Coordinated Transit Planning in Toronto

SmartTrack/GO RER | Eglinton West LRT | Eglinton East LRT Scarborough Subway Extension | **Relief Line** | Waterfront Transit

Public Information Session June 2, 2016

Transportation Planning Section | City Planning Division Toronto Transit Commission







Today's Agenda

- 1. Overview of our coordinated approach
- 2. Overview: Update of transit initiatives underway
- 3. Update: Relief Line
- 4. Next Steps
- 5. Questions





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Our Coordinated Approach

The City, TTC and Metrolinx, are working together on integrated transit planning within Toronto

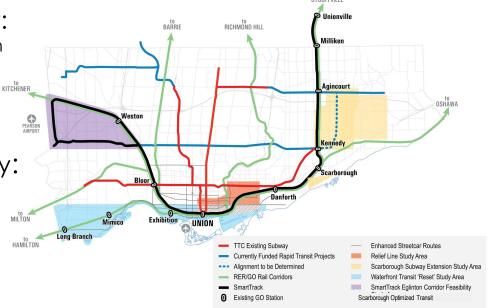
Rapid transit projects underway:

 Toronto-York Spadina Subway Extension (TYSSE)

- Eglinton Crosstown LRT
- Finch West LRT
- Sheppard East LRT

Rapid transit planning underway:

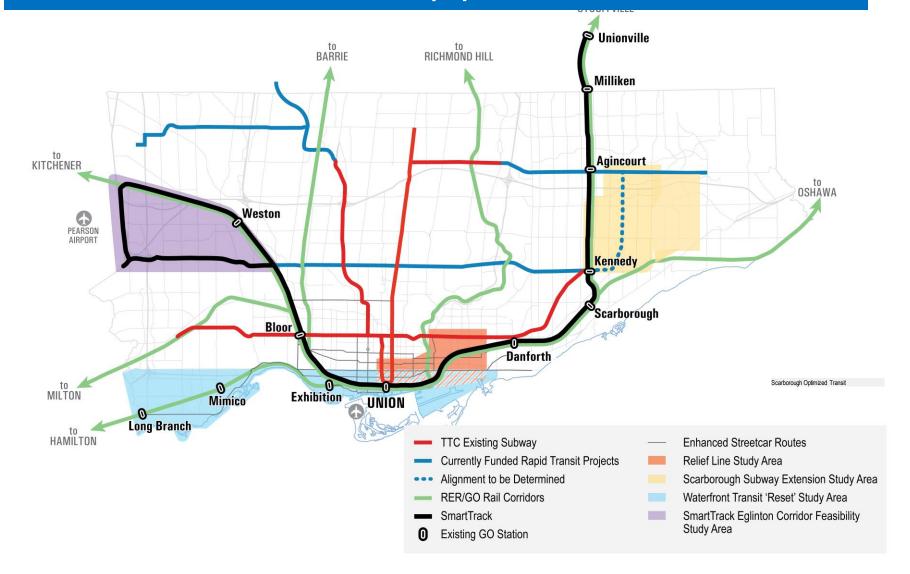
- SmartTrack / GO RER integration
- Eglinton West LRT
- Scarborough Subway Extension
- Eglinton East LRT
- Relief Line
- Waterfront Transit "Reset"
- The next round of rapid transit priorities will be identified through completion of the Feeling Congested? initiative and will result in transit policies and long term network plan in the Official Plan.







Our Coordinated Approach







What guides the analysis of transit projects?

The evaluation criteria being used for each transit project are based on principles and criteria developed during the Official Plan Review process "Feeling Congested?"

SERVING PEOPLE



Develop an integrated network that connects different modes to provide for more travel options



Capacity to ease crowding / congestion; reduce travel times; make travel more reliable, safe and enjoyable



Do not favour any group over others; allow everyone good access to work, school, and other activities

STRENGTHENING PLACES



SHAPING THE CITY

Use the transportation network as a tool to shape the residential development of the City



HEALTHY **NEIGHBOURHOODS**

Changes in the transportation network should strengthen & enhance existing

neighbourhoods; promote safe walking & cycling



PUBLIC HEALTH AND **ENVIRONMENT**

Support and enhance natural areas, encourage people to reduce how far they drive

SUPPORTING PROSPERITY



SUPPORTS GROWTH



AFFORDABILITY





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SmartTrack/GO RER

SmartTrack/GO RER will help relieve many of the transit network's capacity limitations, which currently affect many parts of the City, including the subways serving Downtown, the SRT in Scarborough, streetcar routes east and west of the downtown and individual bus routes throughout the City.

Particularly, it will help relieve overcrowding on the Yonge Subway line and address congestion at Bloor-Yonge station.

Feb 2016

- City, in partnership with TTC, worked with Metrolinx on the integration of SmartTrack and GO/RER
- Four options for SmartTrack/GO RER were assessed.
- Options A and B were ruled out due to increased costs and significant community impacts

Mar 2016

Council directed staff to focus work on options C and D

May/ June 2016

- Public consultation on SmartTrack and RER Integration
- Report to Executive Committee and Council on evaluation progress

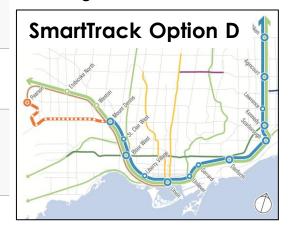
Next Steps

 Continue collaboration with Metrolinx on development of preferred alignment and station locations for SmartTrack Options C and D





- 7 to 8 new stations
- Kitchener and Stouffville through service

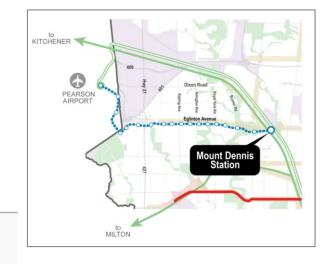


- 4 to 5 new stations
- Kitchener and Stouffville through service

SmartTrack – Eglinton West Corridor

Part of the SmartTrack concept is connecting the Mississauga Airport Corporate Centre (MACC) to other important employment districts, including downtown Toronto.

A western extension of the Crosstown LRT to MACC and Pearson International Airport would improve access to these important destinations.



Jan 2016

 Feasibility study of SmartTrack Western Corridor options recommended optimizing Phase 2 of the Crosstown LRT, approved in 2009

Mar 2016

- City Council directed staff to remove the heavy rail option and work with Metrolinx to optimize the approved Environmental Assessment for Eglinton West LRT
- Six options assessed for further consideration

May/ June 2016

 Public consultation on emerging preferred LRT alignment and station locations

Next Steps

- Continue to work with Metrolinx to optimize the approved Environmental Assessment for Eglinton West LRT
- Develop Business Case





Eglinton East LRT

The Eglinton East LRT would extend the Crosstown east along Eglinton Avenue East, Kingston Road and Morningside Avenue to the University of Toronto, Scarborough Campus, to improve transportation access along the Avenues and in Neighbourhood Improvement Areas.

- Up to 18 stops over 11km line
- Improved reliability
- 2 connections to GO RER (Eglinton & Guildwood)

Sept 2009	City Council approved the recommendations of the Scarborough-Malvern LRT Transit Project Assessment
Jan 2016	Executive Committee endorsed refined transit priorities reintroducing the Eglinton East LRT, a modification of the Scarborough-Malvern LRT.
March 2016	City Council endorsed further study of the Eglinton East LRT



Next Steps

July 2016: Report to Council, Seek authority to proceed with amendment to Environmental Assessment

Summer 2016: Technical analysis to amend Environmental Assessment





Scarborough Subway Extension

The Scarborough Subway Extension would extend Line 2 from Kennedy Station to Scarborough Centre, replacing the SRT. The subway extension would encourage the growth and development of Scarborough Centre as a vibrant urban node.

Jan. 2016	Executive Committee directed staff to continue technical work on refined Scarborough transit priorities, focusing the subway extension on serving Scarborough Centre
March 2016	City Council endorsed the narrowing of alignment options for the subway extension, and report back to Executive Committee and Council in June/July 2016 with the recommended corridor and alignment

McCowan alignment has emerged due to:

- Ability to maintain SRT service throughout construction
- Connection across both sides of Scarborough Centre with one station

Next Steps

July 2016: Report to Council, Seek authority to launch TPAP (EA)

Summer 2016: Initiate TPAP

Recommended Express Subway Corridor







Waterfront Transit "Reset"

The Waterfront Reset will:

Provide high quality transit that will integrate waterfront communities, jobs, and destinations and link the waterfront to the broader City and regional transportation network



Phase 1 will identify reasonable alternative concepts for a waterfront transit solution.

Findings will be reported to Council in July, including:

- Development and analysis of 'Concept Families'
- Preliminary evaluation of solutions to create a complete transit network solution for the Waterfront

Phase 2, subject to City Council approval, would consider:

- Advancing feasibility studies (including but not limited to demand forecasting, operational assessment(s), further developed cost estimates);
- ✓ Potential Environmental Assessment(s) or amendments to existing Environmental Assessment(s);
- Pursuing the implementation of short term strategic improvements that minimize long term throwaway costs; and
- ✓ Advancing a Business Case and pursuing funding opportunities.





Today's Agenda

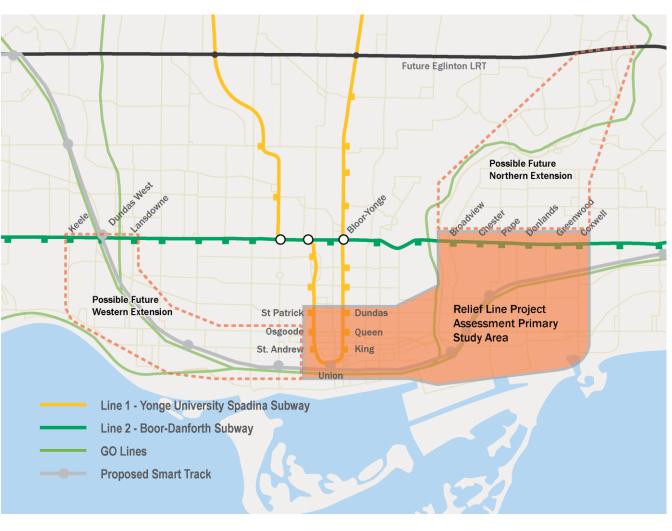
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Relief Line Project Assessment Study Area









Background

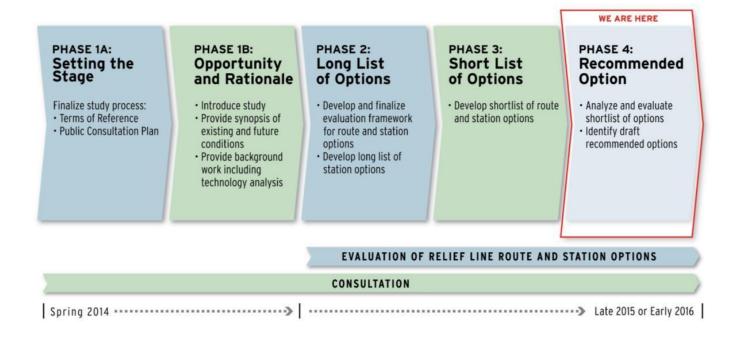
2009	City Council approves Yonge North Extension EA, contingent on Relief Line and City/TTC commence study to determine need for the Relief Line
2012	Downtown Rapid Transit Expansion Study concludes that initial phase of Relief Line and GO Transit improvements would help ease crowding on the transit network
2012	Relief Line identified as part of the "Next Wave" of transit projects in the Metrolinx Big Move plan and is identified by Metrolinx as a priority for future transit investment
2014	Relief Line Project Assessment launched . City/TTC commence planning for the preferred route alignment and station locations for the Relief Line, to deliver planning approvals in mid-2016. The relationship between SmartTrack and the Relief Line is being reviewed as part of this work.
2015	Yonge Relief Network Study recommendations approved by Metrolinx Board. Allows project development for the Yonge North Subway Extension. Affirms that the Relief Line Project Assessment should continue, to ensure that a project is ready for when needed in 2031.
March 2016	City Council approved preferred corridor for Relief Line: Pape to Downtown via Queen/Richmond.





Study Status

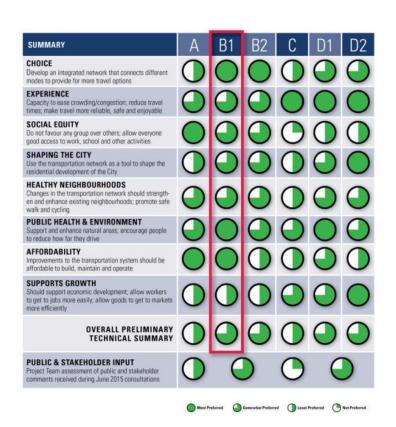
- The Preferred Corridor was approved by City Council on March 31, 2016.
- We are now seeking your feedback on the evaluation of alignment options within the Preferred Corridor, the emerging Preferred Alignment and Station Locations.

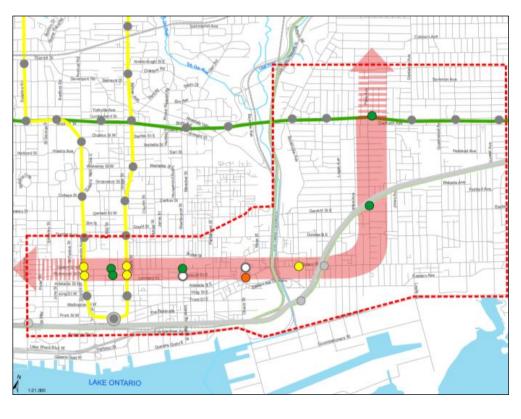




February/March 2016 Consultations

During the last round of consultation, we presented the results from the evaluation of Potential Corridors and identified the recommended Preferred Corridor (Corridor B1: Pape Station to Downtown via Queen/ Richmond).







February/March 2016 Consultations

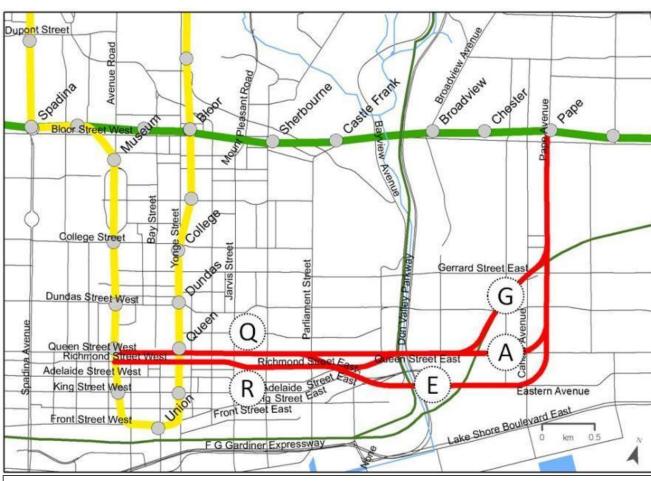
KEY MESSAGES FROM PUBLIC AND STAKEHOLDERS

- Overall support for the results of the evaluation and for advancing Corridor B1 (Pape to Downtown via Queen/Richmond) as the preferred corridor
- Preference for downtown stations that provide direct interchange at the Yonge and University subway lines (i.e. two stations rather than one)
- Support major redevelopment opportunities, such as the Unilever site.
- Address potential impacts during construction, such as disruptions to the existing 501 Queen Street and 504 King Street streetcar routes, noise and vibration, and traffic.



Alignment Options

- Six potential alignments within the preferred corridor were identified for further evaluation.
- Alignment options east of the Don Valley connect from Pape via:
 - GO corridor ('G') or
 - Queen ('A') or
 - Eastern ('E')
- West of the Don Valley, into downtown, they follow:
 - Queen ('Q') or
 - Richmond ('R')



Alignments were evaluated using nearly 80 criteria to identify which would best address project and city-building objectives. Further analysis is underway on costing and deliverability.





Richmond or Queen?

Richmond:

- Less ideal transfer configuration downtown (longer transfer distances between Line 1 stations)
- Slower train speed between stations due to twists and turns in the right-ofway
- During construction, there would be less impact to streetcars, but greater impact to vehicles and cyclists
- Greater challenges associated with western extension (right-of-way not continuous, ends at Niagara Street)

Queen:

- Better transfer configuration possible downtown (shorter distances between Line 1 stations)
- Faster train speed possible between stations possible
- Fewer construction constraints downtown
- During construction, there would be less impact to vehicles and cyclists, but greater impact to streetcars















GO Corridor, Queen or Eastern?

Queen:

- Fastest option
- Greater relief to congested at Bloor-Yonge station
- Greater impact on transit during construction
- No direct connection to Unilever site
- Fewer development opportunities around stations

GO Corridor:

- Shortest option but not the fastest
- Twists and turns required would result in slower service
- Could generally reduce property impacts
- Station at Gerrard-Carlaw could have property impacts at Riverdale Shopping centre and reduce development potential of site
- Greater transit impacts during construction, specifically to the 506 streetcar

Eastern:

- Longest option with the most stations
- Lower relief to Bloor-Yonge station, but high overall ridership and greatest ability to attract new riders to the transit network
- Serves highest overall future population and employment around stations
- Less of an impact on transit during construction
- Connects to population and employment areas (Unilever, West Don Lands)
- Best serves social equity

















Evaluation of Alignment Options

AQ GQ EQ AR GR ER

CHOICE

Develop an integrated network that connects different modes to provide for more travel options

EXPERIENCE

Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable

SOCIAL EQUITY

Do not favour any group over others; allow everyone good access to work, school and other activities

SHAPING THE CITY

Use the transportation network as a tool to shape the residential development of the City

HEALTHY NEIGHBOURHOODS

Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling

PUBLIC HEALTH & ENVIRONMENT

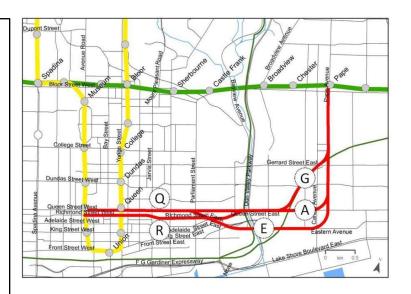
Support and enhance natural areas; encourage people to reduce how far they drive

AFFORDABILITY

Improvements to the transportation system should be affordable to build, maintain and operate

SUPPORTS GROWTH

hvestment in public transportation should support economic development; allow workers to get to jobs more easily; allow goods to get to markets more efficiently







Alignment AQ: Pape to Downtown via Queen

AQ GQ EQ AR GR ER

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EXPERIENCE

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AFFORDABILITY

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SUPPORTS GROWTH

Investment in public transportation should support economic development; allow workers to get to jobs more easily; allow goods to get to markets more efficiently



OVERALL PRELIMINARY TECHNICAL SUMMARY





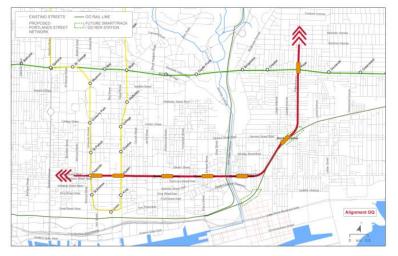
- Fastest option
- Greater impacts to transit operations during construction
- Indirect connection to Unilever
- Greater impact to established main streets and heritage along Queen
- Fewer TOD opportunities
- No station possible in Leslieville





Alignment GQ: Pape to Downtown via GO Corridor and Queen

	AQ	GQ	EQ	AR	GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options						
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable						
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities						
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City		0				
HEALTHY NEIGHBOURHOODS Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling		0				
PUBLIC HEALTH & ENVIRONMENT Support and enhance natural areas; encourage people to reduce how far they drive						
AFFORDABILITY Improvements to the transportation system should be affordable to build, maintain and operate						
SUPPORTS GROWTH Investment in public transportation should support economic development; allow workers to get to jobs more easily; allow goods to get to markets more efficiently		0				
OVERALL PRELIMINARY TECHNICAL SUMMARY						



- Shortest option, but not the fastest
- Greatest impacts to transit operations
- Indirect connection to Unilever and Portlands
- Greater impact to established main streets and heritage along Queen
- Fewer development opportunities around stations
- No station possible in Leslieville0





Alignment EQ: Pape to Downtown via Eastern and Queen

	AQ	GQ	EQ	AR	GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options						
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable						
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities						
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City						
HEALTHY NEIGHBOURHOODS Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling						
PUBLIC HEALTH & ENVIRONMENT Support and enhance natural areas; encourage people to reduce how far they drive						
AFFORDABILITY Improvements to the transportation system should be affordable to build, maintain and operate						
SUPPORTS GROWTH Investment in public transportation should support economic development; allow workers b get b jobs more easily; allow goods b get b markets more efficiently			0			
OVERALL PRELIMINARY TECHNICAL SUMMARY						



- Better serves future major employment node at Unilever
- Station at King-Sumach would connect to Cherry and King streetcars, reduce barrier effect of overpass in Corktown, and serve the north of the West Don Lands
- Station at Queen-Pape serves Leslieville
- Fewer impacts to transit and traffic during construction
- Less impact to heritage and established main streets





Alignment AR: Pape to Downtown via Richmond

	AQ	GQ	EQ	AR	GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options				0		
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable						
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities				0		
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City				0		
HEALTHY NEIGHBOURHOODS Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling				0		
PUBLIC HEALTH & ENVIRONMENT Support and enhance natural areas; encourage people to reduce how far they drive						
AFFORDABILITY Improvements to the transportation system should be affordable to build, maintain and operate						
SUPPORTS GROWTH Investment in public transportation should support economic development; allow workers to get to jobs more easily, allow goods to get to markets more efficiently				0		
OVERALL PRELIMINARY TECHNICAL SUMMARY				0		



- No station possible in Corktown or Leslieville
- Connects with Queen and King streetcars at Queen-Broadview
- Indirect connection to Unilever and Portlands
- Fewer opportunities for development around stations





Alignment GR: Pape to Downtown via GO Corridor and Richmond

	AQ	GQ	EQ	AR GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options					
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable					
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities					
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City					
HEALTHY NEIGHBOURHOODS Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling					ı
PUBLIC HEALTH & ENVIRONMENT Support and enhance natural areas; encourage people to reduce how far they drive					
AFFORDABILITY Improvements to the transportation system should be affordable to build, maintain and operate					ı
SUPPORTS GROWTH Investment in public transportation should support economic development; allow workers to get to jobs more easily, allow goods to get to markets more efficiently				0	
OVERALL PRELIMINARY TECHNICAL SUMMARY				0	ı



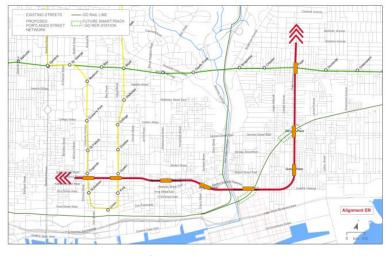
- No stations possible in Corktown or Leslieville
- Good connections with Queen and King streetcars
- Indirect connection to Unilever and Portlands
- Fewer opportunities for development around stations





Alignment ER: Pape Downtown via Eastern and Richmond

	AQ	GQ	EQ	AR	GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options						
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable						
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities						
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City						
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SUPPORTS GROWTH Investment in public transportation should support economic development; allow workers to get to jobs more easily; allow goods to get to markets more efficiently						
OVERALL PRELIMINARY TECHNICAL SUMMARY						0



- Better serves future major employment node at Unilever
- Station at King-Sumach would connect to Cherry and King streetcars, reduce barrier effect of overpass in Corktown, and serve the north of the West Don Lands
- Serves Leslieville (Queen-Pape)
- Fewer impacts to transit and traffic during construction
- Less impact to heritage and established main streets





Summary of Evaluation of Alignment Options

SUMMARY OF RESULTS	AQ	GQ	EQ	AR	GR	ER
CHOICE Develop an integrated network that connects different modes to provide for more travel options				0	0	
EXPERIENCE Capacity to ease crowding/congestion; reduce travel times; make travel more reliable, safe and enjoyable						
SOCIAL EQUITY Do not favour any group over others; allow everyone good access to work, school and other activities				0	0	
SHAPING THE CITY Use the transportation network as a tool to shape the residential development of the City		0		0	0	
HEALTHY NEIGHBOURHOODS Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walk and cycling	0	0		0	0	
PUBLIC HEALTH & ENVIRONMENT Support and enhance natural areas; encourage people to reduce how far they drive						
AFFORDABILITY Improvements to the transportation system should be affordable to build, maintain and operate						0
SUPPORTS GROWTH hvestment in public transportation should support economic development; allow workers to get to jobs more easily; allow goods to get to markets more efficiently	0	0		0	0	0
OVERALL PRELIMINARY TECHNICAL SUMMARY		0	0	0	0	



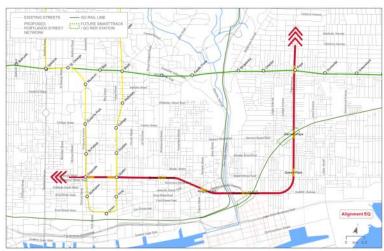


Emerging Preferred Alignment



Alignment EQ is emerging as the preferred alignment.

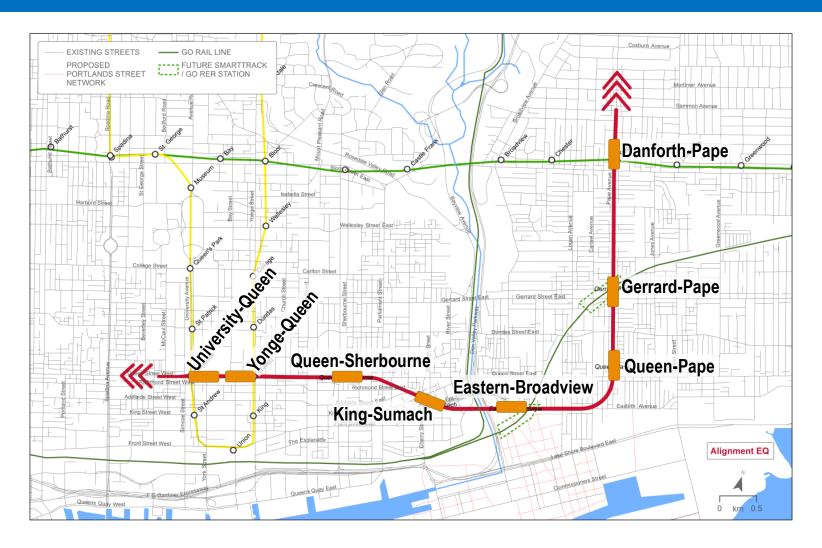
EQ connects Pape Station to downtown via Pape, Eastern and Queen.







Proposed Station Locations







Main Advantages of Alignment EQ

especially Queen-Broadview

Best achieves city-building objectives	 Serves the greatest number of projected future residents and jobs. Stations complement plans for growth and redevelopment
Best addresses social equity needs	 Station at King-Sumach offers key opportunity for additional social infrastructure and community space while bridging the West Don Lands and Regent Park in Corktown. Station at Eastern-Broadview improves city-wide transit accessibility to the significant new employment area being planned for the Unilever site.
Most compatible with preserving integrity of existing neighbourhoods and heritage resources	 Station at Pape and Gerrard will reconnect neighbourhoods to the north and south by helping to overcome the existing barrier presented by the GO Rail corridor Station at King-Sumach supports integration of Corktown communities by reducing the existing north-south barrier effect of Richmond/Adelaide overpass and serves the northern areas within the West Don Lands Stations offer excellent redevelopment opportunities for some older commercial areas well suited to redevelopment for transit oriented uses Best ability to avoid potential negative impacts on heritage buildings, Heritage Conservation Districts and established main streets A well designed station at Queen and Pape will integrate entrances within the surrounding residential area in order to improve transit service to the Leslieville neighbourhood.
Best transit network connectivity opportunities	 Offers the greatest relief to overcrowding on the existing streetcar network with interconnections with the King, Queen, Cherry, and Broadview streetcars Provides most interchanges with SmartTrack/GO RER at Pape and Gerrard and Eastern and Broadview Stations Good potential to optimize the passenger transfer configuration Queen and Osgoode stations to minimize transfer times and end loading at stations
Strongest long-term ridership results	 Forecast to attract the highest number of new riders to the transit system based on 2031 modelling results. By 2041, the alignment pulls further ahead in attracting the most riders. The additional benefit is maintained when the northern extension is assumed. Does not provide as much relief to the Yonge line as the other alignments, it still provides significant relief when the long term extension of the Relief Line to the north is factored in.
Strongest opportunity for public-private partnership for capital cost sharing	Best opportunity for sharing capital costs through redevelopment at Unilever.
Fewer construction impacts	 Fewest impacts anticipated to private property especially related to stations at Broadview and Eastern and King and Sumach Lowest potential for transit and traffic related impacts during construction by avoiding high traffic/transit areas,

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Next Steps

May/June 2016	 Public and stakeholder consultations Continue to refine technical work and business cases on current transit initiatives
June/July 2016	 Report to Executive Committee and Council Report on full range of transit projects, seeking authority for next steps (including authority to commence TPAPs for Relief Line and SSE)
Summer/Fall 2016	Further technical work
Winter 2017	 Undertake Feeling Congested? review for priority projects Report to Executive Committee and Council on transit project prioritization





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