TORONTO

STAFF REPORT
ACTION REQUIRED

Developing Toronto's Transit Network Plan: Phase 1

Date:	March 3, 2016
To:	Executive Committee
From:	City Manager, Deputy City Manager, Cluster B and Chief Planner & Executive Director, City Planning Division
Wards:	All
Reference Number:	

SUMMARY

Significant investment has been made by all three orders of government to expand the transit network and address years of underinvestment in a critical infrastructure system for Toronto. The Toronto York-Spadina Subway Extension (TYSSE), Eglinton LRT (Mount Dennis to Kennedy) and Finch West LRT will be in service by 2021. In order to sustain recent progress, planning for new transit expansion projects must keep pace given the lead times to plan, design and build complex infrastructure. The purpose of this report is to recommend advancing planning and technical analysis on SmartTrack, Scarborough Subway Extension, Relief Line and Waterfront Transit, in order to set the stage for upcoming discussions on funding and financing new transit. In particular, this report recommends:

- Finalizing the SmartTrack concept by narrowing the planning analysis to focus on key elements: an optimized Eglinton West LRT extension to Pearson Airport; and two SmartTrack/GO RER integration options that propose an urban service frequency at 11 existing GO RER stations with 4 to 8 new stations on the Kitchener GO and Stouffville/Lakeshore East GO Corridors;
- Approving Pape to Downtown via Queen/Richmond as the preferred corridor for the Relief Line, and proceed to determine the preferred alignment and stations;
- Completing the review of corridor options and related work for the Scarborough Subway Extension, and develop recommendations to integrate the proposed, optimized Eglinton East LRT into the University of Toronto Scarborough Campus secondary plan; and identify areas in need of an Avenue Study to facilitate intensification along the proposed LRT corridor.
- Provide an update on Phase 1 work related to the Waterfront Transit Reset Study in June 2016.

Each project has an integral role in the development of a transit network plan for Toronto that achieves the goals of *serving people, strengthening places* and *supporting prosperity*. Taking into consideration projects under construction, planned, and identified in the Official Plan long list of projects, a preliminary transit network plan for the next 15 years is being developed. It is critical to note that this does not represent a full build out of our transit network. This report introduces that vision for Toronto and next steps to review and refine the plan in consultation with the public and key partners, including Metrolinx and the Toronto Transit Commission (TTC).

Background

Over the past few years, City Council directed City staff to review various transit expansion projects in consultation with the TTC and Metrolinx. Each of these projects are at various stages of the planning and approvals process, with some projects having funding commitments from the City, provincial and federal governments.

In late 2013, the Scarborough Subway Extension (SSE) was approved by City Council and staff were directed to undertake a Transit Project Assessment Process (TPAP). In 2014, City Council directed the Chief Planner to initiate planning for the Relief Line project. In early 2015, City Council approved a work plan for reviewing SmartTrack and its integration with the Province of Ontario's Regional Express Rail (GO RER) program announced in 2014. In December 2015, City Council requested the Deputy City Manager, Cluster B to undertake a comprehensive review of Waterfront transit opportunities. In 2016, Executive Committee directed staff to re-examine the planned Scarborough rapid transit network and to include an optimized network solution in the analysis which includes an express SSE; extension of the Eglinton LRT East to the University of Toronto Scarborough (UTSC); and SmartTrack/ GO RER.

This report brings together all transit projects currently under study, in order to consider each within the context of their contribution to the transit network as a whole. A systems approach is critical given the complex and interconnected nature of the transit network, and the desire of the City to guide transit infrastructure investment that will serve people, strengthen places and support prosperity. These three strategic objectives are embedded within the "Feeling Congested?" Rapid Transit Evaluation Framework (RTEF), which is used to assess individual projects and guide prioritization of future rapid transit projects from a planning perspective.

Developing Toronto's Transit Network Plan

The identification of future transit network priorities is critical to ensuring that planning and technical work advances on rapid transit projects that will be required to address the future growth and transit needs of the City. This work will be integrated with and developed collaboratively with Metrolinx in light of the Regional Transportation Plan review. The timeframe to plan, design and build rapid transit expansion projects can be significant depending on the technology, existing infrastructure, and conditions. For example, a complex project such as the Relief Line subway has an estimated schedule of

13+ years to move from initial project planning to the in-service date. A long term vision and upfront planning ensures network priority projects are in a state of readiness to be considered for funding and investment. The transit network vision is also a key input to a broader assessment of the infrastructure needs and priorities of the City. This report sets the stage for discussion on funding and financing transit expansion infrastructure for the next 15 years through the City's fiscal plan, being lead by City finance staff.

Based on the Feeling Congested? RTEF, the preliminary network analysis undertaken by City Planning division in 2013 identified the top performing projects for consideration within the next 15 years. The top ten projects include the Relief line (and extension), Scarborough-Malvern LRT, Sheppard RT, Waterfront Transit East and West, Eglinton LRT East and West extensions, Jane LRT and Steeles BRT. The Yonge Relief Network Study recently completed by Metrolinx, recommended that planning for the Yonge North Subway Extension be developed at the same pace as the Relief Line. SmartTrack and GO RER are projects that were introduced post-2013 and will be included in the refinement of the Feeling Congested? network evaluation scheduled to be undertaken in late 2016. This updated network plan will look beyond the next 15 years, identifying a recommended full network build out. The Chief Planner & Executive Director, City Planning will report to City Council in early 2017 on the updated network plan (Phase 2) as part of the proposed package of transportation policy updates to the Official Plan.

However, development of the City's recommended network plan for Toronto is an iterative process that will require further refinement based on the findings of ongoing or future project assessments. Appropriate sequencing of the range of projects will be the subject of further analysis. The resulting outputs will need to be further consulted upon with the TTC, Metrolinx and the public. This includes determining where there is alignment between the City's priorities and Metrolinx's regional planning and prioritization.

Next Steps

Subject to City Council direction to proceed with planning and technical work on key projects, a further report will be brought to the June 28, 2016 Executive Committee in order to achieve the following:

- Seek City Council approval for the recommended SmartTrack concept and business case and initiate discussions on funding and financing with the Provincial and Federal governments;
- Recommend the preferred alignment and stations for the Relief Line project and seek City Council authority to commence the formal TPAP process;
- Recommend the preferred Scarborough Transit network solution, including the preferred alignment for the SSE and seek authority to commence the formal TPAP process. Potential recommendations on amending the environmental assessment for the Eglinton East LRT extension may be brought forward;
- Provide findings on the Waterfront Transit Reset Study, and report on next steps;

- Provide an update on the GTHA Fare Integration study, including the City's own review and analysis of the implications of potential new fare structures proposed by Metrolinx; and
- Continue to advance refinements to the transit network vision for the City beyond the recommendations contained in this report, targeting report out in Q1 2017.

RECOMMENDATIONS

The City Manager, Deputy City Manager, Cluster B, and Chief Planner & Executive Director, City Planning Division recommend:

1. City Council request the City Manager and Metrolinx to finalize the technical and planning analysis phase for SmartTrack and prepare background studies required for Transit Project Assessment Processes (TPAPs), by completing the following:

    a. Review the approved environmental assessment for the Eglinton West LRT extension from Mount Dennis to the Mississauga Airport Corporate Centre (MACC) and Pearson Airport to optimize design, and remove the heavy rail options on the western corridor from further consideration;

    b. Complete the analysis for SmartTrack/GO RER integration options C and D, and remove from consideration the Separate and Parallel SmartTrack option, option A and option B, as defined in table 3; and

    c. Report to the June 28, 2016 Executive Committee and June 28, 2016 Metrolinx Board meeting with the recommended SmartTrack concept.

2. City Council request the Chief Planner & Executive Director, City Planning, to complete the review of corridor options and related work for the Scarborough Subway Extension, and in doing so:

    a. remove the Bellamy corridor from further consideration;

    b. remove the Scarborough Express Rail (SmartSpur) from further consideration;

    c. develop recommendations to integrate the proposed optimized Eglinton East LRT into the University of Toronto Scarborough Campus secondary plan; and identify areas in need of an Avenue Study to facilitate intensification along the proposed LRT corridor in consultation with the TTC, Metrolinx and the University of Toronto.

    d. report to the June 28, 2016 Executive Committee on part c above, along with a recommended preferred corridor and alignment, and number and location of stations for the Scarborough Subway Extension.

3. City Council approve Pape to Downtown via Queen/Richmond as the preferred corridor for the Relief Line project and request the Chief Planner & Executive Director, City Planning in consultation with the TTC to report the preferred alignment and stations to the June 28, 2016 Executive Committee.

4. City Council direct the Deputy City Manager, Cluster B and the Chief Planner & Executive Director, City Planning to report to the June 28, 2016 Executive Committee with an update on the Waterfront Transit Reset Study.

5. City Council direct the City Manager and Deputy City Manager & Chief Financial Officer to include the transit network plan priorities for the next 15 years in the inventory of projects for funding consideration in the development of the City's fiscal plan.

6. City Council direct the City Manager, Deputy City Manager, Cluster B and Chief Planner & Executive Director, City Planning to undertake additional consultation and stakeholder engagement with respect to the transit network plan and rapid transit expansion projects outlined in this report, in advance of the June 28, 2016 report to Executive Committee.

7. City Council direct the City Manager and Chief Planner & Executive Director, City Planning to forward to Metrolinx this report and appendices to Metrolinx for consideration in the review of the Regional Transportation Plan ("The Big Move"), and Regional Express Rail planning.

Financial Impact

SmartTrack

The Province of Ontario has committed $13.5 billion (2014$) to the Regional Express Rail program, which will improve GO services on core segments of the network. SmartTrack proposes incremental investments to the RER service concept and infrastructure plan to provide an urban transit service in Toronto. The capital cost estimates will be developed as the SmartTrack scope definition becomes refined through City Council's consideration of the recommendations in this report. Analysis will also be undertaken to understand the incremental operating and life-cycle maintenance costs associated with SmartTrack.

The GO network requires significant provincial investment in additional infrastructure to achieve the Province's RER program. The investment the Province intends to undertake for RER also supports the SmartTrack program.

The Government of Canada has also committed $2.6 billion to the City of Toronto for SmartTrack as part of that government's additional $20 billion in transit infrastructure spending over the next 10 years.

Scarborough Transit

In October 2013, City Council reconfirmed its support for a Scarborough Subway and committed to funding the City's share of the cost of construction by implementing a dedicated tax increase of 1.6% over three years. The total tax rate increase of 1.6% was fully implemented in 2016, and will remain in effect for about 30 years to fully fund the project. The City has also adopted a Transit Development Charge to fund a portion of the growth-related share of the Scarborough Subway Extension as part of its financing strategy.

In October 2013, Metrolinx confirmed that $1.48 Billion ($2010) of provincial funds originally committed to the Scarborough LRT under the City-Metrolinx-TTC Master Agreement could be applied to the Scarborough Subway Extension project. The Federal government has committed $660 million towards this project through the Provincial Territorial component of the Building Canada Fund.

The recommended alignment and station(s) for the Scarborough Subway Extension will be brought forward for City Council approval in July, 2016. The capital cost estimates for the SSE project will need to be refined in consultation with the TTC once the recommended project scope has been finalized. The City is also working with Metrolinx to evaluate the capital costs associated with the proposed extension of the Eglinton LRT East to the University of Toronto Scarborough.

Unfunded Transit Priorities

This report recommends the list of transit priorities for the next 15 years be included in the inventory of unmet capital needs that are being reviewed within the context of the City's fiscal plan. The Deputy City Manager & Chief Financial Officer will report on the fiscal plan throughout 2016, identifying strategies and options to address the City's growing operating and capital needs.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

Scarborough Subway Extension

On October 8, 2013 City Council reconfirmed its support for the extension of Line 2 (Bloor-Danforth Subway) from Kennedy Station to Scarborough Town Centre and Sheppard Avenue East. City Council also confirmed funding for the project and directed staff to undertake further work to confirm the alignment and station locations through an environmental assessment process. Link: CC39.5 Scarborough Rapid Transit Options: Reporting on City Council Terms and Conditions

On January 28, 2016, Executive Committee adopted the EX11.5 Scarborough Transit Planning Update, and directed the Chief Planner and Executive Director, City Planning, in collaboration with the TTC, to continue technical work on remaining issues for the recommended Scarborough transit network. The recommended Scarborough transit network includes an express subway extension of Line 2 focussed on serving Scarborough Centre; an extension of Line 5 (Eglinton LRT) to the University of Toronto Scarborough Campus (UTSC); a SmartTrack station at Lawrence Avenue East; and Rapid Transit on the Sheppard East Corridor.

Relief Line

On June 10, 2014, City Council adopted the Terms of Reference and Consultation Plan for the Relief Line Project Assessment. Link: PG33.12 Relief Line Project Assessment: Finalized Terms of Reference and Public Consultation Plan

SmartTrack

On February 10, 2015, City Council adopted the report EX2.2 SmartTrack Work Plan (2015-2016) and directed the City Manager, in partnership with the Province to carry out the accelerated SmartTrack work plan. City Council directed the City Manager to report in fall 2015.

On October 20, 2015, Executive Committee adopted the report EX9.1 SmartTrack Status Update and requested the City Manager to forward the SmartTrack Status Update report for information to the TTC, the Ministry of Transportation, Metrolinx, the City of Mississauga and York Region. Staff indicated that a report would be provided to City Council in the first quarter of 2016 with recommendations to further develop and optimize SmartTrack and GO RER concepts to better serve Toronto's transit network and city building objectives.

Waterfront Transit

On November 3, 4, 2015, City Council directed City staff in consultation with the TTC and Waterfront Toronto to undertake a comprehensive review of waterfront transit initiatives and options. A status update to Executive Committee in the first quarter of 2016 was requested. Link: EX9.9 Waterfront Transit Reset

Feeling Congested?

On June 19, 2014, Planning and Growth Management Committee received an update on the review of the Official Plan's transportation policies (Feeling Congested?). The report indicated that the review of the Rapid Transit Evaluation Framework (RTEF); Surface Transit Network; Cycling Policy Framework; and Street Related Maps and Schedules would be brought forward for City Council approval with a target date of early 2015. Link: PG34.12 "Feeling Congested?" – Update on Progress to Date

INTRODUCTION

Significant transit investment from all three orders of government is occurring in Toronto and the region. The current rapid transit network is shown in Figure 1. In the next 6 years, Toronto's transit network will include the Toronto-York Spadina Subway Extension (TYSSE), Eglinton LRT (Mt. Dennis to Kennedy), and Finch West LRT (see Figure 2).

Figure 1. Existing Rapid Transit

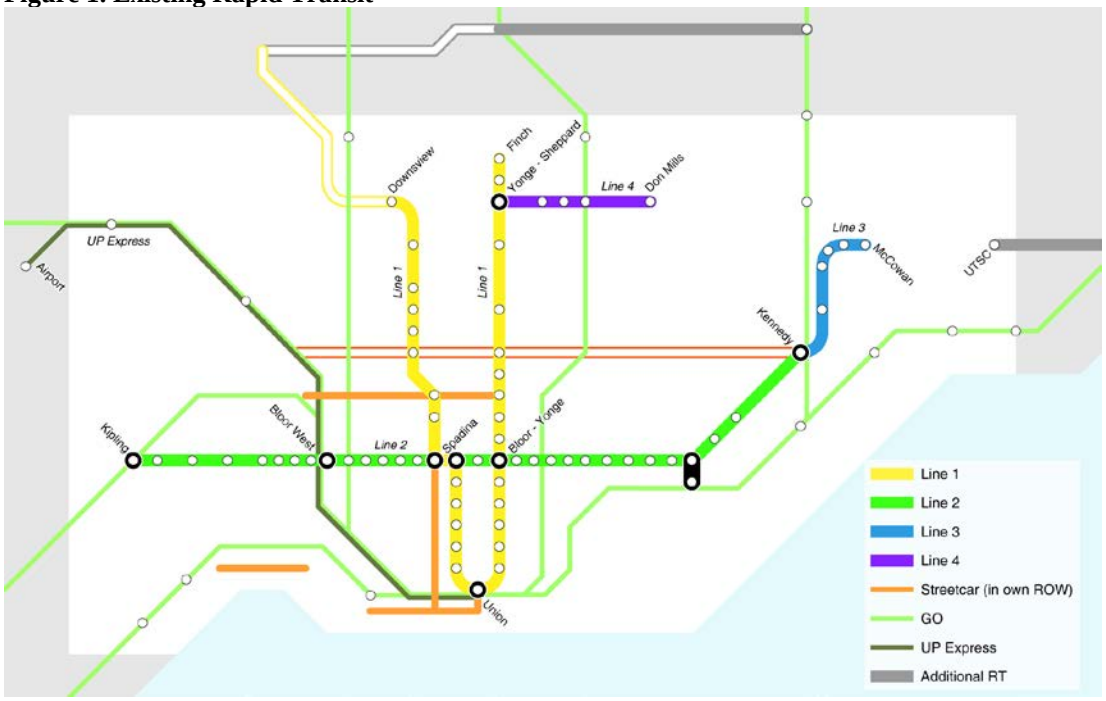
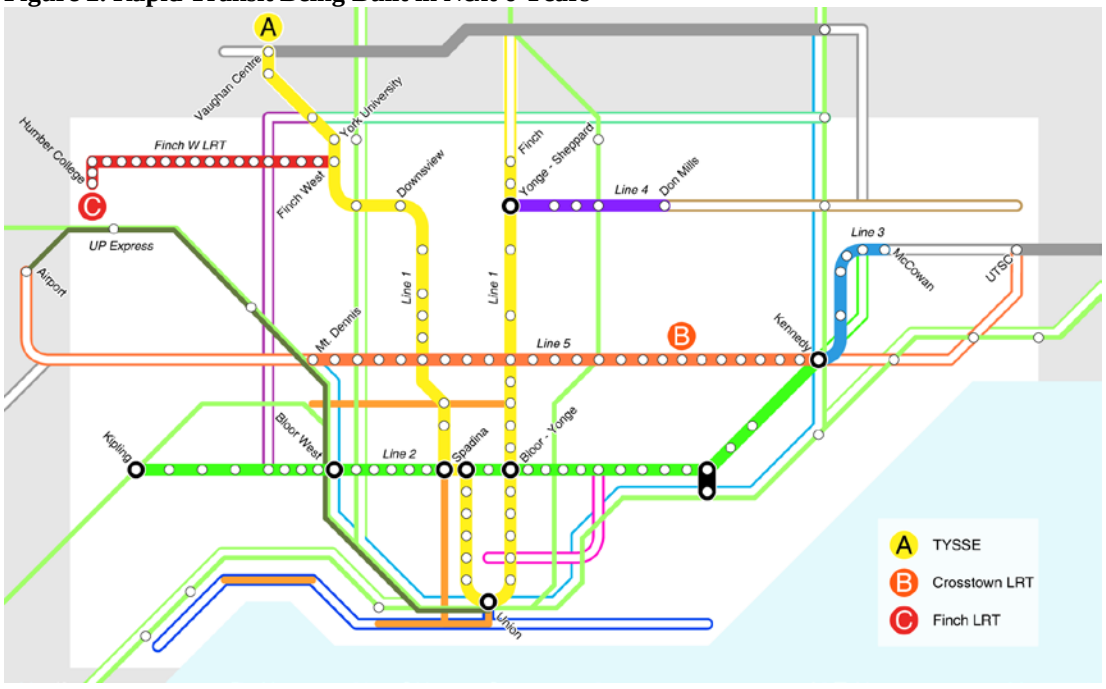


Figure 2. Rapid Transit Being Built in Next 6 Years



In 2015, the Province announced its funding commitment of $13.5 billion to the GO RER program, a plan to provide more frequent GO Rail service on the Go Transit Rail network with electrification on core segments of the network. Per City Council direction, the City Planning division in consultation with the TTC and Metrolinx, has been leading planning and technical analysis on four specific future transit expansion projects:

- SmartTrack;
- Scarborough Subway Extension (SSE);
- Relief Line; and
- Waterfront Transit

The City is also continuing to assess the priority and timing of commencing planning for other future transit expansion projects in Toronto.

The City Planning Division takes a broad network-based approach to planning Toronto's rapid transit system. This includes taking into consideration the TTC system and the broader GO Transit regional transit system. Part of the Feeling Congested? initiative is to develop a new rapid transit plan for inclusion in the City's Official Plan, in order to provide guidance on rapid transit priorities for the City. The rapid transit plan will be subject to review every five years, as are all components of the City's Official Plan.

At the core of the transit network planning process is the Rapid Transit Evaluation Framework (RTEF) developed in 2013 with input from the public and stakeholders. The RTEF evaluates the contributions of individual projects to the overall transit network. Three principles and eight evaluation criteria are the foundation of the RTEF. The three principles are:

> *Serving People* - how well does the project meet the demand for travel in terms of helping passengers, drivers, goods and services get to where they need to go; and in terms of improving equity or fairness by bringing better transportation services to all parts of the city?
>
> *Strengthening Place*s- how well does the project strengthen and connect neighbourhoods; balance the functions of serving as a travel corridor and a place-building agent; and protect and enhance the quality of the urban environment?
>
> *Supporting Prosperity* - how affordable is the project to build, operate and maintain; how well does it support the city’s economic development goals, improve its competitiveness and deliver the greatest ridership/travel volumes at the least cost?

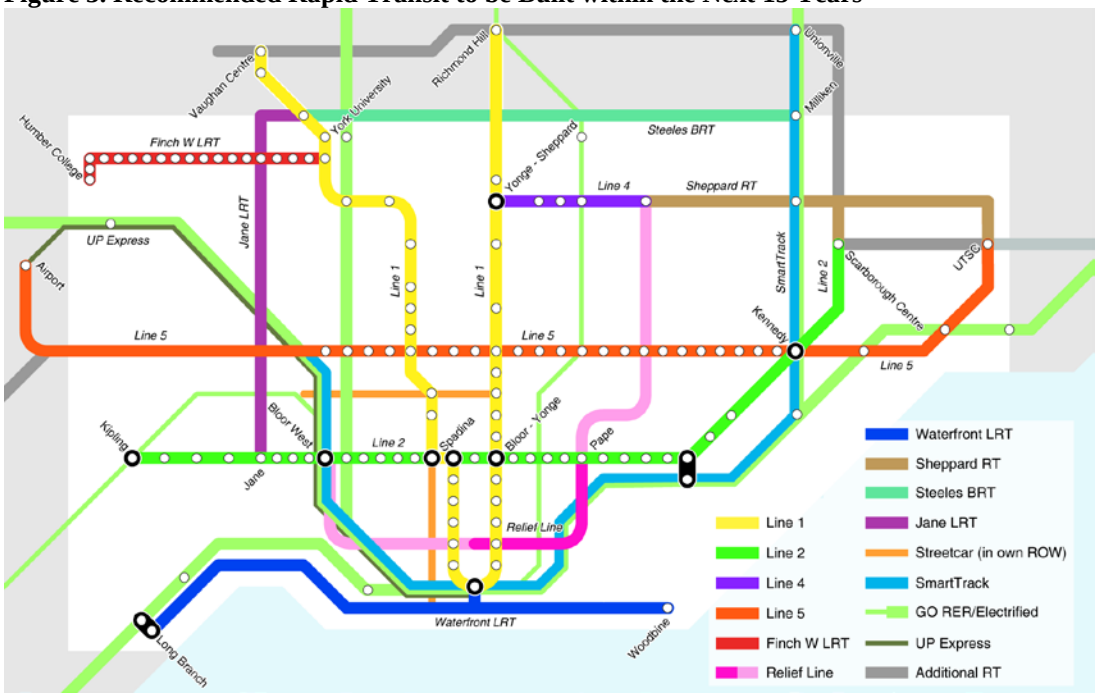
The complexity of transit networks makes transportation modelling an important part of evaluating and planning transit expansion. Models allow different scenarios to be tested in order to assess the impacts of different network configurations on ridership and accessibility. The City is using a recently updated and calibrated ridership model developed by the University of Toronto (GTHA Model V4.0) and a connectivity calculator.

The 2013 "Feeling Congested?" draft comprehensive transit network comprised twenty-four proposed new transit projects that had been previously identified by the City, TTC and/or Metrolinx in the RTP[1]. The preliminary evaluation of projects will be reviewed based on updated results from transportation models and updated assumptions associated with all projects. The introduction of GO RER by the Province of Ontario, and the development of SmartTrack on two GO corridors represent the most significant updates to network assumptions. This updated evaluation will form the foundation of the rapid transit plan that will be included in Toronto's Official Plan.

It takes several years to complete the planning, design and construction stages for major transit projects, so a planning horizon needs to extend at least ten years to realistically include projects not already in the project assessment process. Figure 3 uses a 15-year horizon to illustrate a possible transit network that includes the potentially highest priority projects not already underway.

The network outlined in Figure 3 is intended to be ambitious but feasible. It reflects emerging findings from the transit network analysis and individual project assessments outlined in this report. Recognizing that funding for transit project construction is limited, the benefits and costs of projects must be weighed in addition to assessing the schedule to construct projects with the demand to improve transit capacity and service. Staff will continue to refine the possible network in Figure 3 over the coming months, and will provide an update to Executive Committee in June 2016.

Figure 3. Recommended Rapid Transit to be Built within the Next 15 Years



[1] http://www1.toronto.ca/City%20Of%20Toronto/Feeling%20Congested/PDFs/FeelingCongestedToolkit-Web.pdf

It is important to note that transit network planning is an iterative process and will continue to evolve as new information becomes available. Therefore the projects identified in Figure 3 should not be viewed as a ranking of projects but as the possible network solution based on currently available information. This proposed network plan has been developed through planning analysis and integrates the components described above. There are a number of other key considerations that are critical to the realization of these projects including constructability and availability of funding, alignment of community support, and intergovernmental priorities.

The analysis conducted by City Planning on Toronto's network priorities will be a critical input to Metrolinx's Regional Transportation Plan (RTP). The RTP identifies and prioritizes transit projects from a region wide perspective. The formal review of the RTP for the Greater Toronto and Hamilton Area is expected to be substantially completed by Metrolinx in 2016. The updated RTP will be released in 2017. Further consultation with Metrolinx and the Province of Ontario on the City's network priorities is required.

For further information see Appendix 1 Transit Network Analysis.

Transit Project Assessment Process

Each of the projects is required to undergo an Environmental Assessment (EA). The Transit Project Assessment Process (TPAP) is an abbreviated EA process for assessing transit projects in Ontario. Significant preparatory analysis (also known as the Project Assessment) is required to develop the project concept, examine the potential environmental impacts of different options, and identify measures to mitigate any impacts. The TPAP also involves consultation with the public.

Components of the preparatory Project Assessment phase include:

- Develop Terms of Reference and Public Consultation Plan, Study Introduction
- Development of evaluation criteria, long list of project concepts and public consultation
- Assessment and shortlist of solutions, identification of draft preferred concept and public consultation
- Documentation of preferred solution and reporting to City Council and TTC Board.

Once the above components of the Project Assessment phase are complete and a recommended option or approach is chosen. The formal TPAP process and additional public consultation is launched. The formal TPAP process takes approximately 6 months, including a final project review involving public consultation and two months for review by the Minister of Environment and Climate Change. Figure 4 and Figure 5 sets out the general approach to TPAP.

Figure 4. Project Assessment Process

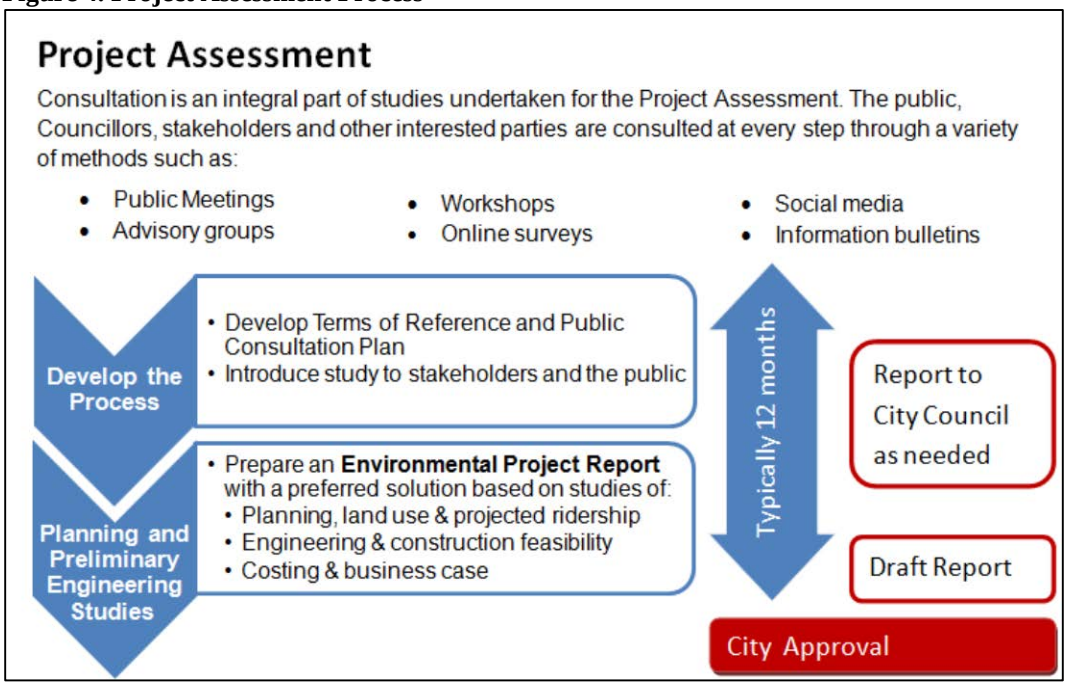


Figure 5. Transit Project Assessment Process

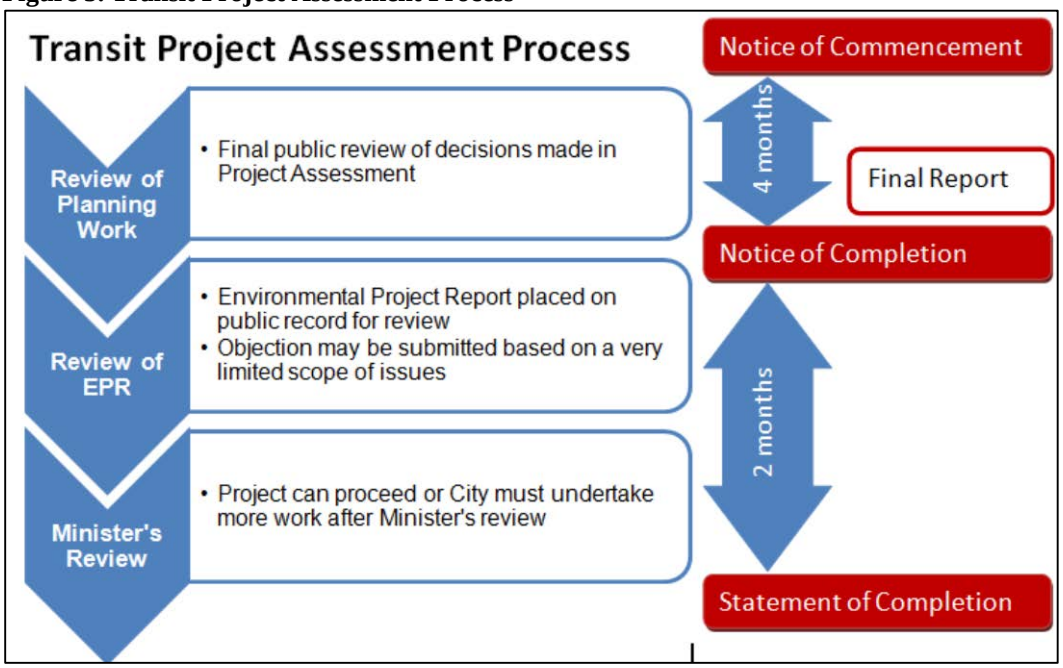
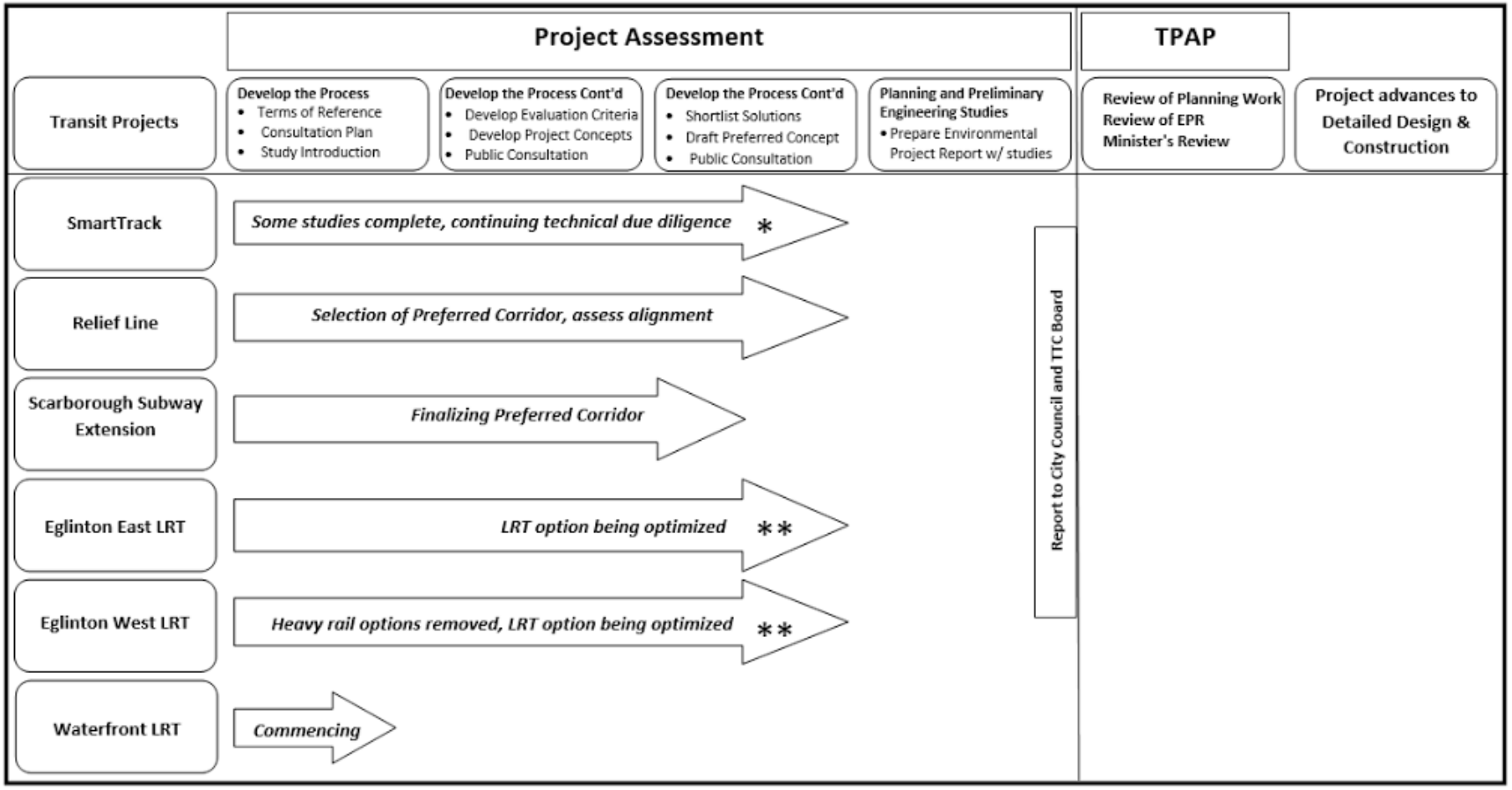


Figure 6 below sets out the EA/TPAP status of each of the key projects discussed in this report. In the majority of cases, the rapid transit work currently underway is advancing to the conclusion of the Project Assessment phase with the exception of the Waterfront Transit Reset initiative which is about to commence.

Figure 6. Individual Project Status in the TPAP Process



*Will be integrated into the EA/TPAP process as part of the Metrolinx RER Program

**Re-evaluation of previously approved Environmental Assessments, which may lead to amendments (i.e. new TPAP)

COMMENTS

1. REGIONAL EXPRESS RAIL

The Province of Ontario's GO RER program was outlined in the October 2015 SmartTrack Status Update (EX9.1) report to Executive Committee (EX9.1 Appendix 1 Metrolinx GO RER Overview). The $13.5 billion provincial funding commitment to RER in the Ontario 2015 budget, includes enhancements to the existing GO network through more frequent service in both peak and off-peak hours. GO RER will bring 15 minute two way all-day service to core segments of five GO corridors (Lakeshore East, Lakeshore West, Kitchener, Barrie, and Stouffville).

Figure 7. GO Rail in the City of Toronto (7 Corridors and 19 Stations)

Infrastructure investments included in the $13.5 billion program include electrification of core segments of five GO corridors, modifications to existing stations, grade separations and additional track infrastructure. Many of these infrastructure enhancements included in GO RER on the Kitchener GO and Stouffville/Lakeshore East GO corridors also support SmartTrack.

Metrolinx is advancing the work on GO RER in order to meet the Province's commitment of implementation by 2024. At the recent February 10, 2016 meeting of the Metrolinx Board of Directors, an update was provided on several key elements of the GO RER work program:

- GO Road/Rail Grade Separations, February 10, 2016
- Electrification, February 10, 2016

Grade Separations

GO RER will significantly increase heavy rail activity on all seven GO rail corridors across the City of Toronto. In consideration of the anticipated increase in activity, grade separations are being considered for as many as twenty-one existing road-rail grade separations and two rail-rail grade separations within the City of Toronto.

The construction of road-rail grade separations will improve public safety, reduce traffic congestion occurring due to rail movements blocking crossings, and allow the City to maintain appropriate response times and service levels for emergency service responders.

The GO RER plan provides a comprehensive framework for regional transit expansion, but it also presents significant City building challenges where major infrastructure incursions, such as new grade separations, impact established communities. In these cases, there is a need to address the planning policy implications of the proposed grade separation using the City's Feeling Congested? criteria for the evaluation of rapid transit projects. The eight criteria which have been established as part of the City's update of the Official Plan transportation policies include Experience, Public Health & Environment, Healthy Neighbourhoods, Affordability, Choice, Social Equity, Shaping the City, and Supporting Growth. Using these policy-defining criteria, new infrastructure can be assessed to determine short and long term benefits and impacts to the communities. This is a critical phase of planning for GO RER, since new grade separations have the potential to influence neighbourhood character over the next 50-100 years.

Metrolinx has started discussions with the City about the appropriate locations and formula to share the cost of grade separations as part of the GO RER program. To inform these discussions the City is also assessing the financial implications associated with the relocation of the City's underground utilities that could be displaced when grade separations are constructed. Further information will be provided to City Council, once Metrolinx has provided an assessment of the required grade separations for GO RER.

GO RER Environmental Assessments/TPAP

Under the GO RER program, Metrolinx is developing a coordinated approach to Environmental Assessments (EA) that includes:

- Amending the scope of current EA’s to include GO RER;
- Bundling remaining EA requirements by corridor; and
- Undertaking a separate system-wide EA for electrification with strong links to corridor planning.

Approximately eight major EA/TPAP projects are associated with the full Metrolinx GO RER program within Toronto. They are in various stages of work (see Table 1). Additional EA/TPAPs will also be required for new stations currently being assessed. In terms of GO RER work directly related to SmartTrack, the EA for the Stouffville/Lakeshore East GO corridor second track has been completed. EAs are also

complete for sections of the Kitchener GO Corridor including additional tracks for the Georgetown South project. Although not formally part of the GO RER program, the EA for the Eglinton LRT westerly extension to the Airport is also completed.

Table 1. Metrolinx / GO RER Environmental Assessments

Corridor	Infrastructure Components	EA Status	Anticipated Completion
Lakeshore East	Additional track between Guildwood and Pickering; three key railroad separations	EA/Preliminary Design Underway	Summer 2016
	One Additional track between Union and Scarborough; consideration for feasibility of second additional track	EA/Preliminary Design underway	Spring 2017
USRC	Track enhancements- East and East-North Tracks	EA/Preliminary design not started	TBD
Barrie	Davenport Community Rail Overpass rail/rail grade separation	Underway, TPAP Commenced Jan 2016	July 2016
	Additional track to Aurora/Barrie (in City of Toronto from Parkdale to Steeles Avenue)	EA/Preliminary Design Underway	Early 2017
	Caledonia Station - New station at the intersection of the Barrie GO Line and Eglinton Avenue	EA/Preliminary Design Underway	Summer 2016
Kitchener	Electrification of UP Express (three of four tracks in this corridor)	Complete	Complete
	One Additional track from Union to UP Spur (constituting of four tracks)	Complete	Complete
Stouffville	On additional track from Scarborough to Unionville	Complete for 2 way all day	Complete
	Key railroad grade separations - will include feasibility study of all at grade crossings; EA and design to proceed on priority crossings	EA/Preliminary Design not started	Summer 2017
System Wide	Electrification of Lakeshore, Barrie, Stouffville and portion of Kitchener Corridor	EA/Preliminary Design Underway	March 2017
	New stations - Locations of Stations within the City of Toronto still being studied in coordination with a system wide review of potential new stations	Evaluation underway, report to the MX Board in Feb 2016 and June 2016	TBD

Source: Information provided by Metrolinx

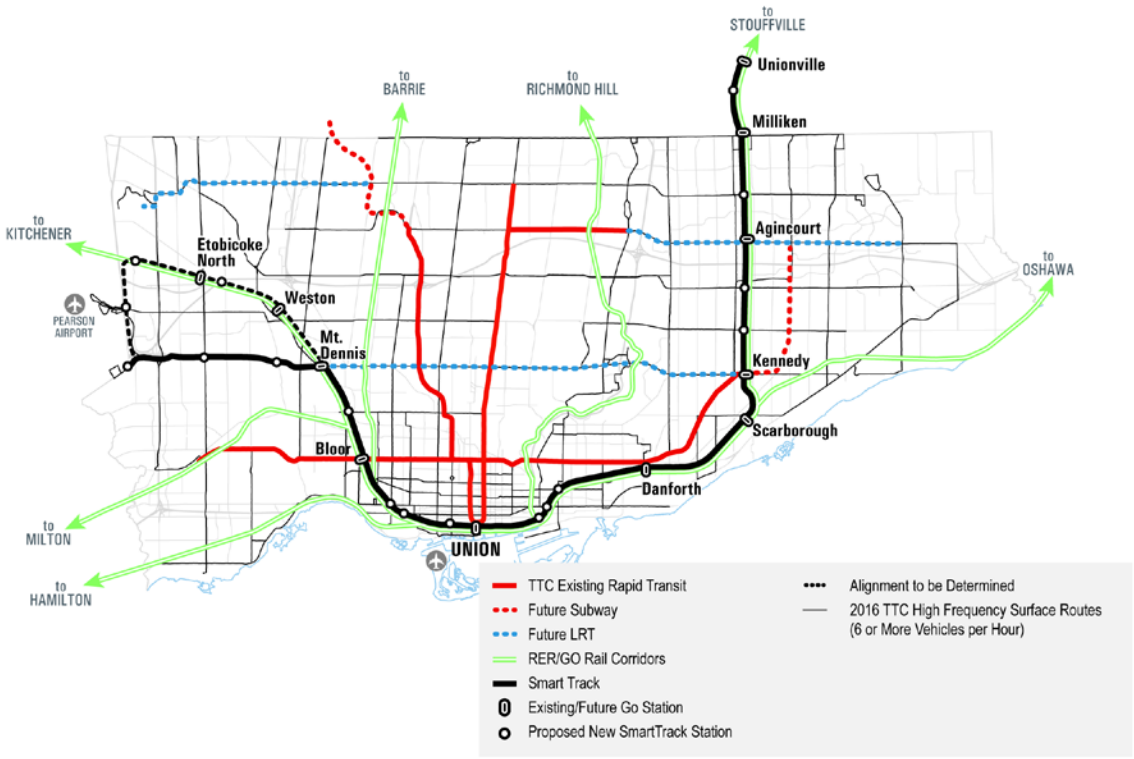
Where SmartTrack enhancements are applied to GO RER, the City can build on the work already being undertaken by Metrolinx for the GO RER program. In this context, it is anticipated that Metrolinx and the City will work in partnership on environmental assessment requirements related to SmartTrack components, as part of the GO RER program. This could take the form of EAs, TPAPs, or addenda to these processes where work may have already been completed or progressed significantly. This approach is efficient and would be undertaken with assistance from City staff as necessary.

2. SMARTTRACK

SmartTrack proposes utilizing the GO network, a provincially owned asset, to provide a more urban transit service than currently contemplated under GO RER. As outlined in the October 2015 report, the SmartTrack proposal includes a number of key components:

- Western Corridor rapid transit extension to the Mississauga Airport Corporate Centre (MACC) and Pearson Airport;
- Additional high frequency service improvements to GO RER on the Kitchener GO & Stouffville/Lakeshore East GO corridors to provide an urban service;
- New stations
- Fare Integration with a TTC Fare
- TTC Service Integration

Figure 8. SmartTrack Initial Proposal



SmartTrack forms a new transit spine for the City and the region. It expands transit access for Toronto residents travelling within and beyond the City, as well as those who live beyond the City and wish to access areas served by the new stations. Preliminary ridership forecasts (reported in detail in Appendix 1, Attachment 1) indicate that:

- SmartTrack is capable of capturing significant ridership assuming a TTC fare and 5-minute service, regardless of the growth scenario or the horizon year. For example, using the SmartTrack option which assumes heavy rail along Eglinton Avenue, ridership forecasts for 2031 indicate daily boardings ranging from about

283,000 to 321,000. Based on an initial assessment of replacing heavy rail with LRT along Eglinton Avenue, it is expected that the ridership range will be comparable.

- SmartTrack assists in providing congestion relief on the Yonge Subway at the critical point south of Bloor, especially with 5-minute service.

Each component of the SmartTrack proposal includes a range of options. The technical and planning analysis presented in this report, recommends narrowing the range of options in order to define the scope of SmartTrack. Further analysis will then be required to develop the final business case, including cost estimates and funding and financing requirements. A report will be provided to the June 28, 2016 meeting of Executive Committee with the final recommended SmartTrack concept and business case.

2.1 Western Corridor Options Analysis

As directed by City Council, staff have assessed opportunities for a heavy rail corridor between Mount Dennis and the Mississauga Airport Corporate Centre (MACC). The services of HDR were retained for a technical feasibility review. HDR's review included an analysis of seven corridor options through five lenses: technical, regulatory, service concept, land use planning, and financial/costing. The City received the final report from HDR which was released in January 2016. The memorandum from the Chief Planner & Executive Director, City Planning is included as Appendix 3, and provides a summary of the key findings. The full HDR report is accessible online. City staff have reviewed and validated the findings from the HDR report.

HDR assessed two heavy rail corridor options: the Eglinton corridor and a corridor that extends further north on the Kitchener GO Corridor and turns south past Pearson Airport to the MACC. The base reference case for the review was the approved western extension of the Eglinton LRT. A full description of the options reviewed in the HDR study was included in the October 2015 SmartTrack Status Update report to Executive Committee (Update on SmartTrack Western Corridor Feasibility Review).

Key findings from HDR's analysis include:

- A new heavy rail corridor would need to be grade separated from other traffic and pedestrians for technical reasons and regulatory compliance. This significantly raises construction costs.
- Costs are significant for heavy rail options, ranging from $3.6 billion to $4.8 billion for the northern corridor options, and $3.7 billion to $7.7 billion for the Eglinton corridor options. These costs do not reflect the additional cost of required new infrastructure on the Kitchener GO corridor to accommodate additional tracks. In comparison, the Eglinton LRT West base reference case would cost approximately $1.3 billion. Optimization of Eglinton West would impact this cost.

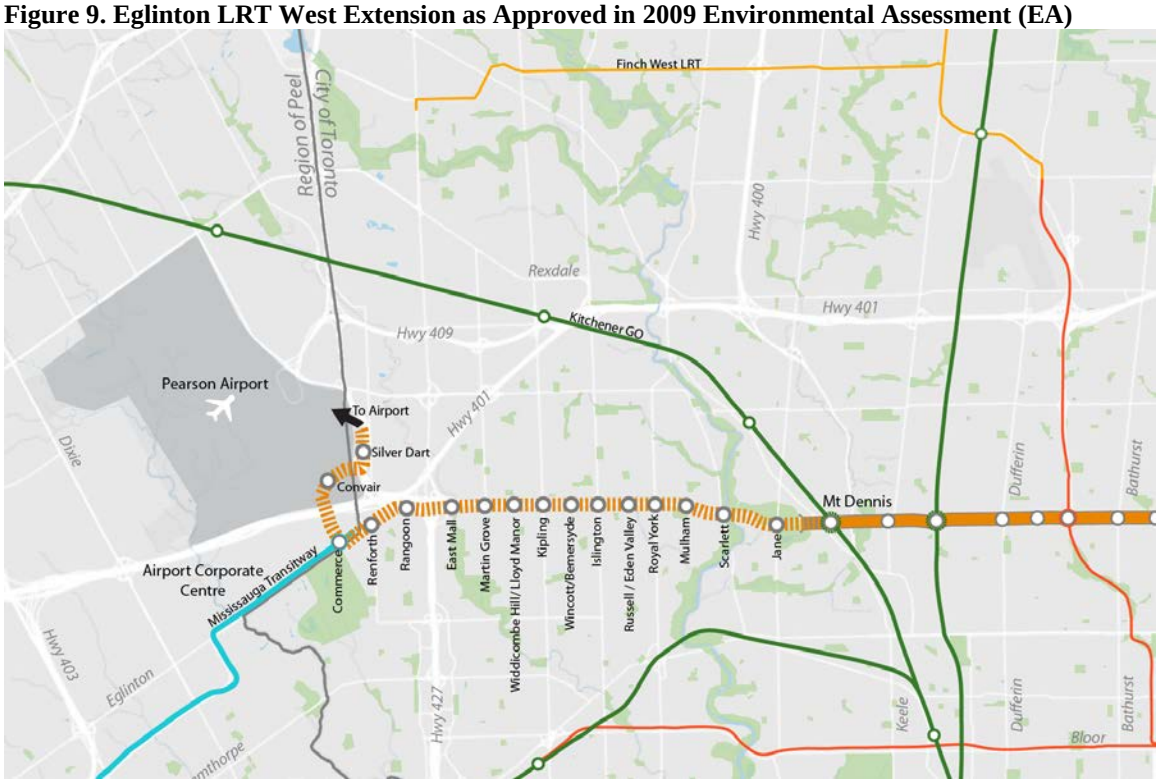
- New infrastructure (i.e. additional tracks) would be required beyond the immediate corridor, including expansions to the Kitchener GO corridor in order to meet SmartTrack and GO RER service commitments. The cost of new infrastructure on the Kitchener GO corridor would be in addition to the cost of constructing the heavy rail corridor.
- There would be significant community impacts for the Eglinton corridor options, including disruptions to the Eglinton Flats and Black Creek, extensive property takings and impacts to municipal roads and bridge structures.

Projected daily ridership on the Eglinton LRT West option is much greater than on the heavy rail options. The projected daily boardings on Eglinton LRT West in 2031 is estimated to be 39,500 (total sum, both directions). This is much higher than the projected daily ridership on the northern corridor alignments (19,500) and the Eglinton Corridor heavy rail alignments (9,500).

Of the continuous heavy rail options, the northern corridor also performs better than the Eglinton corridor. Total daily boardings on SmartTrack with the northern corridor option would carry 86,886 daily riders compared to 76,617 daily boardings for the Eglinton Corridor. However, projected daily boardings on SmartTrack with the Eglinton LRT West option, which would require a transfer at Mount Dennis, attracts 103,045 daily boardings.

Given the comparatively low ridership projections, and the high cost and community impact of heavy rail on the proposed western connection from Mount Dennis to the MACC, City staff are recommending that the heavy rail options for the Western corridor of SmartTrack not be pursued. Instead, the Eglinton LRT West should be advanced for further study. As this is a provincially owned project, Metrolinx is currently undertaking work to optimize the Eglinton LRT West option.

Figure 9. Eglinton LRT West Extension as Approved in 2009 Environmental Assessment (EA)



Metrolinx LRT Optimization Study

The approved Eglinton LRT West extension includes an at-grade connection to the MACC, and then extends northward toward Pearson Airport at the estimated cost of $1.3 billion (2015$). A specific connection into the airport was not included as part of the approved Environmental Assessment for Eglinton LRT West. A connection directly to the airport passenger terminals is an important element that is subject to confirmation.

Metrolinx is reviewing five options (Table 2) as part of an LRT optimization study of the Eglinton LRT West. While the SmartTrack Western Corridor proposes 3 stations for a heavy rail corridor, Metrolinx's LRT optimization study is looking at a variety of stations, which would also impact the estimated cost of the extension.

Metrolinx is reviewing options as part of its LRT Optimization study of the Eglinton LRT West. These options include:

- At-grade LRT
- At-grade LRT with grade separations at arterial roads
- Fully grade-separated LRT

Table 2. Western Corridor LRT Options

Option	Number of Stops	Degree of Grade Separation
EA Approved - Designed for Local Access	14 + 3 at Airport	At grade
Speed and Access Balance	8 + 3 at Airport	At grade
Maximize Speed	3 + 3 at Airport	At grade
Grade Separated at Intersections	3 + 3 at Airport	Grade separated at major arterials
Reduced Stops + Highest Speed	3 + 3 at Airport	Elevated or underground

Source: "Integrating GO RER and SmartTrack", Presentation to Metrolinx Board February 10, 2016

City staff are working closely with Metrolinx staff to ensure that the objectives of the SmartTrack western corridor are considered in the optimization study (i.e. a direct connection to the airport passenger terminals, stations, etc). It is anticipated that an update of Metrolinx's study will be reported to the June 28, 2016 Metrolinx Board meeting.

2.2 Kitchener & Stouffville GO Corridors: SmartTrack/ GO RER Integration Options

Metrolinx and City staff have been working together to develop a range of SmartTrack and the GO RER integration options on the Kitchener & Stouffville/Lakeshore East GO Corridors. Four integration options were developed. The base case for the assessment is the Province's $13.5 billion GO RER program.

The Metrolinx Business Case Framework and the City's Feeling Congested? framework are being used to evaluate the options. To guide the analysis key assumptions were made:

- Placeholder stations were identified to support the analysis of options A to D. The specific locations of new stations is subject to the new stations analysis (see section 2.3).
- Operational feasibility and infrastructure requirements for each option have been tested using prototype scheduling.
- Alternative fares are being tested. A TTC fare and GO fare have been assessed. Further refinement of the options will also look at the impacts of emerging fare structure scenarios from the GTHA Fare Integration Strategy (see section 2.4)
- Implications of the options on Union Station capacity and train flows will be validated through further rail simulation in the next phase of work.

Based on the service concepts identified in options A to D and for Separate and Parallel SmartTrack, Metrolinx identified preliminary infrastructure requirements for each option. The preliminary findings for each option are presented below.

Separate and Parallel SmartTrack

The concept of a separate and parallel SmartTrack would require two new tracks and related rail infrastructure along the entirety of the proposed SmartTrack corridor, in addition to the expansions that Metrolinx is undertaking to implement GO RER. Given the limitations of the existing corridors to accommodate additional new tracks on top of those already planned, a large number of property takings would be required. This would cause substantial disruption to neighbouring communities and some residential towers bordering the corridors.

This option would require significant modifications to recent GO infrastructure investments along the Georgetown South Corridor stretching from Weston south to Liberty Village, including the Strachan Avenue Overpass and the West Toronto Diamond Grade Separation. These infrastructure projects were complex and had significant community impacts.

Capacity at Union Station to run a separate and parallel SmartTrack service is also a concern as two new platforms would be required. It is not clear that these additional platforms could be accommodated.

The planning, design and construction of this additional infrastructure would take many years and would extend beyond the proposed implementation timeline for SmartTrack. The likely costs of this additional rail infrastructure would be prohibitive. Due to these significant costs and community impacts, the separate and parallel SmartTrack option is not recommended for further consideration.

Figure 10. Separate and Parallel SmartTrack

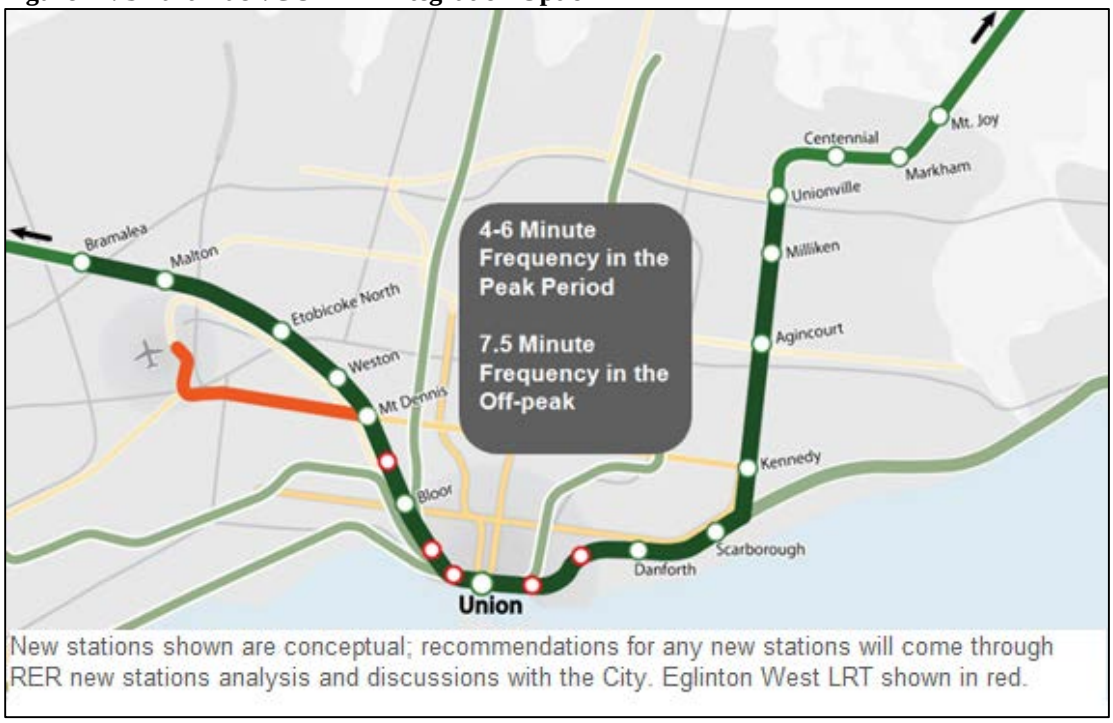
Option A

In order to meet the proposed frequency of service in option A (Figure 11), a new track would be required from the junction between the Stouffville and Lakeshore East corridors, through the Union Station Rail Corridor as far as Mount Dennis and the western extension of the Eglinton LRT. Sections of these corridors are bordered on either side by stable neighbourhoods and residential towers, some of which may have to be removed to accommodate the additional track. This would result in significant property takings and community impacts to expand the corridors.

As with the option of a separate and parallel SmartTrack service, adding this additional track would require significant modifications to recent GO infrastructure investments along the Georgetown South Corridor stretching from Weston south to Liberty Village. Capacity at Union Station is also a concern with this option as two new platforms would be required. It is not clear that these additional platforms could be accommodated.

The potential costs of option A would also be prohibitive. Given these substantial costs and the significant community impacts, option A is not recommended for further consideration.

Figure 11. SmartTrack/GO RER Integration Option A



Source: "Integrating GO RER and SmartTrack", Presentation to Metrolinx Board February 10, 2016

Option B

With an express and an all-stop service, option B shown in Figure 12 would effectively offer 10-minute frequency service at existing stations and a 20-minute service at new

SmartTrack stations. This is less frequent service than the 15-minute service proposed by both GO RER and SmartTrack. Ridership is sensitive to service frequency, and as a result option B would not significantly increase ridership on the all stop service. Furthermore, it would require many of the additional tracks needed for option A. Option B is not recommended for further consideration.

Figure 12. SmartTrack/GO RER Integration Option B

Source: "Integrating GO RER and SmartTrack", Presentation to Metrolinx Board February 10, 2016

Options C and D

Options C and D (shown in Figure 13 and 14) allow the City and Metrolinx to leverage planned investments in GO RER and avoid substantial widening of the GO corridors as required in options A and B. Given the closer integration with GO RER, these options would be able to deliver new riders and added benefits more quickly than would be possible for options A and B. These options would also provide levels of service frequency consistent with SmartTrack.

This report recommends that options C and D be advanced for further study. Table 3 provides a summary of the staff assessment of the full range of options currently being evaluated. Integration options C and D will continue to be advanced in partnership with Metrolinx, including further analysis on ridership estimates.

Figure 13. SmartTrack/GO RER Integration Option C

New stations shown are conceptual; recommendations for any new stations will come through new stations analysis. Eglinton West LRT shown in red

Figure 14. SmartTrack/GO RER Integration Option D

RER 10-Year Service Concept for Kitchener, Lakeshore East, and Stouffville corridors AM Peak Hour, Peak Direction. Eglinton West LRT shown in red.

Source: "Integrating GO RER and SmartTrack", Presentation to Metrolinx Board February 10, 2016

Table 3. Summary of Preliminary SmartTrack/GO RER Integration Options Analysis

Base Case: GO RER	Separate & Parallel SmartTrack	Option A:	Option B:	Option C:	Option D:
Kitchener & Stouffville/Lakeshore East GO Corridors: Service Concept (Unionville-Union Station-Bramalea)					
Peak period 6-10 minute service; 15 minute off-peak service	Peak and Off Peak: 15 min or better GO RER service; 15 min or better SmartTrack service	Peak: 4-6 minute Off Peak: 7.5 minute	Peak and Off Peak: 20 min express (existing stations) 20 min local (includes new stations)	Peak: 5-10 minute Off Peak: 15 minute	Peak: 5-10 minute Off Peak: 15 minute
Kitchener & Stouffville/Lakeshore East GO Corridors: New Stations (Placeholder Stations Assumed)					
11 existing + previously planned stations (Mount Dennis)	10 new stations 14th Ave (in Markham) Finch, Ellesmere, Lawrence, Gerrard/Carlaw, Queen, Unilever, Liberty Village, Bathurst/Spadina, St. Clair W	5 new stations. Gerrard/Carlaw Unilever Bathurst/Spadina Liberty Village St. Clair W	8 new stations 5 Option A stations + Finch Ellesmere Lawrence	7-8 new stations Finch, Ellesmere, Lawrence, Gerrard/Carlaw, Unilever, Liberty Village, St. Clair W	4-5 new stations Gerrard/Carlaw, Unilever, Liberty Village, St. Clair W
Kitchener & Stouffville/Lakeshore East GO Corridors: Additional Infrastructure Requirements *(Based on Preliminary Analysis)*					
• Modifications to existing stations • Grade separations • Electrification • 2nd track on Stouffville (EA already approved) • Fleet • Etc.	Incremental to GO RER: • 3rd and 4th track on Stouffville, and full property takings up to Unionville for 2 additional tracks • 5th and 6th track on Lakeshore E • 2 additional tracks from Strachan to Mount Dennis and associated improvements • Major modifications to Strachan Grade Separation and West	Incremental to GO RER: • Additional storage tracks at Unionville and Bramalea • 1 additional track on Kitchener required between USRC and Airport Spur • 5th track on Lakeshore East between USRC and Scarborough Junction	Incremental to GO RER: • 3rd and 4th track on Stouffville, and full property takings up to Unionville for 2 additional tracks • 5th and 6th track on Kitchener from Strachan Avenue to Airport Spur • Major modifications to Strachan Grade Separation and West Toronto Diamond. • 5th track on Lakeshore East	Nominal identified in preliminary analysis.	Nominal identified in preliminary analysis.

Base Case: GO RER	Separate & Parallel SmartTrack	Option A:	Option B:	Option C:	Option D:
	Toronto Diamond.		between USRC and Scarborough Junction		
Western Corridor					
Existing TTC Bus Service	Continuous heavy rail between Unionville, Union Station, Mount Dennis and Continuing to MACC; 3-4 new stations	EA Approved LRT 3 to 14 new stations	EA Approved LRT 3 to 14 new stations	EA Approved LRT 3 to 14 new stations	EA Approved LRT 3 to 14 new stations
Benefits					
	Economic growth due to more urban rapid transit service in Toronto; and generate net new ridership.	More frequent service may generate net new ridership.	More access within City but option proposes least service frequency, which may deter shifts in travel behaviour to public transit usage.	More access within City but slows travel on long distance trips and speeds travel for other trips.	Some increased access within City but less impact to travel times than Option C.
Deliverability					
Technical Feasibility	Capacity challenges at Union Station (two new platforms)	Capacity challenges at Union Station (two new platforms)	Capacity challenges at Union Station (two new platforms)		
Community Impact	Require significant incremental infrastructure resulting in significant property takings.	Require significant incremental infrastructure resulting in significant property takings.	Require significant incremental infrastructure resulting in significant property takings.		
Recommendation	**Not recommended.**	**Not recommended.**	**Not recommended.**	**Carry Forward**	**Carry Forward**

2.3 New Stations Preliminary Feasibility Analysis

As requested by City Council, staff provided an update on a preliminary assessment of SmartTrack stations to Executive Committee in October 2015 (Preliminary Stations Assessment). The assessment included profiles for each station, and a preliminary score of 'high', 'medium' or 'low' based on an initial screening through the Feeling Congested? evaluation criteria. The station profiles contain comprehensive descriptions of the surrounding area, existing ridership, a social equity rating, and current land uses. The station profiles are a useful source of information and are integral to ongoing analysis of the detailed technical analysis that is currently underway.

The following stations were selected based on preliminary station analysis and transit network analysis considerations for inclusion in the SmartTrack/RER Integration options as placeholder stations:

- 14th Ave (in Markham)
- Finch (East)
- Ellesmere
- Lawrence (East)
- Gerrard/Carlaw
- Queen/Degrassi
- Unilever (Don Yard)
- Liberty Village
- Bathurst/Spadina
- St. Clair West

Metrolinx is also conducting an analysis of 50+ potential new station sites (see Table 4). This list was presented to the Metrolinx Board in September 2015[2] and February 2016[3]. All proposed SmartTrack stations are included in the Metrolinx list of stations under review.

Table 4. Metrolinx list of 50+ potential new stations, by GO corridor

Lakeshore East	Lakeshore West	Barrie	Stouffville	Kitchener
[Parliament-Cherry]	Spadina (Bathurst-Spadina)	[Spadina (Bathurst-Spadina)]	Parliament-Cherry	Spadina (Bathurst-Spadina)
[Don Yard]	Roncesvalles	[Liberty Village (King West)]	Don Yard	Liberty Village (King West)
[Unilever (DVP-Eastern)]	Park Lawn*	[Queen W-Dufferin]	Unilever (DVP-Eastern)	Queen W-Dufferin
[Queen (Queen-Degrassi)]	Kipling	[Dundas W]	Queen (Queen-Degrassi)	Dundas W
[Dundas-Logan]	Winston Churchill	Bloor-Davenport	Dundas-Logan	St. Clair
[Gerrard (Gerrard-Carlaw)]	Maple Grove	St. Clair	Gerrard (Gerrard-Carlaw)	Islington*
[Jones]	Dorval	Hwy 7-Concord*	Jones	Hwy 27-Woodbine
[Greenwood]	Walkers Line-Cumberland	Kirby	Greenwood	Heritage Rd
[Coxwell]		Sideroad 15-Bathurst	Coxwell	Breslau
Whites Rd		Mulock	Lawrence East	
Lakeridge Rd		Innisfill	Ellesmere	
			Finch East	
			14th Av	

Richmond Hill	Milton	
Parliament-Cherry	[Spadina (Bathurst-Spadina)]	**Selected sites**
Queen East	[Liberty Village (King West)]	[ ] - location reviewed under other corridor
Dundas East	[Queen W-Dufferin]	*Considered in comparison to existing neighboring stations
Gerrard East	[Dundas W]	
Don Mills-Bond	East Mall	
Millwood	West Mall	
Eglinton	Cawthra-Dundas	
York Mills	Trafalgar	
John-Green		
16th Av		

[2] September 22, 2015, "New Station Analysis: Methodology and Process". http://www.metrolinx.com/en/docs/pdf/board_agenda/20150922/20150922_BoardMtg_New_Station_Analysis_EN.pdf

[3] February 10, 2016, "RER Stations Update: Existing and New Station Analysis Update" http://www.metrolinx.com/en/docs/pdf/board_agenda/20160210/20160210_BoardMtg_Station_Analysis_EN.pdf

City Planning has been working with Metrolinx to assess all potential new stations in Toronto (including all SmartTrack stations). Since October, more detailed information has been collected and is currently being analyzed with respect to technical and operational considerations for each potential SmartTrack station site.

City Planning provided initial comments to Metrolinx in February 2016 regarding the non-SmartTrack stations located in Toronto being assessed as part of its list of 50+ potential new stations (see Appendix 4). The comments highlighted three GO RER station sites that are aligned with important City Planning objectives (Park Lawn on the Lakeshore West Corridor, Bloor/Davenport on the Barrie Corridor, and Highway 27/Woodbine on the Kitchener Corridor). Official Plan policies are in place to protect lands for future GO stations at Bloor/Davenport and Highway 27/Woodbine. City staff additionally noted that the City has a high degree of interest in the existing York University station on the Barrie corridor, and a potential new station in the Lawrence/Highway 401 area on the Barrie corridor.

Final recommendations for SmartTrack stations will be included with the analysis of the SmartTrack integration options in the June 28, 2016 report to Executive Committee.

Metrolinx will be preparing an initial business case for each high performing station and will make recommendations on new stations to the Metrolinx Board on June 28, 2016. Metrolinx and City staff assessment to-date indicate that there is broad agreement on the performance of stations using the respective evaluation frameworks.

Although Metrolinx is undertaking a review of potential new station sites, 32 of which are located in Toronto, it is important to note that funding for new stations is not included in the current provincial funding envelope for the GO RER program. Modifications to existing GO stations and previously planned GO stations (Caledonia, Downsview, Mount Dennis) are included in the $13.5 billion commitment.

Union Station

Throughout this phase of planning and technical analysis, City and Metrolinx staff both recognized capacity of the Union Station Rail Corridor (USRC) as a potential constraint in determining the ultimate service concept for SmartTrack and GO RER.

Many improvements to the USRC are ongoing, notably Metrolinx's USRC Renewal Program that includes corridor modernization through signal system renewal, computer-based train dispatching, and new routings to the Union Station platforms. Despite these improvements, there have been a number of studies that have indicated that, in the longer term, rapid transit network solutions and vertical infrastructure expansions (i.e. tracks below grade) would be required to relieve the pressures on the USRC by 2031.

The role of new stations in relieving pressure on the USRC was examined in Metrolinx's Union Station 2031: Demands and Opportunities Study and presented to the Metrolinx Board in 2011. A modified Downtown Relief Line that would connect to a new GO rail

station at Bathurst North Yard near Spadina Ave was proposed as one of two options for further study. Barrie and Georgetown GO rail services would terminate at this station instead of Union, which would shift more than 35 percent of 2031 GO Rail passengers from Union station to the new Bathurst North Yard station. Neither Liberty Village nor stations east of Union Station (e.g. Unilever) were considered in this context in this report.

2.4 Fare Integration

The viability of SmartTrack as an urban transit service is highly dependent on the integration of fares between GO transit and TTC, and fares being priced competitively. Results from the City's new ridership model indicate that SmartTrack as a separate and parallel service to GO RER is capable of capturing significant ridership assuming a TTC fare and five minute service. The City's forecasts for 2031 indicate SmartTrack daily boardings ranging from 282,990 to 321,436 when modelled with a TTC fare. Total daily boardings on SmartTrack drops significantly for 2031 when modelled under a GO fare and five minute service scenario (108,014).

The fare adopted for SmartTrack is critical to ensuring that the added investment in infrastructure and service in Toronto produces the benefits of more Toronto residents utilizing the GO network infrastructure. The fare policy adopted for SmartTrack is linked to the development of the regional fare integration strategy for the GTHA.

Metrolinx has been leading the development of a fare integration strategy for the GTHA since 2014. The strategy is being developed with ten GTHA transit authorities, including the TTC. The GTHA Fare Integration Strategy identifies twenty-seven objectives across three lenses: customer experience; service provision; and GTHA mobility and development. The elements of the GTHA Fare Integration Strategy include: Payment System; Fare Structure; Concessions; Products; and Price. Metrolinx is currently focusing on developing the fare structure through a four-step process.

Table 5. Metrolinx GTHA Fare Integration Study

Metrolinx Study Stage	Scope
Step 1: What type(s) of fare structure best meet vision/goal/objectives?	Type of Service Trip Length
Step 2: What is the best way of applying such type(s) of fare structure to the GTHA?	Service categories Zone size and design structure Transfer policies
Step 3: Should other fare structure elements be included?	Time of day fares
Step 4: How do we implement this structure?	Revenue allocation Fiscal impact Phasing Governance

An update on the Metrolinx GTHA Fare Integration study was provided to the February 10, 2016 meeting of the Metrolinx Board of Directors (link: February 10, 2016 GTHA

Fare Integration Update to Metrolinx Board). Metrolinx will be providing advice to their Board of Directors in June 2016 on GTHA transit fare structure, and outline next steps for analysis and consultation. Metrolinx will also need to seek further direction from the Province of Ontario. The implementation of a regional fare integration strategy is recognized as a complex undertaking, requiring significant consultation with transit authorities and municipalities.

City and TTC staff have initiated a joint review to assess the implications of Metrolinx's GTHA fare integration strategy currently in development. The joint review will enable the City and TTC to provide feedback and input to Metrolinx on the development of the GTHA fare integration strategy, in addition to providing advice to City Council and the TTC Board.

2.5 TTC Service Integration

As directed by City Council, the TTC reported to Executive Committee in October 2015 on a preliminary service integration plan that includes improved bus connections to proposed SmartTrack stations (Integration of TTC Services with SmartTrack). The preliminary service integration plan identified seventy-five (75) transfer connections at 21 proposed SmartTrack stations.

The list of candidate routes will change as SmartTrack stations become finalized and after a full evaluation of the effects of these connections on all customers. The service integration plan will be updated to reflect City staff recommendations on the optimal SmartTrack concept to be brought forward in June 2016. Following this, public consultation and TTC board approval of the recommendations for any changes in TTC services will be required.

A similar process will be required to assess TTC service integration with all proposed new transit facilities, including the SSE, Relief Line, Waterfront Transit, and extensions of the Eglinton LRT.

3. SCARBOROUGH TRANSIT NETWORK

The October 2015 report identified three potential alignments (Midland, McCowan and Bellamy) and indicated that the evaluation of the Scarborough Subway Extension (SSE) potential corridors and alignments will be completed once the results of the City's regional travel demand model are available. The four options tested are:

- An alignment running along McCowan Road with three stations ("McCowan3") at Lawrence, Scarborough Centre (SCC) and the intersection of Sheppard/McCowan;

- An alignment running along McCowan Road with four stations ("McCowan4"); similar to “McCowan3” but includes an additional station between Kennedy and Lawrence stations at the intersection of Eglinton/Danforth;
- An alignment running along Midland Avenue with three stations at Lawrence, SCC and Sheppard/McCowan; and
- An alignment running along Bellamy Road with four stations at the Eglinton GO Station, Lawrence, SCC and the intersection of Sheppard/McCowan.

Preliminary ridership forecasts (reported in detail in Appendix 1, Attachment 2) indicate:

- The options are capable of capturing significant ridership. Daily users range from 115,000 to 147,000 in 2031. Morning peak hour, peak point, peak direction ridership ranges from 13,700 to 17,700.

- Assuming the McCowan3 option, the introduction of SmartTrack would reduce ridership on the subway extension to about 109,800 daily users and 12,600 peak hour, peak point, peak direction riders assuming 15-minute SmartTrack service in 2031. Assuming 5-minute SmartTrack service daily users would be about 88,200 and peak hour, peak direction, peak point ridership would be about 9,800 riders. In either case, the peak point ridership would be comparable or higher than that observed today near the terminal points of existing subway lines, with the exception of the Yonge line in the vicinity of Finch station.

The implementation of GO RER, introduction of SmartTrack, and delay in the Sheppard East LRT result in the need to re-examine the planned rapid transit network in Scarborough. In January 2016, the Chief Planner & Executive Director, City Planning Division brought forward the report EX11.5 Scarborough Transit Planning Update, and was directed to study in detail an optimized Scarborough rapid transit network. The report identified two key objectives:

1. Support the development of Scarborough Centre as a vibrant urban node
2. Support the development of complete communities along the Avenues and improve local accessibility

The optimized network plan includes:

1. SmartTrack/GO RER;
2. An express extension of Line 2 (Bloor-Danforth Subway) between Kennedy Station and Scarborough Centre; and
3. An eastern extension of the Eglinton LRT from Kennedy Station along Eglinton Avenue East, Kingston Road and Morningside Avenue to the University of Toronto, Scarborough Campus (UTSC).

The optimized network plan is shown in Figure 15.

Figure 15. Optimized Network Plan for Rapid Transit in Scarborough

The extension of the Eglinton LRT East would use the approved Scarborough-Malvern LRT project as a base (the EA was approved in 2009). Further analysis will be required to verify the connection to the Eglinton LRT at Kennedy Station, to address routing at UTSC, and to review traffic analysis. This work will need to be done in partnership with Metrolinx. Further work will be required to encourage intensification along this corridor. Staff will report to the June 28, 2016 Executive Committee on recommended planning studies.

The study of the extension of Line 2 (Bloor-Danforth Subway) between Kennedy Station and Scarborough Centre was introduced to the public in early 2015 and has undergone three rounds of public consultation in the context of the City's transit network planning. The review has progressed to the third of four phases of the TPAP Project Assessment, to report on the assessment and shortlist of solutions, and identification of a draft preferred corridor.

During our work on the original three and four stop alignments, McCowan was emerging as the preferred corridor for the subway extension. This reflected input received in the June 2015 round of public meetings. Given refinement of objectives for the Scarborough

transit network, there is a need to undertake a review of the Express Subway. The Bellamy corridor will not be considered further. Staff will complete the review of corridor and alignment options, and report to the June 28, 2016 Executive Committee on the preferred alignment including number and location of stations. Following that, the project can advance to the formal Transit Project Assessment Process (TPAP).

Scarborough Express Rail

Scarborough Express Rail (SER), commonly referred to as SmartSpur, is a concept that proposes a new easterly spur line branching off the GO Stouffville corridor to directly serve Scarborough Centre by redirecting some of the electrified GO RER trains heading north to Unionville.

The SER concept was first proposed in 2013 by Transport Action Ontario (TAO) as an alternative to the Scarborough Subway Extension. City Planning was directed to consider this proposal as part of a broader rail network proposal presented by TAO on November 13, 2013 (*MM41.15: City Involvement in GO Train Service Improvements within Toronto*).

The concept was updated in 2016 to see the east-west section through the Scarborough Centre tunnelled between Brimley Road and McCowan Road to allow Line 3 (SRT) to remain operational during construction. TAO introduced their updated concept in a deputation to Executive Committee on January 28, 2016 (*EX11.5 Scarborough Transit Planning Update*). At that time, City Planning committed verbally to reviewing the updated concept.

City Planning recommends that no further work be undertaken on the proposal for Scarborough Express Rail, based on the following comments.

Service Frequency

TAO suggests that upgraded signalling for GO RER would allow for SER to ultimately serve Scarborough Centre with a train every six minutes (10 trains per hour) in each direction. (The addition of a train every 15 minutes (four trains per hour) to Unionville as per the GO RER service concept, makes a grand total of 14 trains per hour in each direction on the Stouffville corridor south of Ellesmere). This would erode proposed SmartTrack service north of Ellesmere on the Stouffville corridor.

Even if this level of service is possible, it represents an erosion of service compared to the existing Line 3 (SRT), which offers service every 5 minutes (12 trains per hour). Moreover, the Scarborough Subway Extension is being designed to offer headways of 110 seconds (32 trains per hour) to account for increased frequency on Line 2 as warranted by future demand. Hence the subway is considered more likely to achieve the objective of supporting the development of Scarborough Centre as a vibrant urban node.

Property Impacts

The 2016 updated SER proposal would allow the continued operation of the SRT during construction by running to the south of the SRT and cut-and-cover tunnelling east of Brimley. However, with the adjusted alignment, there appears to be significant impacts to private property and existing businesses along this route from west of Brimley Road to the Scarborough Civic Centre. It would require the demolition of eight buildings on the north side of Golden Gate Court and the relocation of the businesses they contain. There would also be very significant construction impacts between Brimley and the station location in Scarborough Centre.

Connectivity

SER would offer a one seat ride from Scarborough Centre to/from Union Station and other stations on SmartTrack / GO RER west of Kennedy. The subway extension would offer a one-seat ride to/from all stations on Line 2 (Bloor-Danforth subway). Hence the levels of connectivity are different but comparable.

Next Steps

City Planning Division continues to analyze the optimized network plan for Scarborough with assistance from the TTC and Metrolinx. This work includes a detailed assessment of costing, ridership and accessibility for all elements.

Table 6. Scope of Work for Next Phase of Scarborough Transit

Scarborough Subway Extension	• Review cost estimates and schedule in consultation with TTC • Review corridor and alignment options and determine a preferred alignment • Assess Scarborough Centre Station & Bus Terminal design in consultation with the TTC
Eglinton East LRT Extension	• Review cost estimates and schedule in consultation with Metrolinx Full integration with Eglinton LRT including: o Connection at Kennedy Station o Requirements for a Maintenance & Storage Facility • Integration with University of Toronto Scarborough Campus Master Planning • Review of the existing approved project including traffic impacts and road cross-sections
SmartTrack/GO RER	• Evaluation and phasing of new stations in Scarborough

Consultation with stakeholders and the public on the findings of the further analysis of the optimised rapid transit network is being planned for April 2016. Progress on the alignment for the express subway, and required amendments to the Crosstown East Environmental Assessment (EA), will be reported to Executive Committee in June 28, 2016 and City Council in July.

4. RELIEF LINE

In 2014, City Council approved the Terms of Reference and Public Consultation Plan for the Relief Line Project Assessment. The study purpose is to determine the preferred alignment and stations for a new rapid transit line (subway) that would connect the Bloor-Danforth Subway (Line 2) east of the Don River to the Downtown. The study is being lead by City Planning in partnership with the TTC, and in consultation with Metrolinx.

Following the public consultation in early 2014, the Relief Line project had undergone four rounds of public consultation in the context of the City's transit network planning. It has progressed to the third of four phases of the TPAP Project Assessment with the identification of a preferred corridor (Corridor B1). It is anticipated the Project Assessment work will be complete in the next few months with public engagement on the preferred solution, and brought to City Council and the TTC Board in July 2016. Following City Council approval the project can advance to the formal Transit Project Assessment Process (TPAP).

The Relief Line is required to accommodate current and future ridership demands on the Yonge Subway (Line 1), relieve crowding and congestion at the Bloor/Yonge interchange station, and provide new transit capacity to relieve overcrowding on the surface transit network. Metrolinx's Yonge Relief Network Study (YRNS) reconfirmed the need for the Relief Line project in 2015. YRNS concluded that with expansion of GO RER, the Relief Line would still be required by 2031.

The critical role of the Relief Line as part of the future transit network has been further supported through the recently completed ridership modelling conducted by the University of Toronto that concluded that both a frequent SmartTrack service and the Relief Line would be needed to relieve congestion on the Yonge line. Further ridership modelling is underway to better understand the interactions between the SmartTrack/GO RER integrated option, the Relief Line and the Yonge North Subway Extension into York Region.

The October 2015 report identified that the evaluation of the Relief Line potential corridors will be completed once the results of the City's regional travel demand model are available.

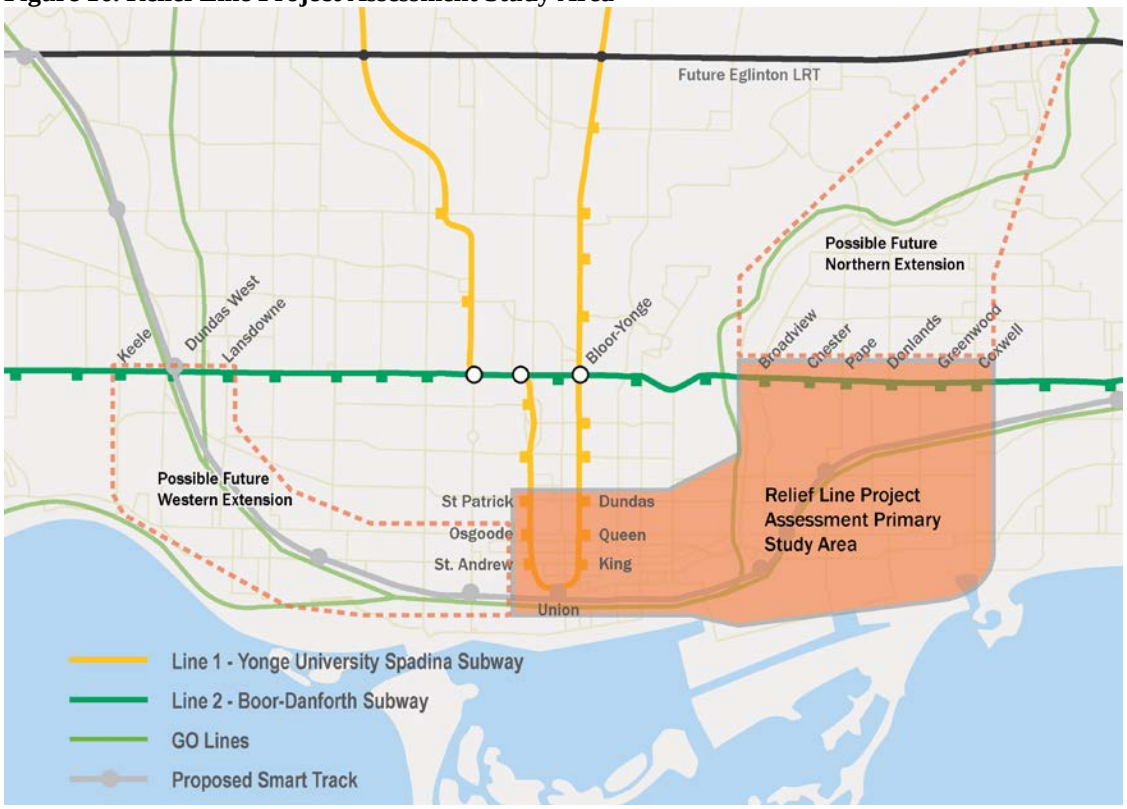
Preliminary ridership forecasts (reported in detail in Appendix 1, Attachment 3) indicates that:

- The Relief Line is capable of capturing significant ridership ranging from 90,400 to 189,600 daily boardings in 2031, depending on the corridor and whether SmartTrack is included in the transit network.
- Relief Line relieves congestion on the Yonge Subway at the critical point south of Bloor. The reduction is larger than that provided by 15-minute SmartTrack service (in the absence of the Relief Line), but less than the reduction provided by 5-minute SmartTrack service (in the absence of the Relief Line).

- The Relief Line appears to bring the projected 2031 Yonge peak hour, peak point ridership to approximately the capacity of the line. The ridership reduction associated with 5-minute SmartTrack service appears to bring the Yonge Subway peak point ridership below the capacity of the line. However, with 15-minute SmartTrack service the Yonge Subway peak point ridership remains above the capacity of the line.
- The combined effect of the Relief Line with SmartTrack at either 15- or 5-minute service reduces Yonge subway southbound volume below the capacity of the line in 2031. However, it appears that by 2041, only the combination of the Relief Line with 5-minute SmartTrack service will bring the projected Yonge peak hour, peak point ridership to approximately the capacity of the line.
- Considering the proposed extension of the Yonge Subway into York Region, it appears that neither the Relief Line nor the 15-minute SmartTrack options by themselves, or in combination with each other, bring the peak point ridership below the capacity of the line in 2031. By itself, the 5-minute SmartTrack service reduces the Yonge Subway ridership to about the capacity of the line. The combination of the Relief Line and 5-minute SmartTrack service together appear to further reduce ridership below capacity in 2031. However, by 2041, it appears that no combination of the Relief Line and SmartTrack reduces ridership below the capacity of the line.

The Relief Line Project Assessment study area is shown by the map in Figure 16. Also shown are possible areas for future extensions of the Relief Line to the north and west.

Figure 16. Relief Line Project Assessment Study Area



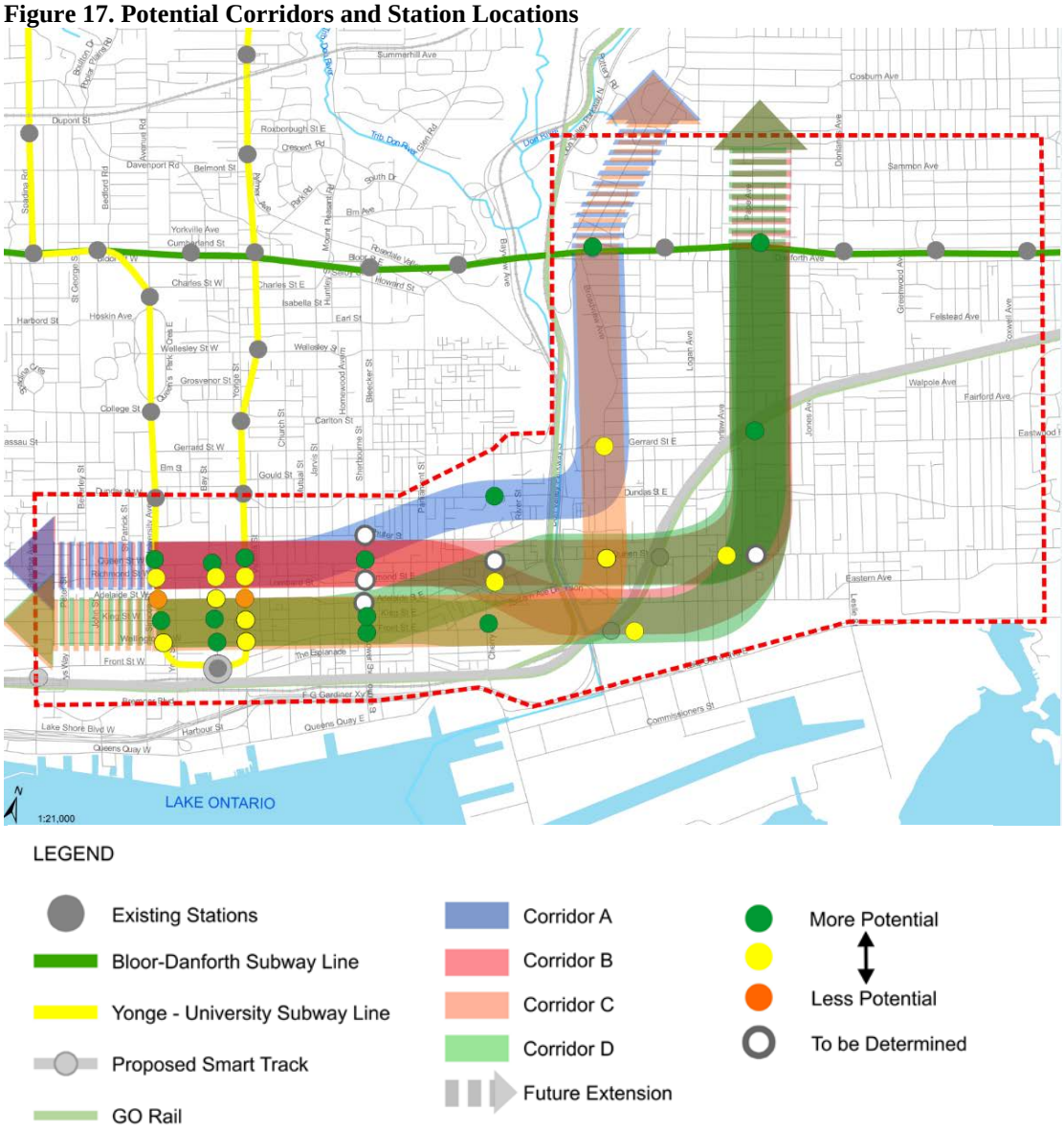
Using City Planning's Feeling Congested? evaluation framework, a comprehensive evaluation of potential station locations and corridors has been conducted. The shortlisted corridors and station options that were evaluated are shown in Figure 17.

Four corridor options (A-D) were initially identified based on an evaluation of 45 potential station areas and the following considerations:

- Best connecting stations to the Yonge-University Subway (Line 1) in downtown and to the Bloor-Danforth Subway (Line 2) east of the Don River;
- Opportunities for future extension of the Relief Line to the north and west; and
- Connecting key activity areas with potential for inline stations.

These four initial corridor options were further refined, and two of the corridors (B and D) were split in two to allow for more detailed and specific analysis. The resulting six potential corridors each connect from the Bloor-Danforth subway (Line 2) to the Downtown, along either the Queen/Richmond corridor or the King/Adelaide/Wellington corridor.

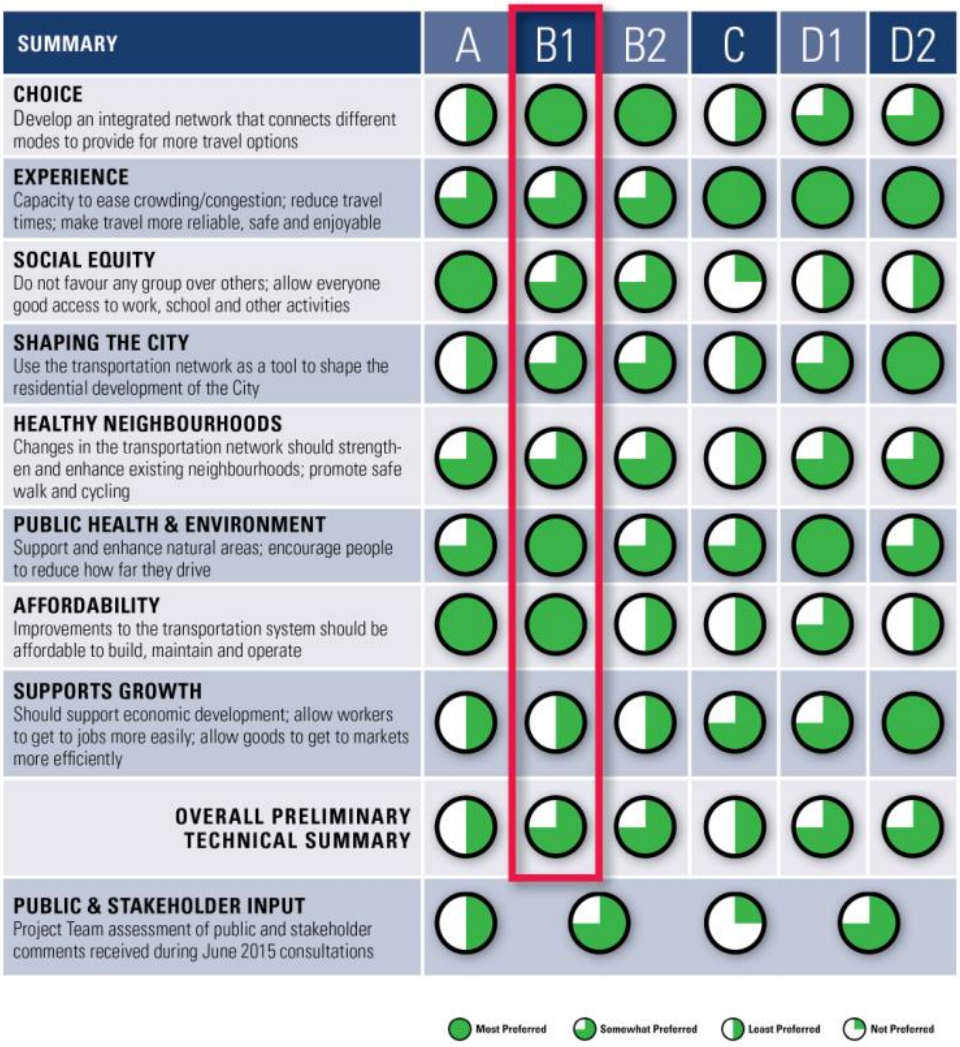
Figure 17. Potential Corridors and Station Locations



These corridors were evaluated to identify which would best address project and city-building objectives, including the ability to reduce crowding and congestion on the Yonge subway line and at the Bloor-Yonge interchange station. Each corridor would divert a similar number of riders from the Yonge subway (Line 1) and achieve the key project objectives.

Figure 18 provides a summary of the corridor evaluation results. The evaluation concluded that four corridors (B1, B2, D1, and D2) achieved the best overall technical result. See Appendix 6 for further information on the evaluation of potential stations areas and corridors).

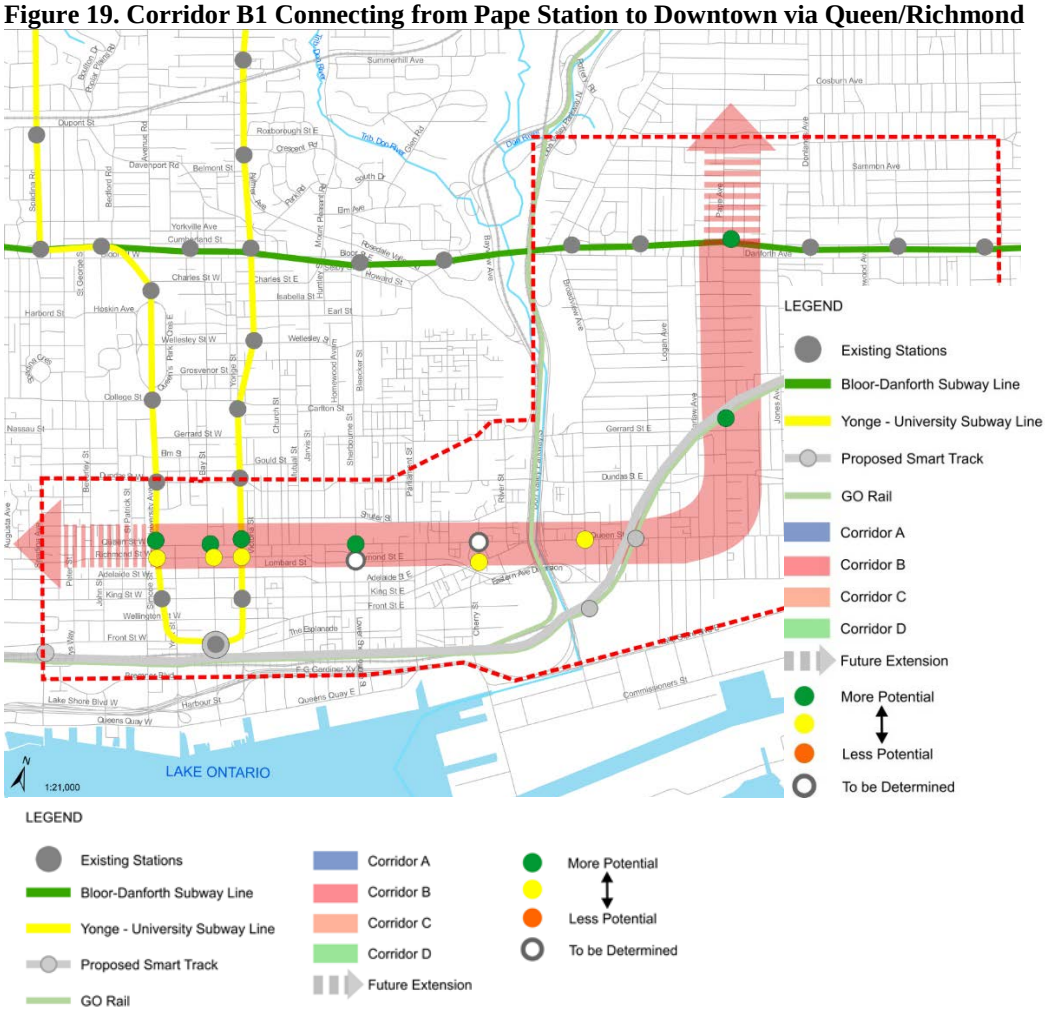
Figure 18. Summary of Corridor Evaluation Results



Public and stakeholder consultation was undertaken in March and June 2015 as well as February 2016 where preliminary study findings were shared with the public. Consultations in March 2015, focused on the results of the evaluation of potential station areas. In June 2015, the public provided feedback on potential corridors. In February 2016, the focus was on the recommended Preferred Corridor. At each of these rounds of consultation, input has been overwhelmingly supportive of the evaluation process and outcomes. More detail on the consultation process can be found in Appendix 6 and at www.reliefline.ca.

City Planning staff, supported by TTC staff, recommend that Corridor B1, which connects from Pape Station to downtown via Queen/Richmond (as shown in Figure 19), be carried forward for more detailed analysis and refinement to identify a specific preferred alignment and stations. This recommendation is based on the technical evaluation conducted to date, combined with stakeholder and public input.

Figure 19. Corridor B1 Connecting from Pape Station to Downtown via Queen/Richmond



Based on the evaluation results, key decision-relevant features that favour Corridor B1 over the other corridors are:

- Relatively high ridership potential; high inbound bus transfers at Pape Station; potential SmartTrack/GO RER interchange station at Pape and Gerrard;
- Shorter crossing of the Don River, which would reduce environmental impact and costs;
- Fewer major utility conflicts along the Queen/Richmond corridor in the Downtown.

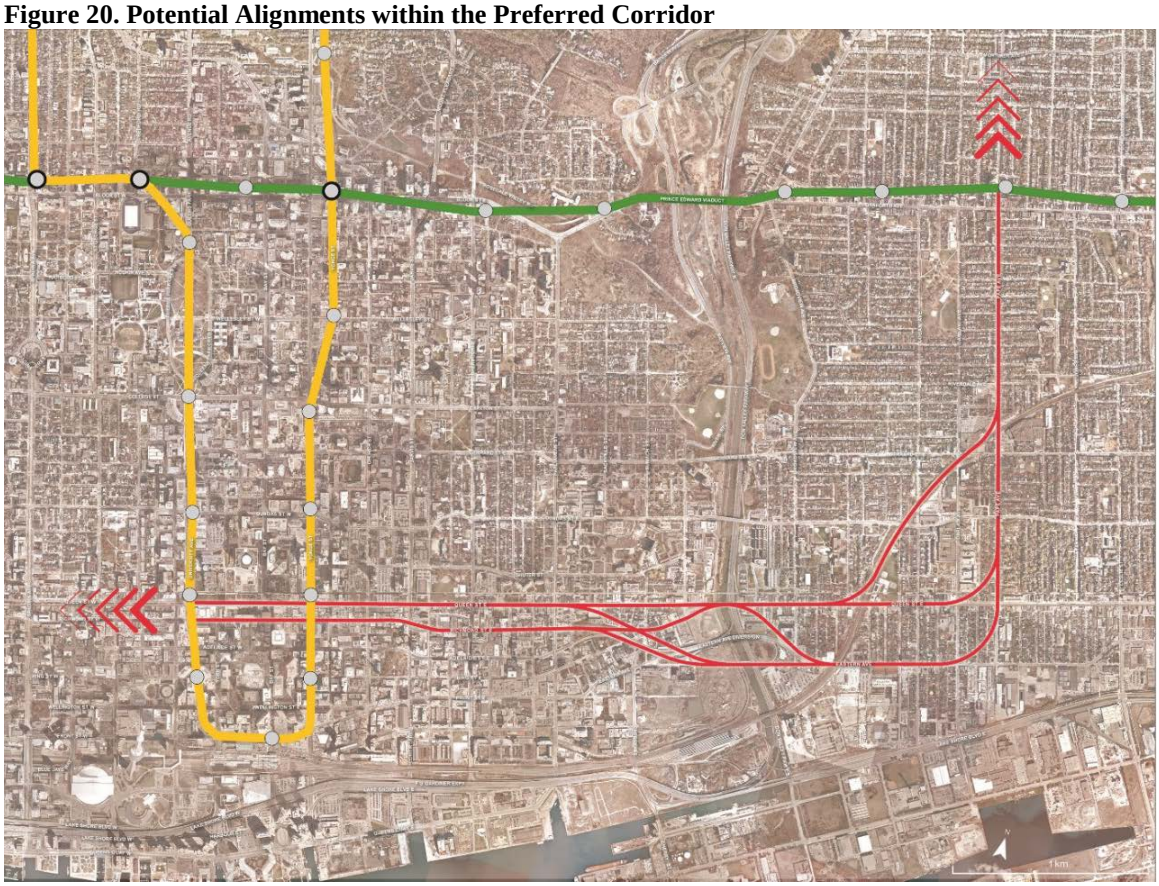
Further advantages of Corridor B1 are listed in Table 7.

Table 7. Main Advantages of Corridor B1

Creates Dynamic Multi-Modal Hub in the Core	Opportunity to create interchange station in the psychological centre of the city (Nathan Phillips Square at City Hall)
	Supported with strong pedestrian connections to Queen and Osgoode Stations on Line 1 and to the Financial District via PATH network
Fills Rapid Transit Void in the Core	Improves rapid transit connections to northerly areas of the core (between Union Station and Yonge-Bloor Station)
Recognizes That Downtown is Not Just 9-5	Provides alternative route for people to access jobs in the Financial District
	Best for full array of daily travel needs and destinations, such as universities, hospitals and public institutions
Spreads Out Pedestrians	Does not add more pedestrian congestion to Union Station area
	Supports more options for people to access jobs throughout the downtown
Performs Well with Other Transit Initiatives	Complements SmartTrack / GO RER connections into Union Station
	Complements planned transit priority corridor along King Street
	Connects to #6 Bay bus and bus lanes for onward connections north and south
	Bike Station under Nathan Phillips Square to open soon
Supports Social Equity	Closest to Regent Park Neighbourhood Improvement Area (5 minute walk)
	Closest to Moss Park at Queen & Sherbourne
Lowest Projected Cost	Avoids costly soil stabilization needs for crossing Don River south of Queen
	Requires a shorter crossing of the Don River

The report recommends City Council approve Corridor B1 (Pape to Downtown via Queen/Richmond) as the preferred corridor for the Relief Line project and request the Chief Planner & Executive Director, City Planning in consultation with the TTC to report the preferred alignment and stations to the June 28, 2016 Executive Committee. Following City Council direction, staff will move forward with the evaluation of alignment options for the Relief Line. A preferred alignment and stations will be brought forward in the report to Executive Committee in June 2016. Potential alignments within Corridor B1 are shown on Figure 21 (below) and potential station locations on Figure 18 (above). See Appendix 6 on the Relief Line for more detailed information.

Figure 20. Potential Alignments within the Preferred Corridor



5. WATERFRONT TRANSIT

Toronto's waterfront transit projects (Waterfront West and Waterfront East LRTs) are among the highest ranking unfunded rapid transit projects in "Feeling Congested?". However, transit planning for Toronto's Waterfront has been ad hoc and incremental. Studies for various segments have been conducted but the piecemeal approach has resulted in the absence of a comprehensive transit plan that can respond to the rapid transformation that is occurring along the waterfront. In light of this, staff brought forward a report on the need to "reset" waterfront transit planning that was adopted at the November 3, 2015 meeting of City Council (EX9.9 Waterfront Transit "Reset"). The report indicated that having numerous individual waterfront transit projects at different stages of approval has stagnated the progress in securing funding for new transit infrastructure in the area.

This project was introduced to the public in the latest round of public consultation in the context of the City's transit network planning. It is in the initial phase of TPAP Project Assessment, to introduce the study to the public. It is anticipated this study will be fully initiated and completed over the next several months to report back to Executive Committee on findings and next steps.

Figure 21. Waterfront Transit Reset Study Process

At the November 3, 2015 meeting of City Council, staff were directed to undertake a Phase 1 review of the "Waterfront Transit Reset" Initiative, with the TTC and Waterfront Toronto, which includes the entire waterfront depicted in Figure 22. City Council direction also requested a status update to Executive Committee in the first quarter of 2016. This update is intended to respond to that direction.

As directed by City Council, City staff have been working in partnership with the TTC and Waterfront Toronto, and are currently retaining consulting services for a Phase 1 of the Waterfront Transit "Reset" study. An RFP was issued in January 2016 for Phase 1 of this study, which involves a comprehensive review of existing and planned waterfront transit. Consultant selection is anticipated in early March and the first task will be to confirm a study design for the Phase 1 work. The Consultant is expected to clearly articulate the opportunities and options that exist to realize a continuous and integrated waterfront transit route that responds to the rapid transformation and growth that is occurring along the waterfront. Figure 23 includes a summary of work completed to date and key issues requiring further review in Phase 1 of this study.

The study area extends from the Long Branch GO Station and the Mississauga border in the west to Woodbine Avenue in the east, and south of the Queensway/Queen Street corridor to Lake Ontario (see figure 22). Phase 1 will also include preliminary business case(s) and cost estimate(s) for a continuous and integrated waterfront transit route, including priority segments that are anticipated to be used as a basis for staff recommendations for Phase 2 of the study.

The Consultant will be expected to identify and evaluate a range of alternatives to form the basis of a recommended solution, comprising a continuous east/west transit route along the waterfront and provisions for integrated north/south network connections that would link the City to the waterfront. Options to reduce and/or rationalize East Bayfront transit project costs, including integrating East Bayfront transit in the context of a continuous east/west route along the waterfront is a key priorities for the Phase 1 study.

Public Consultations will be held in May 2016 with the goal of educating and engaging stakeholders and the public on the context and purpose of Phase 1 of this study. It will be the first opportunity to receive early input on the long list of alternatives being studied for the Waterfront Transit Reset. The City, TTC and Waterfront Toronto project team will

establish a Stakeholder Advisory Committee and hold two public open houses for consultation in May 2016. A full summary of the public consultation will be documented.

The plan for a continuous and integrated waterfront transit route and network will consider and coordinate with the directions emerging from other major transit initiatives underway, including Smart Track, Relief Line, Scarborough Transit Planning, and the Metrolinx GO RER expansion program. This includes reporting and public consultation in conjunction with these projects as the timing moves forward.

Figure 22. Waterfront Transit Reset Planning Status Map

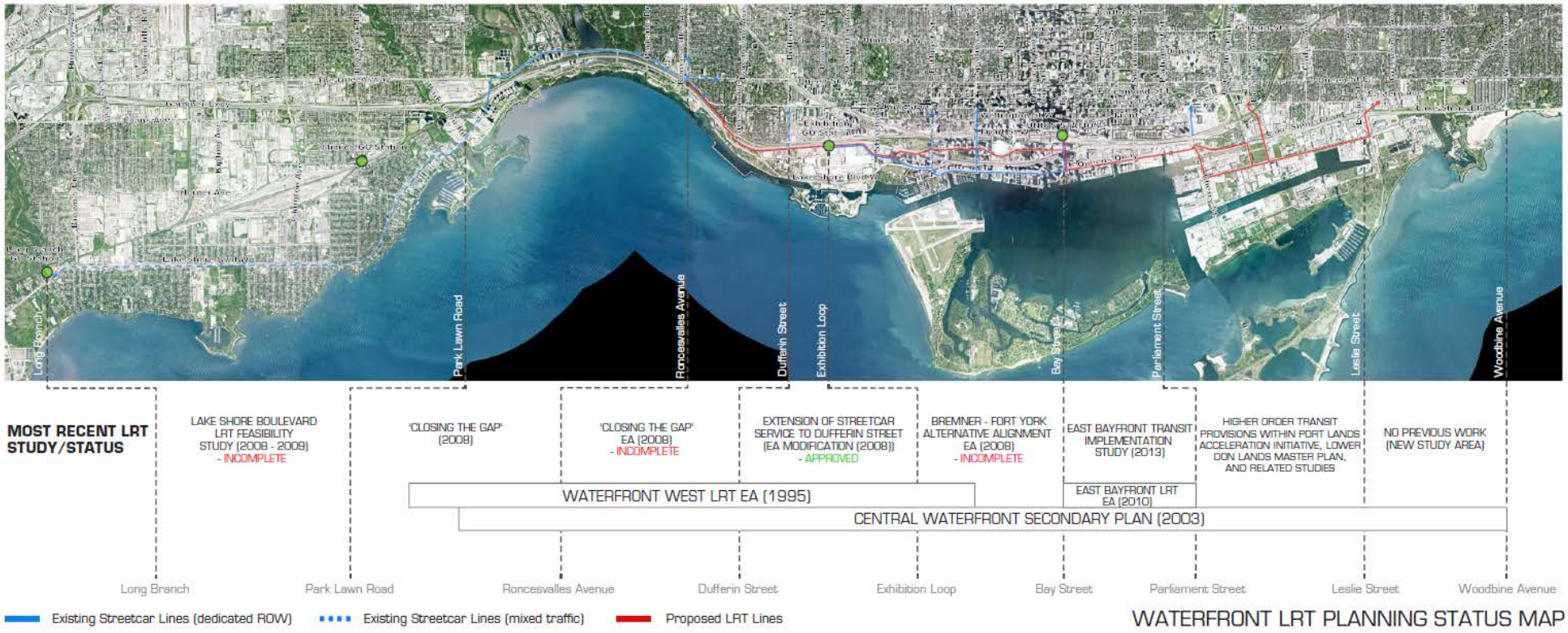
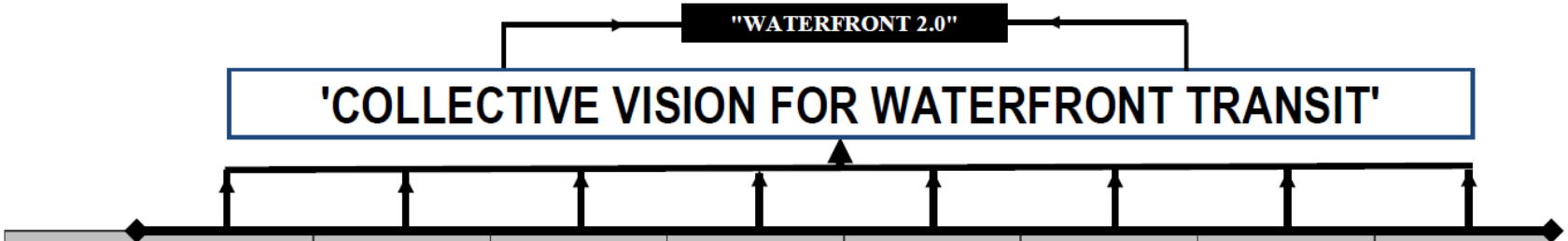


Figure 23. Waterfront 2.0 Vision



Segment	Long Branch to Park Lawn Road	Park Lawn Road to Roncesvalles Avenue	Roncesvalles Avenue to Dufferin Street	Dufferin Street to Exhibition Loop	Exhibition Loop to Union Station	Union Station to Parliament Street	Parliament Street to Leslie Street	Leslie Street to Woodbine Avenue
Most Recent Light Rail Transit Study	*Lake Shore Boulevard LRT Feasibility Study (2008)* *Status: Incomplete*	*'Closing the Gap' EA (2008)* *Status: Incomplete between Roncesvalles and Dufferin Street*		*Extension of Streetcar Service to Dufferin Street (EA Modification)* *Status: Approved (2008)*	*Bremner-Fort York Alternative Alignment Concept (2008)* *Status: Incomplete*	*East Bayfront Transit Implementation Study (2013)* *East Bayfront LRT EA Status: Approved (2010)*	*Higher order transit provisions within Port Lands Acceleration Initiative, Lower Don Lands Master Plan, and related studies*	*No previous study (new study area)*
Key Issues and Preliminary Considerations	• Right-of-way constraints along Lake Shore Blvd • Significant growth pressures in Mimico/Humber Bay Shores	• Utilization of the former Christie Site • Implementation of Park Lawn Loop • Gardiner Expressway /Rail corridor crossing • N/S connectivity	• Overcrowding of King and Queen streetcar routes • Right-of-way constraints	• Previous Alignment south of, and adjacent to Gardiner Expressway (2008) • N/S connectivity for transit and active transportation infrastructure	• Heritage Impacts • Significant growth pressures in Liberty Village, Fort York, CityPlace, Ontario Place and Exhibition Place • N/S connectivity for transit and active transportation infrastructure • Bathurst/Fleet/Lake Shore Boulevard intersection • Right-of-way constraints • Union Station	• Significant growth pressures • Technical issues associated with grade separations • N/S connectivity for transit and active transportation infrastructure • Union Station	• Significant future growth pressures in Port Lands and former Unilever Site • Connection to Leslie Barns • Smart Track and Relief Line Planning • N/S connectivity for transit and active transportation infrastructure	• Transit Terminus and N/S connectivity /alignment

6. PUBLIC CONSULTATION

In February 2016, a comprehensive consultation process was initiated that included stakeholder advisory groups, public information sessions, and online engagement on the full range of transit projects and programs currently under assessment. The public information sessions were held in partnership with Metrolinx and the TTC. Representatives from the City, TTC and Metrolinx were present to answer questions during all public information sessions. The scope of the consultation program included the following projects and programs:

City & TTC

- SmartTrack
- Relief Line
- Scarborough Transit Plan
- Waterfront Transit Reset

Metrolinx

- Electrified GO Service
- New Stations on the GO Rail Network
- Integrated Transit Fares
- Regional Transportation Plan Review

A series of seven Public Information Sessions were planned across the City of Toronto. City representatives were also present as guests at two additional public information sessions hosted in Mississauga and Markham to answer questions about SmartTrack and GO RER Integration. In addition to opportunities to engage and provide feedback at the sessions held in the City of Toronto, there were also opportunities for the public to provide feedback online.

As of February 29, 2016, five Public Information Sessions have been held across the City at locations in:

- Etobicoke (Richview Collegiate Institute)
- Scarborough (Jean Vanier Collegiate Institute, and Scarborough Civic Centre);
- Toronto East (Riverdale Collegiate Institute)
- Downtown (Metro Toronto Convention Centre)

Two more public information sessions have been organized by Metrolinx in March. City representatives will also be involved in these sessions.

In total there were over 700 participants at the Public Information Sessions. City Planning Division staff also made presentations at public meetings organized by several members of City Council. Online visits to transit webpages from February 1st to 25st, 2016, are summarized in Table .

Table 8. Visits to Webpages

Project Webpages	Unique Visits	Total Views
Transit TO Transit Expansion (City Manager's Office)	1956	2371
SmartTrack	2271	2764
Relief Line	3444	10858
Scarborough Subway Extension	1767	2262

Key highlights include:

- There was overall positive support for the coordinated network approach to transit planning in Toronto.
- There was general support for SmartTrack as residents gained a clearer picture of the elements of the project and how it could integrate with GO RER. There were some questions about safety and noise issues in neighbourhoods bordering the GO corridors, given the planned higher frequency of trains. Several people discussed the need for grade separations, particularly on the Stouffville corridor. Many residents also had questions regarding fare integration and consider this to be very important.
- Most residents in Scarborough supported the proposed transit network solution (including an express subway extension to Scarborough centre and the extension of the Eglinton LRT East to UTSC). Some residents were concerned with how existing communities would be served by an express subway, and about not having a stop at Scarborough Hospital.
- There is strong support for the Eglinton LRT East because of how it will serve Scarborough residents. However, some people raised questions about traffic impacts, particularly along Kingston Road.
- Many residents across the City indicated strong support for the Relief Line and the need to move ahead with this project. There were questions about the rationale for recommending an alignment on the Queen Street corridor over the King Street corridor. There were also some concerns about having only one station in the downtown area, particularly if it primarily served Nathan Philips Square (City Hall). Many residents enquired about the timelines for the Relief Line given the urgent need to provide relief on the Yonge Subway Line 1.
- There was no support for a heavy rail option for the western corridor from Mount Dennis to MACC; most residents prefer the LRT option. There were some questions and concerns raised concerning potential traffic and noise impacts of a surface LRT option on Eglinton. Some residents in the area suggested the City consider a Bus Rapid Transit option. People were in favour of connecting the LRT to Pearson International Airport, but were neutral regarding a connection to Mississauga.

This series of public consultations will conclude in late March 2016. Further consultations will be held in late April/early May 2016. Staff will provide a full consultation summary in the June 28, 2016 report to Executive Committee.

8. NEXT STEPS

Subject to City Council direction to proceed with planning and technical work on key projects, a further report will be brought to the June 28, 2016 Executive Committee in order to report on the following scope and seek required City Council authorities:

Table 9. Next Steps

Project/Program	Scope	Required Council Authorities
SmartTrack	• Continue to work with Metrolinx to test and refine SmartTrack / GO RER integration scenarios. Continue to work with Metrolinx to identify best performing new stations. • Continue to work with Metrolinx to identify a fare integration solution. Continue to work with Metrolinx on developing Eglinton LRT extension along the western corridor.	Seek City Council approval for the recommended SmartTrack concept and business case and initiate discussions on funding and financing with the Provincial and Federal governments
Regional Express Rail	• Continue to engage Metrolinx on the emerging Environmental Assessments including grade separations and new stations beyond the SmartTrack corridor.	
Relief Line	• Identify preferred alignment and station locations.	Recommend the preferred alignment and stations for the Relief Line project and seek City Council authority to commence the formal TPAP process;
Scarborough Transit	• Continue to work with TTC on reviewing the corridor and alignments for the Express Subway. • Continue to work with TTC, Metrolinx and UTSC to update the approved plan for the Eglinton LRT East.	Recommend the preferred Scarborough Transit network solution, including the preferred alignment for the Scarborough Subway Extension and seek authority to commence the formal TPAP process. Potential recommendations on amending the environmental assessment for the Eglinton LRT East extension may be brought forward;
Waterfront Transit	• Provide findings on the Waterfront Transit Reset Study, and report on next steps;	
Long Term Transit Plan/ Feeling Congested?	• Continue to advance refinements to the transit network vision for the City beyond the recommendations contained in this report, targeting report out in Q1 2017.	
Fare Integration	• Provide an update on the GTHA Fare Integration study, including the City's own review and analysis of the implications of potential new fare structures proposed by Metrolinx; and	
TTC Service Integration	• Continue to work with the TTC to understand and reflect the impact of a larger rapid transit network on operations including feeder bus services.	

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Peter Wallace, City Manager

ATTACHMENTS

Appendix 1 – Transit Network Analysis
- Attachment 1- SmartTrack Ridership Forecast
- Attachment 2- SmartTrack Ridership Forecast Including Scarborough Subway Extension
- Attachment 3- SmartTrack Ridership Forecast Including Relief Line
- Attachment 4- Growth Assumptions
- Attachment 5- Peer Review

Appendix 2 – Metrolinx Board Report: Integrating GO RER and SmartTrack
Appendix 3 – SmartTrack: Western Corridor Heavy Rail Options Assessment (memorandum from the Chief Planner & Executive Director, City Planning)
Appendix 4 – February 12, 2016 Letter from Chief Planner to President and CEO, Metrolinx
Appendix 5 – Metrolinx Public Information Session Station Boards
Appendix 6 – Relief Line Project Assessment

List of Tables and Figures

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