



# **White's Bridge Reconstruction on Columbus Road West of Country Lane Municipal Class Environmental Assessment Addendum (Revision to Schedule 'B' Project)**

Prepared for:

The Town of Whitby

**GHD** | 65 Sunray Street Whitby Ontario L1N 8Y3 Canada

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## Executive Summary

In November 2011, the Town completed a Schedule 'B' Municipal Class EA for the replacement of White's Bridge on Columbus Road west of Country Lane (Notice of Completion issued November 25, 2011). Based on a bridge appraisal report undertaken in 2009, it was recommended that a structural replacement was required to alleviate a deck width deficiency and to address other safety concerns and deficiencies. The Preferred Solution in 2011 was to remove and replace the existing White's Bridge.

The Municipal Class Environmental Assessment (Class EA) process provides proponents with flexibility in terms of implementation of a proposed undertaking. From a timing perspective, the Municipal Class EA process allows a proponent up to 10 years to commence construction of a project from the time the Notice of Completion has been filed, so long as all other permits and approvals are obtained.

For the White's Bridge reconstruction project, there are a number of permits and approvals that are required and not yet obtained, as well as the development of detailed design and other required contract/ tender agreements. Upon review of the additional work required to implement the Preferred Solution outlined in the 2011 **White's Bridge Reconstruction on Columbus Road West of Country Lane** Project File Report (PFR), it is clear that the Town will not be in a position to commence construction prior to November 25, 2021.

With this in mind, the 2011 PFR must be amended in accordance with Municipal Class EA requirements for revisions to Schedule 'B' projects in order to review the planning and design process to ensure that the project and the mitigating measures are still valid given the current planning context

As part of this PFR Addendum, the Preferred Solution identified in 2011 remains unchanged, which is to remove and replace the existing White's Bridge. This PFR Addendum has expanded upon the previously reviewed horizontal and vertical alignment options associated with the bridge replacement to carry this project forward into detailed design and to review and confirm that under the current environmental setting, the potential effects can be appropriately mitigated.

The preferred vertical alignment identified in this PFR Addendum is to provide a flatter curve and eliminate the need for road illumination.

As part of this PFR Addendum, it was determined that the preferred horizontal alignment alternative to carry into detailed design is to maintain the existing centerline of Columbus Road; this alternative doesn't introduce an alignment shift on a sag curve on a straight section of road and provides a cross section that meets the current and future public needs for the site.



This PFR Addendum reviews the current environmental setting based on the amount of time that has passed since the original 2011 PFR was completed. The results of this Addendum show that the potential impacts are minor and easily mitigated. Further, it has been suggested that from an environmental, economic, and social impact perspective that the Town construct the ultimate four lane substructure when the initial two lane bridge is built. This approach minimizes the construction duration and effort required to build the four lane bridge, reduces the extent of future excavation required and mitigates the amount of future work required within and near the watercourse, which has been identified as a SAR habitat.

Further permits and approvals are required prior to construction, which will be carried out subsequent to this PFR Addendum during detail design.



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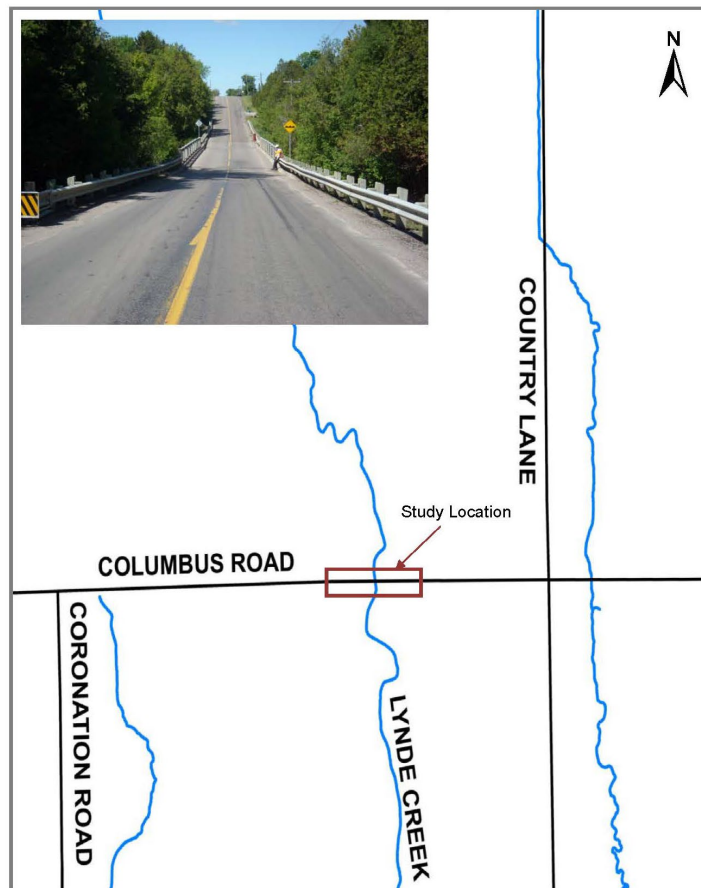
## **Appendix Index**

Appendix A – Revised Notice of Completion

# 1. Introduction

This document describes the proposed changes to the **White’s Bridge Reconstruction on Columbus Road West of Country Lane** Project File Report (PFR) undertaken by the Town of Whitby (the Town) in 2011<sup>1</sup>. In accordance with the Municipal Class Environmental Assessment (Municipal Class EA), this Addendum contains a description, rationale and implications of the proposed changes, including proposed mitigation measures.

White’s Bridge is located on Columbus Road West, west of Country Lane, in the Town of Whitby, Regional Municipality of Durham. The Municipal Class EA Study Area is focused on White’s Bridge and its approaches on Columbus Road, as well as the surrounding natural environment of Lynde Creek (**Figure 1**).



**Figure 1 White’s Bridge Municipal Class EA Study Area**

<sup>1</sup> For the original White’s Bridge Municipal Class EA Project File Report, visit <http://www.whitby.ca/whitesbridge>





## **1.1 Background**

In November 2011, the Town completed a Schedule 'B' Municipal Class EA for the replacement of White's Bridge on Columbus Road west of Country Lane (Notice of Completion issued November 25, 2011). Based on a bridge appraisal report undertaken in 2009, it was recommended that a structural replacement was required to alleviate a deck width deficiency, and other safety concerns and deficiencies. In summary, the following items were identified as a concern:

1. Severe erosion at the northwest and southwest embankments resulting in poor condition of the west abutment. Embankment rehabilitation and erosion protection is required.
2. The existing bridge width is a safety concern as it does not meet current code requirements.

Therefore, the intent of the 2011 Municipal Class EA study was to evaluate alternative solutions to address the deficiencies in the existing White's Bridge.

A total of six alternative solutions were evaluated:

1. Do Nothing – no change to the bridge or current operation of the road.
2. Bridge Repair – repair the existing bridge structure to address known deficiencies.
3. Bridge Reconstruction – replacement of the existing bridge with a new structure.
4. Road Closure – permanent closure of the section of Columbus Road at White's Bridge.
5. Diversion of Traffic – long-term re-routing of traffic until such time as bridge safety issues can be addressed.
6. Bridge Modification – changes to the bridge to widen the structure to correct the width deficiency.

Each of the alternatives was evaluated on the basis of how well the identified deficiencies in the White's Bridge could be addressed.

## **1.2 Rationale for Class EA Addendum**

The Municipal Class EA process provides proponents with flexibility in terms of implementation of a proposed undertaking. From a timing perspective, the Municipal Class EA process allows a proponent up to ten years to commence construction of a project from the time the Notice of Completion has been filed, so long as all other permits and approvals are obtained.

As per Section A.4.1.1 (Revisions to Schedule B Projects) of the Municipal Engineers Association Class EA document:

“...if the period of time from filing of the Notice of Completion to the proposed commencement of construction for the project



exceeds ten (10) years, the proponent shall review the planning and design process to ensure that the project and the mitigating measures are still valid given the current planning context.”

Therefore, to avoid the ten year time lapse of the White’s Bridge Municipal Class EA, some form of construction would need to commence prior to November 25, 2021.

For the White’s Bridge reconstruction project, there are a number of permits and approvals that are required and not yet obtained, as well as the development of detailed design and other required contract/ tender agreements. Upon review of the additional work required to implement the Preferred Solution outlined in the 2011 **White’s Bridge Reconstruction on Columbus Road West of Country Lane** PFR, it is clear that the Town will not be in a position to commence construction prior to November 25, 2021.

With this in mind, the 2011 PFR must be amended in accordance with Municipal Class EA requirements for revisions to Schedule ‘B’ projects in order to review the planning and design process to ensure that the project and the mitigating measures are still valid given the current planning context.

### **1.3 Municipal Class EA and Addendum Process**

The Municipal Engineers Association Class EA document outlines the addendum process for a modification or change in the environmental setting (including changes in environmental regulations) that occurs after the PFR has been filed or if the time between the filing of the Notice of Completion in the public record to the proposed commencement of construction exceeds ten years. In these instances, a proponent will review the planning and design process to ensure that the project and the mitigating measures are still valid. These reviews are to be included in the PFR Addendum and the proponent will issue a “Revised Notice of Completion” to all potentially affected members of the public and review agencies. A review period will follow this notice in which the public and agencies can review and respond. During this time if there are outstanding concerns that the Project may adversely impact constitutionally protected Aboriginal and treaty rights, which cannot be resolved in discussion with the Town, then a person or party may request that the Minister of the Environment, Conservation and Parks make an order for the Project to comply with Part II of the Environmental Assessment Act. This is referred to as a Part II Order, which addresses Individual Environmental Assessments. If no Part II Order requests are received the proponent may proceed to implementation and construction.

In accordance with the Municipal Engineers Association Class EA, the following needs to be included in the Addendum:

- Proposed changes (if any) to the Preferred Solution and the rationale for the proposed changes





- The implications of proposed changes (if any)
- Review of current environmental setting and updates to mitigation measures (as needed)

As stated in the Municipal Engineers Association Class EA document, only the proposed changes to the recommendations (solutions or concepts) contained in the 2011 EA are open for review and not the entire project.

#### **1.4 Requirements for an Addendum to 2011 PFR**

Based on the evaluation of alternative solutions in the 2011 PFR, it was decided that **Alternative 3 – Bridge Reconstruction** was the Preferred Solution. Full reconstruction of the existing bridge was considered to be the best solution to address safety issues, and maintain the viability of the road as an important Municipal arterial route for the movement of traffic. The new bridge structure was proposed to be designed and constructed according to current bridge code standards, and would result in wider lanes for traffic to improve existing conditions. The replacement bridge structure was proposed to be larger than the existing structure, with a longer span over Lynde Creek, resulting in improvements to hydraulics and watercourse functions.

It is important to note that the Preferred Solution outlined in the 2011 PFR (Bridge Reconstruction) will not change as a result of this Addendum. As part of this PFR Addendum, the Project Team was focused on reviewing the current environmental setting and updating the mitigation measures (as required) to address the lapse in time (10 years) from the previous evaluation. For example, legislative/ permitting requirements have changed since the 2011 Notice of Completion, including the Endangered Species Act (ESA) and associated regulations and policies, which includes the addition of many species to the list of species at risk (SAR).

In addition to reviewing any changes to the environmental setting, the PFR Addendum also reviewed the various profile (vertical alignment) and centerline (horizontal alignment) options for the Preferred Solution that were considered in the 2011 PFR. While consideration of these options aren't a requirement under a Schedule B Municipal Class EA process, it was undertaken in order to guide future detailed design. A review of the alignment options are included in this PFR Addendum to determine what present day changes (if any) are required, including whether any possessed an economic advantage over the others (i.e. using present dollar values).



## 2. Revised Concepts

The Preferred Solution does not change from the 2011 evaluation. **Alternative 3 – Bridge Reconstruction** remains the Preferred Solution as it has the greatest overall benefit, most importantly to address safety.

### 2.1 Replacement Options - Alignments

As indicated in Section 2.2 of the 2011 PFR, a two lane cross section on Columbus Road will accommodate projected future traffic needs until 2031. Beyond the 2031 timeframe a four lane cross-section may be required, as was previously identified and confirmed in the Brooklin Transportation Master Plan (TMP) completed in 2017. As such the various alignment alternatives for the bridge replacement were reviewed and evaluated considering accommodation for a future widening.

The 2011 PFR considered three road profile (vertical alignment) options and two centerline (horizontal alignment) alternatives for White's Bridge. The same three profile options were considered within the 2011 PFR and 2020 PFR Addendum.

#### Profile (vertical alignment) options (2011) & (2020):

- Option 1:** This option would have a road sag<sup>2</sup> of 17, with the addition of illumination. It would utilize a design speed of 80 km/h and require a bridge span of 31 m.
- Option 2:** This option would have a road sag of 20, without illumination. It would utilize a design speed of 70 km/h and require a bridge span of 32 m.
- Option 3:** This option would have a road sag of 25, without illumination. It would utilize a design speed of 80 km/h and require a bridge span of 35 m.

#### Centerline (horizontal alignment) options (2011):

- Option A:** Constructing the bridge at approximately the centerline of the municipal right-of-way
- Option B:** Constructing the bridge 3.5 m off the centerline of the municipal right-of-way

In completing this PFR Addendum, Option B was further split into two separate options as indicated below.

#### Centerline (horizontal alignment) options (2020):

- Option A:** Constructing the bridge at approximately the centerline of the municipal right-of-way

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<sup>2</sup> Road sag is the valley section of a roadway, and is defined by a non-dimensional geometric parameter where the valley becomes flatter as the number increases



**Option B:** Constructing the bridge 3.5m off the centerline to the south of the municipal right-of-way

**Option C:** Constructing the bridge 3.5m off the centerline to the north of the municipal right-of-way

The design of the replacement bridge will be carried out in accordance with the latest edition of the Canadian Highway Bridge Design Code, and the road design will be in accordance with the Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads and the MTO Design Supplement for TAC.

The 2011 PFR summarized the positive and negative issues with each of the vertical and horizontal alignment options. As part of this Addendum to the PFR, the positive and negative issues identified in the 2011 PFR were reviewed and revised accordingly.

### **2.1.1 Review of Vertical Alignment Options**

The profile options identified in the 2011 PFR all have a similar construction methodology and impact on the detailed design. During the 2011 PFR, the main considerations included illumination requirements, grade profile raise, design speed and property impacts.

The three profile options presented have various sag curves, design speeds and illumination requirements. Between the three options, Option 3 is preferred as provides the flattest road profile, eliminates the need for road illumination, and can accommodate an 80 km/h design speed (posted speed of 60 km/h).

Option 3 results in the road profile being raised approximately 1.4 m to obtain the required profile and road sag value. Raising the road profile increases the amount of fill required on all four quadrants of the bridge approaches and the road offset to the toe of the embankment slope. Acquisition of property from land owners on both sides of Columbus Road is required in order to construct the road embankment slopes and associated grading. The grading limits and property requirements were identified in the 2011 PFR for the two lane bridge cross section centered on the existing alignment. The property requirements identified for the bridge construction are discussed in Section 4.3.



## 2.1.2 Review of Horizontal Alignment Options

Within this PFR Addendum, we have assessed the three proposed horizontal alignment options against various design criteria to assist the Town in selecting a preferred option and provide a framework for detailed design. The review focused both on the two lane and ultimate four lane bridge construction.

With any of the three horizontal alignment options, it was identified from an environmental, economic, and constructability perspective, that the substructure for the replacement two lane bridge shall be constructed to accommodate the ultimate four lane bridge cross section. Although the initial cost to construct the two lane bridge will be increased, cost savings will be realized when the bridge is ultimately widened. Additional benefits of this proposed construction sequence include: mitigating future work within and near the watercourse, minimizing the construction duration and effort required to build the four lane bridge, and reducing the extent of future excavation required.

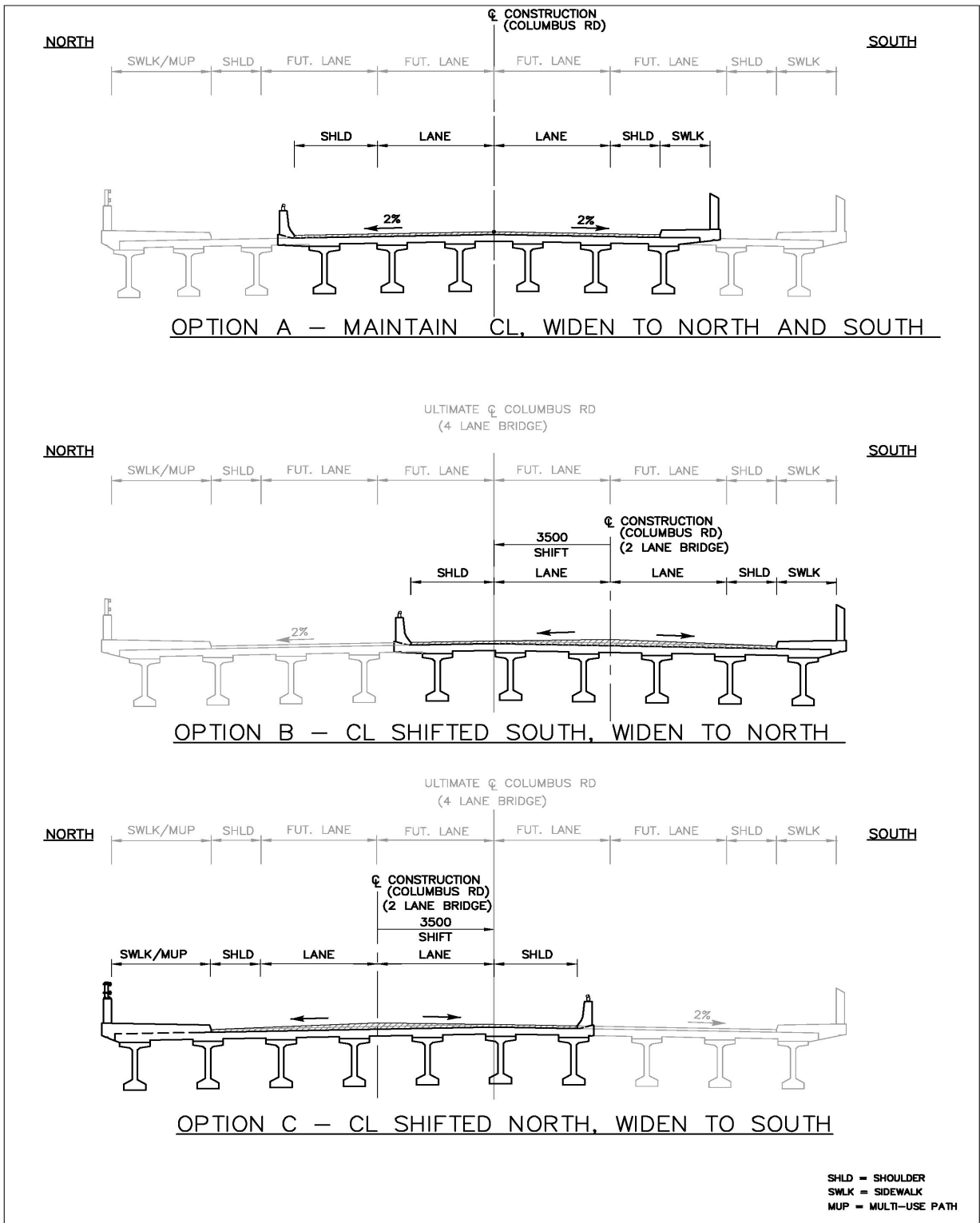
During detailed design, consideration shall also be given to constructing the wingwalls at the ultimate four lane cross section location when constructing the two lane bridge.

### Bridge Cross Section:

The Town of Whitby, in partnership with the Brooklin North Landowner's Group are currently completing the Brooklin North Major Roads Municipal Class EA (Brooklin EA). The Brooklin EA identifies widening of Columbus Road east of Country Lane; the widened cross section includes four lanes, a multi-use path (MUP) on the north side of the roadway and a sidewalk on the south. It has been assumed that the widened cross section of Columbus Road identified in the Brooklin EA (east of Country Lane) will continue west of County Lane. Therefore, it is assumed that the ultimate four lane bridge cross section will include an MUP on the north side and a sidewalk on the south. It has been identified by the Town that the interim two lane bridge cross section shall include a minimum 1.5 m wide sidewalk to facilitate pedestrians crossing the structure.

In comparing Options A, B, and C, widening the cross section for Option A is the simplest as the same crown line can be maintained for both the two lane and the four lane structure. Option B and C require a shift of the crown from the two lane to four lane configuration. Schematics for the three horizontal alignment options are identified in **Figure 2** below.

During detailed design the cross section for the bridge shall be determined by utilizing relevant codes and standards including the Canadian Highway Design Bridge Code, TAC Geometric Design Guide for Canadian Roads, and the MTO Design Supplement for TAC.



**Figure 2 Horizontal Alignment Options**



### **3. Changes in the Environmental Setting (2011 to 2020)**

#### **3.1 Overview**

As mentioned previously, “if there has been a period of time from filing the Notice of Completion and the commencement of construction that exceeds 10 years, a proponent should review the planning and design process to ensure the project and proposed mitigation measures are still valid given the current planning context”.

With this in mind, the purpose of this section is to highlight any changes in the current planning and environmental setting from the previously prepared 2011 PFR. These potential changes are described below and grouped into the following aspects of the environment as defined by the Municipal Class EA document: Natural, Built/Social, Economic and Cultural.

#### **3.2 Natural Environment**

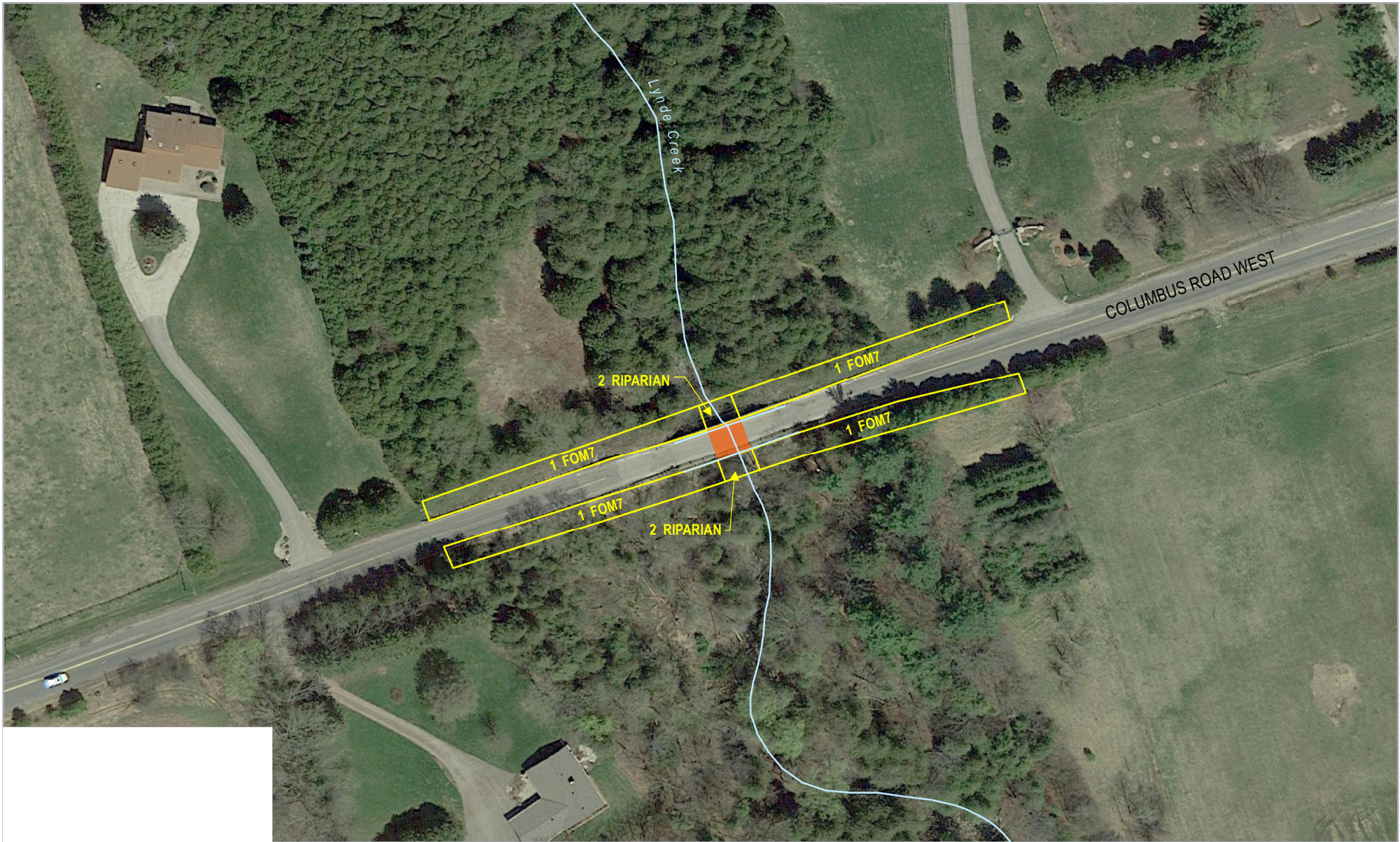
With respect to the Natural Environment, since the completion of the 2011 PFR, the Endangered Species Act (ESA, 2007) and associated regulations and policies have been revised and many species have been added to the list of SAR. In light of these changes, a field reconnaissance visit was undertaken.

GHD conducted the site reconnaissance visit on October 19, 2020 to verify natural environment conditions in the vicinity of the bridge and note any significant changes from those documented in the 2011 PFR. The visit included confirming vegetation characteristics and classifications in comparison to the 2011 PFR, and a screening for additional SAR concerns, such as a search for butternut (*Juglans cinerea*), barn swallow (*Hirundo rustica*) nests, or potentially suitable habitat for other SAR not previously considered (e.g., SAR bats that have been up-listed since the 2011 PFR). The work was contained to the right-of-way and included visual observations of the immediately adjacent edge.




##### **3.2.1 Terrestrial Resources**

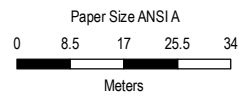
Conditions remain similar to those documented in the 2011 PFR. Mixed forests (FOM7, see **Figure 3**) dominated by eastern white cedar (*Thuja occidentalis*) occupy both sides of the watercourse, with Manitoba maple (*Acer negundo*), and green ash (*Fraxinus pennsylvanica*) associates. Very little in-stream vegetation cover was present.



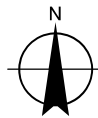


**Legend**

-  Drainage (CLOCA, 2016)
-  Bridge
-  Vegetation Community



Map Projection: Transverse Mercator  
 Horizontal Datum: North American 1983  
 Grid: NAD 1983 UTM Zone 17N



**THE REGION OF DURHAM  
 WHITE BRIDGE ADDENDUM**

Project No. 11219210  
 Revision No. -  
 Date 2020/12/04

**VEGETATION COMMUNITIES**

**FIGURE 3**





Two eastern phoebe (*Sayornis phoebe*) nests were observed under the bridge. This species is not protected by SAR legislation but is subject to the protections of the Migratory Birds Convention Act ('MBCA', 1994) and mitigation (e.g., timing windows) will be required for detailed design.

### **3.2.2 Aquatic Resources**

In-stream conditions observed at the time of the site visit have not changed from the 2011 PFR. White cedar and Manitoba maple provide overhanging coverage, and some grass cover lines the watercourse edges.

### **3.2.3 Species at Risk**

No SAR were observed during the site visit. No barn swallow nests or butternut were found within the right-of-way or the visible adjacent edge. Once the project footprint is confirmed, property access should be sought to confirm the presence of butternut within or near the footprint and the presence of any other flora SAR.

There is potential roosting habitat for SAR bats within the FOM7. Depending on the ultimate/ finalized project footprint, additional field work and consultation with the Ministry of Environment, Conservation and Park (MECP) may be required at the detailed design phase to confirm any Endangered Species Act (2007) obligations.

Current Aquatic SAR mapping notes this watercourse as containing Redside Dace (*Clinostomus elongatus*), which is consistent with the 2011 PFR.

MECP should be consulted at detailed design for any updated SAR records.

### **3.2.4 Hydrology/Hydraulics**

The environmental setting as described in the 2011 PFR Study Area remains largely unchanged with respect to the hydrology/ hydraulic capacity and stormwater management. As previously mentioned, the Preferred Solution will not change and it was determined in the 2011 PFR that the existing bridge provides sufficient clearance as it is anticipated that the bottom of the new bridge girders will continue to remain above the Regulatory Storm flood elevation. With respect to stormwater, no stormwater management improvements have been undertaken within the Study Area nor at White's Bridge itself.

The Town recently initiated a Bridges and Culverts Hydraulic Capacity Assessment Master Plan<sup>3</sup> to identify high risk bridges and culverts based on insufficient hydraulic capacity and flood vulnerable municipal roadways. The assessment included more than 150 structures owned by the Town, one of which is White's Bridge. The report determined that while the existing bridge is in poor condition,

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<sup>3</sup> Bridge and Culvert Master Plan Environmental Study Report, March 2020, Ecosystem Recovery Inc.



the risk level assigned was “No Risk” and reiterates that the current bridge meets all design standards and conveys the Regulatory storm flood eventcdfgvvvv<sup>4</sup>.

### **3.3 Social/ Built Environment**

The environmental setting as described in the 2011 PFR Study Area remains largely unchanged with respect to the Social/Built Environment (referred to as Socio-Economic in the 2011 PFR). The land uses within the Study Area have not changed since the 2011 PFR. Although the PFR Addendum only requires a review of the changes within the Study Area, for a larger local context perspective, by the time the White’s Bridge is re-constructed, the wider surrounding areas will be developed further to the east as future residential.

As previously mentioned, the Town is currently completing another Municipal Class EA in close proximity to the White’s Bridge Study Area, known as the Brooklin North Major Roads Municipal Class EA (Brooklin EA). The Brooklin EA identifies widening of Columbus Road east of Country Lane; the widened cross section includes four lanes, a MUP on the north side of the roadway and a sidewalk on the south. It has been assumed that the widened cross section of Columbus Road identified in the Brooklin EA (east of Country Lane) will continue west of County Lane. Therefore, it is assumed that the ultimate four lane bridge cross section will include an MUP on the north side and a sidewalk on the south. It has been identified by the Town that the interim two lane bridge cross section shall include a minimum 1.5 m wide sidewalk to facilitate pedestrians crossing the structure.

### **3.4 Economic Environment**

The only change to this setting as described in the 2011 PFR Study Area relates to reviewing potential costs in present day values (2020). Further analysis on this item is provided in Section 4.4 below.

### **3.5 Cultural Environment**

The environmental setting as described in the 2011 PFR remains the same with respect to the Cultural Environment. The findings from the Stage 1 and 2 Archaeological Assessments, included in the 2011 PFR remain the same today, which are described further in Section 4.5 below.

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<sup>4</sup> Bridge and Culvert Master Plan Environmental Study Report, March 2020, Ecosystem Recovery Inc., pp. 72



## **4. Potential Impacts of the Proposed Design Changes on Current Environment**

### **4.1 Overview**

The purpose of this section is to review the potential impacts of the proposed design changes on the current environment. While the Preferred Solution does not change, a review was undertaken of the various profile (vertical alignment) and centerline (horizontal alignment) options for the Preferred Solution that were considered in the 2011 PFR. While consideration of these options aren't a requirement under a Schedule B Municipal Class EA process, it was undertaken in order to guide future detailed design. A review of the profile (vertical alignment) and centerline (horizontal alignment) options are included in this PFR Addendum to determine what present day changes (if any) are required. These implications are described below and grouped into the following aspects of the environment as defined by the Municipal Class EA document: Natural, Built/Social, Economic and Cultural.

### **4.2 Natural Environment**

#### **4.2.1 Terrestrial and Aquatic Resources**

Similar to the 2011 PFR, some vegetation removal on the north and south sides of the existing bridge will occur. There is also the potential to impact the wildlife crossing function of the bridge, depending on the final design. No provincially rare or significant species were located. Black walnut (*Juglans nigra*) is considered by some to be a regionally uncommon species, and was present within the mixed forests on both sides of the bridge.

The following mitigation measures are proposed:

- A tree inventory and arborist report should be completed at detailed design to determine trees that require removal and identify protection measures for retained trees during construction. The Town's standards regarding tree hoarding and other elements should be followed.
- An edge restoration plan will be required to mitigate the impacts of the new bridge on the woodlands and stream edges at detailed design. Native, fast growing species that will facilitate quick edge closure should be used. Planting black walnut should also be considered should any require removal to accommodate the works.
- No tree or vegetation clearing will take place during the breeding bird period (April 1 to August 31).



- Tree clearing shall not include stump removal or soil exposure within the Regulated Area of the watercourse until the in-water construction window (July 1 – September 15).
- In-water timing windows will be adhered to. MECP should be consulted at detailed design to confirm all appropriate timing windows.
- Tree clearing will occur outside of the migratory bird period. If tree clearing must take place within the nesting period, a nesting survey will be completed prior to commencement of clearing to ensure that there are no nesting migratory birds present at the time of clearing.

Additional and refined mitigation measures required to protect the natural environment during construction and as a result of the bridge replacement will be provided during detailed design. A summary of these mitigation measures is provided in Section 7 of this PFR Addendum.

## **4.2.2 Species At Risk (SAR)**

### **4.2.2.1 Redside Dace**

White's Bridge crosses a tributary of Lynde Creek which is identified as an occupied Redside Dace reach. A permit/registration under the Endangered Species Act will be required for works in the regulated habitat which consists of the watercourse, meander belt and adjacent 30 m on each side. The permitting process and type of approval required will ultimately depend on the proposed works and the extent of the anticipated impacts to Redside Dace habitat.

The process of determining the need for a permit under the Endangered Species Act, 2007 (ESA) is multi-phased. Each activity is assessed on a case-by-case basis to determine whether or not a permit is required, and what type of permit is appropriate. A permit is required for activities where adverse effects to endangered or threatened species at risk or their protected habitat cannot be avoided. Based on the designation of the reach in question as Regulated Redside Dace Habitat, and the anticipated footprint of the proposed works, it is believed that an Overall Benefit Permit will ultimately be required for the bridge works.

The next stage of the ESA permitting process will be to provide the MECP with an Information Gathering Form (IGF). This form provides information on the existing habitat conditions, proposed works at the site and mitigation measures to be implemented. Initial design drawings and a calculation of area of impact within the regulated habitat should be included. The MECP will review the IGF to determine whether the proposed activity will likely contravene the ESA. If this is the case, the proponent will then be requested to submit an Avoidance Alternatives Form (AAF).

The AAF documents which alternatives have been considered in relation to the proposed works, and an evaluation of the anticipated impacts of each alternative on Redside Dace habitat. Any avoidance or mitigation measures for each



alternative are also included and a preferred alternative is selected. Additional avoidance or mitigation measures may be discussed/requested by MECP at this stage. MECP will then determine if the preferred alternative will contravene the ESA, or if impacts have been successfully avoided. If potential impacts have not been sufficiently mitigated to avoid harm to Redside Dace or Redside Dace habitat, the submission of an Overall Benefit Permit application will be requested.

The Overall Benefit Permit application will include a summary of information previously provided in the IGF and AAF, as well as final design drawings, confirmed temporary and permanent areas of impact within the regulated habitat, and comprehensive erosion and sediment control (ESC) and site restoration plans.

In addition, the Overall Benefit Permit will require that a plan for additional compensation works be included. These compensation works must result in a “net benefit” to the species to be impacted; in this case, Redside Dace. The compensation must occur at the site of impact, or nearby within the same watercourse system and Redside Dace habitat, and will be proportional to the impact anticipated. Compensation may include, but is not limited to: restoration plantings within degraded riparian habitat; stabilization of an eroding bank(s); mitigation of a barrier to fish passage; and/or retrofit of an existing stormwater management pond that is negatively impacting the habitat. Negotiations will occur with MECP in order to determine the appropriate extent of compensation required.

The Overall Benefit Permit application, including the agreed upon compensation details, is then submitted to the MECP. MECP drafts the proposed permit and submits it for the Minister’s decision. If approved, a three month timeframe is expected between Overall Benefit Permit application submission and issuance of the permit by the Minister.

Redside Dace is also protected federally under the Species at Risk Act (SARA). Project details will need to be submitted to Department of Fisheries and Oceans (DFO) for formal review. Upon review of the materials, it is anticipated that DFO will request that a SARA Permit application be completed.

#### **4.2.2.2 Other SAR**

In-season field investigations may be required at detailed design to confirm the presence of SAR or SAR habitat within the project footprint. As stated previously, property access outside of the ROW was not possible for this phase of the project. MECP should also be consulted for updated SAR records at this location.

#### **4.2.3 Hydrology/Hydraulics**

As previously mentioned, it was determined in the 2011 PFR that the proposed bridge reconstruction would not significantly alter the existing hydraulic characteristics at the site as the flows of the Regulatory Storm currently pass under the existing bridge with sufficient clearance to the underside of the concrete beams





supporting the deck. The reconstructed bridge will be situated such that the bottom of the new girders will remain above the Regulatory Storm flood elevation.

Further, the Town recently initiated a Bridges and Culverts Hydraulic Capacity Assessment Master Plan to identify high risk bridges and culverts based on insufficient hydraulic capacity and flood vulnerable municipal roadways. The report determined that the existing White's Bridge poses "No Risk" from a hydraulic capacity/ flood vulnerability perspective and conveys the Regulatory storm flood event<sup>5</sup>. As previously noted, the replacement structure will have a longer span and raised profile, which will further improve hydraulics when compared to the existing structure. During detailed design, the hydraulic model for the site will be updated to reflect the new crossing and reviewed to confirm that any changes, upstream or downstream, caused by the new waterway opening are insignificant.

With respect to stormwater, the proposed reconstruction will incorporate concrete curbs along the sides of the bridge deck and concrete curb and gutters along the shoulders of the approaches to capture and convey stormwater runoff away from the watercourse. The overall proposed grade at the site will direct stormwater from east to west across the bridge, and be conveyed into grassed swales (roadside ditches), where the water can be filtered before discharging back into the watercourse.

### **4.3 Social/ Built Environment**

As noted above, the preferred alternative from the 2011 EA has not changed and the existing two lane bridge will be removed and reconstructed with a two lane structure, but the substructure will be constructed to accommodate an ultimate four lane bridge cross section.

In regards to property requirements, based on the existing ROW all three alternatives require property acquisition to construct the two lane and four lane structure. The extent of the embankment works and grading required for the two lane and four lane bridge cross section will be confirmed during the detailed design stage of the project. The extent of property acquisition required to facilitate the ultimate four lane bridge cross section would be equivalent for all three horizontal alignment alternatives.

Columbus Road is identified as a Type B Arterial road with the ultimate configuration including four lanes with an MUP on the north side and sidewalk on the south side. The required right of way for this road type and cross section for the ultimate configuration is 36 m.

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<sup>5</sup> Bridge and Culvert Master Plan Environmental Study Report, March 2020, Ecosystem Recovery Inc., pp. 72



As part of this PFR Addendum we have estimated the required property acquisition for the ultimate 36 m right of way and future four lane road and bridge.

Approximated grading limits for the ultimate bridge configuration and associated property requirements in vicinity to the bridge have been identified in **Figure 4**. It should be noted that these property requirements are for the ultimate needs, when Columbus Road is widened to 4 lanes in the future.

During detailed design the Town and design consultant will confirm the extent of property required to construct the two lane bridge. Consideration should be given to acquiring property for the ultimate four lane bridge configuration when constructing the two lane bridge.

In terms of impacts to traffic, Options B and C introduce a non-tangential horizontal road alignment whereas Option A maintains the existing centerline road alignment for the two lane bridge construction. Columbus Road is a straight road between Coronation Road and County Lane and introducing a shift in the centerline alignment is undesirable from the road user perspective. Shifting the road alignment and location of the crown can introduce challenges with construction staging when widening the bridge and roadway in the future.

The two lane replacement structure will include a much longer span than the existing, a wider deck section, and a significant profile grade raise. To maintain a single lane of traffic during the construction of the new bridge would be expensive, increase the duration of construction, and introduce several construction challenges. As such, Columbus Road will be closed during construction and a temporary detour route will have to be implemented until the new road and structure are built, which would impact the travelling public.

When widening the bridge in the future to the ultimate four lane configuration, the intent would be to maintain a single lane of traffic during construction. The replacement structure will not need to be reconstructed when Columbus Road is widened to a four lane cross section and updated to meet urban arterial road standards.





**Figure 4 Property Requirements for Ultimate Needs**

With respect to utilities, there is currently an overhead hydro line north of the roadway and a Bell line south of the roadway. Both of these pole lines will be impacted by the proposed two lane and ultimate four lane road configurations. Consideration should be given during detailed design to relocating the poles to the ultimate configuration when constructing the two lane structure.



#### 4.4 Economic Environment

The 2011 PFR identified approximate costs to construct the two lane bridge along the three profile alignments and two horizontal alignments. In the 2011 PFR it was noted that there wasn't a significant difference in cost between the three profile options however there was an economic benefit to constructing the bridge along the existing centerline. This finding in the 2011 PFR remains the same today, which is that there is no significant cost implication when comparing the three profile alternatives and as such these estimated costs have not been calculated again.

As part of this PFR Addendum, a cost estimate based on 2020 construction costs (**Table 1**) to construct the two lane structure and the ultimate four lane widening was undertaken. The symmetrical widening (Option A) and asymmetrical widening (Option B) were evaluated. The construction costs for Options B and C are similar.

The construction costs in the table below account for all items associated with removing and constructing the replacement bridge including traffic staging. Costs associated with property acquisition, road construction, utility relocation have not been included in **Table 1**.

**Table 1 Two Lane and Four Lane Construction Costs for White's Bridge**

	Two Lane Bridge Construction	Four Lane Ultimate Widening*	Total Cost*
Option A – Symmetrical Widening	\$ 2,290,000	\$ 1,240,000	\$ 3,530,000
Options B and C – Asymmetrical Widening	\$ 2,350,000	\$ 1,030,000	\$ 3,380,000

\*Note that inflation for future construction costs have not been considered within the above estimate.

The above estimate assumes that the ultimate substructure for the four lane bridge is constructed during the replacement for the two lane bridge, hence the costs for initial construction are greater than the future construction. For the asymmetrical option it has been assumed that one side of the structure will have a sidewalk and parapet wall that can remain for the ultimate cross section; a barrier wall would require removal and replacement as part of future widening. With the symmetrical option the sidewalk, barrier wall, and parapet wall will have to be removed and replaced for the ultimate configuration.



#### **4.5 Cultural Environment**

Stage 1 and 2 Archaeological Assessments were conducted for the 2011 PFR to document the cultural heritage significance of the Class EA Study Area. Nothing of archaeological or built heritage significance, from either the historic or pre-contact time periods, was discovered in the Study Area. Therefore, given that the initial reconstruction of the 2 lane bridge is within the Study Area reviewed and cleared as part of the previously prepared Stage 1 and 2 Archaeological Assessment, there are no changes to the Cultural Environment due to the revised concepts. The width of the bridge deck for the ultimate 4 lane buildout is largely within the previously cleared area, however given that the proposed design in this PFR Addendum is at the conceptual stage, once detailed design is complete, the exact extent of disturbance should be reviewed in conjunction with the limits of Study Area within the Stage 1 and 2 Archaeological Assessment.

#### **4.6 Preferred Vertical and Horizontal Alignments**

The preferred vertical alignment (profile) is Option 3 from the 2011 PFR to provide a flatter curve and eliminate the need for road illumination.

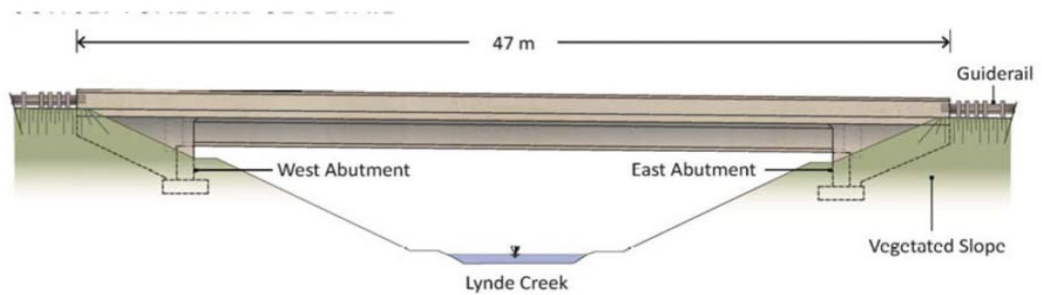
In terms of horizontal alignment options, Option A has been identified as the preferred alternative to carry into detailed design. This alternative maintains the existing centerline of Columbus Road, doesn't introduce an alignment shift on a sag curve on a straight section of road and provides a cross section that meets the current and future public needs for the site. **Figure 5** below identifies the approximate plan area, elevation and cross section for the proposed two lane structure.



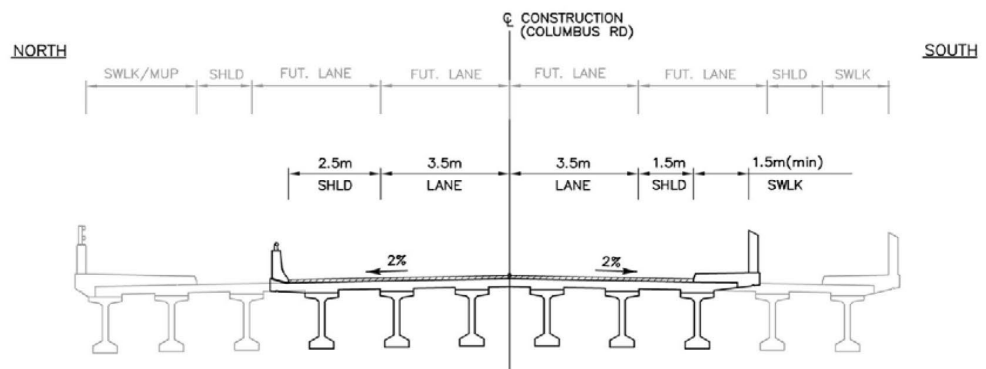
**BRIDGE PLAN:**



**ELEVATION:**



**SECTION:**



SHLD = SHOULDER  
 SWLK = SIDEWALK  
 MUP = MULTI-USE PATH

**Figure 5 Proposed Bridge Plan View, Elevation and Deck Section**





## **5. Climate Change**

An additional requirement by the MECP since the filing of the 2011 PFR is to consider the potential effects of climate change on the proposed project. Not only is this a requirement by the MECP, it is also a priority for the Town as Council passed a motion in June, 2019 declaring climate change an emergency. Through the declaration, brought forward by the Whitby Sustainability Advisory Committee, Town Council has acknowledged the significant threat climate change poses to both the current and future social, economic, and environmental well-being of the community.

With this in mind and in keeping with the Ministry's "Considering Climate Change in the Environmental Assessments in Ontario" guide, the following considerations were included in this PFR Addendum:

- Effects of the project on climate change
- Effects of climate change on the project
- How the project will minimize identified negative effects on climate change

### **5.1 Overview**

Climate change is an acknowledged change in climate that has been documented over two or more 30-year periods. According to the Intergovernmental Panel on Climate Change (IPCC), climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use (IPCC 2014). Climate change is anticipated to cause an increase in the frequency and intensity of extreme weather events, warmer average temperatures, higher sea levels, and more extreme rainfall and flooding events (IPCC 2014). More frequent and intense extreme weather events could cause an increased risk of flooding and snow and ice storms. Increased flood events would also increase the risk of erosion. Existing infrastructure in the Town was not intended to withstand the more extreme and frequent storms that may be experienced in coming years; however, new projects and re-construction projects (such as this Project) can take this into consideration. This Project will be designed to withstand more extreme precipitation events, including the effects of these events such as flooding and erosion.

### **5.2 Regional Perspective**

Over the last several decades, Southern Ontario has already experienced a significant number of adverse impacts of extreme weather events and is experiencing changes in its historical climate. It is very likely that a further increase in temperature, precipitation and other climate drivers will continue to occur



throughout the 21<sup>st</sup> century<sup>6</sup>. Temperatures in Durham Region are very likely to increase in all seasons. Overall, Durham Region's climate in the next 20-25 years can be described as:

- Considerably warmer with higher humidity
- Less snow, more rain in winter
- More frequent and intense summer rain events
- Lower winds generally
- More extreme weather events with high winds and heavy rain<sup>7</sup>.

While significant change in the average monthly temperatures is not anticipated, it is very likely that average temperatures will increase by 4.0°C on average across all seasons by 2040 to 2049<sup>8</sup>. Warmer winter temperatures will lead to more precipitation falling as rain instead of snow and the total amount of precipitation is projected to increase by 16%. Rainstorm events are projected to be more extreme with an increase in the potential for major storm events affecting the Town's watercourses and associated municipal infrastructure. For example, from 2000-2009 the maximum rainfall in one day was 79 mm, while the projected models for 2040-2049 show an increase to 117 mm in one day<sup>9</sup>.

### **5.3 Effects of the Project on Climate Change**

Potential effects of the Project on climate change include greenhouse gas (GHG) emissions associated with re-construction of the bridge as a result of GHG emissions generated by construction equipment and machinery.

To minimize or offset the potential effects of the Project on climate change, in particular to reduce the GHG emissions associated with construction, mitigation measures will be implemented. The MECP Climate Change Guide defines mitigation as "The use of measures or actions to avoid or reduce greenhouse gas emissions, to avoid or reduce effects on carbon sinks, or to protect, enhance, or create carbon sinks" (MECP 2016, Page 40). Mitigation measures include actions such as utilizing different technologies and construction materials.

Mitigation measures to reduce the Project's effect on the environment will be determined and implemented at the onset of construction. Possible Best Management Practices (BMPs)/mitigation measures for consideration include the following:

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<sup>6</sup> SENES Consultants, (2014). Durham Region's Future Climate.

<sup>7</sup> Ibid

<sup>8</sup> Ibid.

<sup>9</sup> Ibid



- Implement and enforce an anti-idling policy for all vehicles and machinery on site during the construction stage.
- Ensure all vehicles/machinery and equipment are in good repair, equipped with emission controls, as applicable, and operated within regulatory requirements.
- Use materials that have a lower carbon footprint and a long lifespan.
- Plant additional vegetation to create a carbon sink.

#### **5.4 Effects of Climate Change on the Project**

There are a number of potential effects of climate change that may occur affecting the Project. For example, these may include:

- Increasing frequency of unusually high or low daily temperature extremes.
- Long-term increasing or decreasing mean annual temperatures and/or precipitation.
- Increasing or decreasing frequency of storm events (e.g., rainfall, snowfall, extreme wind).

The 2011 PFR found that the proposed bridge would not significantly alter the existing hydraulic characteristics at the site, as the flows of the Regulatory Storm currently pass under the existing bridge with sufficient clearance to the underside of the concrete beams supporting the deck. The replacement bridge will be situated such that the bottom of the new girders will remain above the Regulatory Storm flood elevation and will be higher than the existing girders.

In addition, and as previously mentioned, the Town recently initiated a Bridges and Culverts Hydraulic Capacity Assessment Master Plan to identify high risk bridges and culverts based on insufficient hydraulic capacity and flood vulnerable municipal roadways. In this study, peak flows used to assess design alternatives were increased to account for climate change using estimates derived from downscaling studies that apply future warming scenarios to intensity duration frequency (IDF) curves, resulting in the application of a conservative estimate of future rainfall volumes from 2010 to 2100.<sup>10</sup>

With this approach applied, the report determined that the existing White's Bridge poses "No Risk" from a hydraulic capacity/ flood vulnerability perspective.<sup>11</sup>

During detailed design, the hydraulic model for the site will be updated to reflect the new crossing and reviewed to confirm that any changes, upstream or downstream, caused by the new waterway opening are insignificant and that the

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<sup>10</sup> Bridge and Culvert Master Plan Environmental Study Report, March 2020, Ecosystem Recovery Inc., pp. 23

<sup>11</sup> Bridge and Culvert Master Plan Environmental Study Report, March 2020, Ecosystem Recovery Inc., pp. 72



potential effects from increased precipitation, in quantity or severity, would not have an impact on the bridge.

In addition, consideration of including the following climate change adaptation<sup>12</sup> measures will be reviewed during detailed design/ during construction:

- Design embankments with additional stabilization, through planting vegetation;
- Choose vegetation to stabilize embankments that is known to withstand erosion and climatic stressors such as extreme heat, drought tolerance, and flood resistance; and
- Use resilient asphalt that can tolerate extreme heat.

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<sup>12</sup> The Guide defines adaptation as “The process of adjustment in the built and natural environments in response to actual or expected climate change and its effects.” MECP 2016, Page 38.



## 6. Implications of the Proposed Changes on Design and Approval Requirements

Table 2 provides a summary of the applicable environmental permits and approvals required that were listed in the 2011 PFR and reconfirms their applicability.

**Table 2 Permits and Approvals**

Agency	Permit / Approval	Applicability
Central Lake Ontario Conservation Authority (CLOCA)	Permit to allow Development, Interference With Wetlands & Alterations To Shorelines & Watercourses	Required for work in CLOCA regulated areas under Ontario Regulation 42/06  As part of their review on the project, CLOCA will require a Natural Environment Technical Memorandum to update natural environment existing conditions and provide an impact assessment and mitigation measures for the construction and operation period. CLOCA should be consulted to develop a Terms of Reference for that work.
Ministry of Environment, Conservation and Parks (MECP)	Redside Dace Overall Benefit Permit	Required for works within the meander belt + 30 m of a stream identified as being habitat for Redside Dace
DFO	SARA permit	Applies to impacts to Redside Dace



## 7. Summary of Environmental Effects and Proposed Mitigation Measures

**Table 3** summarizes the potential effects and proposed mitigation measures carried forward from the 2011 PFR specific to the proposed undertaking. Apart from the changes described in this Addendum, the mitigation measures, monitoring and commitments outlined in the PFR still apply, which are reiterated here for reference.

**Table 3 Summary of the Potential Effects and Proposed Mitigation Measures**

Potential Effect	Proposed Mitigation Measures
Erosion and sedimentation	<p>Erosion and sediment controls will be installed around the watercourse prior to construction activities, and maintained throughout the duration of the project. Specific measures will be clearly outlined on detailed design drawings. Extent and duration of exposed soils will be minimized and restored quickly.</p> <p>Double heavy duty sediment control fencing with straw bales will be a requirement of the MECP to protect Redside Dace habitat.</p>
Water quality degradation	<p>The existing bridge design has deck drains which allow for road runoff to discharge directly into the watercourse. The new design of the bridge will direct stormwater runoff to grassed swales for treatment and water quality improvements before discharging to the creek.</p>
Impacts to geomorphology	<p>The new bridge span will allow for the construction of a low-flow channel under the bridge which will improve natural watercourse form and function.</p>
Species at Risk	<p>Complete updated in-season field investigations of the project footprint to confirm the presence of SAR or SAR habitat in the spring/summer of 2021 (e.g., bat habitat and/or butternut)</p> <p>To prevent possible harm or disruption to the habitat of Redside Dace, a SAR overall benefit permit including a compensation plan will be acquired from the MECP under the Endangered Species Act.</p>
Loss of habitat and wildlife corridor function	<p>The existing three-span structure restricts the width of the wildlife corridor function. The new bridge span will be greater than the existing span, thereby increasing the area available under the bridge for wildlife corridor</p>





Potential Effect	Proposed Mitigation Measures
	<p>functions. Detailed design should maintain or increase the bridge wildlife crossing function, if feasible.</p> <p>In-season field work at detailed design to identify wildlife habitat use is recommended and additional timing windows may be required, such as for the bat maternity period (May 1 – September 1).</p>
Removal of vegetation from natural communities	<p>A tree inventory and arborist report should be completed at detailed design to determine trees that require removal and identify protection measures for retained trees during construction. The Town’s standards regarding tree hoarding and other elements should be followed.</p> <p>An edge restoration plan will enhance the area surrounding the new bridge footprint with native seed and plantings. Planting black walnut should also be considered should any require removal to accommodate the works.</p>
Disturbance to breeding and nesting birds	<p>Comply with breeding bird timing windows (April 1 to August 31) or have a qualified ecologist conduct a nest survey prior to construction.</p> <p>Tree clearing shall not include stump removal or soil exposure within the Regulated Area of the watercourse until the in-water construction window (July 1 – September 15).</p> <p>Tree clearing will occur outside of the migratory bird period. If tree clearing must take place within the nesting period, a nesting survey will be completed prior to commencement of clearing to ensure that there are no nesting migratory birds present at the time of clearing.</p>
Impacts to the Aquatic Community	<p>Adhere to in-water timing windows for works below the high water mark.</p> <p>Implement best management practices for work around water.</p>
Elevated noise levels during construction	Regional and Town noise by-laws will be adhered to for hours of construction operation.
Road closures during construction	Adequate detours will be delineated, and construction will be expedited to minimize delays.



Potential Effect	Proposed Mitigation Measures
Vibration disturbance from construction operations	Vibration in the vicinity of the bridge will occur during bridge reconstruction and be limited to the duration of approximately one week.
Dust and pollution from construction operations	During dry periods, bare soil will be covered with water and non-chloride dust suppressant to limit generation of excessive dust. All disturbed areas will be restored quickly. Odour and pollution impacts will be minimized by ensuring that all equipment is properly maintained and that all pollution control devices on the equipment are operating properly.
Generation of construction related waste in proximity to a natural area	All waste generated during construction will be disposed of in a proper manner.



## 8. Consultation on the Proposed Changes

As per the Municipal Engineers Association Municipal Class EA document requirements for an addendum, a Revised Notice of Completion (Appendix A) was issued by the Town to review agencies, indigenous communities and public stakeholders. This involved the following activities:

- Issuing the Revised Notice of Completion through direct mailing to adjacent property owners in the Study Area (Appendix A).
- Issuing the Notice via email and/or direct mailing to review agencies, utilities, councilors.
- Issuing the Notice via email and registered mail to Indigenous Communities.
- Publishing the Notice in Whitby This Week on December 3, 2020.
- Publishing the Notice in the Brooklin Town Crier on December 4, 2020.
- Publishing the Notice on the Town's "Studies and Plans" website.

### Extended Review Period

Given that the review period for the PFR Addendum falls over the holidays, the Town extended the review period from the statutory 30 calendar days to 40 calendar days. The Town established the extended review period starting on **December 7, 2020** and ending on **January 15, 2021** whereby any interested person can review the PFR Addendum and the 2011 PFR and provide comments. It should be noted that only the proposed changes outlined in this PFR Addendum are subject to review. The comments, including any issues or concerns, should be sent first to GHD for potential resolution.

During the extended 40 calendar day review period, if there are outstanding concerns that the Project may adversely impact constitutionally protected Aboriginal and treaty rights, which cannot be resolved in discussion with the Town, then a person or party may request that the Minister of the Environment, Conservation and Parks make an order for the Project to comply with Part II of the Environmental Assessment Act. This is referred to as a Part II Order, which addresses Individual Environmental Assessments.

A proponent is able to proceed to Phase 5 of the Municipal Class EA process and implement the Preferred Solution according to their schedule subject to the following:

- No Part II Order requests are received during the 40 calendar day review period regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or those that are received are satisfactorily resolved.
- No Notice of Proposed Order regarding the Project has been issued by the Director of the Environmental Assessment Branch, MECP to the Proponent



within 30 days after the conclusion of the extended 40 calendar day review period.

Specifically, this entails essentially two next steps for this Project:

- Complete detailed design and associated preconstruction environmental provisions and commitments as specified in the 2011 PFR and PFR Addendum, including acquiring all necessary post-EA permits and approvals.
- Proceed to reconstruct the White's Bridge, monitoring to ensure fulfilment of construction-related environmental provisions and commitments as specified in the 2011 PFR and PFR Addendum and any subsequent permits and approvals.



## **9. Summary**

As noted in this PFR Addendum, the Preferred Solution from the 2011 PFR to remove and replace the existing White's Bridge has remained unchanged. This PFR Addendum has expanded upon the proposed horizontal and vertical alignment options to carry this project forward into detailed design and to review and confirm that under the current environmental setting, the potential effects can be appropriately mitigated.

The preferred vertical alignment is Option 3 from the previous EA to provide a flatter curve and eliminate the need for road illumination.

The three horizontal alignment options were described and reviewed and it was determined that Option A is the preferred alternative to carry into detailed design. This alternative maintains the existing centerline of Columbus Road, doesn't introduce an alignment shift on a sag curve on a straight section of road and provides a cross section that meets the current and future public needs for the site.

This PFR Addendum has reviewed the current environmental setting based on the amount of time that has passed since the original 2011 PFR was completed. The results of this Addendum show that the potential impacts are minor and easily mitigated. Further, it has been suggested that from an environmental, economic, and social impact perspective that the Town construct the ultimate four lane substructure when the two lane bridge is built. This approach minimizes the construction duration and effort required to build the four lane bridge, reduces the extent of future excavation required and mitigates the amount of future work required within and near the watercourse, which has been identified as a SAR habitat.

Further permits and approvals are required prior to construction, which will be carried out subsequent to this PFR Addendum during detail design.

# Appendices

# **Appendix A**

## **Revised Notice of Completion**



# REVISED NOTICE OF COMPLETION

## Filing of Addendum to the Municipal Class Environmental Assessment Reconstruction of White's Bridge on Columbus Road west of Country Lane (Schedule B)

### Background:

In November 2011, the Town of Whitby (Town) completed a Schedule 'B' Municipal Class Environmental Assessment (Environmental Assessment) for the replacement of White's Bridge on Columbus Road west of Country Lane (Notice of Completion issued November 25, 2011). Full reconstruction of the existing bridge was considered to be the best solution to address safety issues, and maintain the viability of the road as an important Municipal arterial route for the movement of traffic.

### Proposed Modifications to the Project:

The preferred solution does not change from the 2011 evaluation. **Alternative 3 – Bridge Reconstruction** remains the preferred solution as it has the greatest overall benefit, most importantly to address safety. The Town undertook a review of the findings from the 2011 report to re-evaluate the various profile (vertical alignment) and centerline (horizontal alignment) alternatives that were originally considered within the current environmental setting as well as to guide future detailed design. The evaluation re-confirmed the vertical profile for the 2011 Project File Report (PFR) and recommends a horizontal alignment that maintains the existing centerline of Columbus Road and will be developed initially as a two lane bridge, but constructed to accommodate the ultimate future four lane bridge cross section.

### Addendum Process:

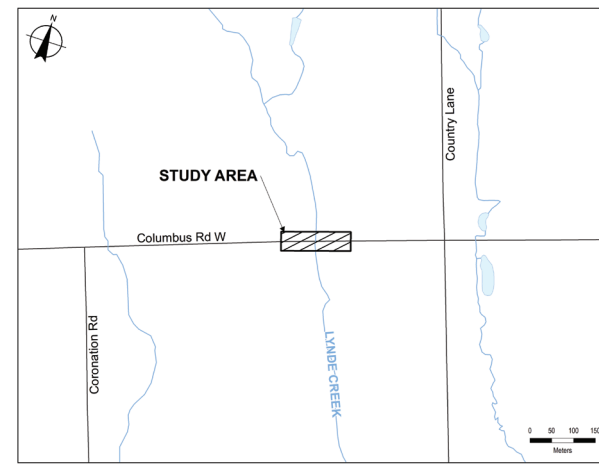
In accordance with the Municipal Engineers Association Class EA process, "if the period of time from filing of the Notice of Completion to the proposed commencement of construction for the

project exceeds ten (10) years, the proponent shall review the planning and design process to ensure that the project and the mitigating measures are still valid given the current planning context". With this in mind, there are permits and approvals that are required which will not allow the Town to be in a position to commence construction prior to the 10 year time lapse. The Town has prepared this Addendum which describes the details and justification for the proposed changes as well as a description of the current environmental setting.

This Addendum and the original PFR are available for an extended 40-day public viewing period to provide additional review time that falls over the holidays. The review period is between **December 7, 2020** and **January 15, 2021** and the documentation will be posted on the Town's website at [whitby.ca/whitesbridge](http://whitby.ca/whitesbridge).

It should be noted that only the proposed changes outlined in this Addendum are subject to review. The comments, including any issues or concerns, should be sent first to GHD Limited for potential resolution.

During the extended 40 calendar day review period, if there are outstanding concerns that the Project may adversely impact constitutionally protected Aboriginal and treaty rights, which cannot be resolved in discussion with the Town, then a person or party may request that the Minister of the Environment, Conservation and Parks make an order for the Project to comply with Part II of the Environmental Assessment Act. Requests on other grounds will not be considered. This is referred to as a Part II Order, which addresses Individual Environmental Assessments.



Please address the Part II Order request in writing to each of the following three individuals:

Minister  
Ministry of the Environment, Conservation and Parks  
777 Bay Street, 5th Floor, Toronto ON M7A 2J3  
[minister.mecp@ontario.ca](mailto:minister.mecp@ontario.ca)

Director, Environmental Assessment Branch  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto ON M4V 1P5  
[eabdirector@ontario.ca](mailto:eabdirector@ontario.ca)

Blair Shoniker, MA, RPP  
Senior Environmental Planner  
GHD Limited  
905.429.5040  
[blair.shoniker@ghd.com](mailto:blair.shoniker@ghd.com)

**This notice issued: December 3, 2020**

All personal information included in a submission - such as name, address, telephone number and property location - is collected, maintained and disclosed by the Ministry of the Environment, Conservation and Parks for the purpose of transparency and consultation. The information is collected under the authority of the Environmental Assessment Act or is collected and maintained for the purpose of creating a record that is available to the general public as described in s.37 of the Freedom of Information and Protection of Privacy Act (FIPPA). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment, Conservation and Park's Freedom of Information and Privacy Coordinator at 416.327.1434.

Phone: 905.430.4300

Email: [info@whitby.ca](mailto:info@whitby.ca)

[whitby.ca/notices](http://whitby.ca/notices)

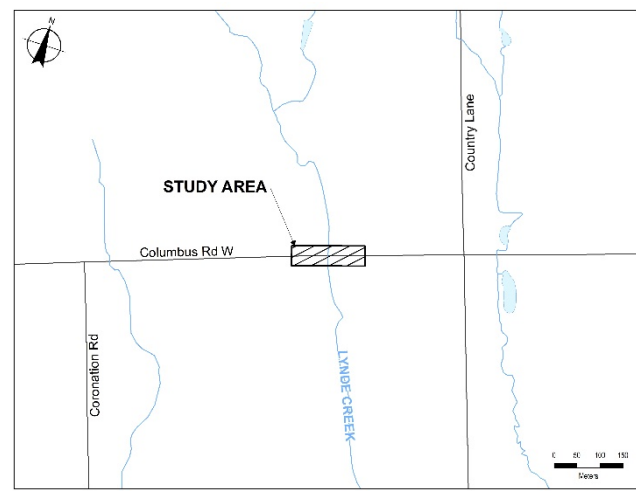


## Revised Notice of Completion

### Filing of Addendum to the Municipal Class Environmental Assessment Reconstruction of White's Bridge on Columbus Road west of Country Lane (Schedule B)

#### Background:

In November 2011, the Town of Whitby (Town) completed a Schedule 'B' Municipal Class Environmental Assessment (Environmental Assessment) for the replacement of White's Bridge on Columbus Road west of Country Lane (Notice of Completion issued November 25, 2011). Full reconstruction of the existing bridge was considered to be the best solution to address safety issues, and maintain the viability of the road as an important Municipal arterial route for the movement of traffic.



#### Proposed Modifications to the Project:

The preferred solution does not change from the 2011 evaluation. **Alternative 3 – Bridge Reconstruction** remains the preferred solution as it has the greatest overall benefit, most importantly to address safety. The Town undertook a review of the findings from the 2011 report to re-evaluate the various profile (vertical alignment) and centerline (horizontal alignment) alternatives that were originally considered within the current environmental setting as well as to guide future detailed design. The evaluation re-confirmed the vertical profile for the 2011 Project File Report (PFR) and recommends a horizontal alignment that maintains the existing centerline of Columbus Road and will be developed initially as a two lane bridge, but constructed to accommodate the ultimate future four lane bridge cross section.

#### Addendum Process:

In accordance with the Municipal Engineers Association Class EA process, "if the period of time from filing of the Notice of Completion to the proposed commencement of construction for the project exceeds ten (10) years, the proponent shall review the planning and design process to ensure that the project and the mitigating measures are still valid given the current planning context". With this in mind, there are permits and approvals that are required which will not allow the Town to be in a position to commence construction prior to the 10 year time lapse. The Town has prepared this Addendum which describes the details and justification for the proposed changes as

# Public Notice



well as a description of the current environmental setting. This Addendum and the original PFR are available for an extended 40-day public viewing period to provide additional review time that falls over the holidays. The review period is between **December 7, 2020** and **January 15, 2021** and the documentation will be posted on the Town's website at [whitby.ca/whitesbridge](http://whitby.ca/whitesbridge).

It should be noted that only the proposed changes outlined in this Addendum are subject to review. The comments, including any issues or concerns, should be sent first to GHD Limited for potential resolution. During the extended 40 calendar day review period, if there are outstanding concerns that the Project may adversely impact constitutionally protected Aboriginal and treaty rights, which cannot be resolved in discussion with the Town, then a person or party may request that the Minister of the Environment, Conservation and Parks make an order for the Project to comply with Part II of the Environmental Assessment Act. Requests on other grounds will not be considered. This is referred to as a Part II Order, which addresses Individual Environmental Assessments.

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Minister  
Ministry of the Environment, Conservation and Parks  
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