2. Blair Road Transit Priority and High Occupancy Vehicle Lanes (Blair Station to Innes Road) Environmental Assessment Study Recommendations

Recommandations de l'étude d'évaluation environnementale des voies prioritaires du transport en commun et réservées aux véhicules à taux d'occupation élevé sur le chemin Blair (entre la station Blair et le chemin Innes)

COMMITTEE RECOMMENDATIONS

That Council:

1. **Approve the functional design of Blair Road for Transit Priority and High Occupancy Vehicle Lanes (Blair Station to Innes Road), as described in this report and supporting documents; and,**
2. **Direct staff to finalize the Environmental Study Report and proceed with its posting for the 30-day public review period in accordance with the Ontario Municipal Class Environmental Assessment process.**

RECOMMANDATIONS DU COMITÉ

Que le Conseil :

1. **approuve la conception fonctionnelle du chemin Blair pour les voies prioritaires du transport en commun et réservées aux véhicules à taux d'occupation élevé (entre la station Blair et le chemin Innes), décrite dans le présent rapport et dans les pièces justificatives;**
2. **demande au personnel de finaliser le Rapport de l'étude environnementale et de le publier pour la durée de l'examen**

public de 30 jours conformément au processus de l'évaluation environnementale municipale de portée générale de l'Ontario.

DOCUMENTATION

1. General Manager's Report, Transportation Services Department, dated February 22, 2021 (ACS2021-TSD-PLN-0001).

   Rapport du directeur général, Direction général des transports, daté le 22 février 2021 (ACS2021-TSD-PLN-0001).

2. Extract of draft Minutes, Transportation Committee, March 3, 2021.

   Extrait de l'ébauche du procès-verbal, Comité des transports, le 3 mars 2021.

Report to
Rapport au:

Transportation Committee
Comité des transports
3 March 2021 / 3 février 2021

and Council
et au Conseil
10 March 2021 / 10 mars 2021

Submitted on February 22, 2021
Soumis le 22 février 2021

Submitted by
Soumis par:
John Manconi, General Manager / Directeur général, Transportation Services Department / Direction générale des transports

Contact Person
Personne ressource:
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Ward: INNES (2), BEACON HILL-CYRVILLE (11)

File Number: ACS2021-TSD-PLN-0001

SUBJECT: Blair Road Transit Priority and High Occupancy Vehicle Lanes (Blair Station to Innes Road) Environmental Assessment Study Recommendations

OBJET: Recommandations de l'étude d'évaluation environnementale des voies prioritaires du transport en commun et réservées aux véhicules à taux d'occupation élevé sur le chemin Blair (entre la

station Blair et le chemin Innes)

REPORT RECOMMENDATIONS

That Transportation Committee recommend that Council:

1. **Approve the functional design of Blair Road for Transit Priority and High Occupancy Vehicle Lanes (Blair Station to Innes Road), as described in this report and supporting documents; and,**

2. **Direct staff to finalize the Environmental Study Report and proceed with its posting for the 30-day public review period in accordance with the Ontario Municipal Class Environmental Assessment process.**

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande au Conseil :

1. **d'approuver la conception fonctionnelle du chemin Blair pour les voies prioritaires du transport en commun et réservées aux véhicules à taux d'occupation élevé (entre la station Blair et le chemin Innes), décrite dans le présent rapport et dans les pièces justificatives;**

2. **de demander au personnel de finaliser le Rapport de l'étude environnementale et de le publier pour la durée de l'examen public de 30 jours conformément au processus de l'évaluation environnementale municipale de portée générale de l'Ontario.**

EXECUTIVE SUMMARY

Assumptions and Analysis

The Transportation Master Plan (TMP) identifies Blair Road, from Blair Station on O-Train Line 1 to Innes Road, as a transit priority corridor in the 2031 Affordable Network. An environmental assessment for this Blair Road transit priority corridor had been included in the ongoing Brian Coburn Boulevard Extension and Cumberland Transitway Environmental Assessment (BCE/CTW EA) study as a result of proximity and transit system continuity. As the BCE/CTW EA study has become increasingly more complex, on April 22, 2020, Council approved a motion to separate out the Blair Road corridor portion from the BCE/CTW EA study as a stand-alone project.

Blair Road, between Meadowbrook Road and Innes Road, is currently a congested two-lane rural arterial roadway with direct access to Ottawa Road 174 (OR174). Approximately 430 buses currently travel to and from Blair Station on O-Train Line 1 daily along Blair Road in mixed traffic, resulting in delays to transit service. To address these delays, road widening for transit priority is required to improve transit travel time and service reliability. In accordance with the City's Complete Streets policy, also needed are pedestrian, cycling and accessible infrastructure improvements to provide connectivity to transit, retail (Gloucester Centre), employment (Canadian Security Intelligence Service, Communications Security Establishment among others), and nearby communities.

The functional design of the recommended plan for Blair Road Widening is illustrated in Document 2 with highlights as follows:

- A Complete Street redesign providing barrier-free access for all users;
- Direct pedestrian, cycling and accessible connectivity to Blair Station;
- Between the OR174 eastbound on-ramp and Meadowbrook Road: conversion of one of the two existing lanes (per direction) to a combined transit and high occupancy vehicle (HOV) lane;
- Between Meadowbrook Road and Innes Road: a lane is added (per direction) for a combined transit and HOV use;
- Protected intersections at all signalized intersections;
- Two new pedestrian crossings to access bus stops;
- A reconfiguration of the high-speed OR174 interchange ramps to improve safety for all road users; and,
- Upgrade to full signalized intersection at Beaverpond Drive.

Financial Implications

Project costs were developed in accordance with the Council-approved Project Delivery Review and Cost Estimating process for implementing capital projects. Cost for design, construction, property, public art, and contingencies in 2020 dollars is estimated at $32

million. While this project is identified in the City's 2031 Affordable Rapid Transit Network Plan, funding will be subject to the City's future capital budget priorities.

Public Consultation / Input

Consultation included two rounds of meetings with the Agency Consultation Group (National Capital Commission; Ontario Ministry of Heritage, Sport, Tourism and Culture Industries; Rideau Valley Conservation Authority; Hydro Ottawa; and, various City Departments), and the combined Business and Public Consultation Group (landowners, businesses, community associations, interest groups). Additionally, two public open houses were held along with focussed consultation with the National Capital Commission (NCC) because of the impacts to and requirement for NCC Greenbelt lands.

Overall, there is general public support for this project with some issues that were raised during consultation which have been addressed as described in this report. Concerns about increased traffic noise were raised for the widening of Blair Road. Based on a noise study, sound barriers are proposed (where warranted) along the west side of Blair Road.

BACKGROUND

The TMP identifies Blair Road, from Blair Station on O-Train Line 1 to Innes Road, as a transit priority corridor in the 2031 Affordable Network. An environmental assessment for this Blair Road transit priority corridor had been included in the ongoing Brian Coburn Boulevard Extension and Cumberland Transitway Environmental Assessment (BCE/CTW EA) study as a result of proximity and transit system continuity. As the BCE/CTW EA study has become increasingly more complex, on April 22, 2020, Council approved a motion to separate out the Blair Road portion from the BCE/CTW EA study as a stand-alone project. This approximately two-kilometre section of Blair Road is shown in Figure 1 with the proposed recommendations and functional design of the widening described below.

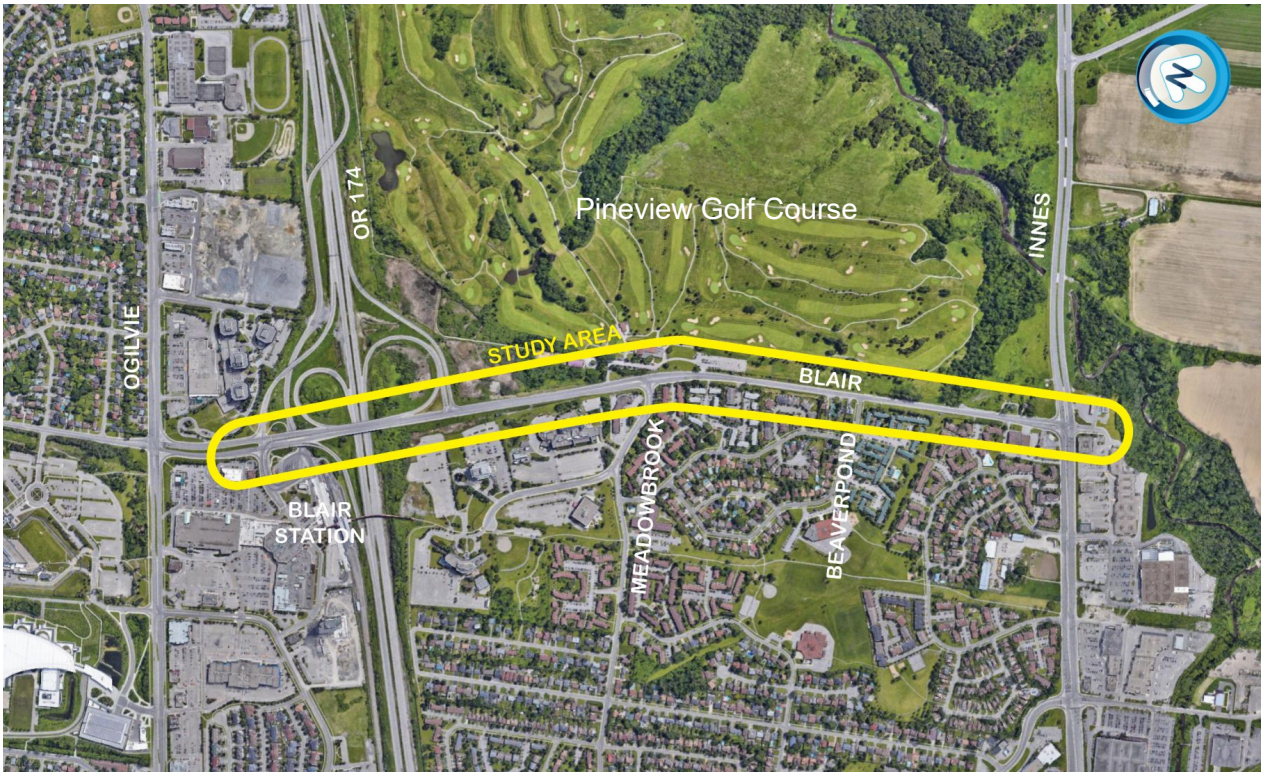

Figure 1: Blair Road Widening Study Area

DISCUSSION

Blair Road, between Meadowbrook Road and Innes Road, is currently a congested two-lane rural arterial roadway with direct access to Ottawa Road 174 (OR174). Approximately 430 buses currently travel to and from Blair Station daily along Blair Road in mixed traffic, resulting in delays to transit service. To address these delays, road widening for transit priority is required to improve transit travel time and service reliability. In accordance with the City's Complete Streets policy, pedestrian, cycling and accessible infrastructure improvements are also needed to provide connectivity to transit, retail (Gloucester Centre), employment (Canadian Security Intelligence Service, Communications Security Establishment among others), and nearby communities.

Based on a traffic study in the area, the widening of Blair Road can accommodate combined transit and HOV lanes. The HOV lane is required to address current and projected travel demand to the 2031 planning horizon and beyond. Various design options to improve pedestrian, cycling and accessibility infrastructure such as multi-use pathways (MUP), sidewalks and cycle tracks or a combination thereof, were assessed

and evaluated, which led to the selection of the preferred design. Details of this assessment is in Document 1, and the Recommended Plan is illustrated in Document 2.

Development of the Recommended Plan

The project is divided into two distinct sections:

1. OR174 Interchange area; and,
2. South of OR174 to Innes Road.

1. Blair Road / OR174 Interchange Area

The existing Blair Road bridge structure over the OR174 includes two general traffic lanes in each direction, a shared northbound OR174 on and off high-speed auxiliary lane, and discontinuous cycling lanes in each direction terminating at each end of the bridge overpass. There are safety concerns for the northbound cycling lane as it 'floats' between two traffic lanes and conflicts with vehicles merging on and off the interchange ramps. Pedestrian facilities are also non-existent along this segment. Road cross-section and plan views of these existing conditions are illustrated in Figures 2 and 3.

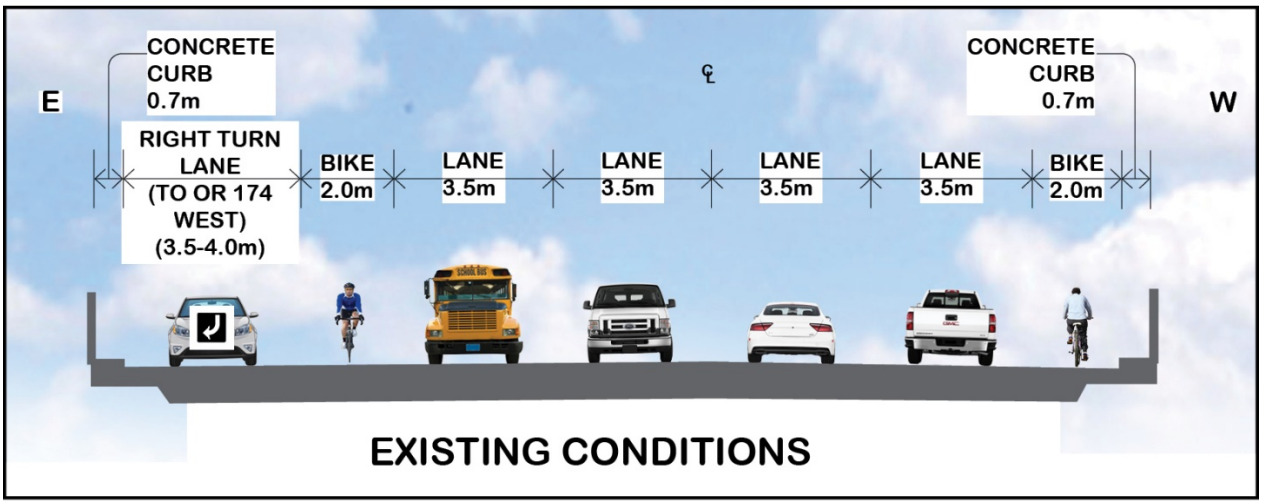

Figure 2: Existing Blair Road / OR174 Bridge Cross-Section

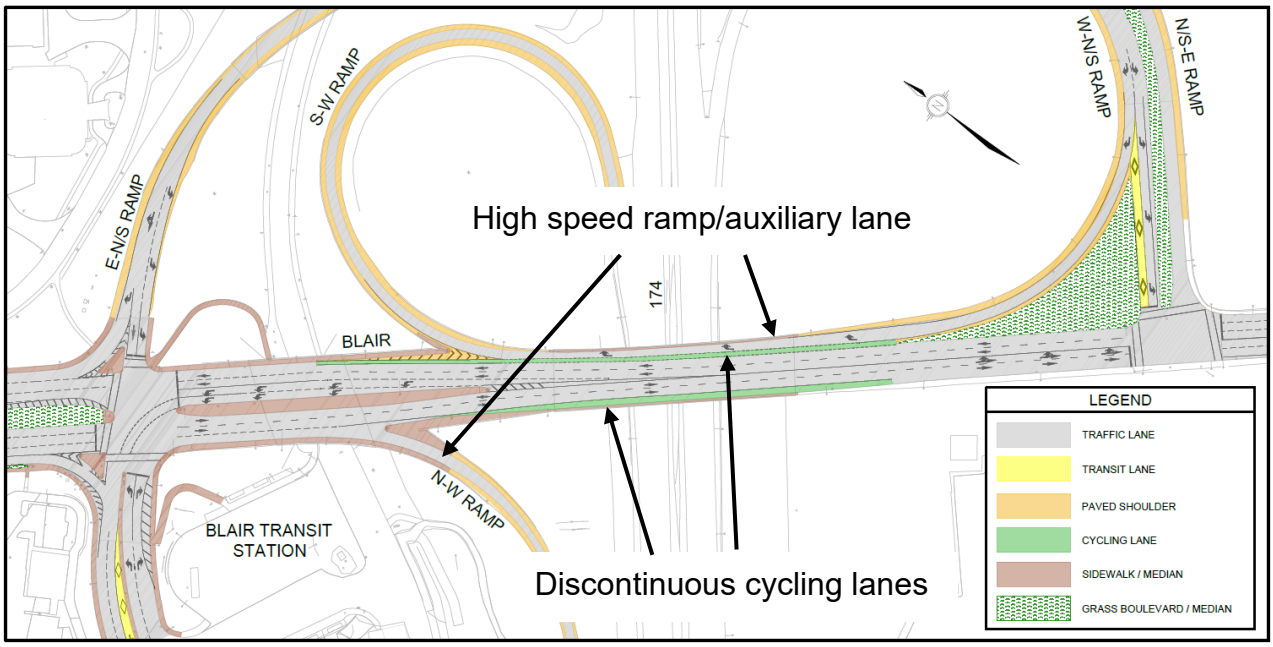

Figure 3: Existing Blair Road / OR174 Interchange Plan View

The recommended redesign (Figure 4) proposes providing fully accessible facilities for all modes of transportation while maintaining the two general traffic lanes as well as avoiding major modifications to the structure. To reduce vehicle speeds, all three free flow interchange ramps will be realigned with smaller turning radii provided where they intersect with Blair Road. The realignment of the shared northbound OR174 on and off ramp auxiliary lane has been repurposed to accommodate a four metre MUP on the west side and a sidewalk and cycle track on the east side. Figure 5 illustrates the realigned OR174 ramps and the removal of the original high-speed ramps.

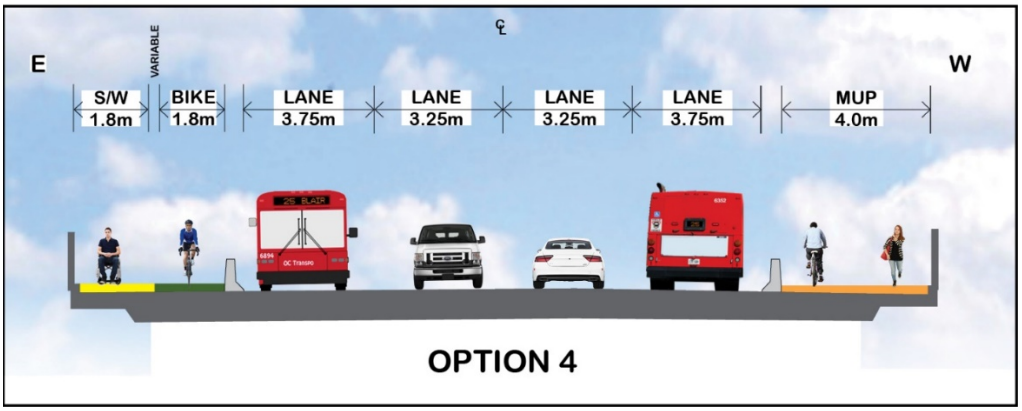

Figure 4: Blair Road / OR174 Bridge Cross-section

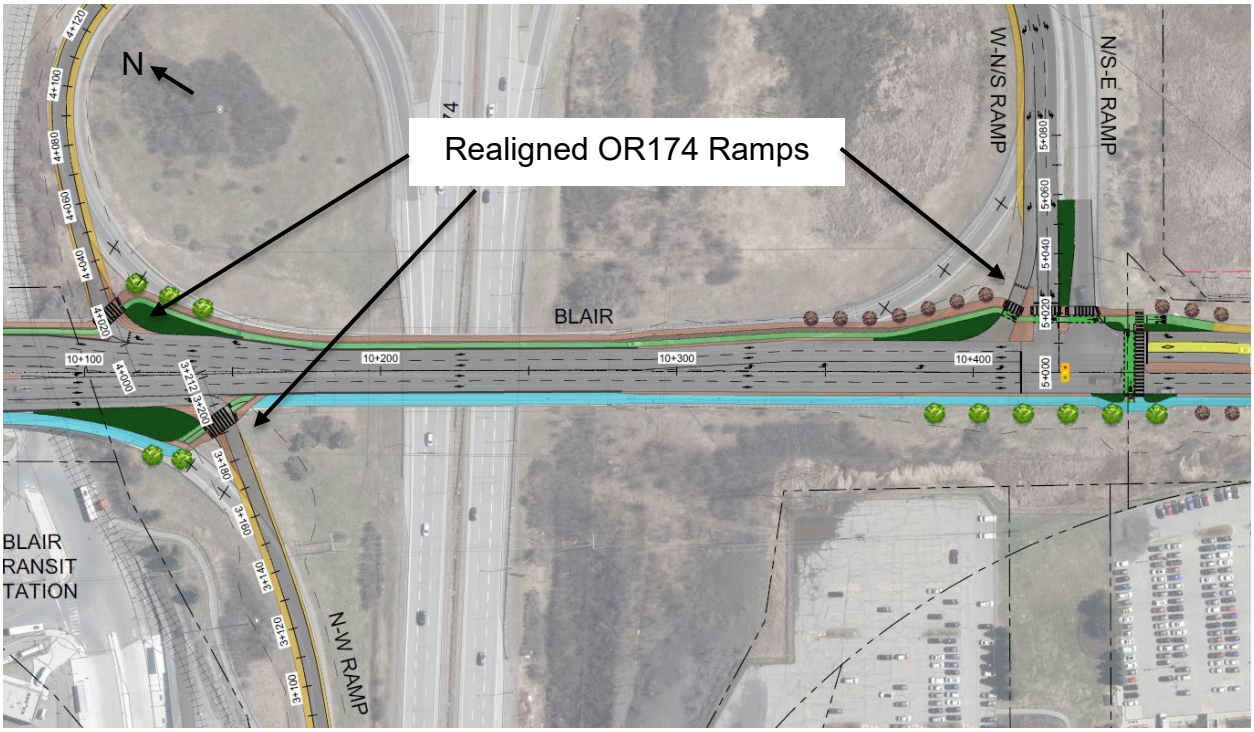

Figure 5: Realigned OR174 Interchange Ramps

Additional enhancements for pedestrians, cyclists and accessibility include protected signalized intersections at the two intersections at Blair Station and south of OR174.

Shown on Figure 6 is the protected intersection design at Blair Station with improved connections to the proposed MUP on the west side of Blair Road and a separate sidewalk and cycle track on the east side. The existing pathway loop on the east side of Blair Road that passes under the Blair Road structure connecting to Blair Station will be upgraded to a fully accessible MUP with a connection to the upcoming MUP alongside the Stage 2 O-Train extension. On the west side of Blair Road, a proposed MUP will replace the existing sidewalk and connect further west into the station.

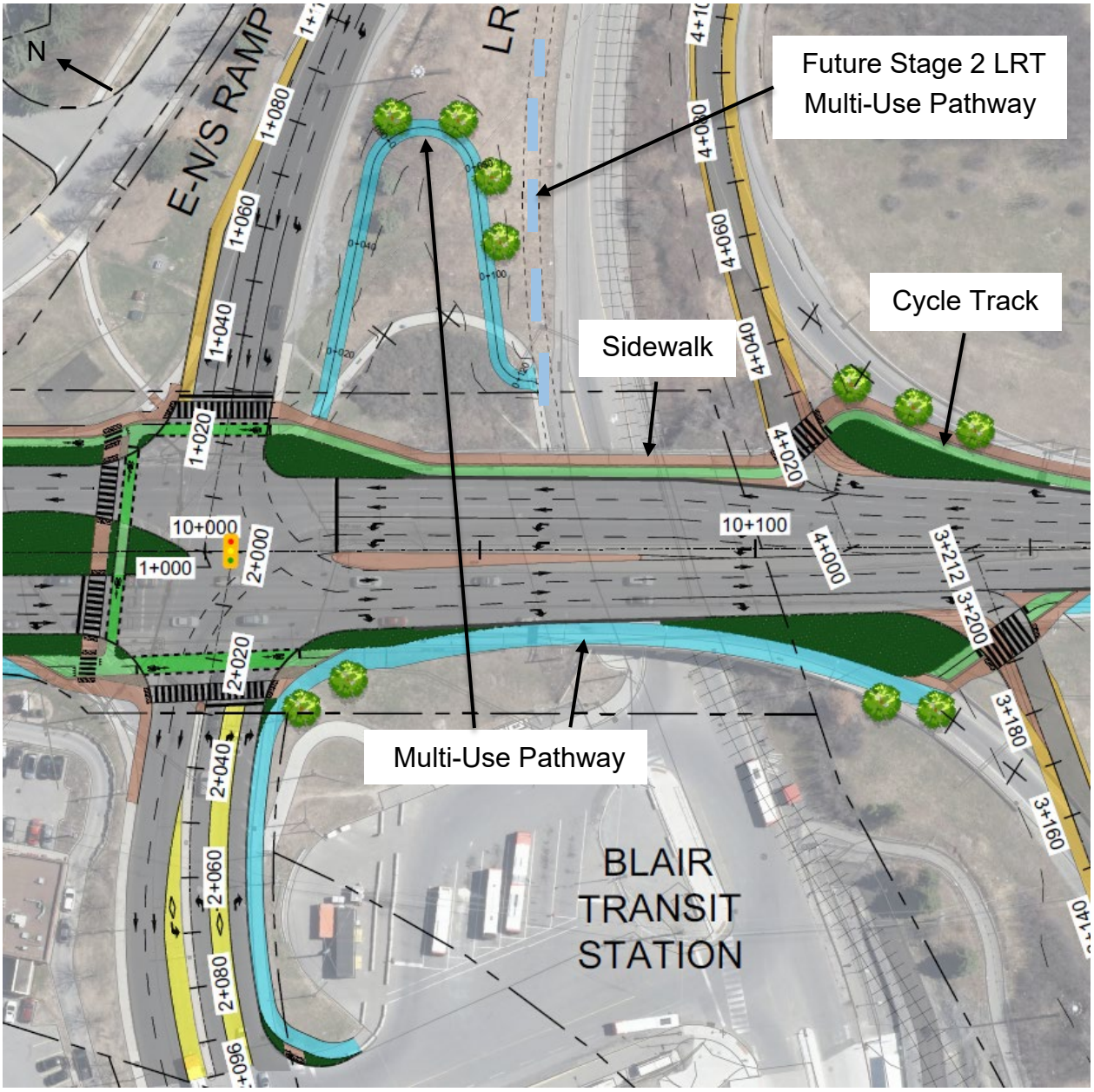

Figure 6: Protected Intersection and Highlights at Blair Station

2. Blair Road - South of OR174 to Innes Road

South of OR174, Blair Road currently transitions from four to two lanes just south of Meadowbrook Road. Where there are four lanes, partial widening is required to accommodate pedestrian and cycling facilities, and a conversion of the two outer general traffic lanes to transit and HOV lanes is proposed. The northbound transit / HOV

lane terminates at the intersection south of OR174 to allow buses destinated to Blair Station to weave across to the left lane. Further south between Meadowbrook Drive and Innes Road, Blair Road is currently a two-lane road and widening to four lanes is recommended to accommodate dedicated transit and HOV lanes and pedestrian and cycling facilities.

The NCC Greenbelt is on the east side and this project proposes to maintain the rural grading and ditching to preserve the rural character of the Greenbelt. On the west side of Blair Road, the MUP will extend from the OR174 bridge overpass to Innes Road and will provide direct access to the adjacent Pineview Community. A MUP on the west side is preferred as it accommodates bi-directional cycling and reduces the need for northbound cyclists to cross Blair Road. Figure 7 illustrates a typical cross-section of the widening.

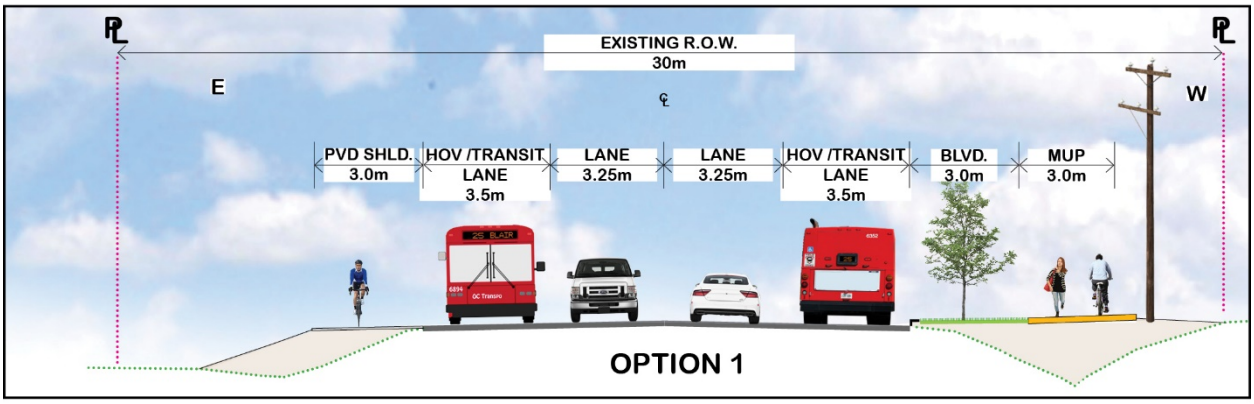

Figure 7: Typical Blair Road Cross-Section (South of OR174)

At the east side bus stops, a four-metre pedestrian platform is proposed with the cycle track behind the shelter to avoid pedestrian and cycling conflicts (Figure 8). To strengthen connectivity to bus stops, new pedestrian crossings are proposed at two locations: one 185 metres north of Innes Road and the second just south of Laura Private.

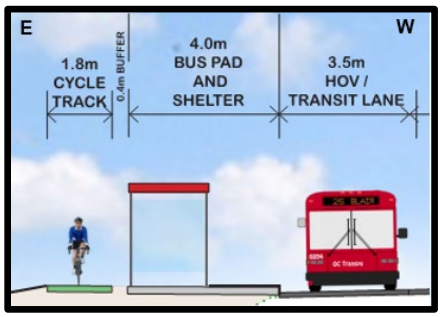

Figure 8: Typical Treatment at Bus Stops

A pedestrian signal currently exists at Beaverpond Drive and an upgrade to a fully signalized intersection is proposed with an added northbound left turn lane to provide safe crossing for pedestrians and cyclists (Figure 9).

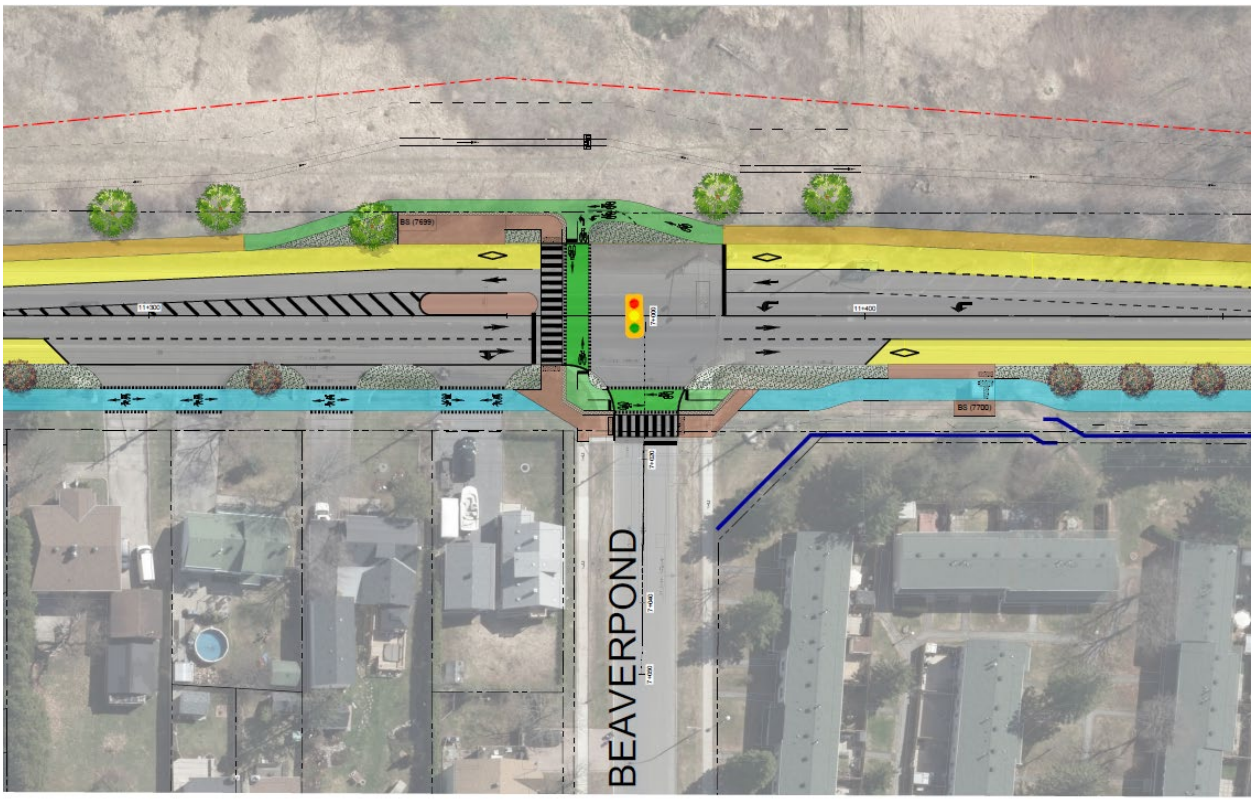

Figure 9: Beaverpond Drive Intersection Upgrade

At the southern limit of this project is the intersection of Blair Road with Innes Road. There, a protected intersection (Figure 10) will provide pedestrian and cycling connectivity to the retail plaza and future facilities along Innes Road. Based on a traffic

study of future travel demand, the channelized right turn lane from Blair Road south to Innes Road west is not required and is proposed to be removed in favour of a shared through and right turn lane to improve safety for pedestrians and cyclists. The removal of this channelized right turn also provides space to extend the MUP on the west side of Blair Road to the Innes Road intersection, as there is no opportunity to acquire additional property at this location due to the proximity of the fuel storage tanks at the gas station.

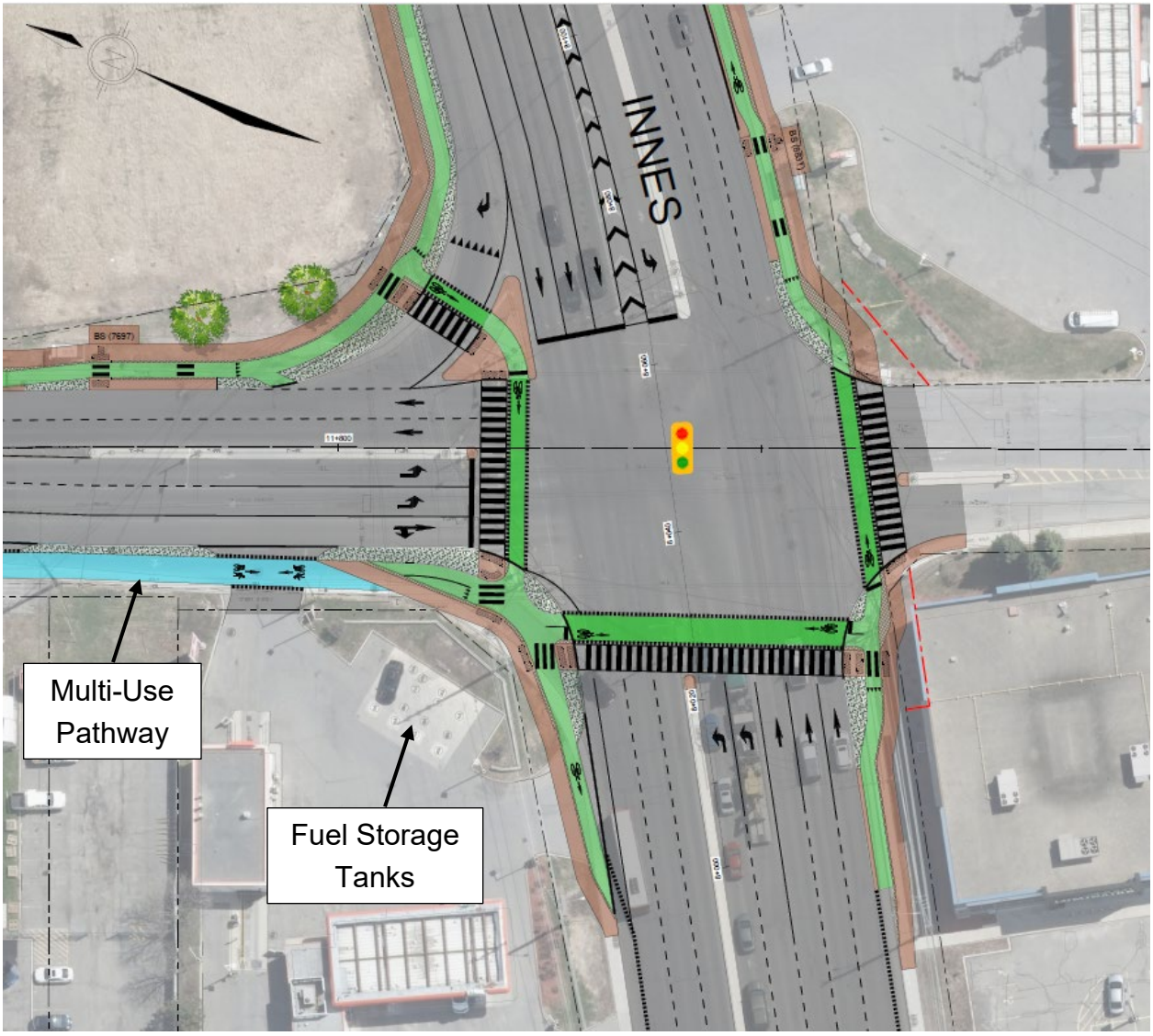

Figure 10: Protected Intersection at Blair Road and Innes Road

Property Impacts

Between Meadowbrook Road and Innes Road, the existing right-of-way for Blair Road is generally 30 metres wide and becomes wider north of Meadowbrook Road. To reduce construction cost, the widening is recommended on the east side of Blair Road and anchored on the west side to avoid impact on private property and the existing hydro poles. An approximately 10 metre strip of property is required from the NCC Greenbelt lands for an estimated one hectare in total and is primarily for grading and drainage. Additional property of 0.01 hectares in total (100 square metres) from two private properties is required for the proposed protected intersection design at Blair Road and Innes Road.

Cost Estimate

Project costs were developed in accordance with the Council-approved Project Delivery Review and Cost Estimating process for implementing capital projects. Cost for design, construction, property, public art, and contingencies in 2020 dollars is estimated at $32 million. While this project is identified in the City's 2031 Affordable Rapid Transit Network Plan, funding will be subject to the City's future capital budget priorities.

RURAL IMPLICATIONS

While the Blair Road project is in the urban area, it is parallel to the edge of the NCC Greenbelt from just south of the Ottawa Road 174 to Innes Road. The rural character of the Greenbelt will be preserved with a rural roadway edge design including enhanced swales for stormwater management.

CONSULTATION

Consultation included two rounds of meetings with the Agency Consultation Group (National Capital Commission; Ontario Ministry of Heritage, Sport, Tourism and Culture Industries; Rideau Valley Conservation Authority; Hydro Ottawa; and, various City Departments), and the combined Business and Public Consultation Group (landowners, businesses, community associations, Bike Ottawa and other interest groups). Also, two public open houses were held with the second in the form of a web-based video presentation and on-line survey due to the COVID-19 pandemic. Additional consultation was held with the NCC because of the impacts to and requirement for NCC Greenbelt lands.

Overall, there is general public support for the recommended widening of Blair Road for transit and high occupancy vehicle lanes. Some issues were raised during consultation and they are summarized and addressed as follows:

Issues Raised	Response
The widening will increase traffic noise and sound barriers are needed.	Based on a noise study, sound barriers are proposed, where warranted, along the west side of Blair Road for residential properties adjacent to and backing onto the roadway.
Cyclists in front of the bus shelter will conflict with pedestrians for the proposed design at bus stops.	To eliminate the conflict, the design has been revised to a four-metre platform with the cycle track passing behind the bus shelter.
The pedestrian signal at Beaverpond Drive needs to be changed to a fully signalized intersection to avoid traffic delays.	The functional design has been revised to a fully signalized intersection at Beaverpond Drive.
Consolidate the two existing Pine View Golf Course accesses to Meadowbrook Road as the fourth leg of the intersection.	There is currently no need to change the two existing accesses to the golf course when Blair Road is widened. Consultation with NCC is required on the future development plans for the golf course.
Improved accessible connections to Blair Station from Blair Road are needed.	The project will provide direct connectivity from the proposed MUP on the west side of Blair Road and conversion of the existing sidewalk into Blair Station to a MUP. The existing pathway loop on the east side of Blair Road will be redesigned as a fully accessible MUP connecting to both Blair Station and the new MUP alongside the Stage 2 O-Train extension.

The southbound Blair Road slip lane to westbound Innes Road needs to be maintained due to traffic delays.	Based on a traffic study for future travel demand, the slip lane (right turn channel) is not required. Its removal will provide space to improve safety for pedestrians and cyclists, and the extension of the MUP on the west side of Blair Road to the Innes Road intersection.
The widening will cause more delays accessing Laura Private.	The road widening will provide breaks in traffic with the implementation of the following: • Signalized intersections at both Meadowbrook Road and Beaverpond Drive • New pedestrian signal crossing with the southbound stop bar north of Laura Private

COMMENTS BY THE WARD COUNCILLOR(S)

Councillor Tierney

We're really excited to see this report. We're very happy with it, especially the modifications to the active transportation crossings over the 174. The segregated lanes will make it much safer for pedestrians and cyclists.

Councillor Dudas

I am pleased to see the outcome of this report. The work that is planned for Blair Road, the transit accommodations, the cycling infrastructure, and the pedestrian safety measures, are a welcome addition to this major road. I am particularly pleased to note that these improvements set the stage for cycling, transit, and pedestrian facilities that could eventually extend to the future Cumberland Transitway/Brian Coburn Extension (Option 7).

ADVISORY COMMITTEE(S) COMMENTS

The Accessibility Advisory Committee was invited to all consultation events and attended the first Public Consultation Group meeting. The Committee Representative

requested that accessibility be a key consideration in the study, including a preference for separate cycle tracks and sidewalks versus multi-use pathways and placing benches at regular intervals. The functional design proposing the MUP on the west side of Blair Road was preferred as it avoids crossing Blair Road for cyclists destined northbound. The Blair Road project will be designed to meet the City of Ottawa Accessibility Design Standards, as well as the *Accessibility for Ontarians with Disabilities (AODA) Act.*

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendation in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk implications.

ASSET MANAGEMENT IMPLICATIONS

The recommendations documented in this report are consistent with the City's Comprehensive Asset Management (CAM) Program objectives. The implementation of the Comprehensive Asset Management program enables the City to effectively manage existing and new infrastructure to maximize benefits, reduce risk, and provide safe and reliable levels of service to community users. This is done in a socially, culturally, environmentally, and economically conscious manner.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendations of this report. Funding for design is available within capital project # 910181, 2021 TMP Priority Network, and any additional funding, including construction, will be subject to future Council consideration and approval.

ACCESSIBILITY IMPACTS

The widening of Blair Road has been designed as a complete street with full pedestrian, cycling and accessible facilities. This includes protected intersections at all signalized intersections, an upgraded pedestrian signal to a full traffic signal at Beaverpond Drive, and two accessible pedestrian actuated road crossings to connect to bus stops.

ENVIRONMENTAL IMPLICATIONS

As required in an EA study, the Blair Road Widening project has identified environmental impacts along with proposed mitigation measures as described below.

Noise Impacts

Based on a noise study carried out for this project, noise barriers are proposed along the west side of Blair Road for residential properties with backyards adjacent to Blair Road between Meadowbrook Road and Innes Road and where noise barriers do not already exist.

Landscaping

Some tree pruning will be required at the noise barrier locations and some scrub vegetation will be removed. Boulevard street tree planting, where utilities allow, will create a more pleasant environment for MUP users and create a visually narrower corridor.

Stormwater Management (SWM)

The Recommended Plan will result in a moderate increase in impervious surfaces due to the widening of Blair Road. Runoff quality treatment and quantity control (peak flow attenuation) will be achieved with enhanced grass swales, rock check dams and vegetated filter strips. This approach is preferred due to the number of outlets and the rural ditches versus an urbanized storm sewer approach to stormwater conveyance. The proposed stormwater management controls and any mitigation measures will be included within the proposed Blair Road right-of-way.

Natural Environment

There will be minor losses of vegetation within existing vegetation communities on the west side of Blair Road and temporary and minor disturbance of terrestrial communities on the east side of Blair Road. With mitigation, the expected impacts can be avoided. Retained vegetation will be protected from incidental disturbance during construction and a site restoration and planting plan will be implemented to replace removed vegetation with native plant species. Potential impacts to vegetation and wildlife will be reduced or eliminated.

There is potential for the project to interact with Species at Risk (SAR) and/or SAR habitat. The need for more targeted species studies/inventories has been documented, and following the application of mitigation measures, potential impacts will be reduced or eliminated. This project will adhere to the *City of Ottawa Protocol for Wildlife Protection during Construction*.

With respect to impacts to fish and fish habitat, ditches are proposed along the east side of the Blair Road corridor which will convey stormwater runoff to the unnamed tributary of Greens Creek located approximately 280 metres north of Innes Road. Field investigations have determined that the unnamed tributary of Greens Creek at Blair Road supports indirect fish habitats. There were no important or sensitive fish habitats identified nor federally or provincially protected aquatic SAR identified. The proposed works can be completed in accordance with the fish and fish habitat protection provisions of the *Fisheries Act*.

Future commitments will require consultation with the Ministry of Natural Resources and Forestry and the Rideau Valley Conservation Authority to ensure potential impacts to the natural environment are reduced or eliminated.

Climate Change

In December 2017, the Ministry of the Environment, Conservation and Parks released guidelines titled “Considering Climate Change in the Environmental Assessment Process” which lay out the Ministry’s expectations for project proponents to consider including the potential effects of a project on climate change, and, the potential affects of climate change on a project.

This EA considered the project’s potential impact on greenhouse gas emissions; assessed the resiliency or vulnerability of the project to changing climate conditions; and, identified potential climate change adaptations and future monitoring requirements based on regional climate and severe weather projections to 2050 and beyond. For example, more frequent severe storm events with increased runoff of roadway drainage may require larger roadside storm sewers and/or ditches. Increased frequency of extreme heat days may require additional landscaping protection at bus stops.

The redesign of Blair Road provides new infrastructure for sustainable modes of active transportation and transit, while encouraging carpooling through HOV lanes, thus

reducing greenhouse gas emissions. The wider boulevards along Blair Road will also accommodate tree planting, which will serve as a carbon sink.

TERM OF COUNCIL PRIORITIES

The recommendations contained herein aims to support the following priority and outcomes of the City's Strategic Plan 2019-2022:

Priority: Integrated Transportation

Outcomes:

- An integrated transportation network that incorporates all modes of getting around.
- Residents have easy access to their preferred transportation choice.
- Transportation infrastructure investments is sustainable and meets long-term needs.

SUPPORTING DOCUMENTATION

Document 1: Design Options and Assessment of the Road Widening

Document 2: Functional Design of Recommended Plan

DISPOSITION

Following Transportation Committee and Council approval of the functional design, Transportation Services Department will undertake the steps necessary to complete the Environmental Assessment study in accordance with the Ontario Environment Assessment Act.