Design and Construction Report

Detail Design and Class Environmental Assessment Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener (GWP 3001-22-00)

Ontario Ministry of Transportation

October 23, 2023

→ **The Power of Commitment**

ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7

FREDERICK STREET BRIDGE REPLACEMENT

IN THE CITY OF KITCHENER (GWP 3001-22-00)

DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT STUDY (GROUP 'A')

Design and Construction Report

Prepared for the Ministry of Transportation

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1. Introduction

This Design and Construction Report (DCR) documents the Detail Design and Class Environmental Assessment Study (Study) undertaken for the replacement of the Frederick Street bridge located in the City of Kitchener (City), Regional Municipality of Waterloo (GWP 3001-22-00) (**Figure 1-1**). The Ministry of Transportation (MTO) retained GHD Limited (GHD) to undertake the Study in order to advance the construction of the New Highway 7 – Kitchener to Guelph Project.

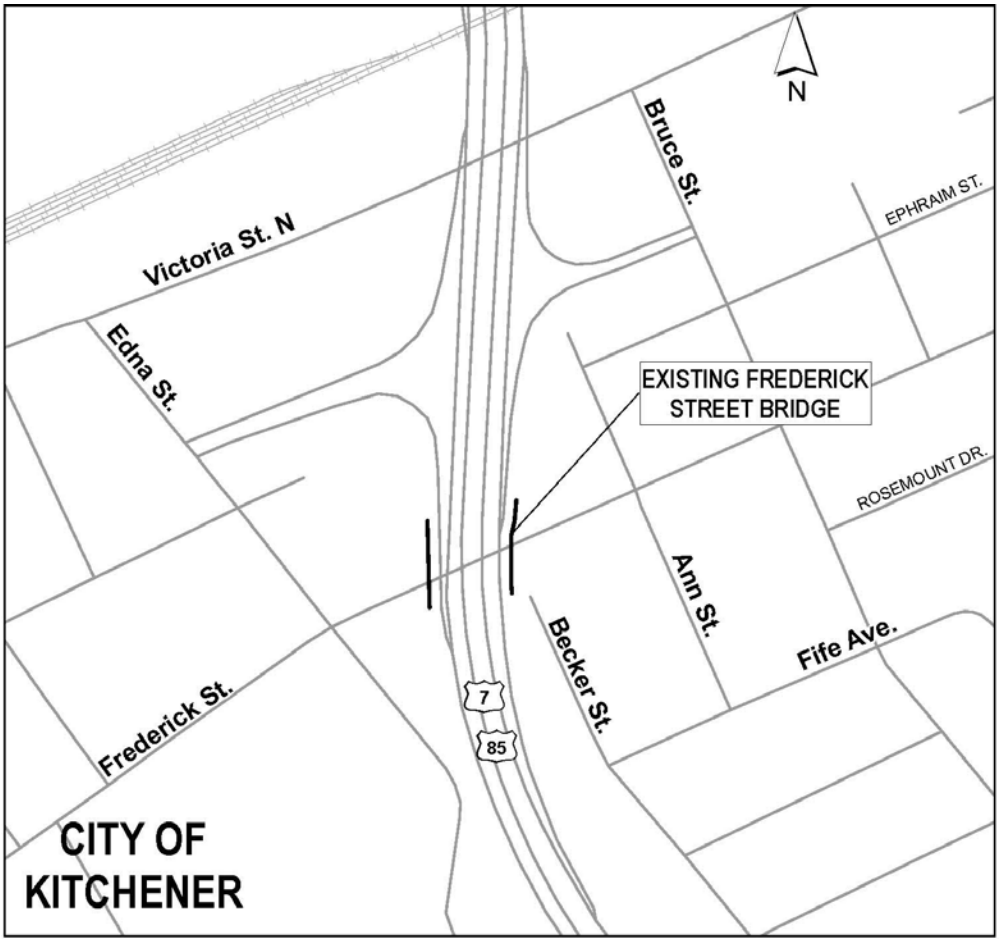


Figure 1-1 Frederick Street Bridge Location

The Study is classified as a Group A project in accordance with MTO's *Class Environmental Assessment for Provincial Transportation Facilities (2000)*. Group A projects represent new provincial transportation facilities and require a DCR to be prepared as part of the Class EA process.

In general, a DCR is to document the detail design including a description of the proposed undertaking or works to be built, a description of the external consultation process carried out, and a summary of the environmental issues, proposed mitigation, and commitments to further work. MTO's

Environmental Reference for Highway Design (June 2013) (ERD) provides additional direction on what a DCR should contain including the following:

- Transportation engineering and environmental issues
- Potential environmental impacts and mitigation measures
- Summary of environmental concerns and commitments table
- Consultation process
- Approvals, licences, and permits (where applicable)
- Commitment to further work (including environmental effects monitoring)
- Construction monitoring (where applicable)

Given the preceding ERD requirements, the DCR is structured as follows:

- **Section 2** provides an overview of the Group A Class EA process followed for this Study.
- **Section 3** describes the Frederick Street Bridge replacement and associated works in detail.
- **Section 4** presents the existing environmental conditions in the vicinity of the Frederick Street bridge based on several environmental investigations completed as part the Study. The technical reports are provided under separate cover and are on file with MTO.
- **Section 5** summarizes the consultation activities undertaken during the Study as well as the comments received and how they were considered a part of detail design.
- **Section 6** describes the assessment of environmental impacts, the proposed measures to mitigate these impacts, and commitments to future work to be incorporated into the contract documents. Further, the construction monitoring requirements associated with replacing the Frederick Street bridge are provided in Section 6.

2. Class Environmental Assessment Process

The Study was undertaken in accordance with MTO's *Class Environmental Assessment for Provincial Transportation Facilities* (2000) (Class EA) as a Group A project building on previous EA processes and approvals as per the Class EA process, a Notice of Study Commencement (NoSC) was issued in May 2023 as part of initiating detail design. This was followed by reviewing the preferred preliminary design alternative and updating existing environmental conditions in the Study Area, as needed. Next, the detail design for replacing the Frederick Street bridge was finalized and potential impacts and proposed mitigation measures were confirmed.

As per the Class EA process, the DCR was prepared and the Notice of Completion – DCR was issued to initiate the 30-day public comment period. During this comment period, outstanding concerns are to be directed to MTO for a response, unless the outstanding concerns are regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, in which case Section 16 Order requests on these matters may be made to the Ministry of the Environment, Conservation and Parks (MECP).

Following the public comment period, the MECP has an opportunity to request additional information, impose conditions, or issue a Part 16 Order on his or her own initiative within the 30 calendar days after the conclusion of the 30-day public comment period. Following the completion of these two time

periods and subject to obtaining any required permits, approvals and authorizations, Environmental Clearance will be issued allowing the proposed undertaking or works to proceed to construction.

2.1 Previous Environmental Assessment Studies

As illustrated in **Figure 2-1**, this current Study builds on previous related EA processes and approvals for New Highway 7 from Kitchener to Guelph. New Highway 7 is an 18 km four-lane divided freeway extending from the Kitchener-Waterloo Expressway (Highway 85) in Kitchener easterly to the Hanlon Expressway (Highway 6) in Guelph. These EA processes and approvals are further described as follows:

New Highway 7 Planning Study – Individual EA

The *Environmental Assessment Report, Highway 7 from Kitchener to Guelph (1997)* study documented the planning of the freeway and was conducted under the Individual EA process. An amendment to the EA Report (*Amendment to the Environmental Assessment Report, Highway 7 from Kitchener to Guelph (2004)*) documented the proposed changes to the 1997 EA report. The EA amendment was submitted to the Ministry of the Environment (MOE) and received approval in March 2007.

New Highway 7 Planning Study – Class EA

The *Transportation Environmental Study Report (TESR), Highway 7 New from Kitchener to Guelph (2012)* was prepared to document amendments to the approved Individual EA after MTO proposed changes to the freeway. The TESR documented the evaluation of the proposed changes, identified the anticipated environmental effects and proposed mitigation measures, and the consultation undertaken. The proposed changes addressed design improvements, project updates and improvement to the overall value of the project. The changes were documented in the TESR, which received environmental clearance in October 2012, which allowed the project to proceed to the detail design and construction phases.

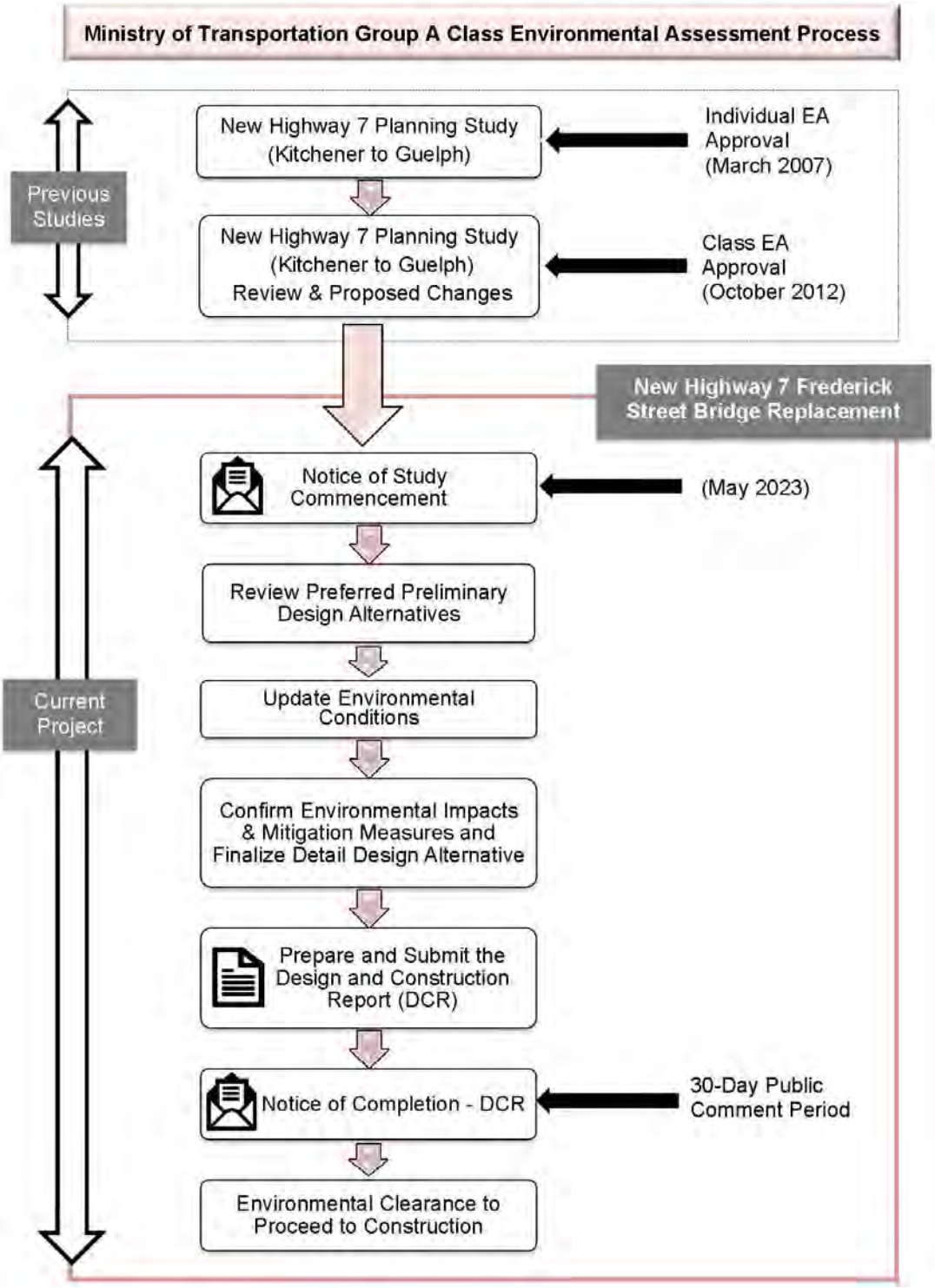


Figure 2-1 Ministry of Transportation Group A Class EA Process

3. Project Description

The replacement of the existing Frederick Street bridge is required for the construction of New Highway 7 between the Cities of Kitchener and Guelph. The Frederick Street bridge needs to be lengthened to permit the Edna Street ramp to Highway 7 and the Highway 7 ramp to Bruce Street to be repositioned to accommodate the widening of Highway 7.

The replacement bridge will consist of a new two-span structure. The pier location will be in the center of the highway between the northbound lane and southbound lane. The width of Frederick Street on the replacement bridge will be similar to the existing bridge but modified to provide for a single traffic lane in each direction, shoulders, and multi-use paths. Error! Reference source not found. in **Appendix A** provides the general arrangement drawing for the new Frederick Street bridge. Frederick Street will also be raised to permit construction and provide clearance for traffic on Highway 7.

In addition, a portion of the future southeast retaining wall that is in proximity to 507 Frederick Street will be constructed. This future retaining wall will include a noise barrier. Also, several existing utilities and a forcemain need to be relocated prior to replacing the existing Frederick Street bridge. **Figure 3-1** illustrates the proposed utility and forcemain work areas relative to the Frederick Street bridge replacement work area.

Relocation of Bell Canada and Rogers Cable Utilities

Bell Canada and Rogers Cable have infrastructure (ducts) attached to the existing Frederick Street bridge. Before the existing bridge can be demolished, this existing infrastructure needs to be relocated permanently. To accomplish the relocation, Bell Canada will be tunneling a new conduit for their ducts under Highway 7 near the ramps for Edna Street and Bruce Street.

To make the connection to the conduits on Frederick Street, work will need to be completed on Ann Street and Edna Street as shown in blue on the Project Area plan. Rogers Cable will be relocated by utilizing their existing duct system.

Relocation of the Region of Waterloo Sanitary Forcemain

The Region of Waterloo's Spring Valley Sanitary Forcemain is located within the excavation area to lengthen the bridge along the east side of Highway 7. The forcemain needs to be relocated prior to replacing the Frederick Street bridge. During the planning for New Highway 7, a forcemain realignment from the end of Ann Street near Ephraim Street to Fife Avenue to Becker Street was selected as the preferred location.

To relocate and construct the forcemain other municipal services such as a local watermain, a sanitary sewer, and a storm sewer will need to be replaced. Working with the City of Kitchener, the forcemain will be relocated and Ann Street, Fife Avenue and Becker Street will be reconstructed as shown in **Figure 3-1**.

Replacement of the Frederick Street Bridge

Following the relocation of the Bell Canada and Rogers Cable infrastructure and the Region of Waterloo forcemain, the replacement of the Frederick Street bridge over Highway 7 will begin. For the bridge construction, Frederick Street will be closed to all traffic at the bridge; however, local access to the businesses and for residents will be maintained. Following the closure of Frederick

Street, the first step for the construction will be the demolition of the existing bridge, which will require a one-day closure of Highway 7 during the weekend.

After the demolition, bridge construction will begin with the new abutments and piers constructed, then the placement of the temporary falsework to support the new bridge, placement of steel and concrete, and then paving of the road surface for traffic.

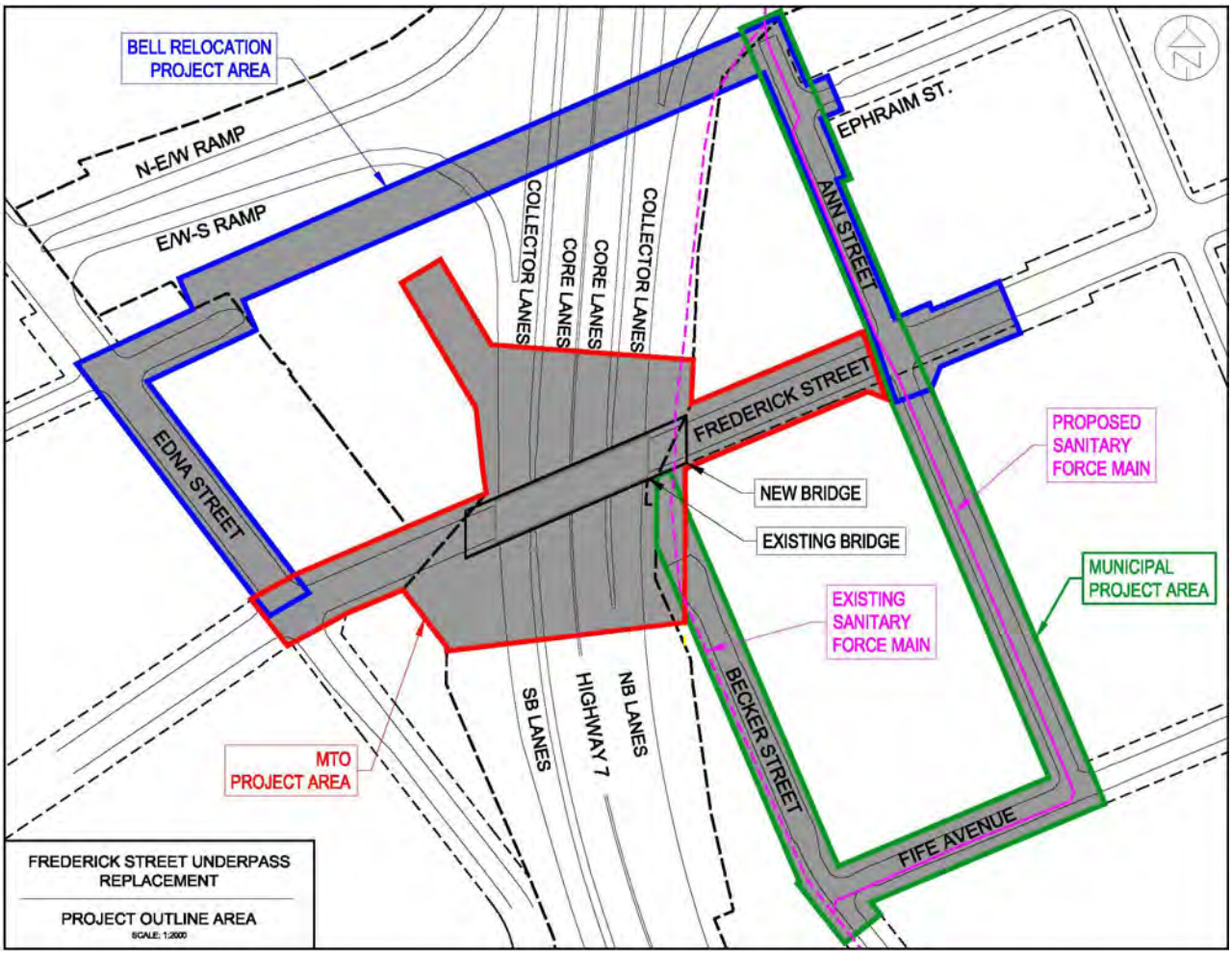


Figure 3-1 Frederick Street Bridge Replacement Work Components

3.1 Anticipated Timing and Duration of Construction

The proposed works will be completed sequentially with some overlap between the relocation of the utilities and forcemain and replacement of the Frederick Street bridge. **Table 3.1** provides an overview of the anticipated timing and duration of construction. **Figures B.1** to **B.4** in **Appendix B** provide the anticipated construction and traffic staging plans for the replacement of the Frederick Street bridge. The actual construction timing of the proposed works is subject to funding and approvals and change by MTO.

Table 3.1 Anticipated Order of Construction Activities

Component	Proposed Activities
Rogers Relocation	Relocate conduit off Frederick Street bridge to alternate location outside of Project limits.
Bell Canada Civil Construction	Install conduit under Highway 7 and associated conduit on the municipal streets
Ann, Fife, and Becker Street Reconstruction	Installation of Forcemain and replacement of sanitary sewers, storm sewers, watermains, road base/pavement and sidewalks.
Bell Canada Cable Installation	Following the conduit installation, Bell Canada begins to install cables and cutting over services from cables on the existing Frederick Street bridge to the new cables.
Forcemain Relocation	The Ann, Fife and Becker Street Reconstruction completes the new forcemain construction and the existing forcemain can be removed/abandoned.
Frederick Street Bridge Demolition	The existing Frederick Street Bridge is demolished permitting the start of the construction of the new bridge. Frederick Street is closed to through traffic.
Frederick Street Bridge Construction	The new Frederick Street bridge is constructed. Highway 7 collector lanes are reduced to one lane in each direction versus the existing two lanes in each direction. Frederick Street is closed to through traffic.
Frederick Street Bridge Construction	The Frederick Street bridge is constructed but work is completed such that Highway 7 is returned to existing conditions with two lanes in each direction within the collector lanes. Frederick Street is closed to through traffic.
Frederick Street Bridge Construction	Work on the bridge and the project is completed. Frederick Street is opened to through traffic.

4. Existing Environmental Conditions

The Frederick Street bridge is situated within an urban area of the City of Kitchener with primarily residential and commercial land uses on the east side of Highway 7 and mostly light industrial and commercial uses on the west side of Highway 7 (**Figure 4-1**). The following summarizes existing environmental conditions in the vicinity of the Frederick Street bridge based on the MTO's New HWY 7, Frederick Street Underpass Replacement: Final Design-Build Ready Report, July 2021.

Figure 4-1 Existing Land Use in the Vicinity of the Frederick Street Bridge

4.1 Natural Environment

There are no provincially or regionally designated natural areas present within the Frederick Street bridge Study Area (Study Area). The Study Area was assessed in April 2021 and included a botanical inventory, a modified Ecological Land Classification, and wildlife field investigations (e.g., suitability of the Frederick Street bridge for bird nesting, habitat assessment for potential to support SAR known to be present in the surrounding regional landscape, observations of SAR or Provincially/Regionally Rare species).

In addition, there are no watercourses within the Study Area. As a result, a fisheries assessment was not required.

4.1.1 Vegetation

The areas surrounding the Frederick Street bridge consist primarily of periodically mown/maintained seeded embankments and roadside drainage ditches typical of a highway Right-of-Way (ROW). These areas are dominated by grasses and herbs and are classified as a Cultural Meadow (CUM1) community. No treed or wetland communities are present in the vicinity of the proposed works. All potentially impacted vegetated communities are regularly subject to anthropogenic disturbances including ROW maintenance and indirect impacts such as salt-spray. As such, a high proportion of invasive and disturbance-tolerant species are present.

Trees with a Diameter at Breast Height (DBH) of <10 cm are present in the Study Area. Most of these trees are located along property lines (<3 m from property boundaries) and are likely to be

impacted by the bridge works. Tree species consist primarily of nonnative species such as Black Locust (Robinia pseudoacacia), Norway Maple (Acer platanoides), Manitoba Maple (Acer negundo), Russian Elm (Ulmus pumila), Little Leaf Linden (Tilia cordata), Norway Spruce (Picea abies), and Black Pine (Pinus nigra). Planted native trees were uncommon and included species such as Red Maple (Acer rubrum), and Black Walnut (Juglans nigra).

No flora Species at Risk (SAR) or provincially rare vascular plant species and no provincially rare or uncommon vegetation communities are present in the vicinity of the proposed works. None of the potentially impacted vegetation communities, associated species recorded, or species expected to be present in the Study Area, nor their habitat value, are rare or limiting in the broader landscape surrounding the proposed works.

4.1.2 Migratory Birds Nest Assessment

The Frederick Street bridge was assessed for nesting activity to determine if any migratory birds protected under the Migratory Birds Convention Act (MBCA) were present. No active nests, or remnants of nests from previous years were observed. The bridge is unsuitable for species such as Barn Swallow (Hirundo rustica) and Bank Swallow (Riparia riparia) due to the smooth nature of the concrete on the underside of the bridge.

4.1.3 Species at Risk and Species of Conservation Concern

Records of five SAR were identified through the Natural Heritage Information Center (NHIC) database: Eastern Milksnake (Lampropeltis triangulum; SC), Midland Painted Turtle (Chrysemys picta marginata; SC), Eastern meadowlark (Sturnella magna; Threatened), Bobolink (Dolichonyx oryzivorus; Threatened), and Wood Thrush (Hylocichla mustelina). No SAR or provincially rare wildlife were observed including the five listed SAR. As stated, the Study Area is anthropogenic and of a highly disturbed nature, and no habitat for these or any other SAR known to occur in the broader landscape was observed during previous field investigations.

4.1.4 Groundwater

The observed groundwater represents shallow, unconfined conditions within the native sand deposits, or in the fill material. Groundwater samples collected from monitoring wells within the Study Area contained concentrations of sodium, chloride and benzo(a)pyrene exceeding the Ministry of the Environment, Conservation and Parks (MECP) Table 2 Site Condition Standards for Industrial/Commercial/Community property uses, and concentrations of Total Kjeldahl Nitrogen (TKN) and Total Suspended Solids (TSS) exceeding the Region of Waterloo Sanitary Sewer Bylaw criteria.

The groundwater samples collected also exceeded the Region of Waterloo Storm Sewer Bylaw criteria for several metals parameters: aluminum, cobalt, copper, iron, lead, silver vanadium, and zinc, and for the nutrient phosphorus.

4.2 Socio-Economic Environment

4.2.1 Land Use

As stated, the Study Area is urban and land use adjacent to Frederick Street and Highway 7 consists primarily of light industrial/commercial, government/institutional, residential, and recreational. Most of the residential dwellings are one-story or two-story homes. An existing noise barrier wall is situated

on top of the embankment along the east side of Highway 7, south of Frederick Street which shields most of the homes from traffic noise associated with Highway 7. The Henry Walser Funeral Home at 507 Frederick Street is located immediately to the east of Highway 7 and south of Frederick Street.

Frederick Street includes sidewalks and cycling lanes on both sides of the road which continue across the existing Frederick Street bridge. In addition, Grand River Transit provides bus service along Frederick Street. Frederick Street is an existing Regional Road classified as a planned transit corridor in the Region of Waterloo Official Plan.

4.2.2 Contamination and Waste Management

Since the Study Area is an urban built-up environment with light industrial/commercial businesses, there is the potential for subsurface impacts from past land uses and activities. It is estimated that excess soil will be generated and removed from the construction activities associated with the replacement of the bridge and relocation of the municipal services at Frederick Street, Becker Street to 50 m south of Fife Avenue, Fife Avenue from Becker Street to Ann Street, and Ann Street from Fife Avenue to 50 m north of Ephraim Street (Project Area).

4.2.2.1 Preliminary Environmental Characterization (Excess Soils Management)

With the preceding in mind, an Assessment of Past Uses (APU)[1][1], Sampling Analysis Plan (SAP)[2] and Site Characterization Report (SCR)[3] were prepared as part of the Study in general accordance with Ontario Regulation 406/19 (On-Site and Excess Soil Management) made under the Environmental Protection Act, R.S.O 1990, c. E.19 (EPA) and the Rules for Soil Management and Excess Soil Standards published by the Ministry of the Environment, Conservation and Parks (MECP) dated December 23, 2022[4][4]. The APU determined potentially contaminating activities (PCA) and areas of potential environmental concern (APEC) within the Study Area that may impact the quality of the excess soil which will be generated. In total, the APU identified the following APECs:

– Gasoline storage in fixed tanks (four)
– Commercial autobody shop and gasoline storage in fixed tanks
– Dry cleaner and gasoline storage in fixed tanks
– Fill material of unknown quality
– Application of de-icing agents
– Dry cleaner

The potential Contaminants of Potential Concern (COPC) associated with the excess soils that may generated during the construction activities based on the identified APECs are petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (collectively BTEX), electrical conductivity (EC), sodium adsorption ratio (SAR), metals/inorganics, volatile organic compounds (VOCs), and polyaromatic hydrocarbons (PAHs). In light of the potential COPC, a sampling program was developed based on the current and historic use of the Project Area as a roadway within a

[1] Assessment of Past Uses, Highway 85 Frederick St. Underpass Municipal Utility Relocations Intersection of Fife Avenue, Becker Street and Ann Street, Kitchener, Ontario, GWP 3001-22-00, GHD Limited, October 12, 2023 and Assessment of Past Uses, Highway 7/Frederick St. Underpass Intersection of Highway 85/7 and Frederick Street, Kitchener, Ontario, GWP 3025-20-00, GHD Limited, October 13, 2023.
[2] Sampling and Analysis Plan, Highway 85 Frederick St. Underpass Municipal Utility Relocations Intersection of Fife Avenue, Becker Street and Ann Street, Kitchener, Ontario, GWP 3001-22-00, GHD Limited, October 12, 2023 and Sampling and Analysis Plan, Highway 7 Frederick St. Underpass Intersection of Highway 85/7 and Frederick Street, Kitchener, Ontario, GHD Limited, October 13, 2023
[3] Soil Characterization Report, Highway 85 Frederick St. Underpass Municipal Utility Relocations Intersection of Fife Avenue, Becker Street and Ann Street, Kitchener, Ontario, GWP 3001-22-00, GHD Limited, October 12, 2023 and Soil Characterization Report, Highway 7/Frederick St. Underpass Intersection of Highway 85/7 and Frederick Street, Kitchener, Ontario, GHD Limited, October 13, 2023.
[4] The Regulation and the Rules reference completion of this assessment to Schedule D of O. Reg. 153/04 (Record of Site Condition)

residential and commercial/industrial area of Kitchener, Ontario as well as the areas of proposed excess soil excavation to assess potential contaminants within the affected municipal roads.

The SCR was completed to characterize soils in areas where excess soil was proposed to be generated within APECs and PCAs identified in the APU.

4.3 Cultural Environment

The areas impacted by the proposed works for the Frederick Street bridge replacement are considered to be disturbed and no further archaeological assessment is required based on previous archaeological assessments completed. Similarly, no built heritage resources and/or cultural heritage landscapes will be impacted by the proposed works for the Frederick Street bridge replacement based on the MTO's review of Transportation Environmental Study Report (2012) prepared for the Highway 7 New Kitchener to Guelph, 18 km, Class Environmental Assessment Study. As part of that Study, a Cultural Heritage Evaluation Report (CHER) was prepared for the entire Study Area which included the Frederick Street bridge (Unterman McPhail Associates 2009).

5. External Consultation Process

In accordance with the Class EA process, consultation was carried out with external stakeholders during the Study through several methods with several comments being received.

5.1 External Stakeholders Consulted

External stakeholders including local Members of Provincial Parliament (MPP), review agencies, utilities, Indigenous communities, and the public were consulted with as part of the Study to ensure they were made aware of it, had an opportunity to provide comments on it, and be responded to.

Table 5.1 summarizes the external stakeholders consulted and **Appendix C** provides the more detailed contact list.

Table 5.1 External Stakeholders Consulted

External Stakeholders
Local Members of Provincial Parliament (MPP)
Catherine Fife, Waterloo MPP
Laura Mae Lindo, Kitchener Centre MPP
Mike Harris, Kitchener-Conestoga MPP
Review Agencies
Provincial Ministries and Agencies
Ministry of Environment, Conservation and Parks Ministry of Citizenship and Multiculturalism (formerly the Ministry of Tourism, Culture and Sport) Ministry of Natural Resources and Forestry Ontario Provincial Police

External Stakeholders	
Municipalities and Regional Agencies	
City of Kitchener Region of Waterloo Grand River Conservation Authority Waterloo Region District School Board Waterloo Catholic District School Board	Student Transportation Services of Waterloo Region Grand River Transit Waterloo Regional Police Services Region of Waterloo - Paramedic Services
Utilities	
Enova Power Kitchener Utilities Bell Canada Rogers – SWO Wireline Access Network	Enbridge Gas Limited Telus Communications Inc. Waterloo North Hydro Inc. City of Kitchener – Engineering Division
Indigenous Communities	
Six Nations of the Grand River Territory Mississaugas of the Credit First Nation Haudenosaunee Development Institute	
Public	
Area residents/businesses/property owners in the vicinity of the Frederick Street bridge.	

5.2 Methods, Frequency, and Timing of Notification

5.2.1 Members of Provincial Parliament

The primary method for communicating with the three local MPPs was direct correspondence. The Notice of Study Commencement (NoSC) was sent directly to the local MPPs on April 17, 2023 via email (**Appendix C**).

5.2.2 Review Agencies

Like the MPPs, the primary method for communicating with review agencies was direct correspondence. The NoSC was issued to all review agencies via email on April 24, 2023 (**Appendix C**). In addition, all utilities received MTO's standard utility letters (Letters 1-4) directly through email on November 11, 2022 recognizing that this is a standard MTO notification procedure outside of the Class EA process.

Telephone calls and meetings were held with some of the utilities to respond to questions and comments stemming from the issued utility letter and NoSC.

In addition, individual meetings were held with the Region of Waterloo and the City of Kitchener following the issuance of the NoSC. The meetings provided an opportunity to present further detailed information on the Study as well as directly address comments from the Region and City.

5.2.3 Indigenous Communities

Similarly, the primary method for communicating with Indigenous communities was direct correspondence. On April 24, 2023, MTO issued the NoSC letter to the three Indigenous communities through direct correspondence (email).

5.2.4 Public

Several methods of consulting with the public were utilized during the Study. The first was the establishment of a website as part of initiating the Study: www.frederickstreetbridge.com. The website provided a landing page which provided an introduction and background information on the Study. This was followed by pages describing the project, providing an overview of the Class EA process and existing Study Area conditions, and how and who to contact the Study Team to provide comments.

This was followed by the distribution of the NoSC through bulk mailout to residents/businesses/property owners in the vicinity of the Frederick Street bridge during the week of April 24 to April 28, 2023.

The second method was via email. A project email address was established for the Study at initiation (frederickstreetbridge@ghd.com) as a single point of contact for receiving comments and responding to them.

In addition, following the distribution of the NoSC discussions were held directly with the owner of the Henry Walser Funeral Home via phone conversations in response to their comments because of their building being adjacent to the proposed works.

5.3 Consideration of Comments Received

In total, 14 comments were received after the NoSC was issued to local MPPs, review agencies, Indigenous communities, and the public. The 14 comments were from three review agencies (three comments), three utilities (six comments), and four public members (five comments). No comments were received from any of the Indigenous communities notified of the Study. In terms of review agencies, responses were received from the Ministry of Citizenship and Multiculturalism (MCM), Ministry of the Environment, Conservation and Parks (MECP), and Waterloo Catholic District School Board (WCDSB).

MCM requested to be kept informed of the Study and that archaeological and/or cultural heritage assessments be undertaken as part of the Study, as appropriate, and documented in the DCR. MECP requested that their “Areas of Interest” be considered in the Study as appropriate and receive the Notice of Completion – DCR and DCR for their records. The WCDSB requested that a particular staff member be added to the Study contact list.

Most of the comments from utilities were requests related to the Study contact list (e.g., remove a contact name, add a contact name). One private utility company also requested that a utility duct for their private services be added to the replacement bridge.

Two of the public members requested information on the estimated construction start date. One of the public members asked questions about the availability of bike lanes, how long the bridge would be unavailable for because of demolition and construction, and the implications of the proposed works on a nearby vacant building. The other public member was the owner/operator of the Henry Walser Funeral Home who was interested in discussing their redevelopment plans in light of the Study and emailed and called the Study Team.

All comments were recorded, considered as part of the Study and formally responded to in a manner that the comments were received. **Table 5.2** summarizes the comments received and how they were considered in the Study. **Appendix C** includes all the written correspondence received and responses issued.

Table 5.2 Summary of Comments Received and Their Consideration in the Study

External Stakeholder	Summary of Comments Received	Consideration of Comments in the Study
Review Agencies		
Ministry of Citizenship and Multiculturalism (MCM)	Requested to remain on the Study contact list and be kept informed of the Study as it proceeds through the Class Environmental Assessment (EA) process. Any lands previously unassessed for archaeological potential within the Study area should be screened using the Ministry's *Criteria for Evaluating Archaeological Potential* to determine if additional archaeological assessment is needed. If it is determined that the Study area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken during the planning phase. If further AA(s) are recommended, then MCM recommends that further stages of AA be completed as early as possible during detail design and prior to any ground disturbing activities. The results of the AA will be summarized in the EA Report. This Study may impact built heritage resources and cultural heritage landscapes. Please advise whether the Study area has been screened for built heritage resources or cultural heritage landscapes and/or is the subject of a cultural heritage assessment. If technical cultural heritage studies have been previously undertaken for this Study area, please send us an electronic copy of the study(ies). Please determine whether the Frederick Street Bridge is included on the Ontario Heritage Bridge List listed in MTO's *Heritage Bridges:*	MCM remained on the Study contact list and was kept informed of the Study as it proceeded through the Class EA process. The areas to be impacted by the proposed works for the Frederick Street Bridge replacement are considered to be disturbed and no further archaeological assessment will be required based on previous archaeological assessments completed. No built heritage resources and/or cultural heritage landscapes will be impacted by the proposed works for the Frederick Street Bridge replacement based on the Ministry of Transportation's review of Transportation Environmental Study Report (2012) prepared for the Highway 7 New Kitchener to Guelph, 18km, Class Environmental Assessment Study. As part of that Study, a Cultural Heritage Evaluation Report (CHER) was prepared for the entire Study Area which included the Frederick Street Bridge (Unterman McPhail Associates 2009). The Frederick Street Bridge is Not included on the Ontario Heritage Bridge List (based on a review of Section 3.0 of the *Ontario Heritage Bridge Guidelines (MTO, Interim January 2008)*) Not listed in MTO's *Heritage Bridges: Identification and Assessment Guide, Ontario 1945-1965* Less than 40 years old Not locally or regionally unusual As recommended, documentation that no cultural

External Stakeholder	Summary of Comments Received	Consideration of Comments in the Study
	Identification and Assessment Guide, Ontario 1945-1965 40 years or older and not listed in the above Guide locally or regionally unusual Technical cultural heritage studies (e.g., archaeological assessment reports, cultural heritage evaluation reports, heritage impact assessment reports) and their recommendations should be included in the Design and Construction Report (DCR).	heritage resources will be impacted by the proposed works for the Frederick Street Bridge replacement will be included in the DCR (**Section 4.3**).
Ministry of the Environment, Conservation and Parks (MECP)	MECP acknowledges that MTO is following the approved environmental planning process for a Group A project under the Class Environmental Assessment for Provincial Transportation Facilities. Provided the updated (August 2022) attached "Areas of Interest" document, which provides guidance regarding the MECP's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Please send a copy of the final notice to the MECP's West Central Region EA notification email account and send the final report to me for download.	All areas of interest applicable to the Study were addressed as part of carrying out the Class EA process. As requested, the Notice of Completion – DCR and DCR were sent to MECP.
Waterloo Catholic District School Board (WCDSB)	Requested that Jennifer Passy of the WCDSB be added to the Study contact list.	The Study contact list was updated to include Jennifer Passy.
Utilities		
Private Utility Company	Requested that a utility duct for their private services be added to the replacement bridge.	MTO does not permit private utilities to be attached/be enclosed within their bridge structures including the new Frederick Street bridge.
Bell Canada	Bell would not design their infrastructure for a third- party use. All Study related correspondence should be directed to Andrew Zuk and Robin Collier and no longer Noel Burgon.	Comment was provided to the private utility company for their information. The Study contact list was updated accordingly and further Study correspondence with Bell was with Andrew and Robin.

External	Summary of Comments Received	Consideration of Comments in the Study
Enbridge	Confirmed that there is no legacy Union Gas plant with the Study's limits so please contact Kitchener Utilities Gas for gas infrastructure information in this area. So, Enbridge can be removed from the Study's contact list.	Kitchener Utilities Gas was already included in the Study contact list and Enbridge was removed from it.
Public		
Henry Walser Funeral Home	Requested that the Study Team contact the owner/operator of the Henry Walser Funeral Home to discuss the Home's redevelopment plans in light of MTO's Study.	The owner/operator was called and a subsequent follow up email was sent providing anticipated timelines for the replacement of Frederick Street bridge and related utility and forcemain relocation works and who was responsible for the proposed works (MTO (bridge) and City of Kitchener (forcemain)). Further conversations and meetings have occurred to ensure that the timing of the Home's redevelopment plans can be undertaken during construction of the proposed works associated with the replacement of the Frederick Street bridge. The design details of both projects are being coordinated to ensure they are integrated as much as possible. The owner/operator was added to the Study contact list.
Resident	Requested the estimated start date for construction because of living in the vicinity of the Frederick Street bridge.	The homeowner was called and the estimated start date for construction was provided. The resident was added to the Study contact list.
Resident	Requested the estimated start date for construction because Frederick Street is one of my main transit routes for errands.	The estimated start date for construction was provided via email, and the resident was added to the Study contact list.
Resident	Asked questions about the availability of bike lanes, how long the bridge would be unavailable for because of demolition and construction, and the implications of the proposed works on a nearby vacant building.	A Multi-Use Path will be constructed on the replacement bridge and extended to Ann Street. The existing on-road cycle lane and sidewalk will be retained. The bridge will be unavailable for approximately 14 months during its demolition and replacement. The actual demolition of the existing

External Stakeholder	Summary of Comments Received	Consideration of Comments in the Study
		bridge should be done in approximately 1 day and will be completed on a weekend. MTO acquired 460 Frederick Street due to impacts to their driveway access and the need to construct the bridge and to relocate municipal services. Once replacement of the existing bridge is completed, MTO will develop further plans for the property. The resident was added to the Study contact list.

6. Anticipated Impacts, Proposed Mitigation and Monitoring Requirements

6.1 Natural Environment

6.1.1 Vegetation

6.1.1.1 Potential Impacts

The proposed works are confined to the existing Highway 7 ROW and all impacts to vegetation communities are anticipated to be the temporary removal of existing ROW vegetation. As previously stated, there are no provincially or regionally designated natural areas present within the study area and the ROW communities near the proposed work are already heavily influenced by anthropogenic disturbance. As such, no significant negative impacts are anticipated.

The rehabilitation works in all quadrants and the noise barrier wall will require permanent removal and relocation of trees/ shrubs. None of the potentially impacted vegetation communities or associated species recorded or expected in the area, or their habitat values, are rare or limiting in the broader landscape surrounding the project. Following construction, similar vegetation is expected to regenerate naturally and through seeding in areas of the ROW temporarily disturbed for construction and staging.

As with any construction activities, there is potential for indirect impacts to adjacent retained vegetation features during and following construction, including, but not limited to:

– Release of construction-generated sediment to adjacent habitats;
– Vegetation clearing/damage beyond the working area/ROW;
– Damage from excessive or improper application of herbicides and pesticides for ROW maintenance requirements;
– Increased potential for introduction of non-native species; and
– Spills of contaminants, fuels and other materials that may reach natural or semi-natural areas.

6.1.1.2 Mitigation Measures

The following mitigation measures shall be implemented to minimize adverse effects to the local retained vegetation communities and their associated habitat functions:

– The Contractor shall conduct vegetation removal and protection measures in accordance with Ontario Provincial Standard Specification (OPSS) 201 (clearing) and OPSS 801 (tree protection).
– Exposed surfaces will be re-stabilized and revegetated as soon as possible following disturbance (specifically within 45 days in graded areas) in accordance with OPSS 802 and 803.
– Dust control shall be completed using water, not chemical suppressants, and in accordance with MTO's general conditions.
– The Contract Administrator will have a Spills Prevention and Response Plan and required materials on site at all times in accordance with OPSS 100.
– All temporary erosion and sediment control measures are to be maintained in an effective, functioning, and stable condition. This will require routine inspections, including after storm
– events, and repair as required. Erosion and sediment control measures will remain in place until all site restoration activities are completed and disturbed areas are no longer susceptible to erosion and sedimentation.
– The Contract Administrator will be notified in the event the Contractor needs to clear additional vegetation beyond the construction area limits, as specified in the Contract documents, and these limits will be reviewed in the field for acceptability.
– Appropriate vegetation clearing techniques will be used.
– Cut and grubbed material shall be disposed of through chipping or other appropriate means.
– Avoid all unnecessary traffic, dumping and storage of materials over tree root zones adjacent to the ROW.

6.1.2 Wildlife Habitat

6.1.2.1 Potential Impacts

Wildlife habitat is associated with vegetation suitable for wildlife to use for nesting activities. Impacts to wildlife and wildlife habitat are limited to minor, incremental impacts in highly disturbed areas. As outlined in the preceding section, there will be direct removals of cultural/tolerant vegetation; and therefore, wildlife habitat associated with this vegetation will also be removed.

Although no nests of migratory birds were observed in the vegetation or under the existing Frederick Street Bridge, there is potential for disturbance-tolerant bird species to nest in vegetation in or close to the ROW. Most migratory species and their nesting activity are protected by the federal Migratory Birds Convention Act (MBCA 1994). Potential impacts include disturbance to nesting activity or possibly loss of any nests present in the year of construction.

There is potential for other urban tolerant wildlife to move through or use the ROW habitat; and therefore, there is some potential for harm to these animals if they enter the work areas.

6.1.2.2 Mitigation Measures

The mitigation measures outlined to minimize adverse effects to vegetation communities will also protect the associated wildlife habitat functions. However, it is also necessary to ensure the

protection of breeding birds and other wildlife that may nest or otherwise use areas where construction is proposed. As a result, the following measures shall be carried out:

– For the protection of wildlife in general, the Contract Administrator shall ensure that:
– Any wildlife incidentally encountered during construction shall not be knowingly harmed and shall be allowed to move away from the construction area on its own if possible.
– In the event that an animal encountered during construction does not move from the construction zone, or is injured, the Contract Administrator will be notified.
– Nesting migratory birds are protected under the Migratory Birds Convention Act (MBCA, 1994). No work is permitted to proceed that would result in the destruction of active nests (nests with eggs or young birds), or the wounding or killing of bird species protected under the MBCA and/or Regulations under that Act. In order to protect nesting migratory birds, in accordance with the MBCA, the Contract Administrator shall ensure that:
    - No active nests (nests with eggs or young birds) shall be removed or disturbed in accordance with the Migratory Birds Convention Act (MBCA 1994).
    - No vegetation clearing (including grubbing and removal of trees, shrubs, plants and grasses) shall occur during the bird nesting season (April 1 to August 31), unless preceded by a nest search survey conducted by a qualified ecologist confirming the absence of active nests.

6.1.3 Groundwater

6.1.3.1 Potential Impacts

Construction dewatering is anticipated to be necessary for the construction of the Regional forcemain. Excavations should be constructed in stages and surface water should be directed away to prevent significant pooling of runoff at the site. If groundwater is encountered within the excavations, the dewatering discharge must be contained. Discharge to the sanitary or storm sewer system would require obtaining a permit prior to the commencement of construction. In general, discharge to the sanitary or storm system would require containment, treatment and sampling of collected groundwater.

Based on the calculated construction dewatering rates, it is recommended that a water taking Environmental Activity and Sector Registry (EASR) be obtained. It is the contractor's responsibility to obtain the water taking EASR. An EASR approval is required in Ontario for any pumping activities which involve removal of more than 50,000 L/day of water. Water may accumulate at the base of the excavations during rainfall and snow melt. Efficient construction will require that the accumulated water be removed as rapidly as possible. application to the Region of Waterloo for discharge into the sewer system, should be assessed prior to construction, in conjunction with the EASR.

Groundwater samples collected from monitoring wells within the Project lands contained concentrations of sodium, chloride and benzo(a)pyrene and several metals which exceed Waterloo Bylaw and MECP Site Condition Standards. Having said that, no adverse contaminant movement is anticipated to be a result of the dewatering as the dewatering rates are anticipated to be minor and temporary for the shaft excavations.

6.1.3.2 Mitigation Measures

Given the likelihood of groundwater works necessary during construction, the following mitigation measures are recommended to minimize adverse effects to the local environment.

– If groundwater control is required, then the system will operate in compliance with the following:
  - Monitoring and pumping requirements of an EASR or Permit to Take Water, if required
  - Requirements (including water quality requirements) of any discharge permits to local sewers.
  - Analytical influent and discharge requirements for operation of water treatment systems, if applicable.
  - The proposed sampling and analysis program identified above.
– The designer of the dewatering system will inspect the systems to ensure that they are installed and operated in accordance with the design. The systems will be inspected on a daily basis by a representative of the General Contractor in order to ensure that they are functioning appropriately.
– On-site daily recording of water taking records from each of the taking locations. A daily record of the total water taking at the site should also be completed.
– Results of the water quality sampling will be maintained at the site in conjunction with the above-noted water quantity monitoring.
– The operation of the dewatering system will be documented in the daily site inspection record.
– The record will include the following information:
  - A summary of observations and results of qualitative monitoring (visual, odour, etc.) of the seepage noted at the excavations of the site.
  - A summary of any unusual or unexpected groundwater conditions encountered during construction and dewatering will be provided.
  - Identification of any mitigation or remedial plans that have been implemented or proposed to be implemented at the site.
  - If a water treatment unit is required, all analytical results for water influent and effluent samples, and all operations and maintenance records for the unit must be kept up to date and stored at the site for inspection.

6.2 Built, Socio and Economic Environments

6.2.1 Excess Soils Management

6.2.1.1 Potential Impacts

Presently, excess soil is expected to be generated during construction activities. As previously mentioned, an APU, a SAP, and a SCR were prepared as part of the Study in general accordance with Ontario Regulation 406/19 (On-Site and Excess Soil Management) made under the Environmental Protection Act, R.S.O 1990, c. E.19 (EPA) and the Rules for Soil Management and Excess Soil Standards published by MECP dated December 23, 2022. Potential impacts related to excess soil management include the following:

– The area of impact as presented in the SCR is larger than expected and would require management.
– The discovery of soil contamination outside of the areas previously investigated.
– The excess soil volumes are larger than expected and/or a reuse site is not available.

6.2.1.2 Mitigation Measures

The following mitigation measures shall be carried out for addressing the preceding potential impacts related to excess soil management:

– Collect additional soil samples in accordance with the Excess Soils Rules[5] to characterize the excess soil for management and reuse.
– Collect soil samples for waste characterization and disposal at a MECP approved facility.
– Collect additional soil samples for characterization and locating of other reuse sites.

6.2.2 Traffic Noise

6.2.2.1 Potential Impacts

As mentioned, the existing southeast noise barrier wall situated on top of the embankment along the east side of Highway 7, south of Frederick Street presently shields most of the noise sensitive receptors from traffic noise associated with Highway 7. Since the proposed works include the partial reconstruction of the southeast noise barrier wall, a noise assessment was carried out as part of the Study[6]. The noise assessment identified almost 70 sensitive Outdoor Living Areas (OLAs) in the area and concluded all the predicted future (year 2035) noise levels at the assessed OLAs are greater than or equal to 65 dBA when the proposed works are constructed without noise barrier wall mitigation.

As a result, the noise assessment revaluated the entire barrier system for technical, economic, and administratively feasibility and concluded that it is considered technically feasible (with respect to acoustic performance), economically feasible to protect the impacted OLAs, and administratively feasible. As a result, it is recommended that the section of the existing noise wall barrier that is to be demolished as part of the proposed works be reconstructed and subjected to further assessment (e.g., structural, geotechnical, safety-related considerations, etc.).

6.2.2.2 Mitigation Measures

The section of the existing noise wall barrier that is to be demolished as part of the proposed works shall be reconstructed, which would benefit most of the OLAs identified in the noise assessment. **Figure 6-1** illustrates the proposed location of the noise barrier wall realignment.

[5] Rules for Soil Management and Excess Soil Quality Standards", adopted by reference in Ontario Regulation 406/19 (Generic Excess Soil Quality Standards) made under the Environmental Protection Act, R.S.O. 1990, c. E.19 (EPA), dated December 2020
[6] Noise Assessment Report, LVR-12 Highway 7/85 Frederick Street Bridge, Kitchener, Ontario, GHD Limited, September 27, 2023.

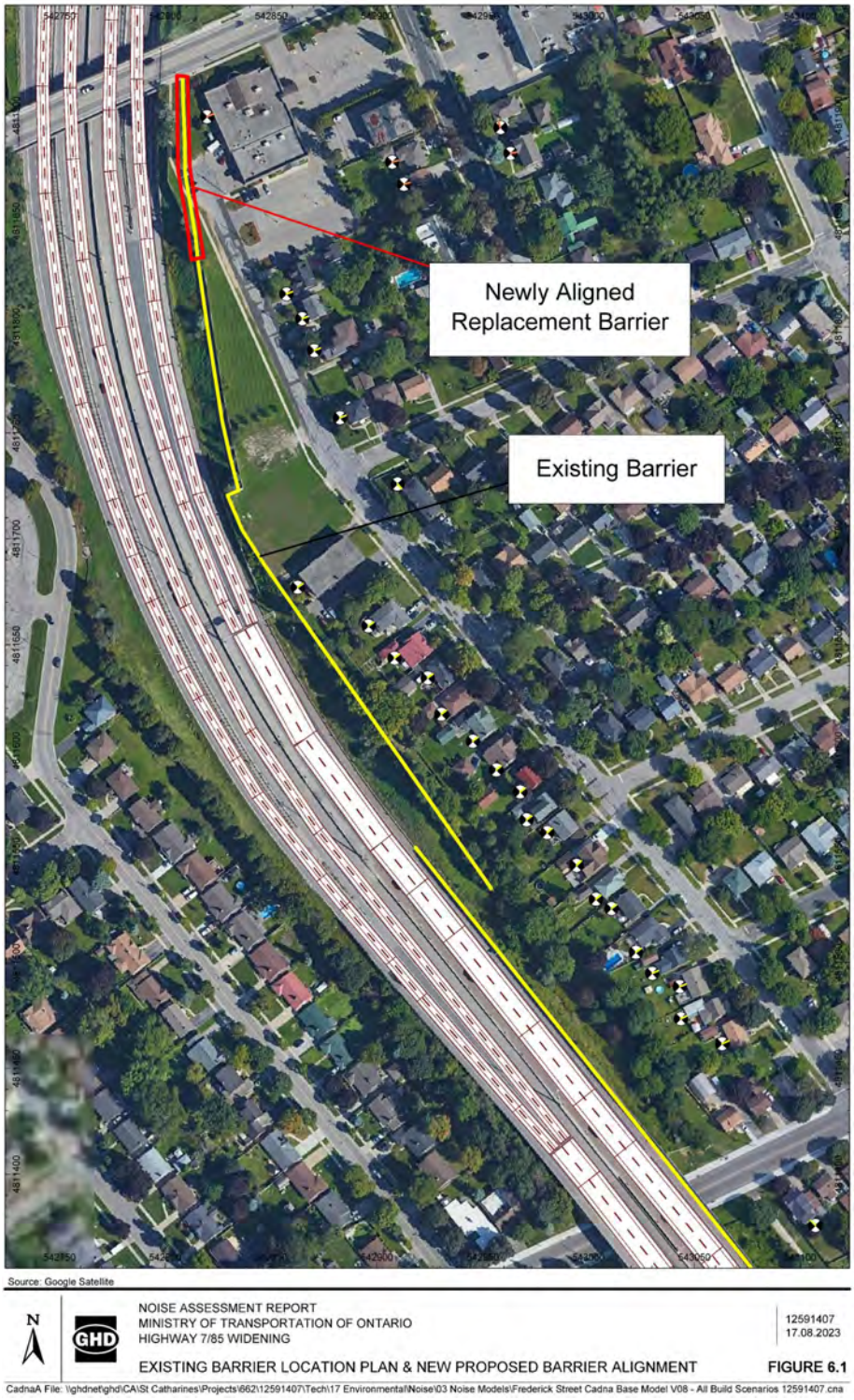


Figure 6-1 Existing Barrier Location Plan and New Proposed Barrier Alignment

A new noise barrier will be constructed at the Henry Walser Funeral Home.

6.2.3 Construction Noise

6.2.3.1 Potential Impacts

As part of the noise assessment carried out for the Study, temporary noise impacts were estimated at the most affected receptors for the construction stage. The estimated construction noise impacts are anticipated to exceed the noise level criteria during the bridge demolition and reconstruction work; however, the actual duration of any potential exceedance events is expected to be of a short duration.

6.2.3.2 Mitigation Measures

As construction noise could impact receptors in the vicinity of the proposed work, the following best management practices shall be carried out to minimize noise impacts due to the anticipated construction equipment and activities:

– All construction equipment shall be properly maintained according to manufacturer's recommendations and fitted with efficient muffling devices as well as be in accordance with the MECP's NPC-115 document.
– Construction equipment and/or activities typically known to be of annoyance shall consider the following options:
    - Limit operating time within the daytime period when ambient noise levels are expected to be higher. If construction needs to be undertaken outside of the normal daytime hours, local residents shall be informed beforehand of the type of construction planned and the expected duration.
    - Avoid unnecessary revving of engines and switch off equipment when not required (do not idle).
    - Undertake administrative controls to eliminate uncontrolled tailgate banging and minimize drop heights of materials. Equipment operators should be experienced and aware of administrative control policies.
    - Route haulage/dump trucks on main roads where possible, rather than quieter residential roads.
    - Maintain an acceptable setback distance from the identified OLAs, where practical.
    - Carry out additional noise studies or monitoring program to verify and document noise levels.
    - Use high-capacity compressed air storage to limit compressor usage.
    - Investigate other alternative construction equipment or processes to reduce noise emissions.

Additional Mitigation Measures for Consideration

During construction work adjacent to residential areas, if it is determined that there is a need to further reduce noise impacts (e.g., if persistent complaints arise), the following additional mitigation measures shall be considered and implemented, where appropriate:

– Implement noise compliance checks to ensure equipment levels are in compliance with MECP guideline NPC-115.
– Re-route construction and truck traffic, where possible.
– Coordinate 'noisy' operations such that they shall not occur simultaneously, where possible.

– Where possible, investigate and implement the use of alternative construction equipment or methods to reduce noise emissions from construction. Utilize alternative equipment that generate lower noise levels or optimize silencer/muffler/enclosure performance.
– Use rubber linings in chutes and dumpers to reduce impact noise.
– Install acoustic enclosures, noise shrouds, or noise curtains around noisy equipment.

Noise Complaint Protocol

A process for dealing with noise complaints during the construction shall be implemented as compliance with noise guidelines or regulations does not ensure noise complaints will not occur. Noise complaints are usually received directly from the complainant or a municipal by-law officer. The following provides a general recommended process for dealing with noise complaints:

– Identify an individual on the Project (e.g., Contracting Authority) to handle all potential noise complaints.
– Document the noise complaint. Include the date, time, and the individual's contact information from whom the noise complaint was received. Specific information such as the location, duration, time, and type of sound heard should be included as it will assist in the investigation process.
– Investigate the noise complaint and identify the source of the noise. If the noise complaint is justified with excessive noise levels measured at that location, then utilize best practices to minimize or eliminate the source of the noise and document when and what the action was to cause the complaint.
– Follow up with the complainant and provide the results of the noise complaint investigation including steps and/or actions to mitigate and/or limit future incidents.

6.2.4 Construction Vibration

6.2.4.1 Potential Impacts

As part of the Study, a Construction Vibration Zone of Influence (ZOI) Study was undertaken to assess potential ground-borne vibration associated with the demolition and construction activities that will occur at and in the immediate vicinity of the Frederick Street bridge relative to the potential impacts at nearby vibration sensitive uses/structures[7]. **Figure 6-2** illustrates the anticipated bridge demolition and construction boundaries associated with the proposed works. The proposed demolition and construction works have the potential to result in adverse vibration impacts at the following two existing structures adjacent to the Frederick Street bridge based on a review of neighbouring properties and the construction vibration zone of influence established through the Construction Vibration ZOI Study (**Figure 6-2**):

– Institutional receptor building located at 507 Frederick Street (Henry Walser Funeral Home)
– Commercial building located at 460 Frederick Street

[7] Construction Vibration Zone of Influence Study, LVR-12 Highway 7/85 Frederick Street Bridge, Kitchener, Ontario, GHD Limited, September 27, 2023.

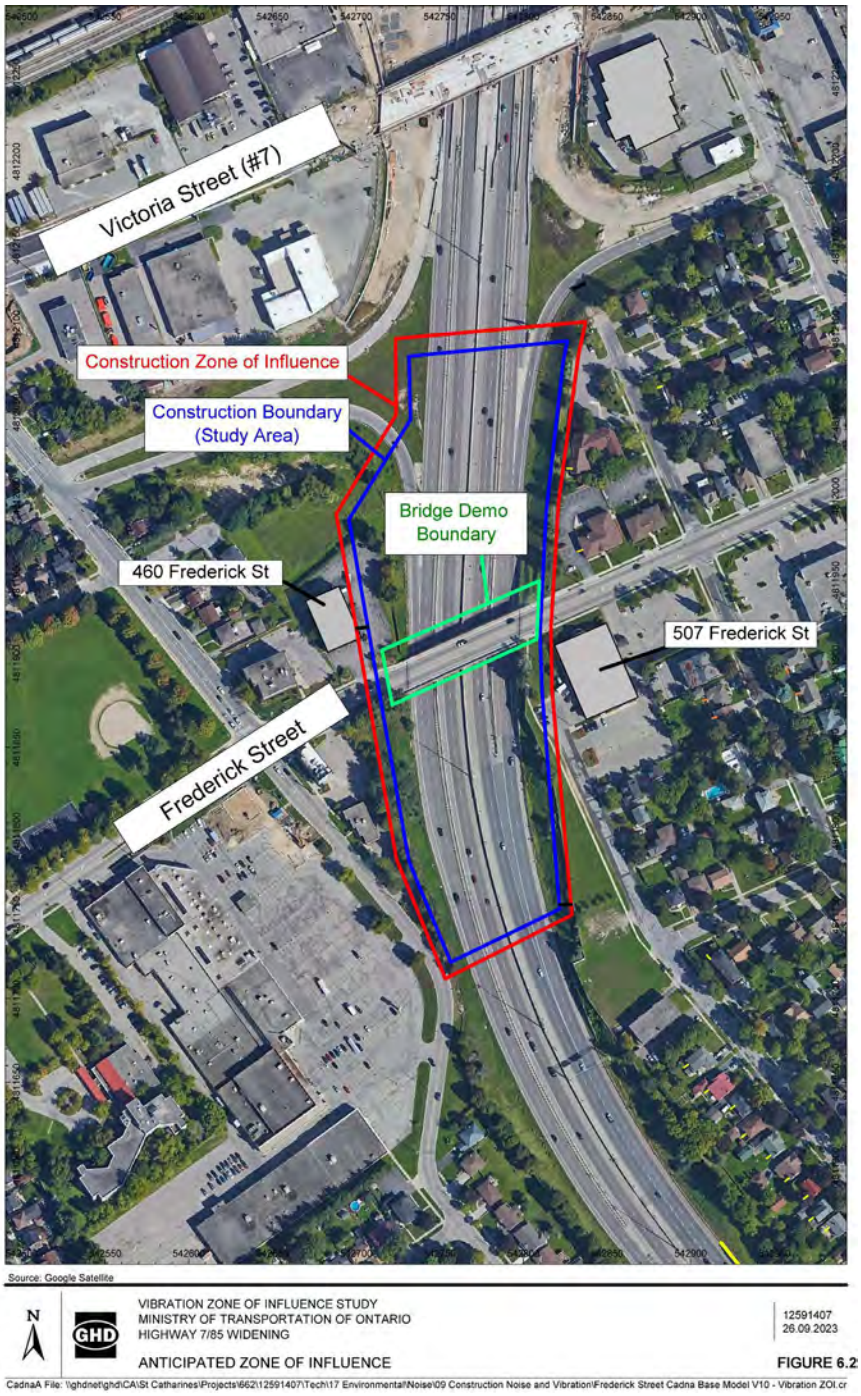


Figure 6-2 Anticipated Zone of Influence

It is not anticipated that ground-borne vibration intensities will exceed beyond the proposed zone of influence based on the proposed demolition and construction activities. However, the perceived vibration levels in combination with noise levels and visual effects of heavy machinery working in close proximity to adjacent buildings and properties may result in complaints from the public.

There are no structures which constitute particularly vibration sensitive receptors (defined as any building possessing stone rubble foundations and plastic or lathe wall finishes in the Vibration guideline) in the surrounding area. Additionally, there are no structures designated as heritage buildings per the *Ontario Heritage Act* in the surrounding area.

6.2.4.2 Mitigation Measures

Due to the potential for adverse vibration impacts, the following mitigation measures shall be undertaken:

– Employ non-vibratory equipment wherever possible, especially when in close proximity to the two ZOI properties when compacting the road base and asphalt materials.
– Limit hydraulic hammering and shearing operations to only the bridge structure area. In addition, pre-construction notification shall be undertaken consisting of the following:
– Distribute notifications to all potentially affected properties adjacent to the construction boundary with specialized notices to all property owners within the ZOI –prior to the start of the construction to advise them on and explain the proposed demolition and construction activities and offer a pre-construction survey of their property. Additionally, the notification shall include the following information:
    - The prohibited construction vibration levels
    - The construction boundary where the demolition and construction activities will be occurring
    - The date and time when the demolition and construction activities will be occurring
    - The name, address, telephone number and other contact information through which the person potentially affected by vibrations may contact MTO and the contractor carrying out the demolition and construction activities on behalf of MTO

The specialized notices for inside the ZOI shall explain that the property has been found to be within the established zone of influence and adverse vibrations are a possibility. The notification shall further mention that an active vibration monitoring program is being carried out to detect any unacceptably high vibration levels throughout the duration of the demolition and construction activities.

Vibration Complaint Protocol

The following steps shall be undertaken upon receiving a complaint regarding adverse vibration impacts:

– Vibration measurements should promptly be taken at the location of the complaint during periods of work which are representative of the offending operation (i.e., the operation which was being conducted at the time of the complaint).
– The results of these measurements should be provided to the complainant and MTO staff overseeing the work along with an interpretation of the results by a qualified Professional Engineer as to what the impacts of the measured vibration levels may be.
– If the measured levels at the complainant location exceed the specified allowable vibration levels, all construction work must cease until such time as additional mitigation measures have been implemented.

6.2.5 Air Quality

6.2.5.1 Potential Impacts

Localized air quality may be adversely affected during the proposed works due to dust generation from construction activities and equipment movements. The potential impacts are expected to be minor and temporary in nature.

6.2.5.2 Mitigation Measures

Best management practices for dust and other emissions control shall be applied to minimize potential air quality impacts during construction.

6.2.6 Traffic Management

6.2.6.1 Potential Impacts

The travelling public and access to local residences and businesses will be impacted by two significant disruptions during the proposed works. Once the bridge construction begins, Frederick Street will be closed at Highway 7 to permit the demolition of the existing bridge and the construction of the new bridge. This closure is expected to last about 14 months. Local access to residences and businesses will be maintained; however, traffic will need to be re-directed via alternative routes to cross Highway 7. The primary alternative routes will be Krug Street to the south and Victoria Street to the north.

Highway 7 underneath the Frederick Street bridge will be impacted during the proposed works as well. Currently, there are four traffic lanes on Highway 7 in each direction within either the core or collector for northbound and southbound traffic. Prior to the bridge demolition, short term lane closures will be required to complete preparatory works such as rerouting electrical subsystems, installation of storm and sanitary maintenance holes, and pavement stabilization.

A weekend will be selected during the Spring to provide for the full closure of Highway 7 at Frederick Street. During the full closure, northbound traffic will need to exit at Ottawa Street and route locally to Weber Street or River Road. For southbound traffic, traffic will need to exit at Edna Street and route locally to Victoria Street. The closure time will be during low traffic periods, typically from 10:00 p.m. on a Saturday to about 12:00 p.m. on a Sunday.

Following the full closure and demolition of the existing bridge, traffic will be fully restored on Highway 7 at Frederick Street. Over a two-week period, traffic will be reduced on Highway 7 at Frederick Street from four traffic lanes to three traffic lanes northbound and four traffic lanes to three traffic lanes southbound. This reduction is required to provide the space to permit the construction of the new bridge and maintain access from Highway 7 to Bruce Street and from Edna Street to Highway 7.

Highway 7 is planned to be restored to four traffic lanes northbound and four traffic lanes southbound by the winter.

6.2.6.2 Mitigation Measures

Advance signs notifying motorists of the Frederick Street closure at Highway 7 and during the actual closure shall be provided. Access to local residences and businesses shall be maintained during construction.

For the closure and lane closures on Highway 7, advance warning signs shall be provided to the travelling public in advance of the closures and during the closures themselves.

Table 6.1 Summary of Environmental Concerns, Commitments and Mitigation

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
	Vegetation			
	Temporary removal of existing ROW vegetation to facilitate construction activities	MTO/ MECP	6.1.1	– Clearly demarcate work limits at outset of construction and minimize unnecessary vegetation clearing. – Install temporary erosion and sediment control (ESC) measures prior to construction and maintain them throughout construction until restoration is complete and disturbed areas are stabilized against erosion (see Ontario Provincial Standard Specification [OPSS] 805). – Routinely inspect ESC measures, including following storms, and repair as required. – The Contractor shall conduct vegetation removal and protection measures in accordance with Ontario Provincial Standard Specification (OPSS) 201 (clearing) and OPSS 801 (tree protection). – Exposed surfaces will be re-stabilized and revegetated as soon as possible following disturbance (specifically within 45 days in graded areas) in accordance with OPSS 802 and 803. – Avoid working underneath canopy of existing trees to be retained. Where equipment must operate near trees to be retained, prune branches using best management practices to mitigate impacts to trees. – Where excavation is required near trees, tree roots are to be cut/pruned to the face of the excavation with a clean and sharp handsaw or loppers. Pruning cuts should result in a clean cut, with root bark securely attached at either side of the cut. – The Contract Administrator will be notified in the event the Contractor needs to clear additional vegetation beyond the study area limits, as specified in the Contract documents, and these limits will be reviewed in the field for acceptability. – Control dust using water and not chemical suppressants. – Conduct equipment maintenance and refueling at the designated and properly contained maintenance areas in the works

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
				yard or at commercial garages located well away from natural areas and outside retained vegetation areas. The Contractor should have a Spills Prevention Plan and required materials on site at all times in accordance with OPSS 100. – The potential for fuel oil and other hydrocarbon spills and leaks should be controlled by utilizing off-site fueling locations, a minimum distance of 30 m from natural areas. – Ensure that all vehicles and construction machinery are cleaned and maintained as per Clean Equipment Protocol for Industry (Halloran et al. 2013) prior to arrival on site and prior to departing site to prevent the introduction of pollutants or exotic invasive species (i.e., invasive European reed, garlic mustard and European buckthorn). – All construction materials, excess materials and debris should be removed and appropriately disposed of following construction. Cut and grubbed material should be disposed of through chipping in accordance with OPSS 180, or other appropriate means (e.g., site restoration reuse). – Implement environmental inspection during construction to ensure that all mitigation measures are implemented properly, maintained, and repaired and remedial measures are initiated in a timely manner where warranted. – All habitat loss will be temporary and located within the cultural meadow that is within the ROW. Areas temporarily cleared for the proposed work should be restored and revegetated using native seed mix appropriate for the seed zone and habitat type. It is recommended to include common milkweed into the seed mix to restore the cultural meadows to provide suitable foraging habitat for monarch once the grading areas seeded.

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
	Wildlife Habitat			
	Habitat loss caused by the proposed works will be temporary, restricted to the construction phase, and located within the ROW.	MTO/ MECP	6.1.2	– Nesting migratory birds are protected under the Migratory Birds Convention Act (MBCA, 1994). In order to protect nesting migratory birds, in accordance with the MBCA, the Contract Administrator will ensure that: • No active nests (nests with eggs or young birds) will be removed or disturbed in accordance with the Migratory Birds Convention Act (MBCA 1994). • No vegetation clearing (including grubbing and removal of trees, shrubs, plants and grasses) will occur during the bird nesting season (April 1 to August 31), unless preceded by a nest search survey conducted by a qualified ecologist confirming the absence of active nests. – Any wildlife incidentally encountered during construction should not be knowingly harmed or harassed and should be allowed to move away on its own. If an animal encountered during construction does not move from the construction zone and construction activities are such that continuing construction in the area would result in harm to the animal, all activities that could potentially harm the animal should cease immediately and the Contract Administrator should be notified. If any migratory bird protected under the MBCA builds a nest in the construction area, construction should cease until the young have fledged. Engage an experienced biologist to provide guidance on species appropriate timing for nest fledging and opportunity to resume construction without risk of contravening the MBCA.
	Groundwater			
	Groundwater works required during construction may impact the area.	MECP	6.1.3	– If groundwater control is required, then the system will operate in compliance with the following: • Monitoring and pumping requirements of an EASR or Permit to Take Water, if required.

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
				• Requirements (including water quality requirements) of any discharge permits to local sewers). • Analytical influent and discharge requirements for operation of water treatment systems, if applicable. • The proposed sampling and analysis program identified above. – The designer of the dewatering system will inspect the systems to ensure that they are installed and operated in accordance with the design. The systems will be inspected on a daily basis by a representative of the General Contractor in order to ensure that they are functioning appropriately. – On-site daily recording of water taking records from each of the taking locations. A daily record of the total water taking at the site should also be completed. – Results of the water quality sampling will be maintained at the site in conjunction with the above-noted water quantity monitoring. – The operation of the dewatering system will be documented in the daily site inspection record. The record will include the following information: • A summary of observations and results of qualitative monitoring (visual, odour, etc.) of the seepage noted at the excavations of the site. • A summary of any unusual or unexpected groundwater conditions encountered during construction and dewatering will be provided. • Identification of any mitigation or remedial plans that have been implemented or proposed to be implemented at the site. • If a water treatment unit is required, all analytical results for water influent and effluent samples, and all operations and maintenance records for the unit must be kept up to date and stored at the site for inspection.

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
	Excess Soils Management			
	The removal and management of on-site excess materials.	MECP	6.2.1	– The General Contractor will undertake their work in accordance with Ontario Provincial Standard Specification (OPSS) 180 – General Specification for the Management of Excess Materials. – Stockpiles of impacted material will be placed on a polyethylene barrier to segregate them from the underlying soils. Polyethylene shall be used to cover stockpiles at the end of each working day and shall be secured against heavy winds. – Stockpiling of excess materials must be kept to a minimal. – Uncovered stockpiles will be wetted, as required, to minimize generation of dust In the situations where the area of impact as presented in the Soil Characterization Reports is larger than expected and would require management, the discovery of soil contamination outside of the areas previously investigated, and/or the excess soil volumes are larger than expected and/or a reuse site is not available, then undertake the following: – Collect additional soil samples in accordance with the Excess Soils Rules[8] to characterize the excess soil for management and reuse. – Collect soil samples for waste characterization and disposal at a MECP approved facility. – Collect additional soil samples for characterization and locating of other reuse sites.
	Traffic Noise			
	Increase in noise levels at sensitive receptors when the proposed works are constructed without noise barrier wall mitigation	MECP	6.2.2	– Reconstruct the section of the existing noise wall barrier that is to be demolished as part of the proposed works at the Henry Walser Funeral Home.

[8] Rules for Soil Management and Excess Soil Quality Standards", adopted by reference in Ontario Regulation 406/19 (Generic Excess Soil Quality Standards) made under the Environmental Protection Act, R.S.O. 1990, c. E.19 (EPA), dated December 2020

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
	Construction Noise			
	Temporary increase in noise during construction activities.	MECP	6.2.3	– All construction equipment shall be properly maintained according to manufacturer's recommendations and fitted with efficient muffling devices as well as be in accordance with the MECP's NPC-115 document. – Construction equipment and/or activities typically known to be of annoyance shall consider the following options: • Limit operating time within the daytime period when ambient noise levels are expected to be higher. If construction needs to be undertaken outside of the normal daytime hours, local residents shall be informed beforehand of the type of construction planned and the expected duration. • Avoid unnecessary revving of engines and switch off equipment when not required (do not idle). • Undertake administrative controls to eliminate uncontrolled tailgate banging and minimize drop heights of materials. • Equipment operators should be experienced and aware of administrative control policies. • Route haulage/dump trucks on main roads where possible, rather than quieter residential roads. • Maintain an acceptable setback distance from the identified OLAs, where practical. • Carry out additional noise studies or monitoring program to verify and document noise levels. • Use high-capacity compressed air storage to limit compressor usage. • Investigate other alternative construction equipment or processes to reduce noise emissions – During construction work adjacent to residential areas, if it is determined that there is a need to further reduce noise impacts (e.g., if persistent complaints arise), consider additional mitigation measures and implement, where appropriate

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
				– Implement a noise complaint protocol for dealing with noise complaints during construction.
	Construction Vibration			
	Temporary increase in vibration during construction activities impacting neighbouring properties including 2 Zone of Influence (ZOI) buildings.	MECP	6.2.4	– Employ non-vibratory equipment wherever possible, especially when in close proximity to the two ZOI properties when compacting the road base and asphalt materials. – Limit hydraulic hammering and shearing operations to only the bridge structure area. – Distribute notifications to all potentially affected properties adjacent to the construction boundary – with specialized notices to all property owners within the ZOI – at least one week prior to the start of the construction to advise them on and explain the proposed demolition and construction activities and offer a pre-construction survey of their property. – Undertake pre-construction surveys of the two properties identified in the ZOI to document existing conditions of the properties by the construction contractor. – Carry out construction vibration monitoring during select activities with significant potential for vibration when in close proximity to the existing buildings within the ZOI. It is recommended that initial monitoring be conducted at the closest properties during the first construction activities to ensure no adverse effects and that the ZOI is appropriate. – Implement a vibration complaint protocol for dealing with adverse vibration impacts during construction.

ID #	Issues/Concerns / Potential Effects	Concerned Agencies	Section	Mitigation/Protection/ Monitoring
	Air Quality			
	Localized air quality may be temporary adversely affected during construction due to dust generation from construction activities and equipment movements.	MTO/MECP	6.2.5	The following best management practices for dust and other emissions control shall be implemented during construction: – Undertake regular cleaning of construction sites and paved roadway to remove construction-caused debris and dust. – Use covered loads when hauling fine-grained materials. – Employ prompt cleaning of the paved roadway where tracking of soil, mud or dust has occurred. – Employ tire washes and other methods to prevent trucks and other vehicles from tracking soil, mud, or dust onto the paved roadway. – Cover stockpiles of soil and aggregate as necessary. – Comply with posted speed limits and, as appropriate, reduce speeds further when approaching work zone.
	Traffic Management			
	The travelling public and access to local residences and businesses will be impacted by the proposed works.	MTO	6.2.6	– Provide advance signs notifying motorists of the Frederick Street closure at Highway 7 and during the actual closure. – Maintain access to local residences and businesses during construction. – Provide advance warning signs to the travelling public in advance of the lane closures on Highway 7.

6.3 Monitoring

6.3.1 Construction Vibration Monitoring

A construction vibration monitoring program shall be carried out during select activities with significant potential for vibration when in close proximity (<9.7 m) to the existing buildings within the ZOI. The construction vibration monitoring program is briefly summarized as follows and further elaborated upon in the Construction Vibration ZOI Study.

Pre-Construction Measurement of Background Vibrations

Measurements of existing background vibration levels at/within the two ZOI properties will need to be completed prior to the commencement of construction to establish ambient conditions.

Pre-Construction Inspection of Adjacent Buildings and Structures

A pre-construction survey of the two ZOI properties will need to be completed to identify any existing cracks in walls, floors and exterior cladding of the structure and interior finishes of all stories below grade in sufficient detail to facilitate comparison of preconstruction and post-construction condition.

Vibration Monitoring Protocol

The City of Toronto's Toronto Municipal Code Chapter 363, Building Construction and Demolition, Article 5 January 2, 2020 (Vibration guideline) shall be used as the regulatory standard for vibration monitoring. The Vibration guideline lists the prohibited construction vibration levels that shall be adhered to. As a conservative approach, the vibration monitoring devices should be configured to trigger an alarm whenever exceedances above 8 mm/s occur. Should any vibration triggers exceed the threshold limits provided in the Vibration guideline, onsite staff shall be notified to review and adjust their construction operational parameters or to cease operations.

Seismographs (such as Bartec Syscom MR-3000C, Instantel Minimate or similar system) shall be used to monitor and record construction vibration levels and armed with alarms that provide notification to all relevant stakeholders in the event the "Do Not Exceed" thresholds are exceeded. The seismographs shall be installed between critical construction activity and the closest receptors and moved as the nature of the construction activity changes over time. The initial monitoring shall be conducted at the closest properties during the first demolition and construction activities to ensure no adverse vibration impacts and that the ZOI is appropriate. **Figure 6-3** shows the recommended initial seismograph placement locations.

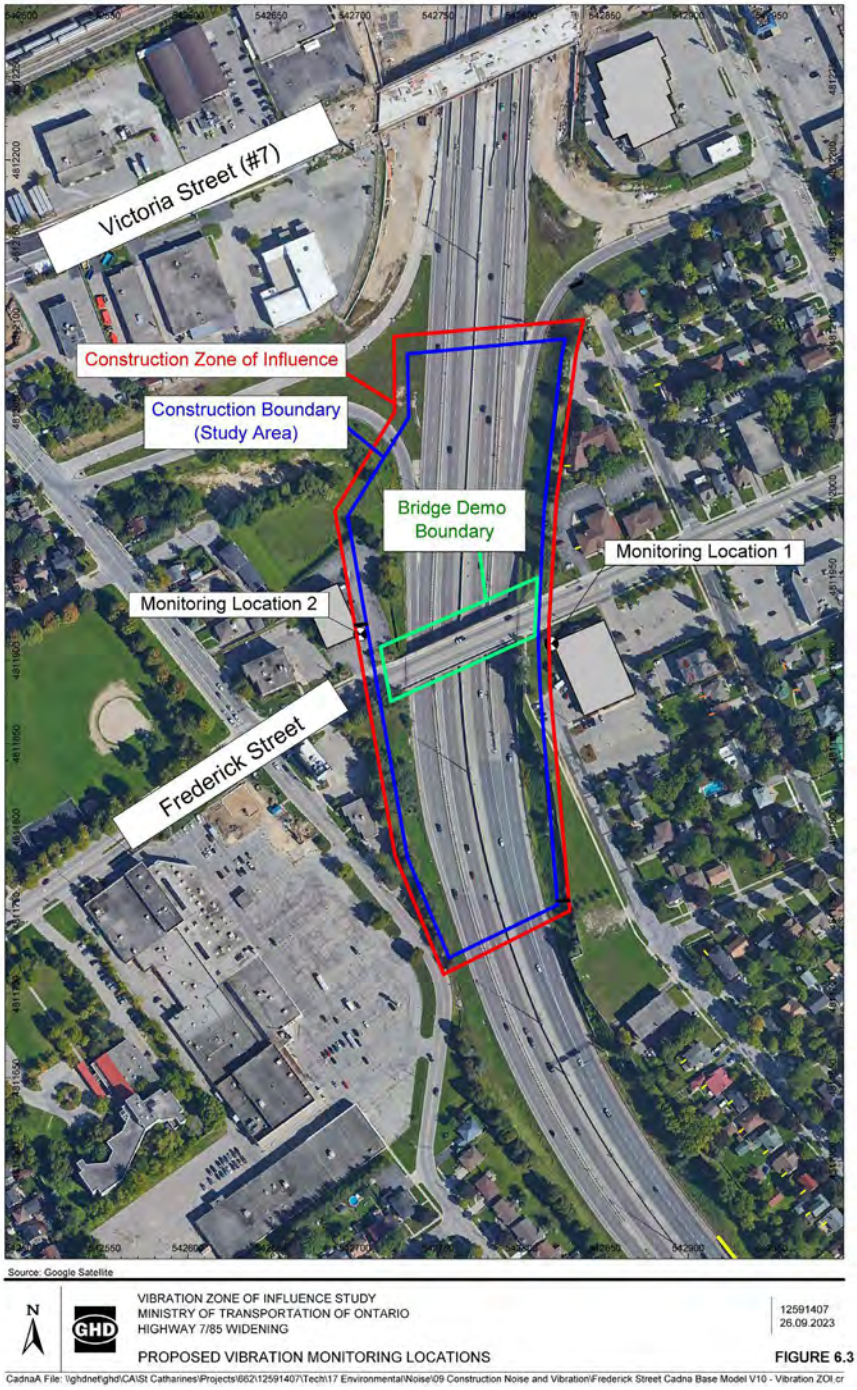


Figure 6-3 Proposed Vibration Monitoring Locations

Monitoring Reporting

Reports summarizing monitored vibration levels shall be submitted on a weekly basis and distributed to relevant stakeholders. The reports shall include maximum measured vibration levels in each monitoring interval, and a discussion on compliance with the threshold limits. A summary discussion if events that exceed the limits shall be included, together with a description of corrective measures taken to reduce vibration to compliant levels.

6.3.2 General Construction Monitoring

An Environmental Synopsis will be developed for future distribution to the Contract Administrator and Contactor outlining the environmental elements associated with the proposed works. The Environmental Synopsis will document the environmental issues that may arise during construction, environmental documents available, roles and involvement of specific review agencies, and the summary of environmental concerns and commitments table.

During construction, the on-site Contract Administrator will ensure that implementation of mitigating measures and key design features are consistent with the contract, external commitments, and any permit requirements. In addition, the effectiveness of the environmental mitigating measures is to be assessed to ensure that:

– Individual mitigating measures are providing the expected control and/or protection
– Composite control and/or protection provided by the mitigating measures is adequate
– Mitigation measures are maintained, and any necessary repairs completed quickly
– Additional mitigating measures are provided, as required, for any unanticipated environmental problems that may develop during construction

An Environmental Inspector will ensure that the environmental protection measures outlined in this DCR and in the subsequent contract documents / specifications are carried out. In the event that problems develop, the MTO Environmental Planner and appropriate external ministry and/or agency representatives will be contacted to provide additional input and to address specific notification requirements as may be required under specific legislation.

If the impacts of construction differ from those anticipated, or the method of construction is such that there are greater than anticipated impacts, the Contractor's methods of operation will be changed or modified to reduce those impacts.

7. Summary

The MTO retained GHD to undertake the Detail Design and Class EA Study for the replacement of the Frederick Street bridge located in the City of Kitchener, Regional Municipality of Waterloo to advance the construction of the New Highway 7 – Kitchener to Guelph Project. The Study is classified as a Group A project in accordance with MTO's *Class Environmental Assessment for Provincial Transportation Facilities (2000)*. Group A projects represent new provincial transportation facilities and require a DCR to be prepared as part of the Class EA process. As a result, this DCR has been prepared documenting the Class EA process followed for this Study, which builds on previous related EA processes and approvals for New Highway 7 from Kitchener to Guelph.

Previously documented environmental conditions were augmented with additional environmental investigations undertaken as part of this Study, as required, to reflect the type and scale of the proposed works and nature of the Study Area being an urban environment composed of primarily light industrial, commercial, and residential land uses. In parallel with augmenting existing environmental conditions, detail design of the proposed works was carried out and review agencies, Indigenous communities, and the public were consulted through an issuance of a Notice of Study Commencement and the establishment of a project website for information dissemination. In total, 14 comments were received after the NoSC was issued to local MPPs, review agencies, Indigenous communities, and the public. The 14 comments were from three review agencies (three comments),

three utilities (six comments), and four public members (five comments). No comments were received from any of the Indigenous communities notified of the Study.

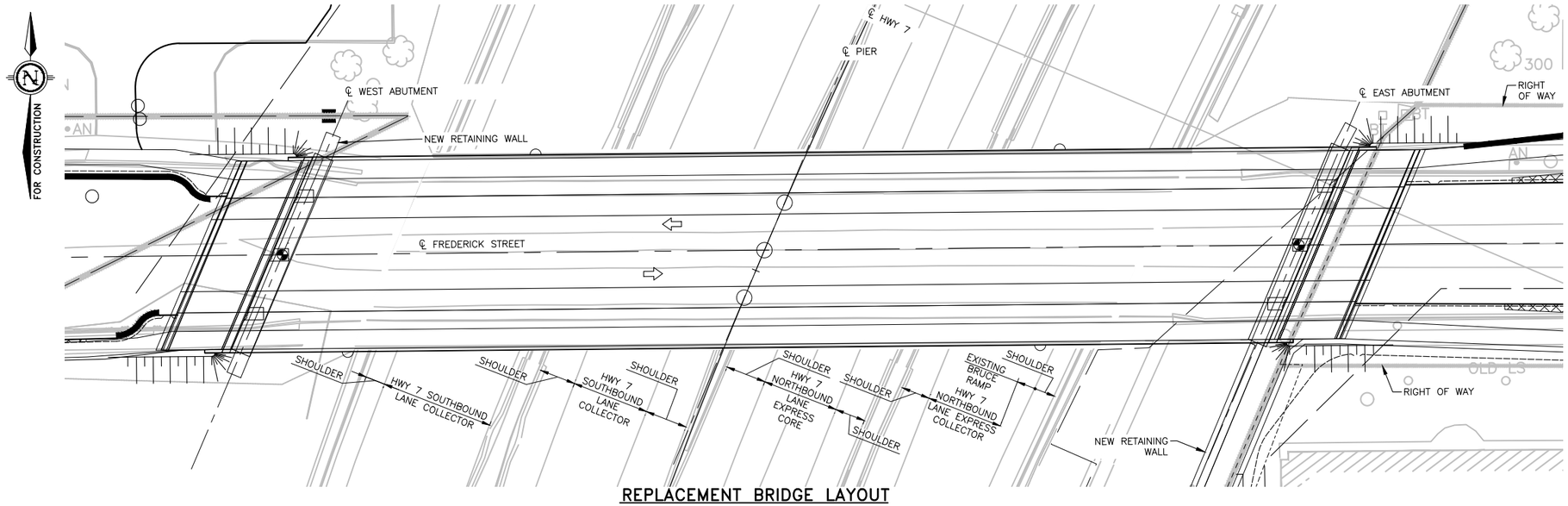
Next, an assessment of potential environmental impacts was carried out based on the detail design with consideration of the updated environmental conditions and comments received. Recognizing that the Study Area is urban, and the proposed works are generally confined to the provincial highway and municipal road Right-of-Ways, the anticipated impacts are associated more with the built, social, and economic environments rather than the natural environment. No potential impacts to the cultural environment are expected. Proposed mitigation measures were developed in response to the potential environmental impacts including those focused on short-term construction related effects like noise, vibration, dust, traffic disruption, etc.

Since the Study Area includes sensitive receptors (e.g., a funeral home, residences) near the Frederick Street bridge, which will demolished and replaced as part of the proposed works, noise and vibration complaint protocols are proposed along with a construction vibration monitoring program.

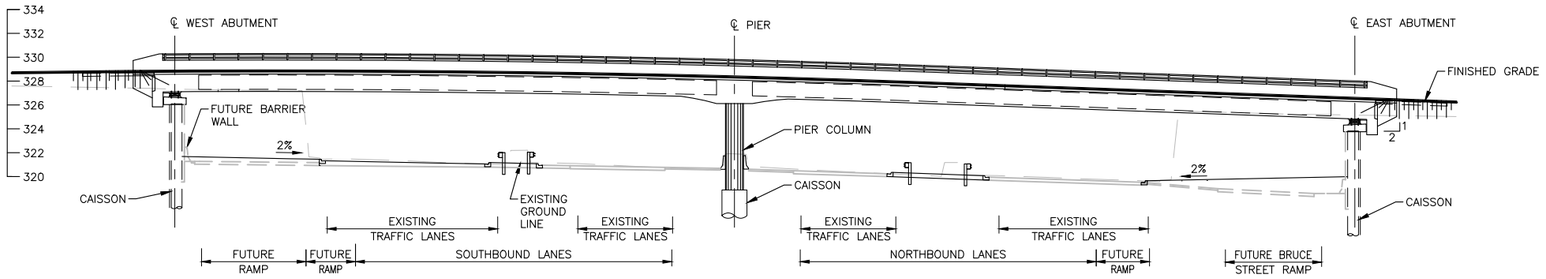
Appendices

Appendix A

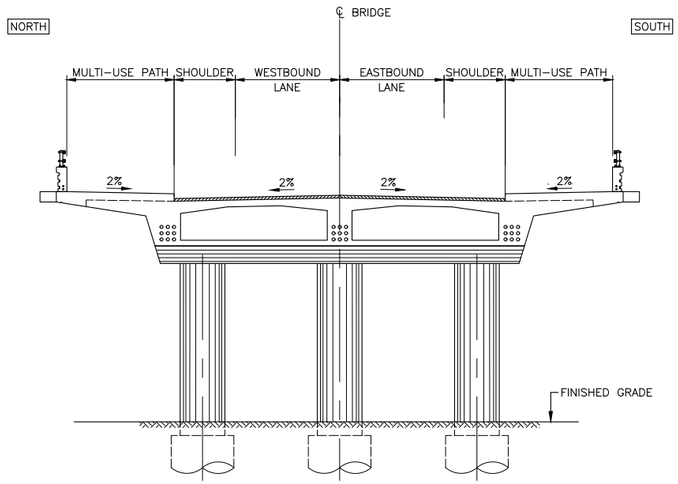
Views of the Frederick Street Replacement Bridge



REPLACEMENT BRIDGE LAYOUT
1:250



ELEVATION VIEW OF REPLACEMENT BRIDGE
1:250



VIEW OF REPLACEMENT BRIDGE LOOKING EAST
1:100

Ontario Ministry of Transportation

GHD

STUDY NAME:
DETAIL DESIGN AND CLASS OF ENVIRONMENTAL ASSESSMENT STUDY FOR ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7 FREDERICK STREET BRIDGE REPLACEMENT, KITCHENER: DESIGN AND CONTRUCTION REPORT

FIGURE NO:
FIGURE A.1

FIGURE NAME:
VIEWS OF THE FREDERICK STREET REPLACEMENT BRIDGE

Appendix B

Construction and Traffic Staging Plans

FREDERICK STREET BRIDGE REPLACEMENT STAGE 1 CONSTRUCTION AND TRAFFIC PLAN

DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT STUDY TO ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7 FREDERICK STREET BRIDGE REPLACEMENT, DESIGN AND CONSTRUCTION REPORT

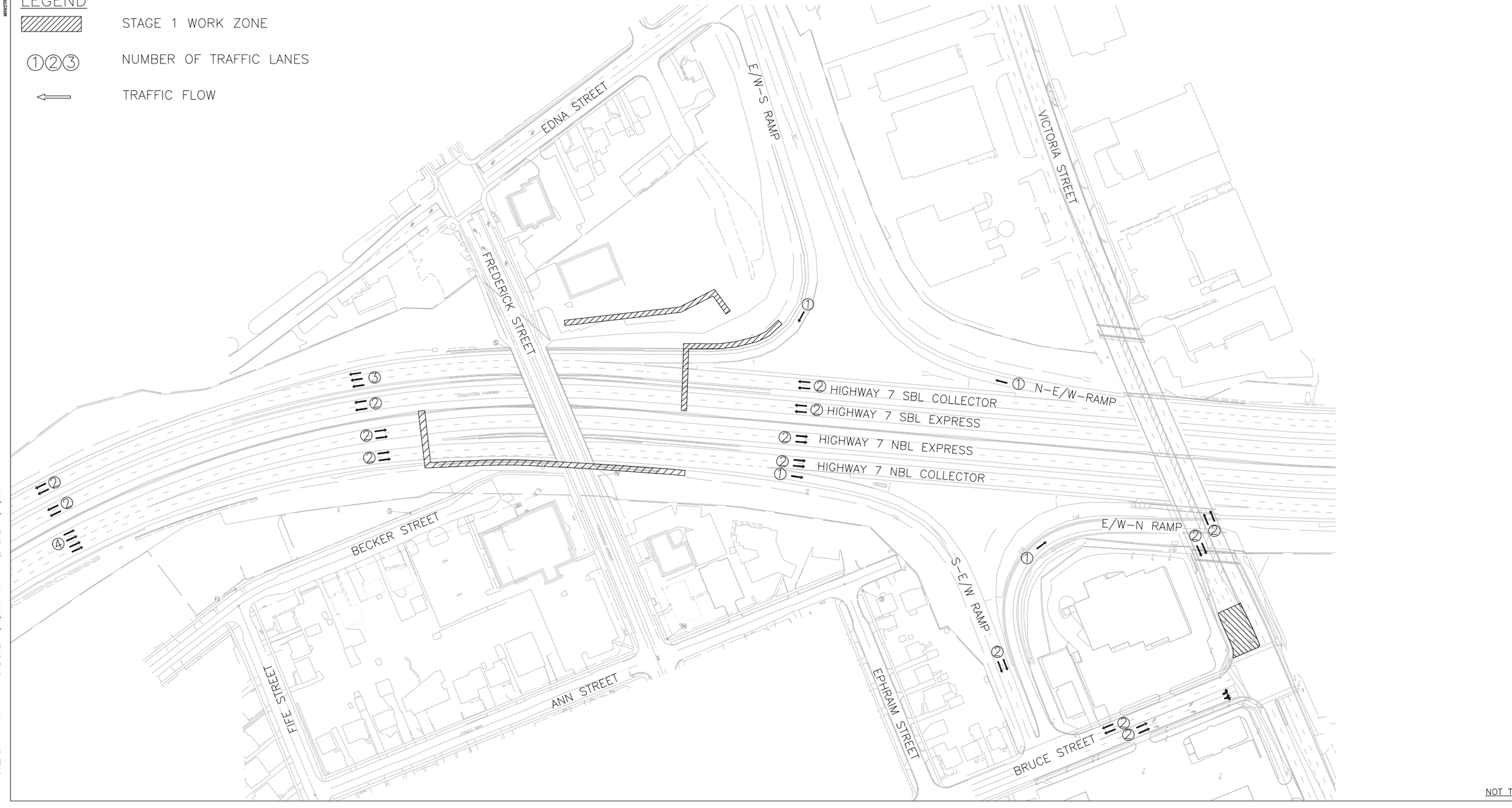
GHD

FIGURE
B.1

STAGE 1	
CONSTRUCTION	TRAFFIC
• DISCONNECTION OF BELL AND ROGER'S UTILITIES FROM THE FREDERICK ST. BRIDGE • TEMPORARY ELECTRICAL WORK TO PROVIDE POWER TO HIGHWAY MAST LIGHTING DURING WORK • RECONSTRUCT FREDERICK AND BRUCE STREET INTERSECTION TO PERMIT DUAL LEFT TURNS DURING FREDERICK STREET CLOSURE • CONSTRUCT SANITARY SEWER FROM MH # 13 TO MH #16	• SHORT TERM TRAFFIC LANE CLOSURES FOR HIGHWAY 7 AND VICTORIA STREET TO PERMIT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

LEGEND

- STAGE 1 WORK ZONE
- ①②③ NUMBER OF TRAFFIC LANES
- ⇐ TRAFFIC FLOW



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FREDERICK STREET BRIDGE REPLACEMENT STAGE 2A CONSTRUCTION AND TRAFFIC PLAN

DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT STUDY TO ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7 FREDERICK STREET BRIDGE REPLACEMENT, DESIGN AND CONSTRUCTION REPORT

GHD

FIGURE

STAGE 2A

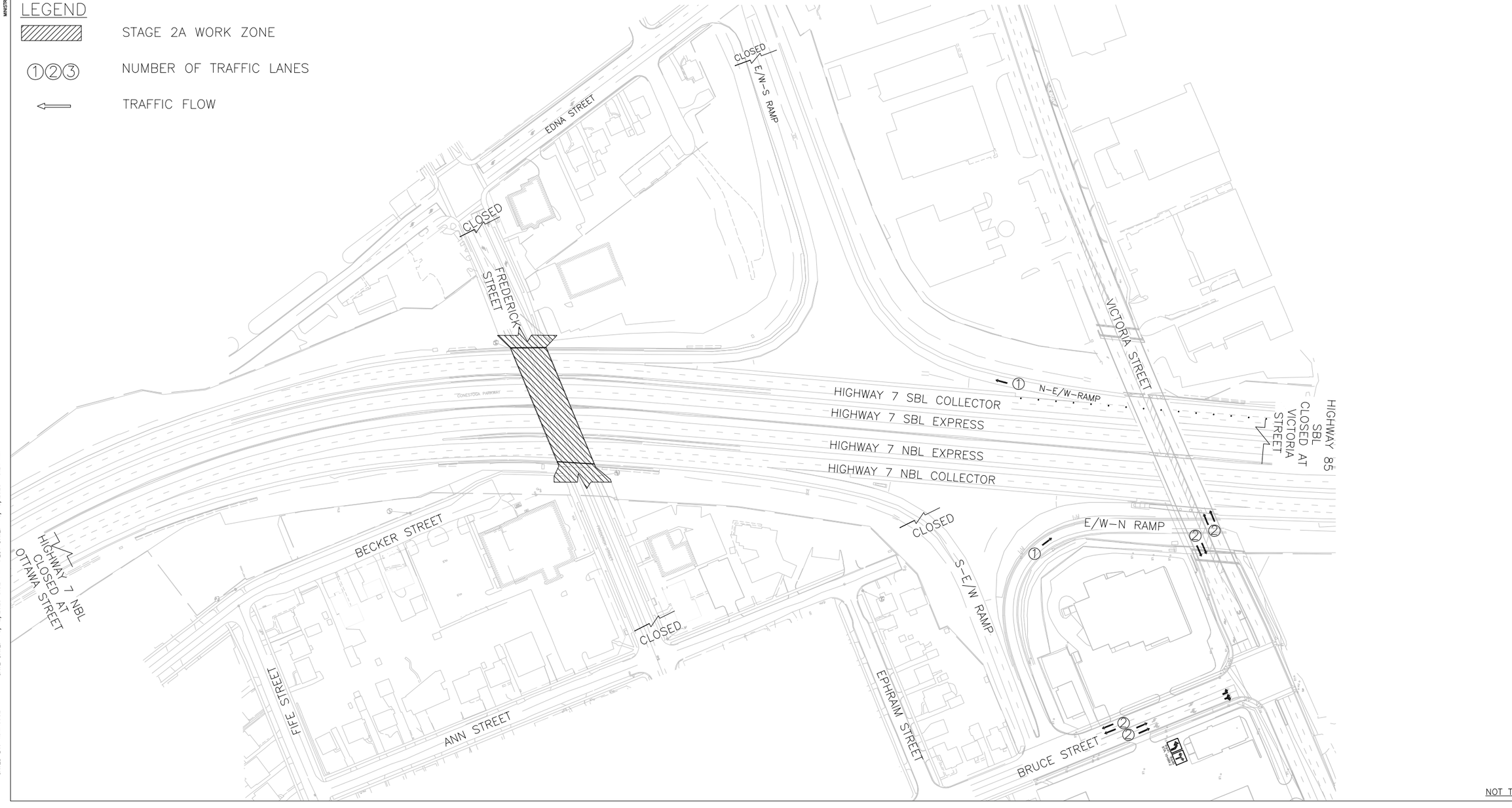
CONSTRUCTION	TRAFFIC
• PRIOR TO THE PLANNED BRIDGE DEMOLITION, PLACE ADVANCE WARNING TC–64 AND PVMS SIGNS WITH MESSAGING • CLOSE FREDERICK STREET • CLOSE HIGHWAY 7 NORTHBOUND TO THE S–E/W OTTAWA STREET RAMP AND HIGHWAY 7 SOUTHBOUND TO THE N–E/W EDNA STREET RAMP • DEMOLISH THE FREDERICK STREET BRIDGE OVER HIGHWAY 7 •• NOTE: DEMOLISH BRIDGE PIERS UP TO THE TOP OF THE EXISTING CORES AND COLLECTORS HIGHWAY CONCRETE MEDIAN AND RESTORE ANY DAMAGED STEEL BEAM GUIDE RAIL PRIOR TO OPEN HIGHWAY 7 TO TRAFFIC • PLACE TEMPORARY CONCRETE BARRIER WALL TO PROTECT HAZARDS AS REQUIRED FROM THE BRIDGE REMOVAL • OPEN HIGHWAY 7 TO TRAFFIC	• DUAL LEFT TURN AT BRUCE STREET AND VICTORIA STREET OPERATIONAL • SHORT TERM TRAFFIC LANE CLOSURES FOR HIGHWAY 7 AND HIGHWAY 85 TO PERMIT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS • CLOSURE OF FREDERICK STREET BETWEEN EDNA STREET AND ANN STREET • SHORT TERM CLOSURE OF HIGHWAY 7 AND HIGHWAY 85 TO PERMIT THE DEMOLITION OF THE FREDERICK STREET BRIDGE OVER HIGHWAY 7

LEGEND

STAGE 2A WORK ZONE

①②③ NUMBER OF TRAFFIC LANES

TRAFFIC FLOW



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FREDERICK STREET BRIDGE REPLACEMENT STAGE 2B CONSTRUCTION AND TRAFFIC PLAN

DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT STUDY TO ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7 FREDERICK STREET BRIDGE REPLACEMENT, DESIGN AND CONSTRUCTION REPORT

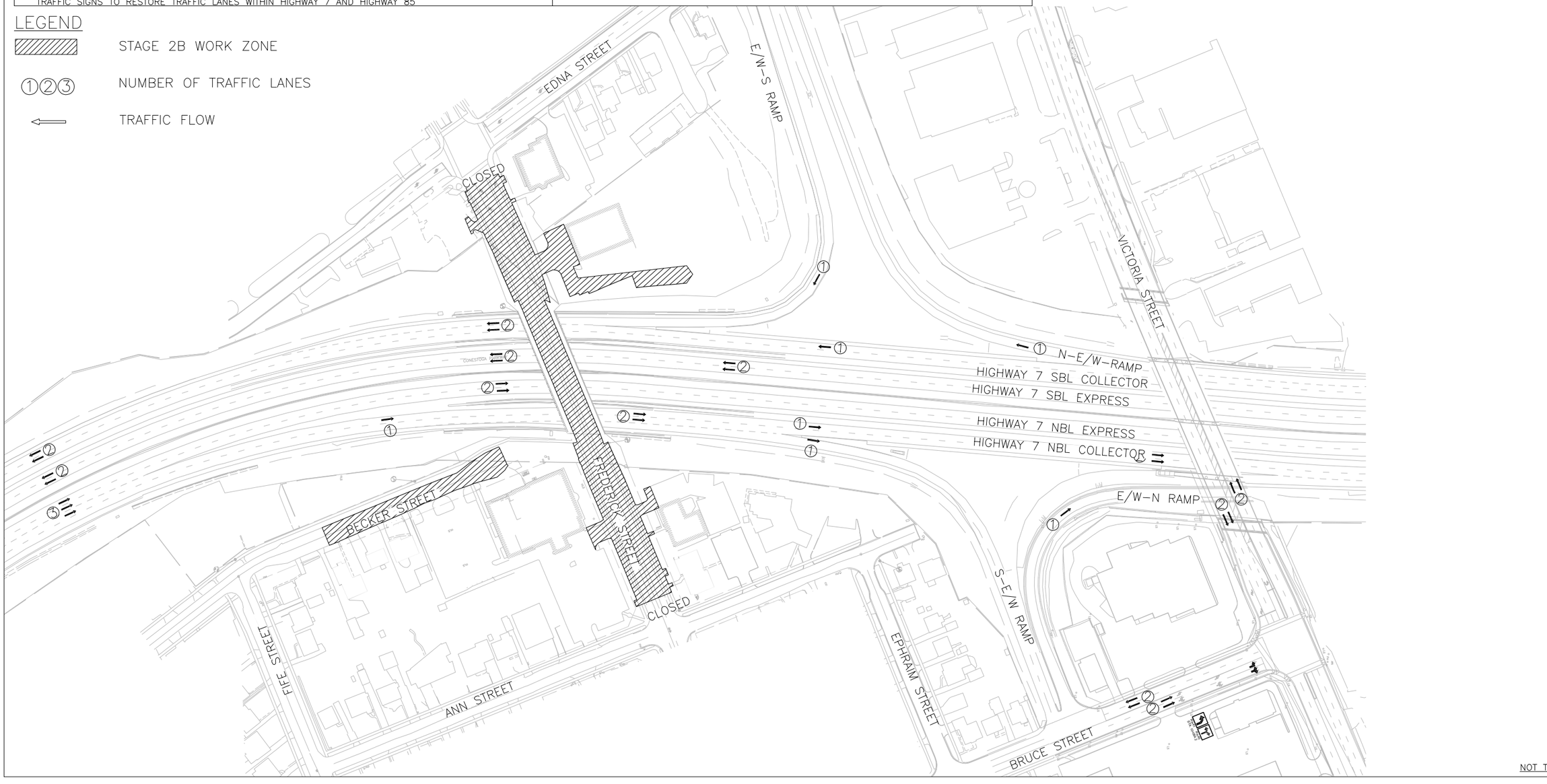
GHD

FIGURE B.3

STAGE 2B	
CONSTRUCTION	**TRAFFIC**
• COMPLETE HIGHWAY AND BRIDGE REMOVALS • ESTABLISH ABUTMENT AND MEDIAN WORK ZONES THROUGH THE REALIGNMENT OF THE S–E/W RAMP, HIGHWAY 7 AND HIGHWAY 85 EXPRESS AND COLLECTOR LANES, PLACEMENT OF TEMPORARY CONCRETE BARRIER, REMOVAL AND PLACEMENT OF PAVEMENT MARKINGS, AND INSTALL/MODIFY TRAFFIC SIGNS. • RELOCATE MUNICIPAL UTILITY CONFLICTS ON FREDERICK STREET FOR THE BRIDGE CONSTRUCTION • COMPLETE BRIDGE SUBSTRUCTURE AND THE SOUTHEAST RETAINING WALL • COMPLETE FALSEWORK AND FORMWORK FOR THE BRIDGE SUPERSTRUCTURE CONSTRUCTION AND COORDINATE TEMPORARY UNDERPASS LIGHTING REQUIREMENTS • COMPLETE FREDERICK STREET RECONSTRUCTION • COMPLETE NOISE WALL • COMPLETE BRIDGE SUPERSTRUCTURE AND POST–TENSION BRIDGE • STRIP FORMWORK AND REMOVE FALSEWORK; COORDINATING THE REMOVAL OF THE TEMPORARY UNDERPASS LIGHTING WITH THE COMPLETION OF THE PERMANENT UNDERPASS LIGHTING FOR HIGHWAY 7 • COMPLETE DRAINAGE WORK FOR THE NEW HIGHWAY CONCRETE MEDIAN • RESTORE PERMANENT HIGH MAST LIGHTING POWER SUPPLY • COMPLETE HIGHWAY MEDIAN BARRIER AND STEEL BEAM GUIDERAIL INSTALLATIONS • REMOVE TEMPORARY CONCRETE BARRIER WALL, REMOVE AND INSTALL PAVEMENT MARKINGS, REMOVE/MODIFY TRAFFIC SIGNS TO RESTORE TRAFFIC LANES WITHIN HIGHWAY 7 AND HIGHWAY 85	• DUAL LEFT TURN AT BRUCE STREET AND VICTORIA STREET OPERATIONAL • SHORT TERM TRAFFIC LANE CLOSURES FOR HIGHWAY 7 AND HIGHWAY 85 TO PERMIT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS • CLOSURE OF FREDERICK STREET BETWEEN EDNA STREET AND ANN STREET • CLOSURE OF THE END OF BECKER STREET • LONG TERM CLOSURE OF ONE HIGHWAY 7 AND HIGHWAY 85 SOUTHBOUND COLLECTOR LANE AND ONE NORTHBOUND COLLECTOR LANE • LONG TERM CLOSURE OF THE W–S WELLINGTON STREET TO HIGHWAY 85 SOUTHBOUND RAMP

LEGEND

- STAGE 2B WORK ZONE
- ①②③ NUMBER OF TRAFFIC LANES
- ⟸ TRAFFIC FLOW



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FR–D–707 88–05

FREDERICK STREET BRIDGE REPLACEMENT STAGE 3 CONSTRUCTION AND TRAFFIC PLAN

DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT STUDY TO ADVANCE CONSTRUCTION FOR NEW HIGHWAY 7 FREDERICK STREET BRIDGE REPLACEMENT, DESIGN AND CONSTRUCTION REPORT

GHD

FIGURE
B.4

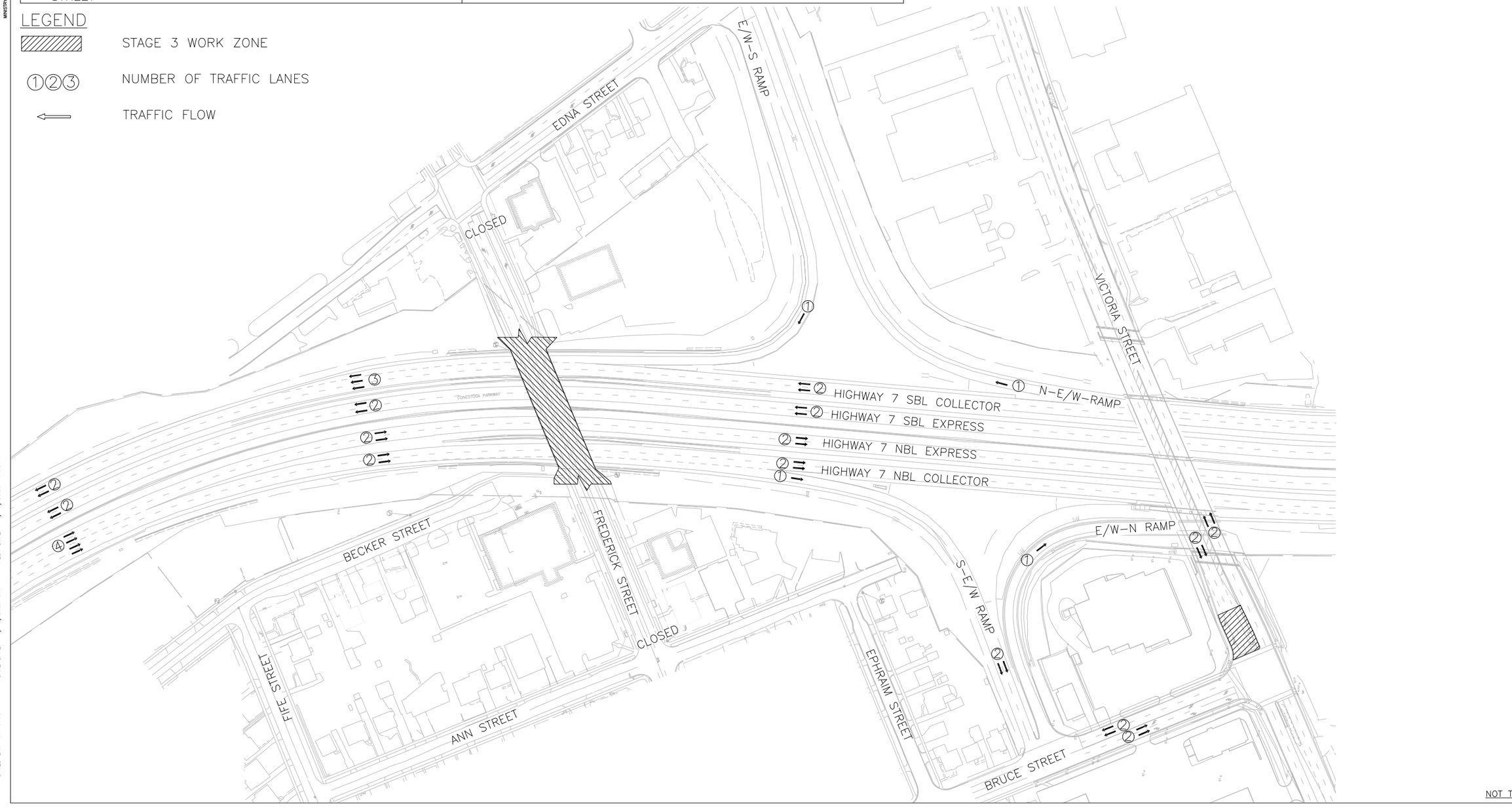
STAGE 3	
CONSTRUCTION	TRAFFIC
• PARTIAL DEPTH ASPHALT REMOVAL AND PAVING ON HIGHWAY 7 • COMPLETE THE ABUTMENT EXPANSION JOINTS AND APPROACH SLABS • COMPLETE FREDERICK STREET BRIDGE LIGHTING AND PARAPET WALLS • COMPLETE PAVING OF THE BRIDGE • REMOVE DUAL LEFT TURN AT BRUCE STREET AND VICTORIA STREET	• SHORT TERM TRAFFIC LANE CLOSURES FOR HIGHWAY 7 AND VICTORIA STREET TO PERMIT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS • CLOSURE OF FREDERICK STREET BETWEEN EDNA STREET AND ANN STREET

LEGEND

STAGE 3 WORK ZONE

①②③ NUMBER OF TRAFFIC LANES

TRAFFIC FLOW



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Appendix C

External Consultation Process

Table A.1 - Agencies Contact List

Contact Name and Address	Salutation/Contact	Email	Phone	Notes
Provincial Ministries				
Ministry of Environment, Conservation and Parks				
Ministry of Environment, Conservation and Parks South West Region eanotification.swregion@ontario.ca	To whom it may concern	eanotification.swregion@ontario.ca		* Emails sent to the MECP regional notification email account must include a copy to the MTO Environmental Planner and require a subject line that identifies: 'project location', 'MTO Class EA', and 'project name'. * Separate email required, including the PIF!!
Ministry of Tourism, Culture and Sport				
Karla Barboza Team Lead (A), Heritage Planning Unit Programs and Services Branch Ministry of Tourism, Culture and Sport 400 University Ave 5th floor Toronto, ON M7A 2R9	Dear Ms. Barboza	karla.barboza@ontario.ca	T: 416-660-1027	
Dan Minkin Heritage Planner, Heritage Planning Unit Programs and Services Branch Ministry of Tourism, Culture and Sport 400 University Ave 5th floor Toronto, ON M7A R29	Dear Mr. Minkin	dan.minkin@ontario.ca	T: 416-786-7553	Contact Karla Barboza as initial step prior to circulating documents.
Ministry of Natural Resources and Forestry				
Ian Thornton Supervisor, Guelph District Ministry of Natural Resources and Forestry Ontario Government Bldg 4th Flr, 1 Stone Rd W Guelph, ON N1G 4Y2	Dear Mr. Thornton	ian.thornton@ontario.ca	T: 226-820-5050	Prefers electronic version of reports and notifications
Ontario Provincial Police				
Jennifer Davey Administrative Assistant, Facilities Section Ontario Provincial Police 777 Memorial Avenue, 2nd floor Orillia, Ontario L3V7V3	Dear Ms. Davey	jennifer.davey@opp.ca	T: 705-309-2621	
Local Municipalities				
City of Kitchener				
Berry Vrbanovic Mayor 200 King St. W., 2nd Floor Kitchener, ON N2G 4G7	Dear Mayor Vrbanovic	mayor@kitchener.ca	519-741-2300	* For the city of Kitchener council members, can send one email to council@kitchener.ca and the secretary would forward to all council members
Scott Davey Ward 1 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Davey	scott.davey@kitchener.ca	519-741-2784	
Dave Schnider Ward 2 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Schnider	dave.schnider@kitchener.ca	519-741-3424	
John Gazzola Ward 3 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Gazzola	john.gazzola@kitchener.ca	519-741-2790	

Table A.1 - Agencies Contact List

Contact Name and Address	Salutation/Contact	Email	Phone	Notes
Christine Michaud Ward 4 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Michaud	christine.michaud@kitchener.ca	519-741-2779	
Kelly Galloway-Sealock Ward 5 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Galloway-Sealock	Kelly.Galloway-Sealock@kitchener.ca	519-741-2791	
Paul Singh Ward 6 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Singh	Paul.Singh@kitchener.ca	519-741-2793	
Bil Ioannidis Ward 7 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Ioannidis	Bil.Ioannidis@kitchener.ca	519-741-2783	
Margaret Johnston Ward 8 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Johnston	Margaret.Johnston@kitchener.ca	519-741-2796	
Debbie Chapman Ward 9 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Chapman	Debbie.Chapman@kitchener.ca	519-741-2798	
Sarah Marsh Ward 10 Councillor 200 King St. W. Kitchener, ON N2G 4G7	Dear Councillor Marsh	Sarah.Marsh@kitchener.ca	519-741-2786	
Stephanie Brasseur City of Kitchener Traffic Project Coordinator, Road Construction Department 200 King St. W. Kitchener, ON N2G 4G7	Dear Ms. Brasseur	stephanie.brasseur@kitchener.ca	519-741-2345	
Lou Slijepcevic City of Kitchener Road Construction Department 200 King St. W. Kitchener, ON N2G 4G7	Dear Mr. Slijepcevic	lou.slijepcevic@kitchener.ca	519-741-2345	
Terry Gitzel Chris Davidson Deputy Chiefs of Operations Kitchener Fire Department 270 Strasburg Rd Kitchener, ON N2E 3M6	Dear Mr. Gitzel Dear Mr. Davidson	terry.gitzel@kitchener.ca chris.davidson@kitchener.ca	519-741-2345	* Nov 10 '22: Chief in Kitchener is Robert Gilmore, but instructed to **send updates only to the Deputy Chiefs of Operations**

Table A.1 - Agencies Contact List

Contact Name and Address	Salutation/Contact	Email	Phone	Notes
Region of Waterloo				
Deputy Chief Mark Crowell Chief of Police Waterloo Regional Police Service (WRPS) P.O Box 3070 200 Maple Grove Road Cambridge, ON N3H 5M1	Dear Deputy Chief Crowell	mark.crowell@wrps.on.ca	519-570-9777 ext. 8713	* up-to-date (Nov '22)
Karen Redman Regional Chair Regional Chair's Office 1st floor, 150 Frederick Street Kitchener, Ontario N2G 4J3	Dear Chair Redman	Kredman@regionofwaterloo.ca	519-575-4585	* up-to-date (Nov '22)
Michael Harris Kitchener Regional Councillor 150 Frederick Street Kitchener, Ontario N2G 4J3	Dear Councillor Harris	Mharris@regionowaterloo.ca	519-575-4404 x3409	* up-to-date (Nov '22)
Geoff Lorentz Kitchener Regional Councillor 150 Frederick Street Kitchener, Ontario N2G 4J3	Dear Councillor Lorentz	Glorentz@regionofwaterloo.ca	519-575-4400 ext. 3413	* up-to-date (Nov '22)
Tom Galloway Kitchener Regional Councillor 150 Frederick Street Kitchener, Ontario N2G 4J3	Dear Councillor Galloway	TGalloway@regionofwaterloo.ca	519-575-4404 x 3401	* up-to-date (Nov '22)
Elizabeth Clarke Kitchener Regional Councillor 150 Frederick Street Kitchener, Ontario N2G 4J3	Dear Councillor Clarke	ElClarke@regionofwaterloo.ca	519-575-4400 ext. 3402	* up-to-date (Nov '22)
Region of Waterloo Corridor Management	Attn: Steve Sieunarine Attn: Kenneth Renner	ssieunarine@regionofwaterloo.ca kerenner@regionofwaterloo.ca	519-585-7597	* Nov 10 '22: Contact information provided by Cheryl McGill (Region of Waterloo)
Other Stakeholders				
Conservation Authorities				
Grand River Conservation Authority 400 Clyde Road, PO Box 729 Cambridge, ON N1R 5W6	Planning and Permits - General Inquiries	grca@grandriver.ca	T: 519-621-2763 ext. 2228	
Local School Boards				
jeewan chanicka c/o Eliane Burns (Executive Assistant) Director of Education & Secretary of the Board Waterloo Region District School Board 51 Ardelt Avenue Kitchener, ON N2C 2R5	Dear Mr. chanicka c/o Eliane Burns	elaine_burns@wrdsb.ca	519-570-0003 x4223	
Tyrone Dowling Director of Education Waterloo Catholic District School Board 35 Weber St. W., — Unit A PO Box 91116 Kitchener, ON N2G 4G2	Dear Mr. Dowling	info@wcdsb.ca	519-578-3660	
School Transportation Services				
Student Transportation Services of Waterloo Region 102 – 550 Bingemans Centre Dr. Kitchener ON N2B 3X9	Attn: Susan Carriere Executive Assistant	susan_carriere@stswr.ca	519-744-7575 ext.221	* up-to-date (Nov '22)

Table A.1 - Agencies Contact List

Contact Name and Address	Salutation/Contact	Email	Phone	Notes
Transit Agencies				
Grand River Transit 250 Strasburg Road, Kitchener, ON N2E 3M6	Attn: Cheryl McGill Co-ordinator, On-Street Passenger Amenities - GRT	cmcgill@regionofwaterloo.ca	519-585-7597 ext 7223	* Nov 10 '22: Cheryl will receive all emails & send to relevant contacts.
Emergency Services				
Waterloo Regional Police Services P.O. Box 3070 200 Maple Grove Road Cambridge, ON N3H 5M1	Christopher Gibson Facilities, Finance & Assets, Manager	christopher.gibson@wrps.on.ca	519-570-9777	* Nov 10 '22: called WRPS and confirmed contact
Paramedic Services General Inquiries 120 Maple Grove Road Cambridge,ON N3H 4R6	To whom it may concern	psvinfo@regionofwaterloo.ca	519-575-4400	* Nov 10 '22: called Region of Waterloo & obtained email address.
Utilities				
Enova Power Head Office 301 Victoria Street South, Kitchener, ON N2G 4L2	Shawn Hannerman	ShawnHannerman@enovapower.com	519-888-5152	* up-to-date (Nov '22)
Kitchener Utilities Kitchener Operations Facility 131 Goodrich Drive Kitchener, ON N2C 2E8	Slyvie Eastman	Sylvie.Eastman@kitchener.ca	519-498-9553	* up-to-date (Nov '22)
Bell Canada 20 Water St N Kitchener, ON N2H 5A5	Robin Collier Specialist, Network Provisioning	robin.collier@bell.ca	Office: 519-568-5825 Cell: 226-821-1349	* up-to-date (Nov '22) * Local Bell engineer for the project area - continue to contact.
	Andrew Zuk Structures Manager	andrew.zuk@bell.ca	T-519-973-6594 C-705-254-8612	* added April 24 '23 (Andrew Zuk replaces previous Bell contact Noel Burgon)
	Kirk Ehgoetz Business Solutions Specialist	k.ehgoetz@bell.ca		
Bell Canada 575 Riverbend Dr, Kitchener, On N2K 3S3	Attn: Kevin Banger Access Network Coordinator	kevin.banger@bell.ca	office (Kitchener): 519-744-0683 mobile: 519-501-8630	* Nov 3 '22: updated from contact info provided by Mark Torrie
Rogers – SWO Wireline Access Network 85 Grand Crest Place Kitchener ON N2G 4A8	Brian Murray Outside Plant Engineering (OPE) System Planner	Briana.murray@rci.rogers.com	519-895-3278	* up-to-date (Nov '22)
Telus Communications Inc. 25 York Street, 22nd Floor Toronto, ON M5J 2V5	To whom it may concern	telusutilitymarkups@telecon.ca		* up-to-date (Nov '22)
Waterloo North Hydro Inc. 526 Country Squire Road, Waterloo, ON N2J 4G8	To whom it may concern Mark Goulet (Waterloo Region)	marc.goulet@enovapower.com	519-888-5552	* up-to-date (Nov '22) * Nov 10 '22: contact provided
Engineering Division City of Kitchener 200 King Street West, Kitchener, ON N2G 4G7	To whom it may concern	engineering@kitchener.ca	519-741-2406	

Study Contact List - Detail Design and Class Environmental Assessment Study to Advance Construction for New Highway 7 Frederick Street Bridge Replacement, Kitchener (GWP 3001-22-00)
Table A.2 - MPP Contact List

Contact Name and Address *	Salutation/Contact	Email	Phone	Notes
Members of Provicinal Parliament				
Catherine Fife Waterloo MPP Suite 220 100 Regina St. S Waterloo, ON N2J 4P9	Dear Ms. Fife	CFife-QP@ndp.on.ca	519-725-3477	* updated based on contact information provided by MTO in the MPP Letter
Laura Mae Lindo Kitchener Centre MPP Suite 500 151 Frederick St. Kitchener, ON N2H 2M2	Dear Ms. Lindo	LLindo-QP@ndp.on.ca	519-579-5460	* updated based on contact information provided by MTO in the MPP Letter
Mike Harris Kitchener-Conestoga MPP Unit 3 & 4 63 Arthur St. S Elmira, ON N3B 2M6	Dear Mr. Harris	Mike.Harris@pc.ola.org	519-669-2090	* updated based on contact information provided by MTO in the MPP Letter

Table A.3 - Indigenous Community Contact List

	Contact Name and Address	Salutation/Contact	Email	Phone	Notes
1*	Chief Mark Hill **Six Nations of the Grand River Territory** 1695 Chiefswood Rd, PO Box 5000 Ohsweken, ON N0A 1M0		Markhill@sixnations.ca specialassistant@sixnations.ca	(519) 445-2201	
2*	Chief Stacey Laforme **Mississaugas of the Credit First Nation** 2789 Mississauga Rd. R.R. #6 Hagersville, ON N0A 1H0	Fawn Sault Nicole Laforme-Hess, Assistant Office Manager	Stacey.Laforme@mncfn.ca fawn.sault@mncfn.ca Nicole.laforme-hess@mncfn.ca	905 768 1133 905 768 4260 (Nicole)	
3*	**Haudenosaunee Development Institute** 16 Sunrise Court, Suite 600, PO Box 714 Ohsweken, Ontario N0A 1M0		hdi2@bellnet.ca	519-445-4222	

455 Phillip Street,
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

Our ref: 12591407

April 17, 2023

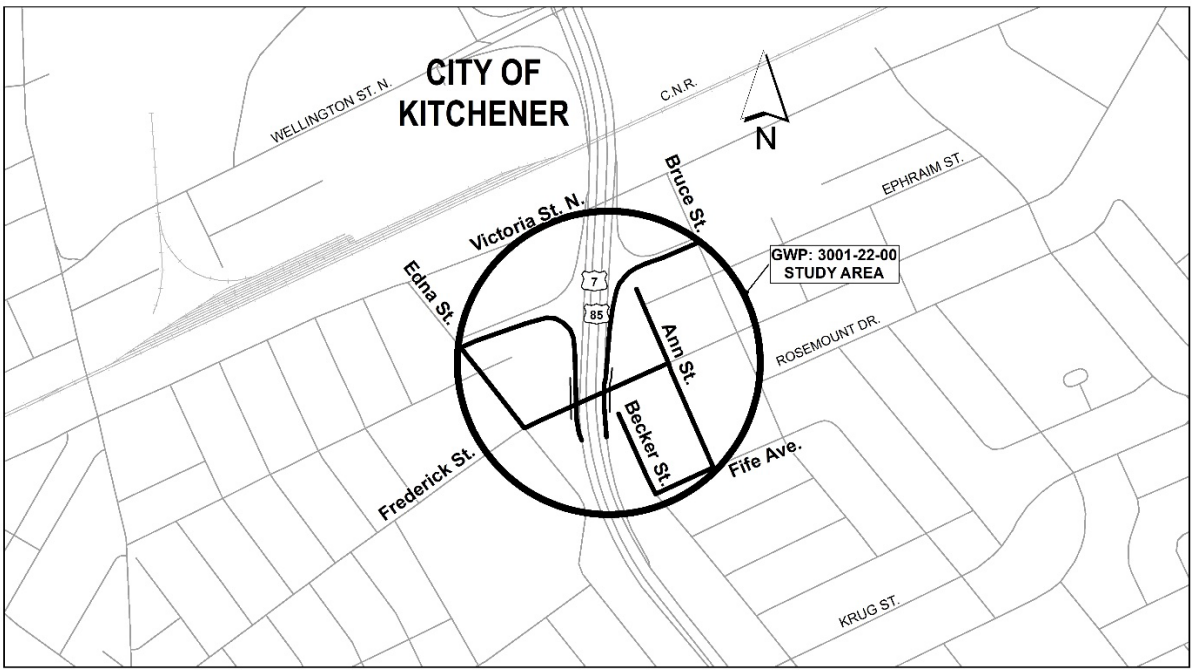
Ms. Catherine Fife
Waterloo MPP
Suite 220
100 Regina St. S
Waterloo, ON N2J 4P9

Dear Ms. Fife,

RE: Notice of Study Commencement
Detailed Design Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener

The **Ontario Ministry of Transportation (MTO)** has retained **GHD Limited** to undertake the Detailed Design and Class Environmental Assessment (EA) for the Frederick Street bridge replacement (G.W.P. 3001-22-00), located in the City of Kitchener (see key plan). The project is part of the ministry's commitment to advance the construction of the approved New Highway 7 – Kitchener to Guelph project.

Subject to approvals, utility relocations are anticipated to begin in 2023, followed by construction of the Project after the detailed design is complete. It is anticipated that construction will begin in 2024. Additional information can be found on the new Project website at: www.frederickstreetbridge.com.

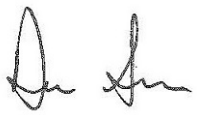


This project is being completed in accordance with the requirements of a Group 'A' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000).

The Notice of Study Commencement is enclosed and also available on the Project website: www.frederickstreetbridge.com.

The Project Team welcomes your input. If you have any comments, questions or concerns, please contact the undersigned or one of the team members listed on the enclosed notice.

Yours truly,



Dan Green
Project Manager, Highways, Roads & Bridges

cc: Scott Howard, MTO, Project Manager
Chris Evans, MTO, Environmental Planner
Ian Dobrindt, GHD, Environmental Planner

Enclosed: Notice of Study Commencement

455 Phillip Street,
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

Our ref: 12591407

April 17, 2023

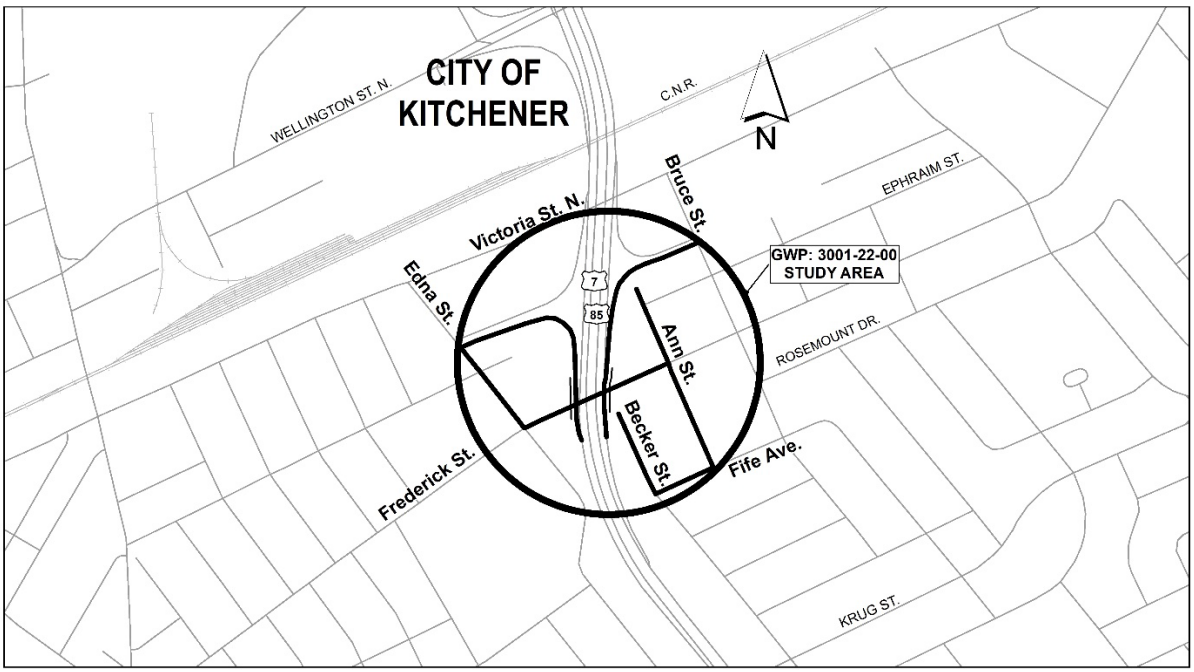
Ms. Laura Mae Lindo
Kitchener Centre MPP
Suite 500
151 Frederick St.
Kitchener, ON N2H 2M2

Dear Ms. Lindo,

RE: Notice of Study Commencement
Detailed Design Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener

The **Ontario Ministry of Transportation (MTO)** has retained **GHD Limited** to undertake the Detailed Design and Class Environmental Assessment (EA) for the Frederick Street bridge replacement (G.W.P. 3001-22-00), located in the City of Kitchener (see key plan). The project is part of the ministry's commitment to advance the construction of the approved New Highway 7 – Kitchener to Guelph project.

Subject to approvals, utility relocations are anticipated to begin in 2023, followed by construction of the Project after the detailed design is complete. It is anticipated that construction will begin in 2024. Additional information can be found on the new Project website at: www.frederickstreetbridge.com.



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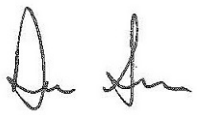
Yours truly,



Dan Green
Project Manager, Highways, Roads & Bridges

cc: Scott Howard, MTO, Project Manager
Chris Evans, MTO, Environmental Planner
Ian Dobrindt, GHD, Environmental Planner

Enclosed: Notice of Study Commencement

455 Phillip Street,
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

Our ref: 12591407

April 17, 2023

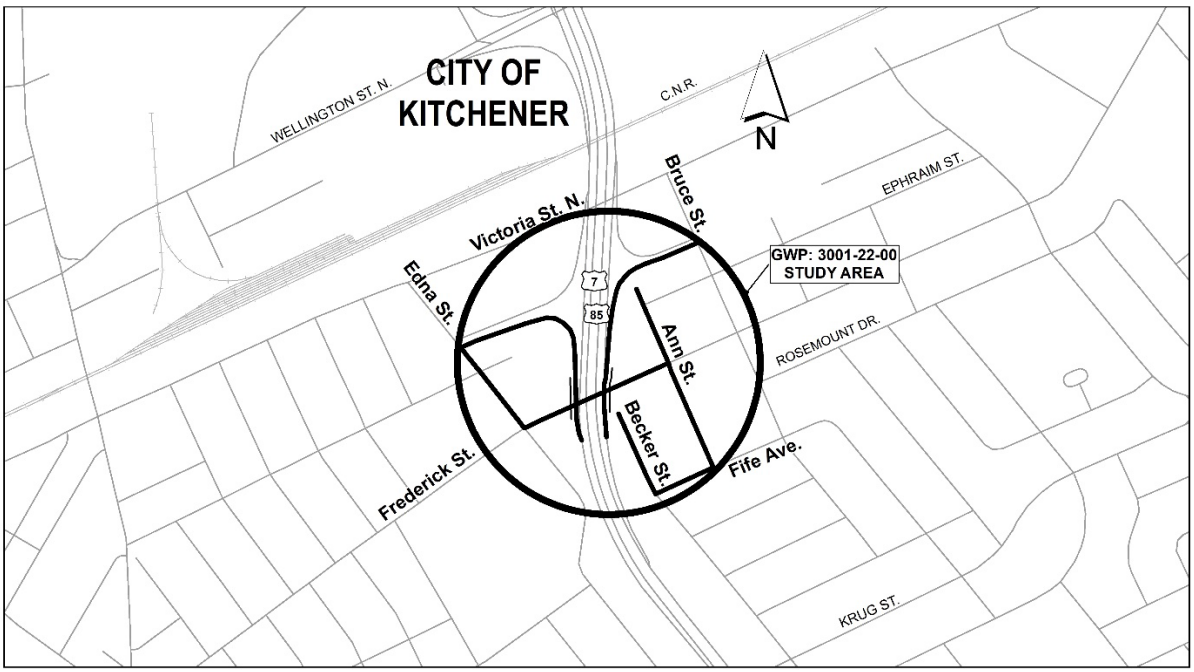
Mr. Mike Harris
Kitchener-Conestoga MPP
Unit 3 & 4
63 Arthur St. S
Elmira, ON N3B 2M6

Dear Mr. Harris,

RE: Notice of Study Commencement
Detailed Design Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener

The **Ontario Ministry of Transportation (MTO)** has retained **GHD Limited** to undertake the Detailed Design and Class Environmental Assessment (EA) for the Frederick Street bridge replacement (G.W.P. 3001-22-00), located in the City of Kitchener (see key plan). The project is part of the ministry's commitment to advance the construction of the approved New Highway 7 – Kitchener to Guelph project.

Subject to approvals, utility relocations are anticipated to begin in 2023, followed by construction of the Project after the detailed design is complete. It is anticipated that construction will begin in 2024. Additional information can be found on the new Project website at: www.frederickstreetbridge.com.



This project is being completed in accordance with the requirements of a Group 'A' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000).

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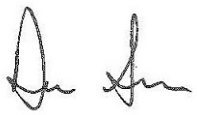
The Project Team welcomes your input. If you have any comments, questions or concerns, please contact the undersigned or one of the team members listed on the enclosed notice.

Yours truly,



Dan Green
Project Manager, Highways, Roads & Bridges

cc: Scott Howard, MTO, Project Manager
Chris Evans, MTO, Environmental Planner
Ian Dobrindt, GHD, Environmental Planner

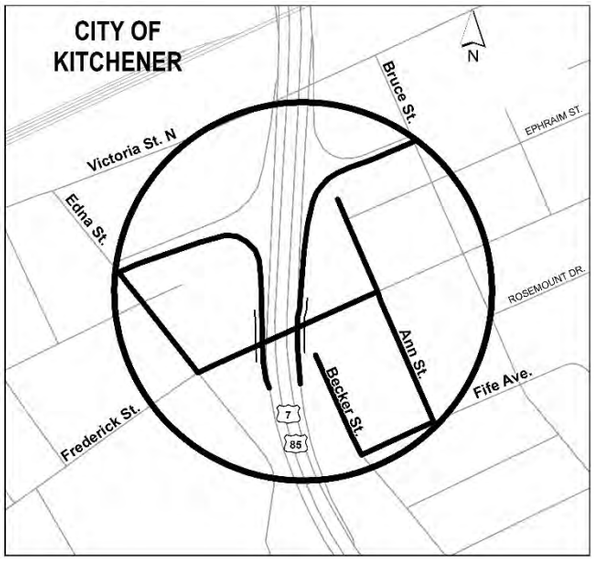
Enclosed: Notice of Study Commencement

Notice of Study Commencement
Detailed Design Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener

THE STUDY

The **Ontario Ministry of Transportation (MTO)** has retained **GHD Limited** to undertake the Detailed Design and Class Environmental Assessment (EA) for the Frederick Street bridge replacement (G.W.P. 3001-22-00), located in the City of Kitchener (see key plan). The project is part of the ministry's commitment to advance the construction of the approved New Highway 7 – Kitchener to Guelph project. The work includes the following:

- Replacement of the Frederick Street Bridge over Highway 7/85
- Reconstruction of four (4) retaining walls
- Partial replacement of the existing noise wall adjacent to Becker Street
- Reconstruction of Frederick Street between Edna Street and Ann Street, including cycling lane improvements
- Pavement reconstruction
- Utility relocations
- Underground services replacement along sections of Becker Street, Fife Avenue and Ann Street
- Illumination on Frederick Street



Frederick Street will be closed during the demolition and replacement of the bridge, anticipated in the 2024 construction season. Utility relocations and underground services replacement along sections of Becker Street, Fife Avenue and Ann Street are expected to begin in 2023. Construction timing is subject to funding and approvals.

Local road detours will be in place during construction. Driveways and entrances will be maintained. Short-term nighttime closures of Highway 7/85 will occur during the demolition and construction of the new bridge. Additional information can be found on the Frederick Street bridge replacement project website at: www.frederickstreetbridge.com.

THE PROCESS

This project is classified as a Group 'A' project under the MTO "Class Environmental Assessment for Provincial Transportation Facilities (2000)". A Design and Construction Report (DCR) will be prepared to document the detailed design. The report will be made available for a 30-day comment period with public notice advising the start of the comment period.

Engineering and field work for the remainder of New Highway 7 is ongoing. The remainder of New Highway 7 will be constructed in subsequent phases. Additional information on the New Highway 7 can be found at: www.newhighway7.ca.

COMMENTS

We are interested in hearing your comments regarding this study! Comments can be sent to either one of the following Project Study team members:

Dan Green, P.Eng.
Project Manager
Highways Roads & Bridges
GHD Limited
455 Phillip Street
Waterloo, ON N2L 3X2
Tel: (519) 340-4374
E-mail: frederickstreetbridge@ghd.com

Scott Howard, CET.
Senior Project Manager, Highway Engineering
Ministry of Transportation
Project Delivery West
659 Exeter Road, 3rd Floor
London, ON N6E 1L3
Tel: (548) 388-1850
E-mail: frederickstreetbridge@ghd.com

If you have any accessibility requirements in order to participate in this project, please contact one of the Project Team members.

Comments are being collected to assist MTO in meeting the requirements of the Ontario Environmental Assessment Act. This information will be maintained on file for use during the project and may be included in project documentation. With the exception of personal information, all comments will become part of the public record in accordance with the Freedom of Information and Protection of Privacy Act.

Ontario

455 Phillip Street, Unit 100A
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

Our ref: 12591407

April 24, 2023

Ministry of the Environment, Conservation and Parks
Guelph MECP District Office
1 Stone Road W.
Guelph ON N1G 4Y2

Notice of Study Commencement – Detailed Design Study to Advance Construction for the New Highway 7 Frederick Street Bridge Replacement, Kitchener (G.W.P. 3001-22-00)

Dear Sir/Madam,

The Ontario Ministry of Transportation (MTO) has retained GHD Limited to undertake the Detailed Design and Class Environmental Assessment (Class EA) Study for the Frederick Street Bridge replacement, in the City of Kitchener. Please see the attached Notice of Study Commencement. Further information on the Study is available on the project website (www.frederickstreetbridge.com).

Please contact me or visit the project website if you would like to provide comments, request additional information, and/or be added to the Study's mailing list to receive future Study notifications directly.

Sincerely,

Dan Green, P.Eng.
Project Manager
(519) 340-4374
frederickstreetbridge@ghd.com

Copy to: MTO – Scott Howard, Project Manager
MTO – Chris Evans, Environmental Planner
GHD – Ian Dobrindt, Senior Environmental Planner

Attachment: Notice of Study Commencement

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

May 25, 2023

Scott Howard
Senior Project Manager, Highway Engineering
Ministry of the Transportation
Email: scott.howard@ontario.ca

Dan Green
Project Manager
GHD Limited
Email: Dan.Green2@ghd.com

BY EMAIL ONLY

Re: **Detailed Design Study to Advance Construction for New Highway 7**
Frederick Street Bridge Replacement, Kitchener
Ministry of Transportation
Class Environmental Assessment for Provincial Transportation Facilities, Group A
Acknowledgement of Notice of Commencement

Dear Project Team,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Ministry of Transportation has indicated that the study is following the approved environmental planning

process for a Group A project under the Class Environmental Assessment for Provincial Transportation Facilities (Class EA).

The **updated (August 2022)** attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. **Further information is provided at the end of the Areas of Interest document relating to recent changes to the Environmental Assessment Act through Bill 197, Covid-19 Economic Recovery Act 2020.**

Please send a copy of the final notice to the MECP's West Central Region EA notification email account (eanotification.wcregion@ontario.ca). Please send a copy of the final report to me for download.

Should you or any members of your project team have any questions regarding the material above, please contact me at Joan.DelVillarCuicas@ontario.ca.

Sincerely,

Joan Del Villar Cuicas
Regional Environmental Planner – West Central Region
Project Review Unit, Environmental Assessment Branch

Cc: Frederick Street Bridge Replacement, frederickstreetbridge@ghd.com
Brandan Chowan, Guelph District Supervisor, MECP

Enclosed: Areas of Interest

Attached: Client's Guide to Preliminary Screening for Species at Risk

AREAS OF INTEREST (v. August 2022)

It is suggested that you check off each section after you have considered / addressed it.

☐ **Planning and Policy**

- Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
    - Projects located in MECP Central, Eastern or West Central Region may be subject to **A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)**.
    - Projects located in MECP Central or Eastern Region may be subject to the **Oak Ridges Moraine Conservation Plan (2017)** or the **Lake Simcoe Protection Plan (2014)**.
    - Projects located in MECP Central, Southwest or West Central Region may be subject to the **Niagara Escarpment Plan (2017)**.
    - Projects located in MECP Central, Eastern, Southwest or West Central Region may be subject to the **Greenbelt Plan (2017)**.
    - Projects located in MECP Northern Region may be subject to the **Growth Plan for Northern Ontario (2011).**

- The **Provincial Policy Statement (2020)** contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

☐ **Source Water Protection**

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e.

systems that are not municipal residential systems). MTO Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

- If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the “Map Legend” bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

- **Climate Change**

The document "Considering Climate Change in the Environmental Assessment Process" (Guide) is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of Class EA projects to:**

    1. Consider during the assessment of alternative solutions and alternative designs, the following:
        a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
        b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
    2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**

- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:

    - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
    - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
    - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
    - A discussion of potential mitigation measures.

- As a common practice, "air quality" should be used an evaluation criterion for all road projects.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities* report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.
  - Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
  - Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at https://www.ontario.ca/page/species-risk.

- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.

- For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study

area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

    - Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
    - Watershed information, drainage conditions, and other relevant background information
    - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
    - Information on maintenance and monitoring commitments.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the *Ontario Water Resources Act* (OWRA) will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

Excess Materials Management

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit https://www.ontario.ca/page/handling-excess-soil.

- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements

Contaminated Sites

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the MECP's D-4 guideline for land use considerations near landfills and dumps.
  - Resources available may include regional/local municipal official plans and data; provincial data on large landfill sites and small landfill sites; Environmental Compliance Approval information for waste disposal sites on Access Environment.

- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's website).

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

Servicing, Utilities and Facilities

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.

- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste

must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).

- Please include the full stakeholder distribution/consultation list in the documentation.

Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and

aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

Amendments to the EAA through the Covid-19 Economic Recovery Act, 2020
Once the EA Report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address.

The public has the ability to request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

Minister David Piccini
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

455 Phillip Street, Unit 100A
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

Our ref: 12591407

October 10, 2023

Joan Del Villar Cuicas
Regional Environmental Planner
Ministry of the Environment, Conservation and Parks
Joan.delvillarcuicas@ontario.ca
(365) 889 – 1180

Detailed Design Study to Advance Construction for New Highway 7
Frederick Street Bridge Replacement, Kitchener (G.W.P. 3001-22-00)

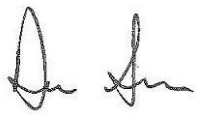
Dear Joan Del Villar Cuicas,

On behalf of the Ministry of Transportation, we would like to thank you for the Ministry of Environment, Conservation and Parks' acknowledgement of the Frederick Street Bridge Replacement Project noted in your email dated May 25, 2023.

As requested, we will address the "Areas of Interest" updated (August 2022) as appropriate as part of carrying out the Ministry of Transportation "Class Environmental Assessment for Provincial Transportation Facilities (2000)" for the Project.

In addition, we will send the final notice (Notice of Completion) to MECP's West Central Region EA notification email account along with the final Design and Construction Report as per your requests.

Regards,



Dan Green
Project Manager
(519) 340 - 4374
frederickstreetbridge@ghd.com

Copy to: Scott Howard – Ministry of Transportation, frederickstreetbridge@ghd.com
Ian Dobrindt – GHD Limited, frederickstreetbridge@ghd.com

Ministry of Citizenship and Multiculturalism

Heritage Planning Unit
Heritage Branch
Citizenship, Inclusion and Heritage Division
5th Flr, 400 University Ave
Tel.: 613.242.3743

Ministère des Affaires civiques et du Multiculturalisme

Unité de la planification relative au patrimoine
Direction du patrimoine
Division des affaires civiques, de l'inclusion et du patrimoine
Tél.: 613.242.3743

May 19, 2023 EMAIL ONLY

Dan Green, P.Eng.
Project Manager
Highways Roads & Bridges
GHD Limited
455 Phillip Street
Waterloo, ON N2L 3X2
frederickstreetbridge@ghd.com

MCM File	**:**	**0019004**
Proponent	**:**	**Ministry of Transportation**
Subject	**:**	**MTO Class EA – Group A – Notice of Study Commencement**
Project	**:**	**Detailed Design Study to Advance Construction for New Highway 7 Frederick Street Bridge Replacement (G.W.P. 3001-22-00)**
Location	**:**	**Kitchener**

Dear Dan Green:

Thank you for providing the Ministry of Citizenship and Multiculturalism (MCM) with the Notice of Commencement for the above project.

As part of the environmental assessment (EA) process, MCM has an interest in conserving cultural heritage resources, which include:

- archaeological resources (including land and marine)
- built heritage resources (including bridges and monuments)
- cultural heritage landscapes

Project Summary
The Ontario Ministry of Transportation (MTO) has retained GHD Limited to undertake the Detailed Design and Class Environmental Assessment (EA) for the Frederick Street bridge replacement (G.W.P. 3001-22-00), located in the City of Kitchener. The project is part of the ministry's commitment to advance the construction of the approved New Highway 7 – Kitchener to Guelph project. The work includes the following:

- Replacement of the Frederick Street Bridge over Highway 7/85
- Reconstruction of four (4) retaining walls
- Partial replacement of the existing noise wall adjacent to Becker Street
- Reconstruction of Frederick Street between Edna Street and Ann Street, including cycling lane improvements

- Pavement reconstruction
- Utility relocations
- Underground services replacement along sections of Becker Street, Fife Avenue and Ann Street
- Illumination on Frederick Street

This project is classified as a Group 'A' project under the MTO "Class Environmental Assessment for Provincial Transportation Facilities (2000)".

MCM is interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process and has the following comments and observations:

Provincial Heritage Properties
Please note that the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (S&G), prepared pursuant to Section 25.2 of the *Ontario Heritage Act* (*OHA*), came into effect on July 1, 2010. All Ontario government ministries and public bodies that are prescribed under Ontario Regulation 157/10 must comply with the S&Gs. They apply to property that is owned or controlled by the Crown in right of Ontario or by a prescribed public body.

Potential Study Area
For the purposes of investigating the potential impacts of the project on cultural heritage resources, the study area is defined as all lands to be impacted/disturbed by the proposed undertaking within the existing and proposed highway right-of-way, plus any access roads, detours, staging and storage areas, and areas of other works and activities associated with the construction, operation and maintenance of the highway.

Archaeological Resources
We note that a portion of the project study area was assessed for archaeological resources as part of a Stage 1 and 2 archaeological assessment (AA) (under Project Information Form numbers P089-0095-2018 and P089-0107-2018). The Stage 1 and 2 AA is compliant and has been entered into the Ontario Public Register of Archaeological Reports.

Any lands previously unassessed for archaeological potential within the study area should be screened using the Ministry's *Criteria for Evaluating Archaeological Potential* to determine if additional archaeological assessment is needed. If it is determined that the project area exhibits archaeological potential, then an archaeological assessment (AA) will be undertaken during the planning phase. If further AA(s) are recommended, then MCM recommends that further stages of AA be completed as early as possible during the detailed design phase and prior to any ground disturbing activities.

Archaeological assessments are required to be undertaken by an archaeologist licenced under the *Ontario Heritage Act*, who is responsible for submitting the report directly to MCM for review.

The results of the AA will be summarized in the EA report, i.e. the Executive Summary of each AA report provides a brief summary of the work completed and the recommendations for next steps, whether for further archaeological assessment, in which case the report will include a map that identifies those areas, or for no further assessment. The EA report must also include clear commitments to undertake any further AA stages recommended, and a timeline for their completion.

Built Heritage Resources and Cultural Heritage Landscape
This EA project may impact built heritage resources and cultural heritage landscapes. Please advise whether the study area has been screened for built heritage resources or cultural heritage landscapes and/or is the subject of a cultural heritage assessment. If technical cultural heritage studies have been previously undertaken for this study area, please send us an electronic copy of the study(ies).

If the study area, including any temporary roads, detours or work areas associated with the project, has not been previously screened or assessed, MTO's *Environmental Guide for Built Heritage and Cultural Heritage Landscape* (2007) and *Ontario Heritage Bridge Guidelines for Provincially Owned Bridges* as well as this Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* can assist you to determine if a Cultural Heritage Assessment Report, Cultural Heritage Evaluation Report and/or Heritage Impact Assessment is needed.

Technical cultural heritage studies will be undertaken by a qualified person who has expertise, recent experience and knowledge relevant to the type of cultural heritage resources being considered and the nature of the project being proposed.

Community input should be sought to identify locally recognized and potential cultural heritage resources. Sources include, but are not limited to, municipal heritage committees, historical societies and other local heritage organizations.

Cultural heritage resources are often of critical importance to Indigenous communities. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to them.

Bridges and Culverts
Please determine whether the Frederick Street Bridge is:

- included on the Ontario Heritage Bridge List
- listed in MTO's *Heritage Bridges: Identification and Assessment Guide, Ontario 1945-1965*
- 40 years or older and not listed in the above Guide
- locally or regionally unusual

Additionally, to determine whether this undertaking may impact on (recognized or potential) heritage bridges, Section 3.0 of the Ontario Heritage Bridge Guidelines (MTO, Interim January 2008) is of assistance.

EA Documentation
Technical cultural heritage studies (e.g., archaeological assessment reports, cultural heritage evaluation reports, heritage impact assessment reports) and their recommendations are part of the EA and should be included in the Design and Construction Report. Determinations that no cultural heritage resources are impacted and no technical studies are warranted should also be documented, summarized and incorporated in the final EA report. In this regard we recommend including the completed screening checklists as part of the EA report.

Thank you for circulating MCM on this project. Please do not hesitate to contact the undersigned if you have any questions.

Best regards,

Sincerely,

Joseph Harvey
Heritage Planner
Heritage Planning Unit
joseph.harvey@Ontario.ca

copy: Scott Howard, Senior Project Manager, Ministry of Transportation
Chris Evans, Environmental Planner, Ministry of Transportation
Ian Dobrindt, Senior Environmental Planner, GHD
Alia Eid, Environmental Planner, GHD

455 Phillip Street, Unit 100A
Waterloo, Ontario N2L 3X2
www.ghd.com

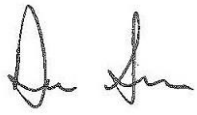
Your ref: 0019004
Our ref: 12591407

10 October 2023

Joseph Harvey
Heritage Planner – Heritage Planning Unit
Ministry of Citizenship and Multiculturalism
613-242-3743
Joseph.Harvey@ontario.ca

Re: Detailed Design Study to Advance Construction for New Highway 7 Frederick Street Bridge Replacement (G.W.P. 3001-22-00) Response to MCM Comments

Dear Joseph Harvey,
Thank you for the Ministry of Citizenship and Multiculturalism's (MCM's) comments on the above noted Project provided in your May 19, 2023 letter in response to the Notice of Study Commencement. Please find attached
Table 1 with our responses to MCM's comments for your information.
Please contact me if you have any questions on the preceding information.
Sincerely,



Dan Green
Project Manager
519-340-3748
frederickstreetbridge@ghd.com

Copy to: Scott Howard – Ministry of Transportation,
frederickstreetbridge@ghd.com
Ian Dobrindt – GHD Limited,
frederickstreetbridge@ghd.com

Table 1 Response to MCM's May 19, 2023 Comments

Comments	Response
As part of the environmental assessment (EA) process, MCM has an interest in conserving cultural heritage resources, which include: • archaeological resources (including land and marine) • built heritage resources (including bridges and monuments) • cultural heritage landscapes	Comment noted.
MCM is interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process and has the following comments and observations:	As requested, MCM will remain on the circulation list.
Provincial Heritage Properties Please note that the *Standards and Guidelines for Conservation of Provincial Heritage Properties* (S&G), prepared pursuant to Section 25.2 of the *Ontario Heritage Act* (*OHA*), came into effect on July 1, 2010. All Ontario government ministries and public bodies that are prescribed under Ontario Regulation 157/10 must comply with the S&Gs. They apply to property that is owned or controlled by the Crown in right of Ontario or by a prescribed public body.	Comment noted.
Potential Study Area For the purposes of investigating the potential impacts of the project on cultural heritage resources, the study area is defined as all lands to be impacted/disturbed by the proposed undertaking within the existing and proposed highway right-of-way, plus any access roads, detours, staging and storage areas, and areas of other works and activities associated with the construction, operation and maintenance of the highway.	Comment noted.
Archaeological Resources We note that a portion of the project study area was assessed for archaeological resources as part of a Stage 1 and 2 archaeological assessment (AA) (under Project Information Form numbers P089-0095-2018 and P089-0107-2018). The Stage 1 and 2 AA is compliant and has been entered into the Ontario Public Register of Archaeological Reports. Any lands previously unassessed for archaeological potential within the study area should be screened using the Ministry's *Criteria for Evaluating Archaeological Potential* to determine if additional	The areas to be impacted by the proposed works for the Frederick Street Bridge replacement are considered to be disturbed and no further archaeological assessment will be required based on previous archaeological assessments completed.

Comments	Response
archaeological assessment is needed. If it is determined that the project area exhibits archaeological potential, then an archaeological assessment (AA) will be undertaken during the planning phase. If further AA(s) are recommended, then MCM recommends that further stages of AA be completed as early as possible during the detailed design phase and prior to any ground disturbing activities. Archaeological assessments are required to be undertaken by an archaeologist licenced under the *Ontario Heritage Act*, who is responsible for submitting the report directly to MCM for review. The results of the AA will be summarized in the EA report, i.e. the Executive Summary of each AA report provides a brief summary of the work completed and the recommendations for next steps, whether for further archaeological assessment, in which case the report will include a map that identifies those areas, or for no further assessment. The EA report must also include clear commitments to undertake any further AA stages recommended, and a timeline for their completion.	
Built Heritage Resources and Cultural Heritage Landscape This EA project may impact built heritage resources and cultural heritage landscapes. Please advise whether the study area has been screened for built heritage resources or cultural heritage landscapes and/or is the subject of a cultural heritage assessment. If technical cultural heritage studies have been previously undertaken for this study area, please send us an electronic copy of the study(ies). If the study area, including any temporary roads, detours or work areas associated with the project, has not been previously screened or assessed, MTO's *Environmental Guide for Built Heritage and Cultural Heritage Landscape* (2007) and *Ontario Heritage Bridge Guidelines for Provincially Owned Bridges* as well as this Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* can assist you to determine if a Cultural Heritage Assessment Report, Cultural Heritage Evaluation Report and/or Heritage Impact Assessment is needed. Technical cultural heritage studies will be undertaken by a qualified person who has expertise, recent experience and knowledge relevant to the type of	No built heritage resources and/or cultural heritage landscapes will be impacted by the proposed works for the Frederick Street Bridge replacement based on the Ministry of Transportation's review of Transportation Environmental Study Report (2012) prepared for the Highway 7 New Kitchener to Guelph, 18km, Class Environmental Assessment Study. As part of that Study, a Cultural Heritage Evaluation Report (CHER) was prepared for the entire Study Area which included the Frederick Street Bridge (Unterman McPhail Associates 2009).

Comments	Response
cultural heritage resources being considered and the nature of the project being proposed. Community input should be sought to identify locally recognized and potential cultural heritage resources. Sources include, but are not limited to, municipal heritage committees, historical societies and other local heritage organizations. Cultural heritage resources are often of critical importance to Indigenous communities. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to them.	
Bridges and Culverts Please determine whether the Frederick Street Bridge is: • included on the Ontario Heritage Bridge List • listed in MTO's *Heritage Bridges: Identification and Assessment Guide, Ontario 1945-1965* • 40 years or older and not listed in the above Guide • locally or regionally unusual Additionally, to determine whether this undertaking may impact on (recognized or potential) heritage bridges, Section 3.0 of the Ontario Heritage Bridge Guidelines (MTO, Interim January 2008) is of assistance.	The Frederick Street Bridge is: • not included on the Ontario Heritage Bridge List (based on a review of Section 3.0 of the *Ontario Heritage Bridge Guidelines (MTO, Interim January 2008)*) • not listed in MTO's *Heritage Bridges: Identification and Assessment Guide, Ontario 1945-1965* • less than 40 years old • not locally or regionally unusual
EA Documentation Technical cultural heritage studies (e.g., archaeological assessment reports, cultural heritage evaluation reports, heritage impact assessment reports) and their recommendations are part of the EA and should be included in the Design and Construction Report. Determinations that no cultural heritage resources are impacted and no technical studies are warranted should also be documented, summarized and incorporated in the final EA report. In this regard we recommend including the completed screening checklists as part of the EA report.	As recommended, documentation that no cultural heritage resources will be impacted by the proposed works for the Frederick Street Bridge replacement will be included in the Design and Construction Report.

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The Power of Commitment