

1. BRIAN COBURN / CUMBERLAND TRANSITWAY EXTENSION (NAVAN ROAD TO BLAIR ROAD AT INNES ROAD) ENVIRONMENTAL ASSESSMENT STUDY

ÉTUDE D'ÉVALUATION ENVIRONNEMENTALE RELATIVE AU PROLONGEMENT DU BOULEVARD BRIAN-COBURN / TRANSITWAY DE CUMBERLAND (DU CHEMIN NAVAN AU CHEMIN BLAIR À LA HAUTEUR DU CHEMIN INNES)

COMMITTEE RECOMMENDATIONS AS AMENDED

That Council:

- 1. Approve the functional design for the Brian Coburn / Cumberland Transitway Extension (Navan Road to Blair Road at Innes Road) for the Ultimate Road and Transitway Plan, Option 7, as outlined in the report;**
- 2. Approve the functional design for the Interim Transit Priority Measures, as outlined in the report;**
- 3. Approve that the Minister Responsible for the National Capital Commission be requested to direct the NCC to strike a joint committee with the City to try and resolve the impasse on the Brian Coburn Boulevard Extension EA, with a deadline to report back to the Minister and the Mayor within 100 days;**
- 4. Approve that Planning Staff be directed to convene a summit with the Greater Ottawa Home Builders Association (GOHBA) and major developers in Orléans to discuss strategies for mitigating the impact of development approvals while the impasse remains;**

5. **Approve that Planning, Real Estate & Economic Development (PRED) staff be directed to bring a report to Planning and Transportation Committees outlining options for short term solutions; and**
6. **Approve that staff be directed to fund any professional services from accounts: 910610 2022 Rapid Transit EA Studies and 908210 2016 EA Arterial Road Studies.**

FOR THE INFORMATION OF COUNCIL

The Committee also approved the following Motion and provided Direction to Staff as noted below:

Motion N^o TRC 2022 27-03 (Councillor M. Fleury):

That Recommendation 3 (*from original report*) be deferred until after the 100 days has been completed.

DIRECTION TO STAFF (Councillor L. Dudas):

That staff be directed to work with the Gloucester Allotment Garden Association (GAGA) to develop a mitigation plan, to address the impacts of any of the proposed options for the extension of Brian Coburn Boulevard, and that the mitigation plan include, but not be limited to, identifying potential new lands for GAGA's use.

RECOMMANDATIONS DU COMITÉ TELLES QUE MODIFIÉES

Que le Conseil :

1. **Approuve la conception fonctionnelle du prolongement du boulevard Brian-Coburn / Transitway de Cumberland (du chemin Navan au chemin Blair à la hauteur du chemin Innes) pour le plan définitif des routes et du Transitway, option 7, comme l'indique le rapport;**

2. Approuve la conception fonctionnelle des mesures provisoires de priorité au transport en commun, comme l'indique le rapport; et
3. Demande à la ministre responsable de la CCN d'enjoindre à celle-ci de former avec la Ville un comité mixte qui sera chargé de résoudre l'impasse concernant l'étude environnementale relative au prolongement du boulevard Brian-Coburn et de faire rapport à la ministre et au maire dans un délai de 100 jours; et
4. Demande au personnel de la planification d'organiser un sommet avec la Greater Ottawa Home Builders' Association (GOHBA) et les grands promoteurs immobiliers d'Orléans afin de discuter des stratégies pour atténuer l'impact en lien avec les approbations d'aménagement d'ici à ce que l'impasse soit résolue; et
5. Demande au personnel de la Direction générale de la planification, de l'immobilier et du développement économique (DGPIDE) de présenter au Comité de l'urbanisme et au Comité des transports un rapport exposant les solutions à court terme possibles; et
6. Demande au personnel de porter les services professionnels contractés aux comptes suivants : 910610 (études d'évaluation environnementale 2022 pour le transport en commun rapide) et 908210 (études d'évaluation environnementale 2016 pour les artères).

POUR LA GOUVERNE DU CONSEIL :

Le Comité a approuvé en outre la motion suivante et a fourni des directives au personnel comme indiqué ci-dessous:

Motion N^o TRC 2022 27-03 du Conseiller M. Fleury :

Que la recommandation 3 (*du rapport original*) soit reportée jusqu'à la fin des 100 jours.

INSTRUCTION AU PERSONNEL (Conseillère L. Dudas)

Qu'il soit demandé au personnel de travailler avec la Gloucester Allotment Garden Association (GAGA) à la conception d'un plan d'atténuation concernant les impacts de toute option qui sera proposée pour le prolongement du boulevard Brian-Coburn, plan qui indiquera entre autres de nouvelles terres potentielles à mettre à la disposition de la GAGA.

DOCUMENTATION / DOCUMENTATION

1. Acting Director's report, Transportation Planning, Planning, Real Estate, and Economic Development Department, dated 11 February 2022 (ACS2022-PIE-TP-0003).

Rapport du Directeur par intérim, Planification des transports, Direction générale de la planification, de l'immobilier et du développement économique, daté le 11 février 2022 (ACS2022-PIE-TP-0003).

2. Extract of draft Minutes, Transportation Committee, 2 March 2022.

Extrait de l'ébauche du procès-verbal, Comité des transports, le 2 mars 2022.

**TRANSPORTATION COMMITTEE
REPORT 26
2 MARCH 2022**

5

**COMITÉ DES TRANSPORTS
RAPPORT 26
LE 2 MARS 2022**

SUBJECT: Brian Coburn / Cumberland Transitway Extension (Navan Road to Blair Road at Innes Road) Environmental Assessment Study

File Number ACS2022-PIE-TP-0003

Report to Transportation Committee on 2 March 2022

and Council 9 March 2022

Submitted on February 11, 2022 by Jeff McEwen, Acting Director, Transportation Planning, Real Estate, and Economic Development Department

Contact Person: Frank McKinney, Program Manager, Transportation Planning, Planning, Real Estate and Economic Development

613-580-2424, 28540, Frank.McKinney@Ottawa.ca

Wards: INNES (2), CUMBERLAND (19)

OBJET : Étude d'évaluation environnementale relative au prolongement du boulevard Brian-Coburn / Transitway de Cumberland (du chemin Navan au chemin Blair à la hauteur du chemin Innes)

Dossier : ACS2022-PIE-TP-0003

Rapport au Comité des transports

le 2 mars 2022

et au Conseil le 2 mars 2022

Soumis le 11 février 2022 par Jeff McEwen, Directeur par intérim, directeur par intérim, Planification des transports, Direction générale de la planification, de l'immobilier et du développement économique

Personne ressource : Frank McKinney, gestionnaire de programme, Planification des transports – Évaluation environnementale, Direction générale de la planification, de l'immobilier et du développement économique

613-580-2424, 28540, Frank.McKinney@Ottawa.ca

Quartiers : INNES (2), CUMBERLAND (19)

REPORT RECOMMENDATIONS

That the Transportation Committee recommend Council:

- 1. Approve the functional design for the Brian Coburn / Cumberland Transitway Extension (Navan Road to Blair Road at Innes Road) for the Ultimate Road and Transitway Plan, Option 7, as outlined in the report;**
- 2. Approve the functional design for the Interim Transit Priority Measures, as outlined in the report; and,**
- 3. Direct staff to finalize the Environmental Study Reports and proceed with its posting for the 30-day public review period in accordance with Ontario Municipal Class EA process.**

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande ce qui suit au Conseil :

- 1. Approuver la conception fonctionnelle du prolongement du boulevard Brian-Coburn / Transitway de Cumberland (du chemin Navan au chemin Blair à la hauteur du chemin Innes) pour le plan définitif des routes et du Transitway, option 7, comme l'indique le rapport;**
- 2. Approuver la conception fonctionnelle des mesures provisoires de priorité au transport en commun, comme l'indique le rapport; et**
- 3. Enjoindre au personnel de parachever les rapports d'étude**

environnementale et de procéder à leur publication aux fins de consultation publique pour une période de 30 jours, conformément au processus d'évaluation environnementale municipale de portée générale de l'Ontario.

EXECUTIVE SUMMARY

Assumption and Analysis

The 2013 Transportation Master Plan (TMP) envisioned extending Blackburn Hamlet Bypass, from Innes Road to Navan Road. The 1999 Environmental Assessment (EA) for this extension turns south from Blackburn Hamlet Bypass (BHBP) and parallel to Navan Road, then turning east near the Hydro corridor to connect to Brian Coburn Boulevard at Navan Road. However, after preliminary design commenced in 2016, a geotechnical analysis discovered poor soil conditions in the area, resulting in significantly higher construction costs than originally forecast and alternative options needed to be explored.

As the planned Cumberland Transitway runs parallel and adjacent to the road corridor, an alternate corridor for the Cumberland Transitway needed to be considered with the review of the road options. Therefore, on February 1, 2017, Transportation Committee approved the Statement of Work for this project.

The EA study commenced with a review of a long list of road and transit corridor options that were eventually screened to a short-list of four options based on a broad set of environmental criteria (Natural Environment, Social and Cultural Environment, Transportation and Cost). These options are outlined in Figures 1 to 4 provided below and described in detail in Document 1. Since all four options have impacts on the National Capital Commission (NCC) Greenbelt, NCC engagement was integral to the EA study and evaluation process. The four options were subjected to a comprehensive assessment and evaluation, in collaboration with NCC staff, to reflect the importance of the Greenbelt and consider the priorities and policies of the NCC's Greenbelt Master Plan (GMP). This collaboration resulted in a comprehensive set of 31 criteria, indicators and measurements within the broad evaluation framework that placed a significant emphasis on the natural, social and cultural environment. Based on these 31 criteria,

indicators and measurements, each option was assessed and received a relative ranking, resulting in Option 7 ranking highest overall.

Given the project's high potential impact on the Greenbelt, and to test the rigour of the results, sensitivity analyses were conducted. Option 7 continued to rank highest in four of these sensitivity assessments while Option 1 ranked second. It was only when the Natural Environment criterion was weighted heavily at 66 per cent that resulted in a tie for top ranking of these two options. While impacts on the natural environment are very important, a holistic assessment must be considered that involves all criteria. As Option 7 ranked first in four tests, and tied for first in another test, staff recommend that it be the Technically Preferred Option.

It should be noted that NCC does not support Option 7 or Option 5, based on concerns that these options are not consistent with the corridor shown in the 2013 TMP and do not conform to the NCC's Greenbelt Master Plan policies. These options cause fragmentation of the Greenbelt farmlands and ecological areas and are in proximity to Mer Bleue wetlands. Because of these impacts, the NCC Board of Directors declared on August 25, 2020, that: "*federal lands required to implement the Brian Coburn Boulevard /Cumberland Transitway extension alignment Options 5 and 7 will not be made available by the NCC*". Furthermore, NCC staff have indicated that only Options 1 and 4 are worthy of consideration, and even with that, more refinement of these corridors is required to further minimize Greenbelt impacts. Notwithstanding the NCC's position, the study was required to follow the EA process in accordance with the *EA Act of Ontario* and has proceeded with the Technically Preferred Option 7. It was further refined and developed into a functional design and recommended plan. Highlights of this plan are as follows:

- Improves transit travel time and reliability with direct uninterrupted travel between the Chapel Hill Park and Ride and Blair Road;
- Provides a new direct arterial roadway link to the future Innes-Walkley-Hunt Club (IWHC) Connection to address travel demand between Orléans South and the South Urban Area as well as Highway 417;

- Provides new multi-use pathways (MUPs) for east-west mobility and pedestrian and cycling connectivity to Blackburn Hamlet, the Chapel Hill Park and Ride, Bradley Estates community, Prescott Russell Trail and NCC pathways and beyond;
- Respects the RAMSAR boundary (a wetland site designated to be of international importance under the Ramsar Convention) as the Recommended Plan is outside this area;
- Improves safety for pedestrians and cyclists and removes a sharp 90-degree bend by realigning Renaud Road. The realignment shifts Renaud Road, which is currently within the RAMSAR boundary, to the outside perimeter of this wetland;
- Reduces traffic on Anderson Road when fully implemented with the IWHC Connection, reducing impact on the environmentally sensitive Mer Bleue wetland that surrounds Anderson Road;
- Preserves the natural character of the Greenbelt through the context of sensitive rural roadway and landscaping design, along with comprehensive Ecological Restoration and Enhancement Plans; and,
- Least expensive of the four short-listed options.

The Recommended Plan for Option 7 requires an estimated 42 hectares of Greenbelt lands to implement the project. Subsequent to the NCC Board's declaration, City staff developed a preliminary compensation and mitigation strategy in the form of a land exchange, offering nearly 47 hectares of City land within the same Greenbelt area – to re-initiate discussions with the NCC. On December 8, 2021, NCC staff responded in writing indicating that the *“exchange proposal does not offer reasonable compensation for the loss of ecological, agricultural, and functional integrity of the Greenbelt that would be foregone.”* NCC staff would only consider Options 1 and 4 for further discussion and refinement.

Although this EA study is following the EA Act of Ontario, NCC approval will be required for the implementation of the Recommended Plan since it is subject to the *“Federal*

Land Use, Design and Transaction Approval Process” (FLUDTA). As a prerequisite to issuing a FLUDTA, this project must also complete a federal environmental assessment in accordance with the federal Impact Assessment Act,

Although the Recommended Plan is the least costly of the options, this project has a high dollar value to implement. Therefore, interim localized transit priority measures (Figure 5) are proposed to improve transit travel time and reliability in the shorter term, to encourage a transit modal shift. These include widening of Innes Road for shared Transit Priority and High Occupancy Vehicle (HOV) lanes from the Blackburn Hamlet Bypass (BHBP) to Blair Road, a distance of 2 kilometres, and bus-only queue jump lanes at the intersection of BHBP and Navan Road. New MUPs are also proposed at these locations to improve active transportation connectivity. These Interim Measures will require 1.2 hectares of Greenbelt lands, and to date, the NCC staff position is neutral, not supporting nor rejecting these measures even though it is more closely aligned with NCC’s preferred Options 1 and 4.

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 2021 dollars is estimated at \$128M for the Roadway, \$178M for the Transitway and \$22M for the Interim Transit Priority Measures. While the budget to implement the full project is not within the City’s current affordability envelope, the lower cost Interim Transit Priority Measures may be more manageable, however it would still be subject to the City’s future capital budget priorities and affordability.

Public Consultation/Input

Extensive consultation was carried out for this project involving numerous NCC meetings and correspondence; four rounds of Agency Consultation Group meetings (NCC, Rideau Valley Conservation Authority, Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, Ontario Ministry of Natural Resources and Forestry, Ontario Ministry of Environment, Conservation and Parks, Hydro Ottawa, Transport Action Canada, and various City departments); and combined Business and Public Consultation Group meetings (Community Association members, landowners, business owners, Bike Ottawa, Accessibility Advisory Committee, and other interest groups).

Indigenous Peoples were also contacted, consisting of three invitations to the public consultations to seek comments and feedback. Additional contact is planned as the EA is completed, including the final document review.

Three open houses were held to present the study information at various stages of the project. Due to the COVID-19 pandemic, the final open house was held in the form of a web-based video presentation and on-line survey.

There is strong local community support for Option 7, however, feedback from other groups indicate concerns about impacts on the natural environment, Mer Bleue

wetlands, and climate change.

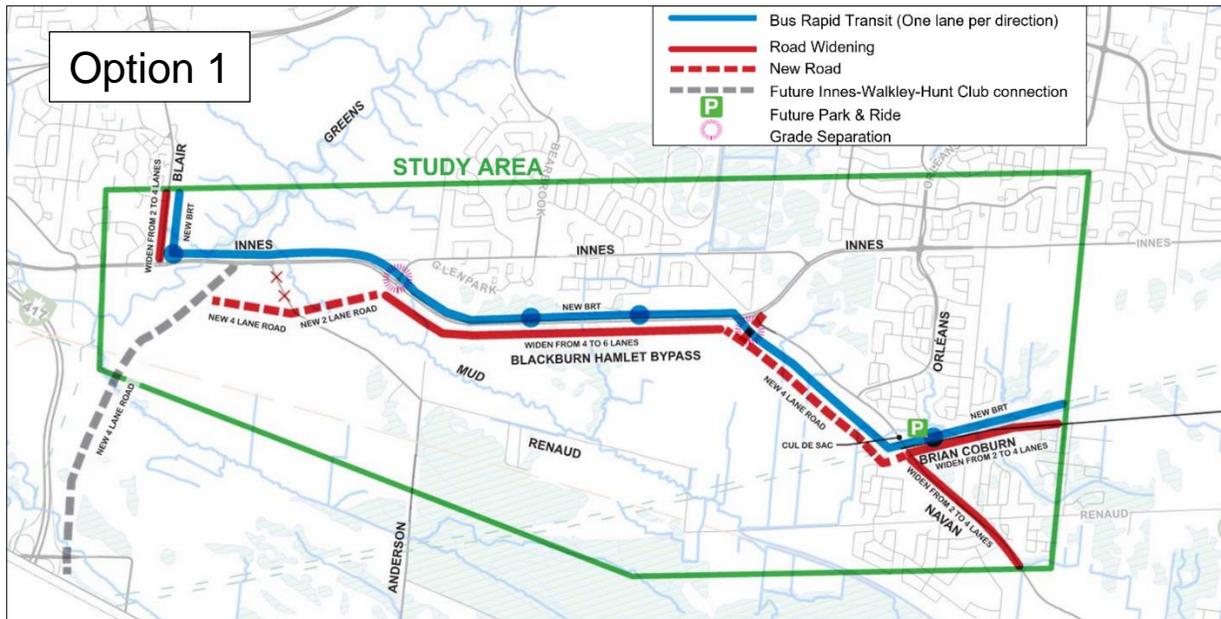


Figure 1: Option 1

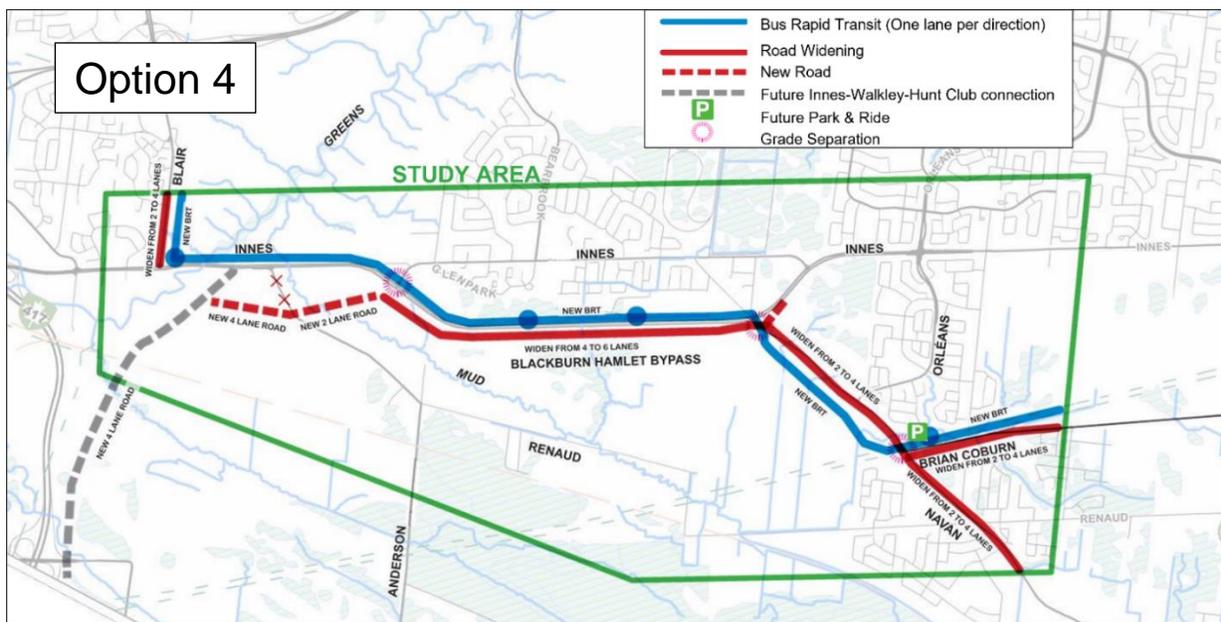


Figure 2: Option 4

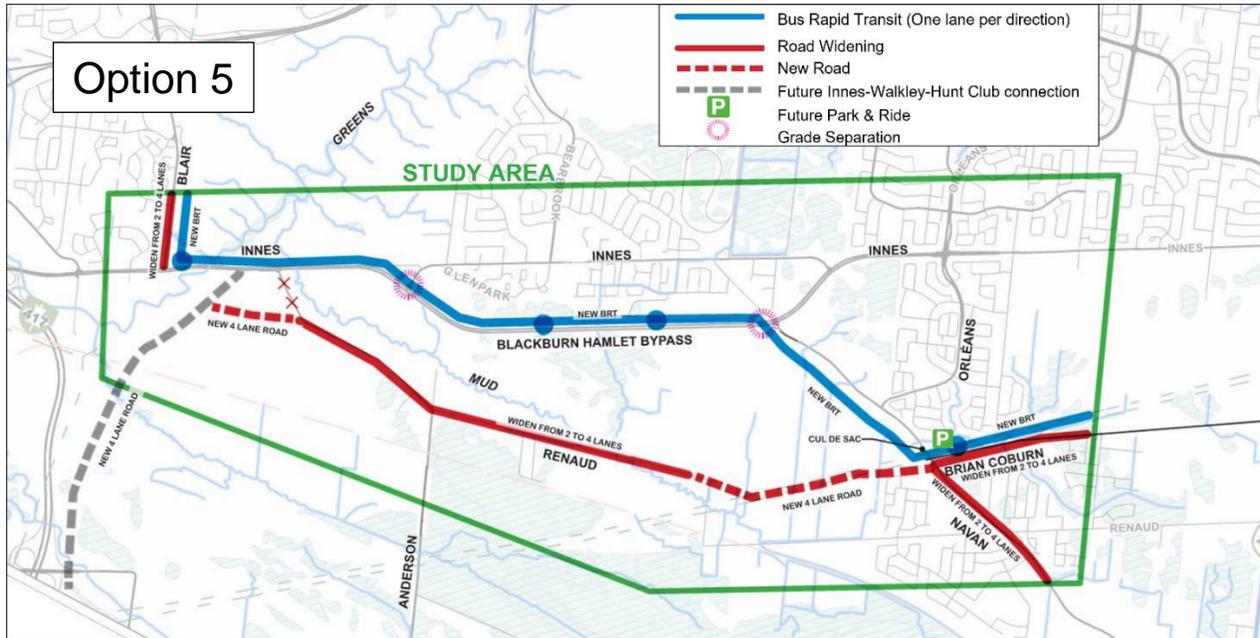


Figure 3: Option 5

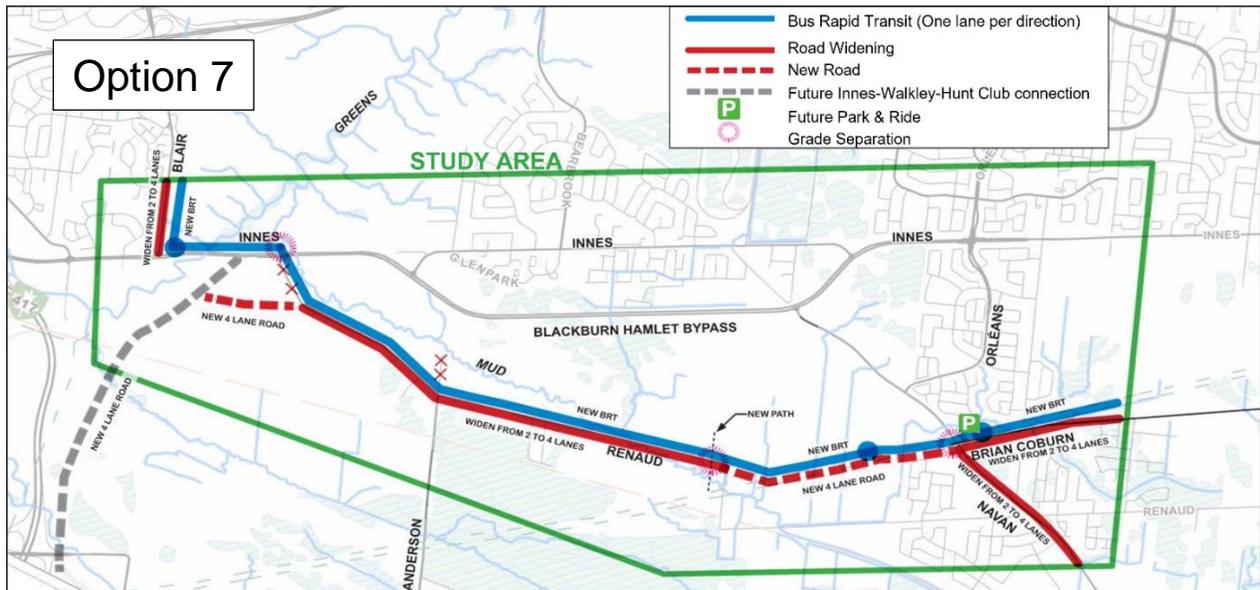


Figure 4: Option 7 (Recommended)

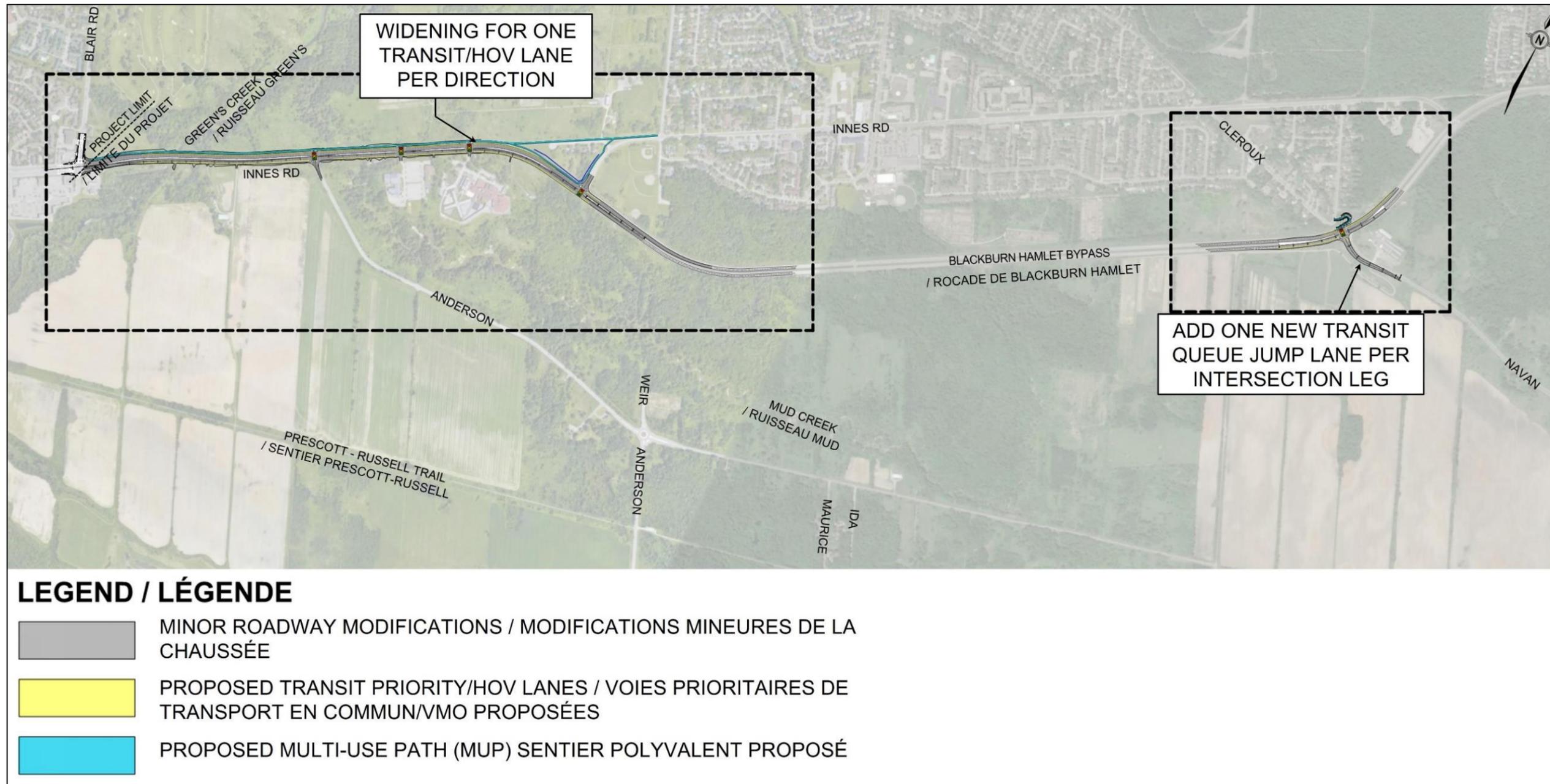


Figure 5: Recommended Transit Priority Interim Measures Overview

RÉSUMÉ

Hypothèse et analyse

Le Plan directeur des transports de 2013 prévoyait le prolongement de la rocade de Blackburn Hamlet du chemin Innes au chemin Navan. Ce prolongement visé par l'évaluation environnementale (ÉE) de 1999 bifurque vers le sud depuis la rocade de Blackburn Hamlet, longe le chemin Navan puis bifurque à l'est près du couloir de transport de l'électricité pour relier le boulevard Brian Coburn à la hauteur du chemin Navan. Toutefois, après la conception préliminaire entamée en 2016, une analyse géotechnique a révélé la mauvaise condition des sols dans le secteur, d'où des coûts de construction sensiblement plus élevés que ceux prévus à l'origine et la nécessité d'examiner d'autres options.

Puisque le Transitway de Cumberland prévu serait parallèle et adjacent au couloir routier, un autre emplacement pour ce couloir de Transitway devait être pris en compte dans l'examen des options de tracé routier. Par conséquent, le Comité des transports a approuvé le 1^{er} février 2017 l'énoncé des travaux pour ce projet.

L'étude d'ÉE a débuté par l'examen d'une longue liste d'options de routes et de couloirs de transport en commun, qui a été réduite à une sélection de quatre options fondées sur toute une gamme de critères environnementaux (milieu naturel, environnement social et culturel, transport et coût). Ces options sont exposées sur les figures 1 à 4 ci-dessous et décrites en détail dans le document 1. Puisque ces quatre options ont des répercussions sur la Ceinture de verdure de la Commission de la capitale nationale (CCN), l'engagement dans l'étude d'ÉE et le processus d'évaluation a été total de la part de la CCN. Les quatre options ont fait l'objet d'une évaluation détaillée, en collaboration avec le personnel de CCN, afin de refléter l'importance de la Ceinture de verdure et de tenir compte des priorités et des politiques du Plan directeur de la Ceinture de verdure de la CCN. Cette collaboration a donné lieu à une panoplie complète de 31 critères, indicateurs et mesures, figurant dans le cadre d'évaluation plus large qui a essentiellement mis l'accent sur le milieu naturel et les environnements social et culturel. En fonction de ces 31 critères, indicateurs et mesures, chaque option a été évaluée et s'est vu attribuer un classement relatif. L'option 7 a obtenu le classement général le plus élevé.

Compte tenu des retombées potentielles importantes sur la Ceinture de verdure et afin de vérifier la crédibilité des résultats, des analyses de sensibilité ont été effectuées. L'option 7 a conservé son premier rang dans quatre de ces évaluations de sensibilité,

tandis que l'option 1 est arrivée en deuxième place. Ce n'est que lorsque le critère du milieu naturel était fortement pondéré à 66 pour cent qu'on a observé une égalité au sommet pour ces deux options. Bien que les retombées sur le milieu naturel soient très importantes, il faut envisager la possibilité de réaliser une évaluation globale prenant en compte tous les critères. Puisque l'option 7 a obtenu le classement le plus élevé dans quatre évaluations et s'est classée en tête ex aequo dans une autre évaluation, le personnel recommande d'en faire l'option privilégiée sur le plan technique.

Il convient de noter que la CCN n'est favorable ni à l'option 7 ni à l'option 5, craignant qu'elles soient incompatibles avec le couloir figurant dans le PDT de 2013 et qu'elles ne soient pas conformes au Plan directeur de la Ceinture de verdure de la CCN. Ces options créent une fragmentation des terres agricoles et des zones écologiques de la Ceinture de verdure, et sont à proximité des terres humides de la Mer Bleue. Au regard de ces répercussions, le conseil d'administration de la CCN a déclaré le 25 août 2020 que : « *les terrains fédéraux nécessaires à la mise en œuvre des options 5 et 7 du tracé du prolongement du boulevard Brian-Coburn et du Transitway de Cumberland ne seront pas mis à disposition par la CCN* ». En outre, le personnel de la CCN a indiqué que seules les options 1 et 4 méritent d'être prises en considération et que, même avec ces options, il faudrait peaufiner davantage la conception de ces couloirs pour limiter encore les répercussions sur la Ceinture de verdure. Nonobstant la position de la CCN, l'étude était requise aux termes du processus d'ÉE, conformément aux dispositions de la *Loi sur les évaluations environnementales de l'Ontario* et a été menée en tenant compte de l'option 7, privilégiée sur le plan technique. Elle a été ensuite peaufinée puis transformée en conception fonctionnelle et en plan recommandé. Voici les points saillants de ce plan :

- Elle améliore les durées de trajet et la fiabilité du transport en commun, avec un parcours direct et ininterrompu entre le parc-o-bus Chapel-Hill et le chemin Blair;
- Elle offre un nouveau lien direct sur une artère vers le futur raccordement Innes-Walkley-Hunt Club (IWHC), tenant ainsi compte de la demande en transport entre Orléans-Sud, le secteur urbain sud et l'autoroute 417;
- Elle offre de nouveaux sentiers polyvalents permettant une mobilité est-ouest ainsi que des liens piétonniers et cyclables vers Blackburn Hamlet, le parc-o-bus Chapel-Hill, la collectivité de Bradley Estates, le sentier Prescott-Russell, les sentiers de la CCN et au-delà;

- Elle respecte la limite du RAMSAR (une terre humide destinée à devenir d'importance internationale en vertu de la Convention de Ramsar), puisque le plan recommandé concerne une zone extérieure à ce secteur;
- Elle améliore la sécurité des piétons et des cyclistes, et elle supprime un virage serré à 90 degrés en modifiant le tracé du chemin Renaud. Ce nouveau tracé déplace le chemin Renaud, actuellement situé dans les limites du RAMSAR, vers le périmètre extérieur de cette terre humide;
- Elle réduira la circulation sur le chemin Anderson lorsqu'elle sera complètement intégrée au raccordement IWHC, réduisant ainsi les retombées sur les terres humides de la Mer Bleue, une zone écosensible, qui entoure le chemin Anderson;
- Elle préserve le caractère naturel de la Ceinture de verdure dans le contexte d'une conception appropriée des chaussées et de l'aménagement paysager des zones rurales, et dans celui des plans détaillés de restauration et de mise en valeur écologique; et
- Elle est la moins coûteuse des quatre options retenues.

On estime que le plan recommandé pour l'option 7 nécessiterait 42 hectares de terrains de la Ceinture de verdure pour mettre en œuvre le projet. Après la déclaration du conseil d'administration de la CCN, le personnel de la Ville a élaboré une stratégie préliminaire de compensation et d'atténuation, sous la forme d'un échange de terrains, selon laquelle la Ville offrirait près de 47 hectares de terrains municipaux situés dans le même secteur de la Ceinture de verdure, afin de relancer les discussions avec la CCN. Le 8 décembre 2021, le personnel de la CCN a répondu par écrit que « *la proposition d'échange ne représente pas une compensation raisonnable pour la perte d'intégrité écologique, agricole et fonctionnelle de la Ceinture de verdure qui s'ensuivrait.* » Le personnel de la CCN n'envisage de poursuivre les discussions et de peaufiner le projet qu'avec les options 1 et 4.

Bien que cette étude d'ÉE soit conforme à la *Loi sur les évaluations environnementales de l'Ontario*, l'approbation de la CCN sera nécessaire pour la mise en œuvre du plan recommandé, car ce dernier est assujéti au *processus d'approbation fédérale de l'utilisation du sol, du design et des transactions immobilières*. Préalablement à la mise en place d'un tel processus d'approbation, ce projet doit également faire l'objet d'une

évaluation environnementale fédérale, conformément à la *Loi fédérale sur l'évaluation d'impact*.

Même si le plan recommandé correspond à la moins coûteuse des options, la mise en œuvre de ce projet représente une valeur ajoutée. Par conséquent, des mesures provisoires et localisées de priorité au transport en commun (figure 5) sont proposées pour améliorer à court terme les durées de trajet et la fiabilité du transport en commun, et ainsi encourager un transfert vers ce type de déplacement. Il s'agirait notamment d'élargir le chemin Innes pour les voies partagées réservées au transport en commun et les véhicules à taux d'occupation élevé entre la rocade de Blackburn Hamlet et le chemin Blair, une distance de deux kilomètres, et d'aménager des sauts de file d'attente pour les autobus à l'angle de la rocade de Blackburn Hamlet et du chemin Navan. La création de nouveaux sentiers polyvalents est également proposée à ces endroits, afin d'améliorer les liens entre les modes de transport actifs. Ces mesures provisoires nécessiteront l'utilisation de 1,2 hectare de terrains de la Ceinture de verdure et, à ce jour, la position du personnel de la CCN est neutre, ni favorable ni opposée à ces mesures, même si ce projet correspond plus étroitement aux options 1 et 4, privilégiées par la CCN.

Répercussions financières

Les coûts du projet ont été calculés conformément au processus approuvé par le Conseil municipal pour l'Examen de la réalisation des projets et l'estimation des coûts afin de mettre en œuvre les projets d'infrastructures. Le coût de conception, de construction, d'acquisition des terrains, de création d'œuvre d'art public et d'impondérables est estimé, en dollars de 2021, à 128 millions de dollars pour la chaussée, à 178 millions de dollars pour le Transitway et à 22 millions de dollars pour les mesures provisoires de priorité au transport en commun. Bien que le budget de mise en œuvre intégrale du projet ne soit pas dans l'enveloppe budgétaire actuelle, les mesures provisoires de priorité au transport en commun les moins coûteuses pourraient être plus faciles à mettre en place, mais elles seraient néanmoins assujetties aux priorités et à l'abordabilité du futur budget d'immobilisations de la Ville.

Consultation publique et commentaires

Une vaste consultation a été menée pour ce projet, qui a donné lieu à de nombreuses réunions et échanges avec la CCN, à quatre cycles de réunions du Groupe de consultation des organismes (CCN, Office de protection de la nature de la vallée Rideau, ministère des *Industries* du patrimoine, du *sport*, du tourisme et de la *culture* de

l'Ontario, ministère des Richesses naturelles et des Forêts, ministère de l'Environnement de l'Ontario, ministère de l'Environnement, de la Protection de la nature et des Parcs, Hydro Ottawa, Transport Action Canada et diverses directions générales de la Ville) et à des réunions conjointes de groupes de consultation d'entreprises et de membres du public (membres d'associations communautaires, propriétaires fonciers, chefs d'entreprises, Bike Ottawa, Comité consultatif sur l'accessibilité et divers autres groupes d'intérêts).

Des représentants autochtones ont également été invités à participer à trois consultations publiques et à faire part de leurs commentaires et de leur rétroaction. D'autres prises de contact sont prévues une fois terminée l'ÉE, notamment pour l'examen du document final.

Trois réunions portes ouvertes ont été organisées pour présenter les détails de l'étude à diverses étapes du projet. En raison de la pandémie de COVID-19, la dernière réunion portes ouvertes s'est tenue sous la forme d'une présentation vidéo et d'un sondage en ligne.

La collectivité locale soutient fortement l'option 7, mais les commentaires émis par d'autres groupes faisaient état de préoccupations entourant les répercussions sur le milieu naturel, les terres humides de la Mer Bleue et le changement climatique.

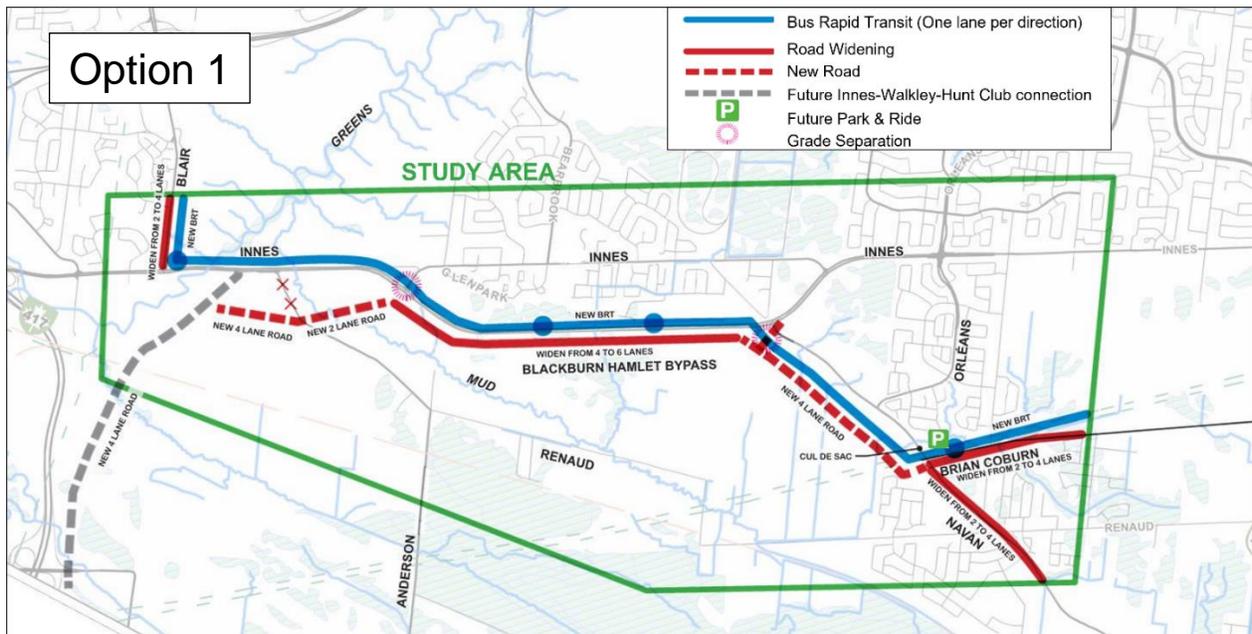


Figure 1 : Option 1

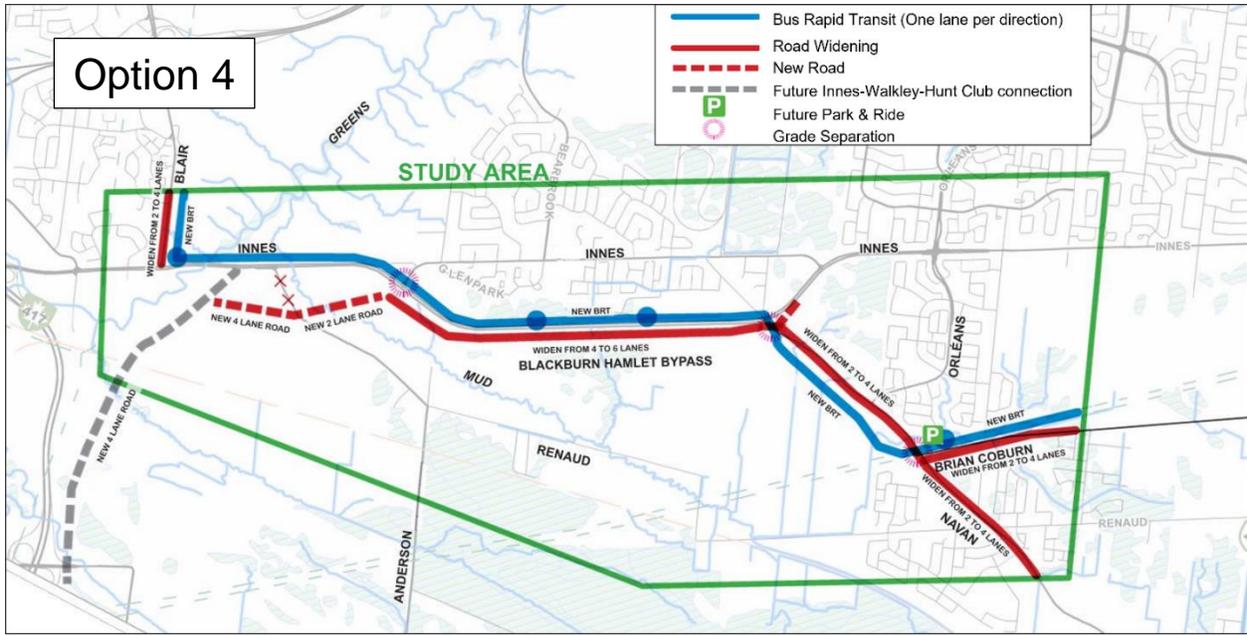


Figure 2 : Option 4

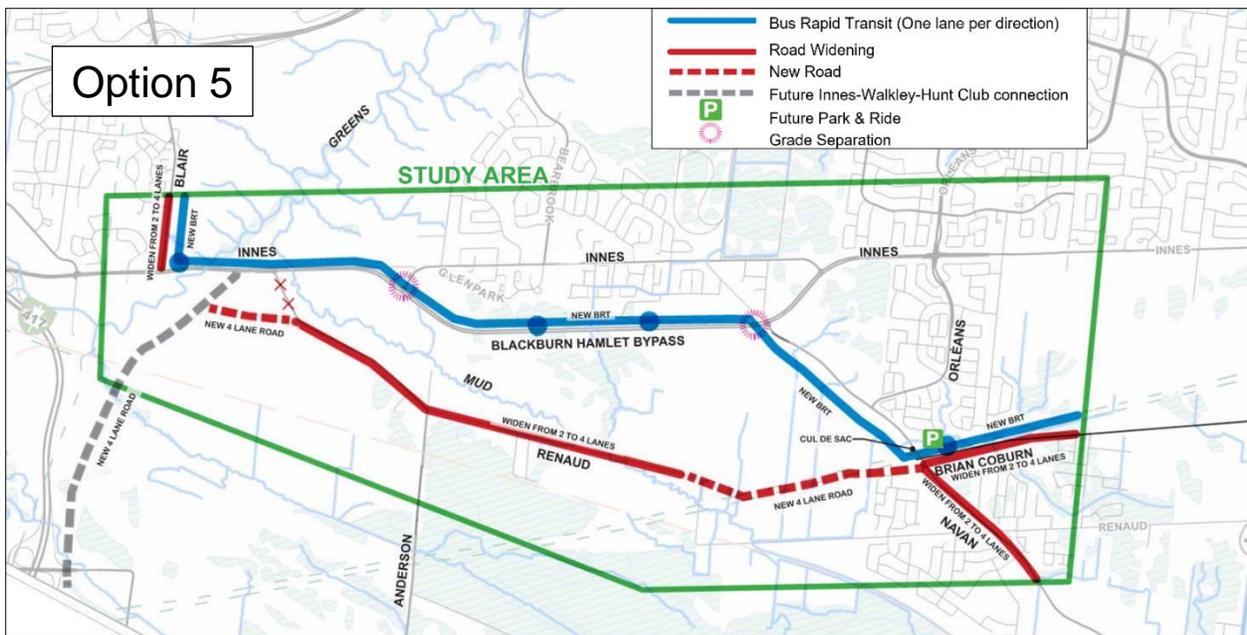


Figure 3 : Option 5

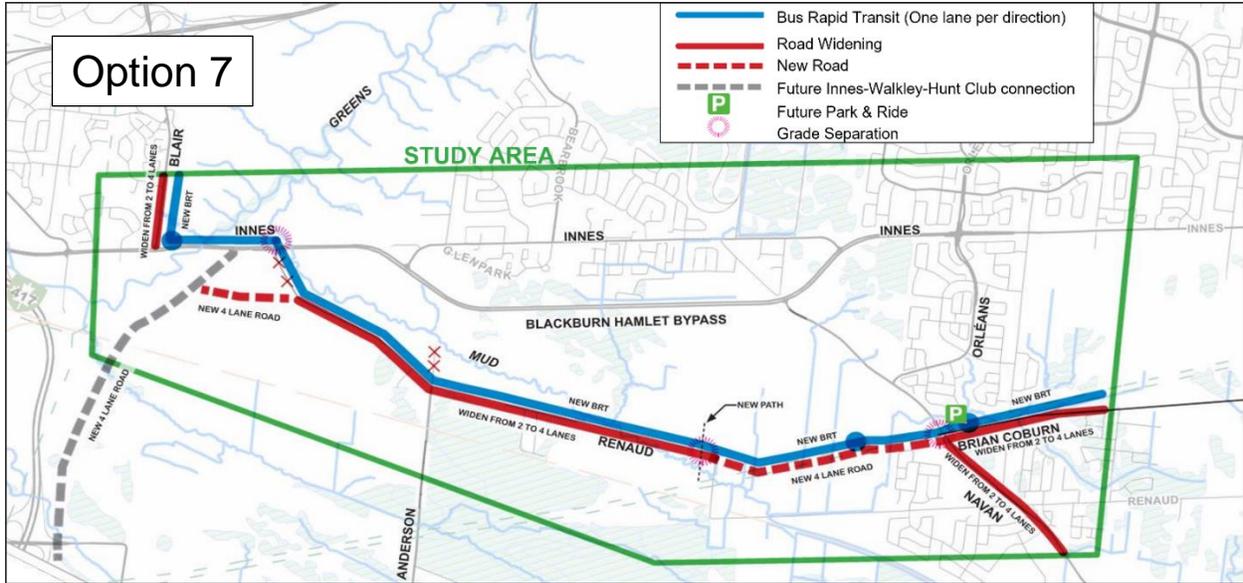


Figure 4 : Option 7 (recommandée)

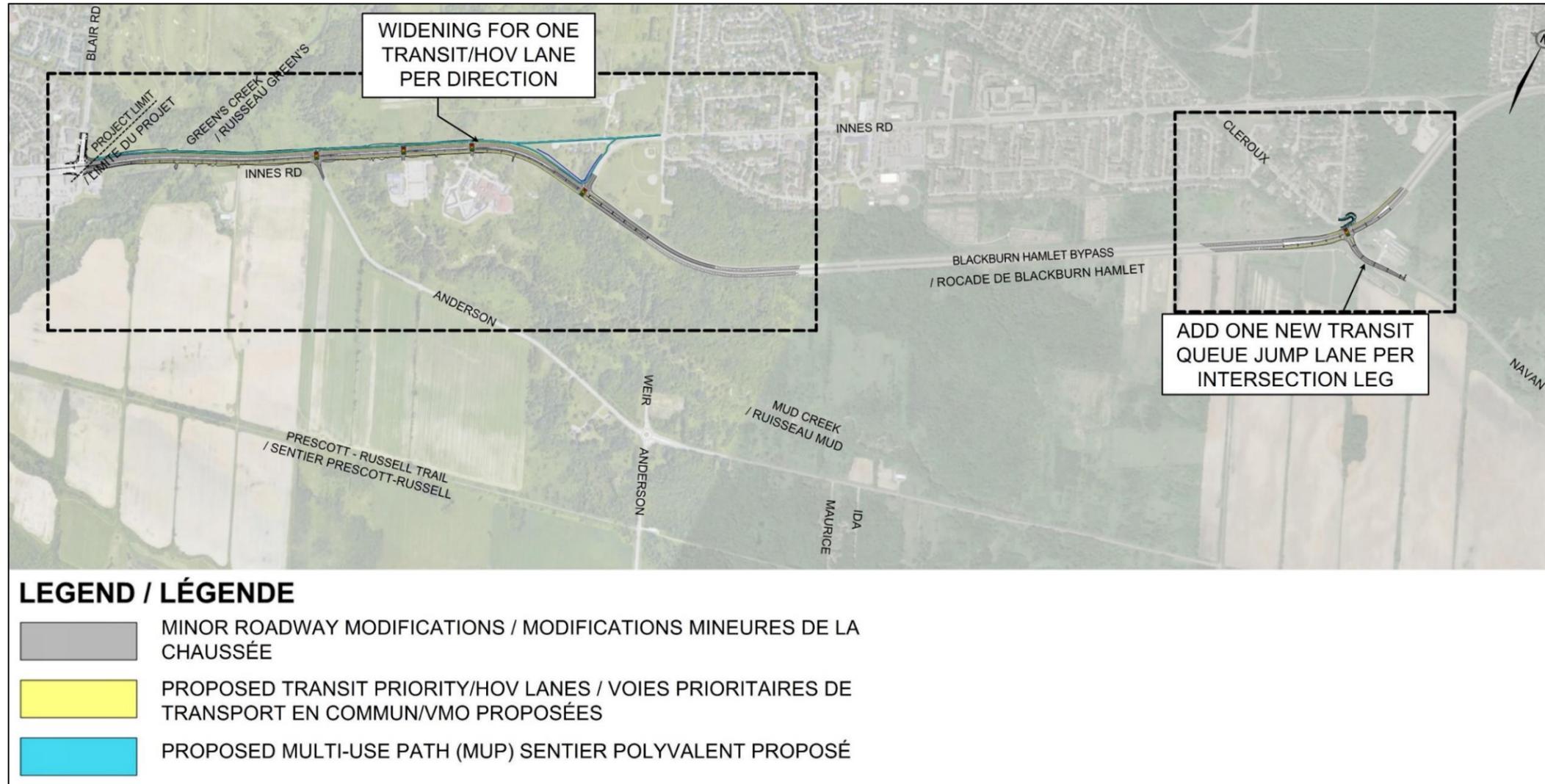


Figure 5 : Aperçu des mesures provisoires de priorité au transport en commun

BACKGROUND

The 2013 Transportation Master Plan (TMP) envisioned extending Blackburn Hamlet Bypass, from Innes Road to Navan Road. The 1999 Environmental Assessment for this extension turns south from Blackburn Hamlet Bypass (BHBP) and parallel to Navan Road, then turning east near the Hydro corridor to connect to Brian Coburn Boulevard at Navan Road (Figure 6). However, after preliminary design commenced in 2016, a geotechnical analysis discovered poor soil conditions in the area, resulting in significantly higher construction costs than originally forecast, and a more cost-effective alternative needed to be explored.

As the planned Cumberland Transitway runs parallel and adjacent to the road corridor, an alternate corridor, or design solution, for the Cumberland Transitway also needed to be considered. Therefore, on February 1, 2017, Transportation Committee approved the Statement of Work for this project.

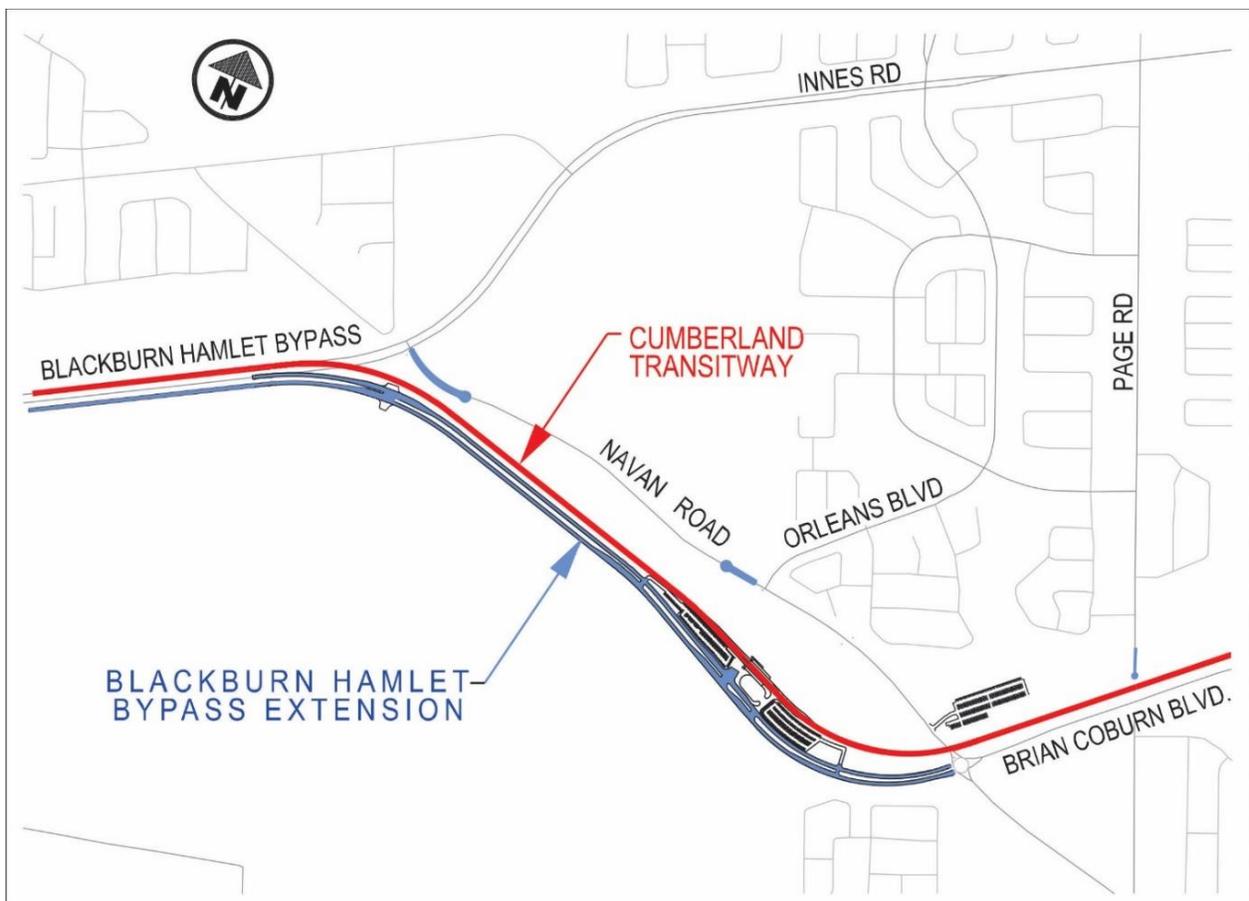


Figure 6: Blackburn Hamlet Bypass Extension, 1999 EA Study

To allow for the examination of a broad range of alternative corridors and the downstream effects of this new transportation infrastructure, the study area was expanded and shown in Figure 7.

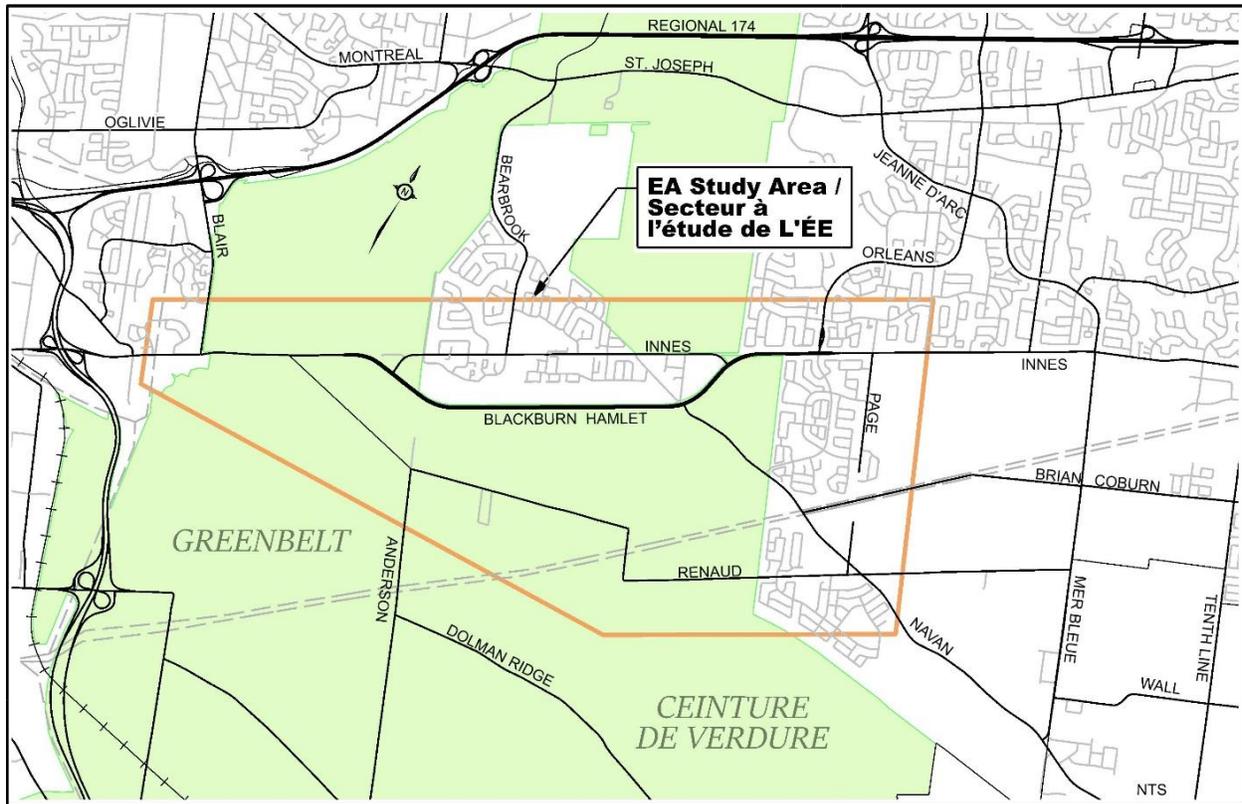


Figure 7: Study Area

DISCUSSION

Need for Additional Transportation Infrastructure

In the late 1980s, when the urban area of Orléans South was being considered for expansion south of Innes Road, it was recognized that the new growth would require both a new Transitway (the Cumberland Transitway) and a new arterial roadway (the BHBP Extension) to serve the new community. The 1999 Environmental Assessments for each of the transitway and roadway extended from the existing BHBP to Trim Road. To date, most of the roadway, now called the Brian Coburn Boulevard, has been constructed within the Orleans community, from Navan Road to Trim Road, to provide access and connectivity between the developing neighbourhoods. The last segment of roadway, west of Navan Road, is the subject of this EA study.

Additionally, this project will improve the efficiency of transportation between Orléans and the central and western parts of Ottawa.

Road and Transit Corridor Options

An EA study requires the review of a reasonable range of technically feasible corridor options to assess and minimize the potential for environmental effects. Hence, the study commenced with a review of a long list of road and transit corridor options that were screened and eventually reduced to a list of six options based on a broad set of environmental criteria: Natural Environment, Social and Cultural Environment, Transportation, and Cost.

When these six options were presented at the first round of public consultations, local residents proposed a seventh option, which can be described as the due-west extension of Brian Coburn Boulevard to connect to Renaud Road. This option was subsequently added for further consideration. A second screening of the seven options resulted in a short list of four options that were carried forward for detailed evaluation. Details of the screening from the long list to the short list of four options are available in Document 1.

Evaluation of the Four Short-Listed Corridor Options

All four short-listed corridor options have impacts on the NCC Greenbelt, therefore NCC engagement (detailed in Document 3) was integral to the EA study and evaluation process. The evaluation process required developing a more fulsome set of indicators and measurements within the four broad environmental criteria (Natural Environment, Social and Cultural Environment, Transportation, and Cost) to enable a comparative assessment approach of each option. Within this context, a comprehensive set of 31 criteria, indicators and measurements was developed, in consultation with NCC staff, to reflect the importance of the Greenbelt and respect its policies. Examples of the evaluation factors used include Fisheries and Aquatic Habitat, Terrestrial Habitat, Wetlands, Greenbelt Core Natural Area, Greenbelt Natural Link, Habitat Fragmentation, Climate Change Adaptation, Agriculture, Greenbelt Experience, and Views and Vistas.

Based on these 31 criteria, indicators and measurements, each option was assessed and compared against each other to receive a relative ranking, which was then tallied to determine the top ranked option. This process resulted in Option 7 ranking highest overall.

Given the project's high potential impact on the Greenbelt, and to test the rigour of the

results, a sensitivity analysis was also performed to examine the extent to which the rankings of the Options are affected by adjusting the weights of each of the broad criteria groups (other than Transportation) to zero - thus effectively eliminating a specific criteria group one at a time. Of the five tests conducted, Option 7 ranked highest in four tests with Option 1 ranked a close second. For the fifth test, the Natural Environment criteria was weighted heavily at 66% which brought Option 1 up to tie for top ranking with Option 7. While impacts on the natural environment are very important, a holistic assessment involving all criteria must be considered. Given that out of five sensitivity tests, Option 7 ranked first in four tests, and tied for first in one test, staff recommend this option be the Technically Preferred Option. Results of the evaluation are summarized in Table 1.

It should be noted that NCC do not support Options 7 and 5 as these options “*do not conform to current Greenbelt Master Plan policies which discourage ecosystem fragmentation, advocate for minimal road density and favour a low infrastructure footprint*”. Because of these impacts and despite the extensive consultation with the NCC on the evaluation process, a letter from NCC CEO, Tobi Nussbaum, to the City, dated September 2, 2020, stated that “*the NCC Board of Directors passed a resolution (enclosed) on August 25, 2020...affirming its position that federal lands required to implement the Brian Coburn Boulevard /Cumberland Transitway extension alignment Options 5 and 7 will not be made available by the NCC.*” Furthermore, NCC staff have indicated that only Options 1 and 4 are worthy of consideration, and even with that, more refinement of these corridors is required to further minimize Greenbelt impacts.

Regardless of NCC’s position, the study needed to follow through with the EA process in accordance with provincial legislation, which required the review of all technically feasible alternatives, resulting in the four short-listed options. While all options had natural and social environmental impacts in the Greenbelt, none of the options are within the RAMSAR protected boundary. Assessing and balancing trade-offs of the natural and social environmental impacts are key aspects of the EA process and proved to be challenging but required. As per EA legislation, potential impacts and mitigation measures have been developed and documented.

However, before the project can be implemented, it is subject to a future Federal Land Use, Design and Transaction Approval (FLUDTA) process as well as additional legislated approvals, given the need for federal lands. As a prerequisite to issuing a FLUDTA, this project must also complete a federal environmental assessment in accordance with the federal Impact Assessment Act because of the natural environment impacts.

Within the context of NCC's concerns, the following is a brief description of each of the four corridor alignments, their associated environmental impacts and how the ranking was assessed amongst the four options. Figures 8 to 11 show each of the four corridor options, which have been superimposed over an aerial photo of the area to illustrate the features being impacted. Further details are provided in Document 1.

Key highlights of the Technically Preferred Option 7 are as follows:

- Improves transit travel time and reliability with direct uninterrupted travel between the Chapel Hill Park and Ride and Blair Road;
- Provides a new direct arterial roadway link to the future Innes-Walkley-Hunt Club (IWHC) Connection to address travel demand between Orléans South and the South Urban Area as well as Highway 417;
- Provides new multi-use pathways (MUPs) for east-west mobility and pedestrian and cycling connectivity to Blackburn Hamlet, the Chapel Hill Park and Ride, Bradley Estates community, Prescott Russell Trail and NCC pathways and beyond;
- Respects the RAMSAR boundary (a wetland site designated to be of international importance under the Ramsar Convention) as the Recommended Plan is outside this area;
- Improves safety for pedestrians and cyclists and removes a sharp 90-degree bend by realigning Renaud Road. The realignment shifts Renaud Road, which is currently within the RAMSAR boundary, to the outside perimeter of this wetland;
- Reduces traffic on Anderson Road when fully implemented with the IWHC Connection, which will reduce impact on the environmentally sensitive Mer Bleue wetland that surrounds Anderson Road;
- Preserves the natural character of the Greenbelt through context sensitive rural roadway and landscaping design, along with comprehensive Ecological Restoration and Enhancement Plans; and,
- Least expensive of the four options.

Option 1 – Ranked Second

Option 1 (Figure 8) aligns more closely with the City's TMP and the NCC's Greenbelt Master Plan (GMP). From Navan Road, the road and transit corridor traverses Greenbelt farmland as it runs parallel and south of Navan Road and along the BHBP. For this option, the roadway at the BHBP and Innes Road intersection turns southwest along a new two-lane corridor to connect to the IWHC link, thus avoiding traffic on Innes Road destined to Highway 417. This option has the highest area of impact (footprint) on farmland and higher amounts of habitat fragmentation. Midpoint of the BHBP, the corridor impacts the forested area south of the BHBP, which is designated by NCC as Core Natural Area. Along this corridor are many water crossings impacting fisheries and aquatic habitat, four grade separated structures, including a major crossing of the Mud Creek valley south of Innes Road, and two transit stations. This option also has the highest cost of the four options.

Benefits of this route include having the least overall natural environmental impact since bundling of the road and transit corridors reduces the impact on wildlife natural linkages. It is also further away from the Mer Bleue wetland. Although this option ranked first for the natural environment criteria, it ranked second overall on the evaluation when other criteria are considered.

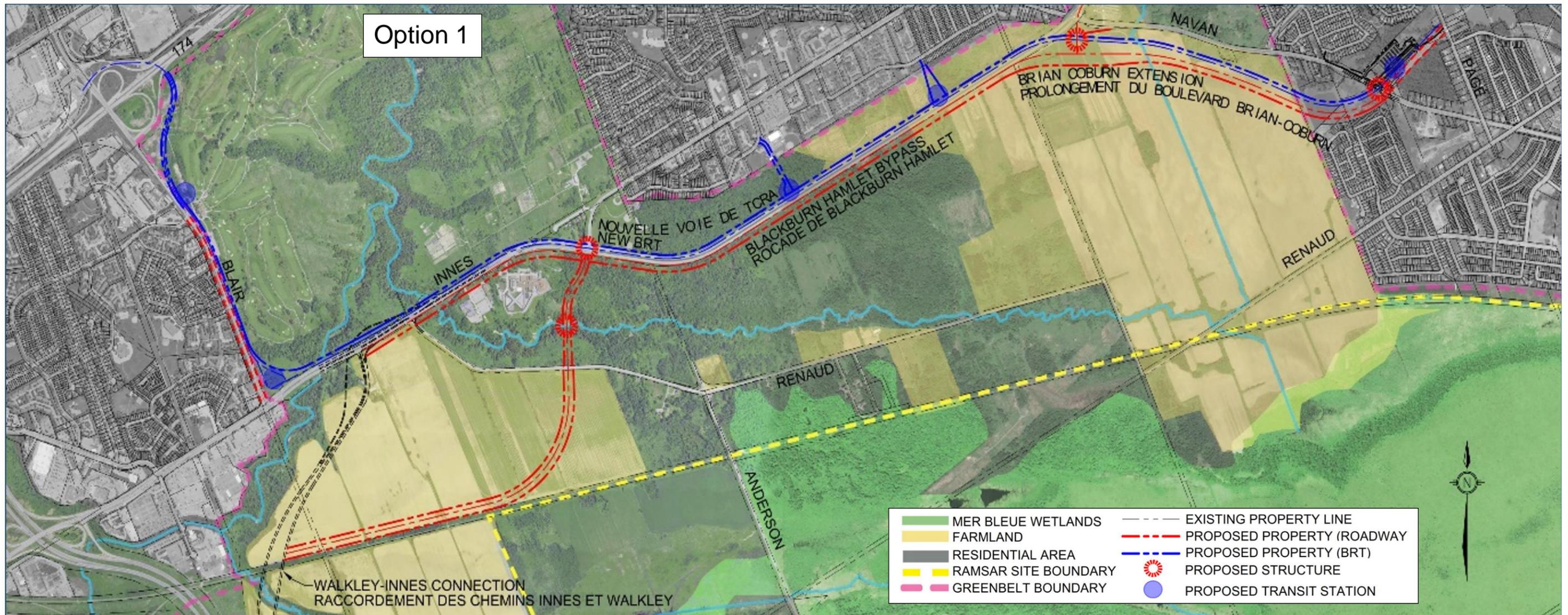


Figure 8: Corridor Option 1

Option 4 – Ranked Third

Option 4 (Figure 9) also aligns more closely with the City's Transportation Master Plan (TMP) and the NCC's GMP and is similar to Option 1, except that the Brian Coburn Boulevard (BCB) would be located along a widened Navan Road. While there is less farmland impact, it has the highest private property impacts and associated noise and vibration impacts along Navan Road. This option ranked third overall in the evaluation due to the high social and cultural impacts and higher cost.

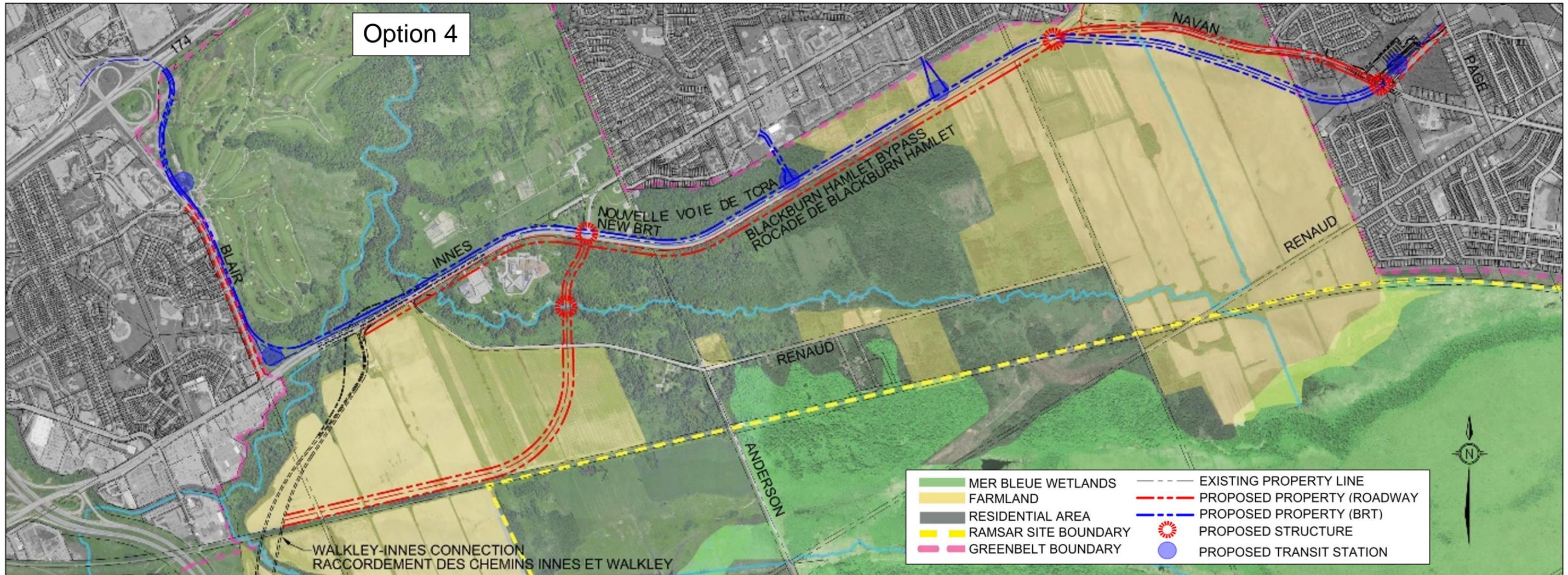


Figure 9: Corridor Option 4

Option 5 – Ranked Fourth

While the bus rapid transit (BRT) in Option 5 (Figure 10) is also similar to Option 1, the new roadway splits away from the BRT in a separate corridor west of Navan Road and extends west down the escarpment, following the hydro corridor, before dropping down to existing grade through the NCC Greenbelt to connect to the existing Renaud Road and Anderson Road, both widened to four lanes. Approximately 400 metres before Anderson Road meets Innes Road, the new road corridor splits away from Anderson Road to link with the future Innes/Walkley/Hunt Club (IWHC) Connection. The IWHC Connection is a separate City project with an approved EA and the segment between Innes Road and Walkley Road would need to be implemented either in advance or at the same time as this project.

With two separate and distinct corridors, this option has the highest overall impact on the natural, social and cultural environment. The road corridor severs farmland parcels, is closer to the Mer Bleue wetland and further impacts natural wildlife linkages and terrestrial habitat and has the highest habitat fragmentation. This option also has the most water crossings impacting fisheries and aquatic habitat and ranked fourth and last overall on the evaluation.

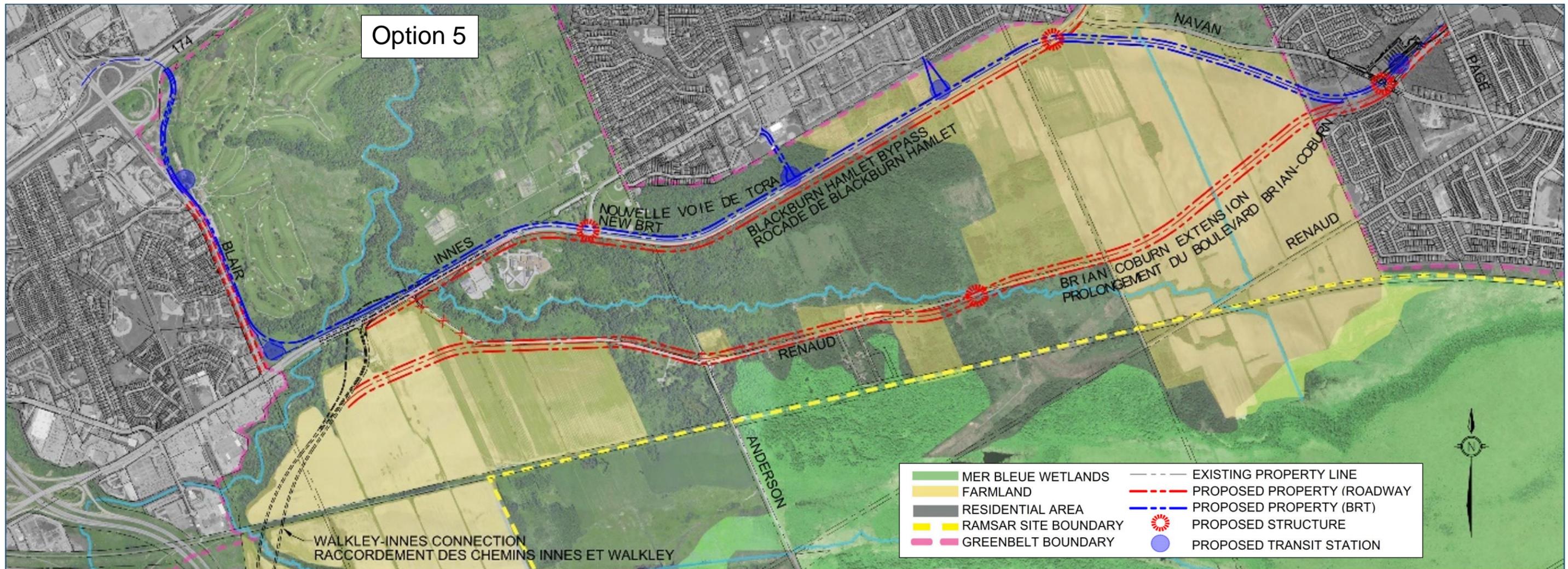


Figure 10: Corridor Option 5

Option 7 – Ranked First

Option 7 (Figure 11) bundles the BRT to the north of the roadway corridor as Option 5. Approximately 400 metres before Anderson Road meets Innes Road, the roadway and BRT diverge onto two separate corridors. The BRT will use the existing Anderson Road right of way, before passing under and to the north of Innes Road to connect to Blair Road, while the roadway extends further west to connect to the IWHC link. This option further bundles the road and transitway with Renaud Road and Anderson Road on an already existing corridor. While it traverses farmland west of Navan Road and severs farmland parcels, it has the lowest natural habitat fragmentation (as measured by total new corridor length) and crosses and runs parallel to Mud Creek. Although this option ranked a close second on the natural environment criteria, it had the lowest cost, and ranked first under the Transportation and Social and Cultural Environment.

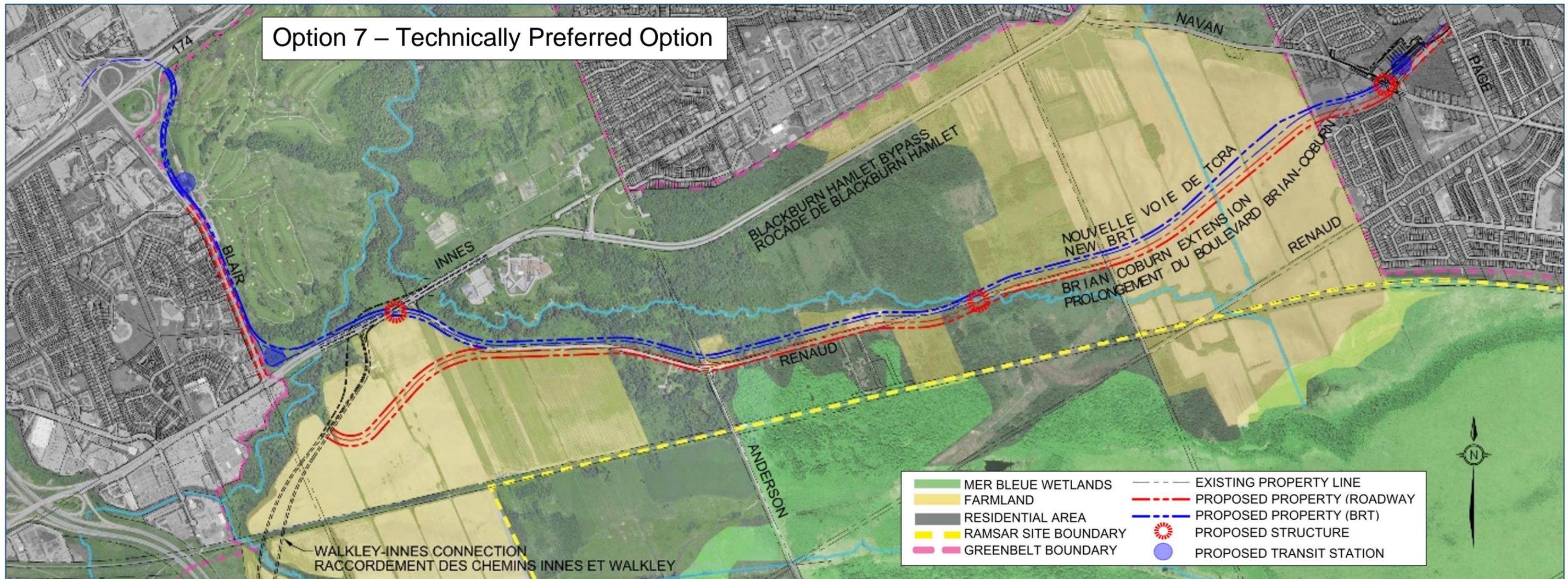


Figure 11: Corridor Option 11 – Technically Preferred Option

RECOMMENDED PLAN OVERVIEW

Following the selection of the Technically Preferred Option 7, the alignment was further refined considering: preservation of the Greenbelt rural features, mitigation of potential loss of identified ecological functions, avoidance of areas of unstable slopes and defined flood zones, and with due consideration of social environmental effects including noise. Figure 12 provides an overview of the Recommended Plan with Brian Coburn Boulevard (BCB) extending westerly, approximately 6.1 kilometres in length, and approximately 6.5 kilometres for the BRT. There are four gateway locations that will provide opportunities for landscaping enhancements at the intersections of BCB with Navan Road, Renaud Road, Anderson Road, and the future IWHC Connection. Gateways will help create an identifiable character along pathways to enhance the user experience. Key features of the design along the corridor are further described below and the detailed functional designs are provided in Document 2.

Typical Cross-Section (Figure 13)

The road and transitway cross-section design, shown facing east, includes a 13-metre segregated BRT, 21.5 metres for the four lanes of BCB, which is separated by a 1.5-metre median to improve safety, a posted speed of 80 kilometres per hour, and a 3-metre MUP along the south side of the roadway. Rural ditching of varying width will match with the existing rural conditions and context sensitive planting is recommended along the outer edges of the road and transitway to preserve the Greenbelt's natural and rural landscape. Based on the foregoing, and primarily due to the ditches, the project right of way could be as wide as 77 metres, although the hard surface widths would be much less at 37 metres total.

The wide cross section is reflective of the desire to maintain the rural footprint, driving experience, and compatibility with the surrounding environment. Also, the road and transitway both make use of and replace sections of existing Renaud Road and existing Anderson Road, thus effectively reducing the total new project footprint.



LEGEND / LÉGENDE

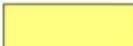
- | | | | |
|---|--|---|---|
|  | PROPOSED ROADWAY / CHEMIN PROPOSÉ |  | TRAFFIC SIGNALS / FEU DE CIRCULATION |
|  | PROPOSED BRT / TCRA PROPOSÉE |  | PROPOSED SHRUB PLANTING / PLANTATION D'ARBUSTES PROPOSÉE |
|  | PROPOSED MULTI-USE PATH (MUP) / SENTIER POLYVALENT PROPOSÉ |  | PROPOSED DECIDUOUS TREE / ARBRE À FEUILLES CADUQUES PROPOSÉ |
|  | PROPOSED GRADE SEPARATED CROSSING / TRAVERSÉE À NIVEAU SÉPARÉ PROPOSÉE |  | PROPOSED CONIFEROUS TREE / ARBRE CONIFÈRE PROPOSÉ |
|  | CREEK REALIGNMENT / RÉALIGNEMENT DU RUISSEAU |  | GRADING LIMIT / LIMITE DE NIVELLEMENT |
|  | PROPOSED NOISE BARRIER / BARRIÈRE ANTI-BRUIT PROPOSÉE |  | EXISTING PROPERTY LINE / LIGNE DE PROPRIÉTÉ EXISTANTE |
|  | GATEWAYS / POINT D'ACCÈS |  | PROPOSED PROPERTY LINE / LIGNE DE PROPRIÉTÉ PROPOSÉE |

Figure 12: Recommended Plan Overview of the Corridor Alignment

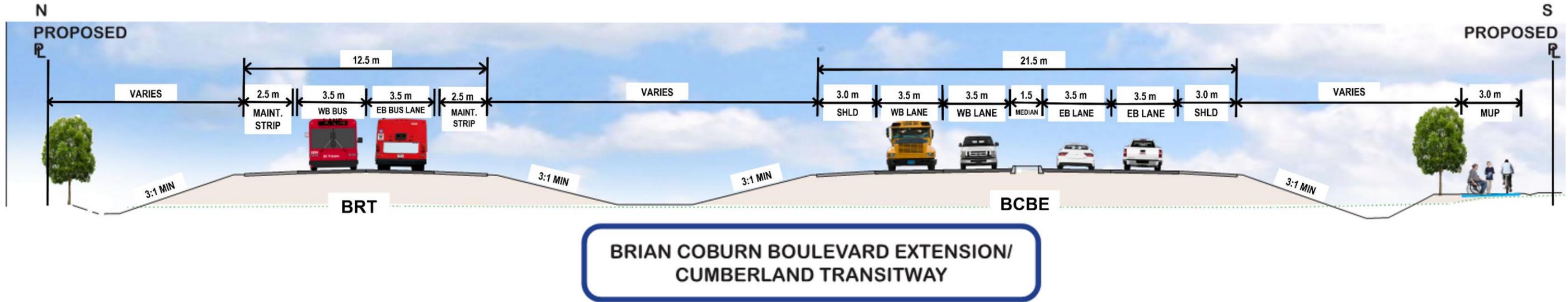
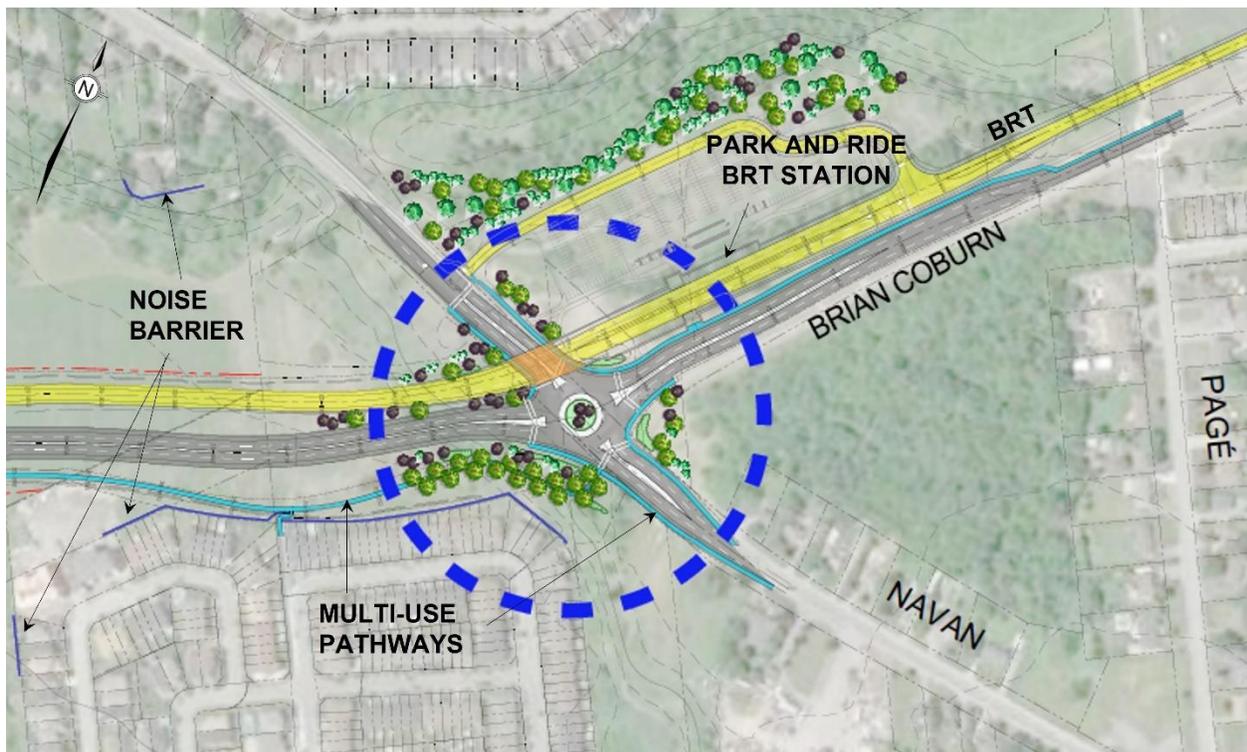


Figure 13: Road and Transitway Cross-Section Design

Navan Road and the Chapel Hill Park and Ride (Figure 14)

From the existing Chapel Hill Park and Ride (P&R), the BRT will pass under Navan Road, with Navan Road on a new bridge structure, while BCB will extend west down an embankment to existing grade below the escarpment. The existing roundabout at BCB and Navan Road will be expanded to a two-lane roundabout and MUPs will be added for convenient access to/from the transit station. Also included is a direct MUP connection from the Bradley Estates community via Percifor Way to Navan Road and the transit station.



LEGEND / LÉGENDE

- | | | | |
|---|--|---|---|
|  | PROPOSED ROADWAY / CHEMIN PROPOSÉ |  | TRAFFIC SIGNALS / FEU DE CIRCULATION |
|  | PROPOSED BRT / TCRA PROPOSÉE |  | PROPOSED SHRUB PLANTING / PLANTATION D'ARBUSTES PROPOSÉE |
|  | PROPOSED MULTI-USE PATH (MUP) / SENTIER POLYVALENT PROPOSÉ |  | PROPOSED DECIDUOUS TREE / ARBRE À FEUILLES CADUQUES PROPOSÉ |
|  | PROPOSED GRADE SEPARATED CROSSING / TRAVERSÉE À NIVEAU SÉPARÉ PROPOSÉE |  | PROPOSED CONIFEROUS TREE / ARBRE CONIFÈRE PROPOSÉ |
|  | CREEK REALIGNMENT / RÉALIGNEMENT DU RUISSEAU |  | GRADING LIMIT / LIMITE DE NIVELLEMENT |
|  | PROPOSED NOISE BARRIER / BARRIÈRE ANTI-BRUIT PROPOSÉE |  | EXISTING PROPERTY LINE / LIGNE DE PROPRIÉTÉ EXISTANTE |
|  | GATEWAYS / POINT D'ACCÈS |  | PROPOSED PROPERTY LINE / LIGNE DE PROPRIÉTÉ PROPOSÉE |

Figure 14: Navan Road and Chapel Hill P&R

Connection to Renaud Road (Figure 15)

From Navan Road, the road and BRT traverses through existing farmland and will connect to the existing Renaud Road with a new protected signalized intersection design. In this area, the project footprint widens on an embankment as the BRT rises to accommodate a grade-separated farm vehicle access and a proposed north-south NCC pathway, while the roadway is lowered slightly. The MUP will provide connectivity to existing NCC pathways to the north and the City's Prescott Russell Trail to the south. A narrower footprint was examined but not recommended because it would require retaining walls and a longer bridge structure which would not align with the Greenbelt rural landscape.

Of note, residents raised safety concerns with vehicles travelling at high speeds as they approach the existing sharp bend of Renaud Road near the Prescott Russell Trail. In addition, the Trail currently crosses Renaud Road at two locations, creating conflict points between vehicles and pedestrians and cyclists. To avoid these conflicts, it is proposed that Renaud Road be realigned to the north side of the Trail, and head north to connect with the new BCB. This realignment would eliminate the sharp roadway bend and the two trail crossing conflicts. As an added benefit, the realignment removes this section of Renaud Road outside of the Ramsar designated limits of Mer Bleue. A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention.

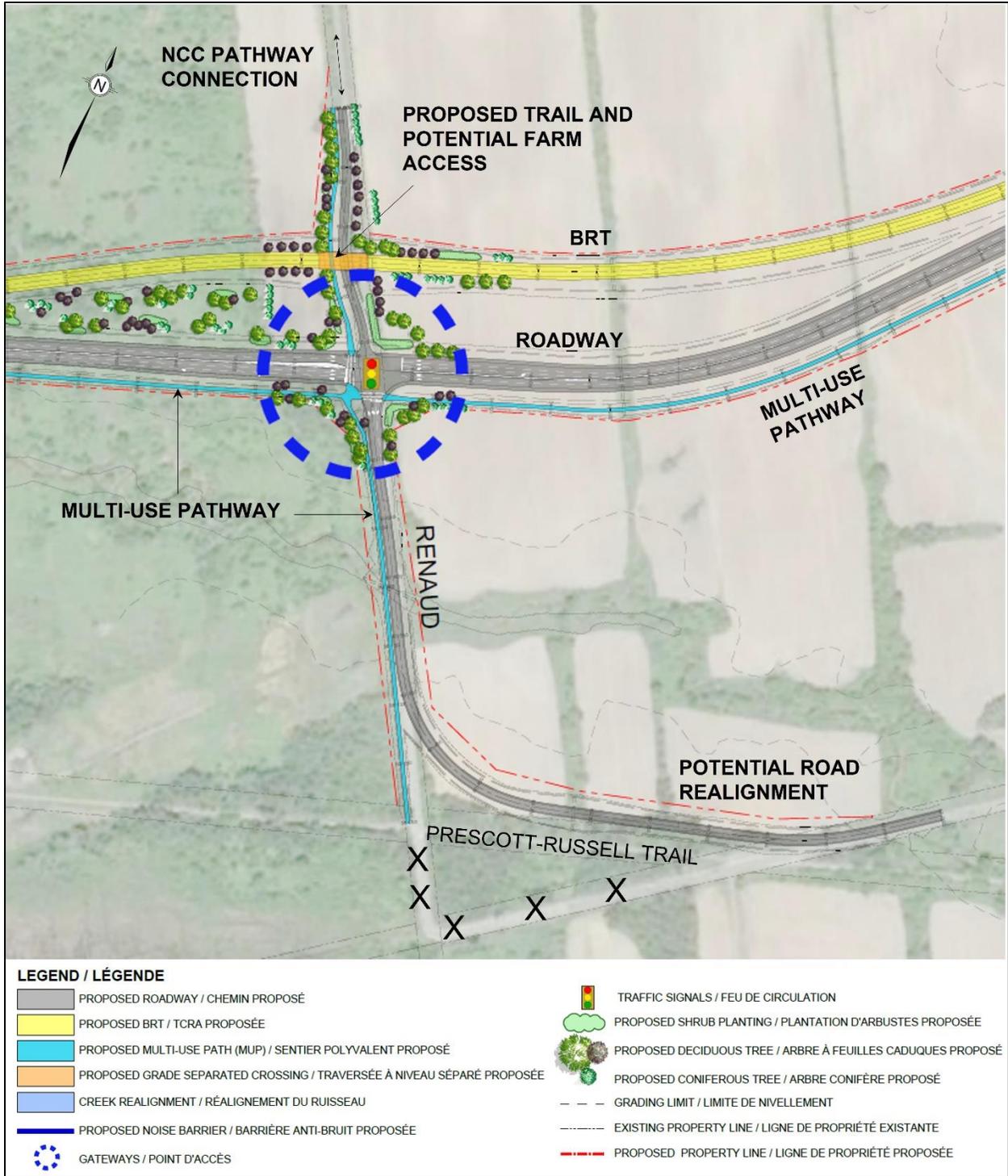


Figure 15: Connection to Renaud Road

Mud Creek Realignment (Figure 16)

Around the Mud Creek crossing area, the BRT and roadway corridors converge back to the minimum separation. The widening of Renaud Road will encroach on the erosion and slope stability zones of Mud Creek; therefore a 300-metre realignment of the existing creek is proposed. This realignment provides an opportunity to improve existing creek conditions through natural channel design, terrestrial and aquatic habitat enhancements, erosion protection and slope stabilization measures. The MUP is proposed to pass over the realigned creek.

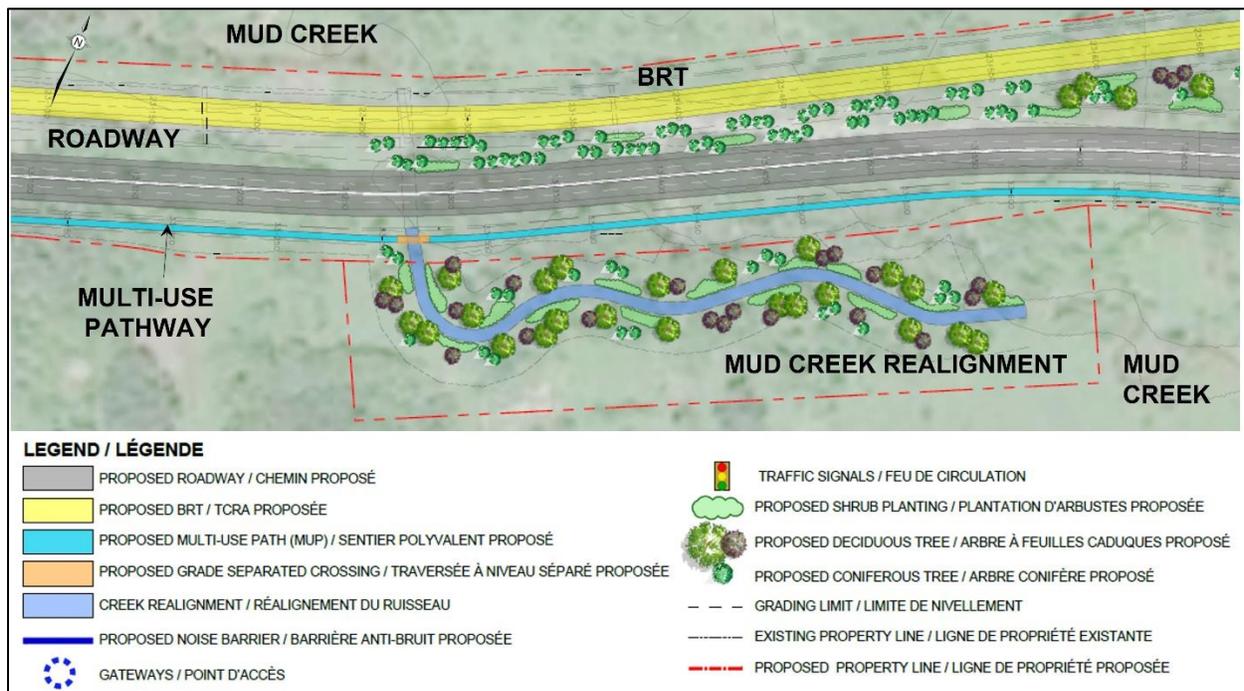


Figure 16: Mud Creek Realignment

Anderson Road Intersection (Figure 17)

A traffic analysis for the 2031 planning horizon to expand the existing Anderson Road roundabout to two lanes forecasted long delays and poor levels of service due to the heavy east-west travel demand during the AM peak period. Therefore, a protected signalized intersection is proposed. The segregated BRT will block Weir Road and eliminate all access to the community gardens and opportunities will be explored in subsequent stages of the project for the potential relocation of the community gardens.

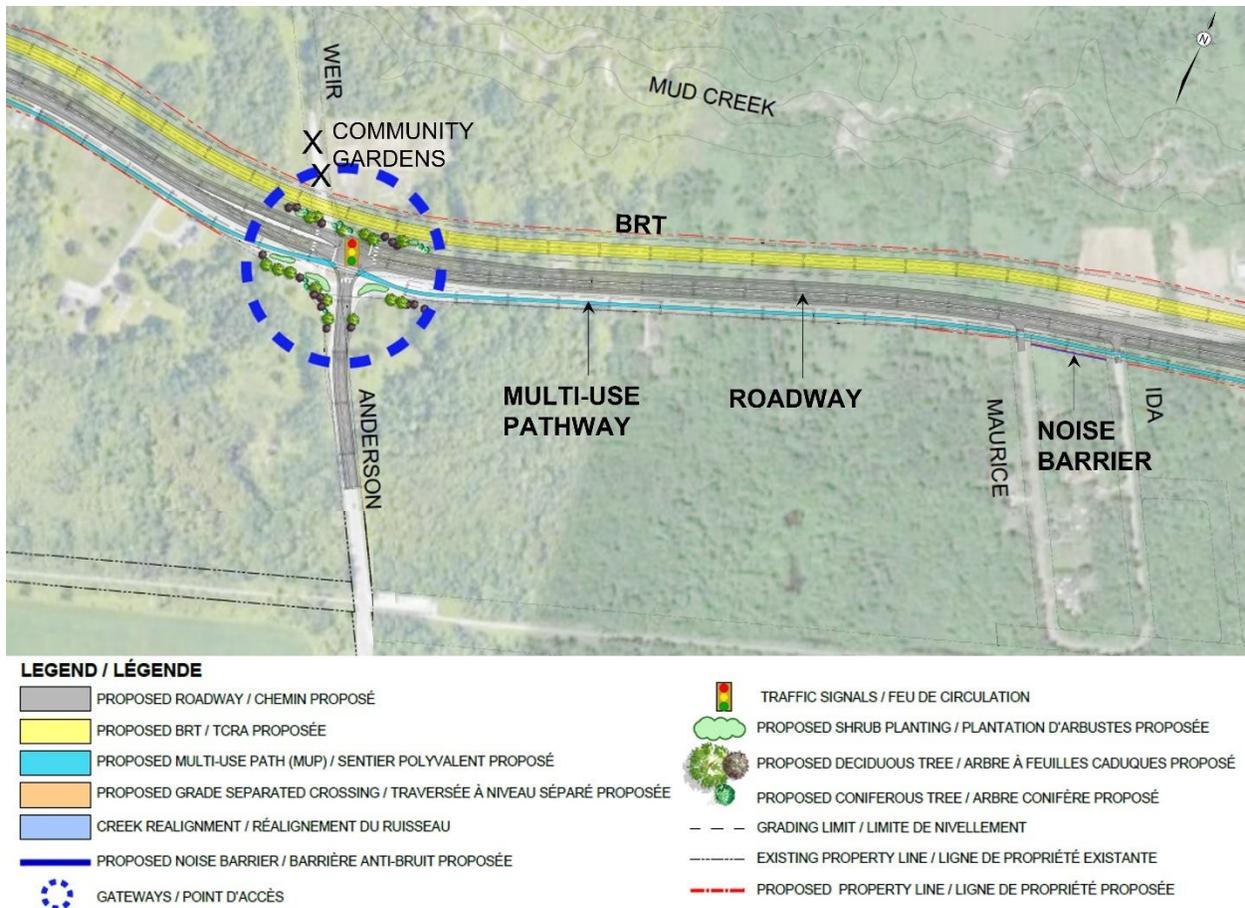


Figure 17: Anderson Road Intersection

Connection to Blair Road and the IWHC Link (Figure 18)

Approximately 400 metres before Anderson Road meets Innes Road, the roadway and BRT diverge onto two separate corridors. The BRT will use the existing Anderson Road right of way, passing under Innes Road via a tunnel, before turning west to follow the north edge of Innes Road to Blair Road. For the new roadway and MUP, they will extend west through existing Greenbelt farmland to connect to a protected signalized intersection with the future IWHC Connection. The EA study for the future IWHC Connection is complete and the segment between Innes Road and Walkley Road will need to be implemented either in advance of or at the same time as this connection.

The future MUP at the IWHC Connection will link north to Innes Road, continuing along the south side of Innes Road to Blair Road. Some widening of Innes Road is required to accommodate the proposed BRT and MUP with little impact to the existing bridge structure at Greens Creek.

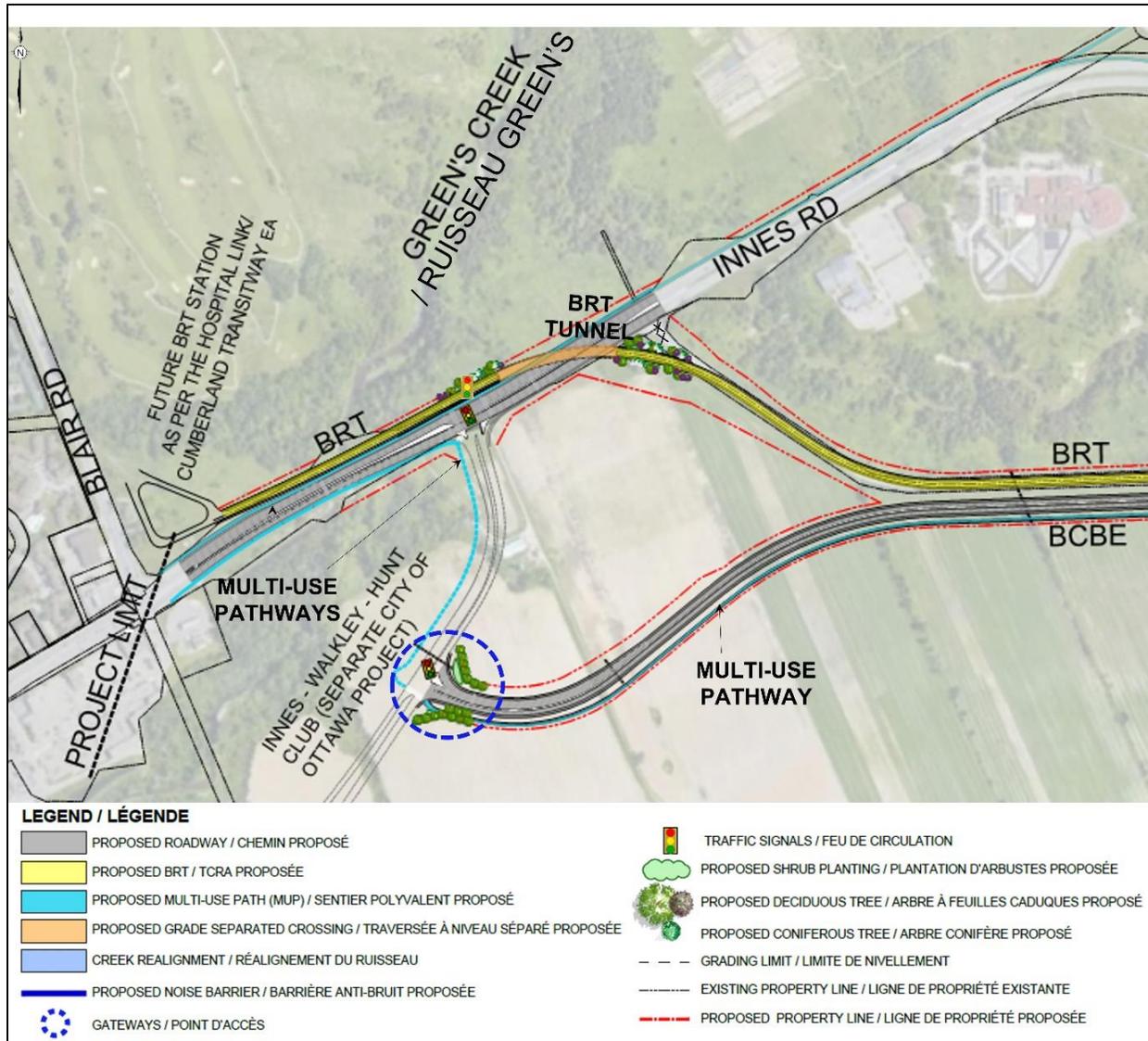


Figure 18: Connection to Blair Road and the IWHC Link

RECOMMENDED INTERIM TRANSIT PRIORITY MEASURES OVERVIEW

Due to the high cost of the Recommended Plan, Interim Transit Priority measures are proposed for the near term, to improve transit travel time and reliability and encourage a transit modal shift. Figure 19 provides an overview of the two areas proposed for localized Transit Priority improvements which include widening of Innes Road for shared Transit Priority and High Occupancy Vehicle (HOV) lanes from the BHBP to Blair Road, approximately two kilometres. The HOV lanes support carpooling, which is part of the City's transportation demand management strategy. New MUPs are also included within the improvement areas to provide active transportation connectivity.

These Interim Measures will require 1.2 hectares of Greenbelt lands and to date, the NCC staff position is neutral, neither supporting nor rejecting these measures even though it is more closely aligned with NCC's preferred Options 1 and 4.

Further details of the Interim Transit Priority Measures are described below with the functional design attached in Document 2.

Typical Cross-Section for Interim Measures (Figure 20)

The typical cross-section for the Interim Measures is shown facing east and just east of Mud Creek. The existing urban cross-section of Innes Road is maintained by keeping the existing raised median and lanes intact with proposed widening to the outside. The width of property frontage required to accommodate the north side multi-use pathway varies.

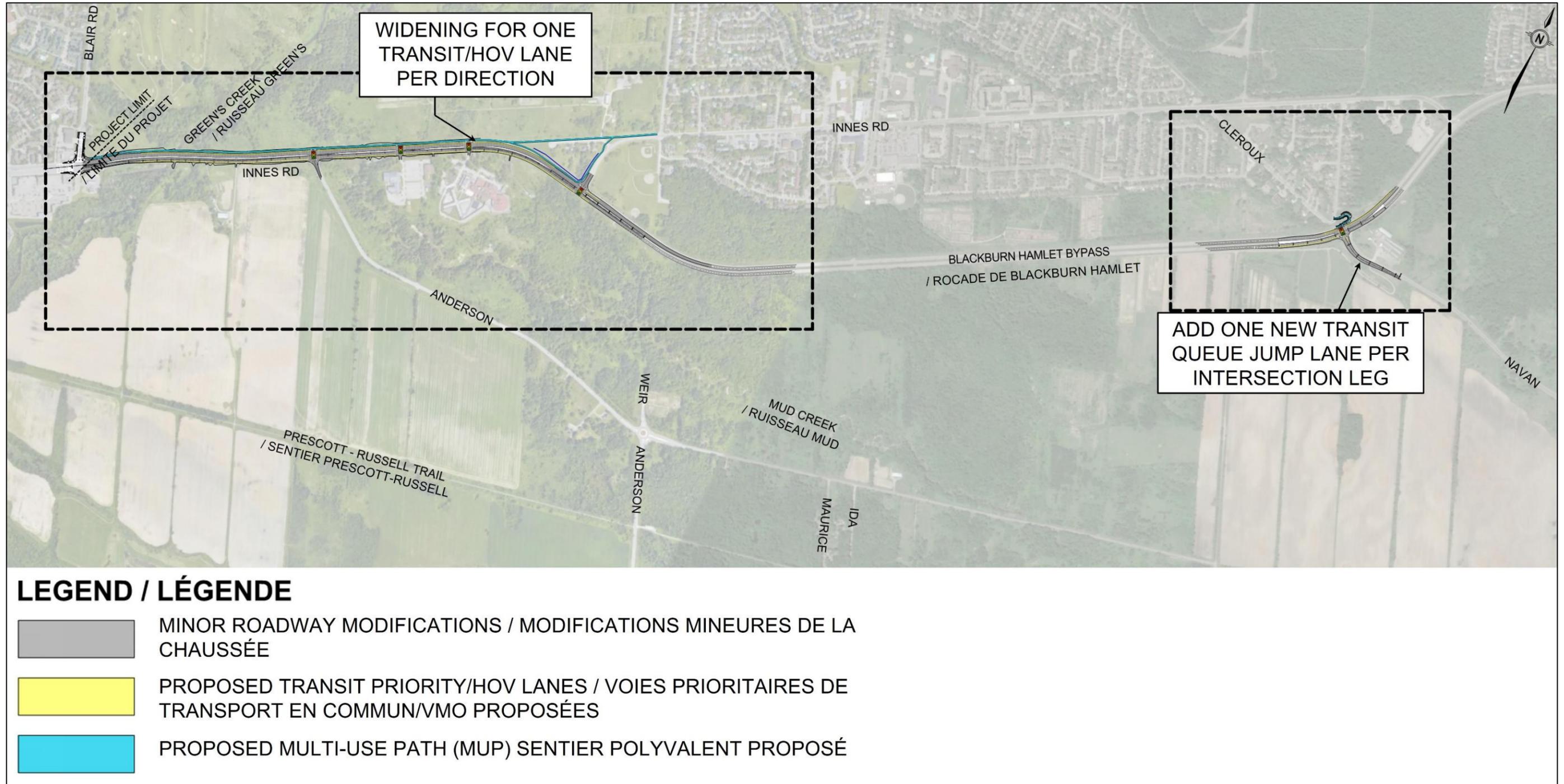


Figure 19: Recommended Interim Measures Overview

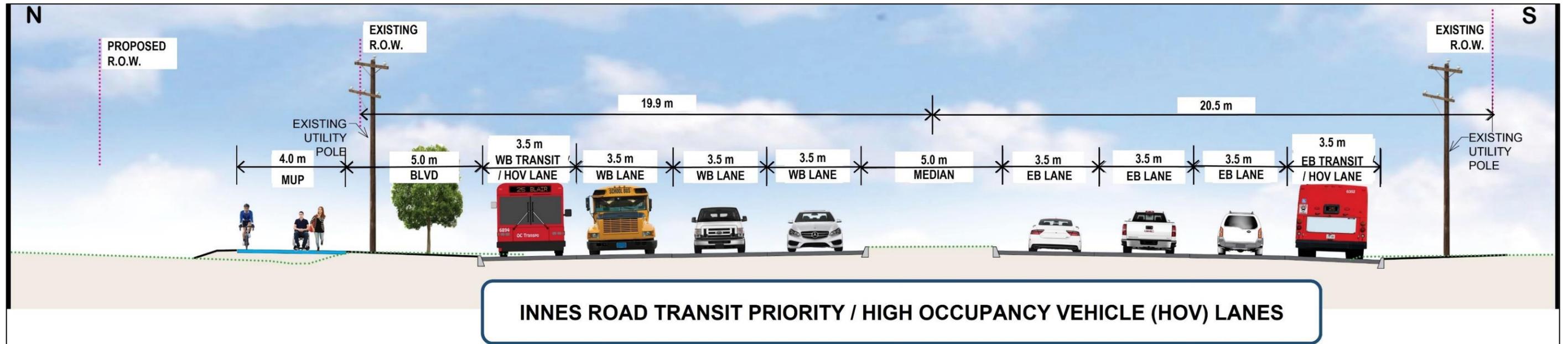


Figure 20: Typical Cross-Section for the Interim Measures along Innes Road

BHBP and Navan Road Intersection (Figure 21)

The Interim Measures propose new localized transit-only queue-jump lanes on each leg of the Navan Road and BHBP intersection to help buses avoid congestion at these locations. A new MUP is proposed between the intersection and Cleroux Crescent to provide connectivity between the Blackburn Hamlet community and Navan Road.

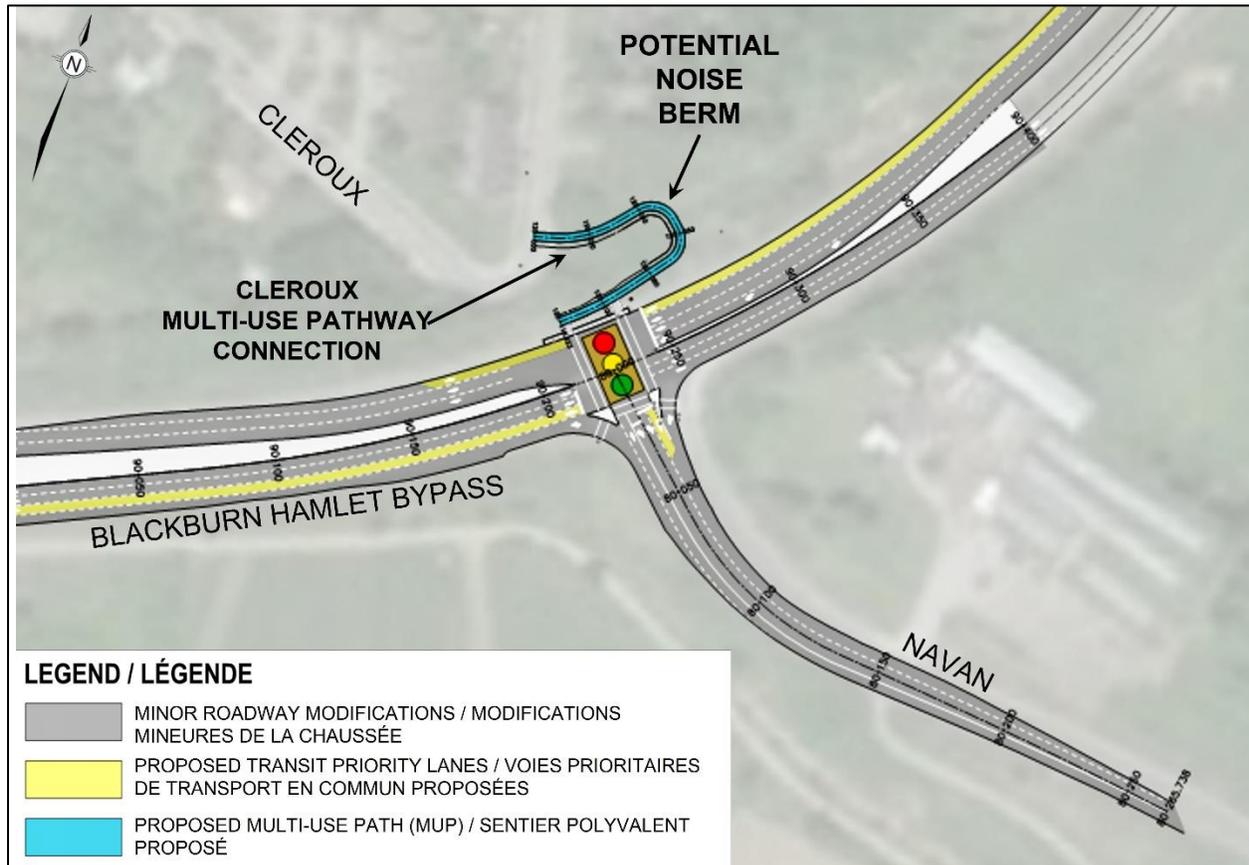


Figure 21: BHBP and Navan Road Intersection

Innes Road Between Blair Road and the Blackburn Hamlet Bypass (Figure 22)

Between Blair Road and the BHBP, the existing on-road cycling lanes along Innes Road will be replaced by a new north side four metre MUP to accommodate active transportation users and serve as a bi-directional cycling facility. This new MUP will extend from Blair Road, connecting to Pepin Court and eventually to the Tauvette Street/Glen Park Drive/Innes Road intersection to provide connectivity to the Blackburn Hamlet community and a planned NCC pathway to the north. The MUP will also extend along Innes Road to the intersection at the BHBP. To provide safe access to the church property on Innes Road, new traffic control signals are proposed.

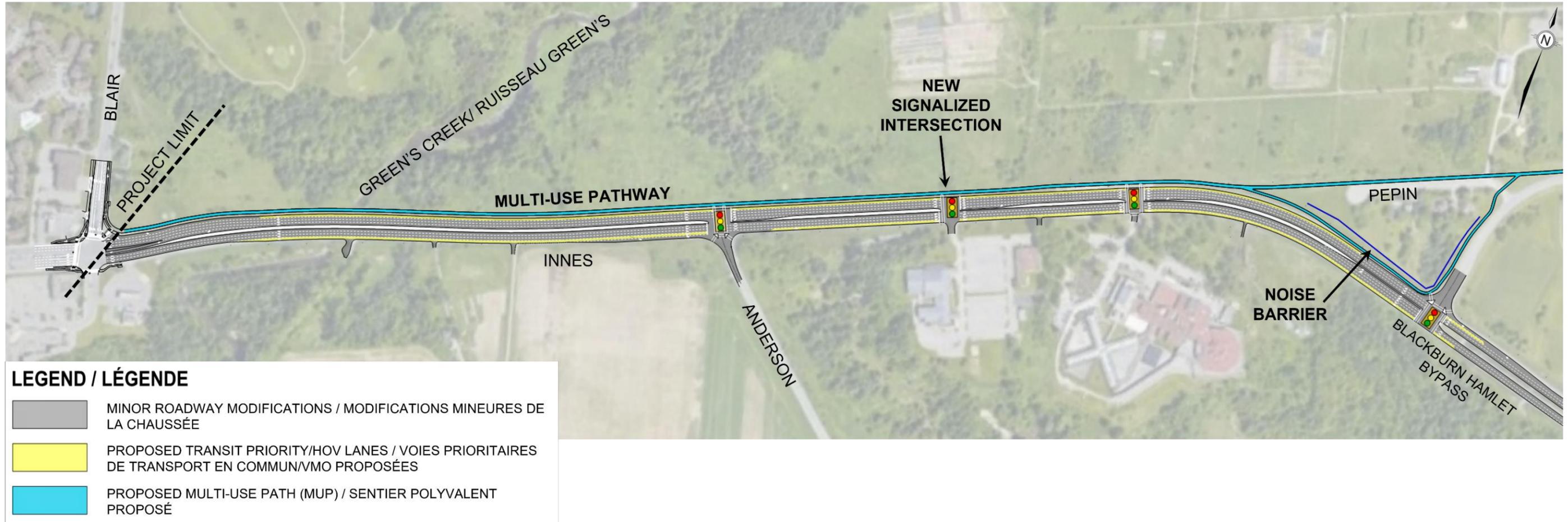


Figure 22: Between Blair Road and Innes Road

Property Impacts

This project requires an estimated 42 hectares of Greenbelt lands and 1.1 hectares of private property for the Recommended Plan. For the Interim Measures, 1.2 hectares of Greenbelt lands are needed. The Recommended Plan requires the removal of two NCC-owned buildings and up to three NCC-owned buildings may be affected along the south side of the new BCB extension.

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 2021 dollars is estimated at \$128M for the Roadway, \$178M for the Transitway and \$22M for the Interim Transit Priority Measures. While the budget to implement the full project is not within the City's current affordability envelope, the lower cost Interim Transit Priority Measures may be more manageable, however it would still be subject to the City's future capital budget priorities and affordability.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendations of this report. Funding for design, construction, property, public art, and contingencies will be subject to future Council consideration and approval.

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendations as set out in this report.

COMMENTS BY THE WARD COUNCILLORS

Councillors Dudas and Kitts provided the following comments:

“As Councillors representing the communities of South Orléans, we support City staff's recommendation to pursue Option 7 as the Technically Preferred Option for the extension of the Cumberland Transitway/Brian Coburn Boulevard corridor. This is a significant, and necessary, piece of transportation infrastructure that will alleviate existing traffic pressures, provide essential bus rapid transit links to LRT and Innes Road, and include cycling amenities.

To date, the communities of Bradley Estates, Eastboro, and Trailsedge have been

allowed to be developed with a complete lack of regard for the surrounding supporting road, transitway, or active transportation infrastructure. The result has been that traffic flowing through these neighbourhoods is all forced onto what are essentially rural roads (Renaud and Navan), onto the already over-capacity Innes Road, or onto Brian Coburn Boulevard, which dead ends at Navan Road.

The situation will only worsen in the next decade as South Orléans is expected to see an increase of 15,424 units built as part of planned developments, representing more than 18 percent of the greenfield development in the entire City of Ottawa. Obviously, this does not even consider the impact of the infill projects that are also being proposed.

Within the Mer Bleue CDP area alone, which is part of South Orléans, there are 96 hectares dedicated for residential development – more residential land than any other Urban Expansion Study Area in the city.

This speaks to the absolute need for the Brian Coburn Extension and Option 7. While it is laudable that the City of Ottawa is supportive of this imperative connection, the NCC is disappointingly still intransigent.

The City of Ottawa has been able to make some significant progress on this project over the past few years, following multiple public consultations and the completion of technical and environmental design work. Option 7 is supported by many, as it is hundreds of millions of dollars cheaper than the other options, runs north of the Mer Bleue Bog and is advocated for by the Friends of Mer Bleue (FOMB), as well as is backed by many local community associations across the east end.

The City approached the project considering multiple design options over the years and these options were then rated relative to each other, as well as compared to a “perfect score”. From that work, Option 7 was then selected by staff and engineers as the City’s official Technically Preferred Plan.

The Option 7 extension to Renaud would be built on disused, already clear-cut, agricultural lands next to the existing hydro corridor; as well as would avoid crossing the deeper Mud Creek Valley and the Core Natural Area as found under Options 1 through 4 or increasing the volume on the Blackburn Bypass as found in Options 5 and 6.

Option 7 also lays the framework for a much-needed future connection to the south end of the city, including the airport, via the already planned Walkley/Hunt Club Extension.

We would also note that the recommended interim transit priority measures will only

continue to funnel traffic and transit onto the already overwhelmed Blackburn Bypass and is not a long-term solution keeping in mind the rapid pace of growth in South Orléans. The interim transit measures should not be seen as a realistic and long-term solution to the transportation challenges in South Orléans and should not be used as a policy rationale in support of more development than the transportation network can accommodate.

We are pleased to see progress on this very important file, as South Orléans both needs, and deserves, adequate transportation infrastructure for residents.

ADVISORY COMMITTEE(S) COMMENTS

The Accessibility Advisory Committee (AAC) was invited to all consultation events and attended two of the four Business and Public Consultation Group meetings. Based on the ACC Motion called Multi-Use Pathways, the Committee Representative requested that accessibility be a key consideration in the study, including a preference for separate cycle tracks and sidewalks in lieu of MUPs and placing benches at regular intervals. To preserve the rural character of the Greenbelt, the Recommended Plan is proposing MUPs and placing benches at regular intervals. The recommendation to have separate cycling and pedestrian facilities was considered; however, given that the pedestrian traffic along this corridor is expected to be low, this feature was deemed to not be warranted for this project. During implementation, opportunities will be explored to widen the MUP to 4 metres.

CONSULTATION

Extensive consultation was carried out for this project involving four rounds of public consultation and is summarized below.

- Four meetings with the Agency Consultation Group with invitations to NCC; Rideau Valley Conservation Authority; Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, Ontario Ministry of Natural Resources and Forestry, Ontario Ministry of Environment, Conservation and Parks; Hydro Ottawa; Transport Action Canada; and various City departments.
- Four meetings with the combined Business and Public Consultation Group with invitations to Community Association members, landowners, business owners, Bike Ottawa, Accessibility Advisory Committee, Friends of Mer Bleue, Greenspace Alliance of Canada, Canadian Parks and Wilderness Society, and other interest groups.

- Indigenous Peoples were also contacted, consisting of three invitations to the public consultations to seek comments and feedback. To date, one response was received from the Mohawk Council indicating they have no need to participate in the study. Additional contact is planned during completion of the EA study including the final document review.
- Three open houses were held to present the study information at various stages of the project. Due to the COVID-19 pandemic, the final open house was held in the form of a web-based video presentation and on-line survey.

Overall, public support is divided for Option 7 and its Recommended Plan. Although there is strong local community support for Option 7 to alleviate transportation concerns, the general public's concerns are related to potential impacts on the natural environment, Mer Bleue wetlands, and climate change.

During the second round of public consultations held in November 2019, while the local residents overwhelmingly supported the project, the study received over 100 form letters from the Canadian Parks and Wilderness Society members opposing the project due to the impacts on the NCC Greenbelt. On the other hand, the Friends of the Mer Bleue community organization sent a letter specifically stating their support for Option 7.

From the final round of consultations, general comments included:

- Concern about natural environment, climate change impacts, proximity to Mer Bleue wetlands, Greenbelt, wildlife, waterways;
- Concern about increasing traffic congestion from increased growth and adding traffic onto already congested routes;
- Request for the closure of the westerly portion of Renaud Road to general purpose traffic;
- Reduce number of traffic control signals, prefer roundabouts such as at Anderson Road and Weir Road;
- Keep and develop transit infrastructure on Innes Road through the Blackburn Hamlet community to Blair Road;
- Proceed with only the BRT as the sustainable mode, not road expansion for general purpose traffic;

- Concern about new infrastructure introducing more noise/vibration disturbances and/or pollution and property impacts;
- Support for more active transportation facilities in more places such as the Cleroux Crescent MUP extension to Chapel Hill Park and Ride and removing channelized right turn lane from the Innes Road and Blair Road intersection; and,
- Should not be supporting further residential growth in this area as it causes urban sprawl.

Document 3 summarizes the consultation process and contains a summary of comments received and responses provided during the study period.

NCC Consultation

Extensive consultation with NCC staff included 14 individual meetings, and three Agency Consultation Group meetings. Engagement with NCC staff began at the outset of the study to introduce the project and begin collaboration and seek comments and feedback. Extensive details of NCC consultation are provided in Document 3.

Once the project identified the four short-listed options, the NCC responded with the first of five letters, effectively stating that Options 1 and 4 are similar to the 1999 study and they would be willing to work with the City on these options, However, they do not support Options 5 and 7 alignment alternatives as they *“do not conform to current Greenbelt Master Plan policies which discourage ecosystem fragmentation, advocate for minimal road density and favour a low infrastructure footprint.”*

Notwithstanding NCC’s position, provincial legislation requires the review, assessment, and evaluation of technically feasible alternatives. Accordingly, the EA study proceeded with developing the evaluation criteria in collaboration with NCC staff to reflect the importance of the Greenbelt and its principles. The collaboration included two meetings and two workshops for the period between December 2018 and May 2019 and NCC staff comments were incorporated in the evaluation. For example, NCC staff commented that the criteria needed to focus more on policy and provided the study team with additional input that were incorporated and reflected in the evaluation.

In June 2019, City staff shared the preliminary results of the evaluation ranking Option 7 as the Technically Preferred Option. NCC responded with a letter dated August 16,

2019, that NCC is willing to work with the City on Options 1 and 4, but do not support Options 5 and 7 as:

- They do not “conform to the Greenbelt Master Plan, the City’s existing Transportation Master Plan, and the Letter of Understanding related to the joint Cumulative Effects Study.”
- They will result in “fragmentation, isolation and degradation of the environmental and agricultural lands....”
- They will have “direct and indirect effects to natural resources”, and “risk more intensive use of Anderson Road, an arterial road that passes through Mer Bleue wetland, a RAMSAR site that is home to Species at Risk and is designated Core Natural Area within the Greenbelt Master Plan.”

City staff indicated to NCC that the study did consider the project’s impact on the natural environment, social environment, transportation implications and project cost and that the evaluation criteria was developed in collaboration with and based on detailed input from NCC staff, which resulted in Option 7 ranking highest overall. Further sensitivity testing also confirmed this result.

Following the second Open House held in November 2019 and to address NCC’s concerns on the Technically Preferred Option 7, a third workshop was held with the NCC. The concerns and the City’s responses are summarized in Table 2.

Table 2: Summary of NCC Concerns on Evaluation and Technically Preferred Option 7

| |
|---|
| NCC – Proposed design is not consistent with NCC plans for the Greenbelt which called for the bundling of infrastructure in existing corridors. |
| City – The Recommended Plan (Option 7) includes the shortest length of new infrastructure corridor in the Greenbelt of 2.5 kilometres in comparison to 4 kilometres for Options 1, 4 and 5. The Recommended Design bundles the expanded road/transit corridor with parts of Renaud Road, Anderson Road, and Innes Road. |
| NCC – Fragmentation of the Greenbelt ecological areas. |
| City – The Recommended Plan (Option 7) ranked a close second under Natural Environment to Option 1 and has significantly less encroachment on Greenbelt Core |

Natural Areas of 1.3 Hectares when compared to Options 1, 4 and 5, all with 3.6 to 5 hectares of encroachment.

Loss of vegetation / natural habitat will be addressed through an Ecological Restoration and Enhancement Plan to offset losses, enhance existing habitat quality and potentially create new habitat features. Wildlife crossings and road exclusion fencing are proposed to mitigate potentially increased wildlife mortality. A Landscape Mitigation Strategy will address potential impacts to the Greenbelt's natural and rural landscape.

NCC – Fragmentation of the Greenbelt farms.

City – The Recommended Plan (Option 7) includes a lower area of farmland lost of 20.8 hectares when compared to 25.4 hectares in Option 1 and 19.1 hectares for Option 4. Option 7 also impacts a lower number of 6 farms, while Option 1 impacts 9 farms and 10 farms for Option 4. A grade-separated crossing of the Transitway is proposed between Navan Road and Mud Creek to provide a trail crossing and farm vehicle access to serve existing farmland.

NCC – Impacts to Mud Creek, potential fisheries impacts and slope stability concerns.

City – The Mud Creek Subwatershed Study identifies the Creek as a primarily warmwater system supporting a diverse bait/forage fish community that is currently being impacted by runoff from adjacent land uses and ongoing erosion issues. Many of these impacts could be reduced by maintaining or improving the vegetated buffers along the creek and its tributaries. Fish passage and natural channel flow regimes are proposed to be maintained at all new water crossings. A proposed approximately 300-metre-long realignment of Mud Creek provides an opportunity to improve existing creek conditions through natural channel design and terrestrial and aquatic habitat enhancements.

The Recommended Plan (Option 7) encounters somewhat larger areas of potential slope stability issues compared to Options 1 and 4. As per the existing crossing of Mud Creek, creek flows will be conveyed with a culvert to address slope stability. Slope stabilization and erosion protection measures will be applied at this location and elsewhere as required.

NCC – Impacts to Mer Bleue and other wetlands.

City – The Recommended Plan does not fall within the internationally designated RAMSAR Mer Bleue boundary and only skirts a short stretch of the Mer Bleue wetland where a finger of the wetland touches the south side of existing Renaud Road east of Anderson Road. The Project also proposes to relocate a stretch of existing Renaud Road, west of Bradley Estates, to outside the RAMSAR designated Mer Bleue boundaries.

Key Actions identified in the RAMSAR Management Plan for Mer Bleue state that new or expanded transportation and utilities infrastructure should not result in any *net loss* of wetland function. Compensation and mitigation measures will be put forward to meet this requirement and may include eco-passageway culverts as amphibian crossings and/or invasive species mitigation, educational signage and other measures.

Project Ecological Restoration and Enhancement Plans will address installation of key habitat features, management of invasive species, adaptive management and contingency measures.

Surface water quantity control and quality control are also areas of concern. It is proposed that water quantity control (post to pre-development) and erosion threshold protocols be followed as general stormwater criteria through the detail design process. An enhanced water quality target of 80% Total Suspended Solids (TSS) removal will be required for water quality treatment.

A subsequent letter from the NCC's CEO, dated September 2, 2020, indicated that "*the NCC Board of Directors passed a resolution (enclosed) on August 25, 2020...affirming its position that federal lands required to implement the Brian Coburn Boulevard /Cumberland Transitway extension alignment Options 5 and 7 will not be made available by the NCC.*"

To address NCC's position, City staff developed a preliminary compensation and mitigation strategy in the form of a land exchange, offering 47 hectares of City land within the same Greenbelt area to reinitiate discussions with the NCC. On December 8, 2021, NCC staff responded in writing indicating that the City's proposal does not offer reasonable compensation for the loss of ecological, agricultural, and functional integrity of the Greenbelt. NCC staff would only consider Options 1 and 4 for further refinement.

For the Interim Measures that require 1.2 hectares of Greenbelt lands, NCC staff position is neutral, neither supporting nor rejecting these measures even though it is more closely aligned with NCC's preferred Options 1 and 4.

Although this EA study is following the EA Act of Ontario, NCC approval will be required during implementation of the Recommended Plan since it is subject to the "*Federal Land Use, Design and Transaction Approval Process*."

ACCESSIBILITY IMPACTS

This project has been designed to meet the City of Ottawa Accessibility Design Standards, as well as the *Accessibility for Ontarians with Disabilities (AODA) Act*. Active Transportation connectivity is proposed for the project in both the Recommended Plan and the Interim Measures. For the Recommended Plan, connectivity to the Chapel Hill transit station includes localized MUPs on the north and south side of BCB and the roundabout has been designed to current accessible standards. All new signalized intersections have been designed as protected intersections. For the Interim Measures, widening for shared transit priority and HOV includes a MUP on the north side of Innes Road and the proposed MUP between Cleroux Crescent to Innes Road has been designed to current accessible standards.

CLIMATE IMPLICATIONS

In December 2017, the Ministry of the Environment and Climate Change (MOECC) released guidelines titled "Considering Climate Change in the Environmental Assessment Process" which lays out the Ministry's expectations for project proponents to consider including the potential effects of a project on climate change, and the potential effects of climate change on a project.

Early in the study, climate change mitigation and adaptation were considered during the evaluation of the four short-listed options and is carried through to implementation. Some of the potential hazards identified for this project include extreme rain impacts to the roadway / transitway, bridges, and culverts; freezing rain impacts to overhead wires, roadways and walkways; extreme heat impacts to public health; and extreme wind impacts to landscaping and emergency access routes. To mitigate these impacts, adaptation options for the project may include engineering and technological solutions, as well as policy, planning, management and maintenance approaches.

This EA also considered the project's potential impact on GHG 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. Examples of potential climate related hazards and risk treatment options for the project include: more frequent severe storm events with increased runoff of roadway drainage may require larger roadside ditches and/or storm sewers; more frequent severe storm events may affect creek / channel erosion and slope stability requiring additional protection measures, monitoring and maintenance; and, increased frequency of extreme heat days may require additional shading and/or landscaping protection at the Chapel Hill transit station or at bus stops along Innes Road.

While the roadway component will help address current congestion, there will be GHG emissions until electric vehicles are fully implemented. The Interim Transit Priority Measures and Recommended Plan provide new infrastructure for sustainable modes of active transportation and transit. This will encourage carpooling via the use of HOV lanes and walking and cycling through the provision of multi-use pathways. Furthermore, a more efficient transit service will attract more transit use thus reducing GHG emissions.

It is recommended that climate change adaptation measures be considered during detail design including those related to flood design, stormwater management, selection of plant species for landscaping, the provision of shaded rest areas and erosion protection. This will be particularly important in relation to the natural channel design for the realignment of Mud Creek. To account for increases in rainfall intensities due to climate change, the design of culverts should be based on projected future rainfall events and the design of storm sewers shall be checked against the 100-year storm plus 20%. It is also proposed that sustainable design principles be followed including consideration of low carbon material selection and sourcing.

ENVIRONMENTAL IMPLICATIONS

This project will be designed and implemented with the benefit of current planning, engineering, and environmental management practices with regard for the legislation, policies, regulations, guidelines, and best practices of the day. Mitigation measures will be prescribed in the construction contracts and specifications. A summary of some key environmental impacts and mitigation measures are described below with more detailed descriptions available in Document 4.

Geotechnical Conditions

This project is in an area where the subsurface conditions generally consist of fill overlying a thick deposit of firm to very stiff silty clay. The groundwater level varies from about 1.3 to 2.9 metres below ground surface, with seasonal fluctuations. The silty clay beneath this site has a limited capacity to support additional stresses caused by foundation loads and/or grade raises. Lightweight fill (LWF) materials could be considered for any infilling or embankment exceeding 2.5 m in height, thereby reducing the stress increase on the compressible clay and mitigating the anticipated settlement. Conventional cast-in-place concrete retaining walls and bridges need to be supported on deep foundations driven to bedrock, as shallow foundations would not provide sufficient bearing resistances or acceptable settlement performance for the structure.

Embankment / Excavation Stability

Embankments will be required at various locations throughout the study area, including at the farm / MUP underpass crossing the BRT. The clay deposit is relatively weak within the study area and therefore the potential for deep-seated rotational shear failure (i.e., bearing capacity failure) of the embankment subgrades exists. Detailed design will need to confirm LWF material requirements to avoid excessive settlements and provide an adequate factor of safety against instability.

Unstable Slopes and Ravines

This project will likely encroach into ravines associated with Green's Creek and Mud Creek. The stability of the Mud Creek slopes has been documented and certain segments are known to be active for slope failures, largely connected to active erosion undercutting the toe of slopes within the creek. Encroachment in ravines associated with the watercourses poses potential fluvial geomorphological risks / impacts to Green's Creek and Mud Creek. An Erosion Allowance of 8 metres will need to be included in the determination of the Limit of Hazard Lands given the active erosion observed along many portions of the Mud Creek bank. This value can be reduced in areas that have an existing flood plain width or where erosion control measures are being considered.

Erosion protection is required west of the Renaud Road and BCB intersection, where the Mud Creek realignment is proposed and where the recommended set-back may not be achievable. Erosion protection measures may include erosion protection riprap, placed on a maximum two horizontal to one vertical front slope up to the 100-year storm level plus 20% and underlain by a non-woven geotextile, channeling of tributary flows with open ("half-pipe") culverts along steep grades and partial infilling and live crib walls.

The clay soil at this site is susceptible to erosion particularly at the outside bends of the valley slopes. Concrete closed box culverts are considered most feasible since the foundation loads are distributed over a larger area, resulting in lower foundation stress levels, and therefore reduced settlement magnitudes (as opposed to a rigid frame open box culvert). However, open box culvert(s) with piled foundations to bedrock could also be considered. Modifications within the Mud Creek Channel will be designed and constructed with oversight and input from fluvial geomorphologists or other channel design experts.

The RVCA noted slope stability issues and the risk of landslides at locations where the recommended alignment is close to Mud Creek. The RVCA recommended that additional geomorphological study, slope stability analysis and landslide hazard assessment be conducted prior to finalizing an alignment. The analysis completed for this study provided Limit of Hazard Lands assessment offsets along Mud Creek within the study area that are considered sufficient at this planning stage. The City will undertake more detailed investigations and assessments to manage and identify appropriate mitigation during the design phases.

Geomorphology – Mud Creek Realignment

Realignment of Mud Creek poses potential fluvial geomorphological risks / impacts to the watercourse. More detailed hydraulic modeling should be prepared during detailed design to ensure that the implementation of the proposed measures do not negatively impact adjacent property. Erosion thresholds, cumulative impacts and changes to peak flow resulting from the project will need further consideration during detailed design.

Where stormwater management alone may not be sufficient, recommendations for in-stream works will be made. Where possible, it is proposed to increase the watercourse vegetated buffer and increase the resilience of the creek bed and banks by providing a layer of less erodible materials to protect the underlying finer creek substrate.

Surface Water – Stormwater Management

This project will increase the impervious surfaces and will lead to recurring increases in stormwater runoff peak and volume following rain events with enough rainfall to generate runoff into adjacent watercourses.

For the Recommended Plan, runoff quality treatment and quantity control (peak flow attenuation) will be achieved through enhanced grass swales with rock check dams and vegetated filter strips. Detailed design will evaluate enlarging culverts to allow for better

distribution of water flow, where culvert replacements are necessary to mitigate the effects of flash flooding events within Mud Creek. Natural channel design such as roots wads/live stakes will be considered for bank stabilization and water quality improvements.

For the Interim Measures, modifications to Innes Road will require runoff quality treatment and quantity control through one or more of: new perforated storm sewer systems to capture the first flush runoff; conversion of the median area to Low Impact Development (LID) feature such as a rain garden or infiltration trench; oil and grits separators; and/or grass swales with rock check dams outlet from roadside catch basins where the identified right of way allows.

Fish and Aquatic Species – Mud Creek Realignment

Both land-based and in-water activities are anticipated to result from the proposed works, including Excavation, Grading, Vegetation Clearing, Use of Industrial Equipment, Change in timing, duration and frequency of flow, and Wastewater Management. The Mud Creek realignment will alter the naturally occurring watercourse. The overall goal of the creek realignment will be to improve or limit potential impacts on both aquatic life and aquatic systems, and wildlife and terrestrial systems (e.g. riparian areas).

It is recommended that the Mud Creek realignment design incorporate natural channel features and meanders as well as fish and aquatic habitat and may include riffles, pools and breeding areas. The goal is to increase and enhance the riparian vegetation buffer along Mud Creek and re-establish areas where riparian features are absent or inadequate. Culverts and/or water crossings will be designed to maintain fish passage and natural channel flow regimes will be maintained to avoid accelerated erosion and scouring in downstream areas.

Wetlands

Approximately 0.8 hectares of unevaluated wetlands may be impacted by the project, while approximately 8 hectares of unevaluated wetlands may be directly affected by the project activities when a 120 metre buffer is applied to the Recommended Plan. The Federal Policy on Wetland Conservation requires a No Net Loss of Wetland Functions for wetlands on federal property. A project specific “*Wetland Mitigation Plan*” will be developed during detailed design in consultation with the NCC. The Plan will identify a series of measures to limit and where required offset the loss. In accordance with the Federal Policies, a 4:1 compensation will be required, though compensation does not need to be strictly area based and may include natural and/or social enhancements and

would be subject to review and approval from Environment and Climate Change Canada. Compensation may include eco-passage road culverts as amphibian crossings and/or invasive species (i.e. buckthorn) mitigation, educational signage or other measures as determined in consultation with appropriate authorities.

Significant Wetlands (Mer Bleue Bog RAMSAR)

The Recommended Plan does not intersect directly with the Mer Bleue Bog Ramsar Wetland of International Importance (Ramsar Convention) boundary or Provincially Significant Wetland (PSW) limits, which overlap but which are not exactly the same. Construction of the project does have the potential to have temporary indirect impacts on the Mer Bleue Bog. Based on the RVCA Wetland Policy, alterations within 120 metres adjacent to a regulated wetland is not permitted. This 120-metre buffer has been applied to the Recommended Plan for the purpose of evaluating the project's potential effect on significant (provincially and internationally) wetlands.

The 120-metre buffer extends close to the Ramsar boundary south of the existing Renaud Road / Anderson Road intersection and extends into the Ramsar boundary (an area of 4.9 ha.) along a section of Renaud Road west of Bradley Estates. However, the area of indirect impact that is currently within the Ramsar boundary is associated with the existing section of Renaud Road that is proposed to be relocated outside of the boundary and also some minor work associated with a new MUP connection to the Prescott-Russell Trail. Based on the 120-metre buffer, the project may indirectly affect an area of approximately 3.4 hectares of PSW.

There are potential impacts within the NCC's Mer Bleue Management Area which extends well beyond the Ramsar boundary limits. The project has the potential to result in an increase in recreational activity, pets, noise, light pollution and waste dumping due to proximity of the new infrastructure. Change in land use may affect the quality and quantity of the Mer Bleue Wetland, including an opportunity for introduction of exotic and invasive species. Proximity of the proposed MUP and associated recreational activities may result in visitors walking off-trail causing damage to the bog.

Design consideration has been given to reducing proximity and potential impacts to the footprint of the wetland. Field investigations to confirm significant wetland features and boundaries are recommended closer to the time of design and implementation in order to properly identify wetland conditions at the time of construction. It is proposed that the "*Ecological Restoration and Enhancement Plan*" address management of invasive species, installation of key habitat features, contingency measures and adaptive

management. Consultation with the NCC will be required to implement various recommendations and key actions to achieve objectives as outlined in existing wetland management plans including, the “*Mer Bleue Wetland Management Plan*” (NCC, 2007) and the “*Ramsar Handbook for Addressing Change in Wetland Ecological Character.*”

The “*Ecological Restoration and Enhancement Plan*” will be developed in consultation with the NCC, and will identify a series of measures to limit, and where required, offset the impacts of the final project footprint, as determined in detailed design. On-going collaboration with the NCC in advance of design should be undertaken to implement some of the key actions as identified in the 2007 Mer Bleue Management Plan. Actions to consider may include:

- Develop effective strategies to ensure the long-term viability of species at risk occurring in the Mer Bleue Management Area.
- Map priority habitats to ensure maintenance of composition and structure of native vegetation communities.
- Identify appropriate prevention and control methods for invasive species that threaten native plant species and communities. Promote public awareness of, support for, and involvement in the control of non-native plants.

Species at Risk

Based on the information gathered during the background review and results of the screening level field investigations, there is potential for several Species at Risk (SAR) to be found within the project area including Butternut, Black Ash, Monarch Butterflies, Blanding’s Turtle, Snapping Turtle, Western Chorus Frog, Spotted Turtle, Bobolink, Eastern Meadowlark, Evening Grosbeak and SAR bats (including Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis and Tri-colored Bat). Potential environmental effects and proposed mitigations are provided in the attached Document 4. Detailed field surveys will be undertaken prior to construction to confirm potential impacts to Species at Risk and the required mitigation.

Land Use – Greenbelt Core Natural Areas and Natural Link Areas

The Recommended Plan will encroach on Greenbelt designated areas including Core Natural Areas (one hectare) and Natural Linkages (10 hectares). Overall protection / enhancement of the Greenbelt will include general Best Management Practises (BMPs) during construction such as preventing the introduction of invasive species within the

project area, especially around significant and sensitive natural features. Introduction of invasive species (ex: Wild Parsnip) has the potential to reduce species diversity, encroach on wildlife habitat and out-compete native species. To mitigate this potential, all equipment must arrive onsite clean and any invasive growth within the project area or adjacent lands must be controlled.

The City, in partnership with the NCC will develop enhancements to the existing Mer Bleue Sector features; plan for trail improvements, add new signage or interpretive resources (ex: QR Code) to improve visitor experience and understanding of ecological impacts. To re-establish vegetation within Greenbelt Core Natural Areas, install erosion blankets with native seed mix coupled with plantings of trees and shrubs to restore disturbed areas as well as exposed areas along watercourses and wetland areas. Seed mixes for these areas will include species which will thrive in that specific soil type and also include pollinator plants such as milkweed and butterfly weed to provide habitat for Monarch.

There is potential for habitat fragmentation following construction. To mitigate impacts to movement patterns of reptiles and amphibians, the design of culverts will consider wildlife passage.

Noise and Vibration

The Recommended Plan will result in increased noise levels within noise sensitive areas. Noise attenuating berms, walls, or a combination thereof, will be required and have been incorporated into the design for both the Recommended Plan and Interim Measures.

Increased traffic noise from the Recommended Plan will require mitigation with noise barriers of 2.8 metres in height at 2870 Navan Road, 2253 Maurice Street, 70 Whispering Winds Way, in addition to the lots north of Whispering Winds Way and Percifor Way. For the Interim Measures, a three-metre barrier wall will be required to reduce noise levels at 2354 Pepin Court.

Vibration levels are not expected to exceed the level commonly considered perceptible by most building occupants. Future vibration would also be negligible with respect to the risk of structural damages or even cosmetic damages to building finishes.

INDIGENOUS GENDER AND EQUITY IMPLICATIONS

There are no gender and equity implications.

Consultation with Indigenous Peoples was carried out in accordance with provincial legislation and is documented in the Consultation section of this report. To date, no concerns have been raised by Indigenous Peoples.

RISK MANAGEMENT IMPLICATIONS

There are risk implications and they have been described in the report, including property requirements from the NCC. The NCC Board of Directors has voted against making the lands available for the recommended Option 7. Therefore, continuing dialogue to define a mutually acceptable mitigation and compensation strategy is required to advance this project to implementation.

Stakeholders can also “appeal” to the Ministry of Environment, Conservation and Parks (MECP). This appeal is referred to as a request for a Part II Order. It should be noted that the MECP will only accept requests related to adverse impacts on constitutionally protected Aboriginal and treaty rights. To date, this issue has not been raised.

RURAL IMPLICATIONS

The rural implications of the project have been considered within the context of both the impact on the rural nature of the surrounding Greenbelt and the current rural activities controlled by the NCC in the surrounding area. This includes farming, greenspace, recreational activities and opportunities and wildlife. These have been considered in the selection of the preferred option. The individual components are under the management of the NCC and will be subject to their guidance and approval during design and ultimately implementation. Opportunities are present to either activate/enhance some features of the Greenbelt (i.e. recreation/ agriculture/ education) or isolate and protect sensitive areas (Mer Bleue Wetland). Discussion will continue with the NCC with consideration of this project as well as cumulative impacts.

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; and,
- Transportation infrastructure investments is sustainable and meets long-term needs.

SUPPORTING DOCUMENTATION

Document 1 Evaluation of Road and Transit Corridor Options

Document 2 Functional Design of Recommended Plan and Interim Measures

Document 3 Public Consultation

Document 4 Environmental Impacts and Mitigation Measures

DISPOSITION

Following Transportation Committee and Council approval of the report recommendations, the Planning, Real Estate and Economic Development Department will undertake the steps necessary to complete the Environmental Assessment study in accordance with the Ontario Environmental Assessment Act.