicycle parking at locations in Queensborough.	Policy & Planning / Capital / Operating	Engineering, Parks and Recreation	Parks and Recreation	5-10 years	$
BUS TRANSIT								
BT1	• Make transit accessible and comfortable for people of all ages and abilities.	• BT1.1 Complete the implementation of essential improvements that ensure bus stops are accessible.	• Implement upgrades to ensure bus stops are accessible at bus stops (Figure 22).	Capital / Operating	Engineering (Transportation)		5-10 years	$
		• BT1.2 Provide benches, shelters, and lighting at all bus stops.	• Implement upgrades to ensure bus stops have amenities.	Capital / Operating	Engineering (Transportation)		5-10 years	$
		• BT1.3 Continue to secure needed rights-of-way for bus shelters, through the development application review process.	• Ensure new development frontage designs include space to provide bus shelters.	Policy & Planning	Engineering (Transportation)	Climate Action, Planning and Development	Ongoing	$
BT2	• Continually work to ensure that transit connects Queensborough residents and employees to destinations throughout the community and region.	• BT2.1 Work with TransLink to review bus routing and the location of bus stops	• Work with TransLink and CMBC to review the location of bus stops.	Policy & Planning / Operating	Engineering (Transportation)	TransLink / CMBC	Ongoing	$
		• BT2.2 Implement projects to improve bus speed and reliability within Queensborough.	• Work with TransLink and the Ministry of Transportation and Infrastructure to implement transit priority measures at the Queensborough Bridge.	Capital / Operating	Engineering (Transportation)	MoTI / TransLink / CMBC	Ongoing	$
		• BT2.3 Continue to share community input on transit service with TransLink and the Ministry of Transportation and Infrastructure.	• Share community input on transit service with TransLink to be included in the Burrard Peninsula Area Transport Plan.	Policy & Planning	Engineering (Transportation)	TransLink / CMBC	5 years	$

NOTES::
MoTI - Ministry of Transportation and Infrastructure
CMBBC - Coast Mountain Bus Company

COST:
$ - Less than $1 million
$$ - $1 million to 5 million
$$$ - $5 to 10 million
$$$$ - $10 to 15 million
$$$$$ - 15 million +

#	DIRECTION	ACTION	NEXT STEPS	METHOD OF IMPLEMENTATION	RESPONSIBILITY		TIMELINE	COST
					PRIMARY	SECONDARY		
INTERSECTIONS, STREETS, & GOODS MOVEMENT								
S1	• Implement, in a prioritized manner, improvements to intersections and streets.	• S1.1 Implement identified intersection projects.	• Implement proposed intersection projects as identified by priority (Figure 23). Many require an initial study and coordination with the Ministry of Transportation and Infrastructure.	Capital / Operating	Engineering (Transportation)	MoTI / TransLink	10+ years	$$$$
		• S1.2 Implement identified street and corridor projects.	• Implement proposed intersection projects as identified by priority (Figure 24). Many require an initial study and coordination with the Ministry of Transportation and Infrastructure.	Capital / Operating	Engineering (Transportation)	TransLink / Southern Rail	10+ years	$$$$
		• S1.3 Through future redevelopment opportunities, or capital projects, implement the Salter Street Extension.	• Allocate resources to explore design options for the Salter Street Extension. Detailed planning and engineering study required with engagement with property owners.	Policy & Planning / Capital	Engineering (Transportation)	Climate Action, Planning and Development	Ongoing	$$$$
		• S1.4 For areas included in the Advance Street Plan for Queensborough, ensure new development meet the requirements of the street map.	• Follow the recommendations of the Advance Street Plan for any develop projects in the area bordered by Salter Street / Sprice Street / Carter Street / South Dyke Road.	Policy & Planning	Engineering (Transportation)	Climate Action, Planning and Development	Ongoing	$
S2	• Manage curbside space consistent with the hierarchy of curbside access.	• S2.1 Develop a curbside management strategy.	• Develop a curbside management study.	Policy & Planning	Engineering (Transportation)		5 years	$
S3	• Provide improved transportation choices.	• S3.1 Explore opportunities to expand car share services into Queensborough.	• Work with developers and car share companies to expand car share services into Queensborough.	Policy & Planning	Engineering (Transportation)	Climate Action, Planning and Development	Ongoing	$
S4	• Support the safe movement of goods.	• S4.1 Continue to work with Southern Rail to implement rail and street crossings safety improvements to achieve whistle cessation in Queensborough.	• Implement rail crossing improvements with Southern Rail.	Capital	Engineering (Transportation)	Southern Rail	Ongoing	$$$$

NOTES::

MoTI - Ministry of Transportation and Infrastructure

CMBBC - Coast Mountain Bus Company

COST:

$ - Less than $1 million

$$ - $1 million to 5 million

$$$ - $5 to 10 million

$$$$ - $10 to 15 million

$$$$$ - 15 million +

#	DIRECTION	ACTION	NEXT STEPS	METHOD OF IMPLEMENTATION	RESPONSIBILITY PRIMARY	RESPONSIBILITY SECONDARY	TIMELINE	COST
INTER-NEIGHBOURHOOD ACCESS								
#	DIRECTION	ACTION	NEXT STEPS	METHOD OF IMPLEMENTATION	RESPONSIBILITY PRIMARY	RESPONSIBILITY SECONDARY	TIMELINE	COST
I1	• Advance options for improved inter-neighbourhood access.	• I1.1 Advance the concept and implement an active transportation (walking and cycling) bridge crossing between the Queensborough and Quayside neighbourhoods.	• Allocate resources to explore design options for an active transportation bridge crossing - Additional study - work with Southern Rail to explore opportunities.	Policy & Planning / Capital / Operating	Engineering (Transportation), Climate Action, Planning and Development	Southern Rail / TransLink	Ongoing	$$$$$
		• Action I1.2: Undertake a procurement process to explore future Q to Q Ferry operators and costs	• The current five-year operating term with the existing ferry operator concludes at the end of 2024. As recent operating costs have been higher than anticipated due to increasing fuel and labour costs, future operating costs (and therefore the amount of funding needed from the City to sustain the service) are uncertain. The City will undertake a procurement process for the next operating period of the Q to Q Ferry to test the market for potential operators and future operating costs.	Policy & Planning	Engineering (Transportation)	Purchasing Division	5 years	$
		• I1.2 Work with the Ministry of Transportation and Infrastructure and TransLink to improve people-moving (persons per hour) capacity along the Queensborough Bridge.	• The City will work with the Ministry of Transportation and Infrastructure and TransLink to improve people moving (persons per hour) capacity along the Queensborough Bridge, in a cost effective and sustainable manner.	Policy & Planning	Engineering (Transportation)	MoTI / TransLink	Ongoing	$

NOTES::
MoTI - Ministry of Transportation and Infrastructure
CMBBC - Coast Mountain Bus Company

COST:
$ - Less than $1 million
$$ - $1 million to 5 million
$$$ - $5 to 10 million
$$$$ - $10 to 15 million
$$$$$ - 15 million +

8.3 IMPLEMENTATION TECHNIQUES

To implement the Queensborough Transportation Plan a variety of implementation techniques and strategies will be adopted. Based on a review of each project, and with support from community partners, the City will determine the appropriate approach to implementation. The following includes a variety of techniques to cost-effectively implement the network.

Quick-build Treatments

To provide walking and cycling facilities in Queensborough in the shorter term, the City may consider using a "quick-build" process using low cost, temporary materials. However, the trade-off is that quick-build treatments are less durable, less aesthetically appealing, and have a shorter lifespan than sidewalks with concrete curb and gutters.

The City will consider the project impact, accessibility, and if longer-term infrastructure projects (development, internal or third-party capital projects) are expected at the location when determining whether to consider quick-build or permanent treatments.

Coordinate Projects with other Capital Infrastructure Projects

The City will look for opportunities to implement the recommendations of the Queensborough Transportation Plan as part of other infrastructure projects, such as sewer and water line upgrades, dyke system maintenance, or road repaving, that are being completed by either the City or other government entities to achieve economies of scale.

Coordinate Projects with Development Applications and Sites

Where proposed projects front known or anticipated redevelopment sites, the City will request that identified applicable infrastructure improvements will be completed as part of a development applicant's off-site improvements, as required through the City's Subdivision and Development Control Bylaw.

Collaboration

As one of the guiding principles of the Queensborough Transportation Plan, the City will need to work with the Ministry of Transportation and Infrastructure, TransLink, the Port of Vancouver, Southern Rail, neighbouring municipalities, and others to implement improvements identified in the Plan. Through this collaboration and partnership, there may be opportunities for these organizations to cost share or fund the implementation of projects identified in this Plan.

Pursue Funding

There are opportunities to implement projects and actions identified through a variety of funding sources. Funding is available through the federal and provincial governments and TransLink and other agencies. In addition to currently known programs, the City will actively be attuned to new funding sources for which transportation projects would qualify.

8.4 FUNDING STRATEGIES

This section describes some potential funding strategies and sources that the City may consider to help leverage its investments and maximize its ability to implement transportation projects. Note: as funding opportunities change regularly, the information in this section is subject to change.

Municipal

- **Capital Planning:** The City's capital plans can be used to deliver projects and initiatives identified in this Plan.
- **Development Cost Charges (DCC):** The DCC Bylaw program defines development contributions towards eligible transportation infrastructure to accommodate the anticipated growth in the City.

Regional

- **TransLink** manages several municipal funding programs including Bicycle Infrastructure Capital Cost Sharing Program (BICCS), Walking Infrastructure to Transit (WITT), Bus Speed and Reliability (BSR), and Major Road Network & Bike Cost Share (MRNB) programs on an annual basis. They can also provide funding for implementing the Major Bikeway Network and Major Road Network structures, operations, maintenance, and rehabilitation. Coast Mountain Bus Company manages the Transit Related Road Infrastructure Program (TRRIP) to support smaller localized pedestrian improvements related to transit, which can be implemented within a short timeframe. The City will continue to work with TransLink and Coast Mountain Bus Company to identify the regionally significant initiatives and apply for cost-sharing under these programs if they remain funded.

Provincial

- The **Provincial Government** administers the Active Transportation Infrastructure Funding program (previously known as BikeBC). Funded projects promote active transportation to work, school, or errands. Funded projects can also generate tourism-related traffic based on their proximity to amenities and points of interest for tourists and through linkages to other communities. To ensure maximum success at obtaining grant funding, the City should have grant-ready concepts pre-developed for application.
- **Union of BC Municipalities**' Community Works Fund is one of three funding streams of the Renewed Gas Tax Agreement between Canada, British Columbia, and the Union of BC Municipalities. Project examples include public transit, active transportation, and long-term infrastructure plans.
- **ICBC** provides funding for road improvements, including pedestrian and bicycle infrastructure, particularly where these have the potential to reduce crashes, improve safety, and reduce claims costs to ICBC. Funding is available through ICBC's Road Improvement Program, along with programs targeted at preventing impaired driving, and safety around schools.

Federal

- **Infrastructure Canada** manages several programs that provide funding for environmental and local transportation infrastructure projects in municipalities across Canada. Typically, the federal government may contribute up to one-third of the cost of municipal infrastructure projects. Provincial and municipal governments contribute the remaining funds, and in some instances, there may be private sector investment as well. Infrastructure Canada programs will fund active transportation infrastructure, rail safety improvements, and major road network structures.
- **Green Municipal Funds** are managed by the Federation of Canadian Municipalities, with a total allocation of $550 million. This fund is intended to support municipal government efforts to reduce pollution, reduce greenhouse gas emissions and improve quality of life.



APPENDIX A
ADVANCE STREET PLAN

INTRODUCTION

An Advance Street Plan guides future land assembly, subdivision, and development of large parcels to ensure areas are designed to provide appropriate access and services to the neighbourhood for all transportation modes (pedestrians, cyclists, and motor vehicles). An advance street plan identifies the location of new local roads and lanes essential for providing frontage and access to/from new lots.

An Advance Street Plan of the area bounded by Salter Street to the north, Sprice Street to the west, Carter Street to the east, and South Dyke Road to the south (**Figure 1**) was developed as part of the Queensborough Transportation Plan. Twelve parcels make up this area, including four lots that have already been subdivided (**Figure 2)**.



Figure 1: Study Area

EXISTING CONDITIONS

Carter Street has an existing watercourse that runs parallel to the street (west side). An existing pump station is located at the northwest corner of Carter Street and South Dyke Road. The watercourse cannot be covered, and the pump station cannot be moved.

As a result, lots can not be accessed from (or have an address on) Carter Street, except for the existing subdivided 120 and 118 Carter Street.

A 3 metre (m) right-of-way was not acquired from lot 120 and 118 when subdivision occurred to provide a laneway or a roadway (**Figure 2**). This creates a 3 m pinch point that limits the ability to provide a through road as part of future subdivision.



Figure 2: Site Location and Existing Right-of-Way Constraint

ADVANCE STREET PLAN

Due to the existing conditions on Carter Street, developing an Advance Street Plan at this location that aligns with the current OCP Land Use Designation (Residential Compact Lot (RCL)) and the Land Use Zoning (RQ-1) is restrictive due to the inability to provide rear lane access.

The following describes the rationale and approach used to prepare the Advance Street Plan for the area.

- The parcels along Salter Street should subdivide such that resulting parcels have frontage on Salter Street.
- Except for those having frontage on Salter Street, single detached parcels along all other existing and new streets should subdivide such that resulting parcels have frontage on their respective street.
- The principal building on each single detached parcel should be oriented toward the street on which that parcel has frontage to create a strong street wall.
- The orientation of lots toward Salter Street, Sprice Street, and new local roads are prioritized due to the inability to have buildings fronting Carter Street.
- All new lots must have a street address on Salter Street, Sprice Street, or new local roads that can be accessible by emergency vehicles.
- The subdivision of lots with new local roads will require a zoning change to address the lack of back laneway access of each lot.
- The layout of the new lot subdivision was carefully designed to optimize lot yield and maintain a reasonable buildable area.
- The maximum road length without a designated 'turnaround' is 90 m.

In future development of this area (**Figure 3**), "New Local Road 1" will connect Salter Street with Sprice Street via a "Lane". By providing a lane connection a 'turnaround' does not need to be provided at the end of "New Local Road 1".

"New Local Road 1" will be a 15.2 m wide local road between Salter Street to 121 Sprice Street (approximately 128.4 m). A 6 m wide "Lane" will provide a connection between Sprice Street and the "New Local Road 1" (39.2 m).

"New Local Road 2" will be a 15.2 m wide local road providing access from Sprice Street to the new lots (59.0 m).

The creation of new streets and lanes will require dedication from adjacent parcels.

Offsite improvements will likely also be identified at the time of subdivision of any parcels in the area, potentially including but not limited to:

- Improvements to Sprice Street.
- Improvements to Salter Street.
- The addition of street trees on all new and existing streets adjacent to development areas.



Figure 3: Advance Stret Plan

Phasing:

The phasing of the new lot subdivision (**Figure 4**) is guided by the ability to access lots by the new local roads and the maximum road length allowed without a designated 'turnaround'.

- **Phase 1A** and **Phase 1B** can be developed independently of one another and of Phase 2.
- **Phase 2** can only be initiated after Phase 1A is complete.

Phase 1A

- Phase 1A (lots 143, 139 and 135) can be developed together and function independently from Phase 1B and Phase 2.
- Lot 143 (facing Salter Street) must develop first for lot 139 and subsequently lot 135 to develop.

Phase 1B

- Phase 1B (lots 111 and 115) must be developed together but function independently from Phase 1A and 2.

Phase 2

- Phase 2 (lots 131, 127 and 123) must be developed after Phase 1A for "New Local Road 1" to access to the lots.
- Lot 131 must develop first for lot 127 and subsequently lot 123 to develop.

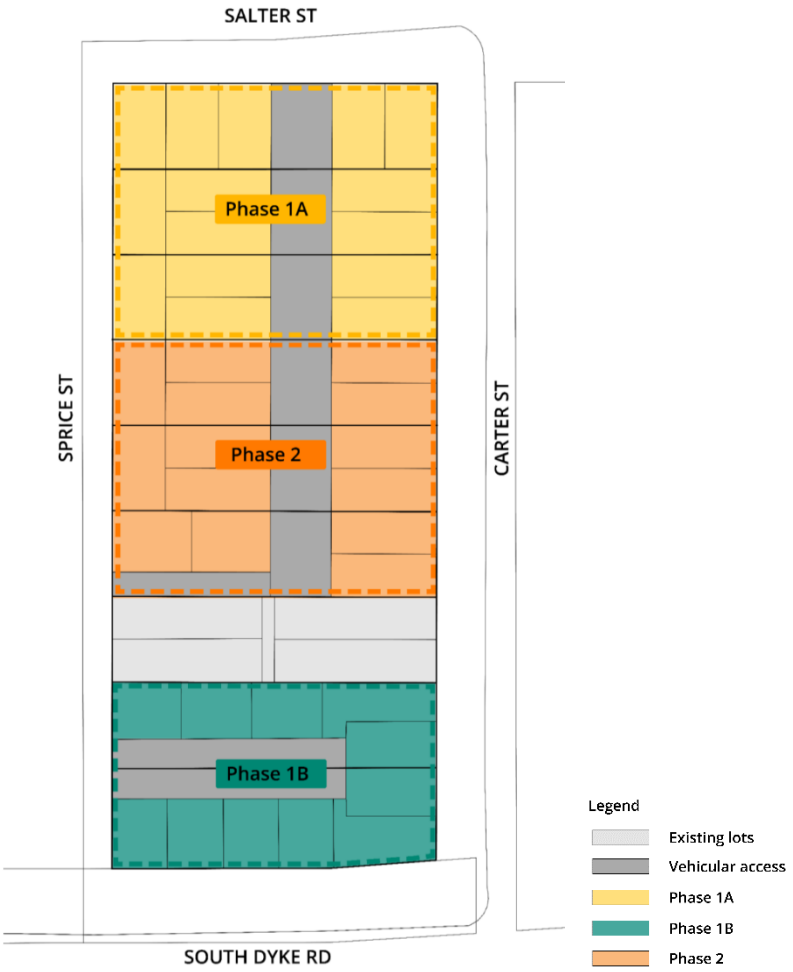


Figure 4: Phasing Plan

SUBDIVISION OF LOTS

This section provides additional detail about the approach to subdividing the lots. As noted, the subdivision of lots with new local roads require a zoning change to address lack of back laneway access of each lot. The new lots are organized with one row of lots fronting Sprice Street and two rows fronting "New Local Road 1" and "New Local Road 2" (**Figure 5**).

- Lots adjacent to "New Local Road 1" are proposed to have their zoning change to ***RT 2D – Single Detached Dwelling (Compact Lots).*** The total lot yield for the "New Local Road 1" RT 2D area is 29 lots.
- Lots adjacent to "New Local Road 2" are proposed to have a zoning change to ***RT 2F – Cluster House District***. The total lot yield for the "New Local Road 2" RT 2F area is 11 lots.

The dimensions and lot areas of the new lot subdivision follow the respective zoning policies (**Figure 5**). Details about lot area are provided below.

RT 2D - Single Detached Dwelling (Compact Lots)

- Minimum lot area: 278.7 m^2
    - 25% of lots minimum 250.83 m^2
    - 25% of lots minimum 213.67 m^2
- Lot frontage: minimum 10% of lot perimeter.

RT 2F - Cluster House District

- If frontage is <6.1 m then minimum lot area is 270 m^2.
- If frontage is >6.1 m then minimum lot area is 241.5 m^2



Figure 5: Subdivision of Lots with Dimensions

Building Setbacks & Site Coverage

The layout of the new lot subdivision was carefully designed to consider setbacks and maintain a reasonable buildable area.

There is adequate buildable area available for lot site coverage in RT 2D and RT 2F areas (**Figure 6**). Additional details regarding building setbacks and site coverage for area is provided below.

RT 2D - Single Detached Dwelling *(Compact Lots)*

- Front setback: >3.05 m
- Side setback: >2.13 m
- Rear setback: >20% of the depth of the site but need not exceed 7.62 m.
- Site coverage can range by 30%-40% based on building height (storeys):
    - <40% for one storey;
    - <35% for two storeys, and
    - <30% for three storeys.

RT 2F - Cluster House District

- Front setback: >3.05m
- Side setback: >2.13m
- Rear setback: >20% of the depth of the site but need not exceed 7.62
- Site coverage and building height: 55%



Figure 6: Building Footprints and Setbacks

APPENDIX B
FRASER RIVER CROSSING EVALUATION

SUBJECT: Fraser River Crossing Options Multiple Accounts Evaluation
DATE: July 24, 2023
FILE: 1274.0057.01

This memo is a summary of a high-level review and multiple accounts evaluation (MAE) of two Fraser River crossing options that provide a non-motor vehicle active transportation connection between Queensborough and Quayside in the City of New Westminster. The two options reviewed are:

- **Existing Q to Q Ferry** – The Q to Q Ferry is an existing service that launched in May 2018. The City delivers the ferry service and the cost to run the ferry is subsidized by the City of New Westminster. An external contractor is retained to provide and operate the vessels and provide the service. This leaves the City in a vulnerable position if the service provider chooses to no longer provide service or increase costs. Passengers are charged a fare to use the service, though this fare does not cover the cost of operations. The service levels for the ferry vary depending on the time of year. With service decreasing through the fall and winter. The trip duration is 5-10-minutes, and a sailing departs each terminal at 30-minute intervals during service hours.
- **Proposed Active Transportation Bridge Crossing –** A direct active transportation (pedestrian and bicycle) link between Queensborough and the Quayside has been a long-standing vision for Queensborough community members and the City of New Westminster. In 2008, the City embarked on studying the feasibility of constructing a Q to Q active transportation bridge. In 2016, design options were presented to the public for consideration, but the bridge was deemed outside of the City's funding capacity at the time. The 2020 Queensborough Community Plan identified the pedestrian and bicycle connection between Queensborough and Quayside as a vital link for residents on both sides of the Fraser River and stated that the City would work with the Port of Vancouver and Southern Rail to create a connection. No additional design work has been completed since however the bridge crossing remains an option that is discussed.

The evaluation of the two options has been conducted using an MAE. The purpose of the MAE is to communicate the relative benefits, costs, and corresponding trade-offs of each option. By completing an MAE, the selection of a preferred option is informed by an assessment of multiple factors and perspectives.

The documents and information reviewed as part of this evaluation comes from several sources including, New Westminster Council documents, community input, and independent journalism. Most of the information presented here is qualitative in nature. The information presented has been put together for discussion purposes only.

The following subsections present the accounts, corresponding criteria, and results.

ACCOUNTS AND CRTIERIA

The evaluation criteria are structured into the following five accounts:

- **Financial:** This account includes the annualized life cycle costs for both options this includes construction and maintenance and rehabilitation costs for the new crossing and operation and maintenance costs for the Q to Q Ferry over a specified analysis period.
- **Social & Community:** This account captures the effects each option has on the community, including factors such as user cost, service reliability, emergency response, noise impact, visual impact, and accessibility.
- **Mobility & Safety:** This account considers the capacity and usage, service hours, travel time, and user safety for the two options.
- **Environmental:** This account captures the type, extent, and magnitude of any environmental and archaeological impacts. It also looks at reductions in greenhouse gas (GHG) emissions and it considers alignment with the City of New Westminster's goals, and existing railway service.

Each account listed above includes quantitative and/or qualitative analysis.

Each criterion is scored on a scale from 'least desirable' to 'most desirable'. To provide a quantitative analysis, the 'least desirable' to 'most desirable' rating has been associated with a numerical value of one to five. The scoring is presented in **Table 1** below.

Table 1: Criteria Scoring

LEGEND	
Least Desirable	⊖
Less Desirable	◐
Neutral	○
More Desirable	◑
Most Desirable	⊕

RESULTS

This section presents the MAE results and provides the supporting rationale for the criteria ratings. As the Q to Q Ferry is currently in operation this is a comparison of the option of maintaining existing Q to Q Ferry service compared to implementing a new bridge structure. The MAE ratings and rationale are provided in Table 2 and a summary of the results is displayed in Table 3.

Table 2: Multiple Accounts Evaluation

ACCOUNT	CRITERIA	Q to Q Ferry	Active Transportation Bridge	Measurement
FINANCIAL	**Net Annualized Life Cycle Costs (Appendix A)**	**$1.45 million per year** Includes operating and maintenance costs for the contractor, the cost of dredging the river to maintain service, and ongoing capital investment. Offset by fare revenue (based on 2022 ridership). **Less Desirable**	**$0.8 million per year** Assumes capital design/construction costs over a 100-year lifespan and annual maintenance and rehabilitation costs. Note: the bridge cost used in this estimate was based on available concept design completed in 2016. The actual future cost of the bridge is uncertain currently due to factors such as design assumptions and inflation. **More Desirable**	Quantitative
	Cost per Use	Approx **$21 per passenger** based on 75,000 trips per year (2019 ferry ridership numbers). Amount will vary based on ridership. **Least Desirable**	**Approx $11 per passenger** based on 75,000 trips per year (2019 ferry ridership numbers). Cost per capita are expected to be significantly lower as long-term usage is expected to be much higher than the ferry. **Most Desirable**	Quantitative
	Economic Risks	Risk of operator increasing operating/contract costs or discontinuing service (ongoing risk). **Less Desirable**	Construction costs may be higher than anticipated (one-time risk). **More Desirable**	Qualitative
Social & Community	**User Cost**	The cost of a ticket to ride the ferry. **Least Desirable**	No additional cost per use. **Most Desirable**	Quantitative
	Service Reliability	Service reliability, operations, and maintenance would be the ultimate responsibility of the ferry operator and is subject to the existing contract. **Least Desirable**	Service reliability, operations, and maintenance would be the ultimate responsibility of the City of New Westminster. **Most Desirable**	Qualitative
	Emergency Response and Network Redundancy	Limited emergency response options due to capacity and operation hours. Would not allow for emergency response motor vehicle access. **Less Desirable**	Bridge could be designed to accommodate emergency vehicles and serve as an emergency route (and an alternative to Queensborough Bridge). **More Desirable**	Qualitative
	Noise Impact	Vessel noise (moderate) **Less Desirable**	User noise (minor) **More Desirable**	Qualitative
	Visual Impact	Limited visual impact. **More Desirable**	The bridge will result in a physical structure that may be quite large. Bridge could be designed to incorporate local culture and art and be aesthetically pleasing. **Less Desirable**	Qualitative
	Societal Health	Ferry service provides an alternate option for active transportation users to cross the river (instead of driving) and the vessels can accommodate bikes which promotes more active transportation and in turn more physical activity. **More Desirable**	The bridge will encourage more active transportation in the community and beyond drawing people from a larger catchment. Encouraging more active transportation and leading to increased levels of physical activity. **Most Desirable**	Qualitative
	Local Attraction	Ferry service provides a unique local attraction and destination for visitors. **More Desirable**	Bridge project may also become a positive local attraction that draws users from elsewhere in the region. **More Desirable**	Qualitative
	Accessibility	Current dock design creates accessibility challenges, upgrades required and suspectable to rising and lowering river levels. **Less Desirable**	Bridge design will be accessible and will follow Universal Design and active transportation best practices. **More Desirable**	Qualitative
Mobility and Safety	**Capacity and Usage**	700 passengers/day (summer schedule) - limited number of bicycles and people using wheelchairs per trip. **Less Desirable**	Unconstrained. **More Desirable**	Quantitative
	Service Hours	Limited to daily operating hours (vary throughout the year). **Less Desirable**	All day, though depending on design, could be impacted by the frequency of boat crossings as the bridge may need to open and close for boat traffic. **More Desirable** but with a high level of uncertainty	Quantitative

ACCOUNT	CRITERIA	Q to Q Ferry	Active Transportation Bridge	Measurement
	Travel Time (to Quayside)	Approx. 5-10 minutes per trip. **Neutral**	Some variation dependent on alignment Approx. 7 minute cycling Approx. 20 minutes walking **Neutral**	Quantitative
	User Safety	Provides an active transportation alternative to the Queensborough Bridge. **Neutral**	Provides a separated active transportation connection and an alternative to the Queensborough Bridge. **Neutral**	Qualitative
		May experience personal safety concerns waiting at night or when travelling alone. **Neutral**	May experience personal safety concerns at night or when travelling alone. **Neutral**	Qualitative
		Turbulent waters. **Neutral**	Poor weather and wind. **Neutral**	Qualitative
Environmental	**Habitat, Wetland, and Wildlife Impacts**	Required dredging and other in-river works to maintain service (ongoing). **Less Desirable**	Construction of bridge may impact local ecology during construction. **More Desirable**	Qualitative
	Potential for Archaeological Impact	Unknown at this time. **Less Desirable**	Unknown at this time. **Less Desirable**	Qualitative
	Reduction of Greenhouse Gas (GHG) Emission	Vessel upgrades required to achieve low/zero emission. Vessels currently runs on diesel. **Less Desirable**	Promotes active transportation which reduces GHG emissions. **Most Desirable**	Qualitative
		Less construction impacts. GHG emissions primarily from operations. **Neutral**	Temporary increase in GHG emissions during construction from vehicles and materials. **Less Desirable**	Qualitative
	Reduction of Vehicle Kilometres Travelled (VKTs)	Promotes active transportation and reducing VKTs. Additional service required to make service more desirable to users. **Less Desirable**	Promotes active transportation which reduces VKTs. Has a larger catchment area than ferry service (e.g. commuters and recreational users from Richmond). Provides a reliable 24/7 service. **More Desirable**	Qualitative
	Alignment New Westminster Goals	· Carbon Free Corporation (with EV vessels) - with upgrades · Car Light Community **Less Desirable**	· Carbon Free Corporation · Car Light Community · Quality People-Centered Public Realm **More Desirable**	Qualitative
	Rail Impacts	None **More Desirable**	Depends on bridge location – however, the design may not need to be tied to the rail crossing. **Neutral**	Qualitative
	Flood/Climate Change Resiliency	Ferry operation may be susceptible to flooding and climate change as dock infrastructure is near sea level. **Less Desirable**	Bridge will be designed to ensure flood/climate change resiliency. **More Desirable**	Qualitative

Table 3: Multiple Accounts Evaluation - Summary

	Q to Q Ferry	Active Transportation Bridge
FINANCIAL		
Net Annualized Life Cycle Costs	−/+	+/−
Cost per Use	−	+
Economic Risks	−/+	+/−
Social & Community		
User Cost	−	+
Service Reliability	−	+
Emergency Response and Network Redundancy	−/+	+/−
Noise Impact	−/+	+/−
Visual Impact	+/−	−/+
Societal Health	+/−	+
Local Destination	+/−	+/−
Accessibility	−/+	+/−
Mobility & Safety		
Capacity and Usage	−/+	+/−
Service Hours	−/+	+/−
Travel Time (to Quayside)	○	○
User Safety	○	○
Environmental		
Habitat, Wetland, and Wildlife Impacts	−/+	+/−
Potential for Archaeological Impact	−/+	−/+
Reduction of Greenhouse Gas (GHG) Emissions (operation)	−/+	+
Reduction of GHG Emissions (construction)	○	−/+
Vehicle Kilometres Travelled (VKTs)	−/+	+/−
Alignment New Westminster Goals	−/+	+/−
Rail Impacts	+/−	○
Flood/Climate Change Resiliency	−/+	+/−

Appendix A: Cost Estimate Caluclation Assumptions:

Q to Q Ferry

	Cost	Duration (years)
Operating and Maintenance*	$ 4,000,000	5
Capital Investment*	$ 1,000,000	5
Dredging - Additional information provided**	$ 150,000	1
Fare Revenue****	($ 100,000)	1
Annualized Life Cycle Cost	**$ 1,050,000**	
Annualized Life Cycle Cost (higher estimate)	**$ 1,450,000**	

- Higher end of estimate assumes a 50% increase in service hours and operational costs (expanded service is likely needed to meet demand and encourage future ridership)

Pedestrian Bridge

	Cost	Duration (years)
Maintenance and Rehabilitation***	$ 1,000,000	5
Capital Design/Construction Cost***	$ 40,000,000	100
Annualized Life Cycle Cost	**$ 600,000**	
Annualized Life Cycle Cost (higher estimate)	**$ 800,000**	

- Higher end of estimate assumes 50% increase in original capital costs given recent inflation
- Above estimates exclude inflation for ongoing costs after construction but are expected to be less impacted by inflation overtime if constructed in the near future given that majority of costs are associated with design and construction of the bridge

*Q to Q Ferry Service Plan for Permanent Service - Council Report - June 24, 2019
**Email from Michael Leong May 4, 2024 specific to maintenance (average of the high-end and low-end costs provided)
***"FAQs – Proposed Quayside to Queensborough (Q2Q) Bridge", March 2016, New Westminster (Doc #808835) & "Cost Management Report – Quayside to Queensborough Pedestrian and Cyclist Bridge", June 27, 2016, Prepared by BTY for SNC-Lavalin Inc and City of New Westminster
Note: the bridge cost used in this estimate ($40m) was based on available concept design completed in 2016. The actual future cost of the bridge is uncertain at this time due to factors such as design assumptions and cost inflation.
**** High-level estimated from average ticket price and 2022 annual ridership ($2 x 50,000). Fares range from $1.25 (concession) to $2.25 (full), and monthly passes at approximately 50% reduced prices for full month of usage.

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