



City of
Peterborough

To: Members of the General Committee

From: Michael Papadacos
Interim Commissioner of Infrastructure and Planning Services

Meeting Date: March 14, 2022

Subject: Approval of Eastside Transportation Study
Recommendations
Report IPSTR22-002

Purpose

A report to recommend approval of the Eastside Transportation Study recommendations, and to update Council on the schedule for the project.

Recommendations

That Council approve the recommendations outlined in Report IPSTR22-002, dated March 14, 2022, of the Interim Commissioner of Infrastructure and Planning Services as follows:

- a) That the presentation by Paradigm Transportation Limited on the Eastside Transportation Study be received;
- b) That the recommendations of the Eastside Transportation Study be approved in principle;
- c) That the Eastside Transportation Study project team finalize the master plan process and publish the final report for public review;
- d) That the Eastside Transportation Study team continue with the Ashburnham Drive Realignment Class Environmental Assessment and report back to Council to seek approval to file the Environmental Assessment Report; and
- e) That Council request that the Ontario Ministry of Transportation undertake the necessary analysis to determine the need to continue to protect for an East Side by-pass of the City of Peterborough and, if the need is confirmed, to review the

designated route and update the route planning study as appropriate, and further, that this resolution be sent to Peterborough County and the local municipalities.

Budget and Financial Implications

There are no direct costs associated with approval of this report.

The funding related to continue with part 2 of the Eastside Transportation Study related to completion of the Ashburnham Drive Realignment Class EA was approved by Council as part of Report IPSTR19-006 – Amendment of the East Side Transportation Study Scope of Work & Pre-commitment of the 2020 Capital Budget, and this provisional scope of work was included in the award of RFP P-20-19, which was approved by Administrative Staff Committee through report IPSTR20-005 - Award of RFP P-20-19 for East Side Transportation Study and Ashburnham Drive Realignment Class EA, dated January 29, 2020.

Future Councils will determine the pace of investment to implement the recommendations in the Eastside Transportation Study based on actual growth and infrastructure priorities over the 30-year plan horizon.

The estimated costs of the recommended road network improvements are \$209 M in 2022 dollars. These estimated costs have been included in the road network improvement costs presented in the overall city-wide Transportation Master Plan project. A share of project costs will be funded through Development Charges which are applied to new residential, commercial and industrial developments, based on the rates established in the Development Charges By-Law. Costs for sidewalks and cycling infrastructure are included in the estimated costs for recommended road improvement projects.

The cost estimates for recommended projects will be refined as they continue through subsequent stages of project planning and design. Funding requests for recommended projects will be incorporated into future Capital Budget requests.

Background

In response to development pressures in the eastern portion of the City, staff were directed to complete the Eastside Transportation Study to assess long-term transportation needs within the study area and to plan for adequate transportation infrastructure to accommodate future growth. City Council also placed a condition on the approval of the Ashborough subdivision development, requiring that the study be sufficiently drafted to the point that it has been determined that no significant changes are required to the draft Plan of Subdivision.

Following approval of the Ashborough subdivision, a number of other planning applications have been submitted and/or approved in East City, increasing the potential

population growth in the study area beyond that originally contemplated in the traffic studies completed in support of the Ashborough subdivision project.

In accordance with Council direction, request for proposal document P-20-19 was issued in 2019 to complete the Eastside Transportation Study. The request for proposal was awarded to Paradigm Transportation Solutions Ltd. through report IPSTR20-005, dated January 29, 2020, and work began in early 2020.

Project Summary

The Municipal Class Environmental Assessment (MCEA) establishes an assessment process (under the Environmental Assessment Act) to guide municipalities as they plan municipal infrastructure projects. The MCEA is a process approved by the Minister of the Environment, Conservation and Parks.

The Municipal Class EA incorporates five phases in the planning process:

1. Problem / Opportunity Definition;
2. Assessment of Alternative Solutions;
3. Assessment of Alternative Designs for the Preferred Solution;
4. Preparation of an Environmental Study Report; and
5. Implementation (design, construction and monitoring).

A Master Plan is recognized and supported under the Municipal Class Environmental Assessment. Master Plans are structured to examine the need for new infrastructure on a system wide basis, while incorporating land use considerations and environmental principles into the municipal planning and decision-making process. A Master Plan often recommends a combination of policies and new/upgraded infrastructure to support long-term growth in the community. The plan also provides a guide to assist in day-to-day municipal decision making, annual capital budget forecasting and priority setting.

A Master Plan will often identify the need for projects and will assess a series of broad planning solutions to determine an integrated set of improvements to address and support existing and future needs. Given their broad geographic context, a Master Plan will typically stop short of completing the detailed technical background studies and preliminary designs that are necessary to obtain provincial approval for each of the recommended projects. As such, a Master Plan will typically satisfy Phases 1 and 2 of the Municipal Class EA process.

The Eastside Transportation Study (the ESTS) has been conducted following the Municipal Class Environmental Assessment (MCEA) process for Master Plans and has focussed on the Transportation Infrastructure and services required to support planned growth.

Many of the larger infrastructure projects recommended in a Master Plan are “Schedule B” and “Schedule C” projects and will still require further study prior to being approved for implementation. For most projects, the completion of Phases 3-5 of the Municipal Class EA planning process will still be required. Each project requires the completion of additional technical studies, the development of a preliminary design and the completion of an Environmental Study Report to document the planning and decision-making process. Some very complex projects may also undertake additional more detailed study of Alternative Solutions (Phase 2) during a subsequent Class EA Study to ensure that a thorough assessment process is utilized.

The primary focus of this study has been to assess and recommend improvements to the transportation network to support future growth on the east side of the Otonabee River and north of Lansdowne Street, which includes the Liftlock Secondary Plan area. The study area is forecast, through the City’s new Official Plan to be home to 7,500 more people and 2,000 more jobs by 2051. This growth is consistent with the substantial growth forecast to occur throughout the rest of the city.

The ESTS commenced with a public notice issued in October 2020 to introduce the study and provide contact information for the project team. After undertaking an assessment of existing conditions and planned growth in the area, an online public information centre was held between June 21 to July 16, 2021 to obtain feedback from residents, businesses and other stakeholders. The project team heard concerns about:

- pedestrian safety;
- sightlines for vehicles and pedestrians;
- current and future congestion – particularly emphasised at bridges and water crossings;
- trail connectivity;
- road conditions; and
- neighbourhood traffic infiltration.

The first phase of work commenced with the identification of the problem/opportunity statement, incorporating forecasts of future growth due to pending development combined with public feedback received during the study. The recommended Problem/Opportunity statement is summarized as follows:

Problem / Opportunity

- The Eastside area is expected to **grow significantly** by 2051, adding 7,500 people and 2,000 jobs to the existing population and amenities.
- The additional residents and jobs will **create travel demand** within the study area, and to/from the rest of Peterborough and the wider region.

- This extra travel demand will require an **enhanced transportation system** to provide sufficient capacity and connectivity across all modes of travel. This includes upgrading existing infrastructure built for rural or historic needs that is unsuitable for future urban requirements.
- The City's existing policies aim to **reduce single-occupant vehicle use**, as well as **reduce greenhouse emissions** caused by transportation. The planned transportation system needs to reflect that.

Alternatives

Phase 2 of the study examined potential solutions to address the Problem / Opportunity statement. The first step in this assessment was to consider the role that non-roadway initiatives could play in reducing auto demands.

The ongoing work being completed as part of the city-wide Transportation Master Plan (TMP) recommended a new Transportation Strategy to guide transportation planning in the City, as summarized in Report IPSTR21-018, which was approved by Council at their meeting of November 29, 2022. The approved Transportation Strategy includes an aggressive mixture of policies, service enhancements and new infrastructure investments to maximize the potential shift in trip making to more sustainable travel modes compared to today. By 2051 the vision for transportation in the City will result in 25% of all trips completed by walking or cycling, 10% of all trips will use an enhanced transit system, and auto travel will be reduced to 65% of all trips. A more detailed assessment of these policies and recommendations are being considered in the City-wide TMP.

The recommended Transportation Strategy approved by Council identified a need for additional north-south traffic capacity in the ESTS study area and additional east-west capacity across the Otonabee River. The ESTS study team confirmed the need for additional capacity and also identified the need for improved active transportation facilities, connectivity across the canal and on a more detailed level identified needs for improvements at a number of key intersections.

The second step in assessing Alternative Solutions focussed on the infrastructure needs in the Eastside study area that would support the city-wide Transportation Strategy. The study team assessed a number of alternatives (as discussed in more detail in Appendix A), and recommended a preferred solution that includes:

- a) Implementation of the City-wide Transportation Master Plan mode share targets and infrastructure recommendations outlined in the Cycling Master Plan and Transit Route Review and Long-Term Growth Study;
- b) Modernize Aging and/or Deficient Infrastructure (including upgrades or replacement of deficient roads and bridges and adding walking and cycling infrastructure); and
- c) Expanding the Road network through road widening or new roads, including:

- i. North-South Roads
 - ii. East-West Roads and Canal / River Crossings
- d) A preliminary evaluation of various road improvement alternatives was undertaken as described in Appendix A, and preliminary recommendations were presented to the public, stakeholders, and neighbouring communities (Douro-Dummer, Otonabee South-Monaghan, County of Peterborough) through a second round of online public consultation and stakeholder meetings, held between January 28, 2022 and February 11, 2022.

Along with the public and agency engagement, the consulting team invited members of the Williams Treaties First Nations to discuss and provide insights, comments, concerns and respond to questions regarding the study. Curve Lake First Nation met with the project team in December 2021. A productive and valuable engagement session took place and the study team has committed to further engagement through the more detailed Ashburnham Drive Realignment Class EA and other future studies that may arise as a result of the recommendations of this study.

Preliminary recommendations were presented at an online Public Open House, held on February 3, 2022 (in coordination with the city-wide Transportation Master Plan) and an online presentation video and feedback survey was provided on the connectptbo.ca website for those who could not attend the online open house.

Approximately 90 people were in attendance at the online Open House and the website received 1,200 views from 433 unique visitors. Appendix A provides a summary of the feedback received and project team responses to comments received.

Infrastructure Recommendations

The recommended infrastructure plan to support growth in the east side of the City includes a mix of projects, illustrated in Figure 1, that include:

- 1) Intersection improvements – to provide short to medium term improvements to increase capacity at key bottleneck locations and incorporate safety improvements and new or enhanced infrastructure to support walking, cycling and transit.

Recommended intersection upgrades include:

- Armour Road at Parkhill Road (including new turning lanes)
- Armour Road at Maria Street (signalization)
- Ashburnham Drive at Lansdowne Street (widening and upgraded trail crossing)
- Television Road at Parkhill Road (new signals or roundabout)

- Television Road at Old Norwood Road (turning lanes and new signals)
 - Television Road at Paul Rexe Boulevard (new signals)
- 2) Urbanization and Upgrades to Existing Roads - Reconstruction will upgrade existing roads to a current standard and will incorporate new sidewalks / trails and cycling infrastructure recommended in the Cycling Master Plan, new transit stops and shelters where appropriate, and will include urban drainage infrastructure, servicing (where feasible), and stormwater management measures.

Recommended roadway upgrades include:

- Maniece Avenue, between Ashburnham Drive and Television Road
 - Old Norwood Road, between Ashburnham Drive and Television Road
 - McFarlane Street, between Ashburnham Drive and Armour Road including a new modern two-lane bridge across the Trent Severn Waterway
 - Ashburnham Drive Realignment/Reconstruction, between Maniece Avenue and Trent View Road, including shifting the road to a location east of the current alignment and connecting it to the future Norman Maker Avenue (east-west main road through the Ashborough Development) and to an improved Old Norwood Road / McFarlane Street corridor
 - Parkhill Road East Reconstruction, between Leahy's Lane and Television Road.
- 3) Road Widening or New Roadways – New roads or road widening projects will typically be required in the longer term to provide additional capacity as growth in the study area occurs. These projects will include new sidewalks / trails and cycling infrastructure recommended in the Cycling Master Plan, new transit stops and shelters where appropriate, and will include urban drainage infrastructure, servicing (where feasible), and stormwater management measures as appropriate. Additional studies will be required to complete the planning and preliminary design of these projects, as part of subsequent phases of the MCEA process, which will include the completion of more detailed background studies and public consultation.

Recommended roadway widening or new roadway projects include:

- Television Road Widening to 4/5 lanes, between Highway 7/ Lansdowne Street and Parkhill Road
- Parkhill Road widening to 4/5 lanes, between Water Street and Leahy's Lane, including a widening of the Parkhill Road bridge across the Otonabee River and the addition of turning lanes at intersections

- Ashburnham Drive widening to 4/5 lanes, between Lansdowne Street and Maria Street
- County Road 4 widening / new alignment – this project is recommended to support growth in the Eastside study area and growth in the County but as this is a County Road, the final determination of need for this will be assessed in the ongoing County Transportation Master Plan.
- Sherbrooke Street – Maria Street Connection and Extension, between Water Street and Television Road – this would include the potential for a new bridge across the Otonabee River, the potential widening of Maria Street to 4 lanes, the potential widening of the Maria Street bridge across the Trent Severn Waterway to 4 lanes, and the potential extension of Maria Street east to Television Road as a two-lane arterial road.

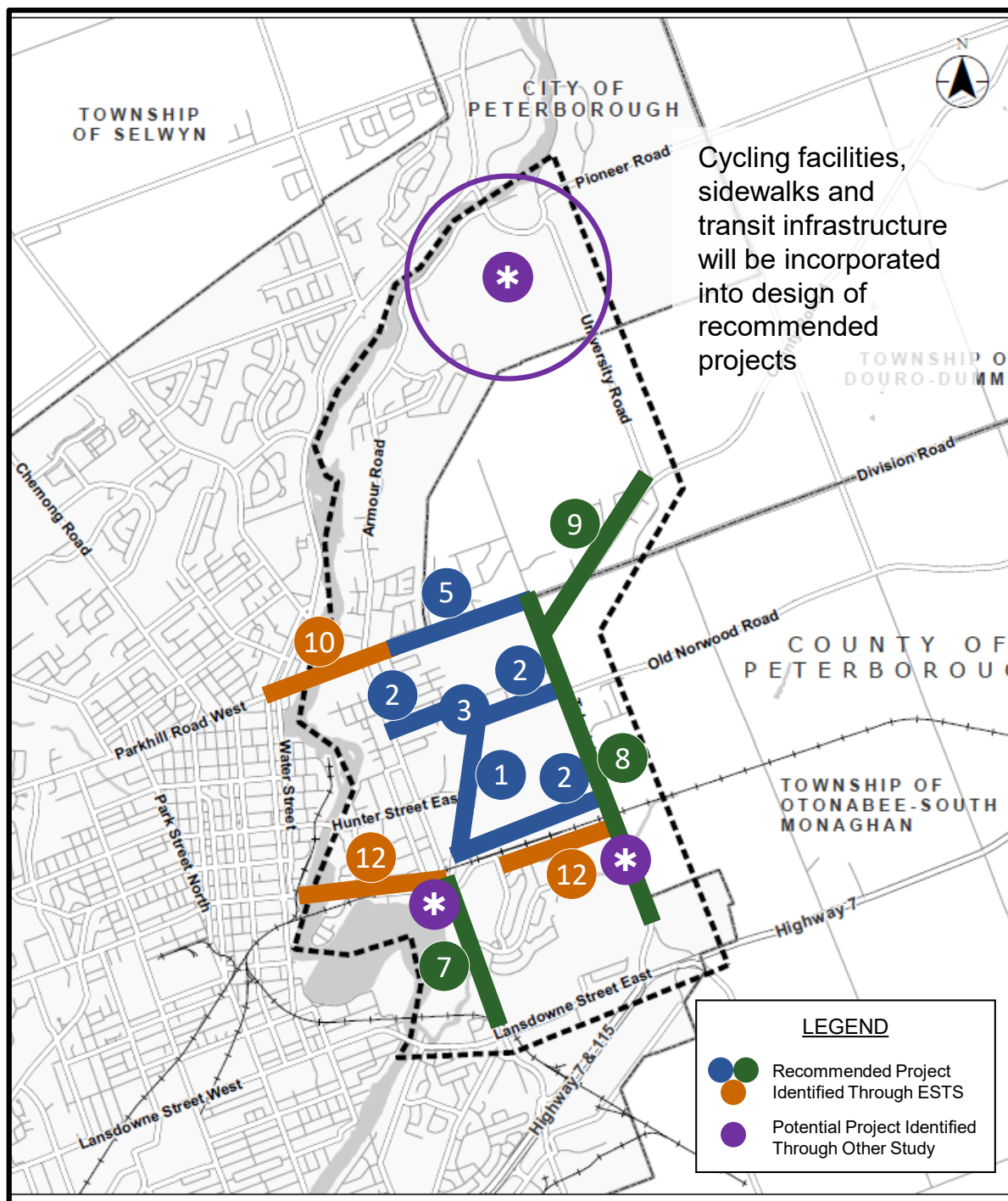
The Sherbrooke Street to Maria Street connection was found to be the only option that could provide the required network capacity for the expected growth in the East City Area. It would provide a new continuous Arterial Road connection across the City, would serve as an alternative route for truck access into the downtown and reliable transit service to East City, would take traffic away from Hunter Street allowing this corridor to evolve in a more pedestrian, cyclist and business friendly manner, and would reduce traffic infiltration on the north-south roads connecting Maria Street to Hunter Street.

Parkhill Road is already recommended for widening to 4 lanes as part of the study recommendations and adding a new crossing to the north of Parkhill Road provided minimal benefits to the forecasted capacity issues further south, and only served to overload Armour Road. Further widening of Lansdowne Street to 6/7 lanes was found to have limited benefit to the capacity issues on the Hunter Street corridor and would be equally difficult to implement given the significant impacts to existing businesses and residential properties along this corridor and the incompatibility with the vision for Lansdowne Street further to the west.

Despite the obvious challenges associated with this river crossing, the project team recommends that the City protect a corridor, in the event that the need for this corridor emerges in the longer term.

Corridor protection at this point would include designating this corridor on Schedule D of the new Official Plan and implementing land use policies that would preclude or restrict development that conflicts with the opportunity to provide this new road connection at some point in the future. The potential costs would also be included in the Development Charge update. The Sherbrooke Street – Maria Street corridor protection exercise is a long-term recommendation of the ESTS that would be reviewed and the need reassessed in future updates to the Transportation Master Plan.

Figure 1 – Recommended Road Network Improvements

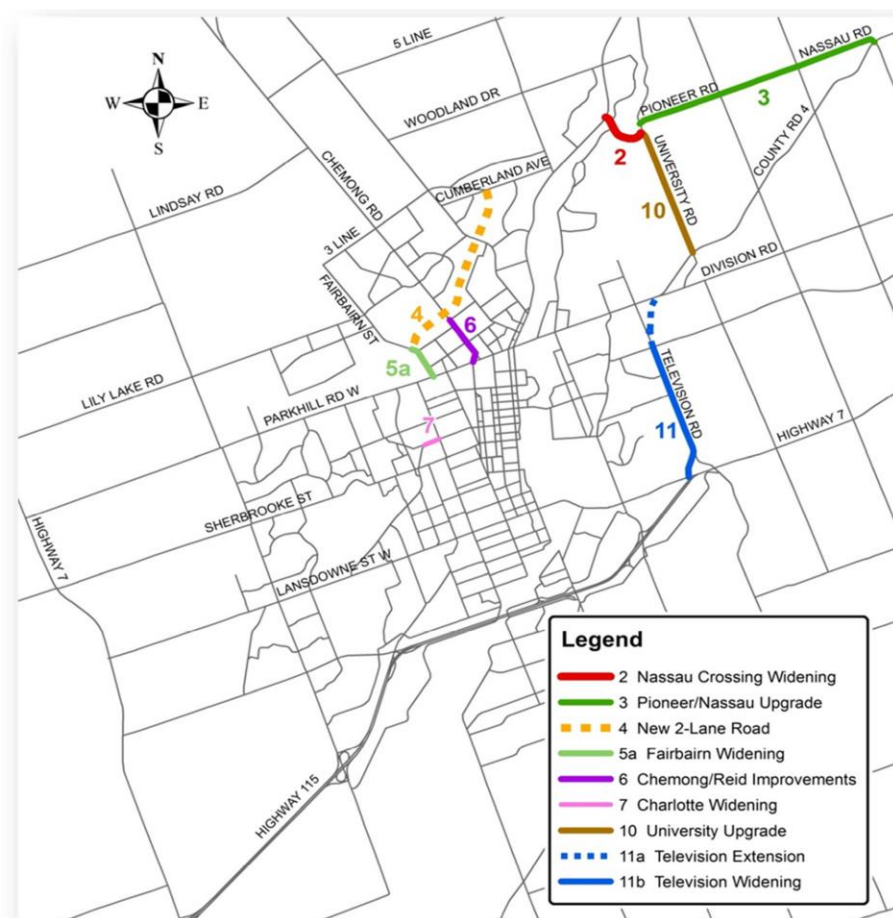


Role of Ministry of Transportation “East By-Pass”

In the mid 1970's the Ministry of Transportation (MTO) designated a new provincial highway corridor on the east side of Peterborough. The route runs in a north-east direction from the current Highway 7/115 intersection with Television Road and Lansdowne Street, following Douro-Dummer 9th Line and crossing the Otonabee River to connect with former Highway 28/Highway 507, which are now known as Peterborough County Road 29 and County Road 23, just south of Lakefield. A map illustrating the designated route is depicted in Appendix B.

Both the City and the County of Peterborough have included road network improvements in their respective Transportation Master Plans that, in part, address longer distance traffic demands which are using the City and County Road network as an alternative to Highway 28 and Highway 7 on the east side of the City. Figure 2, from the 2012 City of Peterborough Transportation Master Plan Update, illustrates a series of recommended improvements to City / County roads, that form an eastern by-pass of the City using local roads. These improvement needs are also being reflected in the emerging recommendations of the ongoing TMP update.

Figure 2 – 2012 TMP - Recommended Ultimate Road Network (2031)



In 2015, the City of Peterborough and Trent University embarked upon a Master Planning process to develop a Trent Research and Innovation Park (TRIP) on 85 acres of institutional lands on the east bank of the Trent Campus, which is now known as Cleantech Commons.

The new Research Park is located east of the existing Trent Campus, fronting on Pioneer Road and Douro 9th Line. During the site plan review process, MTO identified restrictions associated with the East By-Pass Corridor protection, along the 9th line frontage, and in the area of Pioneer Road and 9th Line. The corridor protection in this area includes a 100 m width of land adjacent to the west boundary of 9th Line encompassing Trent owned lands which cannot be developed with the highway designation in place. In addition, MTO has indicated that the corridor protection would not permit a new at-grade road connection to 9th Line from the new roadway serving the Cleantech Commons subdivision. These restrictions impact the number of lots that can be developed in the research park and availability of a secondary access to and from the proposed development.

Given the historical road network improvement plans on the east side of Peterborough, as reflected in the City and the County Transportation Plans, the East Side Transportation Study has included a sensitivity analysis to assess the implications of a new potential MTO corridor on traffic patterns and infrastructure needs on the east side of the City and to use this analysis to support discussions with the Ministry with respect to their position on the designated corridor.

Using the City's Regional Transportation Model, various road network scenarios were tested to better understand how a new corridor may influence travel demands and infrastructure needs on City roadways. Key findings from the assessment include:

- In the absence of any improvements, portions of the Provincial Highway network to the east of Peterborough can be expected to experience capacity deficiencies during typical weekday peak periods given the planned growth in the City and County by 2051. The higher travel demands experienced during seasonal peak periods in the summer will exacerbate these problems and continued traffic infiltration onto the County / City road network can be expected if no improvements to the Highway Network are made.
- There is a strong travel demand to use a new high-order corridor linking Highway 7/115 with the Provincial Highway network and major County Road network to the north of the City of Peterborough.
- Longer distance traffic during typical weekday peak periods are using County Road 4, County Road 29, Nassau Mills Road, University Road, County Road 41 and Television Road to travel north-south through the region. These demands do increase during summer peak periods, particularly on County Road 4 and Television Road. This additional traffic, left unchecked, will add to forecasted deficiencies on the City / County Road network and could accelerate the need to implement improvements to these corridors.

- The closer a new corridor is to the City, the better it can assist in relieving traffic congestion on some City roads, but only to the extent that these roads are serving longer distance travel needs. Building a new MTO corridor does not necessarily mean that the City will not need to improve key roadways on the east side of the City, but it could provide some relief to Television Road and in turn defer the need for widening to some extent.
- A new MTO Corridor oriented to connect to Highway 28 would appear to serve longer distance travel demands and may be more aligned with Ministry interests than the corridor currently designated. A new MTO Corridor connecting to Highway 28 does not eliminate the need for improvements to the City and/or County road network.
- If the Ministry were to consider an alternate route for a future by-pass, the 9th Line corridor may represent a better route to access the Cleantech commons development than University Road / Pioneer Road. There may be a case to consider this as a potential future County / City roadway.

All of the above observations and potential opportunities hinge on the Ministry of Transportation undertaking a review to determine if there is Provincial interest in continuing to protect a corridor for an East By-Pass of the City of Peterborough, and if so, the most appropriate route for such a corridor. This review should be undertaken in the near term to provide a planning context for the City and County to consider their respective approaches to address future transportation needs on the local road network, and future priorities for implementation funding.

Resolving the MTO By-Pass would also provide planning certainty for land use applications in the vicinity of the currently designated corridor, including future potential development on the East Bank lands of the Trent University Campus

City staff will continue discussions with MTO on the next steps for the review of the new corridor. A resolution from Council requesting the Ministry to review this new corridor may be helpful in raising the need for discussing the next steps with the Ministry. Upon approval of Recommendation e) staff would send a copy of the resolution from Council to the Province for their consideration.

Next Steps

The original Request for Proposal for the ESTS included an optional component for completion of a Schedule C Class EA to complete the planning and preliminary design work should a realignment and extension of Ashburnham Drive be recommended. Although the extension of Ashburnham Drive to Parkhill Road is not recommended, the realignment is still a key priority and finalizing the preferred alignment and preliminary design of the roadway is necessary to support the next steps of the Ashborough Village development.

Following Council approval of the recommendations from the Eastside Transportation Study the consultants will finalize the Master Plan Report and make this available for public comment for a 30-day review period. The final Eastside Transportation Study Report will be used to update the Development Charge Background Study, guide future capital budget requests, and will provide the planning context for additional future studies to implement the study recommendations.

The project team will also continue with Phase 3 of Municipal Class EA process for the Ashburnham Drive Realignment project including the development of design concepts, undertaking the necessary technical studies to support the design process, and undertaking additional consultation with residents, Parks Canada, and representatives for the Ashborough Development to coordinate the planning and design works with ongoing design work being completed for the new development.

Staff will report back to Council upon completion of the Ashburnham Drive Realignment project to seek approval for the recommended design and to file the Environmental Study Report. It is anticipated that the next phase of the study will be completed by the second quarter of 2023.

Summary

In response to planned growth in East City and in the Liftlock Secondary Plan area, Council requested that a transportation study be completed to determine infrastructure needs to support growth over the longer term. The Eastside Transportation Study was completed following a Master Planning approach, approved under the Municipal Class EA process, to assess broad transportation infrastructure needs and develop long term infrastructure recommendations.

The recommendations in the Eastside Transportation Study have been developed in consultation with the community, adjacent municipalities, First Nations, and other stakeholder groups and are aligned with the ongoing work on the Cycling Master Plan and the Transportation Master Plan. Approval of the Eastside Transportation Study recommendations will allow more detailed work to be completed on the Ashburnham Drive Realignment, which is envisioned to be one of the early projects to be initiated to support planned growth in the Liftlock Secondary Planning Area.

Submitted by,

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Attachments:

Appendix A: Eastside Transportation Study Executive Summary Report

Appendix B: Designated MTO By-Pass Route