



SmartTrack Work Plan (2015-2016)

Date:	January 16, 2015
To:	Executive Committee
From:	City Manager
Wards:	All
Reference Number:	

SUMMARY

On July 24, 2014, the Ontario Legislature passed the Building Opportunity and Securing Our Future Act (2014 Budget Measures), which included a \$15 billion commitment to funding transit expansion in the Greater Toronto and Hamilton Area (GTHA). The Province made a commitment to deliver Regional Express Rail (RER) which envisions expanding GO Transit rail service across all corridors. RER will provide two-way, all-day, GO service as frequent as every 15 minutes through electrification of provincially owned GO rail corridors. The RER program will be delivered over the next ten years by the Province's regional transportation agency, Metrolinx.

The SmartTrack plan builds upon the provincial RER initiative, and proposes a 53 kilometre, all-day two-way frequent service operating within two GO Rail corridors (Kitchener and Stouffville/Lakeshore East) and a new heavy rail corridor along Eglinton Avenue West to the Mississauga Airport Corporate Centre. With connections to Mississauga and Markham, the regional line proposes 22 station stops, of which 13 are new. The proposal indicates the project is to be delivered within 7 years. The SmartTrack plan requires approval from both City Council and the Province, as the line would be delivered and operated on provincially owned GO Transit rail corridors.

On December 11, 2014, City Council directed the City Manager to work with the Toronto Transit Commission (TTC) and the Provincial Government and its agencies to provide an accelerated work plan for a review of the SmartTrack and RER plans. A joint review of the infrastructure requirements, planning, social, economic development considerations, and incremental costs of implementing the SmartTrack plan will be undertaken through several phases of work outlined in this report.

Metrolinx has a work plan for RER which includes developing the service concept (i.e. frequency, type of service), identifying infrastructure needs, and developing a phasing strategy to determine the optimal sequencing of delivering RER to all GO rail corridors. Metrolinx is also undertaking a business case analysis to prioritize RER with other Next Wave projects identified in The Big Move regional transportation plan. Metrolinx will be submitting its business case analysis for RER, and other Next Wave projects to the Province in Q2 2015. A response from the Province is anticipated by Q3 2015.

The City has established a joint committee with the Ministry of Transportation, Metrolinx, and the TTC to integrate the SmartTrack plan with RER. The committee has prepared an accelerated work plan which compresses the schedule typically required to review a complex intergovernmental project like SmartTrack. Given the aggressive timelines committed to by the Province on the delivery of RER, the additional work to assess SmartTrack enhancements has been factored into the work plan.

The City and TTC will work with Metrolinx to incorporate SmartTrack in the business cases for Kitchener GO and Stouffville/Lakeshore East GO corridors for provincial consideration. The results of these business cases as approved by the Province will be presented to Council in the fall. The technical feasibility of rapid transit options on a new rail corridor along Eglinton West to Mississauga Airport Corporate Centre will also be reviewed. The City's preliminary business case for SmartTrack on the Eglinton West Corridor will be presented to the Province and City Council in fall 2015.

The work plan proposes, if required, a second report to City Council early in 2016 to provide the final business case, funding strategy and implementation plan for the Eglinton West Corridor, subject to further Council direction.

Ongoing negotiations regarding project governance, financing and project delivery are underway among City and funding partners. Staff recognize the work plan envisioned may require adjustment reflective of intergovernmental discussions and further direction from City Council.

RECOMMENDATIONS

The City Manager recommends that:

1. City Council direct the City Manager, in partnership with the Province, to carry out the accelerated SmartTrack work plan as described in this report.
2. City Council request the Province and Metrolinx to include the following additional SmartTrack elements in the design and review of Regional Express Rail (RER) on the Stouffville/Lakeshore East GO corridor from Unionville to Union Station, and on the Kitchener GO corridor from Mount Dennis to Union Station:

- a. A service frequency of better than 15 minutes;
 - b. All-stop service in both directions;
 - c. Accelerated electrification of the entire SmartTrack line;
 - d. Transit service integration;
 - e. Integrated fares between GO Transit and the TTC;
 - f. Seven additional stations on the Stouffville GO/Lakeshore East GO corridor (totaling 14 with Union Station); and
 - g. Three additional stations plus the already planned new station at Mount Dennis on the Kitchener GO corridor (totaling 5 with Mount Dennis).
3. City Council direct the City Manager, in partnership with Metrolinx and the TTC, to undertake a feasibility study of SmartTrack options on the Eglinton Avenue West corridor, from Mount Dennis station to the Mississauga Airport Corporate Centre, including:
- a. At least 3 stations;
 - b. Integration with the Kitchener GO corridor/RER plan;
 - c. Public consultation to inform the study; and
 - d. Preparing the feasibility study as a background study for the Transit Project Assessment Process (TPAP), subject to further Council direction.
4. City Council request the City Manager in collaboration with provincial officials and other funding partners to prepare:
- a. A strategy for the sharing of the capital costs of implementing the SmartTrack enhancements to RER as referenced in Recommendations 2 and 3 above; and
 - b. A strategy for the financing of the City's share of the capital costs as identified above.
5. City Council amend the 2015 Interim Estimates report contained in Item EX1.6 to include additional funding of up to \$750,000 in the 2015 interim capital estimates, of the Transit Expansion Initiatives capital project and to include additional funding of up to \$900,000 in the 2016 capital budget estimates, to conduct the studies, and analyses, as outlined in Recommendation 2 and 3 above.
6. City Council request the Province and Metrolinx to work in partnership with the City and other affected municipalities on the RER public outreach and engagement strategy, and include SmartTrack as a component of the strategy.
7. City Council direct the City Manager, in partnership with the Province, Metrolinx and the TTC, to prepare a report for Executive Committee consideration for the fall of 2015 on the following:
- a. Kitchener GO and Stouffville/Lakeshore East GO RER/SmartTrack service concept, infrastructure plan, and business case analysis;

- b. Eglinton West Corridor feasibility study findings described in Recommendation 3, including options for rapid transit on the Eglinton West Corridor;
- c. High level cost estimates and planning analysis for all three corridors;
- d. Capital cost sharing and City financing strategy;
- e. Plan for undertaking additional Environmental Assessments (EAs) that may be required on all corridors; and
- f. Update on public consultation activities.

Financial Impact

At the December 11, 2014 meeting, City Council authorized \$750,000 in the 2015 budget to conduct the various studies and analyses required to review the SmartTrack plan. Table 1 provides a breakdown of the required SmartTrack studies with approved funding.

Table 1. SmartTrack Studies Approved in 2015 Budget

Study	Amount
University of Toronto (U of T): Transit modelling and ridership assessment	\$350,000
Strategic Regional Research Associates (SRRA): Assessing development scenarios along the SmartTrack corridor	\$100,000
Third Party Peer Review of SmartTrack analysis:	
• U of T modelling	\$70,000
• Development scenarios	\$30,000
Financial Consultant: Financial, project delivery and real estate development expertise	\$200,000
Budget Approved (2015)	\$750,000

Additional funding is required to undertake the studies listed in Table 2:

Table 2. Additional SmartTrack Studies 2015-2016

Study	Amount
2015	
Eglinton West Corridor: Background Feasibility Study	\$250,000
Eglinton West Corridor TPAP	\$500,000
Additional Funding in 2015	\$750,000
2016	
Eglinton West Corridor TPAP	\$900,000
Total 2016 Funding	\$900,000

The total funding required in 2015 (approved and requested) is \$1.5 million and \$900,000 in 2016. Funding is available for this project in the Transit Expansion Initiatives capital

project included in the 2015 -2024 Recommended Capital Budget and Plan for Corporate Initiatives, currently being considered by Council as part of the 2015 Budget process.

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

DECISION HISTORY

EX1.12 Request for Report on Review of SmartTrack and Regional Express Rail Plans, December 11, 2014, City Council.

City Council on December 11, 2014 directed the City Manager in collaboration with the TTC, Provincial Government and its agencies, to bring forward an interim report to the January 22, 2015 meeting of Executive Committee. The report is to provide an accelerated work plan for the review of the SmartTrack and Regional Express Rail (RER) plans. Council authorized the City Manager to retain specialized services to assist in the review of the SmartTrack plan. Council has allocated \$750,000 in the 2015 budget to conduct the review of the SmartTrack plan including obtaining necessary third party services. City Council also authorized the City Manager to engage Provincial and Federal officials and municipalities across the region as needed to review the SmartTrack and RER implementation plans and pursue partnership funding.

Link: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.EX1.12>

ISSUE BACKGROUND

Province's Commitment to Regional Express Rail (RER)

On July 24, 2014, the Ontario Legislature passed the Building Opportunity and Securing Our Future Act (2014 Budget Measures) which commits \$15 billion over 10 years to transit infrastructure in the GTHA. The Province has identified RER as a key priority. RER envisions the transformation of the GO Rail Transit network through the implementation of:

- An electrified service on corridors Metrolinx owns with 15-minute frequencies in core areas;
- Service in both directions, throughout weekdays, in evenings and on weekends;
- All-stop and limited-stop service to meet demand and reduce travel times.

The Province is responsible for decisions regarding the delivery and operation of RER. The RER plan builds on work already undertaken to improve GO Transit service, such as the implementation of 30 minute all-day service on the Lakeshore East and West

corridors, Georgetown South corridor improvements, additional peak service on all seven GO rail corridors, and expansion of the GO fleet.

RER was presented to the Metrolinx Board in September 2014 and a recent update on the work plan for the RER program was provided to the Metrolinx Board at the December 11, 2014 meeting¹. The work plan is an iterative process that includes developing the service concept, identifying infrastructure requirements, developing the business case, and determining optimal sequencing of GO rail improvements to achieve the RER vision.

Metrolinx reported on December 11, 2014 its recommendation that RER be delivered alongside a variety of other planned Next Wave projects set out in The Big Move. Timing and staging of projects will be based on evidence-based criteria using a business case approach. RER has strong linkages to other policy initiatives, such as regional fare and service integration, and planning studies such as the Metrolinx Regional Relief Study.

The SmartTrack Plan

SmartTrack builds on the Province's commitment to advancing regional transportation service through the GO Transit rail network, by proposing key service enhancements on a 53 kilometre rapid transit line along the Stouffville/Lakeshore East GO and Kitchener GO corridors, and a new heavy rail corridor along Eglinton West. Smart Track is a regional line that would provide connections between Mississauga Airport Corporate Centre in the west and Markham (Unionville) in the east, through downtown Toronto's Union Station.

With 22 station stops (9 GO transit stations, and 13 new stations), SmartTrack proposes all-stop, two-way frequent service. SmartTrack leverages the Province's commitment to improving regional rail to meet the City's interests in moving residents, reducing gridlock and advancing city building opportunities. The initial proposal identified a possible Toronto contribution of up to \$2.5 billion towards an estimated \$8 billion cost for the SmartTrack project. The cost estimates will be reviewed as part of this work plan.

¹ September, 5, 2014, Regional Express Rail, Metrolinx Board
http://www.metrolinx.com/en/docs/pdf/board_agenda/20140905/20140905_BoardMtg_Regional_Express_Rail_EN.pdf
December, 11, 2014, Regional Express Rail Update, Metrolinx Board
[/www.metrolinx.com/en/docs/pdf/board_agenda/20141211/20141211_BoardMtg_RER_Update_EN.pdf](http://www.metrolinx.com/en/docs/pdf/board_agenda/20141211/20141211_BoardMtg_RER_Update_EN.pdf)

Figure 1. SmartTrack and Regional Express Rail



Table 3 highlights some of the specific enhancements SmartTrack proposes to the RER plan. Appendix A provides the full list of SmartTrack stations proposed.

Table 3. Comparison of SmartTrack Proposal and RER

Regional Express Rail (RER)	SmartTrack
General	
<ul style="list-style-type: none"> • Service as frequent as every 15 minutes • Mix of all-stop and limited stop service in both directions • Fare policy to be determined • Union Station key destination 	<ul style="list-style-type: none"> • Service frequency of 15 minutes or better • All stop service in both directions • TTC fare option • Union Station key destination
Corridor #1- Stouffville/Lakeshore East GO (Unionville to Union Station)	
<ul style="list-style-type: none"> • 6 existing GO stations • New stations may be considered 	<ul style="list-style-type: none"> • 6 existing GO stations • 7 new stations (1 in Markham)
Corridor #2- Kitchener GO (Mt. Dennis to Union Station)	
<ul style="list-style-type: none"> • 1 existing GO station (Bloor) and 1 future GO station (Mt. Dennis) • New station options may be considered 	<ul style="list-style-type: none"> • 1 existing GO station (Bloor) and 1 future GO station (Mt. Dennis) • 3 new stations
Corridor #3- Eglinton West (Mt. Dennis to Airport Corporate Centre)	
<ul style="list-style-type: none"> • Not in RER plan. Extension of Eglinton Crosstown LRT to Pearson Airport is an unfunded project in The Big Move Plan. 	<ul style="list-style-type: none"> • New heavy rail corridor to Mississauga Airport Corporate Centre • 3 new stations (1 in Mississauga)

COMMENTS

Several key elements require review in order to evaluate the public policy and cost-benefit implications of integrating the SmartTrack plan with the Province's RER program. The following work plan outlines the process to be undertaken jointly by the City, Province/Metrolinx and the TTC.

Project Coordination

The City, Metrolinx, and the TTC established a formal executive staff steering committee in 2013 to provide a forum for collaboration, consultation and strategic oversight on shared transit policy and program objectives. The executive staff steering committee provides oversight for the joint review of the SmartTrack proposal, and ensures the interests of the Province, City Council and agency boards are represented.

A joint program committee for SmartTrack has been established at the division level, and includes representation from key City divisions, the Ministry of Transportation, Metrolinx, and the TTC. The program committee is responsible for conducting the work outlined in the work plan and reports to the executive steering committee described above. Recommendations will be brought to City Council, the Province and their respective boards to obtain the necessary authorities.

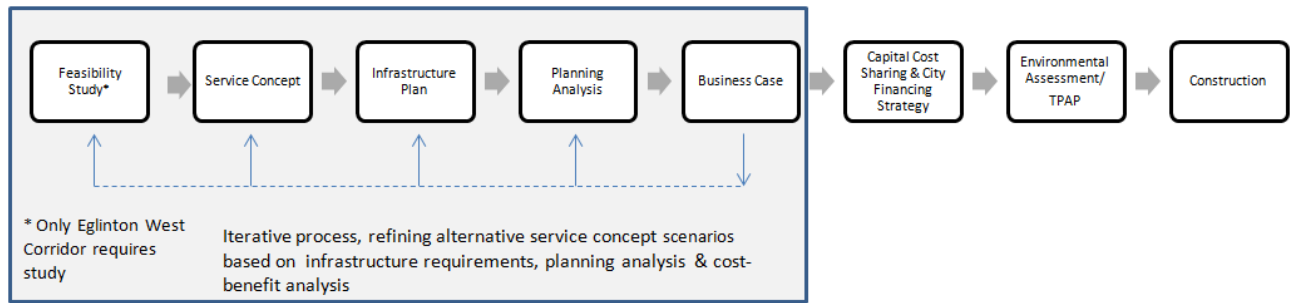
Key Elements of the Work Plan

The work plan for evaluating SmartTrack builds upon the work program set out by the Province/Metrolinx for RER. Figure 2 depicts the process that will be undertaken to develop the final business case for SmartTrack. Developing the business case is an iterative process dependant on a number of inputs. Key elements include:

- Service Concept (see section 1)
- Infrastructure Plan (see section 2)
- Planning Analysis (see section 3)
- Business Case (see section 4)

The Capital Cost Sharing and City Financing Strategy (see section 5) will be developed using key inputs from the business case analysis. EA/TPAP's (see section 6) required to implement SmartTrack will leverage the background studies used in the development of the business case (i.e. SRRA, U of T, feasibility study, etc). Public consultation (see section 7) will occur at different points within the review process and will leverage the environmental review process.

Figure 2. SmartTrack/RER Review Process



Kitchener GO and Stouffville/Lakeshore East GO Corridors

The Kitchener GO and Stouffville/Lakeshore East GO corridors are further advanced than the Eglinton West Corridor with respect to the work program outlined in Figure 2. Kitchener GO and Stouffville/Lakeshore East GO corridors are already being assessed by Metrolinx for RER. The SmartTrack elements will be included in the ongoing refinement of the business case analysis for these corridors. The work will culminate in a service concept, infrastructure plan, high-level cost estimates, and planning analysis for inclusion in the RER business cases for the Kitchener GO and Stouffville/Lakeshore East GO corridors. The Province will consider the business cases for all RER lines in spring 2015.

The Province's approved RER service concept, infrastructure plan and business case for Kitchener GO and Stouffville/Lakeshore East GO will be included in a fall report to Council. Both the Kitchener and Stouffville/Lakeshore East GO corridors have some EAs already approved. Additional EAs will be required to address new stations and other infrastructure requirements to implement RER/SmartTrack. A schedule for the remaining phases of the EA work will be provided by Metrolinx in the fall report.

Eglinton West Corridor

Feasibility Study & Preliminary Business Case

Additional analysis is required to accelerate the review of the Eglinton West corridor for integration into the overall RER review underway for the Kitchener GO and Stouffville/Lakeshore East GO corridors. An expedited feasibility study will be jointly undertaken, to assess options for implementing a SmartTrack heavy rail transit operation along the Eglinton West Corridor to the Mississauga Airport Corporate Centre. Critical in this phase of work is the assessment of the interchange between the proposed Eglinton West Corridor with the Kitchener GO Rail corridor in the vicinity of Mount Dennis. Public consultation in the study area will be undertaken in late spring/early summer 2015.

The feasibility study will inform the development of a co-ordinated service concept and infrastructure plan for the new corridor. Staff will report on the findings of the feasibility

study and preliminary business case in the fall report, and seek Council approval of a recommended option for the Eglinton West Corridor.

The feasibility study is part of the first phase of planning and preliminary engineering for a TPAP (see section 6). Appendix B outlines the process for undertaking a TPAP, which is an abbreviated EA process for transit projects in Ontario. In summary, the TPAP is conducted in two phases:

1. **Project Assessment:** planning and preliminary engineering; the feasibility study is the first phase of the Project Assessment. Additional study work will be required following the feasibility study.
2. **Commencement of the TPAP:** The proponent submits a request to the Province to commence the formal TPAP process (6 month process).

Project Assessment and Finalizing the Business Case

The Project Assessment is the first phase of the TPAP. The Project Assessment will undertake additional planning, engineering analysis, and public consultation. This process will provide necessary inputs to further refine the service concept, infrastructure plan, and business case for SmartTrack on the Eglinton West Corridor.

The Project Assessment report and the final service concept, infrastructure plan and business case for SmartTrack on the Eglinton West Corridor will be presented to Council in a second report in winter 2016, subject to Council direction. Refined cost-estimates will also be presented.

Capital Cost Sharing and City Financing Strategy

The capital cost sharing and City financing strategy will be developed for consideration with the fall 2015 report to Council. The strategy is dependent on key elements of the business case such as the incremental capital cost estimates for SmartTrack, and the development potential identified along the SmartTrack corridors. High-level cost estimates for all SmartTrack corridors will be available in the fall. An update to the financing strategy will be provided in the winter 2016 staff report, if required. Ongoing negotiations regarding project governance, financing, and project delivery are underway among the City and funding partners. It is expected that these negotiations will produce agreements or letters of intent for review and approval by City Council.

Summary of Key Milestones (2015-2016)

Table 4. Milestones

Date	Deliverables/Activities
Spring 2015	<ol style="list-style-type: none"> 1. Metrolinx will submit business case analysis to Province for RER including the SmartTrack on Kitchener and Stouffville GO corridors. Decision on allocation of \$15B Move Ontario provincial funding for GTHA transit. 2. Metrolinx public outreach and engagement in May/June on RER/SmartTrack
Summer 2015	<ol style="list-style-type: none"> 3. City will be undertaking public consultation as part of the Eglinton West Corridor feasibility study in May/June and August.
Fall 2015	<ol style="list-style-type: none"> 4. Report to City Council <ol style="list-style-type: none"> a. Provincially approved RER service concept, infrastructure plan and business case for Kitchener GO and Stouffville/Lakeshore East GO that includes SmartTrack elements. b. Eglinton West Corridor: Background Feasibility Study finding and recommended options for transit on the corridor. Preliminary service concept, infrastructure plan, business case for recommended option. c. Analysis of the Eglinton West Corridor and Kitchener GO corridor interchange and implications. d. Update on the remaining EA/TPAP phases for all corridors. e. Planning Analysis- including ridership, population and employment growth, and development potential analysis (work of SRRA & UofT). f. High level cost estimates for all corridors, including incremental costs for SmartTrack. g. Capital Cost Sharing & City Financing Strategy h. Update on public engagement.
Winter 2016	<ol style="list-style-type: none"> 5. Report to City Council <ol style="list-style-type: none"> a. Results of the Project Assessment (Phase 1 of the TPAP) for Eglinton West Corridor b. Seek Council approval to commence the formal TPAP(Phase 2 of the TPAP) for Eglinton West Corridor (<i>if required</i>) c. Final service concept, infrastructure plan and business case for Eglinton West corridor for Council approval and submission to the Province/Metrolinx. d. Capital Cost Sharing & City Financing Strategy Update (if required) e. Update on public engagement activities f. Implementation plan & next steps

The following sections describe key elements of the work plan described above in greater detail.

1. Service Concept

The service concept defines the frequency and type of service on the rail corridor. The service concept is a key input to forecasting potential ridership, determining infrastructure requirements, developing refined cost estimates, and informing the approach to implementation.

The development of the service concept is an iterative process that requires the assessment of a number of service scenarios, infrastructure plans, and cost-benefit analysis. Key elements of the service concept are being developed by Metrolinx for each of the GO Rail corridors under RER:

- frequency of service on each corridor and parts of the corridor;
- the mix of all-stop and limited-stop service;
- length of trains;
- expansion of existing stations;
- introduction of new stations;
- priority areas for electrification; and
- consideration of future service extensions.

Metrolinx is developing alternative service concepts for each GO rail corridor, in keeping with the Province's vision for RER, to test how different levels of service perform in terms of costs and benefits. RER may take different shape on each GO rail corridor depending on the optimal service concept developed for each part of the GO rail network. Metrolinx anticipates recommending a RER service concept in Q2 2015 to the Province for all GO rail corridors.

The SmartTrack plan identifies specific elements that will need to be considered as part of the RER service concept under development for the Stouffville/Lakeshore East GO and Kitchener GO corridors. SmartTrack proposes a service frequency of 15 minutes or less, all stop service, and the addition of 13 new stations (see Appendix A). SmartTrack also calls for electrification of the entire SmartTrack line. The RER service concept being assessed by Metrolinx for the Stouffville/Lakeshore East and Kitchener GO rail corridors includes 15 minute or less frequency, electrification, and the feasibility of new stations including those identified in the SmartTrack plan.

In addition to outlining specific service elements along sections of the Kitchener GO and Stouffville/Lakeshore East GO rail corridors, SmartTrack proposes a new westward extension along the Eglinton West corridor to the Mississauga Airport Corporate Centre. The development of the service concept for the Eglinton West Corridor requires input from a feasibility study to determine the infrastructure options for implementing a SmartTrack rapid transit operation.

A critical consideration for the service concept on the Kitchener GO corridor is the interface with the Eglinton West corridor, the planned interchange station with the

Eglinton Crosstown LRT at Mount Dennis, and the operation of the UP Express service launching in spring 2015.

Fare Options

SmartTrack proposes that the new line include fare integration with the rest of the TTC and GO transit networks. A study is being undertaken by Metrolinx to identify options for GTHA-wide fare and service integration. It is recognized that the full benefits of RER can only be achieved if fare and service integration is implemented to provide all GTHA transit riders with a seamless regional transit system. The assessment of RER will consider the impact of fare options between TTC and RER and the fiscal implications.

2. Infrastructure Requirements

The service concept is a key input to determining the infrastructure requirements of the SmartTrack plan. Metrolinx has identified key considerations with respect to RER across the entire GO Rail network that include, but are not limited to the following:

- New tracks—two tracks are required to facilitate bidirectional service, and express service may require additional tracks to overtake all-stop service.
- Grade separations—road-to-rail grade separations are needed at many locations to facilitate more frequent train service, reduce inconvenience to road users and improve safety; rail-to-rail grade separations may be required at rail intersections.
- Stations—new platforms and enhanced station access facilities (e.g. bus loops, parking) will be required to accommodate more tracks and facilitate more frequent service. New stations are also being considered.
- Road and rail bridges will require modification or reconstruction along certain GO rail corridors to accommodate additional tracks and permit electrification.
- Electrification— infrastructure to accommodate electrification will be required, including supplying power to the corridors.

The following highlights some key issues requiring further analysis for specific sections of the proposed SmartTrack line.

Stouffville/Lakeshore East GO Corridor

The Stouffville corridor currently consists of one track. An EA has been completed for a second track from Scarborough Station to Unionville (in Markham /York Region) to permit two way service.

The Stouffville GO corridor joins the Lakeshore East GO corridor from Scarborough Station to Union Station. One or two additional tracks are required from Union Station to Scarborough Station and on to Pickering to provide additional corridor capacity for increased service on both Lakeshore East and Stouffville lines. An EA is required for the additional tracks. Various rail/road grade separations and bridge upgrades will be

required to accommodate the additional tracks and a rail/rail grade separation may be required at Scarborough junction (near Scarborough Station).

SmartTrack proposes 7 new stations along the Stouffville/Lakeshore East GO corridor between Unionville and Union Station that will need to be assessed to determine infrastructure requirements.

Finally, electrically powered trains will need to access maintenance and storage facilities. Metrolinx is constructing a new facility in Whitby, designed to accommodate electrification. The location of the facility requires Metrolinx to electrify the Lakeshore East corridor as an early priority.

Kitchener GO Corridor

The Kitchener GO Corridor accommodates the Kitchener/Georgetown GO, new Union-Pearson (UP) Express and VIA services. The Barrie and Milton corridors branch off the combined corridor between Parkdale and West Toronto. Construction is underway to expand the corridor from one track to three by early 2015. One new track and a number of rail/road grade separations are required to accommodate RER service in the Kitchener corridor. The EA is completed for the fourth track. Additional improvements may be required to increase capacity for the approach to Union Station.

Metrolinx is currently conducting a study regarding the improvements needed to existing GO stations, to accommodate additional tracks, increased service and improved local access and transit integration with TTC, as well as the feasibility and implications of new stations. SmartTrack proposes 3 new stations along the Kitchener GO corridor that will need to be reviewed.

Metrolinx anticipates constructing a direct connection between Bloor GO Station and the TTC Dundas West Subway Station in by 2016. An interchange station will also be built at Eglinton (Mount Dennis) as part of the Eglinton Crosstown LRT to provide an interchange with Kitchener GO service.

Eglinton West Corridor

In 2010, the City and TTC completed and approved the EA for the Eglinton Crosstown LRT from Kennedy Station to Pearson International Airport. The section from Kennedy Station to Mount Dennis is under construction by Metrolinx. In 2013, Metrolinx amended the EA to include an interchange station between the Eglinton Crosstown LRT and the Kitchener GO line and UP Express. The extension of the current Eglinton Crosstown LRT west to the Airport is an unfunded project.

The Eglinton West Corridor of the SmartTrack plan envisions a new separate heavy rail corridor, that is not a part of the existing GO Rail network. The proposal outlines a continuation of the SmartTrack line at Mount Dennis west toward Mississauga Airport Corporate Centre along Eglinton Avenue West. Analysis is required to examine the

technical feasibility, community impacts, and cost implications of a heavy rail line including:

- Availability of right-of-way;
- Feasibility of any required tunnels and bridges;
- Station locations;
- Crossings, grade separations;
- Operational and infrastructure implications on the Kitchener GO rail corridor, including the interchange between corridors; and
- Transit network connectivity and access to service.

It is recommended that the initial review of SmartTrack on the Eglinton West Corridor be addressed in an expedited feasibility study. The study will consider the issues identified above and assess rapid transit options for SmartTrack along the corridor. The feasibility study will recommend the type of transit service to be provided on the Eglinton West Corridor, and how best to serve the study objectives of providing transit access from downtown Toronto to the Mississauga Airport Corporate Centre.

The development of the service concept, infrastructure plan and business case for SmartTrack on the Eglinton West Corridor, are dependent on the feasibility study. Further details on the feasibility study within the overall review process for the Eglinton West Corridor are provided earlier in the report.

Union Station

Union Station is the largest and busiest passenger transport facility in the country. The station is the hub of the GO rail network and plays a critical role in the region's transit system. The Union Station Rail Corridor (USRC) includes Union Station and the approaches for all seven GO corridors to the station from the east and the west. To meet short and medium term needs, Metrolinx is implementing a major transformation of the USRC including:

- Train shed roof replacement and refurbishment;
- New passenger concourses which will triple the size of the existing GO concourse;
- New stairs and elevators to platforms; and
- Replacement of the legacy signal systems to increase reliability and support service expansion.

To continue to accommodate service increases, further work is required to provide more platform capacity and storage tracks, operations strategies to manage increased train service, and electrification. Metrolinx is undertaking additional work to determine the long term capacity needs for Union Station.

3. Planning Assessment

Defining the various options for service concept, fare structure, and infrastructure requirements will provide the necessary inputs to undertake an appropriate level of planning analysis. Metrolinx, City Planning and TTC continue to work together to develop the ridership forecasts for RER to inform the development of the service concept and business case for SmartTrack.

The analysis of the SmartTrack proposal's potential ridership will be undertaken by City Planning and the University of Toronto in consultation with Metrolinx and the TTC. A key input to the City's and University of Toronto's Regional Travel Demand Model is the distribution of population and employment. Projections of population and employment for 2021, 2031 and 2041 will be produced by City Planning and Strategic Regional Research Associates (SRRA). The projections will be based on the small area projections developed by City Planning as well as readily available projections for the GTHA area, augmented by a more up-to-date assessment of residential and commercial development potential along the SmartTrack corridor.

After the initial round of ridership modelling, the projections will be revised to reflect a more intensive assessment of development potential in the SmartTrack corridor. The revised projections will support the second phase of the ridership analysis, which will identify how the various options advance the goals and objectives of the City. It's anticipated the options will include variations on:

- station locations;
- frequency of service;
- fare structure; and
- population and employment distributions

The impact of SmartTrack on the projected ridership of other planned rapid transit facilities will also be assessed. The review of SmartTrack will also be integrated with a number of related planning studies, such as the Official Plan Review (*Feeling Congested?*), Relief Line, and Scarborough Subway Extension. The results of these reviews will provide important data and findings and enable staff to assess results across a network analysis. Additional detail on these related planning studies are provided in Appendix C.

4. Business Case Development

Metrolinx is developing a business case for the overall RER program based on available information. Metrolinx utilizes the business case methodology to inform recommendations to the Province. As RER becomes better defined through the development of the service concept, infrastructure plan, capital and operating costs, fare

integration structure and ridership forecasts, the business case will be refined and updated.

The City, TTC and other partners will work with the Province to incorporate the SmartTrack into the RER plan and contribute to the specific business cases for Kitchener GO and Stouffville/Lakeshore East GO rail corridors. Life-cycle cost analysis, regional economic development and city building considerations, in addition to social impact and equity considerations will be taken into account. One of the principal objectives of the business case analysis is to establish the incremental capital and operating cost of the SmartTrack proposal relative to the RER program already initiated by Metrolinx.

5. Capital Cost Sharing & City Financing Strategy

A working group has been established to coordinate development of a capital funding and financing strategy for the project. Participants include staff from the Ontario Ministry of Finance, the Ontario Ministry of Transportation and City Finance.

The group will address capital funding issues such as:

- Allocation of overall capital funding responsibilities and the allocation of financial risk;
- Evaluation and selection of potential capital funding and financing alternatives;
- Evaluation of delivery models; and
- Development of the specific measures (e.g. legal/legislative) required to most effectively implement the selected financing alternatives.

As identified in Table 1, \$200,000 has been allocated to retain a consulting team to support the analysis of the finance working group. The consulting team would provide financial, project delivery and real estate development market expertise that will aid in carrying out the following specific elements of the group's work:

- The forecasting of assessed property values in the proposed SmartTrack corridor (for the purpose of estimating future incremental property tax revenues);
- The quantification of the financial risk associated with potential project revenue streams (through a market sounding of potential private investors);
- A review of potential measures for reducing the risk associated with the project revenue streams; and
- An examination of overall capital financing alternatives.

The finance working group will depend on inputs, such as forecast capital cost and forecast levels of development in the SmartTrack corridor produced through other studies described in this report. The development potential analysis will be used as an input for the assessment of potential revenue associated with new development or value uplift in the SmartTrack corridor. The finance working group's analysis will be completed for the fall 2015 report.

It is anticipated that the product of this analysis will be a Capital Funding and Financing Proposal which will include:

- The proposed capital funding contributions and timing;
- The proposed sources of capital financing;
- The proposed means of financing forecast project cash flows;
- The required legislative amendments;
- An assessment of financial risk; and
- A draft Letter of Intent between the funding partners.

6. Transit Project Assessment Process (TPAP)

Both RER and SmartTrack will require approvals under the Environmental Assessment Act through the Transit Project Assessment Process (TPAP). The 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. The formal TPAP process and additional public consultation is launched, once the Project Assessment is complete and a recommended option or approach is chosen (see Appendix B). The formal TPAP process takes approximately 6 months.

Under the RER program, Metrolinx is developing a coordinated approach to EAs that will include:

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

Metrolinx has underway a number of EAs that will facilitate RER. 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. The EA for the Eglinton Crosstown LRT westerly extension to the Airport is completed. The infrastructure phasing plan will inform the scope and timing of other EA-related work required for RER.

Where SmartTrack enhancements are applied to RER, the City can build on the work already being undertaken by Metrolinx for RER. Additional analysis will consider the incremental or differential impacts of the SmartTrack service model and the locations of additional stations proposed. City and Metrolinx staff will work together to identify the additional study requirements for the SmartTrack by the fall of 2015.

For the Eglinton West Corridor, planning and preliminary engineering will be required which may lead to a formal TPAP. As described earlier in the report, a feasibility study is required to examine the opportunities for heavy rail within the corridor. The feasibility study is part of the first phase (i.e. Project Assessment) of the TPAP. It is anticipated the total cost for the feasibility study and TPAP will be approximately \$1.65 million over 2015 and 2016 (see Table 2).

The TPAP is already an abbreviated EA process for transit projects in Ontario (see Appendix B). The SmartTrack work will aim to further expedite the Project Assessment to meet the schedule outlined in this report. This is only possible assuming a well defined scope of issues, and a consultation effort focussed on web-based information sharing with a limited number of public meeting events linked to critical project milestones.

7. Public and Stakeholder Consultation

RER/SmartTrack involves infrastructure planning, extensive construction and ongoing service expansions that impact communities and neighborhoods. In addition, local transit services will need to be optimized to provide effective, high-quality access to stations.

Public and stakeholder consultation will adhere to a number of key principles, including:

- Inclusiveness - engage the widest possible audience through multiple consultation opportunities;
- Timeliness - offer early and ongoing opportunities for participation well before decisions are made;
- Transparency - participation will be widely communicated through multiple communications channels;
- Balance - provide opportunities for a diversity of perspectives and opinions to be raised and considered;
- Flexibility - adapt as required to meet the needs of participants; and,
- Traceability - demonstrate the impact of participant input on decision making.

Metrolinx has identified distinct phases of engagement with different audiences including:

- Awareness and launch;
- Environmental assessments;
- Local community engagement; and
- Launch of new services.

The City will work with Metrolinx on public engagement and communications related to SmartTrack. Through this outreach, Metrolinx and the City will engage the public on how SmartTrack can be built into the RER program. This will include public meetings across the corridors to provide the opportunity for public input into the overall proposal.

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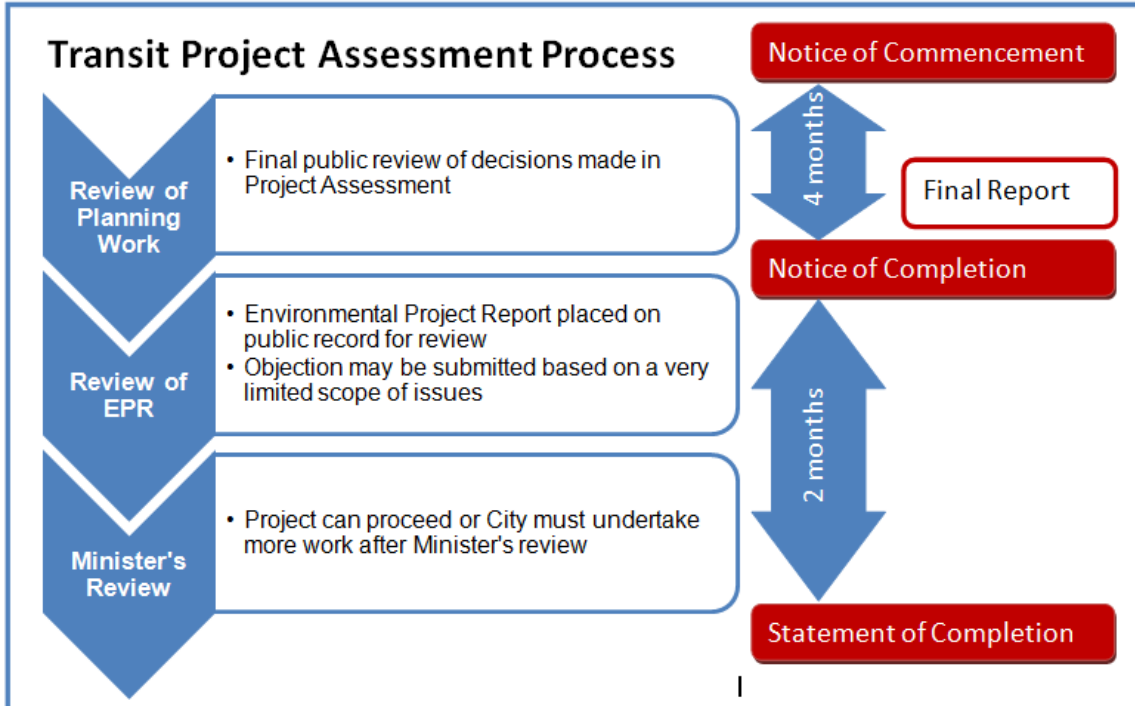
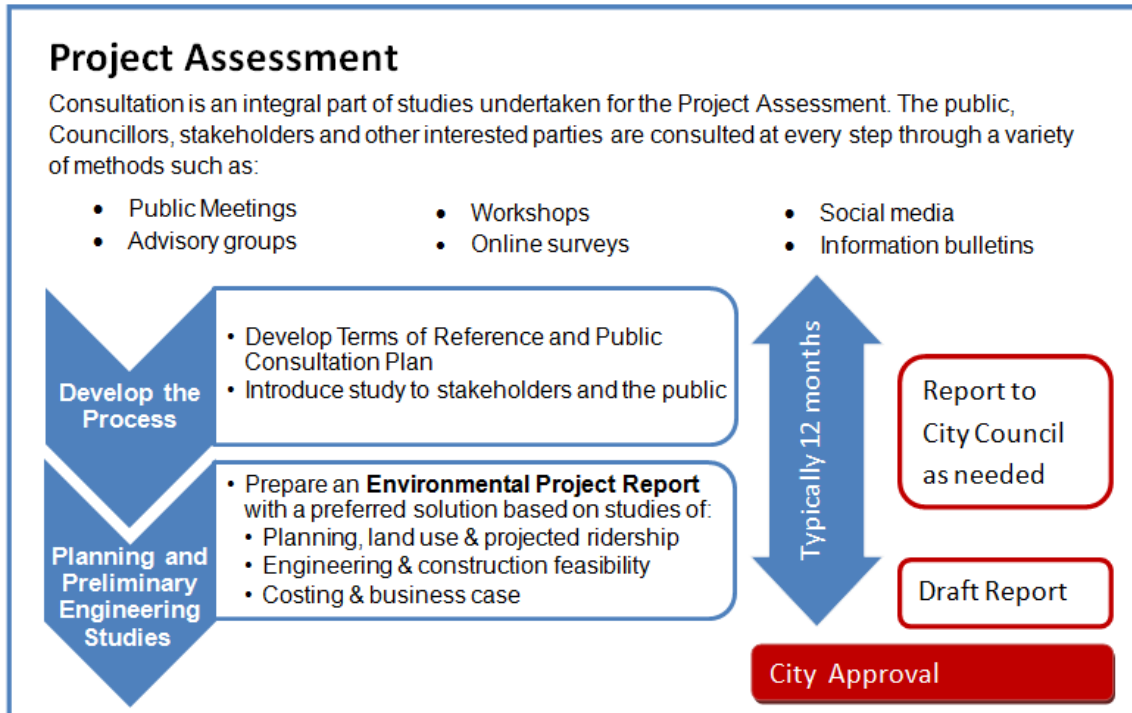
Appendix A: SmartTrack Stations
Appendix B: Transit Project Assessment Process (TPAP)
Appendix C: Aligning Review of SmartTrack with Other Key Studies

Appendix A
SmartTrack Stations

#	Station Name	GO Stations	TTC Interchange	New Stations
Stouffville GO Corridor		6		7
1	Unionville (in Markham)	Y		
2	14 th Avenue (in Markham)			Y
3	Milliken	Y		
4	Finch			Y
5	Agincourt	Y		
6	Ellesmere			Y
7	Lawrence East			Y
8	Kennedy	Y	interchange	
9	Scarborough (Lakeshore GO)	Y		
10	Main Street/Danforth	Y	interchange	
11	Gerrard			Y
12	Queen			Y
13	Unilever Site			Y
Union Station Rail Corridor		1		0
14	Union	Y	interchange	
Kitchener GO Corridor		2		3
15	Spadina			Y
16	Liberty Village			Y
17	Bloor-Dundas West	Y	interchange	
18	St. Clair West			Y
19	Mt. Dennis	Y	interchange	
Eglinton West Corridor		0		3
20	Scarlett/Jane			Y
21	Kipling			Y
22	Matheson/Airport Corporate Centre (in Mississauga)			Y
Summary		9	5	13

Appendix B

Transit Project Assessment Process



Appendix C

Aligning Review of SmartTrack with Other Key Studies

A number of planning studies that are being conducted provide important data and findings that enable staff to accelerate planning work required for SmartTrack. There is also a need to integrate planning for SmartTrack into the following studies.

Official Plan Review ("Feeling Congested?")

The Official Plan transportation policy review, also known as "Feeling Congested?", includes the prioritization of 25 rapid transit projects based on a comprehensive set of measurable criteria, along with broader considerations of implementation, funding availability and strategic fit. The intent of this work is to identify and prioritize a rapid transit network for the City which, combined with a defined priority surface transit network, provides comprehensive transit accessibility across Toronto.

To date, work has focused on the development and refinement of the evaluation criteria and has yielded a preliminary assessment of the relative performance of the 25 rapid transit projects. When this work was undertaken, the RER and SmartTrack plans were unknown. Before this analysis can be completed, both RER and SmartTrack must be incorporated into the evaluation framework. This work cannot proceed until the RER and SmartTrack service concepts have been defined. Preliminary service concepts will be known before the end of Q2 2015. The completion of the "Feeling Congested?" prioritization analysis for the 25 rapid transit projects will follow, at the end of 2015.

Relief Line

The City of Toronto and the TTC are undertaking a study, known as the "Relief Line Project Assessment" to establish the preferred alignment and station location options, for a new rapid transit line linking the downtown core with the easterly section of the Bloor-Danforth Subway. A key objective of this new rapid transit line is to relieve overcrowding on the Yonge Subway line, address congestion at the Bloor-Yonge transfer station and to provide capacity to relieve overcrowding on the surface transit network in the study area.

Ultimately it is envisioned that the Relief Line would connect the downtown core with both east and west sections of the Bloor-Danforth Subway, following a "U" shaped route. The SmartTrack proposal is likely to have some impact on the Relief Line ridership and catchment areas, although the two services appear to serve somewhat different markets. This relationship will be studied further. Planning for the Relief Line will continue, however SmartTrack may delay the timing of the Relief Line.

Metrolinx is conducting the Yonge Relief Network Study in collaboration with the City of Toronto, TTC and York Region to examine regional, network based solutions to address Yonge subway crowding including RER and the Relief Line.

Scarborough Subway Extension (SSE)

In 2013, Toronto City Council approved the Scarborough Subway Extension (SSE). The City and TTC are planning an extension of the Bloor-Danforth Subway (Line 2) from Kennedy Station to Scarborough Centre and Sheppard Avenue.

Both the SSE and Smart Track will provide enhanced travel options to Scarborough residents with improved connectivity through either the existing subway or GO rail network. These projects address potentially different travel patterns, and primary destination points, with the SSE serving more local trips and SmartTrack serving longer distance trips (e.g. Union Station, Markham). The City, TTC and Metrolinx will work collaboratively to ensure these two projects serve Scarborough's transit needs. The schedule for planning for the SSE should not impact the work for the SmartTrack initiative, and vice versa. All analysis undertaken for the SmartTrack and the SSE will be coordinated.

The SSE will follow a four phase process, with the conclusion of the TPAP under the Environmental Assessment Act, targeted for mid- 2016. Public consultations—through public meetings, workshops and online consultations— will be an important element through every phase of the study:

- Phase 1: Setting the Stage (January 31- February 2, 2015)
- Phase 2: Choosing the Corridor (May 2015)
- Phase 3: Recommending the Alignment (September 2015)
- Phase 4: Transit Project Assessment Process (early 2016)

TOcore

City Planning is leading a major study of Downtown (TOcore) to develop an integrated planning framework for the Downtown that helps manage rapid growth and the infrastructure to support liveability. One component is an analysis of future demand and supply of non-residential space, particularly office space. The assessment of development potential for the SmartTrack ridership analysis will also provide input to forecasting employment growth and office development in Downtown.