Attachment 1 – Waterfront Transit Network Plan

Planning and Technical Background

Travel Demand

Existing Transit and Travel Trends

Historical and existing travel behaviour in the study area was analyzed in detail and reported to Council at the conclusion of Phase 1 work (see EX16.17). For Phase 2, in terms of existing travel behaviour, the study team focused on analyzing emerging trends and specific areas of the network. A summary of key findings of the assessment are as follows:

- Network-wide, there has been significant increase in the proportion of off-peak TTC transit trips[1].
  - In 1990, trips within the overall TTC network were evenly distributed between peak and off peak periods. By 2016, approximately 57% of all trips were being made during off-peak periods (see **Figure 1**).
  - A number of factors may contribute to this trend, including; expansion of peak period GO service, increase in telecommuting and flexibility in work hours, and increase in active transportation options.
  - The trend is likely more pronounced in the waterfront study area, where the highest concentration of cultural & recreational special event destinations & venues in the City significantly contribute to overall transit trips.

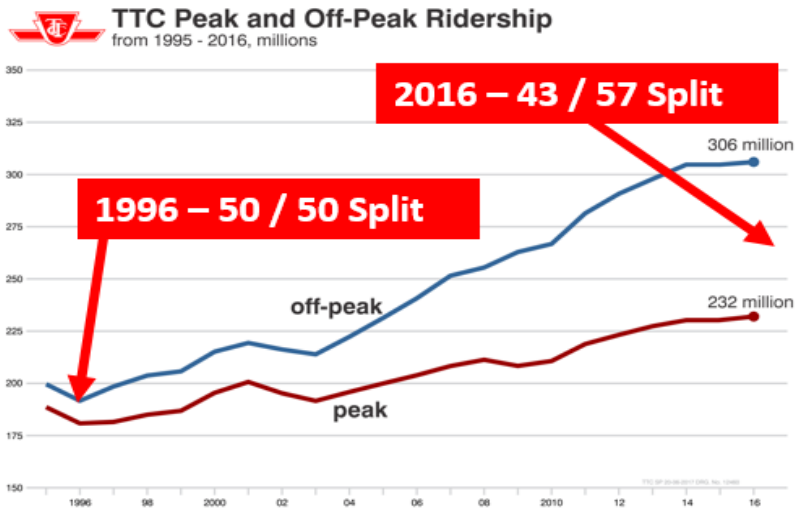


Figure 1: TTC Network Peak and Off-Peak Ridership Trends

[1] Off-peak covers weekdays (0900 to 1459 hours and 1900 to end) and weekends/holidays. Peak includes weekday AM (start to 0859) and PM (1500 to 1859 hours).

- Existing annual attendance at cultural, recreational, and sporting venues and destinations within the study area is estimated in the tens of millions (see **Figure 2**). Based on this, tens of millions of additional trips in the transportation network are being generated, and a significant portion are transit trips.
    - These trips are not fully captured within the travel demand forecasting tool.
    - These trips occur during peak and off-peak times, and have surging characteristics that periodically overwhelm the existing transportation network.

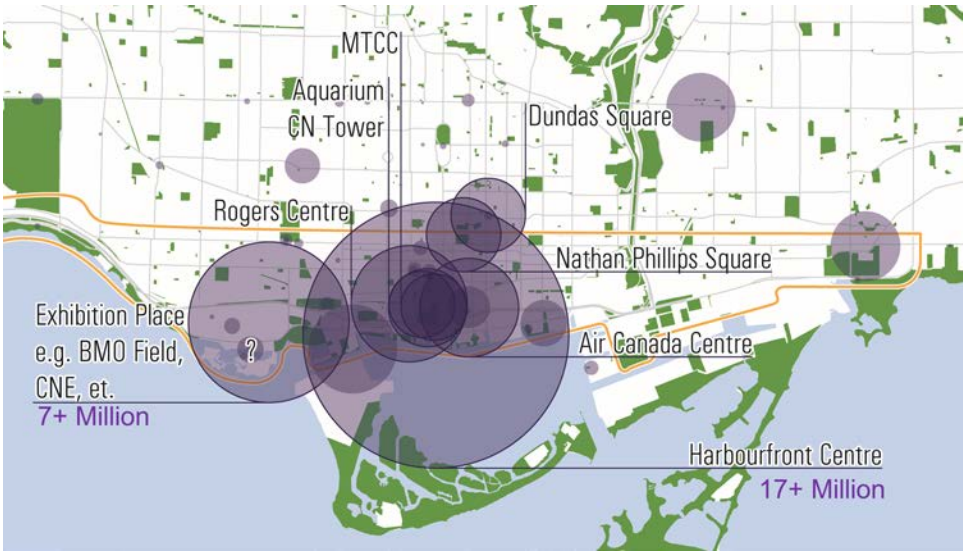


Figure 2: Waterfront Key Destinations and Venues Annual Attendance Estimates

- Existing weekday streetcar usage patterns between Union Station and Queens Quay Station were analyzed with key findings as follows[2]:
    - Approximately 50% of boardings at Union Station streetcar loop in the AM peak period alight at Queens Quay Station
    - Of all existing riders arriving at Queens Quay Station, between 20% - 25% are travelling between Union Station and Queens Quay Station.
- Existing and historical pedestrian counts for the lower Bay street corridor were analyzed, with key findings as follows:
    - Approximately 2000 pedestrians in the AM peak hour were found travelling in the elevated PATH west of Bay Street between Union Station and Queens Quay[3]. Over 90% of these users were travelling south.
    - More than 2500 pedestrians in the AM peak hour were found to cross the Bay St – Lake Shore Blvd intersection[4].

[2] Counts completed Monday May 15, 2017, 07:00 – 19:00
3 Counts completed Wednesday March 8, 2017, 08:00 – 09:00
[4] Counts completed August 22, 2012.

Future Travel Demand

The City's regional transportation demand modelling tool (GTAModel v4), was used to help determine the future (2041) waterfront transit demand.

More than a dozen permutations and scenarios for future waterfront transit alignments and service were assessed through the travel demand modelling tool. The 16 transit improvement concepts brought forward at the conclusion of the Phase 1 study framed the range of modelled scenarios. The model analyzed new waterfront light rail transit infrastructure with average speed ranging up to 25 km/h, depending on the area of the network. **Figure 3** provides a generalized summary of the model-forecasted transit demands (AM peak hour) within the study area.

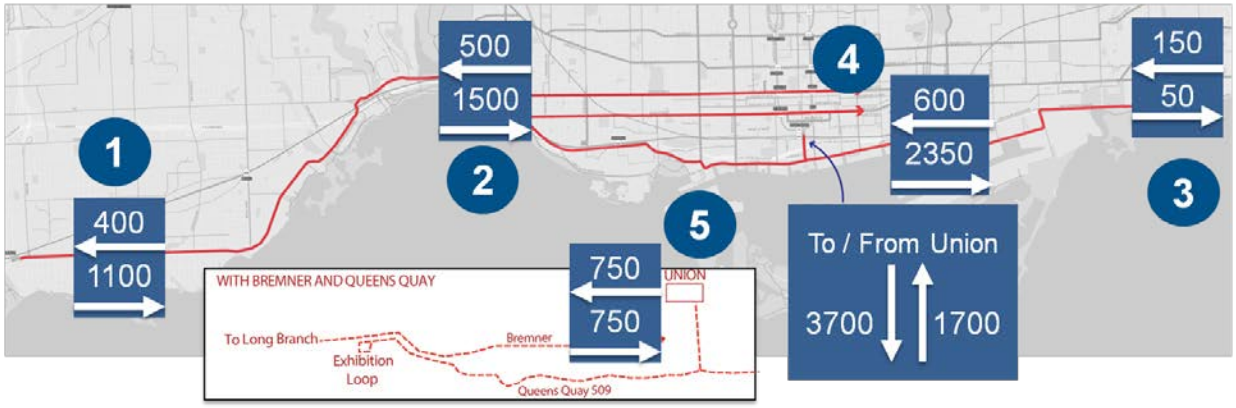


Figure 3: Summary 2041 Forecasted Transit Network Demand (AM Peak Hour)

The following provides a summary of forecasted AM peak hour transit ridership as forecasted in key areas in the network:

1. (Southwestern Etobicoke) Forecasted ridership and travel market supports enhanced streetcar operations.
2. (Between Humber Bay Shores and Exhibition Place) A new exclusive transit right-of-way will provide an alternative to the King and Queen Corridors, and some relief to those corridors.
3. (East of Leslie) Forecasted ridership and travel market does not support higher-order transit. Bus based solutions may be appropriate.
4. (Union Station and East Bayfront) Forecasted ridership and travel market is highest in the overall waterfront corridor.
5. (Bremner Boulevard) Within the 2041 timeframe, a new LRT line is not required to meet travel demand. Protection for an exclusive transit right-of-way will continue.

As noted in **Figure 3**, the travel demand model forecasted approximately 3700 (peak direction, peak hour) transit users for the Union Station-Queens Quay link. A focused multi-mode travel demand forecast for the lower Bay Street Corridor between Union Station and Queens Quay was also completed. This forecast indicated that there are at least 10,000 (peak direction, peak hour) combined transit and walking movements within the 2041 horizon within the lower Bay corridor, and this compares to

approximately 4,000 (peak direction, peak hour) existing combined transit and walking trips.

Key findings of the overall assessment of future travel demand in the study area are summarized as follows:

- Overall, planned major expansion of the City and Region's transit network, and emerging trends in overall mobility will significantly change the way people will move about the Region, City and local waterfront areas to 2041. A continuous waterfront light rail transit "spine" along the waterfront will help accommodate future travel demand & facilitate seamless connections to a number of north-south TTC transit routes and other travel modes, including Regional Express Rail, completing the southern portion of the City's transit network and adding overall transit network resiliency.
- The waterfront is a unique corridor for travel, including a significant amount of visitor trips to recreational, cultural and special events and destinations. These event venues and destinations generate travel demand in both peak and off-peak times, and will significantly add to overall transit ridership. It is important to note that visitor trips to event venues and destinations are not well captured within the travel demand model. These venues and destinations also introduce surging effects that periodically overwhelm the existing transportation network.
- For the area north of Front Street, east of High Park, and west of University Avenue, 2041 forecasts show high demand in the King and Queen corridors. This will be addressed through the King Street Transit Priority and more importantly, the continuation of the Relief Line to the west.
- The eastern and western downtown "shoulder areas" (i.e. Liberty Village, King/Spadina, Port Lands, East Bayfront and West Don Lands /Unilever), are poised to outpace most other areas of the overall waterfront and City in employment and population growth. This growth, combined with significant planned expansion of Regional Express Rail transit services to the core Union Station hub, reverses the peak direction TTC transit flow south of Union Station, from a largely existing inbound (AM peak) flow to largely future outbound (AM peak) flow.
- The overall highest ridership demand in the study area is outbound from Union Station to the East Bayfront area (see Figure 3)[5].
- The multi-mode factor in the lower Bay St corridor (e.g. significant forecast increase in pedestrian volumes) must be considered within the scope of work for the analysis of the Union-Queens Quay link.
- The extension of light rail transit infrastructure from Exhibition Loop to Dufferin Gate Loop and further west will provide flexibility & routing alternative(s), and some relief to existing congested east-west transit corridors in the southern portion of the downtown, along King Street, and to a lesser extent, along Queen Street.

[5] A further sensitivity test was completed removing the Relief Line South subway in the transit network. The key finding from the sensitivity test was that forecast demand for the East Bayfront LRT would significantly increase from that displayed on Figure 3 without the Relief Line South subway in the network.

Initial Concept Screening

A screening of 16 transit improvement concepts brought forward from the Phase 1 study (EX 16.17, Table 1) was undertaken according to the City's Rapid Transit Evaluation Framework for Waterfront Transit (*Feeling Congested?*), and is presented in **Table 1**. This screening considered key factors such as the future travel demand forecasting and trend analysis, operational factors, and updated information on other major projects in the study area since the completion Phase 1.

Table 1: Initial Concept Screening

Concept #	Description	Carry forward for further analysis?	Key factors/rationale for screening
SEGMENT #1	**LONG BRANCH TO HUMBER RIVER**		
1A	Enhanced Lake Shore Boulevard Transit Service	**Yes**	-
1B	Lake Shore Boulevard LRT	No	Potential capital expense and/or community impact does not align with completed forecast for transit demand to 2041.
SEGMENT #2	**HUMBER RIVER TO STRACHAN AVENUE**		
2A	The Queensway and LRT Bridge across Gardiner Expressway / Rail Corridor (crossing location to be determined) to Exhibition Place	**Yes**	-
2D	Lake Shore LRT Crossing Humber River to Exhibition Place	**Yes**	-
2E	Queensway / Colborne Lodge Drive / Lake Shore to Exhibition Place LRT	**Yes**	-
SEGMENT #3	**STRACHAN AVENUE TO PARLIAMENT STREET**		
Sub-Segment:	**Western Approach to Downtown Core (Strachan to Bathurst)**		
3A	Existing Fleet St – Bathurst St – Queens Quay LRT	**Yes**	-
3B	Fleet St – Fort York Blvd – Bremner Blvd LRT	No	Potential capital expense, construction complexity, and/or community impact of additional

Concept #	Description	Carry forward for further analysis?	Key factors/rationale for screening
			route does not align with completed forecast for transit demand to 2041.
3C	South of Rail Alignment – North of Rail Alignment / South of Front Street LRT	No	Potential capital expense and/or construction complexity of additional route does not align with completed forecast for transit demand to 2041.
Sub-Segment:	**The Downtown Core (Bathurst to Parliament)**		
Family A	**Union Loop Modifications**		
A1	Expanded Union Loop	**Yes**	-
A2	Extend Underground Alignment Easterly	No	Potential capital expense, construction complexity, and/or community impact does not align with completed forecast for transit demand to 2041.
Family B	**New Downtown West Loop**		
B1	Second Loop	No	Potential capital expense, construction complexity, and/or community impact does not align with completed forecast for transit demand to 2041.
Family C	**Queens Quay Through Service**		
C1	Tunnel By-Pass of Bay Street and maintain some transit service into Union	**Yes**	-
C2	Tunnel By-Pass of Bay, Repurpose Bay Street Tunnel into Union	**Yes**	-
Family D	**Network Distribution**		
D1	Distribute On Network & Use Existing Loop	No	Distribution of established and future demand to/from Union Station on the network would be operationally complex, particularly along the congested King Street Corridor. The overall concept of network distribution may be considered

Concept #	Description	Carry forward for further analysis?	Key factors/rationale for screening
			optimal for areas where travel patterns are not yet well established.
SEGMENT #4	**PARLIAMENT STREET TO WOODBINE AVENUE**		
4A	Lake Shore Blvd LRT Extension from Leslie Street and Port Lands	No	Capital expense and/or potential community impact does not align with completed forecast for transit demand to 2041.
4B	Eastern Avenue LRT Extension from Leslie Street and Port Lands	No	Capital expense and/or potential community impact does not align with completed forecast for transit demand to 2041.

Table 1 shows that 8 transit improvement concepts from the Phase 1 study passed the screening evaluation and were recommended to be brought forward for further analysis and evaluation during Phase 2.

The Phase 1, Concept 2A crossing location of the Rail Corridor and Gardiner Expressway was refined in advance of further evaluation against Concepts 2E and 2D. A transit bridge crossing of the rail corridor and Gardiner Expressway west of Roncesvalles Avenue was ruled out for these primary reasons:

- The minimal difference in grade between north and south of the rail corridor to the west of Roncesvalles Ave would necessitate a long ramp-up portion of LRT right-of-way parallel to The Queensway and Rail Corridor, an overall longer bridge span & ramp-down in the median of Lake Shore Boulevard, and related significant capital expense.
- The ramp-up portion of the right-of-way adjacent to The Queensway and Rail Corridor and bridge span over the Rail Corridor and Gardiner Expressway would introduce property impacts and complexity for stop siting (e.g. grade issues, additional safety considerations and overall user accessibility issues)

For the post 2041 implementation timeframe, the further study of Phase 1 Concepts 1B, 3B, B1, 4A, may be warranted. In addition, also for long term implementation consideration, study of a new exclusive transit right-of-way along The Queensway west from the Humber Loop may be warranted.

Evaluation of Transit Improvement Options

Humber Bay Exclusive Transit Link Assessment

Three route corridor concepts for new TTC light rail transit infrastructure linking Exhibition Place to South Etobicoke are described in **Table 2**:

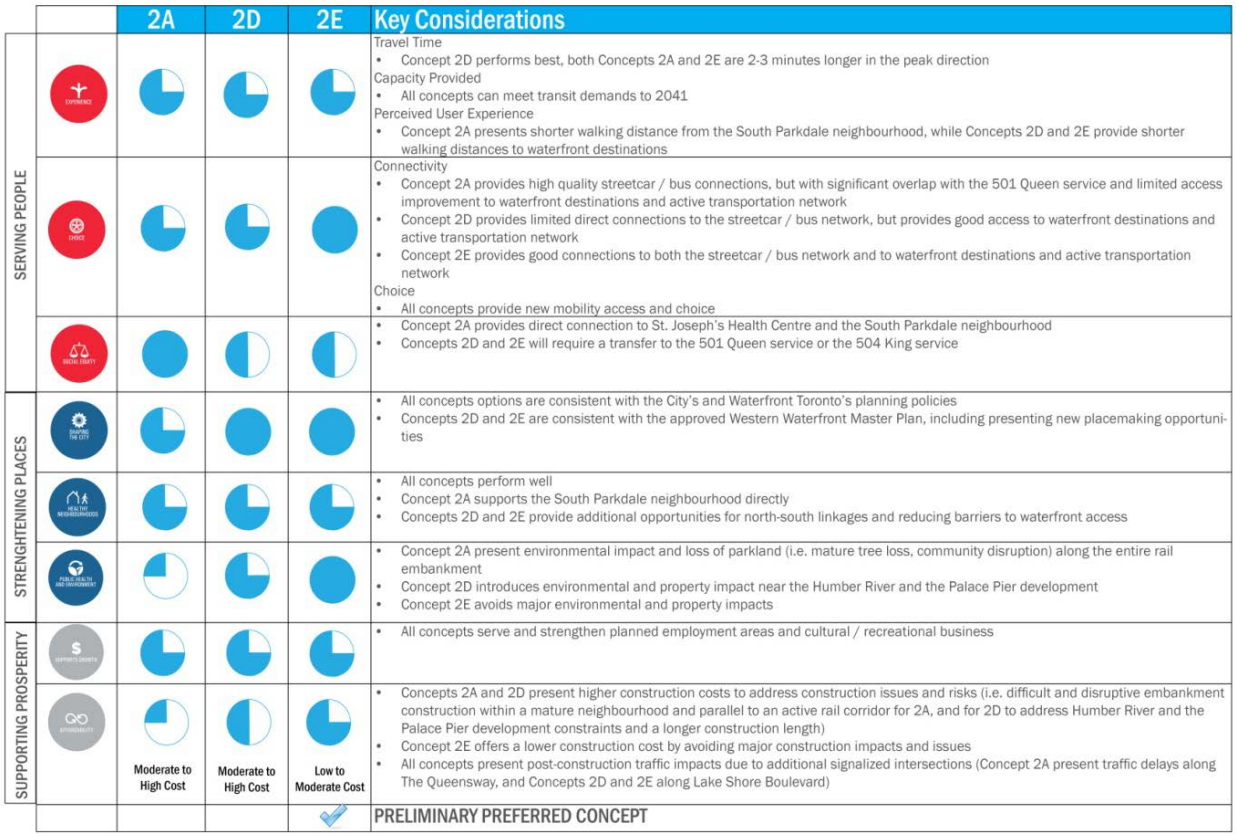
Table 2: Short Listed Humber Bay Link LRT Route Concepts

Concept	Description
2A	From The Queensway/King/Queen/Roncesvalles Intersection and eastward along the Metrolinx Rail Corridor embankment, crossing the Rail Corridor and Gardiner Expressway on a new bridge west of Dunn Avenue, and connecting to Dufferin Street at the Dufferin Gate
2D	From Lake Shore Boulevard in Humber Bay Shores, eastward along a new or expanded bridge across the Humber River, and continuing along Lake Shore Boulevard to Dufferin Street at the Dufferin Gate
2E	From The Queensway at Colborne Lodge Drive, south on Colborne Lodge Drive under the Metrolinx Rail Corridor and Gardiner Expressway in a designated pedestrian, cycling, and transit only roadway, and east along Lake Shore Boulevard, to Dufferin Street at the Dufferin Gate

In general, travel demand forecasting revealed little difference in peak period ridership between the three LRT route corridors.

A new route corridor would provide an alternative and some congestion relief to King and Queen streetcar services, a new local transit service to key waterfront destinations, including blue and green resources, and special events during all times of day. The new route corridor also provides network resiliency in a constrained travel corridor, particularly beneficial during any service disruption on the Lake Shore West Rail Corridor.

An evaluation of the three LRT route concepts was undertaken using City Planning's comprehensive Rapid Transit Evaluation Framework (*Feeling Congested?).* A summary of the evaluation is presented in **Figure 4**:



		2A	2D	2E	Key Considerations
SERVING PEOPLE					Travel Time • Concept 2D performs best, both Concepts 2A and 2E are 2-3 minutes longer in the peak direction Capacity Provided • All concepts can meet transit demands to 2041 Perceived User Experience • Concept 2A presents shorter walking distance from the South Parkdale neighbourhood, while Concepts 2D and 2E provide shorter walking distances to waterfront destinations
					Connectivity • Concept 2A provides high quality streetcar / bus connections, but with significant overlap with the 501 Queen service and limited access improvement to waterfront destinations and active transportation network • Concept 2D provides limited direct connections to the streetcar / bus network, but provides good access to waterfront destinations and active transportation network • Concept 2E provides good connections to both the streetcar / bus network and to waterfront destinations and active transportation network Choice • All concepts provide new mobility access and choice
					• Concept 2A provides direct connection to St. Joseph's Health Centre and the South Parkdale neighbourhood • Concepts 2D and 2E will require a transfer to the 501 Queen service or the 504 King service
STRENGHTENING PLACES					• All concepts options are consistent with the City's and Waterfront Toronto's planning policies • Concepts 2D and 2E are consistent with the approved Western Waterfront Master Plan, including presenting new placemaking opportunities
					• All concepts perform well • Concept 2A supports the South Parkdale neighbourhood directly • Concepts 2D and 2E provide additional opportunities for north-south linkages and reducing barriers to waterfront access
					• Concept 2A present environmental impact and loss of parkland (i.e. mature tree loss, community disruption) along the entire rail embankment • Concept 2D introduces environmental and property impact near the Humber River and the Palace Pier development • Concept 2E avoids major environmental and property impacts
SUPPORTING PROSPERITY					• All concepts serve and strengthen planned employment areas and cultural / recreational business
		Moderate to High Cost	Moderate to High Cost	Low to Moderate Cost	• Concepts 2A and 2D present higher construction costs to address construction issues and risks (i.e. difficult and disruptive embankment construction within a mature neighbourhood and parallel to an active rail corridor for 2A, and for 2D to address Humber River and the Palace Pier development constraints and a longer construction length) • Concept 2E offers a lower construction cost by avoiding major construction impacts and issues • All concepts present post-construction traffic impacts due to additional signalized intersections (Concept 2A present traffic delays along The Queensway, and Concepts 2D and 2E along Lake Shore Boulevard)
					PRELIMINARY PREFERRED CONCEPT

Figure 4: Evaluation of Short Listed "Humber Bay Link" LRT Route Concepts

Overall, LRT Route Concept 2E provided a balanced trade-off between improved transit service, mobility choice, and enhancing connections to key destinations. The route corridor also includes comparatively lower environmental & property impacts, and a lower construction cost over the other route corridor concepts. Future study of this route should also consider improving connectivity to South Parkdale, and importantly St. Josephs Hospital, a major institution in the area. Examples of supplemental improvements may include:

- A universally accessible Sunnyside pedestrian and cycling bridge, integrated with a waterfront LRT stop;
- Pedestrian and public realm improvements along Parkside Drive, the Queensway, and Lake Shore Boulevard;
- A new Dowling Ave pedestrian and cycling bridge, grade separated from Lake Shore Boulevard, and integrated with a waterfront LRT stop
- A loop south of Lake Shore Blvd at Jameson Ave to allow north-south bus service to directly connect to the waterfront LRT

A functional alignment of the Preferred LRT Route Option is illustrated in **Figure 5**.

Figure 5: Preliminary Functional Alignment of Preferred "Humber Bay Link" LRT Route

Bathurst Street from Fort York Boulevard to Queens Quay Assessment

Three alternative multi-modal transportation improvement concepts for this section of the network were developed. **Table 3** includes a listing of the concepts and their respective features:

Table 3: Bathurst Street and Bathurst/Fleet/Lake Shore Intersection Improvement Concepts

Concept	Description	Features /Notes
3A	Operational Improvements at the Bathurst/Queens Quay/Fleet intersection	- Adjustments to signal timing & improvements to transit signal priority - Turning restrictions - Close westbound Fleet Street to automobiles between Iannuzzi Street and Bathurst Street (as previously approved)
3B	At-grade Bathurst/ Queens Quay/ Fleet intersection Improvement & Exclusive Bathurst St transit right-of-way	- All components of Option 3A. - Exclusive streetcar right-of-way along west side of Bathurst St between Fort York Blvd and Queens Quay. - Access to Bruyeres Mews from Bathurst St would be permissible for EMS vehicles only, and access would be provided for all other vehicles via Iannuzzi St. There are no driveways on this section of Bruyeres Mews, and the change would create a significant pedestrian and public realm improvement, but would also require a turn-around space at Bathurst St. - Move the existing exclusive transit right-of-way along Queens Quay to the south side of the street to match the existing configuration east of Spadina Ave. - New multi-use trail along the west side of Bathurst Street connecting the waterfront trail along Queens Quay to the cycling lanes on Fort York Blvd - Relocate the eastbound Fleet St left-turn lane, and add a new westbound Lake Shore Blvd left-turn lane. - Implement high quality public realm treatment.
3C	Bathurst/ Queens Quay/ Fleet Intersection Reconfiguration & below grade exclusive transit right-of-way	- All components of Option 3A. - Implement an exclusive transit right-of-way in a tunnel from Fleet Street west of Bathurst St to Queens Quay east of Bathurst St. Transit stops would be included underground. - Add streetcar tracks on Fort York Boulevard from Fleet St to Bathurst street in order to re-route the 511 Bathurst service - Relocate eastbound Fleet St left-turn lane, and add new westbound Lake Shore Blvd left-turn lane. - Reconfigure the existing exclusive surface transit right-of-way along Queens Quay from Bathurst to Spadina Ave

		to match the existing configuration east of Spadina Ave. - Implement high quality public realm treatment

An evaluation of the three concepts was undertaken using City Planning's comprehensive Rapid Transit Evaluation Framework. A summary of the evaluation is provided in **Figure 6**.

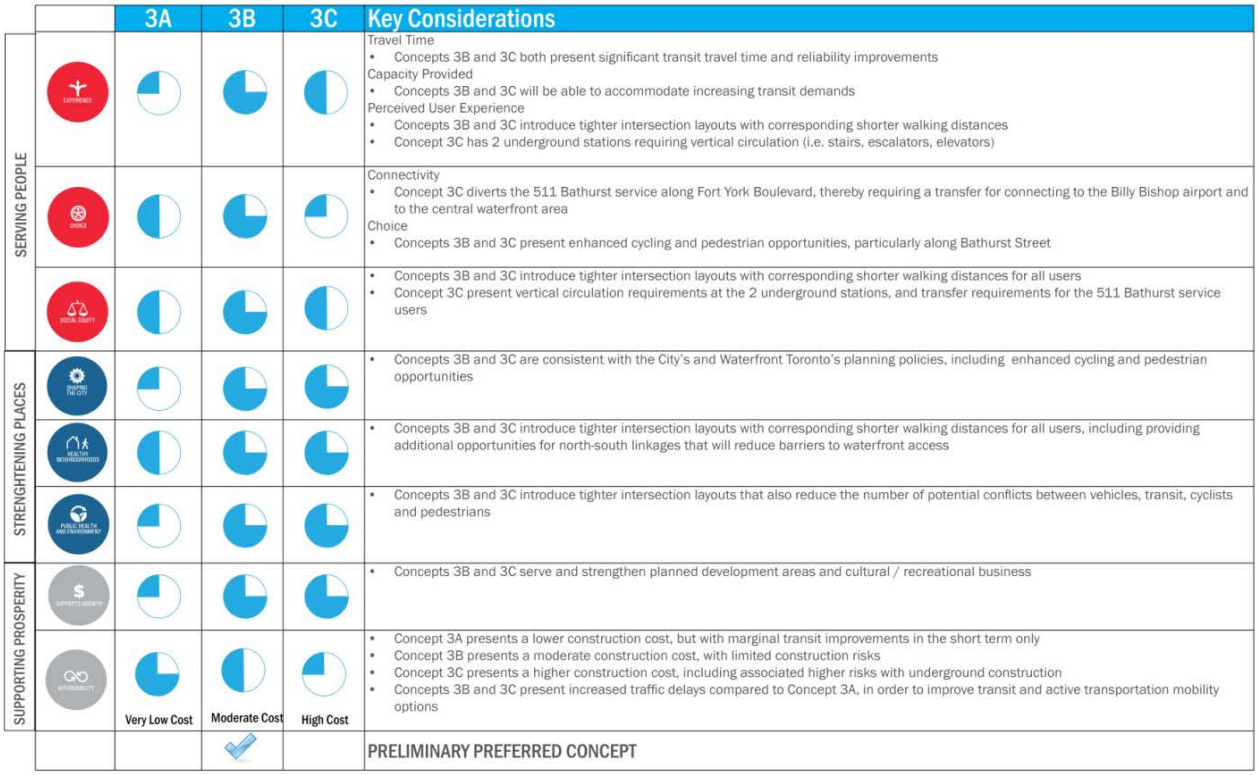


Figure 6: Evaluation of Bathurst Street and Bathurst/Fleet/Lake Shore Intersection Improvement Concepts

Overall, Concept 3B was preferred as it provides improved transit service reliability and travel time, enhanced intersection safety and opportunity for north-south linkages for pedestrians and cycling, and has generally moderate construction costs and risks compared to Concept 3C. Another key consideration is the added impact to transit riders, and those with accessibility needs in particular, as a result of the underground stop locations with Concept 3C.

An initial functional design of the Preferred Option is illustrated in **Figure 7**.

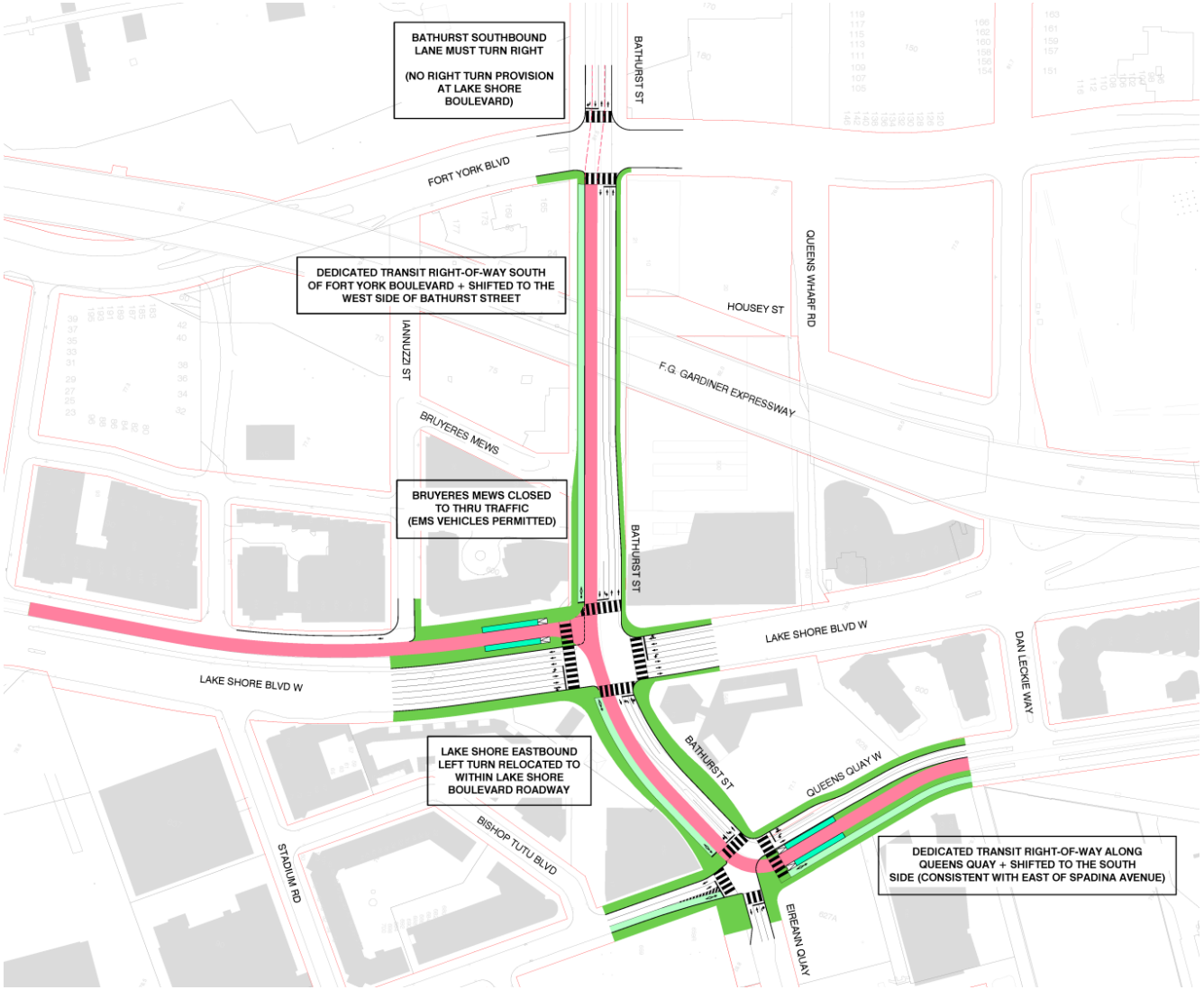


Figure 7: Initial Functional Design of Preferred Bathurst Street / Lake Shore Boulevard / Fleet Street Intersection Reconfiguration and Transit Realignment

Union Station – Queens Quay Link Options

The link between Union Station and Queens Quay East is a critical component in the overall waterfront transit network. This 540 metre section has the highest projected transit ridership in the network, connecting the largest transit hub in the Greater Toronto Area to the overall waterfront. The existing streetcar loop is inadequate for present service levels (to and from the west), and the loop would not function effectively or safely if additional service from the east was added.

A short list of options for connecting transit below grade between Union Station and Queens Quay was developed. The options are detailed in **Table 4**:

Table 4: Union Station - Queens Quay Link Options

Option	Description	Features /Notes
A1	Major Union Station Streetcar Loop Expansion	- Modified/scaled back version of previously EA approved loop expansion - 4 new LRT platforms - New underground pedestrian circulation routes to platforms and connection to 45 Bay
A2	Minor Union Station Streetcar Loop Expansion	- Modified/scaled back version of previously EA approved loop expansion - 2 new LRT platforms - New underground pedestrian circulation routes to platforms and connection to 45 Bay
B1	Repurpose the existing streetcar loop and tunnel as a pedestrian only link, including a moving sidewalk component, replacing streetcar operation between Queens Quay and Union Station & at-grade Queens Quay LRT at Bay Street	- Potential moving walkway(s) in one tunnel in the peak direction only due to tunnel width limitations - Potential for integrated retail - Potential for mid tunnel length connections to adjacent land use(s) - New surface LRT stops at Bay/Queens Quay - New pedestrian connection(s) to Queens Quay surface transit and public realm
B2	Repurpose the existing streetcar loop and tunnel as a pedestrian only link, including a moving sidewalk component, replacing streetcar operation between Queens Quay and Union Station & below grade Queens Quay LRT at Bay Street	- Potential moving walkway(s) in one tunnel in the peak direction only due to tunnel width limitations - Potential for integrated retail - Potential for mid tunnel length connections to adjacent land use(s) - New LRT stop underground at

		Bay/Queens Quay - Pedestrian connection(s) to Queens Quay underground transit and public realm - Gating/controls for potential below grade pedestrian crossings of track
C1	Repurpose & expand the existing streetcar loop and tunnel with an automated dual haul funicular technology link, replacing streetcar operation between Queens Quay and Union Station & at-grade Queens Quay LRT at Bay Street	- Mid-tunnel length vehicle bypass tracks to facilitate higher frequency service - New surface LRT stops at Bay/Queens Quay - Pedestrian connection(s) to Queens Quay surface transit and public realm
C2	Repurpose & expand the existing streetcar loop and tunnel with an automated dual haul funicular technology link, replacing streetcar operation between Queens Quay and Union Station & below-grade Queens Quay LRT at Bay Street	- Mid-tunnel length vehicle bypass tracks to facilitate higher frequency service - New LRT stop underground at Bay/Queens Quay - New pedestrian connection(s) to Queens Quay transit and public realm - Gating/controls for potential below grade pedestrian crossings of track

Options B and C were added to the list as potential additional cost saving solutions, and in recognition of the growth along the lower Bay corridor and significant existing and forecast number of trips travelling a relatively short distance to/from Union Station.

All three options (six sub-options) were presented to the public and stakeholders, and the general feedback indicated that “B” Options presented significant disadvantages for future users over “A” and “C”. Generally, one-way operation of a moving sidewalk, overall accessibility inconveniences, and removal of an existing transit link were identified as negative factors by the general public and stakeholders. The negative factors outweighed the potential positives of weather protected pedestrian access to existing and future development at multiple points along lower Bay St. Consequently, "B” Options have been removed from further assessment as a replacement option to the existing transit link.

The design of the funicular option has not been developed to the same level of detail as the loop expansion option, and consequently, the potential benefits or drawbacks require further assessment. There are many factors to consider, but in terms of the travel time factor, the funicular may offer a benefit for shorter distance trips between Union Station and the Bay/Queens Quay area, and a drawback for longer distance trips between Union Station and the broader waterfront. TTC staff have expressed concern with any proposal that would eliminate direct streetcar service to Union Station, such as the option of a funicular in a repurposed tunnel.

The travel demand model forecasted approximately 3700 (peak direction, peak hour) transit users for the Union Station-Queens Quay link. Further multi-mode travel demand analysis in the lower Bay Street Corridor indicates that there are approximately 10,000 (peak direction, peak hour) combined transit and walking movements within the 2041 horizon, and this compares to approximately 4,000 (peak direction, peak hour) existing combined trips. This multi-mode factor must be considered within the scope of work for the focused analysis of the remaining transit options, as it will be a key component, along with cycling, in the overall transportation solution for the lower Bay St Corridor.

The proposed Option C funicular is a separate system of passenger carrying vehicles. It would have two trains operating in each of the two bores of the streetcar tunnel. Each tunnel would have a cable with two trains attached; these would shuttle between Union Station and Queens Quay Station. Customers would board the funicular at Union and at Queens Quay at similar locations to the present platforms. Boarding would be level, and the trains would be accessible. Demolition and excavation would be required at both stations to accommodate the cable-hauled technology. Excavation of bypass tracks under Bay Street, half way along the tunnel, would be required to operate the four-train funicular, as these bypass tracks would allow trains to pass each other.

Considering the above, including general public and stakeholder feedback, it is recommended that feasibility analysis of both Options A and C is completed. The further analysis and assessment would include east-west light rail transit along Queens Quay as part of the solution.

Next Steps

Moving forward, the scope of work for further analysis and assessment the Union Station-Queens Quay Link should include the following:

- overall integration with the transit network;
- consideration of TTC service standards;
- effects on transit ridership;
- multi-modal travel patterns and needs;
- universal passenger accessibility and convenience;
- refinements to cost and constructability;
- coordination with landowners and emerging developments in the corridor;
- public and stakeholder consultation;
- refined maintenance system and design strategy, where required;
- refined operating model and fare strategy, where required; and,
- consideration for longer term (post-2041) transit network needs.