
For Information

REPORT TITLE: Queen Street – Highway 7 Bus Rapid Transit – Status Update

FROM: Andrea Warren, Interim Commissioner of Public Works

OBJECTIVE

To provide an update on the Queen Street – Highway 7 Bus Rapid Transit project and Metrolinx’s recently published Initial Business Case.

REPORT HIGHLIGHTS

- In the summer of 2018 Metrolinx commenced the Initial Business Case for Bus Rapid Transit (BRT) on the Queen Street - Highway 7 corridor.
 - The corridor spans from Mississauga Road in the City of Brampton to Helen Street in the City of Vaughan, connecting it to the Highway 7 Rapidway in the Region of York.
 - The Initial Business Case has been completed by Metrolinx. The study confirms the need for BRT and recommends dedicated transit infrastructure on the corridor.
 - Metrolinx will commence the preliminary design in 2021 which will require the completion of a Preliminary Design Business Case, the completion of a Transit Project Assessment Process, as well as community and stakeholder consultations.
 - Queen Street is an important multi-modal corridor. In addition to advancing the BRT the Region’s interests include the implementation of active transportation infrastructure, protection of Regional assets, the facilitation of goods movement, and minimizing traffic impacts to other Regional roads.
 - Regional staff will work towards ensuring that the key Regional interests identified in this report be considered and assessed by Metrolinx during the preliminary design phase.
-

DISCUSSION

1. Background

Metrolinx is leading the advancement of Bus Rapid Transit (BRT) on the Queen Street – Highway 7 corridor, with the Region of Peel, City of Brampton, Brampton Transit, and Region of York engaged as project stakeholders. The proposed Queen Street – Highway 7 BRT corridor spans from Mississauga Road in Brampton to Helen Street in Vaughan, connecting to the Highway 7 Rapidway in the Region of York (see Appendix I for Project Map).

The project is aligned with key Regional plans, including the Region of Peel’s Official Plan; the Region of Peel’s Term of Council Priority of expanding community mobility; and the Region of Peel’s Long Range Transportation Plan 2019 with the goal of increasing the sustainable mode share target in Peel to 50 per cent by 2041, including an increase in the transit mode share in Brampton by 5.8 per cent.

Queen Street – Highway 7 Bus Rapid Transit – Status Update

Bus Rapid Transit on the Queen Street – Highway 7 corridor has been identified by Brampton Council as a top transit priority for the City of Brampton and is a key component of the City’s Transportation Master Plan and the Brampton 2040 Vision.

a) Project Status

In the summer of 2018, Metrolinx commenced the Queen Street – Highway 7 BRT Initial Business Case and engaged the Region and the City of Brampton as key project stakeholders.

The Queen Street – Highway 7 BRT project follows the Metrolinx Benefits Management Framework, which is a seven-step process that assesses the rationale for investment from the strategic planning phase through to post in-service phase of a transportation project (see Appendix II for Metrolinx Stage-Gate Process).

The Initial Business Case, which addresses the feasibility and options analysis phase of the project lifecycle, has been completed and published in December 2020. As per Metrolinx’s Benefits Management Framework, the project will now advance onto the preliminary design phase.

2. Highlights of the Queen Street – Highway 7 BRT Initial Business Case

As part of the Initial Business Case, Metrolinx evaluated options related to transit service routes, BRT operation, and transit infrastructure for the Queen Street – Highway 7 corridor.

a) Transit Service Routes and BRT Operation

The Initial Business Case recommends a single, continuous BRT route from Mississauga Road to Vaughan Metropolitan Centre. Priority bus feeder routes are recommended on adjoining streets to increase transit accessibility in the area. Priority bus routes are anticipated to operate on portions of the following Regional roads: Mississauga Road, Bovaird Drive, Airport Road, and The Gore Road.

Furthermore, the Initial Business Case recommends that a centre median BRT operation, where possible, is preferred over curbside BRT operation. Centre median BRT operation increases the reliability of the transit service and provides for other benefits such as fewer potential conflicts with local traffic, pedestrians, and cyclists.

b) Transit Infrastructure Options

The Initial Business Case defines the following three infrastructure options for the Queen Street – Highway 7 corridor:

- A. Centre median operation with conversion of one general purpose traffic lane in each direction across the corridor
- B. Centre median operation with the addition of a transit lane in each direction across the corridor; except in downtown Brampton where conversion of one general purpose traffic lane in each direction is applied
- C. Hybrid operation of centre median BRT with the addition of a transit lane on the majority of the corridor, but with buses operating in mixed traffic conditions for the

Queen Street – Highway 7 Bus Rapid Transit – Status Update

following constrained portions: downtown Brampton, highway crossings, rail track crossings, and the segment between Kipling Avenue and Islington Avenue

The three infrastructure options were evaluated against strategic, economic, financial, deliverability and operations criteria. The Initial Business Case finds that options A and B provide greater benefits than option C. The provision of dedicated transit infrastructure across the entire corridor increases transit reliability and reduces transit travel times over Option C, which provides less dedicated transit infrastructure.

The Initial Business Case recommends the need for dedicated bus infrastructure to support a BRT corridor moving into preliminary design. Further analysis and consultations on whether to convert existing traffic lanes to BRT lanes or widen the corridor to accommodate BRT lanes outside of downtown Brampton will be performed in preliminary design.

3. Key Regional Considerations

Regional staff are supportive of the recommendations of the Queen Street – Highway 7 BRT Initial Business Case and the need for Bus Rapid Transit on the Queen Street – Highway 7 corridor. Regional staff have identified the additional key areas where analysis and consideration are required during the upcoming preliminary design phase.

a) Compatibility with the Long Range Transportation Plan

The Region of Peel's Long Range Transportation Plan 2019 provides a framework for assessing major transportation initiatives across the following three focus areas.

i) Sustainable Mobility

To ensure the successful performance of this transit project, Regional staff will work with Metrolinx to support measures that can maximize the forecasted transit ridership of the corridor. This includes the coordination of active transportation infrastructure to support first and last mile trips to and from the transit stations and assessing the impacts of carpooling, ridesharing, and ride-hailing scenarios.

ii) Safe Mobility

Regional staff will work with Metrolinx to ensure that preliminary design alternatives are compatible with the Region's Vision Zero Road Safety Strategic Plan. Areas of interest include maximizing safety for pedestrians and cyclists through the corridor and at intersections.

iii) Vehicular Mobility and Goods Movement

The Region of Peel's Long Range Transportation Plan 2019, informed by Peel's Travel Demand Forecasting Model, designates the need for Queen Street East to remain at six general-purpose lanes and Queen Street West to remain at four general-purpose lanes into 2041. Scenarios involving the conversion of general-purpose lanes into BRT lanes on Queen Street may have significant network impacts that may spillover onto other Regional roads, such as Steeles Avenue and Bovaird Drive, which are already forecasted to operate at capacity.

Queen Street – Highway 7 Bus Rapid Transit – Status Update

Furthermore, Queen Street East from Highway 410 to Highway 50 is classified as a Primary Truck Route in Peel's Strategic Goods Movement Network. The corridor facilitates up to 12 per cent medium and heavy trucks and is also being considered as a potential Long Combination Vehicles route. The Region will work with Metrolinx to ensure that goods movement impacts are adequately detailed and analyzed.

b) Impacts to Regional Infrastructure

Major transportation assets contained in the Regional right-of-way may be impacted; this includes, but is not limited to, multiple bridges and major culverts in addition to Public Sector Network infrastructure components. Furthermore, there are a significant number of existing and proposed water and wastewater assets of varying sizes and service delivery types within the Queen Street – Highway 7 corridor including within the Downtown Brampton Core. Regional staff will work with Metrolinx to ensure potential impacts to these assets, delivery challenges, and relocations costs are maintained at a minimum during preliminary design.

c) Protection of Regional Right-of-Way Requirements

The Region of Peel's Official Plan designates Queen Street East as a rapid transit corridor, Queen Street West as a potential rapid transit corridor, and guides the Region to work with local municipalities to plan for and protect Regional corridors and rights-of-way to meet projected transit needs. Regional staff will continue to protect for the mid-block and intersection right-of-way requirements on Queen Street.

d) Coordination with Planning for Major Transit Station Areas

The Queen Street – Highway 7 BRT corridor runs through the Brampton Urban Growth Centre and partly overlaps with a local intensification corridor. The Regional Major Transit Station Areas Study considers both regional and local growth management objectives when it comes to land use and infrastructure planning, and is being used as a background document for the Regional Official Plan Review Peel 2041+. The Major Transit Station Areas Study is near completion and identifies 15 Major Transit Station Areas along Queen Street East through the BRT corridor. Regional staff will work with the City of Brampton to ensure that land use planning for the Major Transit Station Areas will be coordinated with the design of the Queen Street – Highway 7 BRT corridor.

4. Next Steps

With the completion of the Initial Business Case, Metrolinx has begun preparations for the preliminary design phase, which will commence in 2021. The preliminary design phase will require the completion of a Preliminary Design Business Case. The completion of the Transit Project Assessment Process, an accelerated Environmental Assessment for transit projects, will also be completed as part of the preliminary design phase.

Regional staff will work towards ensuring that the key Regional interests identified in this report be considered and assessed during preliminary design.

Queen Street – Highway 7 Bus Rapid Transit – Status Update

CONCLUSION

Metrolinx's Initial Business Case confirms the need for dedicated Bus Rapid Transit infrastructure on the proposed Queen Street – Highway 7 corridor. The project supports the Region of Peel's 50 per cent sustainable mode share target. Regional staff will continue to work with Metrolinx, the City of Brampton, Brampton Transit, and York Region to advance the Queen Street – Highway 7 Bus Rapid Transit project through the preliminary design phase and ensure that the Region of Peel's interests are protected. Regional staff will report to Regional Council on major milestones as necessary.

APPENDICES

Appendix I – Project Map

Appendix II – Metrolinx Stage-Gate Process

For further information regarding this report, please contact Sabbir Saiyed, Manager, Ext. 4352, sabbir.saiyed@peelregion.ca.

Authored By: Parshan Bahrami, Principal Planner

Reviewed and/or approved in workflow by:

Department Commissioner, Division Director and Legal Services.