

TO:	CHAIR AND MEMBERS STRATEGIC PRIORITIES AND POLICIES COMMITTEE MEETING ON APRIL 23, 2018
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	BUS RAPID TRANSIT ENVIRONMENTAL ASSESSMENT INITIATIVE

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the concurrence of the Managing Director, Corporate Services and City Treasurer, the following actions **BE TAKEN** with respect to the Bus Rapid Transit Environmental Assessment Initiative:

- (a) the Recommended Preliminary Engineering Design for the BRT Network approved by Council May 16, 2017, as described in parts i) through v), **BE APPROVED** to proceed through the Transit Project Assessment Process in accordance with Ontario Regulation 231/08;
 - i) North Leg, north of Queens Avenue, consisting of dedicated centre-running transit lanes on Clarence Street, Richmond Street, University Drive, Lambton Drive, Western Road and Richmond Street to just south of Fanshawe Park Road;
 - ii) East Leg, east of Wellington Street, consisting of dedicated curbside transit lanes on King Street and Ontario Street, and dedicated centre-running transit lanes on Dundas Street, Highbury Avenue, and Oxford Street East to Fanshawe College;
 - iii) South Leg, south of King Street, consisting of dedicated centre-running transit lanes on Wellington Street and Wellington Road to south of Bradley Avenue, and transit operating in mixed traffic to the south turnaround using Holiday Avenue or the park-and-ride on Exeter Road near Bessemer Road;
 - iv) West Leg, west of the Thames River, consisting of dedicated westbound curbside and eastbound centre-running transit lanes on Riverside Drive, transit operating in mixed traffic on Wharncliffe Road, dedicated centre-running transit lanes on Oxford Street West to Wonderland Road, and transit operating in mixed traffic to the west turnaround using Capulet Walk and Capulet Lane;
 - v) The Downtown Couplet, consisting of dedicated curbside transit lanes on Queens Avenue, Ridout Street, Clarence Street, Wellington Street, and King Street;
- (b) the Notice of TPAP Commencement, attached as Appendix B, **BE FILED** with the Municipal Clerk;
- (c) the Bus Rapid Transit Project **BE SUPPORTED** for funding application under Ontario's Infrastructure Plan for Federal Government funding under the Public Transit Infrastructure Stream;

- (d) the Civic Administration **BE DIRECTED** to take all necessary steps to submit the City of London's application for funding;
- (e) Infrastructure Ontario, **BE APPOINTED** to undertake a Procurement Options Analysis and Value for Money Assessment in accordance with the provided estimate in the amount of \$111,142.00 (excluding HST) in accordance with Section 14.3 of the City's Procurement of Goods and Services Policy;
- (f) the financing for the Infrastructure Ontario assignment **BE APPROVED** in accordance with the "Sources of Financing Report" attached hereto as Appendix D;
- (g) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations; and
- (h) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Civic Works Committee – October 7, 2013 – Bus Rapid Transit Strategy
- Civic Works Committee – July 21, 2014 – Rapid Transit Corridors Environmental Assessment Study Appointment of Consulting Engineer
- Civic Works Committee – June 2, 2015 – Rapid Transit Funding Opportunities
- Civic Works Committee – August 24, 2015 – Shift Rapid Transit Initiative Appointment of Survey Consultants
- Strategic Priorities and Policy Committee – November 9, 2015 – Shift Rapid Transit Update
- Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination
- Strategic Priorities and Policy Committee – May 5, 2016 – Shift Rapid Transit Business Case
- Strategic Priorities and Policy Committee – September 12, 2016 – Rapid Transit Implementation Working Group
- Strategic Priorities and Policy Committee – May 3, 2017 – Rapid Transit Alternative Corridor Review
- Strategic Priorities and Policy Committee – May 15, 2017 – Rapid Transit Corridors
- Civic Works Committee – July 17, 2017 - Shift Rapid Transit Additional Engineering and Legal Survey
- Strategic Priorities and Policy Committee – July 24, 2017 – Rapid Transit Master Plan and Business Case
- Strategic Priorities and Policy Committee – September 18, 2017 – Project Management Plan, Communications Plan and Consulting Fees Amendment

COUNCIL'S 2015-2019 STRATEGIC PLAN

Municipal Council has recognized the importance of rapid transit and improved mobility in its 2015-2019 – Strategic Plan for the City of London ([2015-2019 Strategic Plan](#)) as follows:

Strengthening Our Community

- Healthy, safe, and accessible city.

Growing Our Economy

- Local, regional, and global innovation; and
- Strategic, collaborative partnerships.

Building a Sustainable City

- Robust infrastructure;
- Convenient and connected mobility choices;
- Strong and healthy environment;
- Beautiful places and spaces; and
- Responsible growth.

Leading in Public Service

- Collaborative, engaged leadership; and
- Excellent service delivery.

BACKGROUND

Context

Rapid transit is the primary recommendation of the Smart Moves Transportation Master Plan (TMP), is identified in the current Official Plan, and represents a cornerstone of The London Plan and Council's 2015 - 2019 Strategic Plan.

The Shift Rapid Transit initiative has been undertaken to develop a Draft Environmental Project Report (EPR) that adheres to the legislative requirements of the *Environmental Assessment Act*, building on the Rapid Transit Master Plan. The draft EPR will provide a strategy for implementing a Rapid Transit system that will help meet the City's economic development, mobility, environmental and community building objectives while still being operationally feasible and economically viable.

The implementation of a rapid transit system will not only result in significant improvement in London's public transit system, it is a central component of London's land use and transportation policy. Rapid transit will help shape the city's future pattern of growth, encourage intensification and regeneration, and stimulate economic growth for decades to come.

Rapid transit corridors integrated with a strong conventional transit system, supportive land use planning policies and appropriate service coverage and frequency will facilitate more transit trips, reduce traffic volumes and make transit a faster, more reliable, convenient and comfortable transportation option in London.

Background

Consultation with Londoners on rapid transit has been ongoing for nearly a decade, through some of the city's largest-ever public engagement exercises, including SmartMoves 2030, the London Plan and the Rapid Transit Master Plan.

In 2013, Council approved SmartMoves 2030: The New Mobility Transportation Master Plan which aims to provide more attractive travel choices through transit service improvement and increased support for walking, cycling and carpooling. Balancing rapid transit with parallel road expansions and network improvements, the Transportation Master Plan is intended to support how all Londoners get around the City. The plan also identifies the mutually supportive relationship between rapid transit and intensified development.

The London Plan, the city's blueprint for London's future growth, was approved by Council in June 2016 and the Province in December 2016. The City's Official Plan was developed in concert with the Rapid Transit Master Plan, with each study incorporating the findings of the other. The City's Structure Plan laid out in the London Plan identifies Rapid Transit Corridors and four Transit Villages planned to encourage growth within the Primary Transit Area, to revitalize neighbourhoods and business areas and create a more sustainable, livable City.

The BRT Network was approved by Council on May 16, 2017 and, at its meeting on July 25 2017, City Council approved the Rapid Transit Master Plan (RTMP) and Business Case. The approved rapid transit corridors are shown in **Figure 1**. Since that time, the project team has been working to evaluate design alternatives along the corridors, conduct public and stakeholder consultation, and identify impacts and related mitigation measures in order to develop a recommended preliminary engineering design.

Purpose

This report seeks Council approval of the recommended preliminary engineering design for the approved BRT Network as laid out in the Draft Environmental Project Report in order to initiate formal Transit Project Assessment Process. The TPAP process will provide further opportunity to consult with agencies, stakeholders and the public.

DISCUSSION

Transit Project Assessment Process (TPAP)

Stage one of London's rapid transit initiative began in 2014 with the development of the Rapid Transit Master Plan (RTMP) and wrapped up in July 2017 with Council approval of the RTMP. The second stage will be completed using the Transit Project Assessment Process (TPAP), which is a proponent-driven, self-assessment process designed to streamline approvals of large-scale transit infrastructure projects in Ontario. TPAP is made up of pre-planning activities and a formal six-month consultation period.

As part of the pre-planning activities for TPAP, following approval of the RTMP in July 2017, the Project Team has been refining the approved BRT network by developing and evaluating alternative design options, consulting with the public and stakeholders and identifying impacts and mitigation measures.

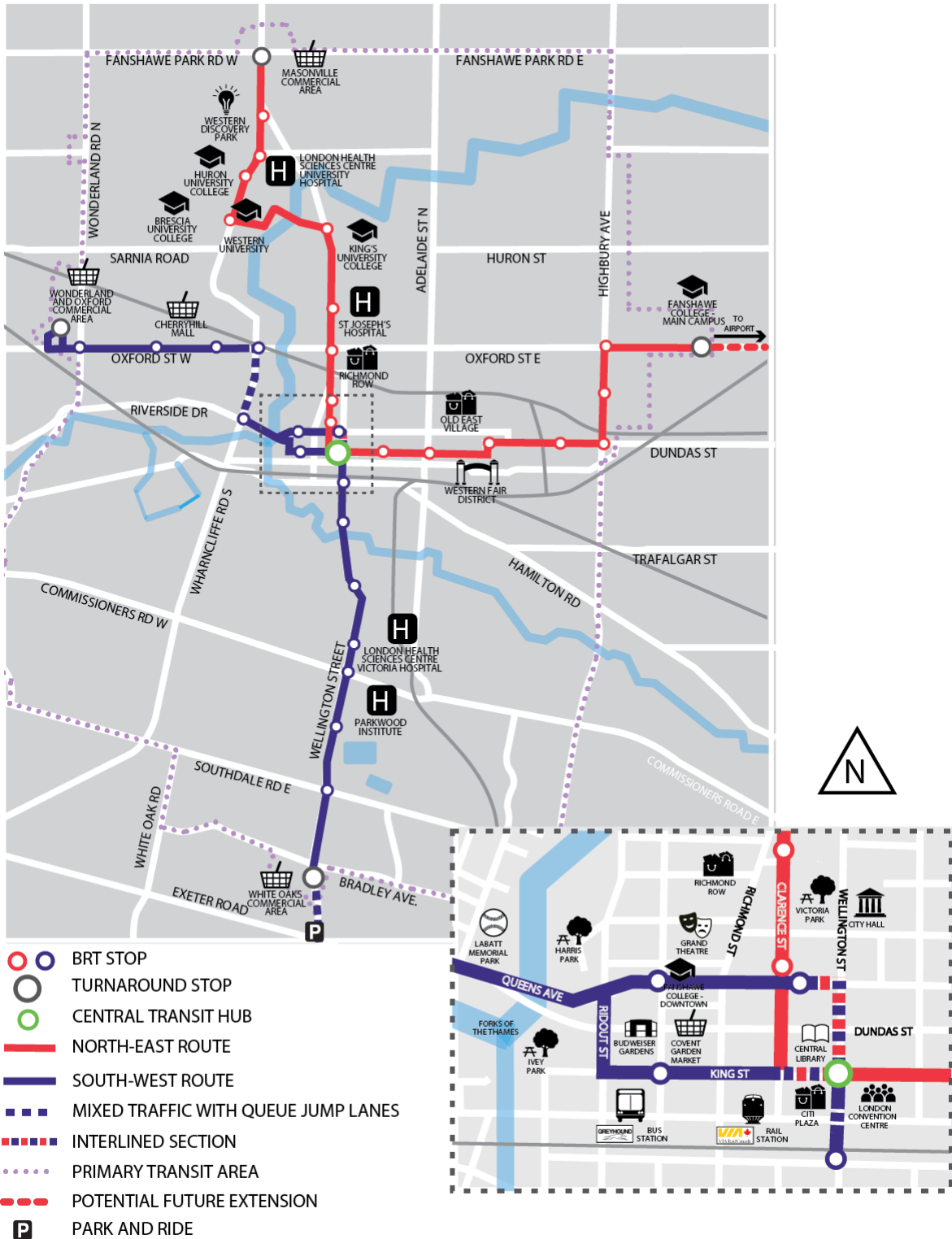


Figure 1 – Approved Bus Rapid Transit Network (May 2017)

The Project Team’s recommendations are now contained in a Draft Environmental Project Report (EPR), which describes the project and details the consultation undertaken to date.

With City Council endorsement of the recommended design for the BRT project, the Draft EPR will be circulated to the Ministry of Environment and Climate Change and relevant provincial ministries for review and comment to prepare for initiating the formal, six-month TPAP, during which, consultation with local stakeholders, property owners and businesses will continue.

The project timeline, illustrating TPAP including pre-planning activities, is outlined in Figure 2 below.

BRT Timeline

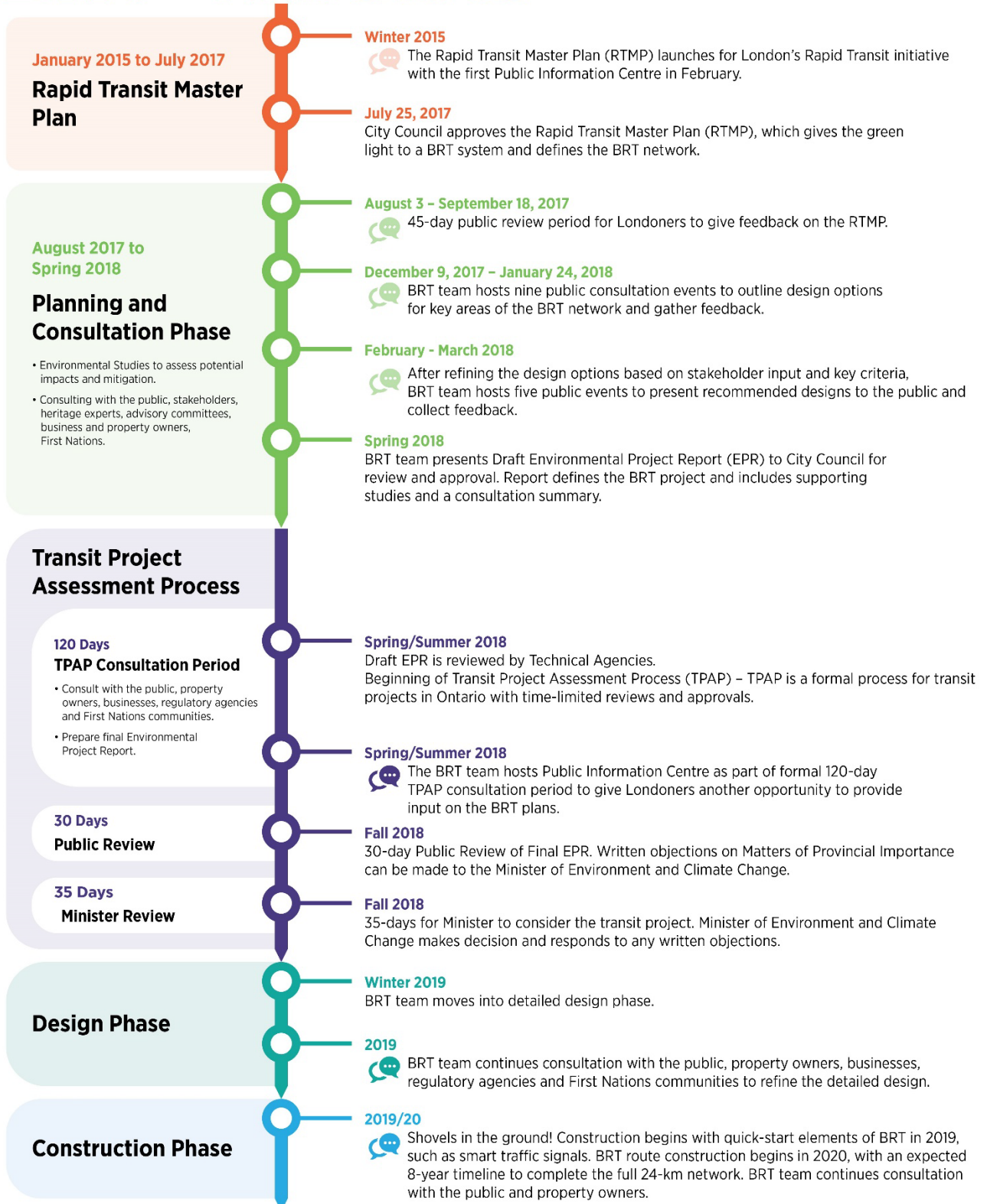


Figure 2 – BRT Project Timeline

TPAP Pre-Planning Activities

In order to develop recommended designs for the BRT network, during the TPAP pre-planning period, the Project Team weighed a number of criteria alongside stakeholder feedback. Public engagement was critical to the process. Through stakeholder and property owner meetings, Public Information Centres and Open Houses, emails and discussions, the Project Team gathered valuable feedback that influenced the recommended designs as presented. Elements of pre-planning include the following.

Development of Alternatives: The Project Team identified various options for how the BRT could look within key focus areas of the city. Examples of alternatives considered include centre-running versus curbside buses and variations on lane configurations.

Public Engagement: Throughout the pre-planning period, consultation with stakeholders and individual property owners was vital. In December 2017 and January 2018, nearly 800 Londoners attended nine Public Information Centre sessions where the Project Team presented the various BRT design options to the public and gathered feedback. In February and March 2018, the Project Team re-connected with the public and stakeholders to share the recommended designs – and gather further feedback – during five Open House events across the city. The team has held hundreds of hours of consultation between public meetings and meetings with identified key stakeholder groups including Technical agencies Group, Municipal Advisory Group, Community Stakeholder Group, Emergency Services Group, property and business owners, plus visits to various community groups and associations.

Supporting Studies: During pre-planning, experts considered a range of criteria – including everything from traffic patterns and the natural environment to heritage and culture and drainage – and completed thorough archaeological, environmental and heritage studies to protect valuable properties and minimize the project’s footprint. Like the EPR, these reports are “draft,” and further comments, including those from the Environmental and Ecological Planning Advisory Committee and the London Advisory Committee on Heritage, will be incorporated during the Ministerial Technical review prior to the Notice of Commencement.

Identifying the Recommended Preliminary Engineering Design: The Project Team’s recommended designs, as presented in the Draft EPR, are rooted in the five guiding principles of the RTMP:



The recommended designs reflect the ongoing, thorough nature of the consultation with public and stakeholders and the team’s extensive consideration and study of key criteria.

Draft Environmental Project Report

The purpose of the Draft EPR is to describe the project, document the consultation undertaken in preparation for TPAP, and identify appropriate measures to mitigate potential impacts. The Draft EPR will be circulated to the Ministry of Environment and Climate Change and relevant provincial ministries for review and comment to prepare for initiating the six-month TPAP. Public consultation including local stakeholders, property owners and businesses will continue during TPAP.

The draft EPR documents the preferred transit project, the process that was followed and the conclusions reached. This includes:

- Project purpose and background;
- Project description, including the technically preferred design of the BRT corridors;
- Description of existing conditions (including a series of technical studies such as the natural environment, cultural heritage, archaeology, noise and stormwater);
- Description of the potential negative impacts and mitigation measures;
- Description of the monitoring program;
- Required approvals and permits; and
- A record of all consultation.

During the TPAP there will be further opportunity to gather comments from agencies, stakeholders and the public. At the end of the formal TPAP consultation period, the draft EPR will be updated based on comments received. The Executive Summary of the Draft Environmental Project Report is attached as Appendix A.

RECOMMENDED PRELIMINARY ENGINEERING DESIGN

As noted above, pre-planning activities over the past eight months involved evaluating design alternatives, conducting public and stakeholder consultation, and identifying impacts and related mitigation measures to develop a recommended preliminary engineering design. The recommended design seeks to balance a high functioning RT system against property impacts, while providing for different transportation options including walking and cycling.

The team considered more than 25 criteria when evaluating design options. Criteria ranging from natural and built heritage to safety, cost and ease of construction were considered. Public and stakeholder input gathered was also critical to the process with a lot of valuable feedback received through information sessions, meetings, emails and discussions with the public and stakeholders.

The recommended design described and illustrated in the Draft EPR represents a detailed concept that has reached an approximate 30% design level. With the design advanced to this extent, the environmental assessment for BRT establishes corridor configurations and identifies conservative assumptions for project land needs. Public and stakeholder consultation will continue through the next phase of the project to minimize impacts as the design is refined.

All information and resources related to the BRT project and the entire Draft EPR can be found on the BRT website at www.shiftlondon.ca. The recommended preliminary engineering design for the entire 24-kilometre BRT network can be found under “Appendix A” of the Draft EPR on the website.

Highlights are provided for each of the corridors below.

EAST CORRIDOR

The East Corridor connects Fanshawe College to downtown and is approved to run along King Street, Ontario Street, Dundas Street, Highbury Avenue and Oxford Street.

King Street: From Wellington Street to Ontario Street, curbside BRT lanes are provided in each direction with eastbound general traffic lane(s) in-between. Based on feedback heard during public consultation, an additional eastbound through lane was added for general traffic between Wellington Street and Colborne Street to help traffic flow from the downtown area and support access to properties along this segment. The BRT platform was shifted just west of Colborne Street to better integrate with existing land uses. A 1.5 m eastbound cycle track is provided within the south boulevard.

Dundas Street: BRT lanes transition from curbside to centre-running at the intersection of Ontario Street and Dundas Street. From Ontario Street to Highbury Avenue, centre-running BRT lanes are provided with one general traffic lane in each direction. Early assessment of design options indicated that that curbside BRT option would result in significant conflicts with the underground hydro facilities, resulting in considerable cost and delay. As such, this option was eliminated from further consideration. At the same time, property constraints along the Dundas Street corridor mean limited opportunity to implement turn lanes to support access to adjacent neighbourhoods. A review of options for left-turn access from Dundas Street is on-going and will be addressed during TPAP.

Highbury Avenue: Dedicated centre-running transit lanes along Highbury Avenue will help to encourage redevelopment of London Psychiatric Hospital lands. Improvements/widening are required to the existing bridge at CPR tracks to maintain two through lanes of general traffic in each direction and sidewalks on both sides. This concept has been discussed with CPR.

Fanshawe College Turnaround: The East BRT turnaround at Fanshawe College will serve as a Transit Hub to facilitate local bus service integration. The BRT stop will be located on Fanshawe's property and includes a turnaround area. Two on-street BRT platforms are shown on the design, however, these are not to be constructed in this phase of the project but rather protect for future extension of the system to the east. Staff have held several meetings with Fanshawe College, and it is noted that they are working on updating their Campus Master Plan with BRT helping to shape that plan.

NORTH CORRIDOR

The North Corridor provides connection between downtown, St Joseph's Hospital, Western University, affiliate colleges of Brescia, Huron and King's, University Hospital and the North Transit Village at Fanshawe Park Road and Richmond Street. The approved route is along Richmond Street, Western Road, Lambton Drive, University Drive and Clarence Street.

Richmond Row: Richmond Street south of Oxford Street will have centre-running BRT lanes with one general traffic lane in each direction. Business accesses will be maintained to fullest extent possible and parking bays will also be maintained where possible for delivery vehicles. Local bus service will be removed from this portion Richmond Row as part of the integrated transit network.

Richmond North: Richmond Street from Oxford Street to University Drive will have centre-running BRT lanes with one general traffic lane in each direction. This design was selected as the preferred option from four design options presented to the public for feedback. It provides a balance of impacts to property, trees, and cultural/built heritage, as well as the most reliable transit service with acceptable impacts to general traffic flow.

A detailed traffic modelling analysis was completed to assess the potential impacts to traffic flow under the various scenarios. The model considered the larger area from Masonville area to south of Oxford Street accounting for other parallel improvements planned by the City such as removing the bottleneck on Western Road at the Rail bridge, plans for an underpass at the Adelaide Street rail crossing plus the fact that University Drive bridge will be closed to through traffic. By removing the bottlenecks on Western Road and Adelaide Street, drivers will have more options for getting to and from the core.

Today, there are two lanes in each direction on Richmond Street, but there are no left or right turn lanes and buses stop in the curb lane which means at least one of those two lanes frequently obstructed. Richmond Street does not function well today. The design for BRT in this corridor will include left-turn lanes, right-turn lanes and extended right-turn lanes to provide an area for local buses to pull out of traffic. This will ensure the single through lane provided in each direction will be clear of obstructions and flow better than the existing lanes today.

Western University: The preferred design through campus follows existing private roads with centre-running dedicated lanes along Lambton Drive and University Drive. In line with Western University's ongoing Open Space Master Plan, the route through campus will become restricted to transit and authorized campus vehicles only from University Drive bridge to Alumni Circle.

The various options for routing, lane configurations and stop locations were determined in consultation with the University. Ongoing discussions between Western and the City to reach an agreement for the construction and operation of BRT on campus continue to progress positively. The parties are working to bring forward draft agreement for Council and Board of Governors endorsements.

North Turnaround: The preferred design to expand the existing off-street terminal, offers the most reliable BRT service, easy transfers between local and BRT service and provides the most balanced location to best serve the overall North Transit Village. It also balances costs and ease of implementation, with the potential for integration with any future intensification on the site. The north leg is currently planned for construction between 2022 – 2026 providing opportunities for coordination with the property owner to effectively integrate BRT with plans for future transit oriented development.

SOUTH CORRIDOR

The South Corridor runs along Wellington Road connecting the South Transit Village at White Oaks Mall to downtown and provides service to Victoria Hospital, the Parkwood Institute and commercial lands along Wellington Road. The Draft EPR also protects for implementation of a park-and-ride facility near the Highway 401 corridor.

Lengthening the Curve: Geometric reconfiguration of Wellington Road curves south of the Thames River will improve road safety for all users. Three design options were evaluated to minimize impacts to properties, trees, grading, and cultural/built heritage.

In addition to two centre-running BRT lanes, two through lanes for general traffic are being maintained on Wellington Road, creating road widening and property impacts. The design has been optimized to mitigate property impacts as much as possible. City staff have been actively reaching out to affected property owners, keeping them informed of project details, timing and the City's process for negotiating property needs and impacts.

Multi-use Path: A multi-use path is included on the east side of Wellington Road from Bradley Avenue to Base Line Road. Carrying this path north from Base Line Road to the Thames River was examined. The multi-use path was not extended due to the resulting increase in property and neighbourhood impacts. The widened bridge over the Thames River will include a multi-use path on the east side to provide a safer connection for the Thames Valley Parkway.

South Turnaround: The southernmost BRT stop will be located on-street, south of Bradley Avenue, adjacent to White Oaks Mall. The platforms are longer than the standard 40 m platforms in order to consolidate local service which facilitates seamless and convenient transfers. Buses will continue south in mixed traffic to turn around using Holiday Avenue. The City is also currently investigating the potential for a Park-and-Ride facility near the Highway 401 corridor, in partnership with the Ministry of Transportation. In either case, driver facilities will be considered at end-of-route.

WEST CORRIDOR

The West Corridor connects the West Transit Village at Oxford Street and Wonderland Road to the downtown. Its route is approved to run along Oxford Street West, Wharncliffe Road and Riverside Drive. The west corridor provides primarily centre-running dedicated lane service with a short portion along Wharncliffe Road to operate in mixed traffic.

Wharncliffe Road North to Platt's Lane: BRT through this stretch seeks to balance providing reliable service with property constraints. Eastbound BRT lane will merge into general traffic east of Platt's Lane through use of Transit Signal Priority at the Platt's Lane intersection, and will then merge into curb lane to make right turn onto Wharncliffe Road North continuing through a short 1.0 km section of mixed traffic.

West Turnaround: The most westerly BRT stop is located on street at Oxford Street and Wonderland Road. Buses will then continue in mixed traffic to Capulet Walk and Capulet Lane which will serve as a turnaround. An additional BRT stop has been added to this location to serve nearby high-density residential areas, and integrate with the Oxford Express bus and local bus routes. A bus operator facility is planned at this end of route.

DOWNTOWN COUPLET

The downtown couplet includes Queens Avenue, King Street, Ridout Street, Clarence Street and Wellington Street. These streets form a one-way couplet operation for BRT and local buses. The couplet operation will integrate with conventional transit service sharing BRT platforms and dedicated curbside transit lanes. In certain areas in the downtown core, general traffic vehicles will be permitted to make right turns from curbside transit lanes. Some turn restrictions will be required based on safety and operational considerations. These opportunities and restrictions are shown on the preliminary engineering design drawings.

Parking: BRT recognizes the importance of providing convenient short-term parking and loading areas to facilitate business, recreational and personal service activity in the area. Refinements to the Couplet design based on feedback included the addition of loading areas on King Street at Covent Market Garden, CitiPlaza and near Ridout Street. On street parking was maintained on Queens Avenue, Ridout Street, and Wellington Street where possible. New on-street parking areas are provided on Clarence Street. In areas of the couplet where curb-running BRT lanes are converting existing parking lanes, the next phase of the project will look for opportunities to identify short-term loading and parking areas on connecting side streets.

Cycling: In areas where the BRT corridor overlaps with cycling facilities and there is limited space to provide new cycling facilities, City Staff are working toward solutions such as providing parallel cycling facilities on adjacent streets. It is noted that the City has committed to updating the Cycling Master Plan in the near future to address these concerns.

FINANCIAL IMPLICATIONS

Capital Cost Update

The Business Case for London's Rapid Transit Initiative is based on an estimated total capital cost of \$500 million in nominal dollars. This cost estimate was based on the conceptual design as prepared for the Rapid Transit Master Plan, generally representing a 5-10% level design. At the Master Plan stage, there were a number of uncertainties with respect to alignment, property required, private utilities, underground municipal services and environmental mitigation. As such, a 50% contingency was included in the initial capital cost estimate.

As the project moves from the planning stage through to formal Environmental Assessment (TPAP), the preliminary engineering design and capital cost estimates will continue to be refined and updated. Through this process, the level of cost confidence will increase and the applied contingency will be reduced.

Since the Business Case, the Rapid Transit team has been working to develop more accurate costs for major items, in addition to updating the BRT infrastructure costs based on quantities for the preliminary preferred design. The following is an update on the major cost items:

Utility Coordination Works: Where corridors are being widened for BRT, there will be a requirement to relocate some utilities including overhead and underground hydro, private telecommunications communications, gas and district energy infrastructure. The RT team is working with private utilities to ascertain costs, and applicable cost sharing arrangements. The Public Service Works on Highways Act (PSWHA) is one mechanism for assessing cost sharing while some utilities have custom agreements in place. All private utility work cost sharing will be subject to the governing agreement with the City.

Similarly, the RT team is working with EES Divisions to coordinate improvements to underground municipal services and anticipate RT conflicts, and the associated costs.

A key consideration in determining capital costs for the rapid transit project is to apportion costs between direct impacts due to rapid transit conflicts, apart from costs that are already planned as part of lifecycle replacement, and the cost associated with

upgrades to accommodate future growth. Work required within the BRT corridors due to lifecycle replacement or growth needs, but that is not in conflict with BRT, will be the financial responsibility of the service or utility. However, this work will be coordinated with construction of BRT in order to achieve cost efficiencies and avoid future service disruptions.

Land Acquisition: The Business Case included a provisional amount for property costs based on probable property requirements and representative land costs. The assumptions and preliminary analysis completed in the RTMP has been refined with development of the recommended preliminary engineering design. Significant effort has been made to minimize overall property impacts throughout the study area. The preferred plan will fully impact approximately 100 properties and partially impact approximately 400 properties. For partially impacted properties, the final extent of acquisition and associated mitigation will be determined through the next phase as part of detailed design.

Now that the alignments and design have been further advanced, Realty Services has been working to provide more accurate assessments for individual properties based on location, market trends and land use category. While property estimates will continue to be monitored as the project is refined through detailed design, land costs allotted in the Business Case are still considered to be appropriate.

Direct communication has been ongoing with potentially impacted property owners. At multiple points, project notices have been delivered to all properties within 50 m of an RT Corridor. In December 2017 and February 2018, information packages were mailed to all property owners with potentially significant impacts to their properties. The City has also been offering individual meetings with any potentially affected property owners as an opportunity to review potential impacts, answer any questions and discuss next steps.

Upon the completion of construction, there will be opportunities to re-assemble and dispose of property that is no longer required for the project, with the proceeds going back to the project.

Structures: The Business Case included costs for expansions to bridges on Wellington at the Thames, Queens Avenue at the Forks, Highbury Street at the CP tracks, and Western Road at Medway Creek, as well as replacement of the University Drive bridge on campus. Further engineering work has confirmed that some structure costs will be lower than initially planned.

BRT Stops: The conceptual BRT stop design is modular, offering flexibility to scale the design and passenger amenities at any given stop based on location, local service integration and ridership. As a result, the cost of stations can vary significantly based on the length of canopy, amenities and quality of materials. Based on the emerging station concept designs, the original costs are still considered to be appropriate.

BRT Vehicles and Operations, Maintenance and Storage Facility: The Business Case utilized a cost for BRT vehicles that included a premium to account for electric buses. Work is continuing to assess the net cost for an all-electric BRT fleet and associated charging systems. It is also noted that LTC is currently undertaking a study to look at transit facility needs over the longer term, including allowances for the BRT fleet.

Project Scope Modifications: Through the course of the Rapid Transit Master Plan and pre-planning stage for TPAP, several refinements have been made to the project scope. These include the following:

- Extension of the South BRT corridor (in mixed traffic) to connect with a planned park and ride on Exeter Road;
- Extension of the West BRT corridor (in mixed traffic) to connect with an integrated transit stop at Capulet Lane;
- Pre-building cycling facilities into intersection approaches for cross-streets where cycling routes are planned or anticipated;
- Additional three stops at Victoria/Richmond, Capulet Lane, and on Western campus; and
- Expanded terminals at Masonville Place, Western University and Fanshawe College.

Summary of Cost Updates: The Business Case appropriately included a contingency to cover the unspecified costs that will be confirmed as the project moves from high-level assumptions to detailed design. Pending cost-sharing arrangements, it is expected that costs due to the relocation of utilities may require a substantial part of this contingency. Costs for structures are projected to be lower than expected. In addition, the cost for land acquisition does not at this time reflect potential off-sets from disposing of remnant property that may be used for development.

Overall, the project capital cost can be managed within the \$500 million funding envelope. Table 1 provides a summary of updated cost estimates reflecting the preliminary design recommended in the Draft EPR.

Table 1: Recommended Preliminary Engineering Design Updated Cost Estimate

Infrastructure (\$ Millions)	North	South	East	West	Downtown	System Total
Construction Costs (incl. 25% contingency)	\$ 80.5	\$ 63.4	\$ 56.8	\$ 30.0	\$ 15.6	\$ 246.3
Engineering	\$ 11.5	\$ 9.0	\$ 8.2	\$ 4.1	\$ 2.3	\$ 35.1
Project Management						\$ 26.8
Property (incl. contingency: 20% full, 25% partial)	\$ 17.2	\$ 36.5	\$ 16.0	\$ 12.5	\$ 0.3	\$ 82.5
Private Utilities (City component)	\$ 13.6	\$ 7.1	\$ 18.7	\$ 14.7	\$ 8.6	\$ 62.7
Vehicles						\$ 32.4
Maintenance Facility Expansion						\$ 14.2
Total (Nominal\$)	\$ 122.8	\$ 116.0	\$ 99.7	\$ 61.3	\$ 26.8	\$ 500.0

Cash Flow Projections

Bus Rapid Transit cash flow financial models for both capital and operating costs have been provided in Appendix C. The evaluation is based on a tentative construction start timing of 2019, with the implementation of Quick Start elements that will highlight BRT features, providing the public early access to some facilities such as a showcase station, streetscaping and intelligent traffic signals.

Capital Cost Financial Model: Appendix C is provided to identify the anticipated BRT capital cash flow needs for the period of 2017 to 2027 (based on the July 2017 Business Case and the EA process). Cash flow needs start ahead of the anticipated construction start dates for each corridor to cover initial costs including project management, land and utilities. Quick Start and East Corridor capital expenditures are anticipated first, beginning in 2019, progressing to North Corridor in 2020 and the South Corridor in 2021. Buses and maintenance facilities capital expenditures are anticipated to begin in 2022 with expenditures in the West corridor to follow in 2023. Project management cost are anticipated throughout the life of the project.

Operating Cost Financial Model: The net increase for the annual operating costs associated with the Full BRT Network alternative based on the key assumptions would be \$12.866M annually upon implementation in 2028 (as per the July 2017 Business Case in real dollars).

Appendix C is provided to identify the anticipated phased incremental operating cost for BRT for the period of 2023 to 2028. The increased operating cost is anticipated to begin with the East corridor starting in 2023, followed by North and South corridors in 2026. The full \$12.866M BRT operating cost is anticipated to be phased in by 2028. Base operating costs of local transit service will continue to be covered through assessment growth and are not included in this model, which reflects only differential BRT operating costs.

Possible sources of funding for operating costs could be through a mix of tax levy increases, assessment growth funding, gas tax and/or fare revenues. The numbers used in the financial analysis are high level based on long term projections and will be refined through the Environmental Assessment process and future budget cycles.

The results show that without any additional sources of revenue or LTC route savings the potential tax levy increase to cover BRT operation cost could be approximately 2.2% by 2028, when the system is fully operational. Once potential fare revenues are factored in along with opportunities for assessment growth allocation and/or gas tax allocation, there is potential for the BRT operating cost to be fully funded.

Status Update: Investments from Other Orders of Government

The 2016 Federal budget included public transit funding under a new Public Transit Infrastructure Fund (PTIF) in order to improve and expand public transit systems across Canada. In May 2017, Council approved a Transfer Payment Agreement (TPA) under Phase one of PTIF with the Rapid Transit project identified to receive funding.

On January 13, 2018, after a substantial process of review of the business case, the Province of Ontario committed up to \$170 million for London's BRT initiative. The City of London has received an Agreement in Principle from the province which spells out the high level details of how the provincial investment can be used to advance the BRT initiative. In addition, a letter of commitment from Ontario's Minister of Transportation has been sent to the federal Minister of Transportation, committing to work together as the federal funding process unfolds.

Civic Administration continues to work closely with provincial officials to finalize the Transfer Payment Agreement that will finalize the details for how the provincial investment will be allocated. This agreement will include details on items such as eligible costs, the process of submitting receipts and other components governing this investment into the future of London.

On March 14, 2018, the Governments of Canada and Ontario announced the finalization of their bilateral agreement on the Investing in Canada Plan – unlocking more than \$10.3 billion for Ontario over the next decade. These investments will be organized under the following four funding streams:

Funding Stream	Federal Allocation (\$ billions)
Public Transit	\$7.5
Green Infrastructure	\$2.2
Community, Culture and Recreation Infrastructure	\$0.4
Rural and Northern Communities Infrastructure	\$0.3
Total	\$10.4

Federal investments under the Public Transit Stream will go toward improving the capacity, quality, safety of, and access to, public transit infrastructure.

The new Public Transit Stream within the Investing in Canada Plan will be similar to the Public Transit Infrastructure Fund (PTIF) – an infrastructure envelope identified and released through the Government of Canada’s 2016 Budget. Notable differences will include increased reporting requirements, a focus on capital and expansion projects rather than capital repair and rehabilitation projects, as well as new stated targets and objectives for the funding. Most importantly, the Public Transit Stream includes a 10 year commitment of long-term, predictable funding that enables longer-term planning with a much higher level of certainty for municipalities.

The Public Transit Stream includes the following federal cost share:

- Up to 40% of Total Project Costs (TPC) for municipal and not-for-profit projects in provinces
- Up to 50% of TPC for rehabilitation projects
- Up to 50% of TPC for provincial projects (i.e. without a municipal partner)
- Up to 75% of TPC for projects in the territories and for projects with Indigenous partners
- Up to 25% of TPC for for-profit private sector projects working in collaboration with an approved public entity

Also included in the agreement is the expectation that the Province of Ontario will fund a minimum of 33.33% of any municipal project, alongside up to 40% of project costs from the federal government. The remaining project costs would be the responsibility of the municipality.

Distribution of these funds to municipalities and transit systems is based solely on transit ridership, which resulted in an allocation of \$204.9 million for London.

	Transit Ridership	Federal Allocation	Provincial Investment
London	22,641,496	\$204.9 million	\$169 million

Projects not eligible for funding under this program include inter-city bus, rail, port or ferry infrastructure that are not part of a public transit system. Also ineligible are: costs incurred prior to project approval (except climate change lens assessments), cancelled

projects, land acquisition, overhead costs, financing charges, legal fees, interest payments, donations, PST, HST, regularly scheduled maintenance work, and operating expenses.

Central to this new stream is the requirement for Ontario to develop an Infrastructure Plan, which provinces will need to submit to the federal government by September 30, 2018. Infrastructure Plans will be updated annually by provinces and will serve as the provincial project pipeline for the next three years at a minimum. This means municipalities will need to plan their projects well in advance and ensure that municipal projects are included in the province's Infrastructure Plan. Projects captured in the provincial Infrastructure Plan are not automatically approved for funding, however, it will be a key tool to plan and budget for provincial investments. These Infrastructure Plans will also include a narrative section that will describe how the investments are working towards meeting the province's targets and outcomes stated in the bilateral agreement.

In terms of reporting requirements and targets, the Public Transit Stream will be much more comprehensive than any previous federal transit infrastructure program. Targets will be set for each provincial jurisdiction regarding increasing the modal share of transit and active transportation (e.g. Ontario: at least a 25% increase), increasing system coverage (Ontario: 95% population coverage in service area) and contributing to a national 10 mega-tonne GHG emission reduction. The Ontario agreement states that the modal shift target could be reviewed and adjusted by Canada and Ontario, through consultation with the Canadian Urban Transit Association (CUTA), if necessary.

Projects with federal costs exceeding \$10 million will have additional reporting requirements. This includes a Climate Lens Assessment that looks at GHG emissions and climate resiliency, as well as the Community Employment Benefits for federal target demographics (e.g. apprentices from traditionally disadvantaged communities, Indigenous peoples, women, persons with disabilities, veterans, youth, new Canadians, or small-medium-sized enterprises and social enterprises).

All projects under the Public Transit Stream will be expected to meet the highest published, applicable standard for their respective jurisdiction as well as meet or exceed energy efficiency standards laid out in the Pan-Canadian Framework. Projects are also expected to be consistent with land-use and/or transportation plans.

Following the announcement of the conclusion of the agreement, the Province of Ontario is expected to release additional details on how it will collect project lists from municipalities in Ontario. As noted above, municipal projects will be compiled into Ontario's Infrastructure Plan required to begin federal review on projects.

The majority of London's allocation under the Public Infrastructure Stream will be applied to the implementation of London's BRT initiative, noting that this specific project has already received a commitment from the Province of Ontario for approximately \$170 million. Importantly, this meets the expectations of the minimum provincial contribution for the Public Infrastructure Stream.

Civic Administration submitted the Bus Rapid Transit Initiative and Adelaide Grade Separation as the City's two priority projects during the consultation process for the bilateral negotiations. Once London's projects have been submitted by the province to the federal government, the formal review by federal officials at Infrastructure Canada can commence. Civic Administration will continue to work in partnership with the London Transit Commission and others to complete all applications and file all reports as necessary.

NEXT STEPS

Notice of Commencement of TPAP

Issuance of the Notice of Commencement starts the 120-day (4-month) consultation period of TPAP. The Notice of Commencement will be issued after the five to six weeks allocated for technical review of the draft EPR by the Ministry of the Environment and Climate Change.

During the 120-day TPAP consultation period, a consultation record will be maintained and incorporated into the final EPR. The consultation record will document all consultation undertaken during TPAP including:

- A project mailing list (with general public personal information omitted);
- A description of consultation undertaken (for example, through Public Information Centres, individual stakeholder meetings and regulatory agency meetings), including follow-up efforts with interested persons;
- Consultation activities with Indigenous communities, including summaries of meetings, discussions, and a record of comments and responses;
- Summary of comments submitted by interested persons including project team responses, if required;
- Assessment of impacts, both positive and negative, and reasoning and potential significance; and,
- A summary of the incorporation of stakeholder comments.

Refining the Environmental Project Report (EPR)

During the 120-day TPAP consultation period, the final EPR will be prepared to include all information required under O. Reg. 231/08. The final EPR will outline the impacts of the technically preferred design on the natural, cultural and socio-economic environments, and their interrelationships. The EPR will describe the net effects of the project, proposed measures to mitigate negative impacts and identify how the effectiveness of those measures will be evaluated.

30-Day Comment Period and Minister's Decision

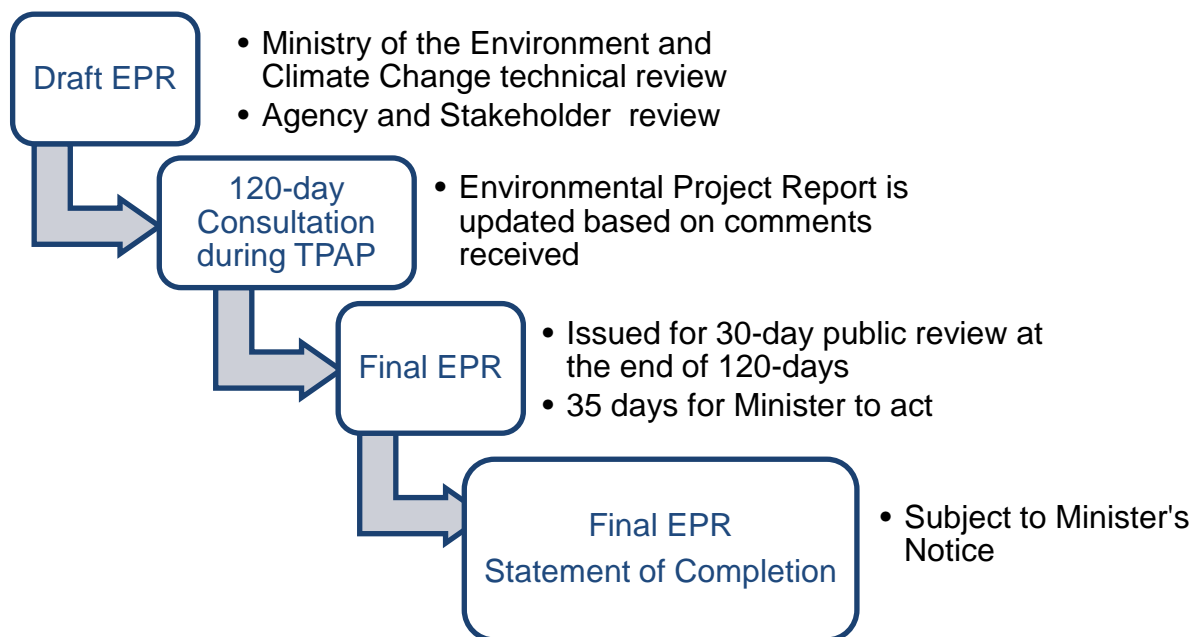
At the end of TPAP (a maximum of 120 calendar-days after the Notice of Commencement is distributed), the Notice of Completion must be issued. This starts the 30 calendar-day public review period of the final EPR. The final EPR will be available on the Shift website, at Library Branches, at the Rapid Transit Implementation Office and at City Hall. During this 30-day period, if a person, regulatory agency, or Aboriginal community has concerns about the project, objections can be submitted in writing to the Minister of the Environment and Climate Change for consideration. The Minister only considers submissions related to matters of provincial importance.

Following the 30-day public review period, the Minister has 35 calendar days to act on matters of provincial importance, including any written submissions from the public or interested persons. The Minister must determine if there is a negative impact on a matter of provincial importance or a constitutionally protected Aboriginal or treaty right.

The Minister can act in three ways:

1. Allow the City to proceed with the transit project in accordance with the EPR,
2. Require the City to conduct further work and submit a Revised EPR; or,
3. Allow the City to proceed with the transit project in accordance with the EPR, subject to conditions.

If the Minister does not act within the 35-day period, then the TPAP process is considered complete and the City can continue with implementation of the BRT system as detailed in the EPR. However, it is expected that the Minister will act and provide a notice in response to this transit project.



Project Schedule

Preliminary engineering design (30% design) of the BRT network will be completed as part of the TPAP. Detailed design will progress through 2019, with the possibility of advancing some “quick start” elements of BRT in 2019. Initial plans could include a prototype BRT stop, streetscape improvements or some smart traffic signals.

Implementation of the BRT network will be phased, beginning with the construction of dedicated lanes in the downtown core starting in 2020 and advancing eastward. Between 2022 and 2028, BRT construction will continue through the north, south and west corridors, with Londoners able to begin riding BRT as each leg of the system is complete.

Procurement Options Analysis

With Council’s direction, the City has been engaging in discussions with Infrastructure Ontario to complete the Procurement Options Analysis which will help facilitate the City’s decision making for the selection of a preferred delivery model that should be used for the project (i.e. design build, traditional procurement). The Minister of Infrastructure provided direction to the Ontario Infrastructure and Lands Corporation (Infrastructure Ontario) in February of 2018 to provide advice and services in relation to London’s BRT system.

Infrastructure Ontario uses an approach to modern project delivery called Alternative Financing and Procurement (AFP). The AFP model is guided by a government policy framework. Infrastructure Ontario AFP approach is used for public sector projects with a capital cost over \$100 million or projects that involve significant risk and complexity. Infrastructure Ontario works closely with public sector project owners and sponsors to deliver projects successfully in partnership with the private sector. Infrastructure Ontario has significant experience with AFP, development of performance based specifications, project agreements, and payment mechanisms.

Infrastructure Ontario uses a tool called a value for money (VFM) assessment to compare the total project costs for different delivery models (e.g. AFP vs. traditional methods) and determine whether the choice of proceeding with AFP represents the best value proposition. Infrastructure Ontario's assistance will help facilitate the City's decision-making for the selection of a preferred delivery model.

The source of financing in support of engaging Infrastructure Ontario to undertake a procurement options analysis and value-for-money assessment is attached as Appendix D. Contract Procurement Section 14.3(c) of the Procurement of Goods and Services Policy allows a procurement to be conducted using a sole source if the service is unique to one supplier with no alternative or substitution. Infrastructure Ontario is the only entity that is able to provide the required services.

SUMMARY

Following Council approval of the Rapid Transit Master Plan in July 2017, the project team has progressed TPAP pre-planning activities involving evaluation of design alternatives, conducting public and stakeholder consultation, and identifying impacts and related mitigation measures to develop a recommended preliminary engineering design. The recommended design balances a high functioning RT system with mitigation of property impacts and providing for transportation options that move more people, more efficiently.

This report requests Council to approve the recommended preliminary engineering design for the approved Bus Rapid Transit Network in order to initiate the formal Transit Project Assessment Process consultation for the Draft Environmental Project Report.

Acknowledgements

In addition to the efforts of the Rapid Transit Team, this report was prepared with the assistance of Project Team members from LTC Project Partners, Financial Planning & Policy, Realty Services, Planning Services and Government Relations.

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Attach: Appendix A – Draft Environmental Project Report Executive Summary
Appendix B – TPAP Notice of Commencement
Appendix C – Capital and Operating Financial Models
Appendix D – Infrastructure Ontario Assignment Source of Financing

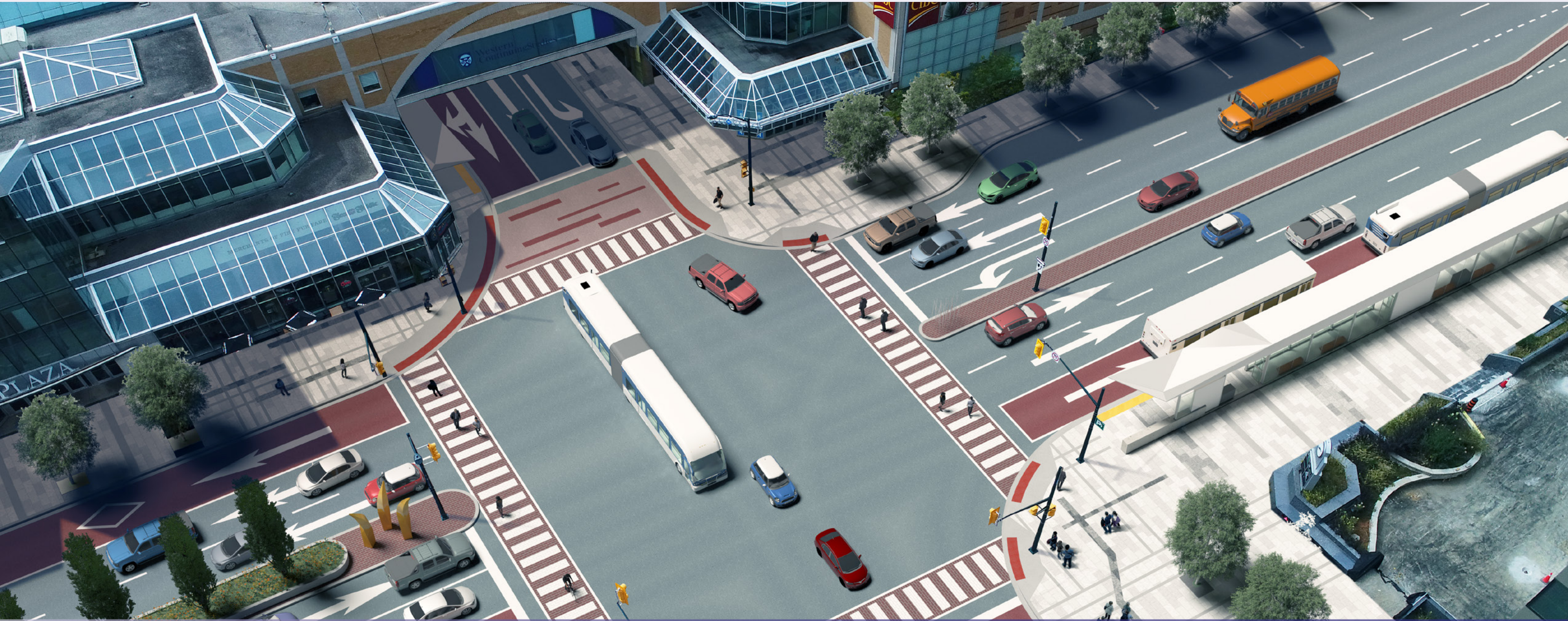
cc. London Transit Commission
Rapid Transit Implementation Working Group



PREPARED BY



April 2018



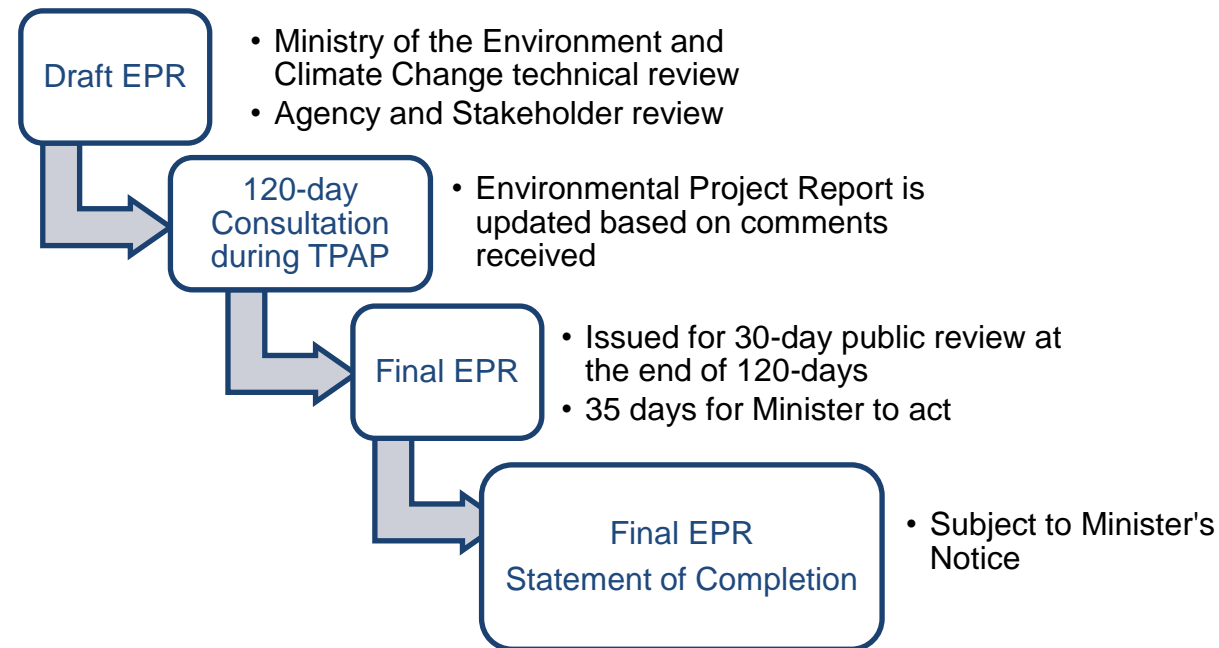
London Bus Rapid Transit Transit Project Assessment Process Environmental Project Report — DRAFT

Draft Environmental Project Report (April 2018) – About this Document

This draft Environmental Project Report (EPR) has been prepared to satisfy the requirements of the Transit Project Assessment Process (TPAP, O. Reg. 231/08).

This document is a draft and will undergo technical review by the Ministry of Environment and Climate Change (MOECC), as illustrated in the **Exhibit 1** below.

Exhibit 1 – Process from Draft EPR to Final EPR



However, this report is written as if it is the Final EPR, at the end of the 6-month TPAP, with the intent of streamlining the review process during TPAP. As a result, certain sections are in-progress, and certain sections will be updated before and during TPAP, including:

- Section 5: Public consultation during the 120-day TPAP process will be conducted to allow the public more opportunity to review and provide input on the design. Comments from the public, stakeholders, regulatory agencies and Indigenous communities will be collected, considered and incorporated into the EPR during the 120-day period
- Sections 2, 4 and Appendix A: Design refinements may be incorporated based on feedback received from the public and technical agencies.
- Sections 6 and 7: Permits, approvals, and commitments to future work will be updated based on feedback received from the public and technical agencies.
- Appendices: A number of technical supporting studies were completed and are currently under review by the City of London's Advisory Committees and provincial Ministries. When comments from these bodies are received, the appendices will be updated.

At the end of the 120-day consultation period, the final EPR will be published and the 30-day public review period will commence. Interested persons will be able to review the final EPR and submit written objections to the Minister of MOECC on matters of provincial importance. This process is illustrated in the timeline below.

BRT Timeline

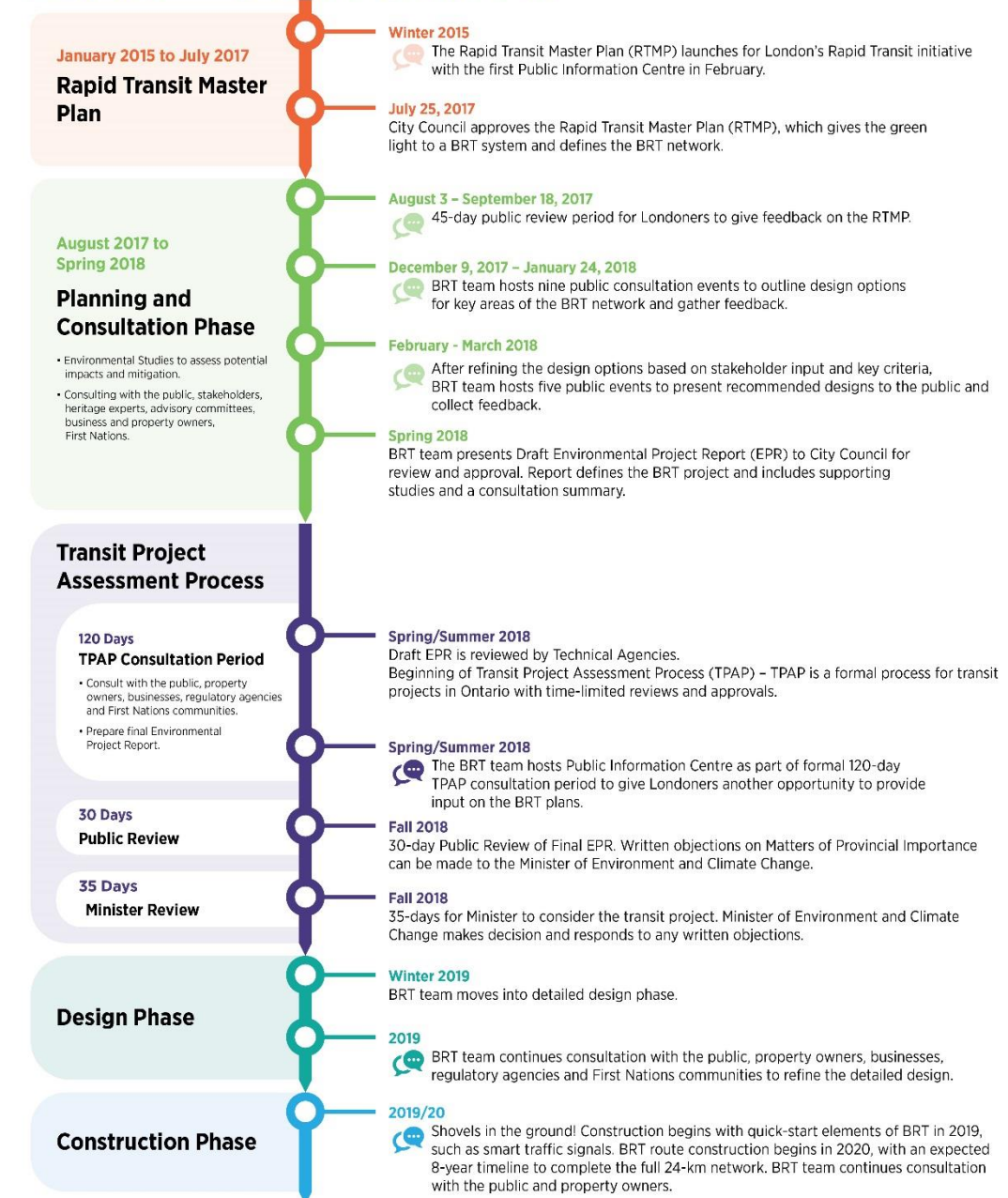


Table of Contents

- Executive Summary..... ii**
- ES.1 Introduction ii**
 - Study Area..... iii
 - Related Studies iii
 - Background iii
 - The Transit Project Assessment Process (TPAP) iv
 - Environmental Project Report Structure v
- ES.2 Project Description v**
 - Land and Property Requirements xi
 - Project Implementation xi
- ES.3 Existing Conditions..... xi**
- ES.4 Impact Assessment, Mitigation and Monitoring xi**
 - Transportation..... xi
 - Utilities..... xii
 - Natural Environment xii
 - Socio-Economic Environment xiii
 - Cultural Environment xiii
- ES.5 Consultation Process xiii**
 - Notification Protocol..... xiv
 - Master Contact List..... xiv
 - Consultation during the Pre-Planning Phase..... xv
 - Consultation with the Ministry of the Environment and Climate Change... xv
 - Rapid Transit Implementation Working Group..... xv
 - Consultation Groups xv
 - Public Meetings xv
 - General Public and Property Owners Correspondence..... xvi
 - Indigenous Community Engagement xvi
 - Consultation during the Transit Project Assessment Process xvi
 - Future Consultation..... xvi
- ES.6 Permits and Approvals xvi**
- ES.7 Commitments to Future Action xvii**
 - Matters of Provincial Importance and Indigenous or Treaty Rights..... xviii

EXECUTIVE SUMMARY

ES.1 Introduction

The City of London (the City) is located in southwestern Ontario with a population of 383,822¹. Based on the current population, London is the largest city in Canada without a rapid transit system. The London Plan (2016) forecasts 77,000 new residents and 43,000 more jobs by 2035. Recent forecasts completed as part of the ongoing Development Charges Background Study have updated population growth to 84,000 new Londoners by 2039. The introduction of Rapid Transit will help London continue to attract growth, and provide more transportation options to help the existing population travel through the City more efficiently.

The City of London has undertaken several studies over the last decade related to improving transit reliability and frequency. The City’s new growth management strategy, as outlined in The London Plan (2016), aims to balance how London grows by promoting the efficient use of infrastructure through transit oriented development to create a more sustainable and livable urban form.

As part of achieving this aim, the City proposes a Bus Rapid Transit (BRT) system, with dedicated transit lanes, as illustrated in Exhibit ES- 1 and Exhibit ES- 2, which will:

- Manage growth and transportation capacity constraints;
- Improve transit reliability, travel times, and service frequencies;
- Create an environment that supports investment in higher density, mixed-use residential, and commercial developments;
- Increase resiliency to climate change; and,
- Offer a mode of transportation that is an attractive alternative to the personal vehicle.

London’s Rapid Transit Initiative Master Plan (RTMP) (2017) examined transit corridors in London to identify a Rapid Transit (RT) network that will integrate with the existing transit system and land uses (current and future). The study was undertaken as a Master Plan in accordance with the requirements of the Municipal Class Environmental Assessment (MCEA) (2000, as amended to 2015). A preferred RT network was developed based on guiding principles set out by the City, and was approved by London’s City Council on July 25, 2017. The RTMP defined BRT as the transit technology, the network of streets with dedicated transit lanes, and the preliminary list of Rapid Transit stops (Exhibit ES- 3).

The City proposes to create this BRT network of dedicated transit lanes and is evaluating the environmental effects of this transit project in accordance with the Transit Project Assessment Process (TPAP).

Exhibit ES- 1: King Street at Wellington Street, Looking North



Rendering may not represent final design.

Exhibit ES- 2: Wellington Road at Commissioners Road, Looking North



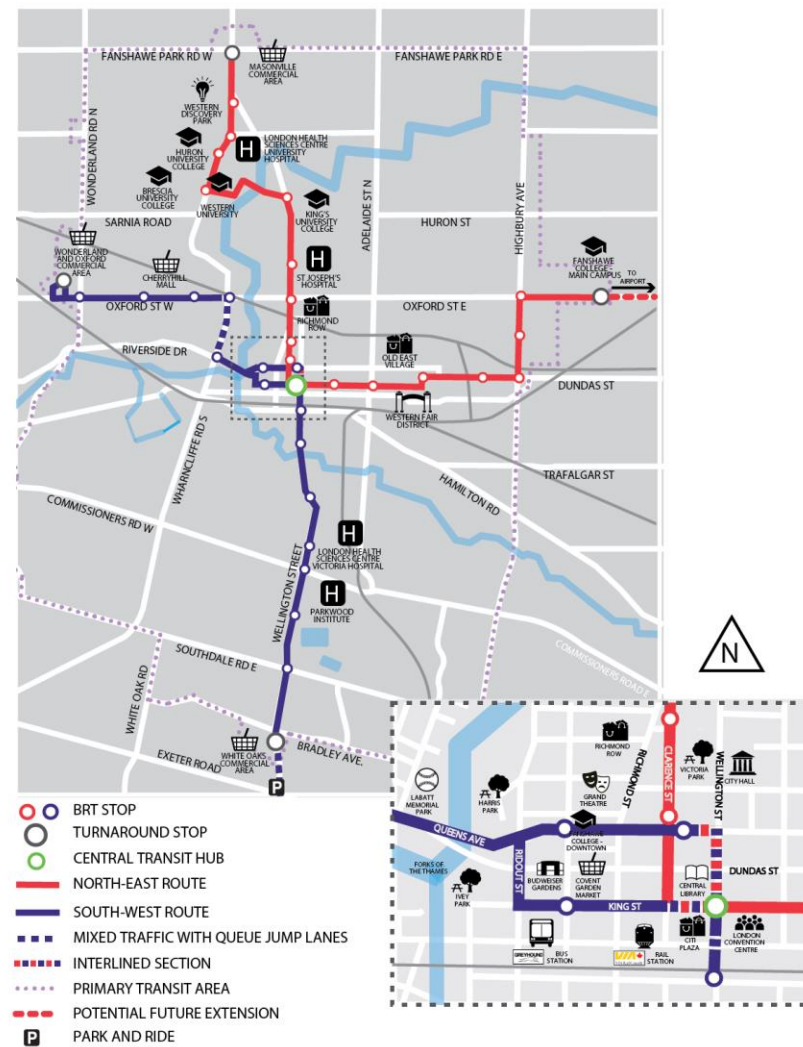
Rendering may not represent final design.

¹ Census Profile, 2016 Census.

Study Area

The study area for this TPAP includes the corridors identified in the RTMP for the approved BRT network (Exhibit ES- 3). The approved BRT network has been refined since the Rapid Transit Master Plan (RTMP), based on stakeholder and public consultation. The transit project is made up of a north-east route and a south-west route totaling approximately 24 km of primarily dedicated transit lanes, and a park-and-ride facility located off of Exeter Road near Wellington Road, north of Highway 401.

Exhibit ES- 3: London's Bus Rapid Transit Network



Related Studies

While the development of a Rapid Transit strategy has been on-going for nearly a decade, the RTMP is built on two important planning documents.

Smart Moves 2030: The New Mobility Transportation Master Plan (2013) aims to provide more attractive travel choices through transit service improvement and increased support for walking, cycling and carpooling. Balancing Rapid Transit with parallel road expansions and network improvements, the Transportation Master Plan is intended to support how all Londoners get around the City. The plan also identifies the mutually supportive relationship between Rapid Transit (RT) and intensified development.

The London Plan (City of London Official Plan, Council Adopted 2016) builds off of the Provincial Policy Statement (2014), encouraging infill development and increased density in many areas of the city to promote walkability, revitalization of neighbourhoods and business areas, and balancing the costs associated with outward growth. Included is the City Structure Plan which identifies three different policy areas:

- **Urban Growth Boundary** – boundary between urban and rural London, within which all future urban development will occur.
- **Primary Transit Area** – centrally located area that will accommodate residential intensification, and improvements to transit and active transportation facilities. The goal is for 75% of all intensification to occur within the Primary Transit Area.
- **Central London** – central area that contains the downtown, and will accommodate intensification with the potential for greater heights and densities than in other neighbourhoods. This area will also have a high standard for urban design, and support high-quality pedestrian, cycling and transit environments.

The City Structure Plan also identifies RT Corridors that radiate from downtown to four Transit Villages, which are planned to become higher density mixed-use neighbourhoods and business areas located around RT stops.

Many other policies, studies, and recently completed or on-going plans and environmental assessments have been considered in the development of this transit project.

Background

The vision for London's Bus Rapid Transit is built on the directions and policies set out in the London Plan, as well as five guiding principles established through the RTMP.

Principle 1: Economic Development and City Building

Positioning London to attract new talent, jobs, and investment, will help sustain economic prosperity for all residents and businesses. The system will connect and invigorate major institutions, support the city-building efforts underway in the downtown, and enhance London's ability to attract new residents and investments. BRT will help realize the vision of the growth management strategy that focuses on promoting infill and intensification in strategic areas.

Principle 2: Transportation Capacity and Mobility

Improving travel options for all residents will be an important step in mitigating and managing congestion in London. Dedicated BRT lanes will make public transit more

reliable, improve travel times, and enhance the user experience. This can be a catalyst for shifting mode choice away from personal automobiles to other sustainable modes. Integrating with active transportation modes (such as walking and cycling), with a focus on enhancing the street-level experience for pedestrians, and connecting to regional transportation hubs, will position BRT as a keystone of London’s emerging multi-modal transportation network.

Principle 3: Community Building and Revitalization

Rapid Transit needs to do more than just move people; it needs to create a sense of place and civic pride in the communities it connects. The system needs to improve accessibility for all residents across the city, not just those living in close proximity to a BRT stop. Most importantly, BRT needs to help revitalize the City by attracting new growth and supporting compact and complete developments in strategic areas. Increasing density must be done strategically in order to create a vibrant, safe and inviting experience for pedestrians at street level.

Principle 4: Ease of Implementation and Operational Viability

BRT will travel along busy roadways and through existing vibrant communities that will need to continue to function through the construction period. During construction there will be localized impacts to traffic and access along the corridors. Minimizing disruptions and impacts during implementation is important, and the City will work closely with residents and local businesses. Once completed, the dedicated transit lanes will be able to adapt operationally for future technologies. Success of the BRT network also requires the system to be financially sustainable in the short and long-term.

Principle 5: Fiscal Responsibility and Affordability

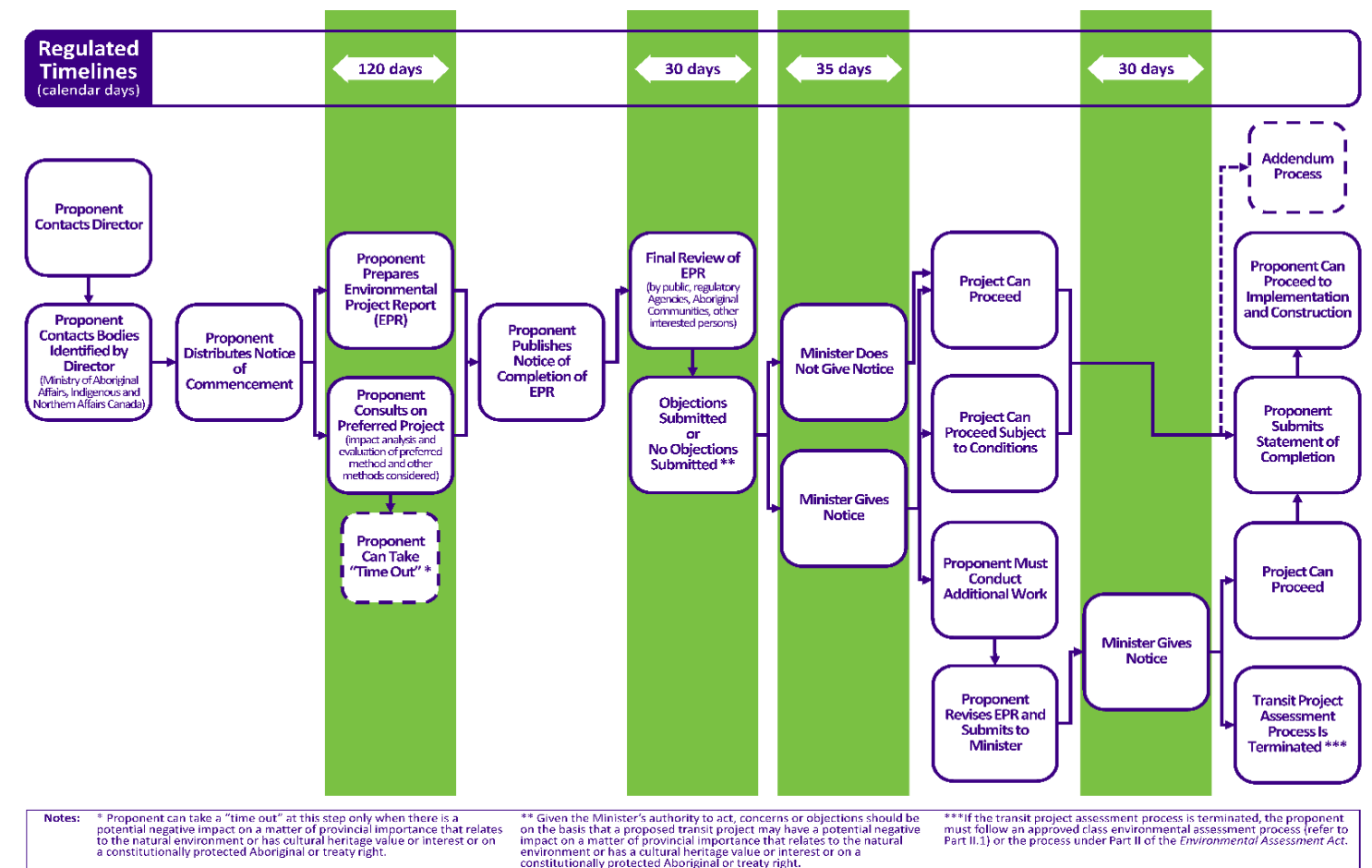
Fiscal responsibility will be achieved by considering the return on BRT corridor investments in terms of ridership, transit user time savings and other transportation and environmental benefits. Affordability means balancing the financial resources required over the life of the project to maintain a healthy financial position.



The Transit Project Assessment Process (TPAP)

This study was completed in accordance with *Ontario Regulation 231/08: Transit Projects and Metrolinx Undertakings* under the *Environmental Assessment Act* (Ontario). The TPAP, as defined by this regulation, is required to be completed within six months of being initiated. The process includes consultation with a variety of interested persons and agencies, identification of potential impacts, mitigation measures, and corresponding documentation of the project. This draft Environmental Project Report does not include any alternatives considered during pre-planning, as the TPAP starts with a defined transit project and is a focused impact assessment of that project. Exhibit ES- 4 illustrates the overall process and timelines.

Exhibit ES- 4: Transit Project Assessment Process²



² Ontario Ministry of the Environment and Climate Change, Guide to Environmental Assessment Requirements for Transit Projects, <https://www.ontario.ca/page/guide-environmental-assessment-requirements-transit-projects>

Environmental Project Report Structure

The location of information to satisfy the requirements of *Ontario Regulation 231/08* is provided in Exhibit ES- 5.

Exhibit ES- 5: EPR Requirement Table

Requirement	Section
A statement of the purpose of the transit project and a summary of any background information relating to the transit project;	1.1, 1.3
A final description of the transit project including a description of the preferred design;	2
A description of any other design methods that were considered once the project commenced the TPAP (Note: Does not include any alternatives considered during pre-planning as TPAP starts with a transit project and is focused on an impact assessment of that project);	To be addressed during TPAP
A map showing the site of the transit project;	1.2
A description of the local environmental conditions at the site of the transit project;	3
A description of all studies carried out, including a summary of all data collected or reviewed and a summary of all results and conclusions;	3, 4
The assessments, evaluation and criteria for any impacts of the preferred design method and any other design method (described above) that were considered once the project's TPAP commenced (does not include pre-planning work);	4
A description of any proposed measures for mitigating any negative impacts the transit project might have on the environment;	4
If mitigation measures are proposed, a description of the proposal for monitoring or verifying the effectiveness of the mitigation measures;	4
A description of any municipal, provincial, federal, or other approvals or permits that may be required;	6
A consultation record, including: <ul style="list-style-type: none"> • A description of the consultations and follow up efforts carried out with interested persons, including Indigenous communities; • A list of the interested persons, including Indigenous communities who participated in the consultations; • Summaries of the comments submitted by interested persons, including Indigenous communities; • A summary of any discussions with Indigenous communities including discussions of any potential impacts of the transit project on constitutionally protected Indigenous or treaty rights, and copies of all written comments submitted by Indigenous communities; and, • A description of what the proponent did to respond to concerns expressed by interested persons, including Indigenous communities. 	5
If a “time out” is taken during the transit project assessment process, a summary of each issue including: A description of the issue; A description of what the proponent did to respond to the issue and the results of those efforts; and, The dates that notices for the “time out” were given to the Director and the Regional Director.	Not applicable

This draft Environmental Project Report (EPR) summarizes the work completed in preparation for initiating the TPAP. The draft report will be circulated to the Ministry of Environment and Climate Change (MOECC) and relevant provincial ministries prior to initiating the six-month TPAP.

During the 120-day TPAP consultation period, the project team will consult with interested parties and the public regarding the project. The draft EPR will be finalized, incorporating comments received. The EPR will be submitted to the MOECC within 120 days of issuing the Notice of Commencement, and will be issued for a 30-day public review.

ES.2 Project Description

The 24 km BRT Network has two routes: North-and-East, and West-and-South, with a total of 38 stops.

The two BRT routes and associated stop locations are illustrated in Exhibit ES- 6 and Exhibit ES- 7. The BRT network is proposed to operate seven days a week, from 6 a.m. to 12 a.m. (midnight). The London Transit Commission (LTC) five year service plans includes extending operating hours to 1 a.m. in 2019. The north-east route is planned to have a bus every five minutes to serve forecasted transit ridership demand during peak periods, and 10 off-peak. The south-west route is planned to have 10-minute bus frequency during morning and afternoon weekday peak periods as well as off-peak. Riders will be able to transfer between the two routes at the Central Transit Hub, located at the corner of Wellington Street and King Street in downtown London, as well as at the intersection of Queens Avenue and Clarence Street.

The BRT fleet will include 28 new articulated buses.

The procurement of the vehicle fleet will consider including features such as:

- Higher passenger capacities (up to 130 passengers) than standard 40' buses;
- Faster boarding and alighting through three bus doors (front, middle, back);
- Accessibility features including low floor, wide aisles, automated stop announcements and display system, and dedicated priority seating and allocated mobility aid spaces;
- Smart buses equipped with technology such as a traffic signal priority system, a smart fare card system, automatic passenger counters, computer aided dispatch and automatic vehicle location; and,
- Cycling racks on buses.

Exhibit ES- 6: North-and-East Route Key Plan

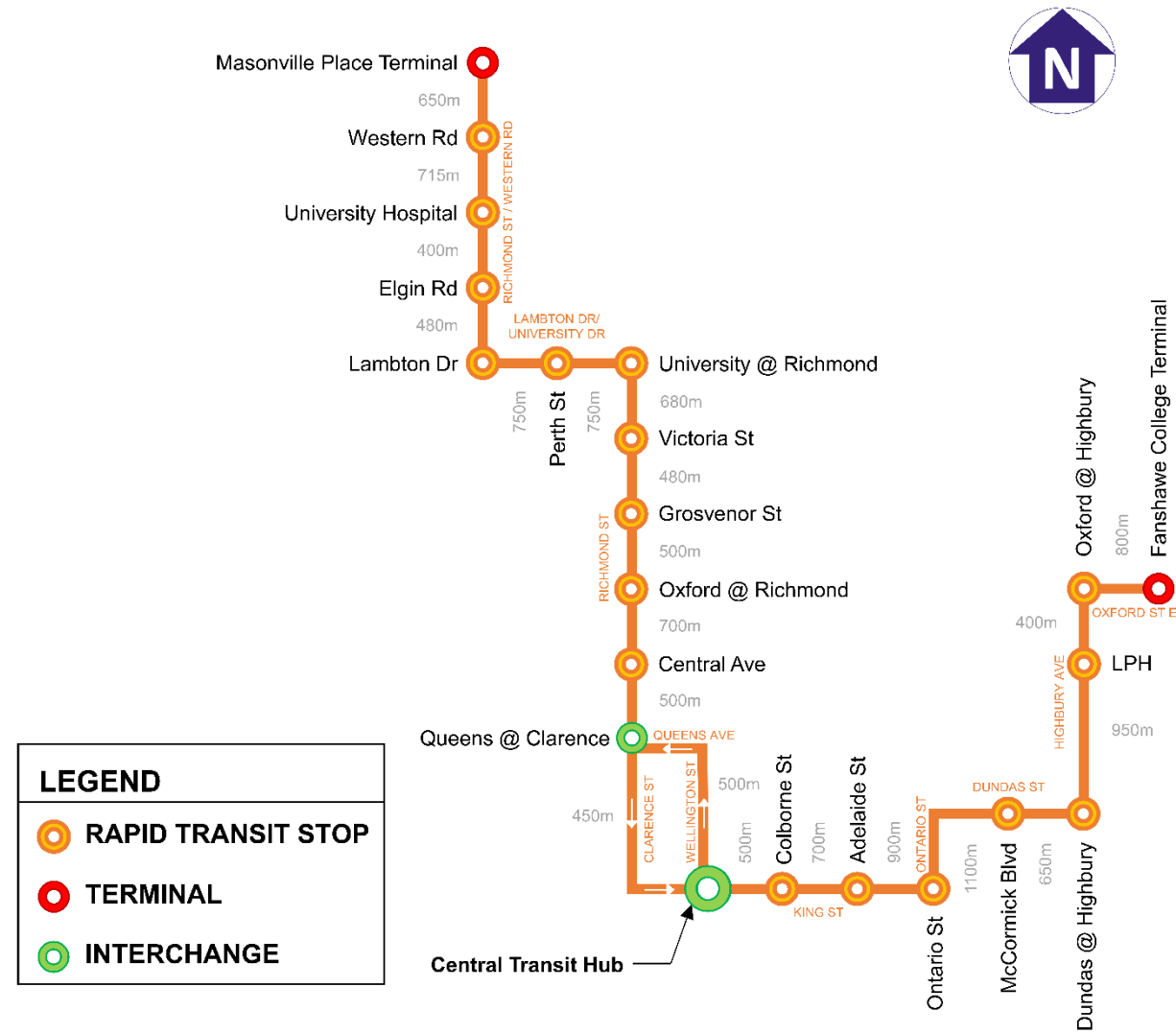
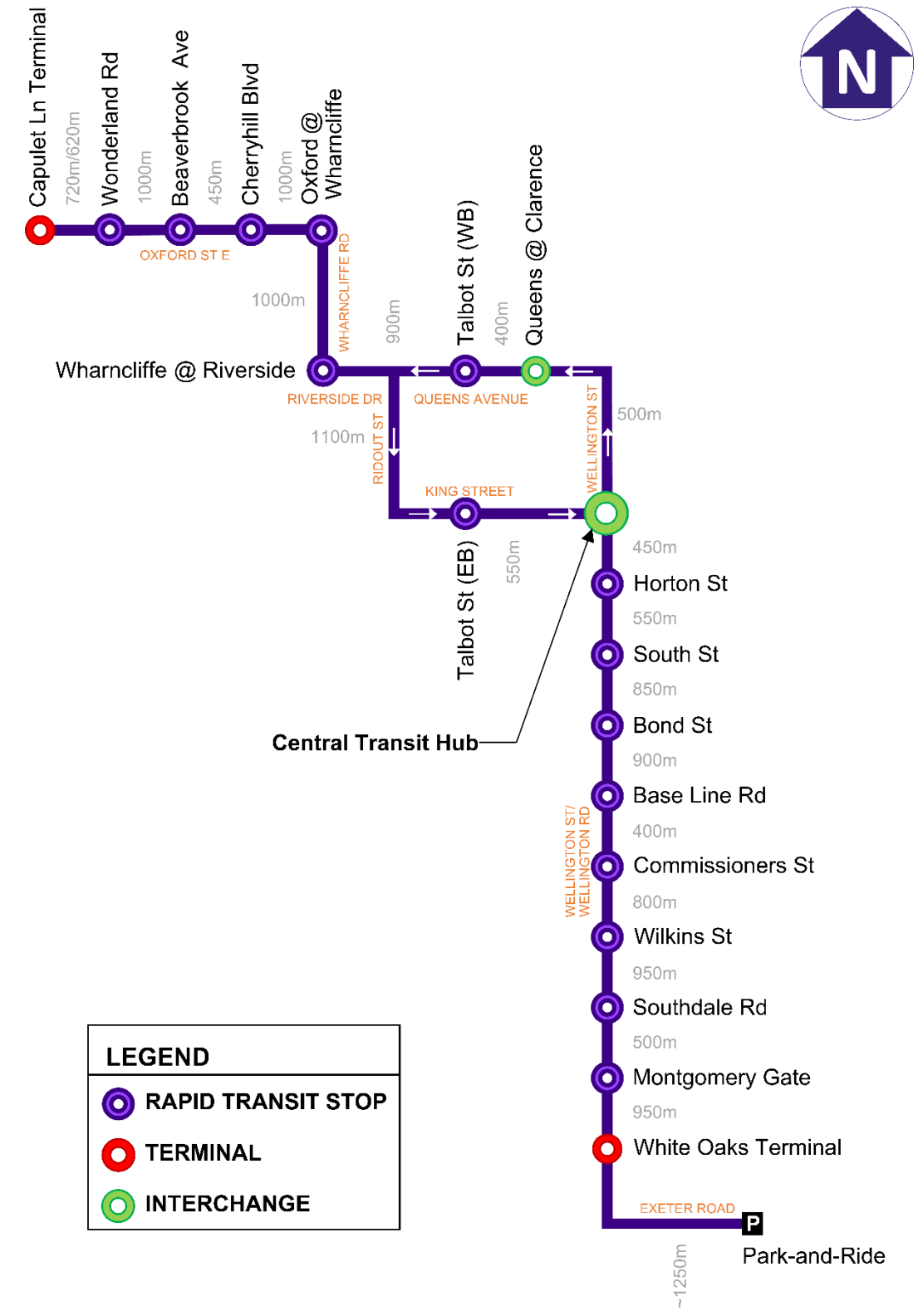


Exhibit ES- 7: West-and-South Route Key Plan



All BRT stops will have similar designs and layouts to allow for passenger familiarity and easy recognition.

The conceptual BRT stop design is modular, offering flexibility to scale the passenger amenities at any given stop, while maintaining consistent architectural characteristics across the system. The typical BRT stop design, as illustrated in Exhibit ES- 8, Exhibit ES- 9, and Exhibit ES- 10, has three main areas:

1. Entrance Area with off-board fare payment (smart fare card readers and ticket vending machines);
2. Waiting Area ranging from fully enclosed and heated area, to open area with or without a canopy; and,
3. Boarding Area with amenities such as benches, waste receptacles, and leaning bars, among other features.

The stops will feature BRT-specific branding, and there will be opportunities to customize certain elements to highlight neighbourhood features. Bicycle parking will be provided in the boulevard of the road near the intersection.

For the majority of the network, the BRT lanes will be centre-running with traffic lanes on either side. Other configurations include curbside and mixed-use options.

The centre-running BRT design will include a raised curbed island (approximate height of 150 mm or 6 inches) between the two dedicated transit lanes. This will change unsignalized side streets and driveways to right-in / right-out access only. Dedicated left-turn lanes with fully protected signal phasing will be provided at most signalized intersections to accommodate U-turn traffic. Exhibit ES- 11 illustrates the typical changes at unsignalized intersections and driveways.

Exhibit ES- 8: Typical Functional Plan Layout of the Platform (Not to Scale)

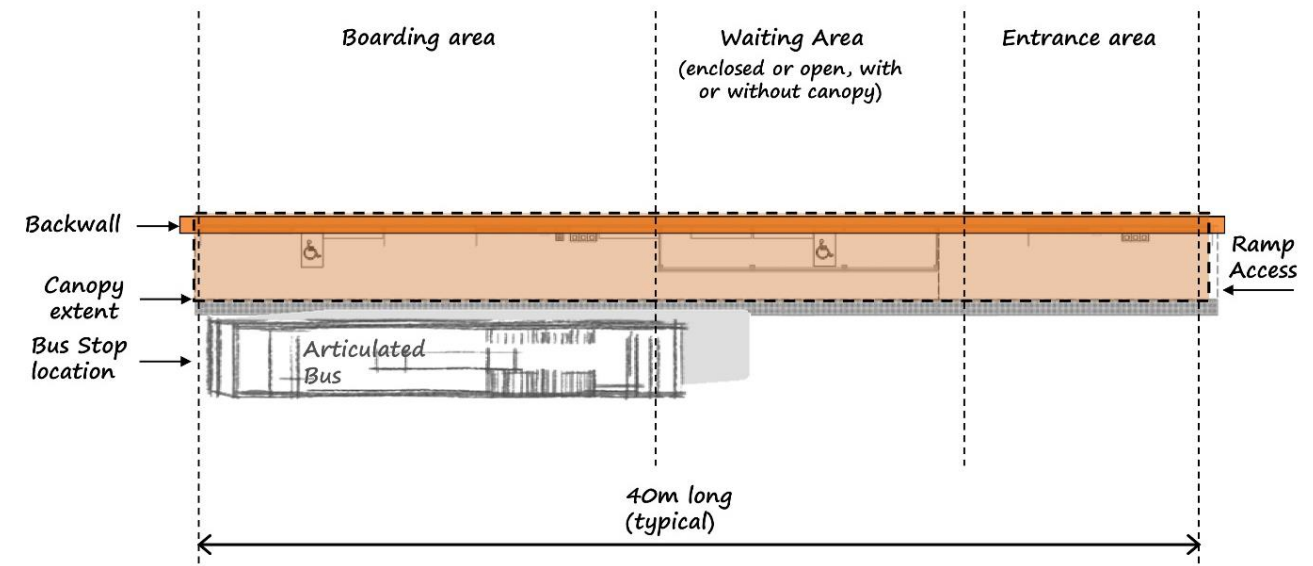


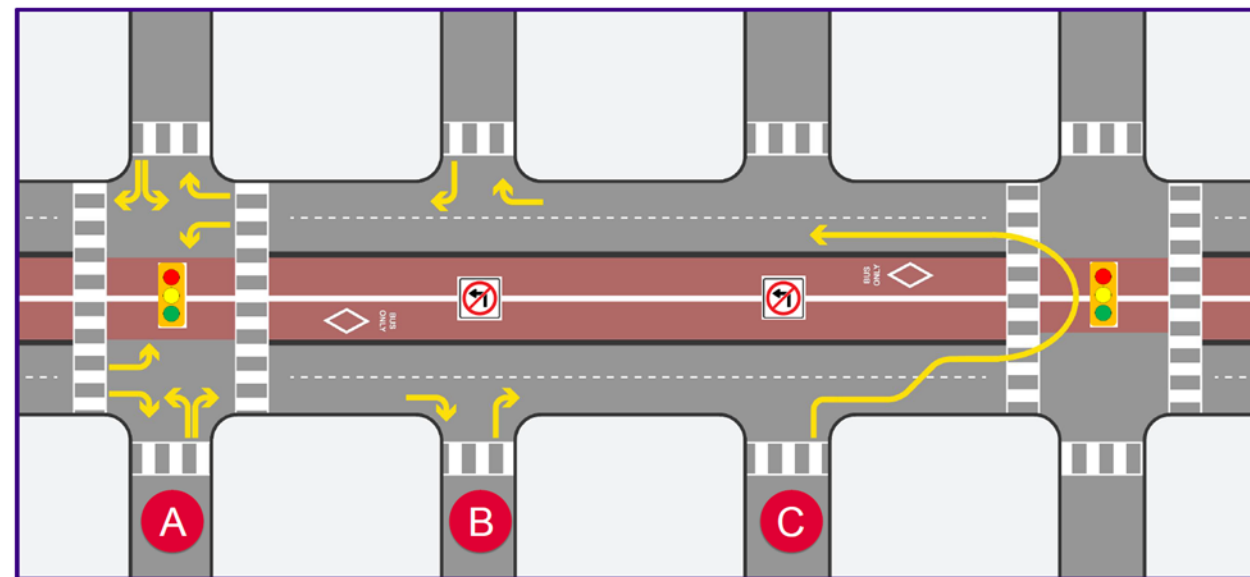
Exhibit ES- 9: Typical Functional Elevation Layout of the Platform (Not to Scale)



Exhibit ES- 10: Platform Configuration Option - Low Passenger Volumes



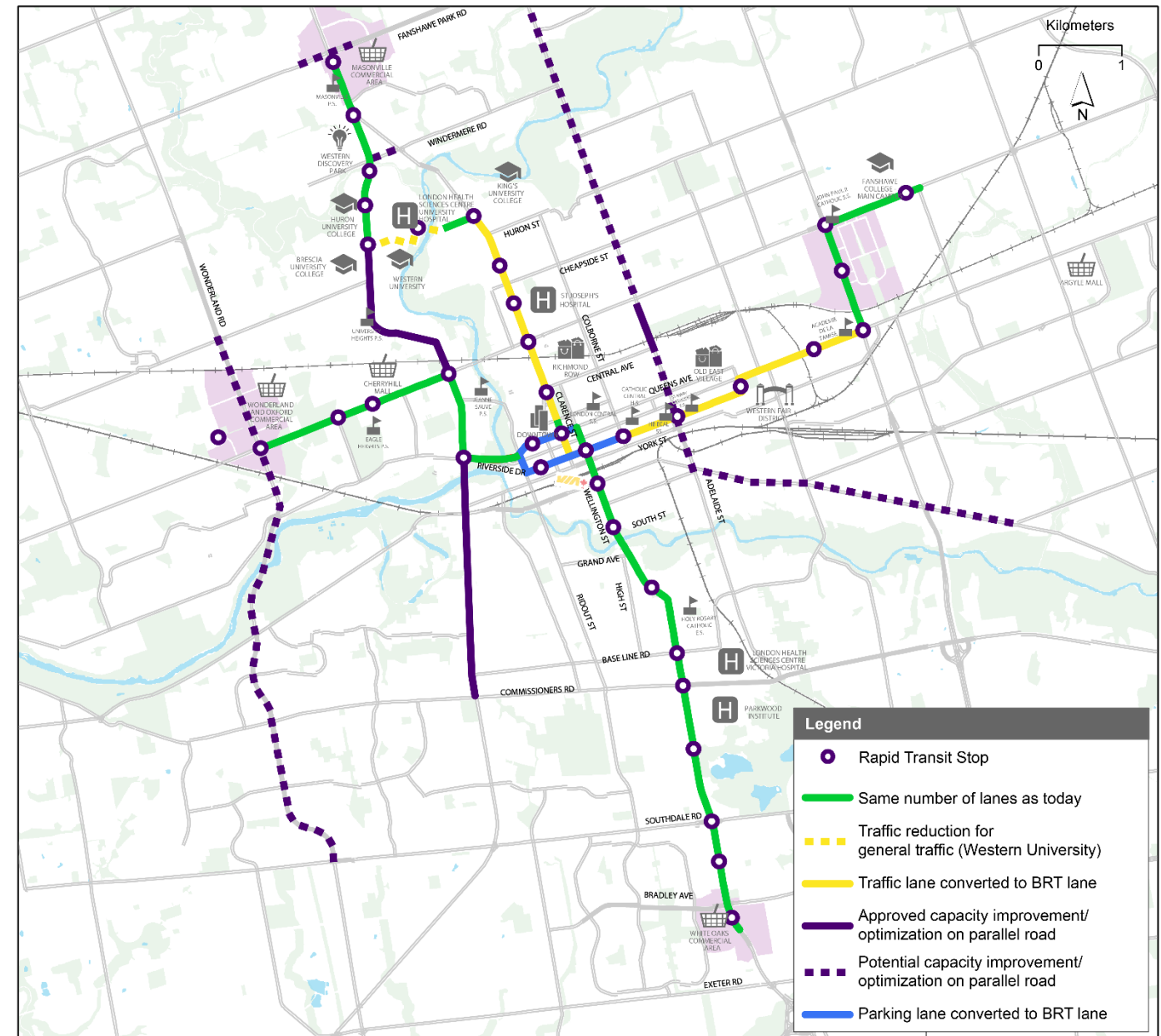
Exhibit ES- 11: Typical Changes to Unsignalized Intersections and Driveways



- A** At signalized intersections, traffic will be able to cross the BRT lanes and make right or left turns.
- B** At unsignalized minor streets and driveways, traffic will only be able to make a right-turn in or out. Traffic will not be able to cross the BRT lanes.
- C** Traffic that today turns left out of an unsignalized minor street or driveway will instead turn right and U-Turn at the next signalized intersection. U-turns will use dedicated left-turn lanes and a protected signal.

In most areas of the BRT network, the existing capacity for general traffic will be maintained by widening the roadway to accommodate the dedicated transit lanes and maintain the same number of traffic lanes as today. In some areas, where the right-of-way is constrained and widening is not feasible, one existing traffic or parking lane per direction will be converted to a dedicated transit lane. Exhibit ES- 12 illustrates which BRT corridor roads will convert one traffic lane per direction to transit-only, and some of the other planned improvements around the city. Over the 24 km BRT network, only 5 km of roadway will require conversion of existing travel lanes to dedicated transit lanes.

Exhibit ES- 12: Changes to Lane Configurations



A recently initiated study, separate from this TPAP, will examine Intelligent Transportation Systems on a city-wide basis, which are needed to support the priority traffic signals required for BRT, and provide a Traffic Control Centre. Other ongoing and planned studies will result in physical or operational improvements to other arterial roads such as Western Road, Wharncliffe Road and Adelaide Street.

Exhibit ES- 13: Cycling Facilities On and Around BRT Corridors

There are several existing bridge structures along the BRT corridors; some structures will be modified to accommodate dedicated transit lanes and active transportation facilities.

The following structures will require modification:

- Western Road Bridge;
- Western University Pedestrian Tunnel;
- University Drive Bridge;
- Clark’s Bridge;
- Queens Avenue Bridge;
- Mud Creek Culvert; and,
- Highbury Ave Bridge (over Canadian Pacific Rail).

The BRT system is designed with key consideration given to bicycle and pedestrian modes, in accordance with “complete streets” principles.

Complete streets are streets that designed to accommodate all modes. With this in mind, streets with transit lanes will also move pedestrians, cyclists and cars.

The Thames Valley Parkway, along with other connected pathways, offers over 200 km of off-street trails. London ON Bikes – London’s Cycling Master Plan (September 2016) was introduced to build on this foundation to improve the network in anticipation of BRT and other network improvements.

Cycling has been incorporated along BRT corridors where possible and where appropriate within the context of the cycling network. However, alternate parallel connections will be considered where BRT corridors are constrained.

Bike lanes will typically be 1.5 m wide per direction, or 3.0 m wide for a two-way cycling facility or multi-use path. Exhibit ES- 13 illustrates the locations of the cycling facilities and connections that are incorporated in the BRT design.

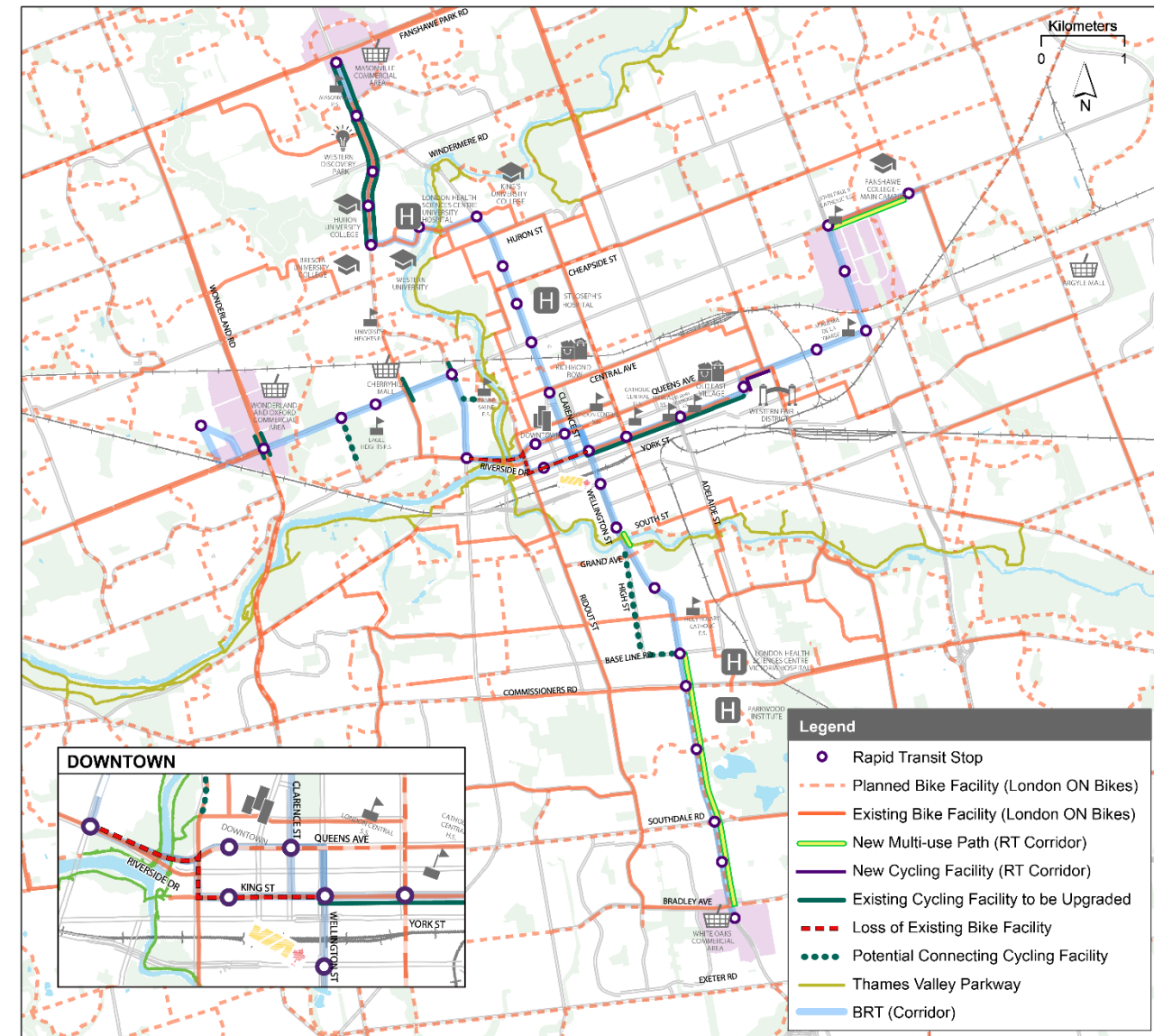
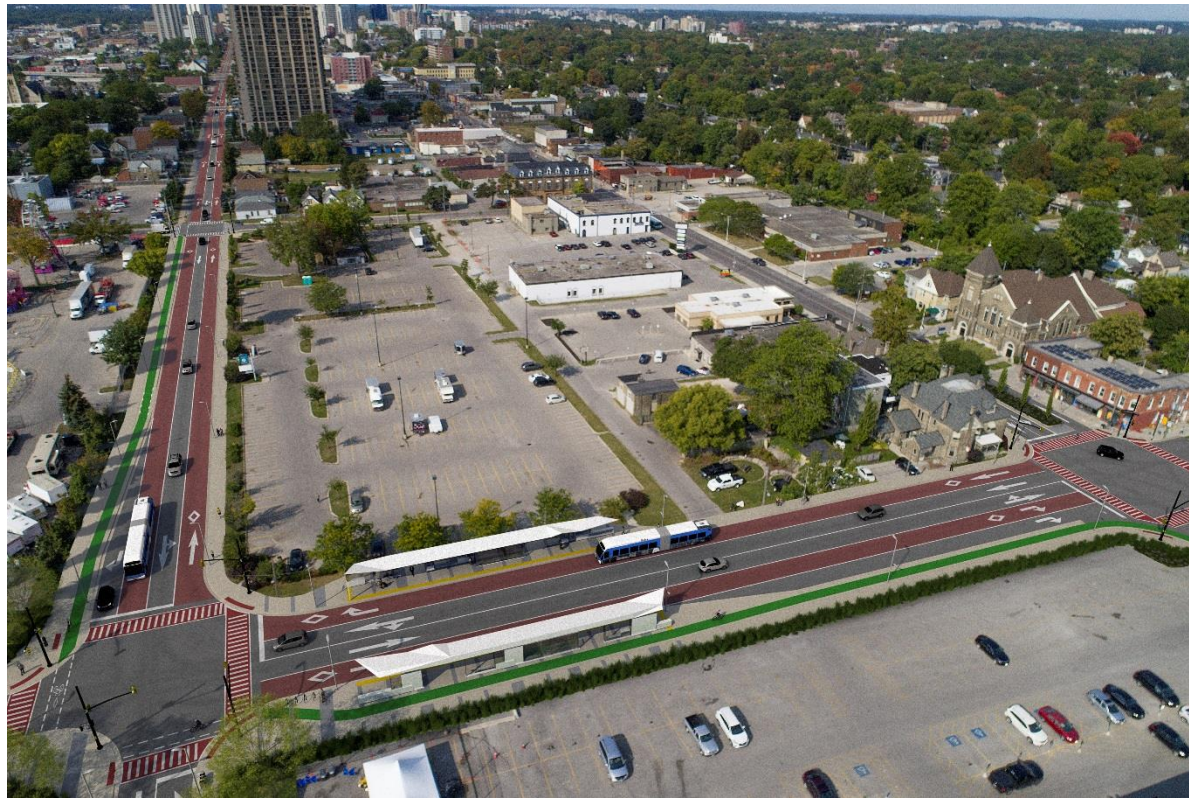


Exhibit ES- 14: King Street at Ontario Street, Looking West



Rendering may not represent final design.

Improved streetscape elements will be incorporated on BRT corridors.

Sidewalks will be continuous on both sides of the streets along BRT corridors. To be compliant with the Accessibility for Ontarians with Disabilities Act (2005), a minimum clear width or clearway of 1.5 m will be provided in constrained areas. In most areas, a clearway width of at least 2.0 m will be provided. Other accessible sidewalk design elements include maximum slopes of 1:20, a slip-resistant surface, and curb ramps at intersections with tactile warning strips and high tonal colour contrast.

Planting Zones or Planting and Furnishing Zones will be incorporated where space allows, typically located between the sidewalk and the curb, to provide extra buffer space between the pedestrian clearway and the roadway. The Planting Zone will feature street trees planted in sod, while the Planting and Furnishing Zone will consist of hardscape material with street trees planted in grates or planters, as well as lighting and street furnishings.

Median islands and platform ends provide opportunities to incorporate placemaking elements in certain areas such as public art, planters, and street trees, depending on the size of the median island.

The streetscape design will adhere to Crime Prevention through Environmental Design principles, optimizing sight lines and minimizing opportunities for crime along the BRT corridors.

Streetscape Furnishing such as benches, waste receptacles, bike parking and newspaper corrals will be situated in the Planting and Furnishing Zone where appropriate.

Public Art can be used in significant locations where there is available room within the right-of-way to help establish a strong sense of place along the BRT corridor. Vertically oriented public art will likely provide the most visual impact in most circumstances.

Street Lighting will be either maintained or improved to meet current standards. In the Downtown and Transit Village Place Types, and where boulevard cycling facilities are provided, person-level lighting will be considered. Lighting under bridges will be designed with either ceiling or wall-mounted fixtures.

Intelligent Transportation Systems will support efficient and reliable transit operations.

Consistent with ITS features in use on the current LTC service and fleet, Intelligent Transportation Systems elements for the Rapid Transit service will include:

- Transit Traveller Information System, to provide information in different ways to enhance passenger experience, including visually or hearing impaired passengers. This system will include displays with real-time information, audible pre-recorded announcements of next stop, and a public address system for ad-hoc messages on BRT vehicles and/or at BRT stops, among other services. This system could also enhance the existing web, mobile phone and interactive voice response services offered by LTC.
- Advanced Traffic Management Systems, to communicate with the traffic signal control centre to help improve traffic flow along the BRT corridors, by adjusting signal phase timing using real-time and historical data. Real-time data is collected using transit signal priority, vehicle detection systems, and closed circuit television cameras along roadways, among other systems. Transit Signal Priority will provide BRT vehicles with more green light time at traffic signals.
- Communication System, which can provide data and voice exchanges between BRT vehicles, supervisor and maintenance vehicles, runways, roadways, maintenance and storage facilities, and transit control centres.
- Computer-Aided Dispatch/Automatic Vehicle Location System, to provide more efficient responses to incidents by analyzing service data from vehicles, and supporting dispatchers by prioritizing issues.



- Fare Collection System, including smart fare card readers, ticket vending machines, cash fareboxes, and a central server for transaction processing and reporting.
- Security System, which will use a variety of technologies to communicate with transit control centres and emergency services to enhance safety along the BRT network. These technologies include closed circuit television cameras on vehicles and at stops, covert alarms for BRT vehicle operators, and emergency call boxes at stops.

These systems will integrate with existing and planned LTC systems, and the planned city-wide traffic control centre and signal coordination program.

Bus Rapid Transit will be integrated with Express Bus and Local Bus routes to support city-wide increases in transit-service.

Bus Rapid Transit will move more people, and support the City’s goals to increase transit ridership by creating a more reliable alternative to the personal automobile, and attracting riders who have a choice of modes. Local service will be restructured around the BRT to enhance the effectiveness of feeder routes, and improve transit throughout the entire City.

Bus Rapid Transit will be integrated with existing regional transit connections.

Inter-regional transit services in London are offered by VIA Rail and Greyhound Canada. VIA Rail offers passenger rail service from the London Station on York Street at Clarence Street. Greyhound Canada offers bus service from the London Bus Depot on York Street at Talbot Street, and from the Western University Campus. High-speed passenger rail service between Toronto and London is currently planned to be in operation as early as 2025.

Transit connections to the London International Airport will be maintained through the existing transit route from Oxford Street West near Second Street (Fanshawe College). With future study, dedicated transit lanes could be extended to the east from the East Turnaround to accommodate future BRT service, as it was identified as a corridor for future expansion in the RTMP.

Land and Property Requirements

The BRT network is mainly located along the existing municipal road allowance, with the exception of within the Western University campus, and is being designed with the goal of minimizing property requirements.

During the development of the preliminary engineering design, approximately 525 properties were identified as having impacts, ranging from full acquisition to front or side-yard impacts.

Project Implementation

Experience from other Rapid Transit projects suggests that implementation (detail design and construction) of the London BRT should take between eight and 10 years. Detail

design may commence in 2019, with construction of the first segments starting in 2020, depending on the coordination with other City infrastructure projects. The approach for tendering and constructing the project is yet to be determined.

The London BRT is expected to be constructed in stages, and the implementation plan will be refined through the detail design process.

ES.3 Existing Conditions

Section 3 of this draft EPR describes the existing conditions along the BRT corridors including transportation and utilities, natural environment, socio-economic environment, cultural environment, and matters of provincial importance.

ES.4 Impact Assessment, Mitigation and Monitoring

Section 4 of this draft EPR documents the potential impacts, and the proposed mitigation measures and monitoring efforts to be undertaken as part of the project. The following sections highlight impacts and mitigation measures identified for the BRT network.

Transportation

Transit Network

With lanes dedicated for transit, and reliable and frequent 5 or 10-minute service, the BRT network will offer improved travel times across the majority of the network.

BRT stops are spaced farther apart than local transit stops, further improving travel times. Increased stop spacing will, however, increase walking distances for some passengers. Some express and local bus routes will be able to use the dedicated transit lanes and stops for short sections of inter-lined service. BRT stop placement considered existing local land uses that are major trip generators, to balance speed and service.

A reduced number of local transit routes will still operate along the BRT corridors in general traffic lanes. These local bus routes will have stops closer together than the BRT stops, which will provide better access for passengers with limited mobility, and connect those passengers to the BRT system at the next BRT stop. Local routes which meet or cross the BRT corridors will be realigned to connect to BRT stops where feasible.

During construction, local routes may be temporarily diverted as needed. These changes will be communicated well in advance during the construction period. Local service will be reviewed and adjusted leading up to the start of BRT operation, and on an annual basis during BRT operations. Communicating these changes is described in the next section.

Traffic Operations

Along the BRT corridors, priority is given to reliable transit service, safe and convenient pedestrian access, and access to trip generators and adjacent neighbourhoods. The

preferred design includes intersection improvements such as auxiliary turn lanes and smart traffic signals to mitigate congestion. Intersections which are experiencing congestion today are likely to continue to experience congestion with BRT. This is primarily due to background traffic growth, the conversion of main street left-turn movements to fully-protected operations, and increases in U-turn demand.

To minimize traffic delays and maintain access during construction, BRT construction will occur in phases, in coordination with other capital projects in the City.

Utilities

Surface and Sub-surface Utilities

There are existing utilities within and across the BRT corridors that will require relocation in order to address conflicts with BRT infrastructure. Through coordination with all of the potentially impacted service providers, utilities found within the proposed platforms will generally be relocated to minimize potential disruption to transit during maintenance and repair activities. Future road disruptions for lifecycle repairs will be reduced, as part of the road reconstruction works associated with BRT, by renewing underground infrastructure along with BRT-related road construction.

Potential impacts to surface and sub-surface utilities may include service disruptions to residents and businesses during construction. Impacts due to utility relocations can potentially include access restrictions, road closures, sidewalk closures, traffic detours and delays. Depending on the proposed location of the relocated utilities, impacts to the public can be limited and minimized dependent upon available space within the road allowance.

To minimize potential disruption due to utility relocations, construction staging will be considered during detail design. Traffic management plans will be created to alleviate and minimize disruption. Standard mitigation practices will be used for other impacts associated with construction, such as dust, and noise.

Stormwater Management

The majority of the BRT corridors can currently be characterized as having a high level of urban development. As a result, there will be a nominal increase in the impervious surface area, which will result in a nominal increase in peak storm flows. In all corridors, consideration will be given to the installation of Low Impact Development measures for both quantity and quality control wherever feasible, such as:

- Bio-retention (within planters, curb extensions, bio-retention units);
- Swales (enhanced grass swales, bio-swales);
- Perforated pipes;
- Prefabricated modules (precast tree planters, soil support systems, phosphorus removal, proprietary stormwater treatment devices); and,
- Permeable pavement (pervious concrete, porous asphalt, permeable pavers).

These Low Impact Development measures will assist in providing quality control, as well as some quantity and erosion control, in order to meet upcoming Ministry of the Environment and Climate Change requirements to match the hydrologic cycle as best as possible.

Natural Environment

Groundwater and Contaminated Sites

There are no areas of significant potential for contamination at BRT stop locations. In general, low to moderate risks related to subsurface conditions are expected at a limited number of sites. The majority of potential contaminants of concern are petroleum hydrocarbon and chlorinated solvents associated with existing and former gas stations and service centres. As a result, construction at or near the groundwater level may require treatment of dewatering discharge. It is anticipated that, for the majority of the BRT stop locations, active remediation is probably not warranted given the relatively nominal depth of excavation at these locations.

Terrestrial and Aquatic Environments

The majority of the infrastructure required is located in the existing municipal road allowance and in urbanized areas. In order to modify the existing watercourse crossings, localized effects will occur as a result of construction activities, such as vegetation removal, increased sedimentation, erosion and turbidity, soil compaction, and habitat loss or fragmentation. These effects will be mitigated through avoidance of direct impacts to species at risk.



Indirect impacts may include temporary impacts such as those associated with the temporary disruption of features / habitats or displacement of species with changes in site conditions, or long-term effects on surface drainage, introduction of invasive species, and increasing anthropogenic pressures from noise and light. This project provides an opportunity for invasive species management along the corridors.

Mitigation and compensation measures will aim to minimize environmental impacts and reduce the magnitude and extent of negative net effects. Construction mitigation includes measures to avoid and/or minimize potential impacts to the aquatic environment and surface water through the use of the following techniques:

- Best management practices for erosion and sediment control and excavation dewatering;
- Constraints on construction timing, equipment movement, fueling and maintenance, and materials storage;
- Use of a debris containment system for bridge works; and,
- Appropriate construction period and post-construction period compliance monitoring.

Air Quality

An Air Quality Impact Assessment was completed to assess the effect of the proposed Project’s operations and construction on local air quality. The air quality impacts of the development of the project at these receptors have been assessed and compared to air quality threshold limits.

Noise and Vibration

Noise mitigation measures will be implemented at four locations, as shown in Appendix A. Vibration impacts on nearby vibration sensitive areas due to the operation of the proposed BRT system is not expected to be a concern. Mitigation measures during construction are recommended, and will be specified during the next design phase.

Socio-Economic Environment

The BRT network will be within walking distance of 40% of homes and 60% of jobs.

Once the BRT system is implemented, the Rapid Transit Corridors are envisioned to become vibrant, mixed-use communities that border the length of the system. The land uses along the corridors will vary depending on the character, uses and intensity of the surrounding areas. Some will be primarily residential with small-scale, street-facing commercial uses, while others may feature stand-alone commercial uses or mixed-use development. The corridors will provide easy access to Downtown and Transit Villages via Rapid Transit, and will be fundamentally walkable and transit-oriented. Areas closer to Rapid Transit stops may be more appropriate for greater density and height to support transit usage for a greater number of residents and workers.

Rapid Transit will generate jobs and contribute to London GDP during construction and throughout the project’s lifecycle.

During construction, the project is expected to generate over 4,000 employment-years and increase GDP by approximately \$260 million. These short-term economic benefits are associated with the construction of the BRT network and are quantified in terms of the estimated number of direct and indirect person-years of employment, wages and additional GDP.

During the lifecycle of the project (from opening day in 2028 until 2050), the project is expected to generate 225 employment years, and contribute an additional \$9 million in GDP per year. These long-term economic benefits are associated with the ongoing operations of BRT, and are quantified in terms of the estimated number of direct and indirect person-years of employment, income (i.e. wages/salaries) and additional GDP. These long-term economic benefits are directly tied to the annual operating costs, and can be impacted by changes in ridership, operational subsidy, and service standards.

Rapid Transit will inspire city-building along its corridors and increase land value.

Investment in transit often results in changes in land value. Case study research has shown these changes are generally positive (i.e. increased property values) as lands become more desirable in their existing form, and/or redevelop into higher density uses.

An estimated uplift in land value in the order of \$90 million could be realized along the proposed BRT corridors if the City of London grows as anticipated. Some vacant or largely underutilized properties will see a major uplift in value and others will see little to none. The average uplift in land value along the corridors is anticipated to range from 2% to 10%.

Several significant recreation and entertainment facilities and attractions are located along the BRT network.

Londoners and visitors will have improved access to these facilities with the implementation of BRT. This will help achieve the guiding principle of improving access to recreation as set out in the Parks and Recreation Master Plan, and will provide improved access to London’s entertainment attractions, making it a more attractive place to visit, live, work, and play.

Cultural Environment

The BRT network was designed to stay within the existing road allowance wherever possible to minimize or avoid impacts to potential archaeological resources.

There are 20 to 30 sites with the potential for archaeological resources that may be disturbed by the project. Additional archaeological assessments are recommended to confirm the potential, prior to detail design.



The BRT network was designed to minimize impacts to existing heritage resources, wherever possible.

There are over 450 properties recommended for further cultural heritage evaluation within the project footprint, or within lands adjacent to the footprint. These properties have the potential to contain features of cultural heritage value or interest. In areas where impacts are anticipated, and avoidance is not possible, mitigation measures will include context-sensitive design of the stops and platforms in areas where cultural heritage resources have been identified. Identified potential heritage resources will be subject to Cultural Heritage Evaluation Reports and/or Heritage Impact Assessments prior to construction, and will be monitored during construction activity.

ES.5 Consultation Process

The City of London initiated a consultation program for the Bus Rapid Transit (BRT) system in January 2015 as part of an extensive effort to collect and respond to comments and questions from various interested parties for the Rapid Transit Initiative Master Plan (RTMP). The RTMP was approved by London City Council in July 2017.

London’s consultation program continued into the pre-planning phase of the TPAP, which was initiated in September 2017, and will remain ongoing during TPAP. Details are provided in Section 5 of this draft EPR.

The goal of this ongoing consultation program is to engage people who have an interest in the proposed BRT system in meaningful discussion on challenges and opportunities, with the following objectives:

- Facilitate conversations with key regulatory agencies;
- Facilitate dialogue with stakeholder groups and the public;
- Minimize and mitigate impacts to property owners, local businesses and service providers;
- Build trust and accountability within the community;
- Provide for public and regulatory agency involvement in the corridor design process;
- Address and minimize concerns with potential construction and operations related impacts such as traffic management, traffic noise and visual changes;
- Fulfill the duty to consult with interested Indigenous communities;
- Use communication and presentation materials that convey key messages in a way that is understandable, and promotes a high degree of discussion on opportunities that will support the quality of life and preservation of the environment; and,
- Maintain an active correspondence and response log with regulatory agencies, authorities, stakeholders and members of the public involved throughout the pre-planning and the TPAP.

Notification Protocol

A number of communication tools and a variety of methods were used to notify stakeholders of events, provide project updates, and give the opportunity to provide comments. These included:

- Project website, www.shiftlondon.ca, Facebook, Twitter, Instagram @shiftldnont;
- E-newsletters;
- Emails to interested persons on the master contact list;
- Emails to those who signed up on the project website;
- City-wide mail-outs that reached property owners, tenants and business;
- Targeted mail-outs to potentially impacted property owners, and those living within 50 m either side of the corridors;
- Media outreach, technical briefings for media and news releases;

- Meetings with stakeholder advisory groups including the Rapid Transit Implementation Working Group, Technical Agencies Group, Municipal Advisory Group, Community Stakeholders Group, and Emergency Services;
- Technical briefing packages for local politicians;
- Radio, print, poster and outdoor advertising alerting people to the events;
- Frequently Asked Questions (with answers) posted on the project website;
- Public Information Centre (PIC) and Open House Comment forms;
- PIC and Open House Summary Reports;
- Stop Features survey, asking participants to identify features they consider important to be included in BRT stops;
- Notice of TPAP Commencement; and,
- Notice of Completion of Environmental Project Report.

The public, stakeholders, regulatory agencies, Indigenous Communities and other interested parties had options to interact with the project team:

- Public Information Centres and Open Houses;
- Twitter, Facebook, Email;
- London’s BRT Project webpage: www.shiftlondon.ca;
- Face-to-face meetings and phone calls;
- Presentations and meetings with stakeholders (e.g., Business Improvement Areas, Neighbourhood Associations) and individual property owners;
- Presentations at Community Group and Ward meetings;
- Attendance and exhibits at community events; and,
- Contacting the project team directly through telephone, email or mail.

Master Contact List

A project contact list of regulatory agencies, conservation authority, local municipalities, Indigenous communities, impacted property owners, stakeholders and interested members of the public, was compiled during the development of the London RTMP.

The project contact list was carried forward into the pre-planning phase of the TPAP, and continually updated in response to project feedback and stakeholder interest. This list has been used for the distribution of project-related notices throughout the pre-planning phase, and will continue into the next phase.

Consultation during the Pre-Planning Phase

Consultation for the pre-planning phase has included:

- Consultation with the Director of the Environmental Approvals Branch at the Ministry of the Environment and Climate Change;
- Updating the project website that was developed during the London RTMP process;
- Preparation of a contact list;
- Public Information Centre #5, which included nine events held on December 9, 12, 13, and 14, 2017 and January 24, 2018 to present the BRT corridor design alternatives;
- Five Open House events on February 28 and March 1 and 3, 2018 to present the emerging technically preferred design alternatives;
- Consultation with Indigenous communities identified as having a potential interest in the project;
- Meetings with the Rapid Transit Implementation Working Group, including project update presentations live streamed and recorded on YouTube; and,
- Meetings with identified key stakeholder groups including Technical Agencies Group, Municipal Advisory Group, Community Stakeholder Group, Emergency Services Group, property owners, and stakeholders.

This draft EPR and supporting technical reports will be circulated prior to starting TPAP to technical agencies, conservation authority, Indigenous communities, local municipalities and other stakeholders.

Consultation with the Ministry of the Environment and Climate Change

As required under O. Reg. 231/08, the City of London sent a letter to the Director, Environmental Approvals Branch at the Ministry of the Environment and Climate Change, on September 12, 2017, to assist in identifying Indigenous communities which may have an interest in the BRT project.

Rapid Transit Implementation Working Group

The Rapid Transit Implementation Working Group was formed in Spring 2016 during the development of the RTMP, and is comprised of representatives from City Council and the London Transit Commission. The purpose of the Working Group is to advise Council on matters related to the planning and design of the BRT system.

Six meetings were held with this group between September 2017 to March 2018, covering:

- An overview of the Project and the TPAP;
- Consultation activity updates;

- Technical design updates;
- Public Information Centre updates;
- Expert panel review of the technical design; and,
- Review of Recommended Preliminary Engineering Design.

Consultation Groups

In Fall 2017, a Technical Agencies Group, a Municipal Advisory Group, a Community Stakeholders Group, and an Emergency Services Group were formed to effectively engage with a variety of stakeholders.

Public Meetings

Stops and Streetscapes Workshop

The Stops and Streetscapes Workshop was held on November 15, 2017, at the Central Library. The purpose of the Workshop was for the public to share ideas with the project team concerning the BRT stops and streetscape. A summary of the comments received at the Workshop is available in Section 5 of the draft EPR.

Public Information Centre #5

Public Information Centre #5 was held to obtain feedback from the public to aid in the evaluation of the BRT corridor design options for nine focus areas identified in the RTMP, plus the turnarounds for the north and west routes and Oxford Street West from Platt's Lane to Wharncliffe Road. The focus areas were:

- North turnaround;
- Western University;
- Richmond Street North;
- Richmond Row;
- Downtown;
- Dundas Street;
- East turnaround;
- Wellington Road Curve;
- Wellington Road South;
- South turnaround;
- Oxford Street West from Platt's Lane to Wharncliffe Road; and,
- West turnaround.



Additional information was presented on the project process, BRT vehicles, traffic impacts, and the natural environment, cultural heritage and existing archaeological conditions. A number of comments and questions were raised at the Public Information Centre (PIC).

A total of 555 individuals signed in at the December PIC events. An additional 234 individuals signed in at the two PIC events held on January 24, 2018.

Open House

Open Houses were held as a follow-up to Public Information Centre #5 to obtain feedback from the public on the emerging technically preferred designs of the project corridors for the same focus areas as Public Information Centre #5.

A number of comments and questions were raised at the Open Houses. A total of 496 individuals signed in at the five Open House sessions.

General Public and Property Owners Correspondence

The general public, businesses, community groups, and property owners have been consulted through various methods and events during the pre-planning phase, including individual letter, phone calls, meetings and site visits. Discussions with interested persons, business, agencies and property owners along the project corridors will continue up to, and during, the TPAP.

Indigenous Community Engagement

The Ministry identified a list of Indigenous communities which may have an interest in the BRT project. The City has communicated the project to the identified list, plus other communities. The combined list is as follows:

- Aamjiwnaang First Nation;
- Association of Iroquois & Allied Indians;
- Chippewas of the Thames First Nation;
- Haudenosaunee Development Institute;
- Haudenosaunee Six Nations Confederacy Council, Haudenosaunee Resource Centre;
- Kettle and Stony Point First Nation;
- London District Chiefs Council;
- Mississaugas of New Credit First Nation;
- Moravian of the Thames First Nation;
- Munsee-Delaware Nation;
- Oneida Nation of the Thames;

- Six Nations of the Grand River;
- Union of Ontario Indians; and,
- Walpole Island First Nation.

Consultation during the Transit Project Assessment Process

During the 120-day TPAP consultation period, the project team will consult with interested parties and the public regarding the project. The draft EPR will be finalized, incorporating comments received. The final draft EPR will be updated to reflect the consultation and submitted to the MOECC within 120 days of issuing the Notice of Commencement, and will be issued for a 30-day public review.

Future Consultation

Consultation on this infrastructure project will continue after the TPAP. The Rapid Transit Implementation Office will continue to work with interested persons, businesses, agencies and property owners as detail design progresses, before and during construction.



ES.6 Permits and Approvals

Section 6 identifies permits and approvals that may be required during the subsequent phases of the London BRT project, including detail design, construction, and post-construction.

At the federal level, the following permits and approvals may be required:

- Approvals under the Canadian Environmental Assessment Act (proponent will continue to assess to determine if any are applicable);
- Canadian Transportation Agency approval may be required for works within a railway right of way under the Canada Transportation Act;
- Permits for work with the potential to harm fish or fish habitat will be required from the Department of Fisheries and Oceans in accordance with the Fisheries Act;
- Species at Risk Act permits for impacts to federally listed species. The Department of Fisheries and Oceans will provide direction related to Species at Risk Act permit requirements; and,
- A new or modified Licence of Occupation under the Public Lands Act may be required where modifications of existing crossing are proposed.

At the provincial level, the following permits and approvals may be required:

- Permit to Take Water from the Ministry of the Environment and Climate Change (MOECC), under the Ontario Water Resources Act;
- Environmental Compliance Approvals from MOECC for new/relocated sewers and stormwater management outfalls, sewer use for discharge of dewatering effluent (compliant with Section 53 of the Ontario Water Resources Act and relevant MOECC guidelines);
- Archaeological and built heritage investigations will be conducted and the associated reports will be submitted to MTCS for review and acceptance, as required prior to any ground disturbance;
- Approval from Hydro One for crossing under its corridor near Exeter Road;
- A Highway Corridor Management permit from the Ministry of Transportation Ontario for the proposed park-and-ride at Exeter Road under the Public Transportation and Highway Improvement Act; and
- A Letter of Advice from the Ministry of Natural Resources and Forestry or an Overall Benefit Permit under clause 17(2)(c) of the Endangered Species Act.

At the municipal level, the following permits and approvals may be required:

- London City Council approval;
- A Heritage Permit for alterations and/or demolitions to properties designated under the Ontario Heritage Act; and,
- Approvals for work in the areas regulated by the UTRCA under the Conservation Authorities Act – Ontario Regulation 157/06, under O. Reg. 97/04.

ES.7 Commitments to Future Action

Section 7 of the draft EPR identifies commitments to future work to be completed during detail design, as well as prior to, during, and after construction of the BRT. Net effects, mitigation and monitoring details will be included. The following items will be addressed in the next phase of the project:

- Nest surveys for Barn Swallows (and other applicable species at risk present at the time) in the breeding season prior to construction activities on bridges;
- Entry-exit surveys for Chimney Swifts where damage to suitable chimneys is scheduled to occur. Surveys should be completed during the breeding season prior to commencement of the demolition or construction activities;
- Screening for suitable bat cavity trees where removal of mature trees are proposed to permit road widening;
- The need for additional targeted surveys for SAR mussels will be discussed with MNRF and DFO at detailed design, once footprint impacts are known, to address potential permitting and related works issues. Mussel rescue/relocations will be required at all locations where mussels have been confirmed within the in-water footprint;
- Completion of a Butternut Health Assessment for Butternut trees adjacent to Lambton Drive, if realignment or widening of the road is to occur within 50 m of the trees; and,
- Additional screening as required based on future changes to species' listings or habitat regulations of the ESA.

Commitments to Future Cultural Environmental Work:

- Heritage Impact Assessments for all designated heritage properties and Heritage Conservation Districts that may be impacted by the project;
- Cultural Heritage Evaluation Reports for all properties with potential cultural heritage value or interest as determined through consultation with London's Advisory Committee on Heritage; and,
- Stage 2 Archaeological Assessments, and Stage 3 and 4 Archaeological Assessments if recommended by Stage 2 and 3, in advance of any activities that have the potential to disturb archaeological resources.

This list will be amended during TPAP.

Matters of Provincial Importance and Indigenous or Treaty Rights

A comprehensive plan for mitigation and monitoring will be developed during detail design, and prior to project implementation. This plan will be based on the recommendations provided in the technical reports to produce net positive effects on matters of provincial importance related to the natural environment, cultural heritage resources, hydrology, or constitutionally protected Indigenous or Treaty Rights. The plan will identify and address potential environmental impacts, approval and permit requirements, and monitoring processes to be completed during construction. The following list summarizes the matters that may be relevant in determining provincial importance:

- Constitutionally protected Indigenous or treaty rights;
- A park, conservation reserve or protected area (*not applicable*);
- Extirpated, endangered, threatened, or species of special concern and their habitat;
- A wetland, woodland, habitat of wildlife or other natural heritage area;
- An area of natural or scientific interest (earth or life science);
- A stream, creek, river or lake containing fish and their habitats;
- An area or region of surface water or groundwater or other important hydrological feature;
- Areas that may be impacted by a known or suspected on or off-site source of contamination such as a spill, a gasoline outlet, an open or closed landfill site, etc.;
- Protected heritage property;
- Built heritage resources;
- Cultural heritage landscapes;
- Archaeological resources and areas of potential archaeological interest;
- An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the *Niagara Escarpment Planning and Development Act (not applicable)*;
- Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the *Oak Ridges Moraine Conservation Act, 2001* applies (*not applicable*); and,
- Property within an area described as a key natural heritage feature or a key hydrologic feature in the Protected Countryside by the Greenbelt Plan under the *Greenbelt Act, 2005 (not applicable)*.

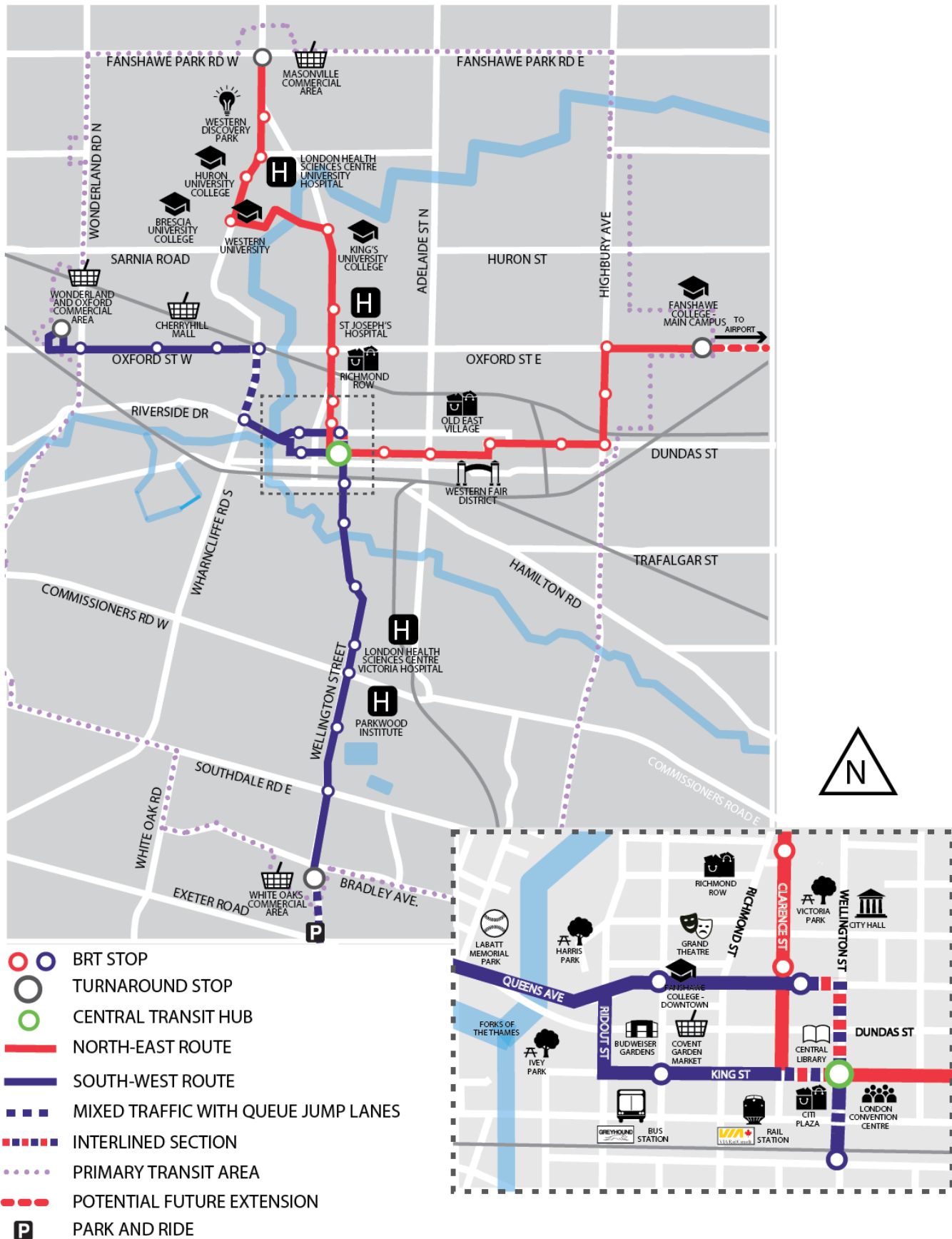


NOTICE OF COMMENCEMENT LONDON'S BUS RAPID TRANSIT SYSTEM TRANSIT PROJECT ASSESSMENT PROCESS



The Project

The City of London's Bus Rapid Transit System will provide more frequent and reliable transit service to Londoners. On July 25, 2017, London City Council approved the Rapid Transit Master Plan that defined the network, stop locations and that the system would operate as a Bus Rapid Transit system.



The Process

The City of London is assessing the environmental impacts of the Bus Rapid Transit System according to the Transit Project Assessment Process (TPAP), as prescribed in Ontario Regulation 231/08. TPAP focuses on the assessment of potential impacts of a selected transit project, in this case, the approximately 24 km Bus Rapid Transit network comprised of north, east, south, and west corridors, and a one-way downtown couplet.

This Notice of Commencement marks the beginning of the formal 120-day TPAP consultation period, starting **Month Day**, 2018, and ending when the Notice of Completion is issued. As part of TPAP, an Environmental Project Report (EPR) will be filed, documenting any potential environmental effects and mitigation requirements of the Project. Documents related to the Project, including technical studies and consultation materials, are available on the project website. The public, regulatory agencies, Indigenous communities, and other interested persons will have an opportunity to review the EPR during a formal 30-day review period. Viewing locations of the EPR will be published in the Notice of Completion. Objections may be submitted to the Minister of the Environment and Climate Change during this period.

All information produced as part of this project is available on the project website at www.shiftlondon.ca.

Consultation

The Project Team would like to thank everyone for the feedback to-date. During the 120-day TPAP consultation period, the City will host additional Public Information Centres to allow the public an opportunity to provide feedback on the design. All interested persons are encouraged to actively participate in TPAP by attending these future meetings or by contacting the project team members listed below with information, comments, questions or to be added to the public mailing list.

Jennie Ramsay, P. Eng.
Project Director, Rapid Transit
City of London
Tel: (519) 661-2489 x 5823
jaramsay@london.ca

Margaret Parkhill, P. Eng.
Project Manager
IBI Group
Tel: (519) 472-7328
margaret.parkhill@ibigroup.com

Information will be collected in accordance with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) and the Environmental Assessment Act. Comments will become part of the public record. Any personal information such as name, address and telephone number included in a submission may become part of the public record unless the commenter specifically requests that such personal details not be included in the public record.

This Notice first issued: **Month, Day, 2018.**

BRT FINANCIAL MODEL - CAPITAL

(000)'s

up to 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 TOTAL

BRT - Capital:

Capital Cost by year ^{(1), (2)}	5,421	12,554	37,288	56,799	57,074	69,370	66,069	65,105	66,131	52,308	11,881	500,000
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BRT - Capital Funding Sources:

Municipal ^{(3), (4)}	3,077	11,534	21,777	21,799	22,574	19,370	11,069	8,105	6,131	3,314	1,250	130,000
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Provincial ⁽³⁾			10,000	15,000	14,500	25,000	30,000	27,000	30,000	18,500		170,000
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Federal												
Public Transit Infrastructure Funding (PTIF) ⁽³⁾	2,344	1,020	5,511									8,875
Investing in Canada Plan (Public Transit Funding Stream) ^{(3), (5)}				20,000	20,000	25,000	25,000	30,000	30,000	30,494	10,631	191,125

NOTES:

- (1) Summarized capital expenditure are based on a detailed analysis provided by the consultant, IBI, in nominal dollars.
- (2) Capital cost are totals of project management, land acquisition, downtown, east, north, south, west corridors, LTC buses and maintenance facility.
- (3) Sources of financing cash flow projections are based on anticipated capital cash flow needs. Future refinements may be necessary as the Environmental Assessment process continues and details of the transfer payment agreements are known for Provincial & Federal Funding.
- (4) Municipal Funding is currently calculated as \$12M in tax supported and \$118M in Development Charges. New provincial regulations for Development Charges (DC) recovery for transit projects may change the growth/non-growth splits based on the new scale of the project and the service standard (ridership), but the impact is unknown at this time. The City has retained a consultant to provide the methodology for DC rate calculation purposes, which will be completed in the coming months.
- (5) Application of London's allocation from the Investing in Canada Plan (Public Transit Funding Stream) to London's BRT initiative is subject to formal review by Infrastructure Canada.

BRT FINANCIAL MODEL - OPERATING

(000)'s	2023	2024	2025	2026	2027	2028	TOTAL
BRT - Operating:							
Operating Costs by year ^{(1), (2), (3), (4)}	3,926	3,926	3,926	10,362	10,362	12,866	45,368

BRT - Potential Operating Funding Sources:

Potential Tax Levy % Increase ⁽⁵⁾ without other sources of revenue	0.69%	0.00%	0.00%	1.12%	0.00%	0.44%	2.2%
Potential Tax Levy % Increase ^{(5), (6)} after fare forecast	0.44%	0.00%	0.00%	1.02%	0.00%	0.34%	1.8%
Potential Assessment Growth ^{(5), (7)}	Assessment growth funding could potentially further reduce or offset tax levy increases						
Potential Gas Tax Funding ^{(5), (8)}	Gas tax funding could potentially further reduce or offset tax levy increases						
BRT operating cost could potentially be fully funded between fare revenue, assessment growth and/or gas tax funding.							

NOTES:

(1) Summarized operating costs are based on a detailed analysis provided by the consultant, IBI, when BRT is fully operational (projected in 2028) in real dollars as per below table:

Rapid Transit Operating and Maintenance Costs (based on the July, 2017 Business Case)			
Cost Items	City	LTC	TOTAL
Labour and Administration Costs		\$6,068,000	\$6,068,000
Fuel and Energy Costs		\$1,830,000	\$1,830,000
Vehicle and Plant Maintenance Costs		\$3,768,000	\$3,768,000
Maintenance Cost (snow, waste removal, etc.)	\$1,200,000		\$1,200,000
Total Rapid Transit Operating & Maintenance Costs	\$1,200,000	\$11,666,000	\$12,866,000

(2) Operating costs are incremental to local transit costs. Operating costs do NOT INCLUDE incremental fare revenue routes.

(3) LTC incremental operating costs/(savings) not yet available. To be determined by LTC's Service Review. Impact will be included at future time.

(4) It is anticipated that BRT operating cost will begin in 2023 with the projected opening of the East corridor. Operating costs increase in 2026 with the projected opening of the North and South corridors, and again in 2028 with the projected opening of the West corridor.

(5) The potential tax levy % increase is provided as a guide. Operating costs for the plan were provided by the consultant, IBI, and are subject to update and revision as a result of the ongoing Environmental Assessment process. Incremental operating costs will be funded through a mix of tax levy increases, assessment growth funding, gas tax and/or fare revenue. Percentages are based on 2018 tax levy.

(6) Fare forecasts are based on detailed analysis provided by the consultant, IBI, as per the July 2017 Business Case, in real dollars.

(7) Assessment growth business cases are received by council annually.

(8) Provincial Gas Tax Funding is expected to double by 2022. The 2017-2018 Provincial Gas Tax allocation was approx. \$10 million.

APPENDIX 'D'

Chair and Members
Strategic Priorities and Policy Committee

#18070
April 23, 2018
(Award Contract)

RE: Bus Rapid Transit - Environment Assessment Initiative
Procurement Options Analysis and Value for Money Assessment
(Subledger NT18BRT01)
Capital Project TS1430-1 - RT 1: Wellington Rd. - Bradley Ave to Horton St. South Leg Widening
Capital Project TS1430-2 - RT 2: Richmond St - Fanshawe Park Rd to Raymond Ave North Leg Widening
Capital Project TS1430-3 - RT 3: Highbury Ave - Dundas St to Oxford St. East Leg Widening
Capital Project TS1430-6 - RT 6: Oxford St W - Hyde Park Road to Richmond St West Leg Widening
Infrastructure Ontario - \$111,142 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	Approved Budget	Revised Budget	Committed to Date 2)	This Submission	Balance for Future Work
<u>TS1430-1 -RT 1: Wellington Rd-Bradley Ave to Horton St South Leg Widening</u>					
Engineering	\$7,475,000	\$7,475,000	\$2,080,209		\$5,394,791
Land Acquisition	29,563,000	29,563,000	780,944		28,782,056
Construction	33,172,642	32,555,200			32,555,200
Relocate Utilities	2,140,000	2,140,000			2,140,000
City Related Expenses 3)	382,558	1,000,000	886,116	33,930	79,954
	<u>72,733,200</u>	<u>72,733,200</u>	<u>3,747,269</u>	<u>33,930</u>	<u>68,952,001</u>
<u>TS1430-2-RT 2: Richmond St-Fanshawe Park Rd to Raymond Ave North Leg Widening</u>					
Engineering	2,500,000	2,500,000	1,952,471		547,529
Land Acquisition	12,363,000	12,363,000	3,256		12,359,744
Construction	6,867,500	6,867,500			6,867,500
Relocate Utilities	644,000	544,000			544,000
Other City Related 3)		100,000	7,057	39,586	53,357
	<u>22,374,500</u>	<u>22,374,500</u>	<u>1,962,784</u>	<u>39,586</u>	<u>20,372,130</u>
<u>TS1430-3 -RT 3: Highbury Ave-Dundas St to Oxford St East Leg Widening</u>					
Engineering	1,596,000	1,596,000	1,043,578		552,422
Land Acquisition	6,987,000	6,987,000			6,987,000
Construction	3,341,000	3,241,000			3,241,000
City Related Expenses 3)		100,000		28,275	71,726
	<u>11,924,000</u>	<u>11,924,000</u>	<u>1,043,578</u>	<u>28,275</u>	<u>10,852,148</u>
<u>TS1430-6- RT 6: Oxford St W-Hyde Park Road to Richmond St West Leg Widening</u>					
Engineering	4,329,312	4,329,312	784,282		3,545,030
Land Acquisition	2,643,334	2,623,334			2,623,334
City Related Expenses 3)	5,688	25,688	5,688	11,310	8,690
	<u>6,978,334</u>	<u>6,978,334</u>	<u>789,970</u>	<u>11,310</u>	<u>6,177,054</u>
NET ESTIMATED EXPENDITURES	<u>\$114,010,034</u>	<u>\$114,010,034</u>	<u>\$7,543,601</u>	<u>\$113,100</u> 1)	<u>\$106,353,333</u>
SUMMARY OF FINANCING:					
<u>TS1430-1 -RT 1: Wellington Rd-Bradley Ave to Horton St South Leg Widening</u>					
Capital Levy	\$1,957,600	\$1,957,600	\$163,111	\$2,171	\$1,792,318
Debtenture By-law No. W.-5609-239 (Serviced through City Services - Roads Reserve Fund (Development Charges)) 4) & 6)	27,571,300	27,571,300	1,439,650	31,758	26,099,892
Drawdown from City Services - Roads Reserve Fund (Development Charges) 4)	935,600	935,600	935,600		0
PTIF (Public Transit Infrastructure Fund)	3,665,373	3,665,373	1,208,908		2,456,465
Senior Government 5)	38,603,327	38,603,327			38,603,327
	<u>72,733,200</u>	<u>72,733,200</u>	<u>3,747,269</u>	<u>33,930</u>	<u>68,952,001</u>
<u>TS1430-2-RT 2: Richmond St-Fanshawe Park Rd to Raymond Ave North Leg Widening</u>					
Capital Levy	924,300	924,300	81,408	2,890	840,002
Drawdown from City Services - Roads Reserve Fund (Development Charges) 4)	11,778,900	11,778,900	1,037,427	36,696	10,704,777
PTIF (Public Transit Infrastructure Fund)	2,605,018	2,605,018			2,605,018
Senior Government 5)	7,066,282	7,066,282	843,949		6,222,333
	<u>22,374,500</u>	<u>22,374,500</u>	<u>1,962,784</u>	<u>39,586</u>	<u>20,372,130</u>
<u>TS1430-3 -RT 3: Highbury Ave-Dundas St to Oxford St East Leg Widening</u>					
Capital Levy	443,433	443,433	38,809	1,979	402,645
Drawdown from City Services - Roads Reserve Fund (Development Charges) 4)	5,891,900	5,891,900	515,654	26,295	5,349,951
PTIF (Public Transit Infrastructure Fund)	1,860,727	1,860,727	489,115		1,371,612
Senior Government 5)	3,727,940	3,727,940			3,727,940
	<u>11,924,000</u>	<u>11,924,000</u>	<u>1,043,578</u>	<u>28,275</u>	<u>10,852,148</u>
<u>TS1430-6- RT 6: Oxford St W-Hyde Park Road to Richmond St West Leg Widening</u>					
Capital Levy	488,434	488,434	55,292	792	432,350
Drawdown from City Services - Roads Reserve Fund (Development Charges) 4)	6,489,900	6,489,900	734,678	10,518	5,744,704
	<u>6,978,334</u>	<u>6,978,334</u>	<u>789,970</u>	<u>11,310</u>	<u>6,177,054</u>
TOTAL FINANCING	<u>\$114,010,034</u>	<u>\$114,010,034</u>	<u>\$7,543,601</u>	<u>\$113,100</u>	<u>\$106,353,333</u>

APPENDIX 'D'

Chair and Members
Strategic Priorities and Policy Committee

#18070
April 23, 2018
(Award Contract)

RE: Bus Rapid Transit - Environment Assessment Initiative
Procurement Options Analysis and Value for Money Assessment
(Subledger NT18BRT01)
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Capital Project TS1430-6 - RT 6: Oxford St W - Hyde Park Road to Richmond St West Leg Widening
Infrastructure Ontario - \$111,142 (excluding H.S.T.)

1) FINANCIAL NOTE:	TS1430-1	TS1430-2	TS1430-3	TS1430-6	TOTAL
Contract Price	\$33,343	\$38,900	\$27,786	\$11,114	\$111,142
Add: HST @13%	4,335	5,058	3,612	1,445	14,450
Total Contract Price Including Taxes	37,678	43,958	31,398	12,559	125,592
Less: HST Rebate	3,748	4,372	3,123	1,249	12,492
Net Contract Price	<u>\$33,930</u>	<u>\$39,586</u>	<u>\$28,275</u>	<u>\$11,310</u>	<u>\$113,100</u>

- 2) Amounts reflected in the "Committed to Date" column are subject to housekeeping budget adjustments as a result of future reports to Municipal Council.
- 3) The expenditures related to the current submission are included in "City Related Expenses" because they are not eligible for PTIF or Senior Government funding.
- 4) Development charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2014.
- 5) The scope and timing of the Bus Rapid Transit Initiative is subject to securing funding from other levels of government.
- 6) **Note to City Clerk:**
The City Clerk be authorized to increase Debenture By-law W.-5609-239 as amended by By-law No. W.5609(a)-282 by \$8,018,400 from \$19,552,900 to \$27,571,300.

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 Alan Dunbar
 Manager of Financial Planning & Policy