

# HIGHWAY 410 WIDENING FROM SOUTH OF HIGHWAY 401 NORTHERLY TO QUEEN STREET MINISTRY OF TRANSPORTATION, ONTARIO

## DETAIL DESIGN CLASS ENVIRONMENTAL ASSESSMENT (GROUP 'B') G.W.P. 2144-07-00

#### **DESIGN AND CONSTRUCTION REPORT**

City of Mississauga and City of Brampton Regional Municipality of Peel

Prepared for the Ministry of Transportation by: URS Canada Inc.

FEBRUARY 2014



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Prepared for the Ministry of Transportation by URS Canada Inc.

Prepared and Reviewed by:

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**FEBRUARY 2014** 





#### THE PUBLIC RECORD

This Design and Construction Report has been prepared under the Ministry of Transportation's Class Environmental Assessment for Provincial Transportation Facilities (2000), in compliance with the requirements of the Ontario Environmental Assessment Act. This project was approved following the preparation and filing of a Transportation Environmental Study Report (TESR) in January 2010 (amended August 2010) as part of the MTO Class Environmental Assessment for Highway 410 improvements from south of Highway 401 to Queen Street.

A copy of this document has been submitted to the following office of the Ministry of the Environment to fulfill the requirements of the Ministry of Transportation Class Environmental Assessment.

#### **Ontario Ministry of the Environment**

Central Region Office 5775 Yonge Street, 8<sup>th</sup> Floor North York, Ontario M2M 4J1

This report is also available for review during regular business hours at:

#### The Regional Municipality of Peel

10 Peel Centre Drive Brampton, ON L6T 4B9

#### The City of Brampton

City Clerk's Office 2 Wellington Street West, 1<sup>st</sup> Floor Brampton, ON L6Y 4R2

#### Mississauga Public Libraries:

Courtneypark Branch 730 Courtneypark Drive West Mississauga, ON L5W 1L9

Frank McKechnie Branch 310 Bristol Road East Mississauga, ON L4Z 3V5

#### City of Mississauga

Civic Centre 300 City Centre Drive Mississauga, ON L5B 3C1

#### **Ontario Ministry of Transportation**

Central Region
Planning and Environmental Office
3rd Floor, Building D, 1201 Wilson Avenue
Downsview, Ontario M3M 1J8

#### **Brampton Public Libraries:**

Chinguacousy Branch 150 Central Park Drive Brampton, ON L6T 2T9

Four Corners Branch 65 Queen Street East Brampton, ON L6W 3L6

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#### **EXECUTIVE SUMMARY**

The Ontario Ministry of Transportation (MTO) is proposing to widen approximately 12 km of Highway 410 from south of Highway 401 at the junction with Highway 403 northerly to Queen Street (**Exhibit E-1**). The project area is situated within the City of Mississauga and the City of Brampton, Regional Municipality of Peel.

A Preliminary Design study was undertaken previously and a Transportation Environmental Study Report (TESR) was prepared for this segment of Highway 410 and issued in January 2010. The TESR underwent minor amendments and was re-circulated in August 2010 to affected parties.

The TESR documented possible improvements to this section of Highway 410 in both northbound and southbound directions. The improvements carried forward include the widening of Highway 410 from a 6 lane to a 10 lane cross-section by the addition of one High Occupancy Vehicle (HOV) and one General Purpose Lane (GPL) in each direction.

This Detail Design includes the following components, which are planned to be constructed under one construction contract:

- Widening of Highway 410 into the median to accommodate one HOV lane and one GPL in each direction including the conversion of the grassed median to an urban median with tall-wall barrier separating northbound and southbound traffic.
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange. This HOV lane, after Highway 401, continues as an HOV lane as part of Highway 410 northbound. The new HOV lane will indirectly tie into the existing HOV system at Highway 403, currently ending south of Matheson Boulevard East.
- Installation of a new tall wall barrier in the median.
- Rehabilitation of the existing northbound and southbound lanes, shoulders and ramps.
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive.
- Rehabilitation of all ramps within the project limits excluding some ramps at the Highway 401 Interchange and at the Highway 407 ETR Interchange.
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges to reduce congestion and queuing on the ramp which could help improve traffic operations (i.e. potential decrease of rear end collisions).
- Improvements to the stormwater management system through the addition of six stormwater management (SWM) ponds and new median storm sewer systems in all areas where tall wall median barrier is introduced.
- Modification of several culverts to accommodate the widening requirements.
- Addition of ramp gates at several interchanges.
- Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard Interchanges.
- Replacement of/or modifications to the existing traffic signals at all ramp terminals.
- Upgrading the existing lighting systems including modifications to existing high mast light poles, underpass illumination, and lighting on crossing roads (as required). Existing high mast light poles (HMLP) will be reused wherever possible.





- Structural rehabilitation and widening of 5 structures to accommodate the additional lanes including: Matheson Boulevard, Etobicoke Creek, Glidden Road, CN Rail (CNR), and Orenda Road structures.
- Rehabilitation of the Clark Boulevard and Queen Street structures.
- Replacement of existing concrete barrier on outside shoulders from Steeles Avenue to Clark Boulevard & replacement of the temporary concrete barrier along Derry Road ramps.
- Installation of a new barrier along both sides of the widened Highway 403 West Highway 410 North Ramp.
- Replacement of all Overhead Sign Structures (OHSS).
- Provisions for future Advance Traffic Management System (ATMS).

Consultation was undertaken as part of this project. On July 25, 2011 and October 3, 2011, project notification letters were mailed to individuals on the project mailing list, including MPs, MPPs, Aboriginal Communities, external agencies, municipalities, emergency services, utility companies, interest groups and members of the public to announce the commencement of Detail Design. An Ontario Government Notice was published in local newspapers.

This project is classified as a Group 'B' project under the Ontario Ministry of Transportation (MTO) Class Environmental Assessment (EA) for Provincial Transportation Facilities.

This Design and Construction Report (DCR) is available for public review and documents the project's process, details of the design, consultation undertaken throughout, and a summary of potential environmental effects and mitigation measures.

A Public Information Centre (PIC) was held on Wednesday December 11<sup>th</sup>, 2013 to provide interested parties with the opportunity to discuss the project and to provide input to the Project Team.

Standard general mitigation measures will be used during the implementation of the proposed highway improvements. The project area is located in an urbanized area, bounded by commercial, industrial and residential development, interchanges and roadways.







Exhibit E-1: Project Limits





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- Appendix D Public Information Centre Displays, Comments and Responses
- Appendix E Landscape Plan
- Appendix F List of Reference Documents





#### 1.0 PROJECT OVERVIEW

#### 1.1 PROJECT LOCATION & BACKGROUND

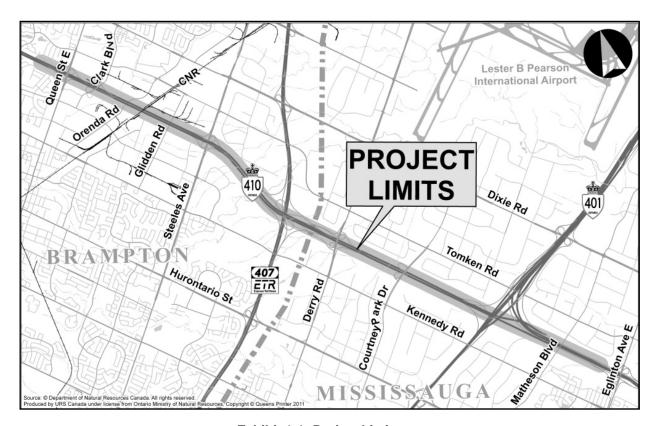
The Ontario Ministry of Transportation (MTO) is proposing to widen approximately 12 km of Highway 410 from south of Highway 401 at the junction with Highway 403 northerly to Queen Street (**Exhibit 1-1**). The project area is situated within the City of Mississauga and the City of Brampton, Regional Municipality of Peel.

A Preliminary Design study was undertaken previously and a Transportation Environmental Study Report (TESR) was prepared for the Highway 410 corridor, from south of Highway 401 Northerly to Queen Street, and was issued in January 2010. The TESR was amended in August 2010; however, it was not placed on the public record for a 30-day review period.

This project is classified as a Group 'B' project under the MTO Class Environmental Assessment (EA) for Provincial Transportation Facilities (1999, as amended 2000).

This Design and Construction Report (DCR) is prepared and once finalized will be made available for public review at the completion of the project and has been prepared to document the process, details of the design, consultation undertaken throughout the project, and a summary of potential environmental effects and mitigation measures.

A Public Information Centre (PIC) was held on Wednesday December 11<sup>th</sup>, 2013 to provide interested parties with the opportunity to discuss the project and to provide input to the Project Team.



**Exhibit 1-1: Project Limits** 





#### 1.2 PURPOSE AND NEED

As stated in the TESR (amended August 2010) the following rationale identifies the purpose and need for the Highway 410 widening project.

Peel Region continues to experience tremendous growth in the residential, industrial, commercial and institutional sectors, particularly within the study areas of the City of Mississauga and the City of Brampton.

In terms of transportation system capacity, the connecting provincial highway system has been expanded to support this rapidly growing region of the GTA. Highway 401 has been expanded to a full collector-distributor system south of the Airport with widening continuing westward; The Ministry of Transportation has recently completed the extension of Highway 410 to Highway 10. Highway 403 has been widened and now includes Highway Occupancy Vehicle (HOV) lanes.

One of the most significant changes along the Highway 410 corridor was the construction of the 407 ETR/Highway 410 Interchange. This interchange was initially planned as a four-level full-directional interchange, with 407 ETR passing below Highway 410. However, the interchange was constructed as a three-level facility with two inner loops, resulting in 407 ETR passing over top of Highway 410.

From a long-range perspective, capacity and operational improvements on Highway 410 will support continued growth within the study area – growth which is a key contributor to Ontario's and Canada's continued economic prosperity. In terms of Ontario's trade dependent economy, the proposed improvements will strengthen the Highway 410-403-QEW network, a key north-south trade gateway to the United States. Operational improvements proposed at Courtneypark Drive will further improve access to the Toronto Pearson International Airport, Canada's largest cargo and passenger hub.

Additional details are contained in the *Highway 410 from South of Highway 401 to Queen Street Transportation Environmental Study Report* W.O. 00-23020 (amended August 2010).

#### 1.3 Proposed Improvements

This Detail Design includes the following components:

- Widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane;
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange;
- Installation of a new tall wall barrier in the median.
- Rehabilitation of existing Highway 410 lanes, shoulders and ramps within the project limits;
- Introduction of Commuter Parking Lots at the Courtneypark Drive (northeast quadrant) and the Clark Boulevard (southwest quadrant) Interchanges;
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek:
- Rehabilitation of the Clark Boulevard and Queen Street underpass structures.
- Improvements to the stormwater management system and new median storm sewer





#### systems;

- Improvements at the Courtneypark Drive, Derry Road and Steeles Avenue Interchanges;
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive;
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges;
- Replacement of/or modifications to the existing traffic signals at all ramp terminals; and,
- Upgrading the existing lighting systems and provisions for future Advance Traffic Management System.





#### 2.0 THE ENVIRONMENT ASSESSMENT PROCESS

#### 2.1 ONTARIO ENVIRONMENTAL ASSESSMENT ACT

The purpose of Ontario's *Environmental Assessment (EA) Act* is to help protect and conserve Ontario's environment by ensuring that projects subject to the *Act* follow a planning process leading to environmentally sound decision-making. The Ontario Ministry of Transportation's (MTO) *Class Environmental Assessment* (Class EA) *for Provincial Transportation Facilities (2000)* outlines the EA process to be followed for specific groups of provincial transportation projects. The Class EA is a planning document approved under the *Act* that provides a streamlined process that projects or activities within a defined "class" must follow. Provided that this process is followed, projects and activities included under the Class EA do not require formal review and approval under the Ontario *EA Act*.

This project is following the Class EA process for Group 'B' project, which generally includes major improvements to existing facilities. **Exhibit 2-1** shows the overall Class EA process.

As previously noted, MTO recently completed a Preliminary Design and Class EA Study for Highway 410 from South of Highway 401 Northerly to Queen Street. A Transportation Environmental Study Report (TESR) was completed to document the ultimate highway improvements plan and filed in the Public Record in January 2010, for a 30-day review period.

This Detail Design includes submission of a Design and Construction Report (DCR), which has been filed for a 30-day period of public review. Any concerns during this review period should be discussed with the MTO and/or their consultants. All comments received during the review period will be considered by the MTO. This DCR does not carry with it the opportunity to request that the Minister of the Environment issue a Part II Order ("bump-up"). If significant concerns are not identified during the review period, further documentation will not be prepared and MTO can commence construction without further notice.

#### 2.2 CANADIAN ENVIRONMENTAL ASSESSMENT ACT

In July 2012, the Government of Canada released new regulations required to implement the Canadian Environmental Assessment Act (CEAA 2012). The CEAA 2012 establishes a federal environmental assessment process focused on major projects that have a greater potential to have significant adverse effects on areas within federal jurisdiction. The types of activities to which the new Act applies ("designated projects") are identified in the regulations. The Act requires the proponent of a designated project to submit a description of the project to the Canadian Environmental Assessment Agency (the Agency). Upon receipt of a project description, the Agency has 45 days, including a 20-day public comment period, to determine whether a federal environmental assessment is required. CEAA 2012 does not apply to this Highway 410 project.





**Exhibit 2-1: Overall Class EA Process PLANNING** PRELIMINARY DESIGN **DETAIL DESIGN Review TESR and Preliminary Design** Develop Detail Design Plan and Notice of Detail Design Study and Public Information Centre **Finalize Preferred Detail Design Plan** Prepare Design and **Construction Report and** Provide for a 30-day **Public Review Period** We Are Here **Prepare Construction Drawings and Specifications Tender for Construction** CONSTRUCTION





#### 2.3 Purpose of the Design and Construction Report

This DCR documents the implications on environmental features associated with aspects of the design and construction of the proposed widening of Highway 410. This DCR includes:

- A description of the project and its purpose;
- An overview of the public consultation undertaken;
- Major features of the proposed works;
- Anticipated environmental effects and proposed mitigation measures; and
- Commitments to monitoring associated with the implementation of the project.

The DCR has been prepared; on the basis of the recommended Detail Design to:

- Address any minor design modifications that could result in environmental impacts or benefits that may not have been anticipated or detailed / identified in the TESR.
- Further assess environmental impacts and refine mitigation requirements; and
- Address any commitments to further work identified in the TESR.

Other aspects of the EA process applicable to Group 'B' projects are contained in the Class EA. Readers interested in these matters are encouraged to refer to that document.

Additional information about this project is also available by contacting the Project Team:

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Finalization of the contract documentation will proceed after the completion of this Detail Design project. There is a possibility that the final design plans may identify minor design modifications or refinements that may occur as part of the standard progression of detail design development. However, should this occur, the modifications are not anticipated to adversely affect the general intent of the EA Commitments made herewith.





#### 3.0 CONSULTATION PROCESS

#### 3.1 Public Consultation

A Notice of Commencement of Detail Design was published in local newspapers to inform the public of the widening of Highway 410 from south of Highway 401 northerly to Queen Street on Wednesday July 27, 2011. This notice was placed in the following local and regional newspapers and met the requirements of the *Freedom of Information and Protection of Privacy Act* (FOI) and *French Language Services Act* (FLSA):

- Globe and Mail:
- Mississauga News;
- Brampton Guardian; and,
- Mississauga le Métropolitain (French)

Notification letters were mailed on July 25, 2011 and October 3, 2011 to individuals on the project mailing list. Copies of the notice and notification materials are provided in **Appendix C**.

#### 3.2 Public Information Centre

A Notice of Public Information Centre (PIC) was placed in the *Mississauga News* and the *Brampton Guardian* on Wednesday November 27, 2013. The Ontario Government Notice was also placed in the *Toronto le Metropolitain (Brampton)* in French on Wednesday November 27, 2013 to inform the public of the upcoming PIC for the Highway 410 Widening project (refer to **Appendix A**).

Notification letters were mailed to Aboriginal Communities and to MP/MPP contacts on Wednesday November 27, 2013. Notification letters were also mailed on Wednesday November 27, 2013 and Thursday November 28, 2013, to Project Team Contact List individuals including: members of the public, agencies, municipalities, and interest groups. Copies of the notification letters are provided in **Appendix A**.

A brochure (copy of the Ontario Government Notice printed on yellow paper) was hand delivered on December 9, 2013 to approximately 30 houses located in the northwest quadrant adjacent to Highway 410 and Queen Street and approximately 25 brochures were dropped off at each of the two apartment buildings located in the northeast quadrant of Highway 410 and Queen Street.

In addition to the PIC a meeting was held with the City of Mississauga and Region of Peel on Wednesday December 4, 2013 and the City of Brampton on Thursday December 5, 2013. The purpose of this meeting was for the Project Team to present the PIC Display materials and discuss the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects.

The PIC was held on Wednesday December 11<sup>th</sup>, 2013 from 4:00 p.m. to 8:00 p.m. at the Courtyard Marriott Brampton, 90 Biscayne Crescent, Brampton, Ontario L6W 2S1. A meeting for external agencies was held in advance of the PIC from 3:00 p.m. to 4:00 p.m. Representatives from Peel Region and the City of Mississauga attended. No elected officials attended the PIC.





The PIC was conducted as an informal drop-in centre. Representatives from the MTO and the Consultant Team were available to answer questions and discuss the project. The purpose of the external team meeting and the PIC was to present the following for review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects. In addition to the display material, handout packages detailing the information presented were made available for attendees. A roll plan illustrating the Detail Design Plan was on display. To view a copy of the Public Information Centre Displays, Comments and Responses presented at the PIC, refer to **Appendix D**.

A total of ten (10) individuals chose to sign the visitor's register for the PIC. In addition to verbal comments, the Project Team encouraged visitors to express, in writing, all suggestions, comments or concerns that they had regarding the information presented. Two (2) written comments were received during this PIC. Following notification of the PIC in November and within 30-days after the PIC, nine (9) additional stakeholders provided comments, requests for additional information, requests to be added to the project contact list, and requests for copies of the PIC display material were received.

The following summarizes the key comments raised based on verbal and written comments at the PIC:

- Concern regarding the HOV lanes with respect to efficiency and safety.
- Inquiries about ramp closures on the Highway 410 northbound at Steeles Avenue.
- Recommendations that this project be given high priority due to the traffic volume.
- Enthusiasm expressed for the proposed project construction to commence.

A response to each written comment received was prepared.

#### 3.3 Submission of the Design and Construction Report

A Notice of Design and Construction Report Submission was placed in the *Mississauga News* and the *Brampton Guardian* on Wednesday February 19, 2014. The Ontario Government Notice was also placed in the *Toronto le Metropolitain (Brampton)* in French on Wednesday February 19, 2014. The notice advertised that this DCR had been placed on the public record for a 30-day public review period commencing February 19, 2014 and ending on March 20, 2014. In addition, notification letters dated February 14, 2014 were mailed to individuals on the Project Team's contact list. The letters and the newspaper notice provided information about the locations where the DCR could be viewed, as well as contact information for individuals wishing to comment on the DCR.

#### 3.4 EXTERNAL AGENCY CONSULTATION

Notification letters sent to external agencies included a contact information form that provided external agencies with an opportunity to express their concerns and comments on the project.

The Project Team met with the City of Brampton on September 12, 2011, City of Mississauga on September 16, 2011 and the Region of Peel on September 19, 2011, to provide an overview of the project, review project design activities, review the project schedule, and to gather input from the municipalities. Additional meetings also took place with the City of Brampton and City of Mississauga regarding the possibility of implementing roundabouts at Courtneypark Drive and Clark Boulevard ramp terminals; however, the use of roundabouts at these locations was screed out.





The External Team was invited to attend an External Team meeting held on Wednesday December 11<sup>th</sup>, 2013 for one hour prior to the PIC to review the PIC materials and discuss the project directly with the Project Team. Two (2) External Team members attended the meeting, including a representative from Peel Region and one representative from the City of Mississauga.

The Project Team met with 407 ETR on August 12, 2011 and on September 5, 2011 to review project design activities, overview of the project, review of design activities, the project schedule, and to Request for Drawings/Inspection Reports. The Project Team also met with CN Rail on August 18, 2011, the Ontario Provincial Police (OPP) on May 30, 2012, and the Toronto Region Conservation Authority (TRCA) on October 11, 2011 to provide an overview of project and to review TRCAs comments (dated August 23, 2011). Refer to **Appendix B** for the minutes of these meetings.

The Project Team contacted the following federal and provincial ministries and agencies, Aboriginal Communities, municipalities and emergency service providers, who will subsequently be referred to as the External Team:

#### <u>Provincial and Federal Government</u> Agencies

- Transport Canada;
- Department of Fisheries & Oceans;
- Canadian Environmental Assessment Agency;
- Canadian Transportation Agency;
- Ministry of Agriculture, Food and Rural Affairs;
- Ministry of Municipal Affairs and Housing;
- Ministry of Natural Resources (MNR);
- Ministry of the Environment;
- Ontario Heritage Trust
- Ministry of Tourism, Culture and Sport;
- Toronto and Region Conservation Authority;
- Ontario Provincial Police;
- Ontario Realty Corporation; and,
- Infrastructure Ontario.

#### Municipal Agencies / District School Boards

- City of Brampton;
- City of Mississauga;
- Peel Region;
- Dufferin-Peel Catholic District School Board;
   Planning and Development;

- Peel District School Board, Brampton Ward 3:
- Peel District School Board, Brampton Ward 5; and,
- Peel District School Board.

#### First Nation Communities and Agencies

- Métis Nation of Ontario;
- Aboriginal Affairs and Northern Development Canada;
- Ministry of Aboriginal Affairs;
- Alderville First Nation;
- Beausoleil First Nation;
- Chippewas of Mnjikaning;
- Chippewas of Georgina Island First Nation;
- Curve Lake First Nation;
- Hiawatha First Nation:
- Mississaugas of the New Credit First Nation:
- Coordinator for the Williams Treaties:
- Mississaugas of Scugog Island First Nation; and,
- Kawartha Nishnawbe First Nation.

#### **Emergency Services**

- Peel Region Police;
- Ontario Provincial Police;
- Halton Mississauga Ambulance Services;





- Mississauga Fire and Emergency Services;
- Brampton Fire and Emergency Services; and,
- Halton Emergency Services.

#### Transit Authorities / Agencies

- Greater Toronto Airports Authority;
- 407 ETR; and,
- CN Rail.

#### Utilities

- Bell Canada:
- Brampton Hydro Networks Inc.;
- Enbridge Pipelines Inc.;
- Enbridge Consumer's Gas;
- Enersource Corporation (formerly Mississauga Hydro);
- Rogers Communications Inc.; and,
- Hydro Mississauga.

#### MP/MPP

- Ms. Amrit Mangat MPP Mississauga Brampton South;
- Mr. Jagmeet Singh MPP Bramelea-Gore-Malton;
- Honourable Linda Jeffrey MPP Brampton-Springdale;
- Mr. Vic Dhillon MPP Brampton West;
- Mr. Kyle Seeback MP Brampton West;
- Mr. Pram Gill MP Brampton Springdale;
- Ms. Eve Adams MP Mississauga-Brampton South; and,
- Honourable Bal Gosal MP Bramalea-Gore-Malton.

#### Interest Groups

- Brampton Board of Trade;
- Mississauga Board of Trade.





## 4.0 DETAILED DESCRIPTION OF THE RECOMMENDED DESIGN

This section of the DCR describes the major features of the proposed works, environmental issues and commitments, and provides a summary of the environmental effects and proposed mitigation measures.

As noted in **Section 1.3**, this Detail Design project involves the following components, which are planned to be constructed in one construction contract:

- Widening of Highway 410 into the median to accommodate one HOV lane and one GPL in each direction including the conversion of the grassed median to an urban median with tall-wall barrier separating northbound and southbound traffic.
- Addition of one HOV lane along the Highway 403 northbound Collector, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange. This HOV lane, after Highway 401, continues as an HOV lane as part of Highway 410 northbound. The new HOV lane will indirectly tie into the existing HOV system at Highway 403, currently ending south of Matheson Boulevard East.
- Installation of a new tall wall barrier in the median.
- Rehabilitation of the existing northbound and southbound lanes, shoulders and ramps.
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive.
- Rehabilitation of all ramps within the project limits excluding some ramps at the Highway 401 Interchange and at the Highway 407 ETR Interchange.
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges to reduce congestion and queuing on the ramp.
- Improvements to the stormwater management system through the addition of six stormwater management (SWM) ponds and new median storm sewer system in all areas where tall wall median barrier is introduced.
- Modifications of several culverts to accommodate the widening requirements.
- Addition of ramp gates at several interchanges.
- Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard Interchanges.
- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals.
- Upgrading the existing lighting systems including modifications to existing high mast light poles, underpass illumination, and lighting on crossing roads (as required). Existing high mast light poles (HMLP) shall be reused wherever possible.
- Structural rehabilitation and widening of 5 structures to accommodate the additional lanes including: Matheson Boulevard, Etobicoke Creek, Glidden Road, CN Rail (CNR), and Orenda Road structures.
- Rehabilitation of the Clark Boulevard and Queen Street structures.
- Installation of a new tall wall barrier in the median.
- Replacement of existing concrete barrier on outside shoulders from Steeles Avenue to Clark Boulevard & replacement of the temporary concrete barrier along Derry Road





ramps.

- Installation of a new barrier along both sides of the widened Highway 403 West Highway 410 North Ramp.
- Replacement of all Overhead Sign Structures (OHSS).
- Provisions for future Advance Traffic Management System (ATMS).

Details of the proposed improvements to be constructed are shown on the Detail Design Plan in **Appendix A**.

Exhibit 4-1 provides an overview of the Highway 410 Detail Design key plan.

Exhibit 4-1: Detail Design Key Plan







#### 4.1 **DESIGN DETAILS**

The following section discusses the design details of the Highway 410 widening project.

#### Roadwork

The superelevation of both the widened portion of Highway 410 and the resurfaced portion will meet the requirements of the Geometric Design Manual. Asphalt padding will be used to increase the superelevation of the resurfaced portions of the highway, as required, to meet Design Standards.

#### Structures

#### Widening and Rehabilitation of Structures

This project includes the widening and rehabilitation of five (5) overpass structures (Matheson Boulevard, Etobicoke Creek, Glidden Road, CN Rail (CNR) and Orenda Road) within the limits of the contract. The rehabilitation work will include the conversion of all structures to include semi-integral abutments.

#### Rehabilitation of Queen Street and Clark Boulevard Interchanges

This project also includes the rehabilitation of two (2) underpass structures at the Queen Street and Clark Boulevard Interchanges.

The following structures outlined in **Exhibit 4-2** are to be widened and rehabilitated:

Exhibit 4-2: Structure Widening & Rehabilitation

STRUCTURE	STRUCTURE NAME	Cross-	SECTION	MINIMUM VERTICAL CLEARANCE	
SITE No.		EXISTING	PROPOSED	EXISTING	PROPOSED
24-354/3	Matheson Boulevard NB Overpass	23.38 m (min.)	28.90 m (min.)	5.72 m	5.59 m
24-313/ 1&2	Etobicoke Creek NB and SB Overpasses	NB: 20.76 m SB: 16.41 m	NB: 30.00 m SB: 26.23 m	N/A	N/A
24-487/ 1&2	Glidden Road NB and SB Overpasses	NB: 23.96 m SB: 20.96 m	NB: 34.96 m SB: 31.96 m	5.32 m	5.32 m
24-477/ 1&2	CN Rail NB and SB Overpasses	NB: 21.00 m SB 21.00 m	NB 31.97 m SB 31.97 m	7.45 m	7.25 m
24-476/ 1&2	Orenda Road NB and SB Overpasses	NB: 21.00 m SB: 21.00 m	NB: 31.97 m SB: 31.97 m	5.02 m	5.02 m
24-471	Clark Blvd Underpass	21.95	21.95	4.73	4.73
24-343/1&2	Queen St. Underpass	EB: 14.98 WB: 14.99	EB: 14.98 WB: 14.99	4.72	4.72

#### Electrical

#### Illumination

North of Highway 401, the existing High Mast Light Poles (HMLP) in the median will be relocated to the new tall wall median barrier. South of Highway 401, the existing HMLPs do not require relocation as a result of the addition of the HOV lane along Highway 403 EB Collector. All underpass illumination will also be upgraded as part of this contract.





A cost/benefit analysis was undertaken to compare the optimal means of providing temporary illumination during construction of the tall wall median barrier. The selected alternative uses armored cabling (TECK 90) to provide temporary connections to the HMLPs during construction. The cable would be placed on the ground alongside the temporary concrete barrier and would require protection where the cable crosses the work zone to connect to the HMLPs. Each HMLP can then be disconnected and removed from its foundation. The existing foundation will be reconstructed in place or a new foundation will be constructed. As the new foundations are completed, the HMLPs can be installed on the new foundations one at a time, maintaining the temporary connections. Final electrical plant would be installed once the median work is complete.

#### Traffic Signals

Permanent traffic signals will be replaced or modified at the following locations:

- Highway 410/Courtneypark Drive East;
- Highway 410/ Derry Road East & West;
- Highway 410/ Steeles Avenue East & West;
- Highway 410/ Clark Boulevard East & West; and
- Highway 410/ Queen Street East & West.

Temporary traffic signals will be used during construction of the new permanent traffic signals.

#### Traffic Counting Stations

All existing traffic counting stations within this project are located in the area of Highway 403 and Highway 401 interchange. All existing traffic counting stations will be replaced and new traffic counting stations will be added as necessary.

#### Intersections / Roundabouts

This project includes the widening of the northbound and southbound off ramp terminals from three to four lanes at Derry Road and Steeles Avennue. In addition, the northbound ramp terminal at Courtneypark Drive will be relocated as part of the reconfiguration of the ramp from a Parclo B-2 type off-ramp to a Parclo A-2 type off-ramp.

Roundabouts were considered at the Courtneypark Drive and Clark Boulevard ramp terminals as part of this project. Although it was determined that roundabouts were not feasible at Courtneypark Drive due to the potential traffic impacts, roundabouts at Clark Boulevard warranted further consideration including consultation with the municipalities. A meeting was held with the City of Brampton regarding the possibility of implementing roundabouts; however, the use of roundabouts at Clark Boulevard ramp terminals was not advanced at this time. Roundabouts were not considered at the Derry Road and Steeles Avenue ramp terminals due to the number of existing lanes (three), high volume of trucks on the crossing roadways, and anticipated construction staging challenges.

#### Advanced Traffic Management System (ATMS)

Footings for future Changeable Message Signs and provision for ATMS facilities will be installed as part of this contract.





#### Carpool Parking Facilities

New carpool parking facilities will be provided at Courtneypark Drive and Clark Boulevard.

At Courtneypark Drive, the new carpool parking lot will be located on the north side of Courtneypark Drive, east of Highway 410, in the location of the existing Highway 410 northbound off-ramp to Courtneypark Drive. A retaining wall system will be constructed to alleviate geometric and property restrictions and allow full access to the carpool lot from Courtneypark Drive. This parking lot will have 277 general parking spaces and 12 Accessible Parking Spaces for Persons with disabilities. The lot is expandable, in the future, to include a bus pick up/drop off space as required. The lot has been designed to provide full in/out access for all passenger vehicles (including busses). In future, the lot will provide through access to the Courtneypark E/W-N on-ramp.

At Clark Boulevard the new carpool parking lot will be located on the south side of Clark Boulevard, west of Highway 410, between Clark Boulevard and Heart Lake Road. Full access would be provided to the parking lot from Heart Lake Boulevard. This parking lot will have approximately 80 general parking spaces and approximately 5 Accessible Parking Spaces for Persons with disabilities.

#### Ramps

This Detail Design Plan includes the construction of a realigned Highway 410 northbound offramp to Courtneypark Drive Interchange. The existing off-ramps at the Derry Road and Steeles Avenue Interchanges will be widened.

#### Railway Crossing

Highway 410 northbound and southbound lanes cross over the CN Rail, between Glidden Road and Orenda Road. The existing structures will be widened to accommodate the additional lanes on Highway 410 northbound and southbound. A legal agreement with CN Rail will be obtained prior to the start of construction.

#### **Drainage and Watercourses**

The project area, from Eglinton Avenue to Queen Street, is located within the Etobicoke Creek watershed. Highway 410, from Highway 401 to Steeles Avenue, is a divided highway with grass median. At the present time, stormwater runoff drains laterally from outer lanes into the existing ditch, and stormwater runoff from the inner lanes drains into the existing grass median. Once the existing grass median is urbanized from Highway 401 to Queen Street, due to Highway 410 widening into the median, a median storm sewer system and stormwater management ponds will be introduced.

All culverts affected by the widening of Highway 410 and associated ramps will be either lengthened or incorporated into the new median storm sewer system.

Culvert information is detailed in the **Exhibit 4-3** below. This exhibit does not include the new culverts used at SWM ponds / High Mass Light (HML) entry pads (e.g. small ditch culverts) being installed to maintain ditch drainage. SWM Pond information is included in **Exhibit 4-4** and **Exhibit 4-5 below.** They are all quality treatment facilities.





Exhibit 4-3: Highway 410 Culverts

APPROX. STATION / LOCATION	CULVERT CONFIGURATION/SIZE	EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
5+471 (HWY 410)	3800*1600mm Concrete Box	Good condition	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
6+262 (HWY 410)	900 mm CSP	Poor condition. Severe rusting and cracks.	Not meet hydraulic criteria; Poor condition	Replace with storm sewer
6+677 (HWY410)	5000*2500mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
7+321 (HWY410)	4200*2200mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
30+750 (Derry Road)	4800*1800mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
7+995 (Hwy410)	4000*1800mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
31+221 (Derry Road )	3600*1600mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
10+470 (Ramp 410N- Derry E/W)	3800*1800mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
8+792 (HWY 410)	3080*700mm Concrete Box	Good condition.	Although not meet HD/W criteria, it won't impact on the highway and surrounding area;	Retain existing culvert





APPROX. STATION / LOCATION  CULVERT CONFIGURATION/SIZE		EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
			No change of drainage pattern and significant increase of peak flow rates	
8+600 (HWY 410)	4270*1830mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
9+615 (HWY 410)	Bridge	Good condition.	Highway 410 widening into median	Widening into median
10+020 (HWY 410)	750 mm CSP	Poor condition. Heavy rusting and cracks.	Proposed storm sewer system	Remove
10+300 (HWY 410)	6050*1800mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
9+800 (Steeles W- 410 S)	6000*1750mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
10+680 (HWY 410)	6050*2130mm Concrete Box	Good condition.	The existing culvert does not meet freeboard criteria. However, the culvert is in good condition and shows minimum impact to the highway and surrounding area.	Retain existing culvert
9+940 (Steeles W - 410 N)	600 mm CSP	Poor condition. Moderate cracks and rusting.	Remove and build a new culvert to feed flow to proposed D/S SWM pond #6	Remove
11+007 (HWY 410 NBL)	600 mm CSP	Poor condition. Culvert almost fully buried.	Drainage area will be diverted to proposed SWM Pond # 6	Remove
10+975 (HWY 410 SBL)	800 mm CSP	Poor condition. Severe cracks and rusting at the ends.	Drainage area will be diverted to proposed SWM Pond # 6	Remove





APPROX. STATION / LOCATION	CULVERT CONFIGURATION/SIZE	EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
9+769 (Ramp Steeles W - 410 S)	1200 mm CSP	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
12+430 (HWY 410)	1800*900mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
13+130 (HWY 410)	6000*3000mm Concrete Box	Good condition	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
2+313 (HWY403 EB)	4200*2400mm Concrete Box	Good condition.	Meet hydraulic criteria; No change of drainage pattern and significant increase of peak flow rates	Retain existing culvert
3+270 (HWY 403 EB)	800 mm CSP	Poor condition. Cracks and Rusting.	Proposed road widening leads to limited space for ditching	Remove. Runoff captured by the proposed storm sewer system
3+185 (HWY 403 EB)	1100 mm CSP	Poor condition. Severe cracks and Rusting.	Proposed road widening leads to limited space for ditching	Remove. Runoff captured by the proposed storm sewer system
3+675 (HWY 403 WB)	800 mm CSP	Poor condition. Moderate cracks and rusting.	Existing culvert shows poor condition and not meet hydraulic criteria; proposed road widening need culvert's extension at D/S end	Replace with 900 mm pipe; Extension at D/S
4+200 (HWY 403 WB)	900 mm CSP	Poor condition. Moderate Cracks and Rusting	Existing culvert shows poor condition and proposed road widening need culvert's extension at U/S end	Replace with 900 mm pipe; Extension at U/S
6+975 (HWY 410)	800 mm CSP	Poor condition. Severe cracks and rusting. Culvert opening	New median storm sewer will capture and convey runoff to the proposed SWM	Remove





APPROX. STATION / LOCATION	CULVERT CONFIGURATION/SIZE	EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
		almost buried	pond	
9+950 (Courtney Park E/W - 410 S)	800 mm CSP	Poor condition. Severe cracks and rusting.	Existing culvert shows poor condition and not meet hydraulic criteria;	Replace with 800 mm pipe
10+079 (Derry W-410 S)	800 mm CSP	Poor condition. Severe cracks and rusting.	Existing culvert shows poor condition and not meet hydraulic criteria; proposed road widening need culvert's extension at D/S end	Replace
9+900 (Derry E-410 S)	600 mm CSP	Good condition.	Although the existing culvert does not meet MTO min. size criteria, the culvert has good condition and meets all the hydraulic criteria. Replacement is not required	Retain existing culvert
9+679 (Derry E-410 S)	450 mm CSP	Poor condition. Severe Cracks and Rusting.	Existing culvert shows poor condition	Replace
10+158 (410 S-Derry E/W)	900 mm CSP	Poor condition. Severe cracks and rusting	Existing culvert shows poor condition	Replace with 900 mm pipe and extension at D/S
9+489 (Derry W - 410 N)	900 mm CSP	Fair condition. Moderate rusting.	Meet hydraulic criteria	Keep Existing
9+888 (Derry E-410 N)	800 mm CSP	Poor condition. U/S end damage	Drainage area drains to the proposed Pond #3	Remove/Abandon
9+770 (Derry E/W-410 N)	600 mm CSP	Poor condition. Moderate cracks and rusting.	Existing culvert shows poor condition	Replace with 800 mm pipe and extension at D/S
10+170 (410 N-Derry E/W)	750 mm CSP	D/S end of culvert completely bent and opening closed	Existing culvert shows poor condition	Replace
9+560 (Steeles E- 410 N)	600 mm CSP	Spalling at the U/S End, Sedimentation	Although the existing culvert does not meet MTO min. size criteria, the culvert has fair	Clean out and repair end





APPROX. STATION / LOCATION  CULVERT CONFIGURATION/SIZE		EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
			condition and meet all the hydraulic criteria. Culvert replacement is not required	
9+941 (Steeles E - 410S)	1000 mm CSP	Poor condition; U/S end damaged	Existing culvert shows poor condition	Replace
10+100 (410 N- Steeles E/W)	900 mm CSP	Poor condition. Severe cracks and rusting	Existing culvert shows poor condition	Replace
10+081 (410 S- Steeles E/W)	600 mm CSP	Almost buried	Drainage area drains to the proposed Pond #6	Remove
11+549(401 W- 410 N)	800 mm CSP	Poor condition. Culvert severely damaged.	Proposed 410 Collector result in a limited space for ditching at D/S	Remove
10+387 (410 N- 401 E)	800 mm CSP	Poor condition (investigated by CCTV)	Meet hydraulic criteria	Abandon
10+280 (Ramp 410 S.Coll. Courtney E/W)	1200 mm Circular Pipe	N/A	To accommodate new Ramp 410 S.Coll. Courtney E/W	New crossing
10+300(Ramp 410 S.Coll. Courtney E/W)	800 mm Circular Pipe	N/A	To accommodate new Ramp 410 S.Coll. Courtney E/W	New crossing
10+292 Ramp Derry E- 410 N	800 mm Circular Pipe	N/A	DR-06 to be removed to accommodate the proposed SWM pond; a new culvert to be constructed to convey flow	New crossing
9+920 (Steeles W - 410 N)	800 mm Circular Pipe	N/A	C12a to be removed and a new culvert to be constructed to feed flow pond #6	New crossing
11+518 (401 W- 410 N)	800 mm Circular Pipe	N/A	401-01 to be removed and a new culvert to be constructed at the south side of existing crossing	New crossing
10+387 (410 N- 401 E)	800 mm Circular Pipe	N/A	401-02 to be abandoned and a new culvert to be constructed beside	New crossing





APPROX. STATION / LOCATION	CULVERT CONFIGURATION/SIZE	EXISTING CULVERT CONDITION	RATIONALE FOR RECOMMENDATION	RECOMMENDATION
			the existing crossing	

#### Exhibit 4-4: Highway 410 Stormwater Management Ponds

POND ID	TYPE OF TREATMENT	RECOMMENDED MODIFICATIONS
Pond 1	Quality & Quantity	The pond outlet location revised from PDR. Reasons: (1) to maintain existing drainage pattern; (2) to avoid diverting flow to an existing sewer system; (3) pond will over-control 100 year flow to ensure no increase in peak flows to the Heart Lake Tunnel.
Pond 2	Quality	Pond location shifted to the north approximately by 300 meters. Reasons: (1) closer to the low point of the road; (2) Size of sewer that crosses Culvert 4 can be reduced.
Pond 3	Quality	Pond location has been changed to the east side of Hwy 410 as there was insufficient clearance for the sewer crossing over Culvert 6.
Pond 4	Quality	Minor revision to outlet location.
Pond 5	Quality	There is insufficient clearance for the sewer crossing over Culvert 10. To maintain functional drainage area of wet pond and achieve the target treatment ratio as per PDR, the runoff from outside lanes of southbound was captured by a ditch inlet and conveyed to the proposed Pond 5.
Pond 6	Quality	PDR proposed two ponds has been reduced to one, located within the interchange.





Exhibit 4-5: Highway 410 Summary of Proposed Stormwater Management Ponds

Dusings Aug (he)	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5	Pond 6
Drainage Area (ha)	5.23	7.12	5.05	7.82	5.35	7.83
		Storage				
Required Permanent Pool Storage (m <sup>3</sup> )	1098	1495	1061	1642	1124	1644
Provided Permanent Pool Storage (m <sup>3</sup> )	3593	2114	1908	2975	2914	1710
Required Extended Storage (m <sup>3</sup> )	990	1440	923	798	834	1372
Provided Extended Storage (m <sup>3</sup> )	3515	1486	1190	2319	2949	1455
	F	Clevation	•	•		
Bottom Pond Elevation (m)	176.20	180.00	182.80	187.50	189.00	190.50
Permanent Pool Elevation (m)	177.70	181.65	184.80	189.00	190.50	192.70
25 mm Water Elevation (m)	178.06	182.39	185.35	189.35	190.76	193.65
10 Year Water Level	178.47	182.55	185.75	189.90	191.17	194.05
100 Year Water Level (m)	178.81	182.70	186.00	190.03	191.42	194.30
	Re	lease Rate				
25 mm Storm Event (m <sup>3</sup> /s)	0.014	0.018	0.015	0.015	0.011	0.020
10 Year Storm(m <sup>3</sup> /s)	0.022	0.871	0.153	0.025	0.016	0.471
100 Yeast Storm(m <sup>3</sup> /s)	0.033	1.931	0.401	0.354	0.051	1.312

#### Signing

All overhead sign structures (OHSS) will be replaced as a result of the widening of Highway 410. Considering the implementation of HOV lanes, additional overhead signs will be provided to provide guidance to road users.

All existing ground mounted signs will also be replaced, if required.

#### Cross Fall

The cross-fall of both the widened portion of Highway 410 and the resurfaced portion will meet Design Standard with a 2.00% cross-fall on the travel lanes and 6.00% maximum cross-fall at the shoulders.

#### 4.1.1 Construction Staging Plans

In order to accommodate traffic safety and efficient construction, long-term travel lane and ramp closures may be required during construction. Signing will be posted in advance of construction to inform the public of closures and traffic pattern modifications where required.

The overall staging of this project is anticipated to include five (5) major stages of construction from 2014 to 2018 as follows (**Exhibit 4-6**):





**Exhibit 4-6: Construction Staging Plan** 

Stage	Activity	Anticipated Timing
Stage No. 1	<ul> <li>Rehabilitation of a portion of the outside shoulders on Highway 403 and Highway 410 to convey traffic in later stages</li> <li>Construction of the stormwater management ponds</li> <li>Rehabilitation of the Derry Road on-ramps to Highway 410 northbound</li> </ul>	Year 2014
Stage No. 2	<ul> <li>Widening of Highway 410 into the existing grass median from Highway 401 to Etobicoke Creek</li> <li>Widening of the Etobicoke Creek, Glidden Road, and Orenda Road structures into the median</li> <li>Construction of the new median storm sewer</li> <li>Modifications to existing highway illumination</li> <li>Rehabilitation of Steeles Avenue interchange including ramp widening, replacement of traffic signals, and pavement rehabilitation on Steeles Avenue</li> </ul>	Year 2015
Stage No. 3	<ul> <li>Widening of Highway 410 into the existing grass median from Etobicoke Creek to Queen Street</li> <li>Construction of new median storm sewer and modification to existing highway illumination</li> <li>Widening of the existing CNR structure</li> <li>Widening of Highway 410 to the outside between Highway 401 and Courtneypark Drive</li> <li>Rehabilitation of existing Highway 410 northbound and southbound from Highway 401 to Etobicoke Creek</li> <li>Rehabilitation of Etobicoke Creek and Clark Boulevard structures</li> <li>Construction of the new Highway 410 northbound off-ramp to Courtneypark Drive</li> <li>Rehabilitation of Derry Road interchange including ramp widening, replacement of the traffic signals and pavement rehabilitation on Derry Road</li> </ul>	Year 2016





Stage	Activity	Anticipated Timing
Stage No. 4	<ul> <li>Construction of a new separator between Highway 403 eastbound express and collector north of Eglinton Avenue (including new storm sewer)</li> </ul>	Year 2017
	<ul> <li>Widening and rehabilitation of the Highway 403 ramps to and from Highway 410</li> </ul>	
	<ul> <li>Widening of the Matheson Boulevard structure</li> </ul>	
	<ul> <li>Rehabilitation of Highway 410 northbound from Etobicoke Creek to Queen Street</li> </ul>	
	<ul> <li>Rehabilitation of the Highway 410 northbound structures over Glidden Road, CNR, and Orenda Road</li> </ul>	
	<ul> <li>Rehabilitation of the Clark Boulevard and Queen Street structures</li> </ul>	
	<ul> <li>Rehabilitation of Courtneypark Drive and Clark Boulevard interchanges including ramp widening, replacement of traffic signals, and pavement rehabilitation</li> </ul>	
	<ul> <li>Construction of the new carpool lots at Courtneypark Drive and Clark Boulevard interchanges</li> </ul>	
Stage No. 5	<ul> <li>Rehabilitation of the Highway 403 eastbound collector north of Eglinton Avenue</li> </ul>	Year 2018
	<ul> <li>Rehabilitation of the Matheson Boulevard structure</li> </ul>	
	<ul> <li>Construction of the separator on Highway 410 northbound from Highway 401 to Courtneypark Drive</li> </ul>	
	<ul> <li>Rehabilitation of Highway 410 southbound from Etobicoke Creek to Queen Street</li> </ul>	
	<ul> <li>Rehabilitation of the Highway 410 southbound structure over Glidden Road, CNR, and Orenda Road structures</li> </ul>	
	<ul> <li>Rehabilitation of the Queen Street structure</li> </ul>	
	<ul> <li>Rehabilitation of Queen Street interchange with replacement of traffic signals and pavement rehabilitation</li> </ul>	

Refer to the Detail Design Plates in **Appendix A** for details of improvements to be constructed.

#### 4.1.2 Construction Detours / Closures During Construction

Traffic staging will be implemented to minimize disruptions to traffic flow as much as possible during construction.

There is no reduction in travelling lane capacity with the exception of the closure of the auxiliary lanes between Steeles Avenue and Clark Boulevard. The Steeles Avenue East – Highway 410 North ramp will also be closed for two (2) construction seasons.

All existing lanes of traffic and ramps will be maintained during peak periods, except as follows:

- Closure of auxiliary lanes between Steeles Avenue and Clark Boulevard.
- Closure of the Steeles Avenue westbound on-ramp to Highway 410 northbound for two construction seasons.





- Lane closures on Clark Boulevard.
- Lane closures on Queen Street.
- Lane closures on Matheson Boulevard, Glidden Road and Orenda Road.

Other ramps will have weekend and nighttime closures as required. Highway 403 and Highway 410 will have weekend lane closures.

In advance of highway construction work and long-term and temporary road closure periods, advisory / warning signs will be placed at locations where required and feasible.

#### 4.2 TECHNICAL CONSIDERATIONS

#### 4.2.1 Highway Operations and Safety

In order to improve safety along Highway 410, the following roadside safety work will be undertaken:

- New tall wall barrier will be installed in the median separating northbound and southbound traffic;
- New barrier will be installed along both sides of the widened Highway 403 W Highway 410 N Ramp;
- The existing barrier along the Highway 401 W Highway 410 N Ramp will be replaced north of the existing structure;
- The temporary concrete barrier along the Derry Road E/W 410 N Ramp and 410 N Derry Road E/W Ramp will be replaced with new concrete barrier:
- The existing concrete barrier along the outside shoulders of Highway 410 northbound and southbound from Steeles Avenue to Clark Boulevard will be replaced; and,
- All remaining existing roadside barriers and attenuators will be assessed and adjusted, extended or replaced as necessary.

#### 4.2.2 Utilities

The following utility companies have plant located within the project limits:

Hydro One;

Telus:

Enersource:

- Allstream;
- Enbridge Gas Distribution;
- Go Transit

Rogers Cable;

Peel Region (Sanitary Sewer & Watermain)

Bell Canada:

Public Sector Network (PSN)

The existing Enersource overhead hydro plant, located just south of Courtneypark Drive, will be relocated to accommodate the construction of the new S-E/W off- ramp at Courtneypark Drive.

An existing Peel Region watermain crosses Highway 410 just north of Highway 401 and will be less than 300mm from the new median storm sewer. The new storm sewer will be constructed using pipe with pressure joints in the vicinity of the watermain as per the recommendations from Peel Region. In addition, insulation will be required on the east and west sides of Highway 410





due to ditch modifications resulting from widening of the highway through this area. This watermain is shallow at the existing ditches and is currently insulated.

Other utilities which require relocation to accommodate bridge widening, bridge rehabilitation or modifications to the ramp terminals are as follows:

- Bell Canada Duct Existing duct crossing Highway 410 north of Courtneypark Drive and is impacted by the proposed grading at the parking lot. The manhole will be raised to the new grade as part of this project.
- Rogers Cable Duct Existing ducts lie below the north sidewalk at Glidden Road and the south sidewalk at Orenda Road and are in conflict with proposed widening of the Highway 410 Overpass structures.
- Hydro One Duct Existing ducts lies below the north sidewalk at Glidden Road and is in conflict with proposed widening of the Highway 410 Overpass structure.
- PSN Duct Existing ducts lie below the south sidewalk at Matheson Boulevard and are in conflict with proposed widening of the Highway 403 EB Collector Overpass structures.
- Rogers Cable Duct Existing duct embedded on the north side of the Queen Street Underpass and is in conflict with the conversion to semi-integral abutments.
- Hydro One Duct Existing ducts embedded on the north side of the Queen Street Underpass and are in conflict with the conversion to semi-integral abutments.
- PSN Duct Existing ducts embedded on the south side of the Queen Street Underpass and are in conflict with the conversion to semi-integral abutments.
- Hydro One Duct Existing ducts embedded on the south side of the Clark Boulevard Underpass and are in conflict with the conversion to semi-integral abutments.
- PSN Duct Existing ducts embedded on the south side of the Clark Boulevard Underpass and are in conflict with the conversion to semi-integral abutments.

Relocation strategies will be developed for utilities impacted by the proposed works. Discussion with utility companies is ongoing.

#### 4.2.3 Etobicoke Creek Trail

Currently, the existing Etobicoke Creek Trail terminates on either side of the existing bridges which carry Highway 410 northbound and southbound lanes and Highway 407 on and off ramps over Etobicoke Creek. Future plans are being developed to connect the trail under the Etobicoke Creek Bridges through the MTO right-of-way.

There is currently an unsigned/unmarked pathway crossing located through the MTO right-of-way under the Etobicoke Creek Bridges. Pedestrian access under the bridge will be closed during construction activities to widen and rehabilitate the Etobicoke Creek Bridge.

#### 4.3 **DURATION OF CONSTRUCTION**

It is anticipated that construction will occur over five (5) years in order to stage construction activities and safely manage traffic through the construction zones.





#### 5.0 ENVIRONMENTAL ISSUES AND COMMITMENTS

This section presents an overview of the potential impacts to the natural, socio-economic and cultural environments associated with the proposed improvements to the Highway 410 corridor. This section also presents a summary of the environmental protection / mitigation measures proposed to avoid or minimize these effects. It is noted that environmental effects can be mitigated through implementation of Best Construction Management Practices, as provided in the Ontario Provincial Standard Specifications (OPSS), and Standard and Non-Standard Special Provisions (SSP, NSSP) contained in the Contract Package, and implementation of the prescribed Construction Monitoring Program (See **Section 6.1.1**).

It is important that the Contract Administrator (CA) and Contractor are made aware of and are prepared to deal with all environmental issues that may arise during construction.

A number of commitments for additional work or environmental impact mitigation measures related to this project were identified in the TESR (January 2010 amended August 2010). These commitments are summarized below.

#### 5.1 NATURAL ENVIRONMENT

#### 5.1.1 Fish and Fish Habitat

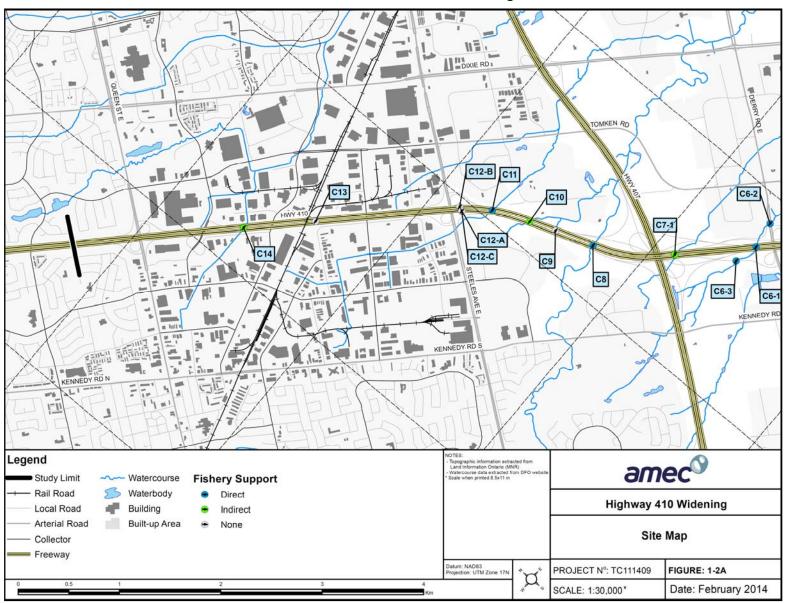
A fish and fish habitat inventory assessment was conducted at each crossing during the Summer of 2011 and Spring 2012 and included a review of secondary source natural heritage data relevant to the project area.

All water crossings within the project area are associated with Etobicoke Creek and its tributaries. This section of highway crosses a total of twenty (20) drainage features, thirteen (13) of which are watercourses and the remaining seven (7) are typical highway drainage features. As determined by the preliminary investigation the seven (7) drainage features providing cross drainage for runoff through the project do not provide discernable fish habitat and therefore did not require detailed assessment. The following two **Exhibits 5-1** and **5-2** identify watercourse crossings. Details are contained in a *Fish and Fish Habitat Existing Conditions Report (November 2012)* and *Fish and Fish Habitat Impact Assessment Report (February2014)* provided under separate cover.



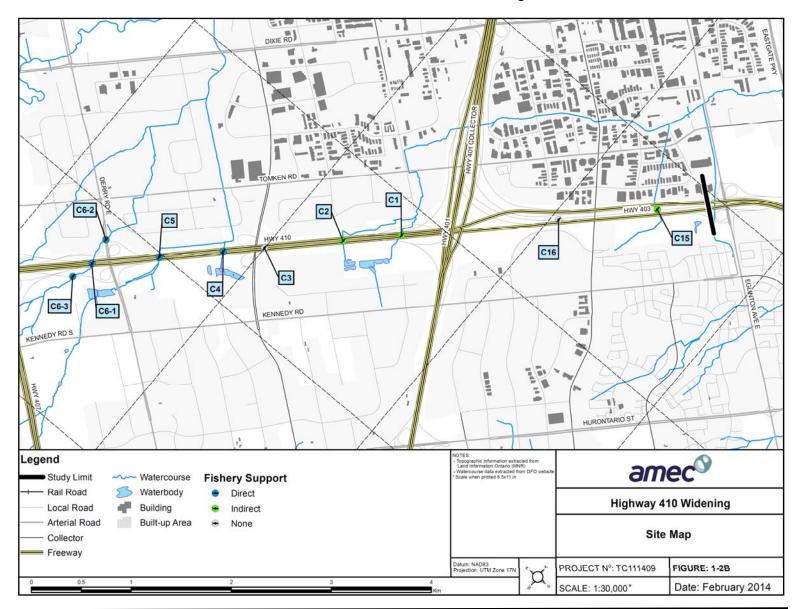


**Exhibit 5-1: Watercourse Crossings** 





**Exhibit 5-2: Watercourse Crossings** 





## Potential Impacts

The potential general impacts to the watercourses, prior to implementation of mitigation measures are as follows:

- Extension of culverts can result in alteration or a loss of fish habitat in addition to a decrease in exposed natural channel and the loss of;
- Rehabilitation of culverts will require work to be conducted in "the dry" and may result in sediment entering the watercourse;
- Culverts could potentially create migratory barriers to fish through increased grade differentials or perched culvert ends;;
- New or rehabilitated culverts might result in the removal of substrates;
- Staging construction without a timing window could result in greater disturbance to critical life stages of resident fish populations; and
- Construction activity can have potential negative impacts to stream quality, which can include:
  - Increased siltation:
  - Changes in stream channel structure (sinuosity and substrate presence);
  - Changes in water clarity and temperature;
  - o Increase in stream temperatures as a result of roadside drainage and the removal of riparian vegetation; and
  - Associated pollutants as a result of ditch maintenance.

The following **Exhibit 5-3** provides a summary of the proposed works planned for the Highway 410 widening which include patch work and repairs at thirteen (13) culvert locations and one (1) bridge widening. All areas and proposed works have undergone a preliminary assessment with an additional comprehensive assessment conducted at the bridge widening location (Etobicoke Creek, Crossing C8). The proposed culvert works will result in minor levels of impact to fish and fish habitat during construction, but through mitigation efforts the impacts will be temporary and will not result in meaningful residual negative effects. The bridge widening and construction of four (4) piers, two (2) within the watercourse and two (2) within the riparian area, will result in higher levels of impact to fish and fish habitat as habitat area is permanently removed.

Through application of the DFO Risk Management Framework (RMF), it was determined that although the piers associated with the bridge widening at Crossing C8 (Etobicoke Creek) are permanent footprint impact, the extent is small relative to the scale of the system and will not result in a HADD. A Fisheries Authorization is not required. In conclusion, assessments of all proposed works have led to a No HADD determination at all crossings. It is anticipated that prior to construction start an MTO Project Notification Form 1 (Low Risk) No HADD will be submitted to the Department of Fisheries and Oceans Canada (DFO), in accordance with the MTO/DFO/OMNR Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings (2013).





Exhibit 5-3: Summary of Proposed Works in Fish Habitat (Direct & Indirect)

Watershed	Crossing Number	Chainage	Existing Culvert Size and Type (width x height x length)	Requires Work in wetted Creek (permanent / temporary)	Proposed Works
	C15	2+313 (Hwy 403 NB)	4.20m x 2.40m x 156m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C1	4+878 (Hwy 410)	3.05m x 2.75m x 1680m Concrete Box / Heart Lake Tunnel	Temporary	Patch repairs within the tunnel.
	C2	5+471 (Hwy 410)	3.80mx1.60m x 125m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C4	6+677 (Hwy 410)	5.00m x 2.50m x 94m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C5	7+321 (Hwy 410)	4.20m x 2.20m x 108m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
.,	C6-1	7+995 (Hwy 410)	4.00m x 1.80m x 177m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
Creek	C6-2	31+221 (Derry Road)	3.60m x 1.60m x 117m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
Btobicoke Creek	C6-3	10+470 (Ramp 410N-Derry E/W)	3.80m x 1.80m x 38m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C7-2	8+600 (Hwy 410)	4.27m x 1.83m x 72m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C7-1	8+792 (Hwy 410)	3.08m x 0.70m x 375m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C8	9+615 (Hwy 410)	SBL – 43.9 m span x 16.41 m wide NBL – 43.9 m span x 20.76 m wide Bridge	Permanent	Widen to median. SBL widened 9.28 m, and NBL widened 9.31 m and construction of four piers 2.5 m wide x 5.1 m long.
	C10	10+300 (Hwy 410)	6.05m x1.80m x 132m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C11	10+680 (Hwy 410)	6.05m x 2.13m x 124m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.
	C14	13+130 (Hwy 410)	6.00m x 3.00m x 159m Concrete Box	Temporary	Retain existing culvert and conduct patch repairs as required.

\*CSP = corrugated steel pipe





# Recommended Mitigation Measures

- Although Etobicoke Creek represents a warmwater/coolwater thermal regime, all fish species occurring within the Creek are spring spawners. Consequently, all crossings within the project area will require in-water construction to be completed during the warmwater window of July 1 to March 31.
- Operate and store all materials and equipment in such a manner that prevents any deleterious substance from entering the water.
- Consider construction staging such that spills and leaks into the watercourse will be avoided.
- Apply standard Erosion and Sediment Control (ESC) measures (e.g., silt fence, silt curtain, sedimentation basins, etc.) consistent with MTO Best Management Practices (BMP) and Ontario Provincial Standards and Specifications (OPSS) to ensure no effects to the surface waters. The control measures shall be implemented prior to work and shall be maintained during construction and until disturbed areas have been effectively stabilized with permanent vegetation cover.
- Minimize the disturbance or removal of riparian vegetation.
- Promptly stabilize and re-vegetate all disturbed areas of the work site, and/or treat the
  area with appropriate erosion protection materials. In riparian and aquatic habitats, all
  temporarily disturbed areas will be reinstated to original condition, or better, upon
  completion of works.
- Store and stabilize any stockpiled materials away from the water.
- Design crossings to minimize loss of functional channel bed and maintain groundwater discharge.
- Integrate deeper water habitat into any inlet or outlet treatments.
- Isolate work area to facilitate work in "the dry".
- Capture any fish trapped within the isolated construction area and release them downstream of the site.
- Conduct dewatering and flow management measures so that they do not interfere with fish passage.
- Dewatering activities where fish are present should include fish removal.
- Pumps should be fitted with screens or barriers to effectively prevent fish entrainment during dewatering.
- All stranded fish are to be captured and relocated to adjacent channels sections outside the work area.
- Discharge water from dewatering activities will be directed away from the watercourse in such a way as to minimize sedimentation. The discharge outlets will be located a minimum of 30 m from a watercourse and within a vegetated area. The discharge drainage must not flow through the construction site. Filter rings and filter bags may be utilized for the outflow.
- The discharge from the dewatering must be monitored to ensure changes to the flow path or scour does not develop and result in sediment entering any watercourse.





- All materials and equipment used should be operated and stored in such a manner that prevents any deleterious substance from entering the water.
- Any stockpiled materials should be stored and stabilized at least 30 m away from the watercourse. A single row of silt fence will be installed along the down slope perimeter to prevent the mobilization of the stockpile.
- Any equipment entering the water should be free of fluid leaks and externally cleaned or degreased to prevent contamination of the water.
- All exposed soils should be treated with appropriate erosion protection to prevent sediment laden water from entering any water body.
- All ESC measures should be monitored by a qualified environmental inspector.
   Inspections are to be conducted during in-water construction activities until the site is stabilized and until the silt fence is removed.

## Fish Species at Risk

An online search of the Natural Heritage Information Centre (NHIC) was conducted in the immediate vicinity of the site to identify any significant (rare) fish species within the watercourses. A search of 10-km blocks along the project area revealed the historic presence of Redside Dace (*Clinostomus elongates*) within the project area1. Redside Dace is classified provincially as "Endangered" under the *Ontario Species at Risk Act (SARO)*<sup>2</sup> and is listed federally as "Schedule 3 – Special Concern" under the *Species at Risk Act (SARA)*<sup>3</sup>. Notwithstanding the historic presence, a review of the Department of Fisheries and Oceans' (DFO) Species at Risk (SAR) mapping and project specific correspondence with the Ministry of Natural Resources (MNR) (August 19, 2011) have determined that there are no current records of SAR for the project area. Refer to **Appendix B**.

## Compensation

Compensation measures are provided to offset residual impacts resulting from construction works and include methods to improve habitat conditions. A primary enhancement opportunity which could be applied to each of the watercourses would include vegetation restoration. Tree and shrub (such as dogwood species) planting along the watercourse banks would provide additional shading to assist in maintaining lower water temperature, provide overhead fish cover and potentially provide a food source.

The bridge widening at Etobicoke Creek, Crossing C8, poses some challenges as bridge piers may take the place of existing aquatic habitat. However, the proposed works may inadvertently result in the creation of habitat, for example, a scour pool forming downstream of a bridge pier (MTO, 2009). Inadvertent creation of habitat is not official compensation and additional measures such as riparian vegetation planted would be required. Riparian plantings adjacent to

<sup>3</sup> Environment Canada (EC). 2011. Species at Risk Public Registry. www.speciesatrisk.gc.ca/default\_e.cfm. Accessed October 2011.



Ontario

<sup>&</sup>lt;sup>1</sup> Ministry of Natural Resources (MNR). 2012. Biodiversity Explorer: Natural Heritage Information Centre (NHIC) database, 2010. Cited online: [https://www.biodiversityexplorer.mnr. gov.on.ca/nhicWEB/mainSubmit.do]. Accessed October 2011.

<sup>2</sup> Ontario Ministry of Natural Resources (OMNR). 2009. Endangered Species Act (ESA). Cited online: [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\_statutes\_07e06\_e.htm]. Accessed September 2011.

the bank would provide overhead cover and provide bank stabilization. Vegetation located under and adjacent to the bridge can also assist in binding nutrients, pollutants and sediment which are introduced from roadside runoff. Other considerations include redirection of deck drainage from the bridge which currently discharges directly into the creek. Redirection of the deck drains at Etobicoke Creek was considered and the number of drains was reduced from the existing eight (8) drains to seven (7). Bridges are generally located on crest vertical curves in which water generally flows off and away from the bridge. However, Etobicoke Creek Bridge is located at the low point of a sag on the Highway 410; therefore, deck drains are required for positive drainage. Additionally, there is no storm sewer at this location to redirect the drainage to. The existing condition is generally maintained aside from a slight improvement by removing one of the existing deck drains.

The proposed works planned for the Highway 410 widening include patch work and repairs at thirteen (13) culvert locations and one (1) bridge widening. All areas and proposed works have undergone a preliminary assessment with an additional comprehensive assessment conducted at the bridge widening location (Etobicoke Creek, Crossing C8). The proposed culvert works will result in minor levels of impact to fish and fish habitat during construction, but through mitigation efforts the impacts will be temporary and will not result in meaningful residual negative effects. The bridge widening and construction of four (4) piers, two (2) within the watercourse and two (2) within the riparian area, will result in higher levels of impact to fish and fish habitat as habitat area is permanently removed. Through application of the DFO RMF, it was determined that although the piers associated with the bridge widening at Crossing C8 are a permanent footprint, the extent is small relative to the scale of the system and will not result in a HADD. A Fisheries Authorization is not required. In conclusion, assessments of all proposed works have led to a No HADD determination at all crossings. It is anticipated that prior to construction start an MTO Project Notification Form 1 (Low Risk) No HADD will be submitted to the Department of Fisheries and Oceans Canada (DFO), in accordance with the MTO/DFO/OMNR Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings (2013).

For additional details on fish and fish habitat impacts and mitigation measures, refer to the *Highway 410 Fish and Fish Habitat Impact Assessment Report (February 2014)* under separate cover.

# 5.1.2 Vegetation

The project area is predominately characterized by commercial and industrial land uses, with some residential, recreational, and institutional lands. As such, it has experienced a high level of habitat disturbance and fragmentation.

There are some planted trees and shrubs that exist within the grassed medians and roadsides which will be impacted by the proposed highway works. They are generally smaller, shrub-sized individuals and the number potentially to be removed is small relative the length of the project area. Species composition is mostly European Buckthorn, Russian Olive (*Elaegnus angustifolia*) and Common Crabapple (*Malus pumila*). These species are exotic, and in the case of European Buckthorn and Russian Olive, also invasive. Common Reed is another





common invasive, exotic species within the ROW and as such, the removal of these species is not of conservation concern.

Wetlands unevaluated by the MNR were identified to occur within the project area, primarily between Derry Road East and Highway 401. Unevaluated wetlands on the west side of Highway 401, between Derry Road East and Courtneypark Drive were identified in the field as Cattail Mineral Shallow Marsh and Mineral Meadow Marsh communities where non-native, invasive species (*Common Reed, Phragmities australis; Purple Loostrife, Lythrum salicaria*) are abundant.

Wetlands within the project area fall outside of the areas to be impacted by the proposed works, with the exception of a Mineral Meadow Marsh community on the west side of Highway 410, just north of Courtneypark Drive. Approximately 0.04 ha of the Meadow Marsh will be impacted by the proposed highway works.

The most notable features within the project area are associated with Etobicoke Creek located north of Highway 407 and a Shagbark Hickory woodlot located just south of Highway 401.

The Highway 410 structure over Etobicoke Creek is proposed to be widened. The creek has experienced human disturbance in this area under the highway and vegetation is primarily limited to herbaceous plants; as such, the Etobicoke Creek vegetation community under the bridge was assigned the "Constructed Transportation and Utilities" classification code (CVI code) from the proposed new Ecological Land Classification (ELC) system for Southern Ontario and described as Cultural Meadow. The Shagbark Hickory woodlot will not be impacted during construction. Many other vegetation communities within the proposed works areas have been created, or maintained, by human activities, primarily these areas have been described as either manicured grass or Cultural Meadow.

#### **Potential Impacts**

An assessment of the Detail Design will result in the removal of approximately 33 ha of Cultural Meadow and Manicured Grass within the MTO ROW, including approximately 111 trees/shrubs.

The proposed works will also impact approximately 0.2 ha of a White Ash dominated deciduous forest at Courtneypark Drive East Interchange.

Approximately 0.04 ha of the Meadow Marsh will be impacted by the proposed highway works.

There are some planted trees and shrubs that exist within the grassed medians and roadsides which will be impacted by the proposed highway works.

Additional information and a summary of potential vegetation impacts and vegetation removes, refer to Table 3 of the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* provided under separate cover.





# Recommended Mitigation Measures

- Where tree or vegetation protection is required, exclusion zones should be delineated with appropriate fencing prior to construction works. Tree exclusion zones will consider sensitive species and set dripline boundaries appropriately as required.
- The Shagbark Hickory woodlot, and other remaining woodlots should be delineated and marked in the field, and disturbance to these areas should be minimized or avoided during construction.
- Vegetation removal in the Etobicoke Creek valley should be avoided or minimized where ever possible during construction.
- Temporarily disturbed areas should be restored and salvage/reuse of original vegetation and topsoil should be considered where possible. Use of appropriate native species should also be considered as part of landscape restoration.
- Appropriate erosion and sediment control methods should be implemented prior to the removal of vegetation near watercourses. The disturbance or removal of riparian vegetation will be minimized in order to maintain shading on the watercourse.

A Landscape Plan has been developed to restore and enhance plantings within the project area. For additional details, refer to **Appendix E**.

Additional information can be obtained from the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* under separate cover.

#### Vegetation Associated with Potential Construction of the Courtneypark Drive Interchange

This project also includes the Detail Design of an ultimate Courtneypark Drive interchange configuration. The ultimate configuration includes a southbound Highway 410 off-ramp to Courtneypark Drive East, a Highway 410/Courtneypark Drive East interchange loop and ramp configuration at Derry Road East. Additional information can be obtained from the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* provided under separate cover. The ultimate Courtneypark Drive interchange configuration is not being built as part of this project. Currently, the City of Mississauga has no associated timeline for this work to proceed.

#### Potential Impacts

The majority of vegetation clearing for the ultimate interchange configuration would involve grassed roadsides which would be impacted by the road works. There are some planted trees and shrubs that exist within the grassed areas which would also be impacted by the ultimate Courtneypark Drive interchange configuration. Approximately 10 trees would be impacted by the ramp at Derry Road East, 50 trees/shrubs (mostly shrubs) along the Highway 410 southbound lane between Derry Road East and Courtneypark Drive East and approximately 10 trees/shrubs by the interchange loop at Courtneypark Drive East.

Wetlands within the project area fall outside of the areas to be impacted by the proposed ultimate Courtneypark Drive interchange works, with the exception two Meadow Marsh communities on the west side of Highway 410, between Derry Road and Courtneypark Drive.





Approximately 0.2 ha of Meadow Marsh would be impacted by the proposed ultimate Courtneypark Drive configuration.

The ultimate Courtneypark Drive interchange configuration would result in the removal of approximately an additional 5.0 ha of land within the MTO ROW, including approximately 70 trees/shrubs and 0.2 ha of wetland (Meadow Marsh).

#### Recommended Mitigation Measures

Refer to the recommended vegetation mitigation measures in **Section 5.1.2**.

## 5.1.3 Wildlife

Forty-five (45) bird species were identified during field investigations. With the exception of Barn Swallow (*Hirundo rustica*) all of the bird species are provincially and federally common.

Urban tolerant mammals are likely to occur within the project area include species such as White-tailed Deer (*Odocoileus virginianus*), Striped Skunk (*Mephitis mephitis*), Gray squirrel (*Sciurus carolinensis*) Raccoon (*Procyon lotor*), and Eastern cottontail (*Sylvilagus floridanus*). Woodchuck (*Marmota monax*), Raccoon, White-tailed Deer and Eastern Cottontail were observed within the project area during field investigations.

During field investigations, one (1) amphibian species was observed (Leopard Frog, *Rana pipiens*) and two (2) species were heard calling (Green Frog, *Rana clamitans melanota* and American Toad, *Bufo americanus americanus*). Eastern Gartersnake (*Thamnophis sirtalis sirtalis*) was also observed. A hibernaculum for Eastern Gartersnakes is suspected to likely be present within close proximity to the Highway 410 crossing of Etobicoke Creek based on personal communication with a biologist who, while working on an unrelated project, had documented that several snakes have been seen annually in that area around the time of emergence in the spring.

Seven (7) species of butterfly were observed in the project area: Black Swallowtail (*Papilio polyxenes asterias*), Cabbage White (*Pieris rapae rapae*), Dun Skipper (Euphyes vestries vestries), Eastern Tailed Blue (*Everes comyntas comyntas*), Least Skipper (*Ancyloxypha numitor*), and Monarch (*Danaus plexippus*). All of the species, with the exception of the Monarch, are ranked as very common.

Previous studies have documented Red-winged Blackbird nesting sites on the west side of Highway 410, south of Derry Road East and the tributary crossing, and Killdeer (*Charadrius vociferous*) nests on the east side of the Highway 401 and Highway 410 Interchange (Morrison Hershfield 2010). During field investigations, Barn Swallow nests were not identified within the project area; however, the proposed bridge widening and other culvert extensions may have short-term impacts on nesting wildlife individuals.

Etobicoke Creek is the largest watercourse within the project area, crossing under Highway 410 north of the 407 ETR. Etobicoke Creek acts as an important corridor which increases the connectivity of otherwise isolated patches. The corridor increases mobility and interchange of





wildlife individuals, as well as allows mammals, birds, fish, amphibians and reptiles to move between areas that are necessary for different life stages. Passage of Etobicoke Creek under Highway 410 allows wildlife to safely move within the creek's associated valley from either side of the highway.

Additional details are contained in the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* under separate cover.

#### Potential Impacts

The proposed works planned for the Highway 410 will result in minimal impacts to vegetation and will not result in significant permanent impacts to wildlife. 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 and / or young birds), or the wounding or killing of birds, of species protected under the *Act* or Regulations.

#### Recommended Mitigation Measures

By implementing vegetation protection measures, wildlife habitat functions are also protected. In order to protect nesting migratory birds, in accordance with the MBCA, the Contractor will:

- Ensure no active nests are removed or disturbed, in accordance with the MBCA;
- Ensure that timing constraints are applied to avoid vegetation clearing during the breeding bird season (April 1 to August 8 for Southern Ontario). If vegetation clearing cannot be scheduled outside the identified nesting season, undertake a pre-clearing nest search:
- If bridge structure works cannot be scheduled outside the identified nesting season, ensure that bird nesting preventative measures are implemented, if necessary, to prevent new nesting prior to May 1 to August 8 for Southern Ontario of the calendar year in which they were installed. These measures should be periodically checked and maintained as required, so as not to entrap birds, and removed following construction when no longer needed;
- Remove "inactive" nests (nests not containing eggs and / or young birds) prior to construction or prior to implementing the preventative measures outlined above;
- Inspect the structure on a daily basis to remove any nests under construction and adjust or install additional preventative measures to prevent further nesting; and
- Implement environmental inspection during construction to ensure that protection measures are implemented, maintained and repaired, and remedial measures are initiated where warranted.
- The Migratory Birds Convention Act (MBCA 1994) makes it unlawful to pursue, hunt, take, capture, kill or sell birds listed therein ("migratory birds"). Compliance with the MBCA regulations and guidelines for vegetation clearing or demolition, as recommended by Environment Canada, needs to be considered during the project's construction and operation phases. In order to minimize the potential for incidental take of any nesting migratory birds, clearing of vegetation and any proposed work activities in migratory bird habitat must be undertaken outside of the active breeding season (May 1 to August 8 for Southern Ontario). If clearing (or other work is required during the nesting season, a nest





survey must be conducted by a qualified avian biologist immediately (i.e. within 2 days) prior to commencement of the works to identify and locate active nests of species covered by the MBCA.

The proposed works planned for the Highway 410 will result in minimal impacts to wildlife and will not result in significant permanent impacts.

Additional details are contained in the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* provided under separate cover.

# 5.1.4 Terrestrial Species at Risk

During field investigations, the Barn Swallow was observed in flight at multiple locations along Highway 410 between Derry Road East and Eglinton Avenue East.

Barn Swallow is closely associated with human settlements as it will nest in and on artificial structures, including bridges and road culverts; however, at the time of investigation in 2012, no Barn Swallow nests were observed within the culverts or bridges in the project area. One nest was observed in a location outside of the project area boundaries and as a result will not be directly impacted by the currently proposed project activities. At this time, an ESA permit for Barn Swallows is not anticipated as nesting locations were not reported in 2012. This species may nest within the project area in the future and updated surveys are recommended to be undertaken prior to any construction activities. In the event Barn Swallow nests are reported on site in future site visits, this project may be required to follow the newly established ESA requirements for altering a building or structure that is considered habitat for Barn Swallows (Ontario Regulation 176/13, Section 23.5 – July 1, 2013).

The Monarch butterfly is provincially and federally designated as Special Concern and was observed at four (4) roadside locations within cultural meadow/old field roadside habitat and within the Etobicoke Creek valley. The Monarch Butterfly was observed within the project area during site investigations and its preferred habitat of open grasslands, abandoned farmland, roadsides, and other open spaces where milkweed is abundant occurs within the project area. The Monarch is designated as Special Concern. As such, this species is not officially protected under the provincial ESA or the federal *Species at Risk Act* (SARA 2002), however, the Monarch receives protection under the *Fish and Wildlife Conservation Act* (FWCA 1997) as a "specially protected invertebrate". The FWCA prohibits hunting and trapping of "specially protected" wildlife.

While SAR have been previously documented within the vicinity of the project area through secondary source information, there is a low probability for the majority of these species to occur within the actual project area due to the lack of adequate habitat.

No mammal, amphibian, and/or reptile SAR were observed within the project area.

#### Potential Impact

Searches for Barn Swallow nests were undertaken on all structures and no nests were recorded in 2012 within the project area. An assessment of the proposed highway works indicates that at





this time, active or previously used nests for this SAR will not be impacted by bridge widening and culvert extension works. It is important to note that this assessment is pertinent to the 2012 field survey results only. This species may decide to nest within the culverts and/or on bridges in the future and prior to any works being undertaken on the structures, visual surveys for nests should be undertaken.

Other urban tolerant bird species will also nest on buildings, bridges and other structures. Some of these species and their nests are protected under the MBCA. These structures should be inspected for nests by a qualified biologist prior to any construction activity commences. Other preventative measures may include physical obstructions, such as netting, to prevent the bird access to the structures prior to nesting season and/or undertaking works outside the spring and summer breeding bird window. Additionally, ground nesting bird species nest on the ground and therefore are susceptible to injury or inadvertent disturbance from construction activities. If vegetation clearing is kept outside the breeding bird season, effects to these species will be minimal.

The proposed works planned for the Highway 410, as described above, will result in minimal impacts to vegetation and wildlife and will not result in significant permanent terrestrial ecosystem impacts.

#### Recommended Mitigation Measures

- One SAR, Barn Swallow, was observed flying through the project area in several locations during field investigations. Searches for nests within bridges and culverts were undertaken but none were found in the project area. It should also be noted that wildlife SAR can move into an area at any given time. At this time, an ESA permit for Barn Swallows is not anticipated as nesting locations were not reported in 2012. This species may nest within the project area in the future and updated surveys are recommended to be undertaken prior to any construction activities. In the event Barn Swallow nests are reported on site in future site visits, this project may be required to follow the newly established ESA requirements for altering a building or structure that is considered habitat for Barn Swallows (Ontario Regulation 176/13, Section 23.5 July 1, 2013).
- As per Special Provision (SP) No. 100S14, if the contractor encounters SAR that are likely to be impacted by the works, the contractor shall immediately notify the Contract Administrator and suspend operations until otherwise directed.
- Although Bobolink (*Dolichonyx oryzivorus*), Chimney Swift (*Chaetura pelagic*) and Eastern Meadowlark (*Sturnella magna*) were not observed during field investigations, these species have been identified as having low to moderate potential to occur within the project area. Species with low to moderate probabilities of occurrence are those previously recorded as occurring within 10 km of the project area but who only have moderate to low access to suitable habitat within the project area. Suitable habitat for these species is limited within the project area; while many of the roadsides are comprised of plant species similar to old fields, they are not large enough to be considered quality breeding or foraging habitat for these species. An assessment of the proposed highway works indicates that suitable habitat for these species will not be impacted.





Additional details are contained in the *Highway 410 Terrestrial Ecosystems Impact Assessment Report (January 2014)* provided under separate cover.

# 5.1.5 Designated Natural Areas

There are no Areas of Natural or Scientific Interest (ANSI's), Environmentally Sensitive Areas (ESA's) or Provincially Significant Wetlands (PSW's) within the project area (MNR, 2012). However, there are a number of MNR unevaluated wetlands.

Wetlands unevaluated by the MNR were identified to occur within the project area, primarily between Derry Road East and Highway 401. Unevaluated wetlands on the west side of Highway 401, between Derry Road East and Courtneypark Drive were identified in the field as Cattail Mineral Shallow Marsh and Mineral Meadow Marsh communities where non-native, invasive species (Common Reed, *Phragmities australis;* Purple Loostrife, *Lythrum salicaria*) are abundant.

#### Potential Impacts

Although not a DNA, wetlands within the project area fall outside of the areas to be impacted by the proposed works, with the exception of a Mineral Meadow Marsh community on the west side of Highway 410, just north of Courtneypark Drive. Approximately 378.2 m<sup>2</sup> (0.04 ha) of the Meadow Marsh will be impacted by the proposed highway works.

No DNA impacts anticipated.

#### **Recommended Mitigation Measures**

Refer to the recommended vegetation mitigation measures in Section 5.1.1.2.

For further details on wetlands, refer to the *Highway 410 Terrestrial Ecosystems Existing Conditions* Report (*January 2014*) prepared for this project under separate cover.

# 5.1.6 Navigable Waters Protection Act (NWPA)

There is one (1) navigable watercourse crossing identified as Etobicoke Creek which crosses under Highway 410 within the limits of the project area. On April 18, 2012, the Project Team submitted a formal application to Transport Canada to review the project for navigability. The Project Team conducted a Minor Works Self-Assessment and considering the nature of the Etobicoke Creek located under Highway 410 Etobicoke Creek Overpass, the formal application was submitted to Transport Canada.

On July 30, 2012, MTO received a letter from Transport Canada issuing Approval on behalf of the Minister of Transport, Infrastructure and Communities pursuant to subsection 10(2) of the NWPA. The following conditions are to be complied with during construction:

- No person shall permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing a work in a navigable water to remain in such water after the completion of the project.
- Where a work or portion of a work that is being constructed or maintained in a navigable





water causes debris or other material to accumulate on the bed or on the surface of such water, the owner of that work or portion of that work shall cause the debris or other material to be removed to the satisfaction of the Minister.

All terms and conditions of the original Approval remain valid. The contractor must also comply with the terms and conditions in the Approvals documents provided by Transport Canada as well as any other requirements under NWPA, its regulations and other relevant legislation. To view a copy of the Approvals letter, refer to **Appendix B.** 

# 5.1.7 Groundwater & Surface Water Resources

Groundwater and surface water resources were evaluated during the Detail Design process in an effort to understand the flow regimes. For the most part, the regional groundwater flow is towards the south while Etobicoke Creek and its tributaries collect surface water and direct same to Lake Ontario.

## **Potential Impacts**

- Installation of new or upgraded ditches and culverts to convey stormwater.
- Excavation works carried out in order to construct the project.
- Erosion and sediment impacts resulting from exposed soil.
- Based on the nature of this project, that is, widening of Highway 410 into the median area with the construction of two additional lanes in each direction, there will be an increase in paved surface but it is not considered a significant increase of impervious surface in the area. Therefore, the potential impacts from the proposed construction to the shallow groundwater chargeability (i.e. recharge and discharge) within the study area is considered low to medium.

Overall, it is anticipated that groundwater and surface water resources will not be impacted.

#### Recommended Mitigation Measures

General mitigation measures to prevent potential impacts include the following:

- No storage, maintenance or refuelling of equipment will be permitted near any sensitive features, including watercourses;
- An emergency spill kit will be kept on site in case of fluid leaks or spills from machinery;
   and
- Appropriate notification procedures will be carried out (i.e., MOE, as well as MNR and DFO, will be immediately notified of any "spills", near or into watercourses).
- Permit To Take Water (PTTW) (Groundwater and Surface Water). In accordance with the Ontario Water Resource Act (OWRA), the diversion of surface water or the extraction of groundwater in excess of 50,000 litres per day (24 hours) requires a PTTW from the MOE. An application for a draft PTTW (Groundwater and Surface Water) has been prepared for the project and will be submitted to the MOE for approval prior to construction.
- Erosion and sediment control measures will be implemented during construction to help prevent the potential migration of sediment to receiving watercourses/waterbodies (i.e.





## Etobicoke Creek etc.).

- No storage, maintenance or refuelling of equipment will be permitted near any sensitive features, including watercourses.
- An emergency spill kit will be available on site in case of fluid leaks or spills from machinery.
- Prepare and implement a spill prevention and control management plan.
- Appropriate notification will be carried out (i.e., MOE, as well as MNR and DFO) should any "spills" occur,
- Limit the depth of excavation and minimize the need for dewatering, if possible, during construction.
- Minimize disturbance to existing vegetation and grassed slopes where re-grading is required, if possible. Disturbed areas should be re-vegetated as quickly as possible after completion of construction activities.

# 5.1.8 Landscaping

The Highway 410 corridor encompasses several on-ramps and off-ramps to the main highway, includes overpasses and underpasses, rail lines and also an existing utility corridor where a height restriction for planting exists. At the Orenda Road overpass, planting on either side of Highway 410 is restricted due to bridge structure components, road barriers and substantial grade changes. These features substantially reduce the opportunity for landscape treatments in this section of the highway corridor. However, despite the impact of these physical man-made structures, the opportunity does exist for planting in several other areas throughout the project limits with tree and screen (shrub) plantings. The intent of including plantings within the Highway 410 project area is to introduce plant species that would have a greater likelihood of survival, provide diversity, and improve the aesthetics of the highway corridor. The plantings would also contribute to an increased possibility of plant regeneration with minimum maintenance requirements.

#### Potential Impact

There are limited opportunities to recommending landscape treatments given that the project is based on widening of Highway 410 into the median and converting the grassed median to an urban median with tall-wall barrier separating northbound and southbound traffic. The advantage of widening to the median from an environmental perspective reduces the project footprint and potential environmental impacts but tends to limit proposed landscape treatments to small isolated areas along the outside edges of the Highway 410 right-of-way.

#### Potential impacts include:

- The 410 Highway corridor, on-ramps and off-ramps to the main highway as well as bridges, overpasses and underpasses substantially reduce the opportunities for landscape treatment along the highway corridor.
- A major hydro corridor crosses Highway 410 and imposes a height restriction for planting under the transmission lines.





• At the Orenda Road overpass, planting on either side is restricted due to bridge structure(s), road barriers and substantial grade changes.

#### Recommended Mitigation Measures

Despite the impact of these structures on the landscape, a number of areas where landscape treatments can be implemented during construction and maintained thereafter exist. These areas include: the Courtneypark interchange, in and around on-ramps, off-ramps and SWM ponds, at the Steeles Avenue interchange, at Clark Boulevard, and some linear sections of land available within the Ministry of Transportation right-of-way. The intent of planting in these locations is to introduce native species that would have a greater likelihood of survival and provide diversity and improved aesthetics. This will increase the possibility of regeneration of the plant material with a minimum of maintenance.

Recommended mitigation measures include:

- Numerous industrial/commercial building and parking areas are located adjacent to Highway 410 and vegetative screening would improve the aesthetics of Highway 410. Where existing plantings occur, additional plant material should be added. All planting should be sustainable, horticulturally appropriate and context sensitive.
- Provide treed areas in the highway corridor wherever adequate space is available. Therefore, tree planting is proposed with the goal of increasing the tree canopy as much as possible within the highway corridor. Small caliper material and whip planting is to be specified in distinct growth pods. The pods are to be heavily mulched and the plant material is to be wrapped with suitable rodent control measures.
- Planting proposed at the Courtneypark interchange should consist of smaller shrub screen plantings given sight line issues associated with the on-ramps and off-ramps.
- Tree and shrub planting is also proposed around each of the stormwater management (SWM) ponds which will help to improve water quality, reduce and/or minimize sedimentation and erosion impacts, reduce runoff and improve the visual appearance of the SWM ponds.

A Landscape Plan has been developed for the project to address the removal of existing vegetation. The Landscape Plan will be implemented as part of the Highway 410 Widening project contract. Refer to **Appendix E** to view Landscape Plan drawings.

# 5.1.9 Erosion & Sedimentation Control

To minimize the potential for erosion to newly exposed cut and fill slopes on the construction site, the following standard mitigation measures will be utilized:

- Erosion and sediment control structures will be designed, installed, maintained, and removed according to the latest OPSS Guidelines.
- Limit the time slopes are exposed prior to stabilization to 20 days, where practical. Exposed soil areas will be temporarily stabilized as soon as possible to control sediment transport and erosion. In addition, natural vegetation cover will be retained wherever possible (and root grubbing minimized where possible) to provide natural erosion control.
- Sediment control structures will be routinely inspected as well as checked after storms





and repaired as required. The structures will be cleaned out when accumulated sediment reaches half the design height.

- Erosion control blankets will be used, on steeper slopes to enhance slope stability.
- Minimizing the extent and duration that disturbed soils are exposed to the elements.
- Installing sediment control measures (i.e., silt fence) along the channel margins to prevent the entry of sediment into the watercourse.
- Filter socks, rock-check dams, straw bale flow check dams (or equivalent flow checks) will be placed as necessary at appropriate intervals down gradient from areas of soil disturbance to trap suspended sediments and reduce the erosive force of runoff.
- Complying with OPSS 802 (Construction Specification for Topsoil) to address the requirements for stockpiling, placing and supplying topsoil.
- Complying with OPSS 803 (Construction Specification for Sodding) to cover the requirements for sodding.
- Install temporary erosion and sedimentation control measures prior to ground breaking as per the requirements of OPSS 805 (Construction Specification for Temporary Erosion and Sediment Control Measures).
- Monitoring and maintaining erosion and sediment control measures as per OPSS 805.
- Complying with Special Provision (SSP) 805F01 (Amendments to the Construction Specification for Temporary Erosion and Sediment Control Measures) to specify the type of temporary erosion and sedimentation control measures to be installed and the timing constraints for the installation and removal of the control measures.
- Delineating storage, stockpiling and staging areas prior to construction and inspecting them in accordance with the MTO Construction Administration and Inspection Task Manual.
- Ensuring that material generated during maintenance of sediment control measures will be taken off-site for disposal as per OPSS 180 (General Specification for the Management of Excess Materials).
- Once disturbed areas have stabilized, all temporary erosion and sedimentation controls will be removed.
- Erosion and sediment control structures will be routinely inspected as well as checked after storms and repaired as required. The structures will be cleaned out when accumulated sediment reaches half the design height.
- Silt fencing is to be installed as per the contract drawings.

## 5.2 **Socio-Economic Environment**

# 5.2.1 Construction Noise

A Construction Noise Assessment for widening Highway 410 was conducted in 2012 as part of this Detail Design assignment. Sixteen receptor locations were selected to represent all of the residential dwellings and commercial offices within the project area. The Construction Noise Assessment addresses the potential noise impact during construction due to the proposed





widening and associated work. The overall objective is the provision of noise/acoustic details for incorporation into the Detail Design stage of the project. For additional details regarding the assessment, refer to the *Highway 410 Construction Noise Assessment Report (September, 2012)* under separate cover.

#### Potential Impacts

- Temporary pile driving activities during construction will be very noticeable at some of the receptor locations (particularly at R6 – a hotel).
- Construction activities will be required at night and on weekends in order to minimize impacts to traffic operations.

#### Recommended Mitigation Measures

- There are possible ways to minimize the noise impact from pile driving on nearby residents, such as using less force per drive but with longer duration, the use of a sonic or vibratory pile-driver rather than an impact type, operating during times when there will be the least disturbance, etc. The exact solution depends on the soil, equipment availability, construction administration factors and other technical factors.
- Sub-section 4(10) of the City of Brampton's Noise By-law provides an exemption for work being completed on behalf of the Ministry of Transportation. Given that this exemption is already in place no official request is required. The City of Brampton requested a letter detailing the work and the timing of the project. The Project Team submitted the requested letter on January 3, 2014.
- A noise by-law exemption is not required from the City of Mississauga to facilitate night time construction.
- The Contractor will be required to keep idling of construction equipment to the minimum necessary to perform the work and to maintain equipment in good working order to prevent unnecessary noise from construction activities.

The Contract Administrator will be required to address any concerns that may arise with respect to noise during construction. Furthermore, complaints will be investigated according to the provisions of the existing MTO Environmental Guide for Noise (October 2006). Any initial complaint from the public requires verification by MTO that the general noise control measures agreed to, are in effect. If not, MTO will advise the Contractor of any problems and enforce its contract.

For additional details, refer to the *Highway 410 Construction Noise Assessment Report* (September, 2012) provided under separate cover.

# 5.2.2 Air Quality

An air quality assessment was undertaken for the proposed widening of Highway 410 from south of Highway 401 at the junction with Highway 403 to Queen Street in 2012 as part of the Detail Design.





#### **Potential Impacts**

Both local and regional assessments show a small impact from the project relative to background concentrations and use of heavy construction equipment. These impacts are not considered significant, will be limited to the construction period, and are not considered a recurring activity.

Air quality during construction may be affected with dust impacts from heavy construction equipment. These impacts will be limited to the construction period and are not considered a recurring activity. Contract provisions will minimize impacts to adjacent properties during construction (e.g., dust control measures). Therefore, the impacts from construction on air quality are not considered significant.

#### Recommended Mitigation Measures

- Through utilization of the following best management practices during construction dust and other air emission impacts from heavy construction equipment may be alleviated. These impacts will be limited to the construction period and are not considered a recurring activity. Contract provisions will minimize impacts to adjacent properties during construction (e.g., dust control measures).
- Use of reformulated fuels, emulsified fuels, exhaust catalyst and filtration technologies, cleaner engine repowers, and new alternative-fuelled trucks to reduce emissions from construction equipment.
- Regular cleaning of construction sites and access roads to remove construction-caused debris and dust.
- Dust suppression on unpaved haul roads and other traffic areas susceptible to dust, subject to the area being free of sensitive plant, water or other ecosystems that may be affected by dust suppression chemicals.
- Covered loads when hauling fine-grained materials.
- Use of enclosures, wet sandblasting and/or other techniques to minimize dust during any sandblasting operations.
- Prompt cleaning of paved streets/roads where tracking of soil, mud or dust has occurred.
- Tire washes and other methods to prevent trucks and other vehicles from tracking soil, mud or dust onto paved streets or roads.
- Covered stockpiles of soil, sand and aggregate as necessary.
- Compliance with posted speed limits and, as appropriate, further reductions in speeds when travelling at sites with unpaved surfaces.

Details of the assessment can be found in the *Highway 410 Air Quality Assessment Report* (August, 2012).

# 5.2.3 Property

There is no permanent property taking required to accommodate the widening of Highway 410. However, Permission to Enter (PTE) is required for one site.





# 5.2.4 Contaminated Lands and Excess Material

A Phase I Environmental Site Assessment (ESA) was conducted on a vacant parcel of land located on one private property near Kennedy Road in the City of Mississauga, Region of Peel.

There was no evidence of actual contamination identified during the Phase 1 assessment of the property. No areas of potential environmental concerns (APECs) were identified for the site.

## **Excess Material Potential Impacts**

- Excess material will be generated during construction such as old pavement and concrete.
- There is the potential that bridge structures and associated retaining walls may have asbestos containing materials (ACM).

#### **Recommended Mitigation Measures**

- Excess material will require proper management (removal, storage and disposal).
   Materials will be managed in accordance with Ontario Provincial Standard Specification (OPSS) 180 General Specification for the Management of Excess Materials.
- Where the Contractor manages excess earth as disposable fill, the Contractor shall take into account the possibility of salt impacts and ensure that the material is managed responsibly and in an environmentally appropriate manner. Should any contaminated materials be encountered during the undertaking, caution will be exercised while handling and disposing of contaminated materials in accordance with provincial regulations, and MTO practices (as governed by OPSS 180 or the most current standard at the time of construction).
- If asbestos or lead are identified and determined to require abatement as a result of the proposed bridge work, appropriate handling, health and safety, abatement and waste disposal protocols will be followed according to the Ontario Environmental Protection Act R.R.O. 1990 Regulation 347: General Waste Management and the Ontario Occupational Health and Safety Act O. Regulation 278/05: Designated Substance Asbestos on Construction Projects and in Buildings and Repair Operations. Information on the management of asbestos has been included in the contract documents as a precautionary measure.

# 5.3 **CULTURAL ENVIRONMENTS**

# 5.3.1 Archaeology

The Stage 1 archaeological assessment was carried out in accordance with the *Ontario Ministry* of *Tourism, Culture and Sport Standards and Guidelines for Consultant Archaeologists (2011).* This Stage 1 assessment documents the archaeological and land use history of the area and its current geography and topography in order to assess the potential for archaeological resources. As per the TESR (January 2010), URS conducted a Stage 1 field assessment on one site on May 31<sup>st</sup>, 2012 to determine any archaeological potential.





#### Potential Impacts

The Stage 1 archaeological assessment was conducted on one site for the proposed widening of Highway 410. Background research determined that two (2) archaeological sites have been registered within one kilometre of the project area. These two (2) archaeological sites are not anticipated to be impacted given their location relative to the project. Though there is high potential in the area to recover First Nation Pre-Contact material and Euro-Canadian remains due to proximity to waterways and historical settlements, land disturbance has removed this archaeological potential within the project area.

# **Recommended Mitigation Measures**

In light of these results, the following recommendations are made:

- 1) No further work is recommended in the study area, and it may be considered clear of archaeological potential.
- 2) The above recommendations are subject to MTCS approval, and it is an offence to alter any archaeological site without MTCS concurrence.
- 3) No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of MTCS approval has been received. Should the ROW be expanded in the future, further assessment will be required accordingly.
- 4) During construction, there is the possibility of encountering deeply buried archaeological material. In the event the following situations are encountered during construction, the Contractor will stop work immediately and undertake the actions as described below:
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork in compliance with section 48 (1) of the Ontario Heritage Act. The Heritage Operations Unit of the Ministry of Tourism and Culture must be immediately notified.
- The Cemeteries Act, R.S.O. 1990, c.C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

For additional details, refer to the *Highway 410 Stage 1 Archaeology Assessment Report* (August, 2012) under separate cover.

# 5.3.2 Built Heritage

The heritage assessment undertaken during Preliminary Design and as documented in the TESR (January 2010) concluded that there are no designated properties, or significant built heritage features within the study area. No impact assessment or mitigation recommendations are necessary at this time. Should the ROW be expanded in the future, further assessment will be required accordingly.





# 5.4 SUMMARY OF ENVIRONMENTAL CONCERNS, MITIGATING MEASURES AND COMMITMENTS

**Exhibit 5-4** summarizes the identified environmental concerns, proposed mitigation measures and commitments to future works as outlined in the TESR (January 2010 as amended August 2010). This exhibit also identifies if the commitment has been address in Detail Design.

**Exhibit 5-5** summarizes the identified environmental concerns, proposed mitigation measures and commitments to future works as outlined in Detail Design.

#### Legend

MNR: Ministry of Natural Resources MTO: Ministry of Transportation MOE: Ministry of the Environment OPP: Ontario Provincial Police

MTC: Ministry of Tourism and Culture UTIL: Utilities

BRA: City of Brampton MISS: City of Mississauga PEEL: Region of Peel TC: Transport Canada

MUN: Municipality DFO: Department of Fisheries and Oceans

TRCA: Toronto and Region Conservation Authority RES / BUS: Local residents and / or business owners





Exhibit 5-4: Summary of Environmental Concerns, Mitigating Measures and Commitments from the TESR (2010)

	SUMMARY OF E	ENVIRONMENTAL (	CONCERNS, MITIGATION MEASURES AND CO	MMITMENTS				
	ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES	PROPOSED MITIGATION	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)				
Er	osion and Sediment Control							
•	Potential for soil erosion/ sedimentation.	MOE MTO MNR TRCA	Standard erosion and sediment control measures will be incorporated into the contract to restore disturbed areas quickly.	Yes, commitment is included in the Contract Document.				
			Ditch line control measures will be implemented to prevent the off-site transport of sediment.	Yes, commitment has been addressed though detail design.				
Ma	anagement of Excess Material an	d Property Contam	nination					
•	The project will result in the generation of waste asphalt, concrete and possibly earth materials.	MTO MOE	Waste generation will be minimized through promoting contractor salvage, recycling, and reuse in the contract tender documents.	Yes, commitment is included in the Contract Document.				
			Excess materials generated during construction and unable to be recycled or reused will be managed by the Contractor in accordance with OPSS 180.	Yes, commitment is included in the Contract Document.				
			Conduct a Phase 1 Environmental Site Assessment on property to be required.	Yes, completed as part of Detail Design.				
Gr	Groundwater Resources							
•	Areas of cut where excavations intercept the shallow water table can drawdown the water table; however, there will be no significant temporary or permanent impacts to the groundwater resource as a	MOE TRCA	Care to be exercised in avoiding fuel, lubricants and fluid spills resulting from construction activities.	Yes, commitment is included in the Contract Document.				





	SUMMARY OF E	ENVIRONMENTAL (	CON	ICERNS, MITIGATION MEASURES AND CO	MM	ITMENTS
	ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES		PROPOSED MITIGATION	C	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)
•	result of the proposed construction activities. Contaminants spilled on the ground surface may infiltrate into the groundwater.					
Ve	egetation					
•	Potential impacts to higher quality woodlots and wetlands along the east side of Highway	MNR TRCA	•	Impacts to vegetation have been mitigated by maintaining all construction within the existing ROW.	•	Yes, with the exception of one PTE request.
	410 as a result of highway widening. Impacts to the existing ROW vegetation will be of low to moderate significance.		•	Only vegetation directly affected by grading, ditching operations and traffic safety will be removed.	•	Yes, commitment is included in the Contract Document.
	Impacts to vegetation have been mitigated by maintaining all construction within the		•	Residual vegetated areas bordering the right-of-way will be protected with temporary fencing during construction.	•	Yes, tree protection fencing is included on Contract Drawings.
	existing ROW.		•	Graded areas will be covered with topsoil seed and mulch.	•	Yes, commitment is included in the Contract Document.
			•	Tree management measures will be implemented during construction to protect vegetation not being removed.	•	Yes, commitment is included in the Contract Document.
W	ildlife Habitat					
•	Impacts to the existing wildlife will be of low to moderate significance based upon the temporary nature of the disturbances and the fact the wildlife potentially disturbed are	TRCA DFO		Impacts to wildlife habitat have been minimized by limiting all temporary habitat losses within the existing ROW and restoring the temporary lost habitat following the reconstruction of the vegetated ditch lines.	•	Yes, disturbed area will be planted with MTO seed mix. A Landscape Plan (February 2014) has also been prepared for the Project.
	urban tolerant and will not be permanently displaced.		•	Conduct breeding bird survey at detail design and confirm appropriate mitigations.	•	Breeding bird survey conducted as part of Detail





SUMMARY OF E	ENVIRONMENTAL (	CONCERNS, MITIGATION MEASURES AND CO	MMITMENTS					
ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES	PROPOSED MITIGATION	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)					
Impacts to habitat losses and gains related to culvert			Design.					
extensions.		Descriptions of watercourses at culvert locations and possible fish habitat will be conducted during detailed design.	Yes, descriptions of watercourses at culvert locations and possible fish habitat have been conducted.					
		A warm water fisheries construction timing window will be in effect, work should only occur between July 1 and March 31 <sup>st</sup> , as per DFO Guidelines.	Yes, commitment is included in the Contract Document.					
		An inventory of woody species that will be removed will be finalized during detail design along with a plan to replace removed vegetation.	Yes, a Terrestrial Impact     Assessment Report     (January 2014) as well as a     Landscape Plan (February     2014) has been prepared for     the Project.					
		The restoration plan will include details for restoration seed mixes, including species composition, using native, non-invasive species.	Yes, a Landscape Plan (February 2014) has been prepared for the Project.					
Drainage								
Additional Stormwater runoff from new pavement can impact	MTO MNR	Best management practices for stormwater will be implemented to minimize impacts	Yes, commitment in the Contract Document.					
receiving watercourses and cause flooding potentially causing erosion and sedimentation of watercourses.	TRCA	Enhanced (Level 1) water quality controls will be designed for the additional highway surface area.	Yes, the six (6) SWM Ponds on the project have quality control treatment.					
SSEMISIMANON OF WARE SOURCES.		In addition, flat-bottom vegetated swales are proposed for highway ditches within the study limits along with check dams to	Yes, commitment in the Contract Document.					





SUMMARY OF E	ENVIRONMENTAL (	CONCERNS, MITIGATION MEASURES AND CO	DMMITMENTS					
ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES	PROPOSED MITIGATION	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)					
		reduce flow velocities and promote infiltration. These measures will enhance the water quality of the drainage and receiving watercourses by mitigating the potential for erosion and sediment transport.						
		Water quantity control is not required.	N/A, however, SWM Pond 1 has both quality and quantity control.					
Adjacent Land Uses/Property								
<ul> <li>The potential Courtneypark         Drive N-E/W Ramp would         require acquisition of a 0.8 ha         parcel of property.     </li> <li>No impacts to existing         businesses are anticipated.</li> <li>Crossing roadway modifications         may be undertaken in         conjunction with planned</li> </ul>	MTO RES/BUS BRA MISS PEEL	Owner was notified; however, no response was received. Further contact required in advance of detail design if ramp modifications is carried forward.	Further discussions were held; however, no permanent property taking is required to accommodate the widening of Highway 410. However, Permission to Enter (PTE) is required for one site during construction.					
highway improvements.		Interchange access changes will be designed in consultation with the municipalities and in consideration of future planning changes on neighbouring land uses.	Consultation has occurred with municipalities.					
Highway & Construction Noise	Highway & Construction Noise							
Local businesses in the vicinity of the project may experience construction noise associated	MOE MTO RES/BUS	Where possible, certain operations (e.g. pulverizing) will be restricted to night-time hours	Yes, commitment will be included in the Contract Document.					
with the construction of the highway improvements.	BRA	Standard contract provisions regarding restrictions on operations causing	Yes, commitment is included in the Contract Document.					





SUMMARY OF E	ENVIRONMENTAL (	CONCERNS, MITIGATION MEASURES AND CO	MMITMENTS
ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES	PROPOSED MITIGATION	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)
	MISS	significant construction noise will be included in the contract.	
		Complaints about noise will be investigated in accordance with the MTO/MOE Noise Protocol.	Yes, commitment is included in the Contract Document.
		Noise by-law exemptions to be investigated if applicable.	A noise by-law request was submitted to the City of Brampton; however, MTO is exempt, refer to Section 5.2.1.
			A noise by-law exemption is not required from the City of Mississauga to facilitate night time construction.
Archaeology/Heritage			
<ul> <li>The study area was determined to be previously disturbed.</li> <li>The heritage assessment</li> </ul>	MCL MTO	A Stage 1 Archaeology Assessment will be required for previously undisturbed areas associated with any property acquisition.	A Stage 1 Archaeology     Assessment was completed.
concluded that there are no designated properties, or significant built heritage features within the study area.		If the Contractor's operations expose any items, which may indicate an archaeological find or presence of built heritage structures, work in the area will be suspended immediately and MOC will be contacted.	Yes, commitment is included in the Contract Document.
		Cultural landscapes are not anticipated to be impacted by the project.	• N/A.
Traffic			
Motorists may experience	MTO	Two lanes of traffic on Highway 410 will be	Yes, refer to Section 4.1.2.





SUMMARY OF E	ENVIRONMENTAL (	CONCERNS, MITIGATION MEASURES AND CO	MMITMENTS						
ENVIRONMENTAL ISSUE / CONCERN	CONCERNED AGENCIES	PROPOSED MITIGATION	COMMITMENT ADDRESSED IN DETIAL DESIGN (Yes / No/ N/A)						
delays and disruption during construction	RES/BUS BRA	provided during all stages of construction.							
	MISS PEEL	Access between all interchanges and Highway 410 will be maintained during construction	There is no reduction in travelling lane capacity with the exception of the closure of the auxiliary lanes between Steeles Avenue and Clark Boulevard. The Steeles Avenue East – Highway 410 North ramp will also be closed for two construction seasons. Refer to section 4.1.2.						
		Provide advance signing of construction.	Yes, refer to Section 4.1.2.						
Rail Crossing	Rail Crossing								
Rail authority approvals required for any work with potential to affect their property/operations.	CN/ GO	Further contact with rail authorities during detail design to verify requirements and ensure these are addressed.	Consultation has occurred with the rail authority. A legal agreement with CN Rail will be obtained prior to the start of construction.						





Exhibit 5-5: Summary of Environmental Concerns, Mitigating Measures and Commitments from Detail Design

	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design								
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #						
	Environment		T						
1.0	Fish & Fish Habitat (potential impact	MTO / MNR / DFO	1.1	Although Etobicoke Creek represents a warmwater/coolwater thermal regime all fish species occurring within the Creek are spring spawners. Consequently, all crossings within the project area will require in-water construction to be completed during the warmwater window of July 1 to March 31. Refer to Section 5.1.1. for additional details.					
	during construction)		1.2	Operate and store all materials and equipment in such a manner that prevents any deleterious substance from entering the water.					
			1.3	Consider construction staging such that spills and leaks into the watercourse will be avoided.					
			1.4	Apply standard Erosion and Sediment Control (ESC) measures (e.g., silt fence, silt curtain, sedimentation basins, etc.) consistent with MTO Best Management Practices (BMP) and Ontario Provincial Standards and Specifications (OPSS) to ensure no effects to the surface waters. The control measures shall be implemented prior to work and shall be maintained during construction and until disturbed areas have been effectively stabilized with permanent vegetation cover.					
			1.5	Minimize the disturbance or removal of riparian vegetation.					
					1.6	Promptly stabilize and re-vegetate all disturbed areas of the work site, and/or treat the area with appropriate erosion protection materials. In riparian and aquatic habitats, all temporarily disturbed areas will be reinstated to original condition, or better, upon completion of works.			
			1.7	Store and stabilize any stockpiled materials away from the water.					
			1.8	Design crossings to minimize loss of functional channel bed and maintain groundwater discharge.					
			1.9	Integrate deeper water habitat into any inlet or outlet treatments.					
			1.10	Isolate work area to facilitate work in "the dry".					
			1.11	Capture any fish trapped within the isolated construction area and release them downstream of the site.					
							1.12	Conduct dewatering and flow management measures so that they do not interfere with fish passage.	
								1.13	Dewatering activities where fish are present should include fish removal.
			1.14	Pumps should be fitted with screens or barriers to effectively prevent fish entrainment during dewatering.					
			1.15	All stranded fish are to be captured and relocated to adjacent channels sections outside the work area.					
			1.16	Discharge water from dewatering activities will be directed away from the watercourse in such a way as to minimize sedimentation. The discharge outlets will be located a minimum of 30 m from a watercourse and within a vegetated area. The discharge drainage must not flow through the construction site. Filter rings and filter bags may be utilized for the outflow.					
			1.17	The discharge from the dewatering must be monitored to ensure changes to the flow path or scour does not develop and result in sediment entering any watercourse.					
			1.18	All materials and equipment used should be operated and stored in such a manner that prevents any deleterious substance from entering the water.					





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design												
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments									
			1.19	Any stockpiled materials should be stored and stabilized at least 30 m away from the watercourse. A single row of silt fence will be installed along the down slope perimeter to prevent the mobilization of the stockpile.									
			1.20	Any equipment entering the water should be free of fluid leaks and externally cleaned or degreased to prevent contamination of the water.									
			1.21	All exposed soils should be treated with appropriate erosion protection to prevent sediment laden water from entering any water body.									
			1.22	All ESC measures should be monitored by a qualified environmental inspector. Inspections are to be conducted during in-water construction activities until the site is stabilized and until the silt fence is removed.									
2.0	Terrestrial Environment: Vegetation &	MTO / MNR / TRCA	2.1	Where tree or vegetation protection is required, exclusion zones should be delineated with appropriate fencing prior to construction works. Tree exclusion zones will consider sensitive species and set dripline boundaries appropriately as required.									
	Wildlife (potential impact during	act					2.2	The Shagbark Hickory woodlot, and other remaining woodlots should be delineated and marked in the field, and disturbance to these areas should be minimized or avoided during construction.					
	construction)		2.3	Vegetation removal in the Etobicoke Creek valley should be avoided or minimized where ever possible during construction.									
			2.4	Temporarily disturbed areas should be restored and salvage/reuse of original vegetation and topsoil should be considered where possible. Use of appropriate native species should also be considered as part of landscape restoration.									
			2.5	Appropriate erosion and sediment control methods should be implemented prior to the removal of vegetation near watercourses. The disturbance or removal of riparian vegetation will be minimized in order to maintain shading on the watercourse.									
			2.6	In order to protect nesting migratory birds, in accordance with the MBCA, the Contractor will:									
													Ensure no active nests are removed or disturbed, in accordance with the MBCA;
												2.7	Ensure that timing constraints are applied to avoid vegetation clearing during the breeding bird season (May 1 to August 8 for Southern Ontario). If vegetation clearing cannot be scheduled outside the identified nesting season, undertake a pre-clearing nest search;
											2.8	If bridge structure works cannot be scheduled outside the identified nesting season, ensure that bird nesting preventative measures are implemented, if necessary, to prevent new nesting prior to May 1 to August 8 for Southern Ontario of the calendar year in which they were installed. These measures should be periodically checked and maintained as required, so as not to entrap birds, and removed following construction when no longer needed;	
			2.9	Remove "inactive" nests (nests not containing eggs and / or young birds) prior to construction or prior to implementing the preventative measures outlined above;									
			2.10	Inspect the structure on a daily basis to remove any nests under construction and adjust or install additional preventative measures to prevent further nesting; and									
			2.11	Implement environmental inspection during construction to ensure that protection measures are implemented, maintained and repaired, and remedial measures are initiated where warranted.									





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design							
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments				
3.0	Species At Risk (potential impact during construction)	MTO/MNR	3.1	• It should also be noted that wildlife SAR can move into an area at any given time. At this time, an ESA permit for Barn Swallows is not anticipated as nesting locations were not reported in 2012. This species may nest within the project area in the future and updated surveys are recommended to be undertaken prior to any construction activities. In the event Barn Swallow nests are reported on site in future site visits, this project may be required to follow the newly established ESA requirements for altering a building or structure that is considered habitat for Barn Swallows (Ontario Regulation 176/13, Section 23.5 – July 1, 2013). As per Special Provision (SP) No. 100S14, if the contractor encounters SAR that are likely to be impacted by the works, the contractor shall immediately notify the Contract Administrator and suspend operations until otherwise directed. Refer to Section 5.1.4. for additional details.				
4.0	Designated Natural Areas (DNA) (potential impact during construction)		4.1	Refer to the recommended vegetation mitigation measures in Section 5.1.5.				
5.0	NWPA -	MTO/TC		The following conditions are to be complied with during construction per Transport Canada Approval letter dated July 30, 2012. Refer to <b>Section 5.1.6</b> . for additional details.				
	Etobicoke Creek Overpass (potential impact		5.1	No person shall permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing a work in a navigable water to remain in such water after the completion of the project.				
	during construction)		5.2	Where a work or portion of a work that is being constructed or maintained in a navigable water causes debris or other material to accumulate on the bed or on the surface of such water, the owner of that work or portion of that work shall cause the debris or other material to be removed to the satisfaction of the Minister.				
			5.3	All terms and conditions of the original Approval remain valid. The contractor must also comply with the terms and conditions in the Approvals documents provided by Transport Canada as well as any other requirements under NWPA, its regulations and other relevant legislation. To view a copy of the Approvals letter, refer to <b>Appendix B</b> .				
			5.4	Consultation is to continue with Transport Canada should the structural General Arrangement (GA) drawing change / be significantly altered.				
6.0	Groundwater & Surface Water	MTO / MOE / MNR / TRCA	6.1	No storage, maintenance or refuelling of equipment will be permitted near any sensitive features, including watercourses.				
	(potential for contamination)		6.2	An emergency spill kit will be kept on site in case of fluid leaks or spills from machinery.				
						6.3	Appropriate notification procedures will be carried out (i.e., the MOE, as well as MNR and DFO will be immediately notified of any "spills", near or into watercourses).	
				6.4	Permit To Take Water (PTTW) (Groundwater and Surface Water). In accordance with the Ontario Water Resource Act (OWRA), the diversion of surface water or the extraction of groundwater in excess of 50,000 litres per day (24 hours) requires a PTTW from the MOE. A draft PTTW (Groundwater and Surface Water) has been prepared for the project and will be submitted to the MOE for approval prior to construction.			
			6.5	Erosion and sediment control measures will be implemented during construction to help prevent the potential migration of sediment to receiving watercourses/waterbodies (i.e. Etobicoke Creek etc.).				
			6.6	No storage, maintenance or refuelling of equipment will be permitted near any sensitive features, including watercourses.				
			6.7	An emergency spill kit will be available on site in case of fluid leaks or spills from machinery.				
			6.8	Prepare and implement a spill prevention and control management plan.				
			6.9	Appropriate notification will be carried out (i.e., MOE, as well as MNR and DFO) should any "spills" occur,				





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design							
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments				
			6.10	Limit the depth of excavation and minimize the need for dewatering, if possible, during construction.				
			6.11	Minimize disturbance to existing vegetation and grassed slopes where re-grading is required, if possible. Disturbed areas should be re-vegetated as quickly as possible after completion of construction activities.				
7.0	Landscaping (potential impact during	MTO	7.1	• Implement landscape planting during construction. Landscaping areas include: the Courtneypark interchange, in and around on-ramps, off-ramps and SWM ponds, at the Steeles Avenue interchange, at Clark Boulevard, and some linear sections of land available within the Ministry of Transportation right-of-way.				
	construction)		7.2	Where existing plantings occur, additional plant material should be added. All planting should be sustainable, horticulturally appropriate and context sensitive.				
			7.3	Provide treed areas in the highway corridor wherever adequate space is available. Small caliper material and whip planting is to be specified in distinct growth pods. The pods are to be heavily mulched and the plant material is to be wrapped with suitable rodent control measures.				
			7.4	Proposed planning at the Courtneypark interchange should consist of smaller shrub screen plantings given sight line issues associated with the on-ramps and off-ramps.				
			7.5	Tree and shrub planting is proposed around each of the stormwater management (SWM) ponds which will help to improve water quality, reduce and/or minimize sedimentation and erosion impacts, reduce runoff and improve the visual appearance of the SWM ponds.				
			7.8	A Landscape Plan has been developed for the project to address the removal of existing vegetation. The Landscape Plan is to be implemented as part of the Highway 410 Widening project contract. Refer to Section 5.1.8 and Appendix E for additional details.				
8.0	Erosion &		8.1	To minimize the potential for erosion to newly exposed cut and fill slopes on the construction site, the following standard mitigation measures will be utilized:				
	Sedimentation Control	TRCA		Erosion and sediment control structures will be designed, installed, maintained, and removed according to the latest OPSS Guidelines.				
	(potential impact during construction)		8.2	Limit the time slopes are exposed prior to stabilization to 20 days, where practical. Exposed soil areas will be temporarily stabilized as soon as possible to control sediment transport and erosion. In addition, natural vegetation cover will be retained wherever possible (and root grubbing minimized where possible) to provide natural erosion control.				
			8.3	Sediment control structures will be routinely inspected as well as checked after storms and repaired as required. The structures will be cleaned out when accumulated sediment reaches half the design height.				
			8.4	Erosion control blankets will be used, on steeper slopes to enhance slope stability.				
			8.5	Minimizing the extent and duration that disturbed soils are exposed to the elements.				
			8.6	Installing sediment control measures (i.e., silt fence) along the channel margins to prevent the entry of sediment into the watercourse.				
			8.7	Filter socks, rock-check dams, straw bale flow check dams (or equivalent flow checks) will be placed as necessary at appropriate intervals down gradient from areas of soil disturbance to trap suspended sediments and reduce the erosive force of runoff.				
			8.8	Complying with OPSS 802 (Construction Specification for Topsoil) to address the requirements for stockpiling, placing and supplying topsoil.				
			8.9	Complying with OPSS 803 (Construction Specification for Sodding) to cover the requirements for sodding.				
			8.10	<ul> <li>Install temporary erosion and sedimentation control measures prior to ground breaking as per the requirements of OPSS 805 (Construction Specification for Temporary Erosion and Sediment Control Measures).</li> </ul>				





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design																	
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments														
			8.11	Monitoring and maintaining erosion and sediment control measures as per OPSS 805.														
			8.12	Complying with Special Provision (SSP) 805F01 (Amendments to the Construction Specification for Temporary Erosion and Sediment Control Measures) to specify the type of temporary erosion and sedimentation control measures to be installed and the timing constraints for the installation and removal of the control measures.														
			8.13	Delineating storage, stockpiling and staging areas prior to construction and inspecting them in accordance with the MTO Construction Administration and Inspection Task Manual.														
			8.14	Ensuring that material generated during maintenance of sediment control measures will be taken off-site for disposal as per OPSS 180 (General Specification for the Management of Excess Materials).														
			8.15	Following construction, once disturbed areas have stabilized, all temporary erosion and sedimentation controls will be removed.														
			8.16	Erosion and sediment control structures will be routinely inspected as well as checked after storms and repaired as required. The structures will be cleaned out when accumulated sediment reaches half the design height.														
			8.17	Silt fencing is to be installed as per the contract drawings.														
Socio-l	Economic Environ	ment																
9.0	Construction Noise	MTO / MOE / MUN	9.1	• There are possible ways to minimize the noise impact from pile driving on nearby residents, such as using less force per drive but with longer duration, the use of a sonic or vibratory pile-driver rather than an impact type, operating during times when there will be the least disturbance, etc. The exact solution depends on the soil, equipment availability, construction administration factors and other technical factors.														
			9.2	• Sub-section 4(10) of the City of Brampton's Noise By-law provides an exemption for work being completed on behalf of the Ministry of Transportation. Given that this exemption is already in place no official request is required. The City of Brampton requested a letter detailing the work and the timing of the project. The Project Team submitted the requested letter on January 3, 2014. <b>Refer to section 5.2.1.</b>														
			9.3	A noise by-law exemption is not required from the City of Mississauga to facilitate night time construction. Refer to Section 5.2.1.														
																	9.4	The Contractor will be required to keep idling of construction equipment to the minimum necessary to perform the work and to maintain equipment in good working order to prevent unnecessary noise from construction activities.
			9.5	The Contract Administrator will be required to address any concerns that may arise with respect to noise during construction. Furthermore, complaints will be investigated according to the provisions of the existing MTO Environmental Guide for Noise (October 2006). Any initial complaint from the public requires verification by MTO that the general noise control measures agreed to, are in effect. If not, MTO will advise the Contractor of any problems and enforce its contract.														
10.0	Air Quality	MTO / MOE	10.1	Through utilization of the following best management practices during construction dust and other air emission impacts from heavy construction equipment may be alleviated. These impacts will be limited to the construction period and are not considered a recurring activity. Contract provisions will minimize impacts to adjacent properties during construction (e.g., dust control measures).														
			10.2	Use of reformulated fuels, emulsified fuels, exhaust catalyst and filtration technologies, cleaner engine repowers, and new alternative-fuelled trucks to reduce emissions from construction equipment.														
			10.3	Regular cleaning of construction sites and access roads to remove construction-caused debris and dust.														
			10.4	Dust suppression on unpaved haul roads and other traffic areas susceptible to dust, subject to the area being free of sensitive plant, water or other ecosystems that may be														





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design							
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments				
				affected by dust suppression chemicals.				
			10.5	Covered loads when hauling fine-grained materials.				
			10.6	Use of enclosures, wet sandblasting and/or other techniques to minimize dust during any sandblasting operations.				
			10.7	Prompt cleaning of paved streets/roads where tracking of soil, mud or dust has occurred.				
			10.8	Tire washes and other methods to prevent trucks and other vehicles from tracking soil, mud or dust onto paved streets or roads.				
			10.9	Covered stockpiles of soil, sand and aggregate as necessary.				
			10.10	Compliance with posted speed limits and, as appropriate, further reductions in speeds when travelling at sites with unpaved surfaces.				
11.0	Property	МТО	11.1	There is no permanent property taking required to accommodate the widening of Highway 410. However, Permission to Enter (PTE) is required for one site during construction.				
12.0	Waste Management and Excess Materials	MTO / MOE	12.1	• Excess material will require proper management (removal, storage and disposal). Materials will be managed in accordance with Ontario Provincial Standard Specification (OPSS) 180 – General Specification for the Management of Excess Materials.				
			12.2	Where the Contractor manages excess earth as disposable fill, the Contractor shall take into account the possibility of salt impacts and ensure that the material is managed responsibly and in an environmentally appropriate manner.				
			12.3	Should any contaminated materials be encountered during the undertaking, caution will be exercised while handling and disposing of contaminated materials in accordance with provincial regulations, and MTO practices (as governed by OPSS 180 or the most current standard at the time of construction).				
			12.4	• If asbestos or lead are identified and determined to require abatement as a result of the proposed bridge work, appropriate handling, health and safety, abatement and waste disposal protocols will be followed according to the Ontario Environmental Protection Act — R.R.O. 1990 Regulation 347: General — Waste Management and the Ontario Occupational Health and Safety Act — O. Regulation 278/05: Designated Substance — Asbestos on Construction Projects and in Buildings and Repair Operations. Information on the management of asbestos has been included in the contract documents as a precautionary measure.				
Cultura	I Environments		•					
13.0	Archaeology	MTO / MTC	13.1	During construction, there is the possibility of encountering deeply buried archaeological material. In the event the following situations are encountered during construction, the Contractor will stop work immediately and undertake the actions as described below:				
			13.2	• Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork in compliance with section 48 (1) of the Ontario Heritage Act. The Heritage Operations Unit of the Ministry of Tourism and Culture must be immediately notified.				
			13.3	The Cemeteries Act (R.S.O. 1990, c.C.4) and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.				
			13.4	If the above situations are encountered, the MTO-Central Region Planning and Environmental Office must be notified immediately.				





	Summary of Environmental Concerns, Mitigation Measures and Commitments from Detail Design						
I.D. #	Environmental Element / Concern and Potential Impact	Concerned Agencies / Organizations (includes MTO)	I.D. #	Mitigation / Protection / Monitoring / Future Commitments			
			13.5	No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of MTCS approval has been received.			
			13.6	Should the ROW be expanded in the future, further assessment will be required accordingly.			
14.0	Built Heritage	MTO / MTC	14.1	No impact assessment or mitigation recommendations are necessary at this time. Should the ROW be expanded in the future, further assessment will be required accordingly.			





# 6.0 MONITORING

# 6.1.1 Project Specific Technical Monitoring

During the completion of the Detail Design, the contract drawings and specifications will be developed to allow the project to be tendered for construction. There is a possibility that minor design modifications or refinements may be required as a result of recommendations made by the Contractor, which could result in environmental benefits or impacts that may not have been anticipated or identified in this document. Should this occur, the modifications are not anticipated to alter the basic intent of the undertaking. Pertinent changes resulting from significant design modifications / refinements will be discussed with appropriate external agencies and members of the public prior to construction, as deemed necessary.

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 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; and
- 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 report and in the subsequent contract documents / specifications are carried out. In the event that problems develop, appropriate MTO and 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.

The Environmental Inspector will be operating under the direction of the Contract Administrator, in compliance with MTO's Construction Administration and Inspection Task Manual (May, 2010) (CAIT Manual). The CAIT Manual task descriptions provide guidance to those involved in inspection on Ministry of Transportation construction contracts, to ensure that the quality and quantity of the work is in accordance with Ministry specifications, standards, drawings, policies and procedures.

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.

# 6.1.2 Class EA Monitoring

During construction, it will be ensured that external notification and consultations are consistent with any commitments that may have been made earlier. Following construction, monitoring will ensure that any follow-up information is provided to external agencies as per any outstanding environmental commitments.





#### 6.1.3 Contract Administration

Contract Administration for this assignment will ensure effective translation of measures to protect environmental sensitivities. The following sections outline some of the environmental Ontario Provincial Standard Specifications, MTO Standard Special Provisions and MTO Non-Standard Special Provisions that will be incorporated into the contract documents for this project. Please refer to the contract document for the full and complete list as the following specifications are subject to change over time.

#### Ontario Provincial Standard Specifications (OPSS)

The following Environmental OPSS' apply to this contract:

- OPSS 180 General Specification for the Management of Excess Materials
- OPSS 510 Construction Specification for Removal
- OPSS 801 Construction Specification for the Protection of Trees
- OPSS 802 Construction Specification for Topsoil
- OPSS 804 Construction Specification for Seed and Cover
- OPSS 805 Construction Specification for Temporary Erosion and Sediment Control Measures
- OPSS 182 General Specification for Environmental Protection for Construction in Waterbodies and Waterbody Banks
- OPSS 185 General Specification for Temporary Flow Control for Construction in Waterbodies

#### MTO Standard Special Provisions

The following Environmental MTO Standard Special Provisions will be included in this contract:

- 101F21 Occupational Health and Safety Act Compliance
- 199F31 Environmental Exemptions & Permits (Noise Exemption Permit)
- 199F33 Construction Noise Constraints
- 199F34 Identification of Local Regulatory Authorities
- 199S56 Control of Emissions During Structural Work
- 805F01 Straw Bale Flow Check Dams
- 805F01 Light-Duty Silt Fence Barriers.

#### MTO Non-Standard Special Provisions (NSSPs)

The following Environmental NSSPs and Operational Constraints will be included in this contract:

- General Environmental Protection Requirements;
- Erosion and Sedimentation Control
- Migratory Bird Protection





- Management of Effluent from Concrete Cutting / Grinding
- Control Measures during Removal of Concrete / Structure, Structure Repair / Construction, and Concrete Sawcutting
- Management of Asbestos Containing Excess Material
- Spill Prevention and Response Contingency Plan
- Equipment Refueling, Maintenance and Washing
- Archaeology
- Management of Excess Earth with Salt Impacts
- Prevention of Asian Long-Horned Beetle Infestation and Management of Host Trees
- Maintenance and Warranty for Landscape Planting
- Trees and Shrubs Planting

#### 6.1.4 Project Monitoring

#### Inspection by Construction Staff

Construction is subject to daily general on-site inspection to ensure the execution of the environmental component of the work and to deal with environmental problems that may develop during construction. This is the primary method for compliance monitoring.

#### Site Visits by Environmental Staff

Construction projects with significant mitigating measures / concerns are subject to periodic site visits by consultant construction administration environmental staff. The timing and frequency of such site visits are determined by the schedule of construction operations, the sensitivity of environmental concerns and the development of any unforeseen environmental problems during construction.

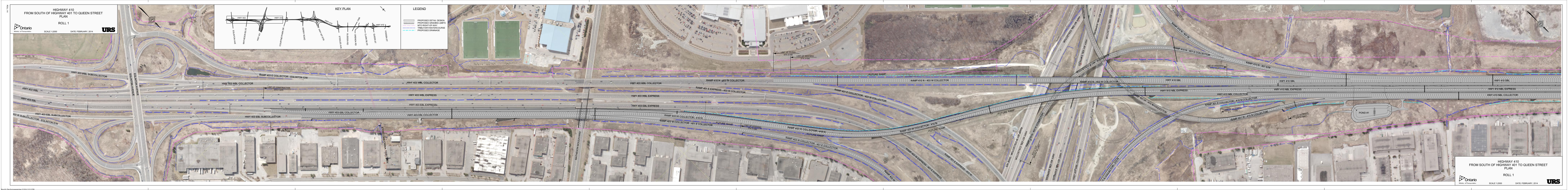


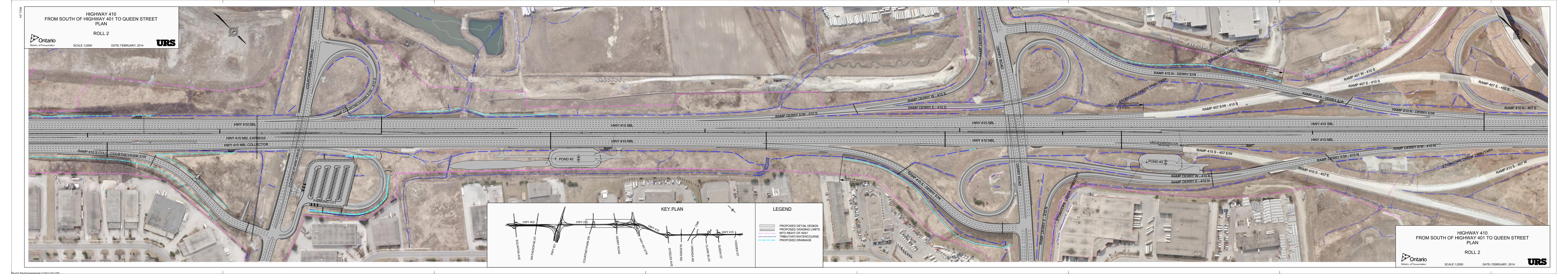


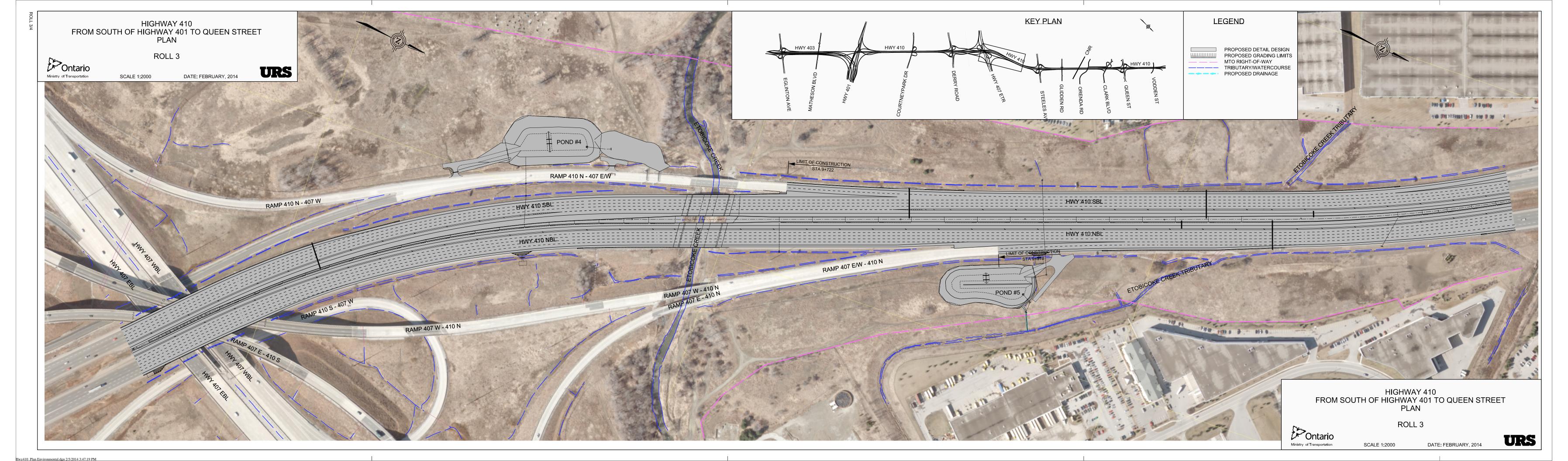
# Appendix A Detail Design Plan

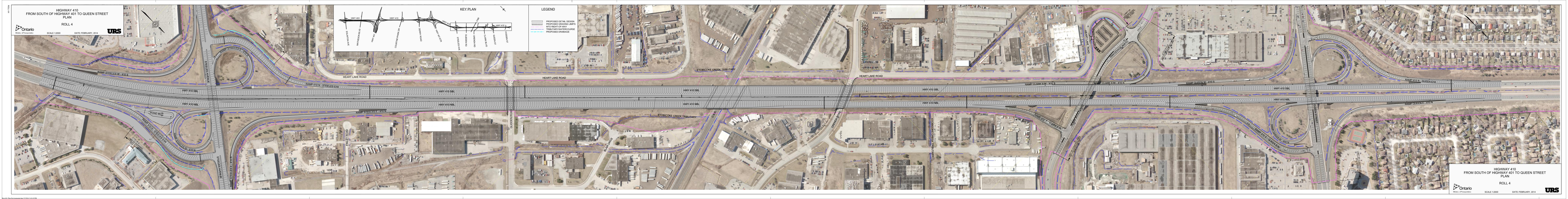








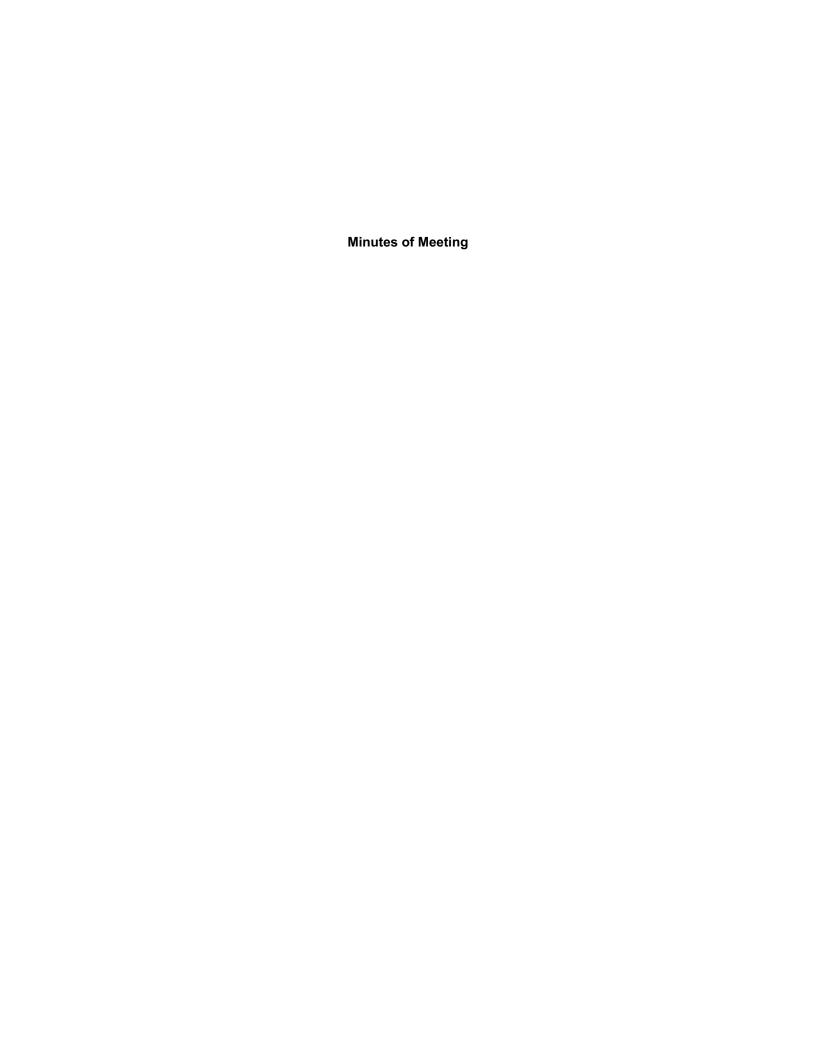




# Appendix B Relevant Correspondence









Project: GWP 2144-07-00 - Hwy 410 Widening from Meeting No.

South of Highway 401 to Queen Street

Project No. 33016591 Date: August 12, 2011

Location: 6300 Steeles Avenue West, Woodbridge, Ontario Time: 9:30 a.m.

Purpose: Highway 407 ETR Stakeholder Meeting

Present: MTO

Tahirou Assane - Highway Engineering - Project Engineer

Brian Utigard - Highway Engineering - Assistant Project Engineer

Slawomir Demianczuk - Strategic Highways Management Office

**407 ETR** 

Jeff Booker - Manager, Highway Engineering Services

David Bader - Highway Engineering Technician
Johnathan Lin - Manager, Traffic & Planning
Shakir Hussein - Transportation Planner

URS Canada Inc.

Roy Pritchard - Overall Project Manager
Saad Syed - Jr. Assistant Project Manager
Chris Schueler - Detail Design Manager

<u>Items</u> <u>Description</u> <u>Action by:</u>

# 1. General Overview of Project

 URS provided a general overview of the project. URS is designing the expansion of Highway 410 from South of Highway 401 to North of Queen Street. This expansion includes the installation of 1 general purpose lane and 1 HOV lane in each direction of Highway 410.

#### 2. General Review of Design Activities

 Design activities in the field which may affect 407 ETR include surveying and pavement investigations.

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

URS Canada Inc. 75 Commerce Valley Drive East Markham, ON Canada L3T 7N9 Tel: 905.882.4401

Fax: 905.882.4399 www.urs.ca 0:12-33016591-Hwy410-SouthHwy401-QueenSt\Project Management\Meetings\Stakeholder Meetings\407 ETR\33016591\_407 ETR Minutes\_08-12-11.doc

<u>Items</u> <u>Description</u> <u>Action by:</u>

 407 ETR indicated that an encroachment permit (fee waived) would be required for Golder to complete their drilling work. Golder should be the one to submit the permit for clearance. 407 ETR would like to see the borehole plan prior to approval.

Golder

- Bernard O'Brien is the permits officer for this corridor.
- URS will also be looking at the electrical and drainage components of the highway based on the widening.
   Currently there is underpass illumination and high mast lighting at the 407 interchange which would presumably require reconstruction. 407 ETR noted that this should be done at the expense of the proponent (MTO).

URS

 The ramps for Derry Road which pass under the 407 ETR ramps have temporary concrete barrier protecting the left side of the structure. MTO/407 ETR to determine ownership of this wall.

407 ETR/MTO

URS

- 407 ETR noted that this wall should be upgraded during construction to permanent barrier.
- 407 ETR noted that care should be given during staging design to minimize impacts to the 407 ETR ramps with respect to closures. MTO agreed that 407 ETR should be consulted when 100F08 document is being prepared which governs when closures are allowable during construction.

URS/407 ETR

#### 3. Project Schedule

- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction, but has been identified for future construction in MTO's 5-year plan.

## 4. Drawings and Inspection Reports

 URS formally requests that all drawings related to the highway, structures, illumination an drainage be provided for our reference.

407 ETR

- 407 ETR noted that these drawings will be provided, but they are to be treated "as designed" not "as constructed".
- Post Meeting Note: Contract drawings were received via

<u>Items</u> <u>Description</u> <u>Action by:</u>

secure folder transfer on August 16, 2011.

# 5. Other Business

 URS requested that 407 ETR provide a schedule for future construction / design activities within the URS project limits.

407 ETR

- URS noted that coordination will be required if 407 ETR plans to shut down ramps for their construction during URS design period.
- Coordination will also be required for MTO construction period should conflict occur between MTO/407 ETR.
- Jeff Booker will be the main 407 ETR contact for this project.

Submitted by:

Roy Pritchard, P.Eng

Vice President

Distribution: Attendees

**URS Design Team Members** 



Time:

2:00 p.m.

Project: GWP 2144-07-00 - Hwy 410 Widening from Meeting No.

South of Highway 401 to Queen Street

Project No. 33016591 Date: August 18, 2011

Location: 4 Welding Way off Administration Road P.O.

Box 1000, Concord, ON, L4K 1B9, Ontario

Purpose: Canadian National Railway (CNR) Stakeholder Meeting

Present: MTO

Tahirou Assane - Planning & Design (Project Manager)

Brian Utigard - Planning & Design Clement Shim - Structural Office

**CNR** 

Marissa Crawford - Manager, Design and Construction

**URS Canada Inc.** 

Roy Pritchard - Senior Project Manager Saad Syed - Jr. Assistant Project Manager

Sardar Nabi - Structural Engineering Linda Liu - Structural Engineering

<u>Items</u> <u>Description</u> <u>Action by:</u>

#### 1. General Overview of Project

- URS provided a general overview of the project. URS is designing the expansion of Highway 410 from South of Highway 401 to North of Queen Street. This expansion includes the installation of 1 general purpose lane and 1 HOV lane in each direction.
- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction, but has been identified for future construction in MTO's 5-year plan.

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

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Fax: 905.882.4399 www.urs.ca O:\2-33016591-Hwy410-SouthHwy401-QueenSt\Project Management\Meetings\Stakeholder Meetings\CN Rail\33016591\_CNR Minutes\_08-18-11.docx

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

 URS and its subconsultants will require access (including flagging staff) for short durations (one or two days at a time) to facilitate field investigations over the next few months.

## 2. General Review of Proposed Design Activities

- Design activities in the field which may affect CNR include surveying, pavement investigations, and Bridge Condition Surveys (including limited visual inspections, fatigue inspection, and delamination survey).
- CNR noted that flagging staff will be required for all operations which infringe on CNR property. This includes the clearance envelopes above and around the tracks.
- URS inquired as to the availability of flagging staff. CNR confirmed that short duration windows (a day or two at a time) are generally easy to accommodate. Long duration staff requirements would be more difficult as the schedule for 2011 through the end of 2012 is already heavily booked.
- CNR noted that there are between 24 and 28 trains per day using this corridor. All three tracks are main lines.
- There are no restrictions on timing for work at track level or in the CNR clearance envelope. All work must be completed between trains.
- URS will review access to the site and determine whether a rubber tire zoom boom can be used. URS will also look into the possibility of using the Bridgemaster.
- MTO advised that the MTO rented Bridgemaster might not be available for use on this project. CNR advised that depending on the nature of the investigations, the zoom boom might be a better option.
- CNR will tentatively schedule this project for construction for 2013 and 2014 in order to reserve their flagging staff for future. MTO will update CNR with anticipated project construction timelines as this assignment progresses.

#### 3. CNR Board Order

- An existing board order is already in place (R-36034 dated January 6, 1984).
- CNR noted that a legal agreement for Grade

**URS** 

CNR

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

Separation/Reconstruction (standard MTO form) will be required. This is typically completed after the GA has been approved by CNR.

- The legal agreement will be filed through the Canadian Transportation Agency (CTA). The CTA typically files a board order.
- The existing board order indicates a payment of \$62,500.00 by CNR towards the cost of construction, the balance being paid by MTO. MTO queried on opportunities for similar cost sharing on the bridge widening work. CNR anticipates that the cost will be 100% MTO given the nature of work involved with the bridge widening.

## 4. Communications and Coordination

- The main CNR point of contact for this project will be Junior Francis. Marissa Crawford is to be cc'd on all project related correspondence.
- Marissa Crawford to provide contact information for Junior Francis and a copy of a CNR work permit that needs to be completed prior to access of CNR ROW.

#### 5. CNR Requirements

- CNR is primarily concerned with clearance envelopes for the vertical and horizontal clearances at this site as well as any impacts to train operations during construction.
- CNR will review GA's and structural drawings to provide comments/approval with respect to clearances and CNR standards for the crash wall. Document and drawing review times are approximately 2-3 weeks.
- Upon completion of design and prior to tender, CNR will provide a set of Special Provisions for the tender package.
   These documents are to be inserted into the tender.
- CNR standards will not apply to the structure (as it is not a rail bridge) but will apply to any crash walls associated with the piers and clearance envelopes.
- Future clearance envelopes should match or exceed existing. URS is not required to meet current standards for clearance because this is an existing structure being widened.

CNR

CNR

URS

<u>Items</u>	<u>Description</u>	Action by:
	<ul> <li>CNR noted that all designs should try to meet temporary minimum clearances during construction. These are:</li> </ul>	URS
	<ul> <li>8'6" horizontal on tangent sections,</li> </ul>	
	<ul> <li>10' horizontal on curve sections, and</li> </ul>	
	o 22' vertical	
	- Minimum vertical clearance (permanent) is 7.4 meters (24'3").	
	<ul> <li>CNR nomenclature for the location of this structure is Mile 13.33 on the Halton Subdivision. This nomenclature for structure location should be present on all drawings.</li> </ul>	URS
	<ul> <li>CNR will require a Purchase Order prior to any work being undertaken on this assignment. MTO will set up the PO with CNR and inform URS when this is complete. A figure of \$10,000 was suggested.</li> </ul>	МТО
	<ul> <li>Post Meeting Note: MTO and CNR have exchanged e- mails and are working to have a PO in place.</li> </ul>	MTO/CNR
	<ul> <li>All persons who enter CNR property will require contractor orientation which can be acquired through the website <a href="http://www.contractororientation.com">http://www.contractororientation.com</a> for a cost of \$11 USD.</li> </ul>	URS
	<ul> <li>CNR will conduct locates for all CNR owned/maintained utilities. All other locates will have to be coordinated through the utility companies.</li> </ul>	
	- Ontario One Call will facilitate all non-CNR locates.	
6.	CNR Proposed Capital and Maintenance Works in this Area	
	<ul> <li>CNR confirmed that there are no plans for capital works along the Halton Subdivision in the vicinity of Mile 13.33.</li> </ul>	
	<ul> <li>CNR noted that some maintenance for railroad ties may take place in the future. CNR to provide dates of when the work is to occur.</li> </ul>	CNR
	Other Business	

 The tracks are owned by CNR. All coordination shall occur through CNR. GO Transit has an operating agreement to use the line and does not need to be copied on any correspondence.

<u>Items</u> **Description Action by:** 

Submitted by:

Roy Pritchard, P.Eng Vice President

Distribution: Attendees

**URS Design Team Members** 



Meeting No.

Project: GWP 2144-07-00 - Hwy 410 Widening from

South of Highway 401 to Queen Street

Date: September 5, 2011

Location: 6300 Steeles Avenue West, Woodbridge, Ontario Time: 8:30 a.m.

Purpose: Highway 407 ETR Stakeholder Meeting - Electrical and SWM

Present: MTO

Project No.

Tahirou Assane - Highway Engineering - Project Engineer

407 ETR

33016591

Jeff Booker - Manager, Highway Engineering Services
Jeff Booker - Manager, Highway Engineering Services

**URS Canada Inc.** 

Chris Schueler - Detail Design Manager

Saad Syed - Jr. Assistant Project Manager

<u>Items</u> <u>Description</u> <u>Action by:</u>

#### 1. General Review of Design Activities

- URS provided an update of progress so far on the project.
- URS informed 407ETR this project is being suspended at the 60% stage and no timeline has been provided at this time for restarting.

## 2. Electrical Design

- URS reviewed details of proposed changes to 407ETR owned/maintained illumination. These include raising all existing median poles to the top of tall wall barrier, relocation of one HMLP immediately north of Highway 407ETR, addition of luminaires, and new underpass illumination.
- 407ETR does not have any concerns with the proposed design.

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

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C:\Users\Saad\_Syed\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.MSO\4C3B7757.doc

<u>Items</u> <u>Description</u> <u>Action by:</u>

# 3. Stormwater Management (SWM) Design

- Two SWM ponds (Pond #4 and Pond #5) are located within the 407ETR ROW.
- Both ponds are adjacent to 407ETR ramps and require a crossing under a 407ETR ramp.
- Pond #4 requires access from the 407ETR ramp while Pond #5 requires access near a 407ETR ramp.
- 407ETR has no issue with access from the ramps and with connections being installed under their ramps.
- 407ETR noted concern over maintenance requirements:
  - O Who maintains the ponds?
  - O How often are they maintained?
  - What happens in an emergency (i.e. spill and shut off control)?
  - What type of West Nile Virus treatments does MTO conduct?
- 407ETR and MTO to discuss potential maintenance agreement where 407ETR maintains the ponds on MTO's behalf.

MTO/407ETR

**URS** 

#### 4. Drawings Package

407ETR requested a final drawings package for records/review.

 URS provided a roll plan for the section directly affecting 407ETR.

Submitted by:

Saad Syed, M.A.Sc., P.Eng

Civil Engineer

Distribution: Attendees

SHM Office

**URS Design Team Members** 



GWP 2144-07-00 - Hwy 410 Widening from Project: Meeting No.

South of Highway 401 to Queen Street

33016591 Sept 12, 2011 Date: Project No.

Training Room BLDG FCCC1-B1, Unit #2, 1:30 p.m. Location: Time:

8850 McLaughlin Road, Brampton, Ontario

City of Brampton Stakeholder Meeting Purpose:

MTO Present:

> Tahirou Assane - Project Manager

Brian Utigard - Assistant Project Manager Larry Sarris - Environmental Planner

**CITY OF BRAMPTON (CoB)** 

Bino Varghese - Senior Project Engineer

Bishnu Parajuli - Project Engineer - Project Engineer Compton Bobb

Henrik Zbogar - Manager, Long Range Planning

John Allison - Landscape Technician

**Nelson Cadete** - Supervisor of Traffic Operations - Supervisor of Street Lighting Susan Evans Tim Kocialek - Manager of Engineering

**URS Canada Inc.** 

Roy Pritchard - Senior Project Manager Saad Syed - Jr. Assistant Project Manager Chris Schueler

- Detail Design Manager

Items **Description** Action by:

#### **Project Team Introductions** 1.

- All persons present introduced themselves.
- URS has been retained as MTO's consultant for the detail design of GWP 2144-07-00 Highway 410 Widening from South of Highway 401 to Queen Street.
- Bino Varghese of the CoB Works and Transportation

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

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#### <u>Items</u> <u>Description</u> <u>Action by:</u>

Department was identified as the main point of contact at CoB.

#### 2. General Overview of Project

- MTO and URS provided a general overview of the project.
  URS is designing the expansion of Highway 410 from South
  of Highway 401 to Queen Street. This expansion consists
  mainly in widening Highway 410 from six to ten lanes (i.e.
  addition of 1 HOV lane and 1 general purpose lane in each
  direction).
- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction. While the project is not currently part of MTO's 5-year construction plan, it has been identified as a "Planning for the Future" project in the Ministry's Southern Highways Program. The start of construction will depend on its prioritization in relation to other needs around the province.
- CoB inquired about the north limits of the project and whether MTO intended to extend HOV lanes northerly to Bovaird Drive. It was also noted that CoB is planning to widen Williams Parkway north of the project limits.
- MTO noted that a separate project, currently in the preplanning stages, will look at the section north of Queen Street for future expansion needs.

## 3. Etobicoke Creek

- URS noted that design and construction activities may affect existing trail system along Etobicoke Creek.
- URS noted that access for foundation investigations may be required through the trail system. CoB to determine whether a permit is required.

 URS requested contact information for the manager of the trail system at CoB.

 URS requested existing / as-built contract drawings for the trail system.

 The trail system is currently under review for construction / expansion in the future. TRCA is working with CoB on this CoB

CoB

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

project. URS requested information (drawings, extents of construction, etc.) for this work.

#### 4. Clark Boulevard Interchange

- At Clark Boulevard, MTO plans to rehabilitate the existing ramps and pavement within the MTO right of way.
- URS is also reviewing the possibility of including roundabouts at the ramp terminals (Courtneypark Drive, Derry Road, Steeles Avenue, and Clark Boulevard).
- CoB inquired as to how pedestrian and cyclists will be dealt with at the ramp terminals and requested alternatives be developed to notify drivers at the ramp terminals of possible conflicts with pedestrians or cyclists.
- URS/MTO noted that this is outside the scope of work for this assignment.
- CoB is planning to widen and realign Clark Boulevard between Rutherford Road and east of Dixie Road with construction planned to begin in 2019. The project is currently in the final stage of the Environmental Assessment (EA). A draft copy of the EA has been provided to the MTO.
- Widening of Clark Boulevard may require property from MTO. CoB to coordinate with MTO Corridor Management.
- CoB provided URS with a hardcopy of the proposed plan.
   URS requested a copy of the final approved EA plan in digital (CAD) format. CoB to provide.
- MTO plans to construct a carpool parking lot in the southwest quadrant of the interchange with access to the lot coming from Heart Lake Road.
- CoB noted that the proposed entrance location should be reconsidered as it is too close to the Clark Boulevard/Heart Lake Road intersection. URS to investigate alternative entrance locations.
- CoB inquired as to the possibility of relocating the carpool lot to either the Queen Street or Steeles Road Interchanges.
   MTO noted that the PDR design team reviewed carpool parking lot opportunities at every interchange within the project limits. However, due to property restrictions, the Clark Boulevard Interchange parking lot was determined to be the only feasible location in Brampton. Another carpool

CoB

URS

<u>Items</u> <u>Description</u> <u>Action by:</u>

parking lot is being considered at the Courtneypark Drive Interchange in Mississauga.

- CoB inquired to the possibility of coordinating / combining design and / or construction of a portion of the Clark Boulevard widening project (likely the structural component) with the MTO project (GWP 2144-07-00). MTO will look into this request. MTO noted that should this work be included in the overall Hwy 410 widening project, CoB will need to obtain all required approvals (i.e. EA) and be responsible for design and construction costs associated with this work. MTO / CoB to determine legal implications associated with this work.
- URS will need to know by early spring of 2012 if CoB would like URS to conduct the design on their behalf.

5. GIS Data

- URS requested GIS data files (.shp) used to develop the Official Plan schedules from CoB including:
  - Landuse
  - o Property Boundaries/Owner Information
  - Natural Features
  - Watercourses/Waterbodies
  - Pathways
  - o Parks/Recreation
  - Utilities
- CoB to provide End User License Agreement Form for URS.
   Once release form has been signed and returned to CoB, B.
   Varghese will coordinate request for Data on behalf of URS.

- **Post Meeting Note:** CoB provided the End User License Agreement Form on September 09, 2011.

6. Other Business

- All lighting along roads in CoB is maintained by CoB (even along Regional Roads). Coordination for design and review is required with the CoB. Susan Evans is the electrical contact at CoB.
- A noise exemption for construction will be required. This can be obtained through the CoB By-Law office.
- Please copy Tahirou Assane, Roy Pritchard, and Saad Syed

MTO/CoB

CoB

URS

<u>Items</u> <u>Description</u> <u>Action by:</u>

on all project related correspondence.

Submitted by:

Roy Pritchard, P.Eng Vice President

Distribution: Attendees

**URS Design Team Members** 



Project: GWP 2144-07-00 - Hwy 410 Widening from Meeting No.

South of Highway 401 to Queen Street

Project No. 33016591 Date: Sept 16, 2011

Location: A.E. McDonald Room, 3185 Mavis Road, Time: 10:00 a.m.

Mississauga, Ontario

Purpose: City of Mississauga Stakeholder Meeting

Present: MTO

Tahirou Assane - Planning & Design (Project Manager)

Larry Sarris - Environmental Planner
Tony DiLorenzo - Traffic Project Manager

**CITY OF MISSISSAUGA (CoM)** 

Abdul Shaikh - Transportation Project Engineer

Al Sousa - Manager, Traffic Engineering and Operations

Andy Bate - Supervisor, Traffic Operations
Domenic Galati - Capital Project Manager

Farhad Shahla - Transportation Project Engineer
Joe Bernoldi - Traffic Signal Technologist

John Clarke - Supervisor, Traffic Signals and Systems Silvio Cesario - Manager, Transportation and Works

Steve Barrett - Manager, Transportation Asset Management

URS Canada Inc.

Roy Pritchard - Senior Project Manager
Saad Syed - Jr. Assistant Project Manager
Ilya Sher - Traffic Engineering Manager

<u>Items</u> <u>Description</u> <u>Action by:</u>

## 1. Project Team Introductions

- All persons present introduced themselves.
- URS has been retained as MTO's consultant for the detail design of GWP 2144-07-00 Highway 410 Widening from South of Highway 401 to Queen Street.

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

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<u>Items</u> <u>Description</u> <u>Action by:</u>

 Domenic Galati of CoM was identified as the main point of contact for this project.

#### 2. General Overview of Project

- MTO and URS provided a general overview of the project.
  URS is designing the expansion of Highway 410 from South
  of Highway 401 to Queen Street. This expansion consists
  mainly in widening Highway 410 from six to ten lanes (i.e.
  addition of 1 HOV lane and 1 general purpose lane in each
  direction).
- URS will also be reviewing the feasibility of constructing roundabouts at ramp terminals (Courtneypark Drive, Derry Road, Steeles Avenue, and Clark Boulevard) as part of this project.
- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction. While the project is not currently part of MTO's 5-year construction plan, it has been identified as a "Planning for the Future" project in the Ministry's Southern Highways Program. The start of construction will depend on its prioritization in relation to other needs around the province.

#### Contacts at CoM

- Scott W Anderson is the contact for the Mississauga BRT project. There may be some coordination required at Matheson Boulevard due to the BRT project.
- Andy Bates is the contact for Traffic at CoM.
- Abdul Shaikh is the CoM contact for the Courtney Park EA (future).
- Domenic Galati is the contact for Road Occupancy Permits at CoM.

## 4. Courtneypark Drive Interchange

 At the Courtneypark Drive Interchange, MTO plans to rehabilitate the existing loop ramp (E/W-S on-ramp) and to realign the existing parclo B style single lane Highway 410 Page 3

**URS** 

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

S-E/W off-ramp with a more standard parclo A style two-lane off-ramp.

- MTO also plans to construct a carpool parking lot in the northeast quadrant of the interchange (where the existing S-E/W off-ramp is currently located). URS is reviewing the design feasibility of this parking lot.
- CoM noted that they are interested in the construction of the missing ramps (N-E/W off-ramp and E/W-N on-ramp) at the Courtney Park Interchange. MTO noted that these ramps are not provincial needs. Construction of these ramps would be dependent on CoM funding.
- CoM noted that there is no funding allocated to the construction of these ramps in the CoM 2012 budget.
- CoM noted that if construction of these ramps is not possible at the same time as the Highway 410 widening due to funding issues, the design should not preclude these ramps from being built in the future.
- URS/MTO noted that the feasibility of these ramps has been studied as a part of the Preliminary Design Report (PDR) and Transportation Environmental Study Report (TESR) completed in 2010
- MTO received a letter in November 2010 from CoM regarding the Courtneypark Drive interchange. MTO noted that CoM may wish to consider purchasing the property at 6765 Kennedy Road at this time (or in the near future) to protect for these ramps. CoM to review.
- MTO also noted that CoM may wish to fund the detail design of these ramps in order to completely determine the feasibility and property requirements.
- CoM requested a high level fee estimate for the detail design of the full interchange (N-E/W off-ramp and E/W-N on-ramp) as well as the ballpark costs associated with the purchase of the 6765 Kennedy Road.
- CoM has conducted a preliminary design for the widening of Courtneypark Drive to 6 lanes between Dixie Road and Torbram Road.
- This widening will involve the construction of one lane to the south along the existing alignment of Courtneypark Drive through the existing bridge structure.CoM to provide design

CoM

CoM

**URS/MTO** 

<u>Items</u> <u>Description</u> <u>Action by:</u>

file (Microstation) for the preliminary design to URS.

CoM

 URS to determine whether the widening to the south would impact the construction of a new loop ramp (E/W-N onramp) to Highway 410.

**URS** 

 CoM noted that the original GA for the Courtneypark Drive Structure allowed for the widening of the existing structure to the south for the addition of one lane. CoM requested URS/MTO to review whether this widening would impact the construction of a new loop ramp (E/W-N on-ramp) to Highway 410.

**URS/MTO** 

- CoM noted that Peel Region has completed some construction along Courtney Park recently. Records can be retrieved from the Region.
- CoM Noted that the construction of the full Courtney Park Interchange may also be a regional initiative.
- CoM has received requests for the installation of traffic lights at the E/W-S on-ramp. CoM requested that the location be protected for future traffic lights.
- URS noted that some utility relocation may be associated with the construction/installation of the new ramps at the Courtney Park Interchange. Most notably the Mississauga Hydro energy towers running south of Courtney Park across Highway 410.

#### 5. Request for GIS Data

- URS requested GIS data files (.shp) used to develop the Official Plan schedules from CoM including:
  - Landuse
  - Property Boundaries/Owner Information
  - Natural Features
  - Watercourses/Waterbodies
  - Pathways
  - o Parks/Recreation
  - o Utilities
- CoM to provide End User License Agreement Form for URS.
   Once release form has been signed and returned to CoM, D.
   Galati will coordinate request for Data on behalf of URS.

CoM/URS

Page 5

**URS** 

<u>Items</u> <u>Description</u> <u>Action by:</u>

# 6. Other Business

- Please copy Tahirou Assane (MTO), Roy Pritchard (URS), and Saad Syed (URS) and Domenic Galati on all project related correspondence.
- E-mail addresses: Tahirou.Assane@ontario.ca, Roy.Pritchard@urs.com, Saad.Syed@urs.com, and Domenic.Galati@Mississauga.ca

Submitted by:

Roy Pritchard, P.Eng

Vice President

Distribution: Attendees

**URS Design Team Members** 



Meeting No.

Project: GWP 2144-07-00 - Hwy 410 Widening from

South of Highway 401 to Queen Street

Project No. 33016591 Date: Sept 19, 2011

Location: 3<sup>rd</sup> Floor Boardroom, 9445 Airport Road, Time: 09:00 a.m.

Brampton, Ontario

Purpose: Peel Region Stakeholder Meeting

Present: MTO

Tahirou Assane - Project Manager

Brian Utigard - Assistant Project Manager Larry Sarris - Environmental Planner

Peel Region

Bob Nieuwenhuysen - Manager, Capital Works

Jim Hoddinott - Supervisor, Transportation Program Planning

Joe Avsec - Manager, Traffic Engineering

Sabbir Saiyed - Manager, Transportation System Planning
Steve Ganesh - Manager, Transportation Program Planning

URS Canada Inc.

Roy Pritchard - Senior Project Manager
Saad Syed - Jr. Assistant Project Manager
llya Sher - Traffic Engineering Manager

<u>Items</u> <u>Description</u> <u>Action by:</u>

## 1. Project Team Introductions

- All persons present introduced themselves.
- URS has been retained as MTO's consultant for the detail design of GWP 2144-07-00 Highway 410 Widening from South of Highway 401 to Queen Street.
- Steve Ganesh was identified as the main point of contact at Peel Region for this project. [Post Meeting Note: Hitesh Topiwala should be also copied on all correspondence.]

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

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Tel: 905.882.4401 Fax: 905.882.4399 www.urs.ca C.12-550 1059 1-rhwy4 10-50dui rhwy40 1-queen 5ttr10ject managementiwieeungststakenouen weeungstregion of Peen 550 1059 1\_Peen minutes\_05-19-11\_NeV1.dc



#### <u>Items</u> <u>Description</u> <u>Action by:</u>

#### General Overview of Project

- MTO and URS provided a general overview of the project. URS is designing the expansion of Highway 410 from South of Highway 401 to Queen Street. This expansion consists mainly in widening Highway 410 from six to ten lanes (i.e. addition of 1 HOV lane and 1 general purpose lane in each direction). URS will also be reviewing the feasibility of constructing roundabouts at ramp terminals (Courtneypark Drive, Derry Road, Steeles Avenue, and Clark Boulevard) as part of this project.
- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction. While the project is not currently part of MTO's 5-year construction plan, it has been identified as a "Planning for the Future" project in the Ministry's Southern Highways Program. The start of construction will depend on its prioritization in relation to other needs around the province.
- Peel Region pointed out that roundabouts would likely not be feasible due to the high traffic volumes, the number of existing/proposed lanes, and the effects of closely spaced traffic signal controlled intersections causing platooning of vehicles inbound to the roundabout.
- Peel Region inquired whether any consideration was given to HOT (High Occupancy Toll) lanes in lieu of HOV lanes. MTO noted that HOT lanes were not being considered in this project.
- Peel Region demonstrated concerns about the lack of continuity of the HOV lanes from Highway 410 south to Highway 403 West (express). MTO noted that the construction of a direct HOV lane to HOV lane connection for the above was reviewed in the PDR/EA phase and was determined to be cost prohibitive. Thus, the option has not been carried forward to detail design.

## 3. Courtneypark Drive Interchange

 At the Courtneypark Drive Interchange, MTO plans to rehabilitate the existing loop ramp (E/W-S on-ramp) and to realign the existing parclo B style single lane Highway 410 S-E/W off-ramp with a more standard parclo A style two-lane

<u>Items</u> <u>Description</u> <u>Action by:</u>

off-ramp.

- MTO also plans to construct a carpool parking lot in the northeast quadrant of the interchange (where the existing S-E/W off-ramp is currently located). URS is reviewing the design feasibility of this parking lot.
- MTO/URS pointed out that the City of Mississauga had noted in an earlier meeting that they are interested in the construction of the missing ramps (N-E/W off-ramp and E/W-N on-ramp) at the Courtney Park Interchange and it had been said that the full interchange at Courtney Park may also be a Regional need. MTO noted that these ramps are not provincial needs. Construction of these ramps would be dependent on municipal funding.
- The Region is interested in having a full interchange at Courtneypark Drive as it could help relieve traffic on adjacent Regional roads.
- The Region will assess the need for a full interchange at the Courtneypark interchange from a Regional perspective and advise the ministry as soon as possible.

 MTO to provide Peel Region with PDR/TESR documents and associated traffic data to assist the Region in its assessment of the Courtneypark Drive interchange. [Post Meeting Note: MTO provided the PDR/TESR files to the Region.]

## 4. Other Contracts in the Area

- Peel Region has recently completed an EA for Dixie Road (Queen Street to 2 km north of Mayfield Road). Peel Region undertook to provide MTO/URS with a copy of the Environmental Study Report for information purposes. Construction is anticipated to begin in 2014 or later.
- Peel Region plans to widen Dixie Road to 6 lanes from Steeles Avenue to Clark Boulevard. This will create a continuous 6-lane section along Dixie Road from Highway 401 to Queen Street. This project is in the pre-construction phase and is set to commence construction in 2012.
- The Region's Water and Wastewater groups may have other contracts within the Highway 410 project limits. Anthony Parente, Manager, Water – Capital and Simon Hopton, Manager, Wastewater – Capital Project will be the Region's

Peel

MTO



#### **Description** Items

Action by:

contacts for Water and Wastewater related matters.

Post Meeting Note: Anthony can be reached at anthony.parente@peelregion.ca and Simon can be reached at simon.hopton@peelregion.ca

#### **Traffic Signals** 5.

- Peel Region operates traffic signals along Derry Road and Steeles Avenue on behalf of MTO.
- Coordination with Peel Region traffic section will be required when compiling equipment and technical specifications for the traffic signals.

#### Other Business 6.

- Please copy Tahirou Assane (MTO), Roy Pritchard (URS), and Saad Syed (URS) on all project related correspondence. E-mail addresses are as follows: Tahirou.Assane@ontario.ca, Roy.Pritchard@urs.com, Saad.Syed@urs.com
- Ken Chartrand is the Region's contact for Road Occupancy Permits. He can be reached at Ken.Chartrand@peelregion.ca

Submitted by:

Roy Pritchard, P.Eng

Vice President

Distribution: Attendees

**URS Design Team Members** 



Project: GWP 2144-07-00 - Hwy 410 Widening from Meeting No.

South of Highway 401 to Queen Street

Project No. 33016591 Date: Oct 11, 2011

Location: Black Creek Pioneer Village – Boardroom Time: 09:00 a.m.

5 Shoreham Drive, Toronto, ON M3N 1S4

Purpose: TRCA Stakeholder Meeting

Present: MTO
Tahirou Assane - Project Manager

Larry Sarris - Environmental Planner
Ram Dharamdial - Senior Drainage Engineer

**TRCA** 

Sharon Lingertat - Senior Planner Brad Stephens - Planning Ecologist

Maggie Liu - Water Resources Analyst

Vince D'Elia - Project Manager, Watershed Planning

**URS Canada Inc.** 

Roy Pritchard - Senior Project Manager

Saad Syed - Jr. Assistant Project Manager

Chris Schueler - Detail Design Manager Holly Wright - Environmental Planner Dan Hipple - Senior Drainage Engineer

<u>Items</u> <u>Description</u> <u>Action by:</u>

# 1. Project Team Introductions

- All persons present introduced themselves.
- URS has been retained as MTO's consultant for the detail design of GWP 2144-07-00 Highway 410 Widening from South of Highway 401 to Queen Street.
- Sharon Lingertat was identified as the main point of contact at TRCA for this project. Sharon Lingertat is to be copied on all project related communications.

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

URS Canada Inc. 75 Commerce Valley Drive East Markham, ON Canada L3T 7N9 Tel: 905.882.4401

Fax: 905.882.4399 www.urs.ca 0:12-33016591-Hwy410-SouthHwy401-QueenSt\Project Management\Meetings\Stakeholder Meetings\TRCA\33016591\_TRCA Minutes\_11-10-11\_Final.doc

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

#### 2. General Overview of Project

- MTO and URS provided a general overview of the project. URS is designing the expansion of Highway 410 from South of Highway 401 to Queen Street. This expansion consists mainly of widening Highway 410 from six to ten lanes (i.e. addition of 1 HOV lane and 1 general purpose lane in each direction). URS will also be reviewing the feasibility of constructing roundabouts at ramp terminals (Courtneypark Drive, Derry Road, Steeles Avenue, and Clark Boulevard) as part of this project.
- The widening will consist of converting the existing rural median to an urban section with a tall wall separator between northbound and southbound traffic and a median storm sewer to convey drainage.
- The detail design component of this project has already commenced. The design is anticipated to be complete in early 2013.
- The project is not yet funded for construction. While the project is not currently part of MTO's 5-year construction plan, it has been identified as a "Planning for the Future" project in the Ministry's Southern Highways Program. The start of construction will depend on its prioritization in relation to other needs around the province.

# 3. Review of TRCA comments and Stakeholder Response Letter (dated August 23, 2011)

 TRCA noted that the digital data referred to in the letter was provided to AMEC. URS to provide a copy for MTO files/records. URS

 URS acknowledged that the Etobicoke/Mimico Coalition will be added to the contact list for this project.

**URS** 

 URS has received the TRCA 2007 Hydrology update and HEC-RAS model for the Etobicoke Creek watershed. MTO requested a copy of the model for their records. URS to provide a copy of this model to MTO as agreed to by TRCA.

**URS** 

 The following are URS responses to TRCA comments from the letter dated April 20, 2010. Responses are numbered 1.
 ## where "##" is based on the order of comments received in Appendix A of the aforementioned letter.

#### <u>Items</u> <u>Description</u> <u>Action by:</u>

 1.01 – URS has received the model and will utilize this in the detail design.

- 1.02 The timing window provided by TRCA for in and near water works for the study area (works can take place from July 1 through March 31) has been noted.
  MTO inquired as to the flexibility of the near water works (e.g. median grading) outside of the timing windows with appropriate environmental protection measures in place. TRCA noted that they would be willing to review plans and discuss in detail at a later stage in the design.
- 1.03 URS noted that the hydrogeology study is not a part of the scope of work for this project however the geotechnical reports (foundations and pavements) can be made available for TRCA review.
- The following are URS responses to TRCA comments from the letter dated June 15, 2009. Responses are numbered 2. ## where "##" is based on their order of comments received in Appendix A of the aforementioned letter.
  - 2.01 URS has received the model and will utilize this in the detail design.
  - 2.04 URS will provide a key plan showing proposed works at culverts within the project area once impacts are confirmed. TRCA to confirm their interest in the culverts after reviewing details provided by URS.
  - 2.05 Refer to response #2.01.
  - 2.10 AMEC will assess culverts and complete their report by spring/summer of 2012. TRCA noted that there is a wealth of existing data available for URS/AMEC use. URS to confirm if all relevant data has been provided. If not, additional data request can be made to TRCA.
  - 2.11 Refer to response #2.10.
  - 2.12 Will comply.
  - 2.13 Refer to response #1.02.
  - 2.14 Will comply.
  - 2.15 AMEC will be completing the inventory of woody species in 2012.

**URS** 

<u>Items</u> <u>Description</u> <u>Action by:</u>

### 4. Trail at Etobicoke Creek (Kennedy Valley Trail)

- TRCA and City of Brampton are planning to construct a 3.5m wide asphalt trail along the north bank of the Etobicoke Creek.
- The trail construction is likely to start in 2012 (pending approvals) and will last approximately one (1) construction season.
- Restoration work associated with the construction of the trail is likely to happen the season following trail construction.
   TRCA to provide details as they become available.

TRCA

 URS requested the CAD files for the plans of the Kennedy Valley Trail at Highway 410 Structures over Etobicoke Creek. TRCA to provide.

**TRCA** 

- TRCA is concerned with affects to trail during Highway 410 widening construction. TRCA noted that all trail closures for the purposes of construction must be coordinated through TRCA and City of Brampton.
- MTO noted that TRCA/City of Brampton liaison with MTO for the overall trail project should be done through MTO Corridor Management Section. The liaison with MTO/URS Highway 410 project team will be limited to items of the trail project that are directly related to the Highway 410 widening project.
- TRCA noted that the drawings for the trail have already been submitted to MTO Corridor Management Section for review and approval.

### 5. Other Business

- A total of 6 stormwater management ponds are proposed within the project limits to provide level 1 quality control and erosion control with the capture and treatment of a 25mm storm event.
- TRCA is currently reviewing the hydrologic model for Etobicoke Creek. This model will provide updated peak flows for the creek. TRCA aims to have this information by March of 2012.

**TRCA** 

- TRCA asked if URS/MTO can incorporate the newest model into the design.

**Description** Items Action by: MTO noted that this would be accommodated if the model is **URS** received in time based on URS design schedule. This is meant to be high level analysis rather than a detailed analysis, since most of the detailed design would have likely been completed before the TRCA model becomes available. TRCA noted that they are working on a 2D model (using Mike 21) of the Spring Creek Area north east of the project area. This is outside of the study area. TRCA noted that the Brampton Esker system crosses Highway 410 at Williams Parkway. URS noted that this is outside of the study area. TRCA noted that the Brampton Golf Club (7700 Kennedy Road, Brampton, Ontario, L6W 0A1) on the west side of Highway 410 should be included on URS/MTO contact list **URS** 

**TRCA** 

TRCA to provide planting guidelines for MTO's consideration during design.

- URS noted that the first submission for TRCA review will likely occur during late summer of 2012.
- Please copy Tahirou Assane (MTO), Roy Pritchard (URS), Chris Schueler (URS), and Saad Syed (URS) on all project related correspondence. E-mail addresses are as follows: Tahirou.Assane@ontario.ca, Roy.Pritchard@urs.com, Chris.Schueler@urs.com, Saad.Syed@urs.com

Submitted by:

Roy A. Pritchard, P.Eng

Vice President

for this project.

Distribution: Attendees

**URS Design Team Members** 

Bernie O'Brien Aimee-Rose Tupaz



# Minutes of Meeting

Meeting No.

Project: GWP 2144-07-00 - Hwy 410 Widening from

South of Highway 401 to Queen Street

Project No. 33016591 Date: May 30, 2012

Location: Conference Room A Time: 2:30 p.m.

**URS Canada Offices** 

75 Commerce Valley Drive East, Markham ON

Purpose: OPP Stakeholder Meeting

Present: MTO

Tahirou Assane - Project Manager

Liaquat Ali - Traffic Project Manager

**Ontario Provincial Police (OPP)** 

Doug Fenske - Staff Sergeant, Port Credit Detachment

URS Canada Inc.

Roy Pritchard - Senior Project Manager Chris Schueler - Detail Design Manager

Saad Syed - Jr. Assistant Project Manager

<u>Items</u> <u>Description</u> <u>Action by:</u>

### 1. Project Team Introductions

- All persons present introduced themselves.
- URS has been retained as MTO's consultant for the detail design of GWP 2144-07-00 Highway 410 Widening from South of Highway 401 to Queen Street.
- Doug Fenske of the Port Credit Detachment was identified as the main point of contact at OPP.

### 2. General Overview of Project

MTO and URS provided a general overview of the project.
 URS is designing the expansion of Highway 410 from South

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

URS Canada Inc. 75 Commerce Valley Drive East Markham, ON Canada L3T 7N9

Tel: 905.882.4401 Fax: 905.882.4399 www.urs.ca O:\2-33016591-Hwy410-SouthHwy401-QueenSt\Project Management\Stakeholders\OPP\33016591\_OPP Minutes\_05-30-12.docx

### <u>Items</u> <u>Description</u>

Action by:

of Highway 401 to Queen Street. This expansion consists mainly of widening Highway 410 from six to ten lanes (i.e. addition of 1 HOV lane and 1 general purpose lane in each direction).

The project is not yet funded for construction. While the project is not currently part of MTO's 5-year construction plan, it has been identified as a "Planning for the Future" project in the Ministry's Southern Highways Program. The start of construction will depend on its prioritization in relation to other needs around the province.

### 3. OPP Comments

 OPP noted that police pockets on the median side would be beneficial for OPP traffic enforcement.

**URS** 

- Three pockets in each direction for the length of the project would be preferred.
- It was noted that OPP preference would be that the three pockets are located near the Courtneypark Drive, Derry Road and Steeles Avenue interchanges such that the OPP vehicles can be obscured from approaching traffic (i.e. in front of bridge piers).
- It was noted that three accidents involving cars crossing the grassed median into oncoming traffic have been recorded within the limits of this project since 2009. Two were near the Steeles Avenue interchange and one near the Queen Street interchange. This issue will be addressed through the construction of a tall wall median barrier throughout the limits of the contract up to Clark Boulevard.

### 4. Other business

- It was noted that OPP is welcome to provide additional comments if anything comes up over the next few months.
- Please copy Tahirou Assane, Roy Pritchard, Chris Schueler, and Saad Syed on all project related correspondence.

Submitted by:

Saad Syed, M.A.Sc., P.Eng.

Jr. Assistant Project Manager

Distribution: Attendees

**URS Design Team Members** 



# Minutes of Meeting

Project: GWP 2144-07-00 - Hwy 410 Widening from Meeting No. PIC

South of Highway 401 to Queen Street Presentation

Project No. 33016591 Date: December 04, 2013

Location: URS Canada Inc. 30 Leek Crescent, Richmond Time: 10:30 a.m. - 12:00

Hill, ON, L4B 4N4 p.m.

Purpose: City of Mississauga and Region of Peel Stakeholder Meeting

Present: Ministry of Transportation (MTO)

Mike Marinelli - Project Manager

City of Mississauga (CoM)

Abdul Shaikh - Transportation Project Manager Farhad Shahla - Transportation Project Engineer

**Peel Region** 

Eric Flora - Senior Project Engineer

**URS Canada Inc.** 

Chris Schueler - Project Manager

Holly Wright - Project Environmental Planner

<u>Items</u> Description <u>Action by:</u>

### 1. Overview of Project

- URS provided a general overview of the project. URS is designing the widening of Highway 410 from South of Highway 401 to Queen Street. This expansion consists mainly of widening Highway 410 from six to ten lanes (i.e. addition of 1 High Occupancy Vehicle (HOV) lane and 1 general purpose lane (GPL) in each direction).
- This assignment was previously suspended but is now moving forward with an anticipated construction start in summer 2014. Construction is expected to be complete in 2018.
- URS provided an overview of the Public Information Center (PIC) displays which will be presented on December 11, 2013.
- URS has asked for all comments from the City regarding this

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

URS Canada Inc. 4<sup>th</sup> Floor, 30 Leek Crescent Richmond Hill, ON Canada L4B 4N4 Tel: 905.882.4401 Fax: 905.882.4399 www.urs.ca

### <u>Items</u> <u>Description</u>

Action by:

project to be returned by January 9, 2014. URS confirmed this is a hard deadline for comment receipts as the project is moving forward on an aggressive.

 MTO has added two additional structural rehabilitations to this assignment (Clark Boulevard and Queen Street underpasses at Highway 410). These structures will be rehabilitated with conversion to semi-integral abutments. There will be no widening at these structures.

### 2. General Project Queries

- The CoM noted that they are working on completing the Courtneypark Drive Environmental Assessment by the end of 2014. The widening of Courtneypark Drive is scheduled for 2016; however, this project is not municipally funded. Therefore the CoM asked if the work on Courtneypark Drive could be moved until the end of the construction schedule for the contractor. Depending on the scheduling of projects a contractor conflict issue may arise. The CoM inquired if there is an opportunity for MTO to wait until the City's design is further along so that future works at this location can be coordinated.
- MTO and the CoM to discuss further if the City can obtain funding and complete the design in a timely manner such that it does not impede the MTO project. Additionally, MTO has scheduled a meeting on December 9 with the CoM and Peel Region to discuss.
- The CoM inquired about the design of the new proposed offramp with direct access to the carpool lot at Courtneypark Drive.
- The City noted that as part of their Environmental Assessment they are looking into various options including roundabouts and asked if they had been considered. URS noted that roundabouts where considered but were not carried forward due to how they function at this particular location.
- The CoM asked to receive a copy of the drawings (CAD file) for the project design at Courtneypark Drive. URS noted that the detail design is being finalized to 90% within the next few weeks and once prepared MTO/URS will provide a copy to the City (to Farhad).

URS



Submitted

by:

Christopher Schueler, P.Eng.

Project Manager

Distribution: Attendees

MTO Distribution List

**URS Design Team Members** 



# Minutes of Meeting

Project: GWP 2144-07-00 - Hwy 410 Widening from

South of Highway 401 to Queen Street

Meeting No. PIC Presentation

1:00 p.m.

Project No. 33016591

Date: December 05, 2013

Time:

Location: Training Room BLDG FCCC1-B1, Unit #2,

8850 McLaughlin Road, Brampton, Ontario

Purpose: City of Brampton Stakeholder Meeting

Present: MTO

Mike Marinelli - Project Manager

Larry Sarris - Environmental Planner

CITY OF BRAMPTON (CoB)

Bino Varghese - Senior Project Engineer

Bishnu Parajuli - Project Engineer

John Allison - Landscape Technician

Tim Kocialek - Manager of Engineering

John Fantin - Supervisor, Engineering Design
Jason Preet - Acting Streetlight coordinator
Shane Beirnes - Acting streetlight supervisor

Compton Bobb - Project Engineer, Infrastructure planning

Mark Neilson - Foreperson Inspection
Julia Zalecki - Design co-ordinator

Ghaz Mohammad - Transportation Planning technologist

Borendra Sanyal - Sr. Project Engineer - Bridge Kristine Thususka - Real estate coordinator

**URS Canada Inc.** 

Chris Schueler - Project Manager

Saad Syed - Assistant Project Manager Holly Wright - Project Environmental Planner

<u>Items</u> <u>Description</u> <u>Action by:</u>

### 1. Overview of Project

 URS provided a general overview of the project. URS is designing the widening of Highway 410 from South of Highway 401 to Queen Street. This expansion consists mainly of widening Highway 410 from six to ten lanes (i.e. addition of 1 High Occupancy Vehicle (HOV) lane and 1 general purpose lane (GPL) in each direction).

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

URS Canada Inc. 4<sup>th</sup> Floor, 30 Leek Crescent Richmond Hill, ON Canada L4B 4N4 Tel: 905.882.4401 Fax: 905.882.4399 www.urs.ca

<u>Items</u> <u>Description</u> <u>Action by:</u>

 This assignment was previously suspended but is now moving forward with an anticipated construction start in summer 2014. Construction is expected to be complete in 2018.

- URS provided an overview of the Public Information Center (PIC) displays which will be presented on December 11, 2013.
- URS has asked for all comments from the City regarding this project to be returned by January 9, 2014. URS confirmed this is a hard deadline for comment receipts as the project is moving forward on an aggressive.
- MTO has added two additional structural rehabilitations to this assignment (Clark Boulevard and Queen Street underpasses at Highway 410). These structures will be rehabilitated with conversion to semi-integral abutments. There will be no widening at these structures.

### 2. General Project Queries

- CoB asked to receive a copy of the MicroStation design drawings for Clark Boulevard so they may review against their Environmental Assessment (EA) drawings.
- CoB is planning to widen and realign Clark Boulevard between Rutherford Road and east of Dixie Road with construction planned to begin in 2021. The EA for this project has been completed and approved. The CoB inquired if it would be possible to construct the CoB portion (i.e. Clark Blvd widening) as a part of the MTO project.
- CoB noted that there are new standards under the Ontario Disabilities Act for sidewalks and requested that MTO/URS look into this as the City would like the sidewalks on the Clark Boulevard structure updated to current standards.
- MTO/URS expressed that the sidewalk within the MTO rightof-way will be replaced in kind as the structure is not being widened at this time. CoB may update the sidewalk in the future when municipal plans are finalized to widen Clark Boulevard if required.
- MTO and City to discuss further if the City can obtain funding and complete design in a timely manner such that it does not impede the MTO project.
- The CoB asked to receive a copy of the final construction

**URS** 

### <u>Items</u> <u>Description</u>

**Action by:** 

schedule so they can provide a copy to council. MTO noted that this will be provided once a contractor has been selected which will not be until early summer. MTO to provide once available.

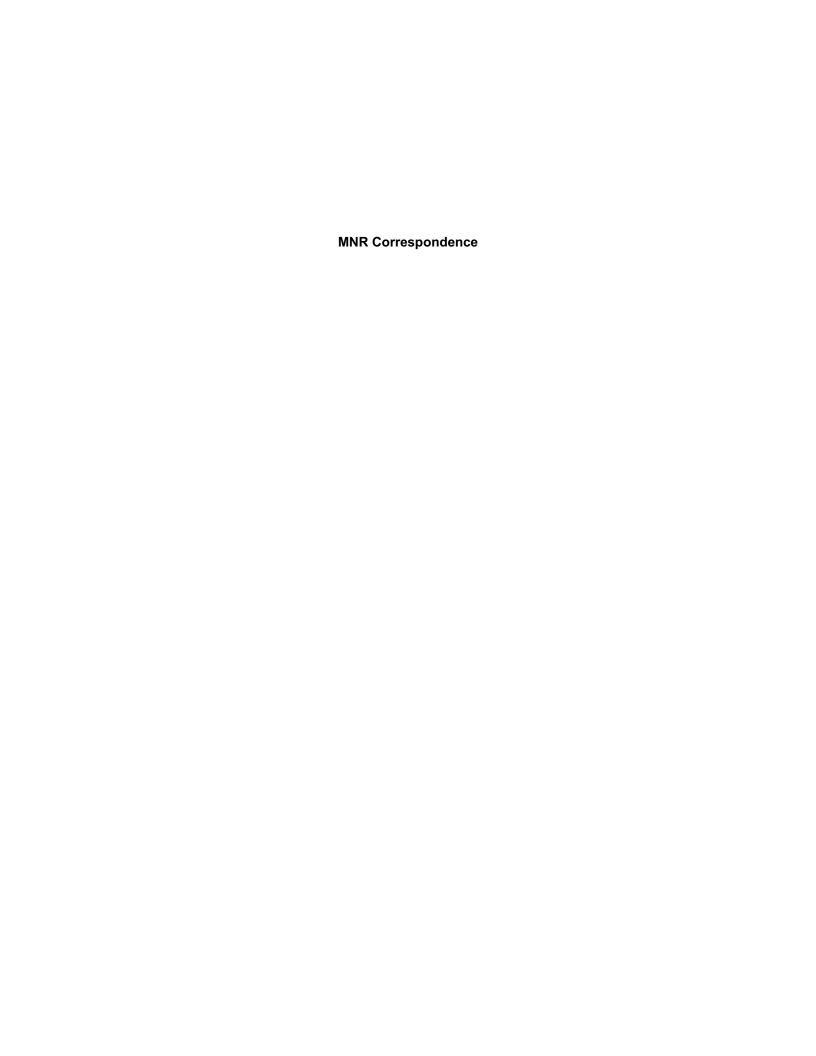
Submitted by:

Saad Syed, M.A.Sc., P.Eng. Assistant Project Manager

Distribution: Attendees

MTO Distribution List

**URS Design Team Members** 



Southern Region Aurora District Office 50 Bloomington Road West Aurora, ON L4G 0L8



Ministry of Natural Resources Ministere des Richesses Naturelles

August 19, 2011

Daryl Rideout, Environmental Biologist AMEC Earth & Environmental 160 Traders Blvd. Suite 110 Mississauga, On L4Z 3K7 Phone (905) 568-2929 ext. 4152 Fax (905) 568-1686

Re: Species at Risk Screening – MTO Hwy 410 – Queen Street to South of Hwy 401

Dear Mr. Rideout,

In your email dated August 11, 2011 you requested information on natural heritage features and element occurrences occurring on or adjacent to the above mentioned location.

The MNR has no records of Species at Risk from your study area.

Natural heritage features recorded for your area include identified wetlands.

This species at risk information is highly sensitive and is not intended for any person or project unrelated to this undertaking. Please do not include any specific information in reports that will be available for public record. As you complete your fieldwork in these areas, please report all information related to any species at risk to the NHIC and to our office. This will assist with updating our database.

If you have any questions or comments, please do not hesitate to contact me at 905-713-7425.

Sincerely,

Melinda Thompson-Black

Melinda Thompson-Black Species at Risk Biologist Ontario Ministry of Natural Resources, Aurora District Ministry of Natural Resources Aurora District Office 50 Bloomington Road Aurora, Ontario L4G 0L8

### Ministère des Richesses naturelles

Telephone: (905) 713-7400 Facsimile: (905) 713-7361



January 6, 2014

Heather Marcks
Ecologist
AMEC
Environment and Infrastructure
160 Traders Blvd East
Mississauga, Ontario L4Z 3K7
heather.marcks@amec.com

Dear Ms. Marcks,

Re: MNR Preliminary Species at Risk Screening Letter
Ministry of Transportation
Highway 410 Widening, South of 401 to Queen Street East
City of Mississauga and City of Brampton

In your email dated November 20, 2013 you requested information on natural heritage features and element occurrences occurring on or adjacent to the above mentioned location.

There are a number of Species at Risk recorded in the vicinity of your study area. We have records of Butternut, Barn Swallow, Eastern Meadowlark, and Bobolink. Although not yet listed under Ontario Regulation 230/08, please note that the District also has records of Bank Swallow adjacent to your study area. Some of these species may receive protection under the *Endangered Species Act, 2007* and thus, a permit may be required if the work you are proposing could cause harm to these species or their habitat. Please provide additional information on your proposal to our office, and we will assess it to determine whether a permit under the ESA 2007 is required for the works to proceed.

Natural heritage features recorded for your area include identified wetlands.

Absence of information provided by MNR for a given geographic area, or lack of current information for a given area or element, does not categorically mean the absence of sensitive species or features. Many areas in Ontario have never been surveyed and new plant and animal species records are still being discovered for many localities. For these reasons, the NHIC/MNR cannot provide a definitive statement on the presence, absence or condition of biological elements in any part of Ontario.

This species at risk information is highly sensitive and is not intended for any person or project unrelated to this undertaking. Please do not include any specific information in reports that will be available for public record. As you complete your fieldwork in these areas, please report all information related to any species at risk to the NHIC and to our office. This will assist with updating our database.

If you have any questions or comments, please do not hesitate to contact me at 905.713.6483 or <a href="mailto:natosha.fortini@ontario.ca">natosha.fortini@ontario.ca</a>.

Sincerely,

Natosha Fortini

Assistant Species at Risk Biologist Ontario Ministry of Natural Resources, Aurora District

### Hellinga, Erin

From:

Wright, Holly [holly.wright@urs.com]

Sent:

January-31-14 1:08 PM

To:

Hellinga, Erin

Cc:

Rideout, Daryl T

Subject:

FW: Highway 410 Widening

Attachments:

Scanned from ONP2F00810261001.PDF

----Original Message----

From: Burkart, Jackie (MNR) [mailto:Jackie.Burkart@ontario.ca]

Sent: Friday, December 06, 2013 2:53 PM To: Marinelli, Mike (MTO); Wright, Holly

Subject: Highway 401 Widening

Good afternoon Mike and Holly,

MNR has received the PIC notice for the subject EA. Please note that MNR need not be involved in this project.

Sincerely,

Jackie Burkart

**District Planner** 

Ministry of Natural Resources | 50 Bloomington Road, Aurora, ON L4G 0L8 | Phone: 905-713-7368 | Fax: 905-713-7360 | Email: jackie.burkart@ontario.ca |

# Transport Canada Approval Letter With Terms & Conditions



### Transport Canada Marine

### Transports Canada Marine

Navigable Waters Protection Program 100 Front Street South Sarnia Ontario N7T 2M4 Your file Votre référence

Our file Notre référence 8200-2012-400640

**REGISTERED MAIL** 

JUL 3 0 2012

Ministry of Transportation, 1201 Wilson Avenue, Building D, 4<sup>th</sup> Floor Downsview. ON M3M 1J8

Attention: Tahirou Assane

RE: Application under the *Navigable Waters Protection Act* for approval to alter the Bridge, located at Etobicoke Creek, Highway 410, City of Brampton, Regional Municipality of Peel, in the Province of Ontario.

Enclosed please find an Approval, signed on behalf of the Minister of Transport, Infrastructure and Communities pursuant to subsection 10(2) of the Navigable Waters Protection Act (NWPA).

Ensure to review your document in its entirety and acknowledge receipt via the contact information provided below.

Your attention is also drawn to the Navigable Waters Works Regulations sections 5 and 6, which also apply to all construction in Navigable Waters. These sections specifically state that:

- 1. No person shall permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing a work in a navigable water to remain in such water after the completion of the project.
- 2. Where a work or a portion of a work that is being constructed or maintained in a navigable water causes debris or other material to accumulate on the bed or on the surface of such water, the owner of that work or portion of that work shall cause the debris or other material to be removed to the satisfaction of the Minister.

Please be advised that all terms and conditions of the original Approval remain valid and therefore you should re-familiarize yourself with them. Note that you must also comply with the terms and conditions in the attached Approval document as well as any other requirements under the NWPA, its regulations and other relevant legislation.



Should you have any questions, please do not hesitate to contact our office in Sarnia by phone at (519) 383-1863, by fax at (519) 383-1989 or by e-mail at NWPontario-PENontario@tc.gc.ca.

Respectfully,

Suzanne (Sue) MacDonald-Simcox

A/Manager, Navigable Waters Protection Program

Marine Safety

Transport Canada

Ontario Region

SMS/ms

Attachments

cc URS Canada Incorporated





NAVIGABLE WATERS PROTECTION ACT (R.S.C. 1985, c. N-22) as amended by Part 7 of the Budget Implementation Act, 2009, S.C. 2009, c. 2 (Navigable Waters Protection Act), PART I Subsection 10(2) – Alteration of work made lawful pursuant to Section 4 of the Navigable Waters Protection Act

8200-2012-400640

### **Approval**

APPLICANT: Ministry of Transportation

1201 Wilson Avenue, Building D, 4th Floor

Downsview, ON M3M 1J8

LAWFUL WORK: Bridge

SITE LOCATION: Located at Approximately 43° 40' 25,90" N x 079° 42' 15.72" W,

Etobicoke Creek, Highway 410, City of Brampton, Regional Municipality

of Peel, in the Province of Ontairo

IMPORTANT NOTICE: This document approves the proposed alteration of the lawful work in

terms of its effect on marine navigation pursuant to the Navigable Waters Protection Act. In accordance with the Navigable Waters Protection Act, the work must be built, placed, maintained, operated, used and removed as per this Approval including the Terms and Conditions and attached plans as well as regulations made pursuant to the Navigable Waters

Protection Act.

It is the applicant's responsibility to obtain any other forms of approval,

including building permits, under any applicable laws.

WHEREAS on March 12, 2009, the Minister of Transport, Infrastructure and Communities did make lawful the above-referenced work and site pursuant to section 4 of the Navigable Waters Protection Act;

WHEREAS the above-named applicant has made application to the Minister of Transport, Infrastructure and Communities under the *Navigable Waters Protection Act* for approval of the attached plan(s) for proposed alteration of the above-referenced lawful work by widening superstructures, abutments and localized repairing to deck surface, soffit and substructure;

**WHEREAS** in the opinion of the Minister of Transport, Infrastructure and Communities, the proposed alteration of the above-referenced lawful work will not increase the degree of interference with navigation;

WHEREAS it is considered advisable to approve the plan(s) for the proposed alteration of the above-referenced lawful work;



THEREFORE, the Minister of Transport, Infrastructure and Communities, pursuant to subsection 10(2) of the Navigable Waters Protection Act, hereby approves the proposed alteration of the said work at the said site and plan(s) thereof:

SIGNED in two copies on this 30 day of July, 2017 in Sarnia, Ontario

Suzanne (Sue) MacDorlald-Simcox A/Manager, Navigable Waters Protection Program Marine Safety Transport Canada Ontario Region

for the Minister of Transport, Infrastructure and Communities



### Wright, Holly

**From:** Pritchard, Roy

Sent: Wednesday, August 17, 2011 3:53 PM

**To:** al.hills@mississauga.ca

**Cc:** Syed, Saad; tahirou.assane@ontario.ca

**Subject:** G.W. P. 2144-07-00 - Highway 410 Widening - Response to Mississauga Fire

Department

Dear Chief Hills,

As per your request, we have added you to our contact list for all future project related communications.

From the Notice of Commencement you received, you know that we have commenced the detail design phase of this project, however we are still quite early in the process at this time. For your reference, we have prepared a set of preliminary drawings showing the proposed final configuration of the Highway 410 corridor from South of Highway 401 to Queen Street and these will be sent to you under separate cover.

During the detail design portion of the assignment URS and various subconsultants will be working along the highway and crossing roads gathering information and samples for detail engineering purposes. For this study, there will be various lane closures along these roadways but the roadway will remain open for traffic (i.e. no full closures along Highway 410 or crossing roads). The majority of these closures will occur during the night. Additionally, we will also be conducting similar work along the various ramps within our project limits. These ramps may occasionally be subject to full closures during the night depending on our study requirements.

At this time we anticipate completing the detail design early in 2013, but the project does not have a set construction timetable as of yet.

We are planning to hold a meeting with the City of Mississauga on September 16, 2011 and would like to welcome you to the meeting to join our discussion if you are available. The meeting will take place at 3185 Mavis Road, 2nd Floor, A.E. McDonald Room at 10am. During this meeting we will provide a better overview of the project.

Please advise if you able to attend.

Kind Regards, Roy

### Roy A. Pritchard, P. Eng.

Vice President URS Canada Inc. Consulting Engineers

75 Commerce Valley Drive East, Markham, ON Canada L3T 7N9

Tel: 905.882.4401, ext. 533 Direct Dial: 905.882.3533 Fax: 905.882.4399

E-mail: roy\_pritchard@urscorp.com

1

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From: Al Hills [mailto:Al.Hills@mississauga.ca]

**Sent:** August 9, 2011 12:59 AM

To: Assane, Tahirou (MTO); 'roy\_pritchard@urscorp.com'

Cc: Al Hills

**Subject:** RE: Highway 410 Widening Project G.W. P. 2144-07-00

Hello Mr. Tahirou Assane and Mr. Roy Pritchard,

This email is to request to be added to your mailing list. I am the Platoon Chief for Mississauga Fire and Emergency Services and am the Point of Contact for Mississauga Fire. I would like to the opportunity to meet with you at a convenient time to learn how this project will affect our ability to respond to emergencies along Highway 410. Please see my details below:

If possible, I would like to receive any current project information, maps, designs, and details of the project to gain a better understanding of the impact.

Thank-you for your assistance,

### ΑI

Platoon Chief Alan Hills A Shift Mississauga Fire & Emergency Services alan.hills@mississauga.ca 905-615-3009 (office) 416-570-4201 (cell) 905-615-3720 (fax)

# HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



# STAKEHOLDER CONTACT INFORMATION FORM PLEASE RETURN BY SEPTEMBER 2\*\*, 2011

		75 Con Mark	r Environmental Plat URS Canada Inc. Inmerce Valley Drive ham, Ontario, L3T 7 Fax: (905) 882-4399 tyler_drygas@ursco	East 7N9
Your information and com		for use during the S	Study. Please submit th  Tyler Drygas	is form to:
			_	
		<u>-</u>	· · · · · · · · · · · · · · · · · · ·	
				-
relevant intomnation,				
3.) Please indicate if this relevant information.	project will affect the de	livery of your pro	grams or services, and	or any other
E-MAIL ADDRESS:	-greg.sage(	halton, ca		
FAX:	<u>905-805</u>			
PHONE NUMBER:	905-825	_	x 7091	
DHOME MUMANON.	CAKUILLI		Llom 46-	<u>.</u>
MAIDING ADDRESS.	1179 BRON		1 / 11/	·
MAILING ADDRESS:	1170 20	S.C. (20)		
ORGANIZATION:	MACION RE	<u> 97010 E</u>	-W2	
DEPARTMENT:	HALTON RE			
TITLE:	CHIEF			
2.) Please provide contact  NAME:	information for the individ <u>GREG</u> SAG		the main point of conta	ct.
	on as this study progresses		Yes	No
	on wish to participate in		K 7	ces of project

### Wright, Holly

From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

Sent: Wednesday, August 17, 2011 4:45 PM

**To:** Melanie Arthur

**Subject:** RE: MTO-Hwy 410 Widening

### Thank you Melanie.

This e-mail confirms that I received the consultation response.

Kindest regards,

### Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation Highway Engineering - Planning and Design – Peel & Halton Section 1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8 Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

From: Melanie Arthur [mailto:marthur@aldervillefirstnation.ca]

**Sent:** August 11, 2011 11:22 AM **To:** Assane, Tahirou (MTO) **Subject:** MTO-Hwy 410 Widening

### Good Morning Tahirou,

Please view the attatched consultation response in regards to your project. Thank you and have a great day!

Melanie Arthur Lands and Resources Communications Clerk Alderville First Nation



# P.O. Box 46 11696 Second Line Roseneath, Ontario KOK 2X0

Chief: James R. Marsden
Councillor: Dave Mowat
Councillor: Pam Crowe
Councillor: Leonard Gray
Councillor: Randall Smoke

August 10th, 2011

Att: Tahirou Assane, P.Eng.

Re: Notice of Commencement of Detail Design
Highway 410 Widening from south of Highway 401 northerly to Queen Street
Class Environmental Assessment Group 'B' Project
G.W.P. 2144-07-00

Dear Tahirou,

Thank you for your consultation request to Alderville First Nation regarding the **Highway** 410 Widening from south of Highway 401 northerly to Queen Street, which is being proposed within our Traditional and Treaty Territory. We appreciate the fact that the **Ministry of Transportation**, recognizes the importance of First Nations Consultation and that your office is conforming to the requirements within the Duty to Consult Process.

As per the Alderville First Nation Consultation Protocol, your proposed project is deemed a level 3, having minimal potential to impact our First Nations' rights, therefore, please keep Alderville apprised of any archaeological findings, burial sites or any environmental impacts, should any occur.

Although we may not always have representation at all stakeholders meetings, it is our wish to be kept apprised throughout all phases of this project. I can be contacted at the mailing address above or electronically via email, at the email address below.

In good faith and respect,

Dave Simpson <u>dsimpson@aldervillefirstnation.ca</u>
Lands and Resources

Communications Officer Tele: (905) 352-2662 Alderville First Nation Fax: (905) 352-3242

### GOVERNMENT SERVICES BUILDING AND CULTURAL CENTRE

Tahirou Assane, Project Manager

Downsview, Ontario M3M 1J8

4th Floor, Bldg. D, 1201 Wilson Avenue



CURVE LAKE, ONTARIO KOL 1R0

PHONE (705) 657-8045 FAX (705) 657-8708

RECEIVED

AUG 1 2 2011

MTO-CENTRAL REGION PLANNING & DESIGN ENGINEERING SECTION

Re: Highway 410 Widening from south of Highway 401 notherly to Queen Street G.W.P. 2144-07-00

Dear Tahirou Assane,

August 4th, 2011

We would like to acknowledge receipt of your correspondence we received on 7/28/2011 regarding the above noted project.

As you may be aware, the area in which your project is proposed is situated within the Traditional Territory of Curve Lake First Nation. Our First Nation's Territory is incorporated within the Williams Treaty Territory and is the subject of a claim under Canada's Specific Claims Policy. We strongly suggest that you provide Karry Sandy-Mackenzie, Williams Treaty First Nation Claims Coordinator, 8 Creswick Court, Barrie, ON L4M 2S7, with a copy of your proposal as your obligation to consult to also extend to the other First Nations of the Williams Treaty.

Although we have not conducted exhaustive research nor have we the resources to do so, Curve Lake First Nation Council is not currently aware of any issues that would cause concern with respect to our Traditional, Aboriginal and Treaty rights.

Please note that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains or other such evidence of a native burial site or any Archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the *Cemeteries Act* to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately.

If any new, undisclosed or unforeseen issues should arise, that has potential for anticipated negative environmental impacts or anticipated impacts on our Treaty and Aboriginal rights we require that we be notified regarding these as well.

Thank you for recognizing the importance of consultation and respecting your duty to consult obligations as determined by the Supreme Court of Canada.

Should you have further questions, please feel free to contact me.

Yours sincerely,

Chief Keith Knott Curve Lake First Nation (705)657-8045



5884 Rama Road, Suite 200 Rama, Ontario L0K 1T0

T 705.325.3611 F 705.325.0879

A Proud Progressive First Nation Community

August 8, 2011

Ministry of Transportation 4<sup>th</sup> Floor, Bldg. D 1201 Wilson Avenue Downsview, ON M3M 1J8 RECEIVED

ALIC 1 -8 2011

MTO-CENTRAL REGION
PLANNING & DESIGN
ENGINEERING SECTION

Attention: Tahirou Assane, Project Manager

Re:

Notice of Commencement of Detail Design

Highway 410 Widening from South of Highway 401 Northerly to Queen Street

G.W.P. 2144-07-00

Dear Mr. Assane:

As a member of the Williams Treaties First Nations, Rama First Nation acknowledges receipt of your letter of July 25, 2011, which was received on July 29, 2011.

A copy of your letter has been forwarded to Karry Sandy-McKenzie, Barrister & Solicitor, Coordinator for Williams Treaties First Nations for further review and response directly to you. Please direct all future correspondence and inquiries, with a copy to Rama First Nation, to Ms. Sandy-McKenzie at 8 Creswick Court, Barrie, ON L4M 2J7 or her e-mail address at <a href="mailto:k.a.sandy-mckenzie@rogers.com">k.a.sandy-mckenzie@rogers.com</a>. Her telephone number is (705) 792-5087.

We appreciate your taking the time to share this important information with us.

Sincerely,

Chief Sharon Stinson Henry

c:

Council, Rama First Nation Jeff Hewitt, General Counsel

Karry Sandy-McKenzie, Coordinator Williams Treaties First Nations Chief Roland Monague Portfolio Chief for Williams Treaties Nations



August 23, 2011

CFN 46228

### BY MAIL AND EMAIL (roy\_pritchard@urscorp.com)

Mr. Roy Pritchard URS Canada Inc. 75 Commerce Valley Drive East Markham, ON L3T 7N9

Dear Mr. Pritchard:

Re:

Response to Notice of Commencement of Detail Design

Highway 410 Widening (South of Highway 401 Northerly to Queen Street) – Group B Etobicoke Creek Watershed; City of Mississauga, City of Brampton; Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff received the Notice of Commencement of Detail Design for the above-noted study area on July 28, 2011, and a request for natural features data on August 15, 2011. TRCA staff previously provided comments on the Transportation Environmental Study Report (TESR) in letters dated April 20, 2010 and June 15, 2009 (enclosed). Please ensure the comments previously provided are addressed at the design stage. The digital data will be provided under separate cover within the next couple of weeks.

In addition, please note that TRCA restoration services staff, in partnership with the City of Brampton, is currently working on implementing the Kennedy Valley Trail and Restoration Project along a reach of Etobicoke Creek from approximately Drew Road to just west of Highway 410, north of Highway 407. The Etobicoke/Mimico Coalition will need to be kept informed as the design for the highway widening moves forward to ensure plans are coordinated.

To ensure staff is kept involved as the design is developed please forward the following to facilitate the review:

- Four (4) copies of a cover letter which outlines how comments in previous letters were addressed;
- Four (4) copies of the plans (11 x 17) that have been signed and stamped by a professional and any revised reports/documents

Should you have any questions please contact me at extension 5717 or by email at slingertat@trca.on.ca.

Yours truly,

Sharon Lingertat

Acting Senior Planner, Environmental Assessment Planning

Planning and Development

the spin through

Encl:

TRCA letter dated April 20, 2010 TRCA letter dated June 15, 2009

BY EMAIL

cc: MTO:

Tahirou Assane (tahirou.assane@ontario.ca)

URS: Tyler Drygas (tyler\_drygas@urscorp.com)

TRCA: Carolyn Woodland, Director, Planning and Development

Beth Williston, Senior Manager, Environmental Assessment Planning Quentin Hanchard, Senior Manager, Development, Planning and Regulation

Chandra Sharma, Etobicoke/Mimico Watershed Specialist

F:\Letters for Mailing\46228 - NoC Detail Design

Member of Conservation Ontario





CFN 35536

### BY MAIL AND EMAIL (aharkness@morrisonhershfield.com)

Mr. Andrew Harkness Morrison Hershfield Limited 2440 Don Reid, Drive, Suite 200 Ottawa, ON K1H 1E1

Dear Mr. Harkness:

Re: Transportation Environmental Study Report (TESR) – Group B Highway 410 Expansion (South of Highway 401 to Queen Street)

Etobicoke Creek Watershed; City of Mississauga; City of Brampton; Region of Peel

Toronto and Region Conservation Authority (TRCA) staff received the Transportation Environmental Study Report (TESR) dated January 2010 on March 2, 2010. The proposed work will involve the expansion of Highway 410 from south of Highway 401 northerly to Queen Street from a rural 6-lane cross-section to an urban 10-lane cross section. The expansion will involve a two lane widening in each direction of Highway 410 within the median with a single High Occupancy Vehicle (HOV) lane and a single general purpose lane added in each direction. An additional HOV lane along Highway 403 in the northbound collector lane commencing north of Eglinton Avenue will be linked to the proposed Highway 410 northbound HOV lane. Provision will also be made for a one-lane widening for a third southbound lane between Highway 410 and Highway 403.

Staff has reviewed the report and detailed comments are provided in Appendix A. As watershed managers, managers of natural heritage and biodiversity, and with technical expertise in stormwater technologies, we are ideally positioned to provide technical input and advice to the Ontario Ministry of Transportation (MTO) from a local perspective through the detail design phases of this project to assist in developing a strategy to address some of these environmental impacts. At the detail design stage staff recommends that the drainage assessment be refined using TRCA's 2007 Hydrology Update and the final Hec-Ras model for the Etobicoke Creek watershed. We also look forward to further coordinating with MTO the stormwater management and environmental concerns, as identified in the TESR and our previous letters dated June 15, 2009 and January 22, 2009.

Once the draft detail design is complete, please provide the following for review:

 Two (2) copies of the cover letter which outlines how each of our comments has been addressed, including those in previous correspondence

Four (4) copies of the draft Design and Construction Report (DCR)

One (1) copy of any background reports (i.e., hydrogeology, natural features)

Should you have any questions, please contact me at extension 5717 or by email at slingertat@trca.on.ca.

Yours truly, Showon dimension

Sharon Lingertat

Planner II, Environmental Assessment Review

Planning and Development

SL/

BY EMAIL

cc:

MTO; ,

Olga Garces (olga.garces@ontario.ca)

Beth Williston, Manager, Environmental Assessments Carolyn Woodland, Director, Planning and Development Chandra Sharman Etopieoks Minico Watershed Specialist

-Quentin Hanchard, Manager, Development, Planning and Regulation

### APPENDIX A: TRCA COMMENTS

The following was used in the Stormwater Management and Drainage Assessment Report (November 2008):

Draft Otthymo model (provided by TRCA in 2001) to determine flows at the crossing locations. The 2001 model used the 24-hour design storms and some of the drainage areas were

A new Hec-Ras model was created that incorporated the Highway 410 Bridge (Structure #8). It was found that the proposed development will have no significant impacts on flood levels.

TRCA staff completed the Etobicoke Creek Hydrology Update in 2007 and has received the Final Hec-Ras model for the watershed (currently under review by TRCA staff). The 6-hour AES storms were adopted in the 2007 hydrology study.

Due to the time constraints of the Environmental Assessment (EA) process, updating the study to use the latest hydrologic and hydraulic models may delay the filing of the EA document. As a result, staff is willing to defer the confirmation of all crossing spans to the detail design stage. This is due to the fact

a change in storm distributions is unlikely to have substantial impacts on the results presented in Table 3.2.

closing of the bridge opening between the northbound and southbound lanes of Highway 410 (Structure #8) is unlikely to have impacts on flood elevations.

At the detail design stage, please refine the drainage assessment using TRCA's 2007 Hydrology Update and the final Hec-Ras model for the Etobicoke Creek watershed. Please also show that the proposed improvement will not cause adverse impacts. A larger span may be required for some crossings, if deemed necessary.

- Please note that the applicable timing window for in and near water works for the study area is warmwater. Therefore works can take place between July 1 and March 31 of any given year. In addition, there are no current records of redside dace in the Etobicoke Creek watershed.
- 3. Please confirm whether a hydrogeology and geotechnical report will be available for review and comment at the design stage.



June 15, 2009

CFN: 35536

### BY MAIL AND EMAIL (aharkness@morrisonhershfield.com)

Mr. Andrew Harkness Morrison Hershfield Limited 2440 Don Reid Drive, Suite 200 Ottawa, ON K1H 1E1

Dear Mr. Harkness:

Re:

Morrison Hershfield Response Dated April 8, 2009

Highway 410 Expansion Preliminary Design (Eglinton Avenue to Queen Street)

Etobicoke Creek Watershed; City of Mississauga; City of Brampton;

Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff received the 'Response to the TRCA's Comments on the Stormwater Management and Drainage Assessment Report and Meeting Minutes of December 4, 2008' for the above-noted file on April 15, 2009. The proposed works involve the widening of Highway 410, a re-configuration of various interchange/ramp terminal modifications, culvert extensions and the construction of additional stormwater management controls.

Staff has reviewed your response letter dated April 8, 2009 and comments are provided in Appendix A. To help expedite the review process, please submit the following:

 Two (2) copies of the cover letter which outlines how each of the comments has been addressed (please use the numbering scheme provided in Appendix A, and provide references to the appropriate drawings)

Four (4) copies of the Transportation Environmental Study Report along with any other background

report

Should you have any questions, please contact me at extension 5717 or by email at slingertat@trca.on.ca.

Yours truly.

Sharon Lingertat

Planner II, Environmental Assessment Review

Planning and Development

/bs

BY EMAIL

CC:

MTO:

TRCA:

Olga Garces (olga.garces@ontario.ca)

Beth Williston, Manager, Environmental Assessments Carolyn Woodland, Director, Planning and Development

Chandra Sharma, Etobicoke/Mimico Watershed Specialist

Quentin Hanchard, Manager, Development, Planning and Regulation

Member of Conservation Ontario

# APPENDIX A: TRCA COMMENTS

	COCCO CO COCCO	MORRISON HERSHFIELD REPONSE (April 8,	TRCA COMMENT (June 15, 2009)
	I RCA COMMEN (January 22, 2003)	2009)	
-	Please provide digital copies of all relevant		a) Digital copies of the VO2 model were provided
	hydrologic and hydraulic simulations to facilitate	submitted to the MTO and TRCA as a part of the	to TRCA. Peak flows are provided for each
	a thorough review.	deliverables in this study.	crossing structure in the SWM report. Please
			clarify the hydrograph ID at each crossing
			location.
			b) The Etobicoke Creek watershed adopts the 6-
			hour AES storm distribution. Please revise the
			hydrological model to use the appropriate
			storms.
			<ul> <li>c) Drainage areas are not consistent in the VO2</li> </ul>
-			. –
			model has an area of 112.9 ha at HYD 2251 for
			the 100-year storm event, but the drainage
			area at this location is 45.9 ha for the Regional
			storm event. Please clarify.
			d) The hydraulic impact for Crossing 8 was
			-
			digital copies of the model were included in a
			CD. Peak flows in the Aquafor Beech models
			are lower than those in the TRCA model for all
			storm events. Please clarify how peak flows
			used in the model were derived.
			e) It is found that Hec-Ras cross sections in the
			Aquafor Beech model are not the same as
			what are coded in the TRCA model for
-			Etobicoke Creek. Please provide relevant
			survey data, topographic information or as
			built drawings that were used in the model.
,			Please update TRCA's Hec-Ras model using
	-		the approved survey data and crossing
			information.
2	Additional lanes are proposed at crossings 4 and	As illustrated in the Figure 4.1 of the Aquafor	Addressed.
	5 where existing SWM ponds are located. Please	Beech Ltd. Report, the existing SWM ponds are	
	ensure that the proposed expansion will not have	located upstream of these drainage cuivers and	

TRCA COMMENT (June 15, 2009)		Addressed.	Comments on culvert/bridge structures (excluding Crossing 8) will be provided once peak flows at each structure are reviewed and approved.	Please refer to Comment #1.
MORRISON HERSHFIELD REPONSE (April 8, 2009)	do not treat runoff from Highway 410 and its additional lanes. Therefore, the proposed highway expansion will not alter the design inflow/outflows of the pond. Also, Table 3.3 of the report indicates that the proposed highway expansion and extension of culverts 4 and 5 will result in very little change to the estimated flood flows or to the existing flood levels at these structures. Therefore, no significant impacts to tailwater levels downstream of the SWM ponds are anticipated.	The existing SWM pond located within the northwest quadrant of Eglinton Avenue and Highway 403 will not be affected by the proposed highway expansion. This facility treats runoff from the southbound lanes and the central median between the northbound and southbound core lanes. No new pavement surfaces are proposed within this drainage area. South of Matheson Blvd., the only proposed new pavement is located between the northbound core and collector lanes. This area drains south/east via culvert No. 15 and an existing storm sewer system, and as such does not affect the existing SWM ponds in the northwest quadrant of the above-said interchange.	TSH Model for Etobicoke Creek did not contain flow information for each of the Highway 410 crossing structures, however, the model did serve as the basis for determining these flows. The drainage boundaries from the TSH model were re-discretized and refined by the study team sub-consultant (Aquafor Beech Ltd.) in order to estimate flows at each crossing location.	The proposed bridge expansion was modeled in a conceptual manner for this planning study and
TRCA COMMENT (January 22, 2009)	impacts on the operation of the existing facilities.	The majority of drainage south of Matheson Boulevard drains southward to an existing SWM pond located within the northwest quadrant of the Eglinton Avenue and Highway 403 interchange. Please provide more details on the existing pond, such as the levels of treatment provided by the pond, and confirm that the pond has the capacity to treat additional runoff from the proposed highway improvement.	Culvert/bridge inventory forms are provided in Appendix A. The majority of the structure forms refer to the previous TSH report for flows and drainage information. Please clarify if the TSH report contains the flow information for each crossing structure.	TRCA has the updated hydraulic modeling for Etobicoke Creek. Please confirm if the flows
ITEM		m	4	က

ITEM	TRCA COMMENT (January 22, 2009)	MORRISON HERSHFIELD REPONSE (April 8, 2009)	TRCA COMMENT (June 15, 2009)
	him the site of the standard with	the results indicate that the proposed "closing" of	
	מספת זון תום פתטוווונפת ופסטור מוס כסוופופילוו איניו	the bridge coording between the northbolling and	
	flows in the IRCA Hec-Ras model. In addition,	מוש מושמם מפווים מפווים מושפטו מוש מוש מוש מוש מוש מוש מוש מוש מוש מו	
	please update the TRCA Hec-Ras model with the	southbound lanes would have no significant	
	proposed crossing structure.	impact on flood flows within the valley below	
		(please see Aquafor Beech Ltd. Report Table	
		3.5). It is anticipated that the new TRCA model	
		for Etobicoke Creek can be applied to confirm	
		these results at a future date when additional	
		details and field data become available during	
***		detailed design of the proposed bridge.	
ď	Page 7 of the report indicated that an overtopping	Table 3.4 of the report evaluated the potential for	Comment Addressed.
>	analysis should be undertaken using the	overtopping, and used MTO criteria to define the	
	Regional flow for watercourses with a drainage	applicable design flow. An updated version of	
	area creater than 125 ha. Please conduct the	this summary table has been prepared, which is	
	overtonning analysis using the greater of the 100-	illustrated below. Table 3.4 includes both the	
`	wear and Regional flows for crossings that drain	100-year and Regional storm flows. As shown,	,
-	to Ftobiooke Creek	the highway will not be overtopped by flooding at	
		any of the culvert locations for any of the design	
7	If possible, stormwater quality treatment should	The MTO's policy requires best efforts to treat	Comment Addressed.
	be provided for the entire highway drainage	new pavement surfaces, but not necessarily	
	rather than the new pavement surfaces.	existing pavement for highway expansion	
		projects such as this. The proposed treatment	
		system includes the use of grassed	
		embankments/swales and new SWM ponds to	
		service a total pavement surface area (new and	
		existing) equivalent to 123% of the new pavement	
		area. Therefore, although water quality control	
		cannot be provided for all of the existing	
		pavement due to property limitations, the	
		proposed system does provide some level of	
-		improvement by treating some of the existing	
		pavement surfaces.	
8	Please add drainage area and imperviousness to	Table 4.3 has been updated including the	Comment Addressed.
	Table 4.3.	imperviousness percentages.	To cooking of
တ	A summary of drainage areas was provided	No action would be required.	Comment Addressed.

L	ITEM	TRCA COMMENT (January 22, 2009)	MORRISON HERSHFIELD REPONSE (April 8, 2009)	TRCA COMMENT (June 15, 2009)
<u> </u>		which compared the existing drainage and the extent of the diversion. It is noted that the percentage of the proposed diversion is low in all cases. As a result, TRCA staff has no objection to the proposed diversion.		
1	10	Please provide a description of the watercourse at each culvert location, as well as an assessment of the fish and fish habitat.	An Environmental Inventory Summary and Analysis of Existing conditions was conducted for the project area, which provides a general description of the watercourses at each culvert location, as well as an assessment of the fish and fish habitat. This information was obtained from	To be addressed at detailed design.
	·		secondary sources. More detailed information will likely be required that will have to be gathered during the future Detail Design stage. The Existing Conditions analysis is discussed within the TESR that provides relevant information regarding the fish habitat (please see the section 4.0 of the report. Significant Environmental	
			Features, sub-section 4.1.5 Fisheries and Aquatic Habitat).	
	-	Please identify and quantify habitat losses and gains related to the culvert extensions. This would typically include an assessment as per the Evaluation, Classification and Management of	Impacts to habitat losses and gains related to culvert extensions remains to be determined and quantified during the Detailed Design stage.	To be addressed at detailed design.
		Headwater Drainage Features: Interim Guidelines (attached) for any drainage features that may be impacted. It should also include an analysis to determine which features will be impacted by the reduction/increase of flow or through the change		
		in nabitat related to the culver extensions themselves and what the extent of those impacts will be (e.g., degraded habitat, loss of habitat, etc.). In order to quantify these impacts, the length of reach of lost and degraded habitat could be used with a qualitative discussion addressing the extent of degradation. Upon		

<u> </u>	ITEM	TRCA COMMENT (January 22, 2009)	MORRISON HERSHFIELD REPONSE (April 8, 2009)	TRCA COMMENT (June 15, 2009)	
		completion of this analysis, opportunities for habitat gains could be explored, especially in an effort to compensate for habitat losses.			
	12	Please provide an erosion and sediment control	An erosion and sediment control plan will be	To be addressed at detailed design.	4,-4
		plan to effectively protect the fish habitat.	compensation facilities for protecting fish habitat.		
			The assessment of provision for fish		
			compensation facilities and design of such		
			facilities remain to be undertaken during the		
			Detail Design stage.		
	13	Please indicate on the plans that the appropriate	We concur with the TRCA's recommendations	To be addressed at detailed design.	
		construction timing window will be observed.	and will incorporate this comment in the final		
		Work should only occur between July 1 to March	TESR submission. The construction timing		
		31 of any given year.	window will be included within project mitigation		
			measures and on project plans. The timing		
	,		window will state that work should only occur		
			between July 1 to March 31 of any given year.		
<u></u>	4	Please indicate on the plans the methodology	The TESR and Preliminary Design Report will	To be addressed at detailed design.	
		and locations for staging and construction	provide some general information regarding the		
		access.	future contract and construction staging.		
			However, appropriate staging scenarios and		
			construction methodology remain to be		
			developed in the Detail Design stage and before	. •	
			the construction works start. Specific		
			construction methodologies and desirable		
			staging scenarios can be best developed when		
			additional details and information regarding the		
			actual construction resources, specifications of		
			works, construction planning and scheduling		
			requirements, and other detailed design		
			information become available in the future.		
	15	Please provide an inventory of woody species	TRCA's comments regarding the possible	To be addressed at detailed design.	
		within TRCA's regulated area, which will be	impacts to the woody species have been noted		
		removed, along with a plan to replace the	as part of the TESR documentation and given		
		removed vegetation at a ratio of 3:1.	consideration as part of the study. Section 4.1.2		
			of the LESH outlines the type and location of		

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ITEM	TRCA COMMENT (January 22, 2009)	MORRISON HERSHFIELD REPONSE (April 8, 2009)	TRCA COMMENT (June 15, 2009)
ر د		possible vegetation species in the study area. (Table 3 of the TESR provides a complete plant inventory of the vegetation types in the study area; table 4 of the TESR provides information regarding the rare species of such vegetations in the Peel country area; Exhibit 7 of the TESR illustrates the location of wooded areas in the study area.)  An inventory of woody species within TRCA's regulated area that will be removed remains to be finalized during the Detail Design, along with a plan to replace removed vegetation. The	
		restoration plan will include details for restoration seed mixes, including species composition using native, non-invasive species.	
9	Please provide details for restoration seed mixes, including species composition, and ensure that only native, non-invasive species are used.	Similar to comment 15, specification and details of restoration seed mixes would remain to be developed as part of the Detailed Design stage in the future.	To be addressed at detailed design.
Meetir 17	Meeting Minutes of December 4, 2008  17 Note #4 – Please add "level 1" before "quality	The comment will incorporated in the revised	Please provide revised meeting minutes.
18	Note #13 – Please add "(i.e., 401 widening) after "broposed works".	The comment will incorporated in the revised meeting minutes.	Please provide revised meeting minutes.
19	Note #15 – Please revise to read, "Sharon Lingertat (TRCA) agreed to provide further comments on the Draft SWM Report"	The comment will incorporated in the revised meeting minutes.	Please provide revised meeting minutes.



## HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



## STAKEHOLDER CONTACT INFORMATION FORM PLEASE RETURN BY SEPTEMBER 2<sup>10</sup>, 2011

	ntion wish to participate in attion as this study progresses?	-	Yes Yes	es of project	
	ct information for the individ	ual who will act as the n	nain point of contac	et.	C.
Name: Title:	Joe Ausec - Ma	nager, Traffic	Engineeria	T THE	044
	BOB Nieuwenhuye Steve Garost - N	in- Manager, 7	Transportation	. Roads - Ca	pital
ORGANIZATION:	Region of Peas				0
Mailing Address	: 9445 Airport R	oad, 3 <sup>rd</sup> Floor,	Brampton l	on 2654	-J3
PHONE NUMBER:	905-791-7800 Joz.	A X:7910, Bob	N x: 7814, Sc	teve Gx: 7	824
FAX:	905-791-1442				
E-MAIL ADDRESS:	joo. avsec Oper stern ganes O	lregion . Ca , L	505. nieuwen	uysen (d. pe	elng.
3.) Please indicate if the relevant information.	is project will affect the de	livery of your program	s or services, and	or any other	
Your information and co	omments will be kept on file	for use during the Study	y. Please submit th	is form to:	
Submitted By (if diffe	erent than above):	Senior En UR 75 Comme	Tyler Drygas avironmental Plan S Canada Inc. erce Valley Drive a, Ontario, L3T 7	East	
***************************************		Fax	: (905) 882-4399 :r_drygas@ursco		

From: Syed, Saad

Sent: Thursday, October 06, 2011 1:11 PM

**To:** Wright, Holly

**Subject:** FW: 11-1111-0083 Hwy 410 Widening - Etobicoke Creek Access

**Attachments:** 27 - looking west underneath 407 bridges (on south side of creek).jpg; 4 - ramps to

Hwy 407 and 410 S (looking at north side of creek).jpg; trail alignment at 410.pdf

**Categories:** Orange Category

As requested

#### Saad Syed, M.A.Sc., P.Eng.

Graduate Engineer, Highway Design

**URS Canada Inc.** – Consulting Engineers & Geoscientists 75 Commerce Valley Drive East, Markham, ON, Canada L3T 7N9

Tel: 905.882.4401, ext. 325 Fax: 905.882.4399 E-mail: saad.syed@urs.com www.urs.ca



Please consider the environment before printing this e-mail.

**From:** Wong, Vicki [mailto:Vicki.Wong@brampton.ca]

**Sent:** Friday, September 23, 2011 3:39 PM **To:** 'Soderman, Matt'; Saad\_Syed@URScorp.com

Cc: Coyne, Lisa; Kochmanova, Nikol; Roy\_Pritchard@URSCorp.com; Chris\_Schueler@URSCorp.com; Varghese, Bino;

Mete, Jake

Subject: RE: 11-1111-0083 Hwy 410 Widening - Etobicoke Creek Access

Hello,

Thanks for both of your e-mails regarding trails and access under the Hwy 410 lands.

Matt, in regards to obtaining vehicular access to perform borehole work, I will need to circulate the request through our Community Services department for their approval and comments. For park trails, we often request that signage be posted at a few highly visible points along the trail at least a week in advance of the work, to advise the public of the temporary closure.

Saad, I have attached a PDF copy of the proposed trail under Hwy 410 and 407, which is the same drawing that was used in the Trail Agreement that is currently being signed by MTO and the City. The proposed 3.5 m wide asphalt trail is located on the north side of the creek, and there is an existing wider gravel and dirt path on the south side of the creek. For further technical details about the drawings, please contact Vince D'Elia, TRCA Project Manager (tel: 416 661-6600 ext 5667, VD'Elia@trca.on.ca). For reference, I have attached photos of the 410/407 area from my site visit in spring 2010. I will search for drawings of the existing dirt trail, but honestly, I do not have the greatest hope of finding that type of drawing.

I will update you as new information is received.

Thank you.

Vicki Wong

Senior Real Estate Co-ordinator | City of Brampton | Realty Services 2 Wellington Street West | Brampton, Ontario | L6Y 4R2

T: (905) 874-3449 | Fax: (905) 874-3370 | E-mail: vicki.wong@brampton.ca

**From:** Soderman, Matt [mailto:Matt\_Soderman@golder.com]

Sent: 2011/09/22 3:18 PM

To: Wong, Vicki

Cc: Coyne, Lisa; Kochmanova, Nikol; Saad Syed@URScorp.com; Roy Pritchard@URSCorp.com;

Chris Schueler@URSCorp.com; Varghese, Bino

Subject: 11-1111-0083 Hwy 410 Widening - Etobicoke Creek Access

Hi Vicki,

Just following up with your voicemail, we are working with URS on a project for the MTO involving the widening of Hwy 410 from south of Hwy 401 to Queen street. We have one site at Etobicoke Creek underneath Hwy 410 in Brampton where we would like to drill some investigative boreholes, at creek level (but far from the creek edge), on both the North and South sides of the creek. There are two park access roads, one on the North side and one on the South side of the creek, which we would love to have permission to use as they provide very easy access for the drill rig to our site. I've attached a map of the site highlighting the two roads, as well as our work location. One of the park roads (on the south side of the creek) leads out to what looks to be a cricket field at the Powerade Center. The other road (on the North side of the Creek) leads out to a convoluted network of trails which eventually lead the dead end turn-around of Westcreek Blvd.

Our work is planned to begin October 10<sup>th</sup> 2011, however we may or may not start at this location right away. The duration of work at this location would be approximately 1 week.

Please let me know if this is feasible or not, or if you require any additional information that would permit us to use these park roads.

Thanks so much Vicki.

Matt

Matt Soderman (E.I.T.) | Geotechnical Engineering Group | Golder Associates Ltd.
2390 Argentia Road, Mississauga, Ontario, Canada L5N 5Z7
T: +1 (905) 567 4444 | D: +1 (905) 567 6100 Ext. 1421 | F: +1 (905) 567 6561 | C: +1 (416) 710 1555 | E: Matt Soderman@golder.com | www.golder.com

#### Work Safe, Home Safe

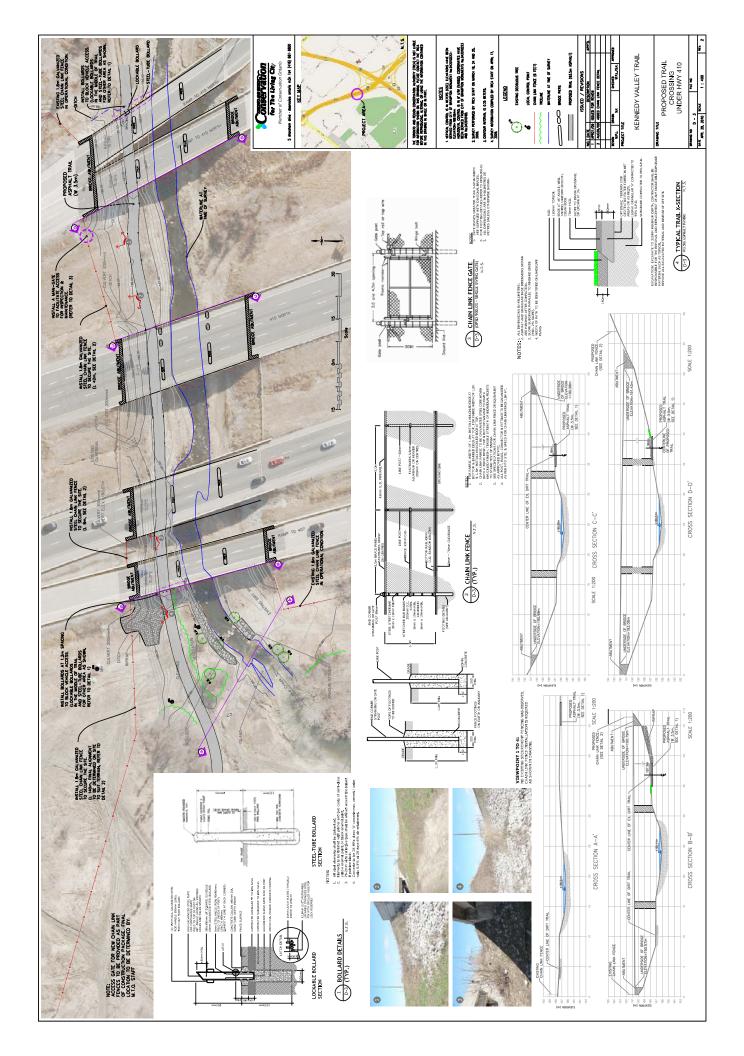
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From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

Sent: Thursday, September 22, 2011 10:10 AM

To: Lin, Jane

Cc: Nowicki, Mark; Zurek, Wojtek; Pritchard, Roy; Syed, Saad; Wright, Holly; Sarris, Larry

(MTO); Muscat-Drago, Adrian (MTO)

**Subject:** RE: GWP 2144-07-00 - Highway 410 Widening - GTAA

Follow Up Flag: Follow up Flag Status: Flagged

#### Thank you Jane.

We will have your contacts included in the distribution list. We will liaise with Mark and Wojtek to verify operational impacts as advised and GTAA requirements with respect to this project.

#### Best regards,

#### Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation Highway Engineering - Planning and Design – Peel & Halton Section 1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8 Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

From: Lin, Jane [mailto:jane.lin@gtaa.com]

**Sent:** September 22, 2011 9:47 AM

**To:** Assane, Tahirou (MTO) **Cc:** Nowicki, Mark; Zurek, Woitek

**Subject:** Highway 410 Widening from South of Hwy 401 to Queen St

Hi Tahirou,

As discussed, if you could ensure that we are included to your information distribution list that would be great. From a utilities perspective, I would be interested in understanding downstream impacts to any services on the airport property, if any. From a planning perspective, however, please touch base with Mark Nowicki and Wojtek Zurek to verify operational impacts particularly with respect to high-mast lighting.

Thanks again,



Jane Lin, P. Eng, Senior Manager, Cogeneration & Utility Recoveries Greater Toronto Airports Authority | Facilities P.O. Box 6031, 3111 Convair Drive, Toronto AMF, Ontario, L5P 1B2 Phone (416) 776-6117 | Fax (416) 776-5014 www.TorontoPearson.com

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### HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



### STAKEHOLDER CONTACT INFORMATION FORM Please Return by September 2<sup>10</sup>, 2011

1.) Does your organization	tion wish to participate in	this study and c	continue to receive no	tices of project
	tion as this study progresses		Yes	No
2.) Please provide contac	t information for the individ	lual who will act as	s the main point of con	itaçt.
NAME:	488821 7			.,
TITLE:	EHG. 50 PR	Prison	-DENFEL	oPheno
DEPARTMENT:				
ORGANIZATION:	HyDRE OF	F B	Combos	
MAILING ADDRESS:	175 SONO	211/800	Lar west	WEST-
	BROMPTON		274-11	28
PHONE NUMBER:	905-450-5	/		,
FAX:		s-1305	-	_
E-MAIL ADDRESS:	Fevergoliste	ce hydra	thmodene	on. com.
3.) Please indicate if this	s project will affect the de	livery of your pro	ograms or services, an	d/or any other
relevant information.	^		_	
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-1-1M155 3	A PROJECT	(		<del></del>
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			*/ \ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>	<del></del> ),
Your information and cor	mments will be kept on file .	for use during the	Study. Please submit t	his form to:
Submitted By (if differ	ent than above):	75 Con Mark	Tyles Drygas or Environmental Pla URS Canada Inc. mmerce Valley Drive sham, Ontario, L3T Fax: (905) 882-4399	e East 7N9

July 25, 2017

Mr. W. Schaeffer Brampton Hydro Networks Inc.

175 Sandalwood Parkway Brampton, ON L7A 1E8

Dear Mr. W. Schaeffer:

RE: Notice of Commencement of Detail Design

Highway 410 Widening from south of Highway 401 northerly to Queen Street

Class Environmental Assessment Group 'B' Project

1 Sept 14/2=11

G.W.P. 2144-07-00

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton (See attached Notice).

A Preliminary Design and the Transportation Environmental Study Report (TESR) were completed in 2010. The following work items are included in this assignment:

- Widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane
- Opportunities for Commuter Parking lots at Courtneypark Drive (northeast quadrant) and Clark Boulevard (southwest quadrant) interchanges
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek
- Stormwater Management
- Improvements at Courtneypark Drive, Derry Road and Steeles Avenue interchanges
- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the Class Environmental --Assessment for Provincial Transportation Facilities (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

At this time, we are seeking your input and program delivery concerns that may be affected by our construction procedures. Please provide any comments as well as the completed Stakeholder Contact Information Form (see attached) by September 2<sup>nd</sup>, 2011.

UR\$ Canada Inc. 75 Commerce Valley Drive East Markham, ON Canada L3T 7N9 Tel: 905.882.4401 Fax: 905.882.4399 www.urs.ca

#### NOTICE OF COMMENCEMENT OF DETAIL DESIGN **HIGHWAY 410 WIDENING** FROM SOUTH OF HIGHWAY 401 NORTHERLY TO QUEEN STREET G.W.P. 2144-07-00

#### THE PROJECT

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton. The Recommended Plan from the Preliminary Design and the Transportation Environmental Study Report of January 2010 has widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane. The project will also include an assessment of opportunities for Commuter Parking lots at the Courtneypark Drive and Clark Boulevard interchanges,

#### THE PROCESS

This project will follow the planning process for a Group "B" project under the Class Environmental Assessment for Provincial Transportation Facilities (2000). A Design and Construction Report (DCR) will be prepared and made available for a 30-day public review period at the completion of the study.

A Public Information Centre (PIC) will be held to present the design details of the project including construction staging, potential environmental impacts and mitigation measures and provide you with an opportunity to discuss the project with the Project Team.

Notification of the time and location for the PIC and the location for DCR review will be published in this newspaper.



#### COMMENTS

To obtain additional information, provide comments, or to have your name placed on the project mailing list, please contact:

Tahirou Assane, P.Eng. Project Manager Ministry of Transportation 4th Floor, Building "D" 1201 Wilson Avenue Downsview, ON M3M 1J8

Tel: 416-235-5451 Fax: 416-235-3576 tahirou.assane@ontario.ca

Roy Pritchard, P.Eng. Senior Project Manager URS Canada Inc. 75 Commerce Valley Drive East Markham, ON L3T 7N9 Tel: 905-882-3533 Fax: 905-882-4399 roy\_pritchard@urscorp.com

Comments and information are being-collected to assist in meeting the requirements of the Environmental Assessment Act. All comments will become part of the public record, with the exception of personal information in accordance with the Freedom of Information and Protection of Privacy Act,

Renseignements en français disponibles en composant le (905) 882-4401 poste 253 (Karen Cooper) ou karen\_cooper@urscorp.com.

From: Syed, Saad

**Sent:** Thursday, November 17, 2011 1:12 PM **To:** hoeun.heng@infrastructureontario.ca

**Cc:** Pritchard, Roy; Schueler, Chris; Wright, Holly; Bird, Bob

**Subject:** GWP 2144-07-00 - Highway 410 - Notice of Commencement

**Attachments:** 410 External Letter Hoeun Heng\_IO.pdf

Hi Miss Heng,

As per our conversation, please find attached the Notice of Commencement of Detail Design for Highway 410 Widening from south of Highway 401 northerly to Queen Street.

We would appreciate your assistance in expediting a response to the notice.

Kind Regards, Saad

#### Saad Syed, M.A.Sc., P.Eng.

Civil Engineer, Highway Design

**URS Canada Inc.** – Consulting Engineers & Geoscientists 75 Commerce Valley Drive East, Markham, ON, Canada L3T 7N9

Tel: 905.882.4401, ext. 325 Fax: 905.882.4399 E-mail: saad.syed@urs.com www.urs.ca



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October 19, 2011

Hoeun Heng Infrastructure Ontario 1 Dundas Street West, Suite 2000, Toronto, ON, M5G 2L5

Attention: Ms. Heng

RE: Notice of Commencement of Detail Design
Highway 410 Widening from south of Highway 401 northerly to Queen Street
Class Environmental Assessment Group 'B' Project
G.W.P. 2144-07-00

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton (See attached Notice).

A Preliminary Design and the Transportation Environmental Study Report (TESR) were completed in 2010. The following work items are included in this assignment:

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- Improvements at Courtneypark Drive, Derry Road and Steeles Avenue interchanges
- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30-day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

At this time, we are seeking your input and program delivery concerns that may be affected by our construction procedures. Please provide any comments as well as the completed Stakeholder Contact Information Form (see attached) by November 4<sup>th</sup>, 2011.

URS Canada Inc. 75 Commerce Valley Drive East Markham, ON Canada L3T 7N9 Tel: 905.882.4401 Fax: 905.882.4399

Fax: 905.882.4 www.urs.ca Should you have any questions or require further information, please feel free to contact the undersigned.

Yours truly,

The Property of

Tyler Drygas Senior Environmental Planner URS Canada Inc.

Tel: (905) 882-4401

cc. T. Assane - MTO Project Manager

L. Sarris
 R. Pritchard
 B. Bird
 H. Wright
 MTO Environmental Planner
 URS Senior Project Manager
 URS Environmental Planner
 URS Environmental Planner

Encl. (notice, map and response form)

# NOTICE OF COMMENCEMENT OF DETAIL DESIGN HIGHWAY 410 WIDENING FROM SOUTH OF HIGHWAY 401 NORTHERLY TO QUEEN STREET G.W.P. 2144-07-00

#### **THE PROJECT**

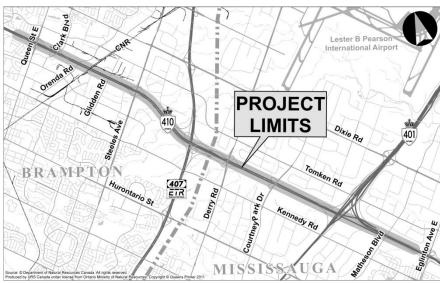
URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton. The Recommended Plan from the Preliminary Design and the Transportation Environmental Study Report of January 2010 has widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane. The project will also include an assessment of opportunities for Commuter Parking lots at the Courtneypark Drive and Clark Boulevard interchanges.

#### **THE PROCESS**

This project will follow the planning process for a Group "B" project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Design and Construction Report (DCR) will be prepared and made available for a 30-day public review period at the completion of the study.

A Public Information Centre (PIC) will be held to present the design details of the project including construction staging, potential environmental impacts and mitigation measures and provide you with an opportunity to discuss the project with the Project Team.

Notification of the time and location for the PIC and the location for DCR review will be published in this newspaper.



#### **COMMENTS**

To obtain additional information, provide comments, or to have your name placed on the project mailing list, please contact:

#### Tahirou Assane, P.Eng.

Project Manager Ministry of Transportation 4th Floor, Building "D" 1201 Wilson Avenue Downsview, ON M3M 1J8 Tel: 416-235-5451

Fax: 416-235-3576 tahirou.assane@ontario.ca

#### Roy Pritchard, P.Eng.

Senior Project Manager
URS Canada Inc.
75 Commerce Valley Drive East
Markham, ON L3T 7N9
Tel: 905-882-3533

Fax: 905-882-4399 roy\_pritchard@urscorp.com

Comments and information are being collected to assist in meeting the requirements of the *Environmental Assessment Act.* All comments will become part of the public record, with the exception of personal information in accordance with the *Freedom of Information and Protection of Privacy Act.* 

Renseignements en français disponibles en composant le (905) 882-4401 poste 253 (Karen Cooper) ou karen\_cooper@urscorp.com.



#### HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



## STAKEHOLDER CONTACT INFORMATION FORM PLEASE RETURN BY NOVEMBER 4<sup>TM</sup>, 2011

1.) Does your organization wish to participate in	
activities and information as this study progresse	Yes No
2.) Please provide contact information for the indiv	idual who will act as the main point of contact.
NAME:	
TITLE:	
DEPARTMENT:	
ORGANIZATION:	
MAILING ADDRESS:	
PHONE NUMBER:	
FAX:	
E-MAIL ADDRESS:	
relevant information.	delivery of your programs or services, and/or any other
Your information and comments will be kept on file	e for use during the Study. Please submit this form to:
Submitted By (if different than above):	Tyler Drygas Senior Environmental Planner URS Canada Inc.

From: Sent: To: Subject:	Assane, Tahirou (MTO) <tahirou.assane@ontario.ca> Friday, November 18, 2011 7:56 AM  RE: Mailing list - Highway 410</tahirou.assane@ontario.ca>
Follow Up Flag: Flag Status:	Follow up Flagged
Thank you  I would like to confirm that your n	ame and e-mail were added to the project mailing list.
Please do not hesitate to contact	me directly if you have any questions or comments on Highway 410.
Best regards,	
Tahirou Assane, Masc., P.Eng., Project Engineer   Ministry of Transportat Highway Engineering - Planning and Des 1201 Wilson Avenue   Building D   4th Flc Phone: (416) 235 5451 Fax: (416) 235 Email: Tahirou.Assane@ontario.ca	ion ign – Peel & Halton Section oor   Downsview, ON Canada M3M 1J8
From: Sent: November 17, 2011 10:27 To: Assane, Tahirou (MTO) Subject: Mailing list	PM
response to your recent inq	uiry to the Ministry of Transportation.
Mr Tahirou,	
I would like to be put on the proje	ects mailing list for highway 410 improvements.
Thanks,	
My email is,	
Dear	f October 26, 2011, respectively, to the Promier and the Minister of Transportation

Thank you for your two e-mails of October 26, 2011, respectively, to the Premier and the Minister of Transportation, regarding improvements on Highway 410. I am responding on behalf of the ministry.

I am pleased to let you know that the ministry retained an engineering consultant to undertake the design for the widening of Highway 410 from six lanes to ten lanes from south of Highway 401 northerly to Queen Street - a distance of about 12 km. The expansion of Highway 410 will provide an additional HOV lane and a general purpose lane, as well as safety upgrade with the addition of a median concrete barrier and other enhancements.

With respect to the section of Highway 410 from Queen Street to Bovaird Drive, the ministry is initiating a preliminary design and environmental assessment project to examine the need for widening. As part of this study MTO will be consulting with various stakeholders and the public on the study findings and recommended solutions. To obtain additional information, provide comments, or to have your name placed on the project mailing list, please contact Mr. Tahirou Assane, P.Eng., Project Manager, by phone at (416) 235-5441 or by e-mail at <a href="mailto:Tahirou.Assane@Ontario.ca">Tahirou.Assane@Ontario.ca</a>.

While these projects (Highway 401 to Queen Street and Queen St to Bovaird Drive) are not currently part of MTO's 5-year construction program, they are identified as "Planning for the Future" projects in the Ministry's Southern Highways Program for 2011-2015. The start of construction for these projects will depend on their prioritization in relation to other needs across the province and funding availability.

Thank you for bringing your concerns to our attention.

Sincerely,

Lou Politano, P.Eng.
Regional Director
Ministry of Transportation
Regional Director's Office
Central Region
2<sup>nd</sup> Floor, Bldg. D
1201 Wilson Avenue
Toronto, Ontario M3M 1J8

Subject:

RE: GWP 2144-07-00 - Highway 410 Widening - Navigability of Etobicoke Creek

From: Abdul Shaikh [mailto:Abdul.Shaikh@mississauga.ca]

Sent: November 23, 2011 9:24 AM

**To:** Assane, Tahirou (MTO) **Cc:** Sarris, Larry (MTO)

Subject: Re: GWP 2144-07-00 - Highway 410 Widening - Navigability of Etobicoke Creek

Hi Tahirou

I am away from the office. Yes, transport canada determined that etobicoke creek is a navigable creek.

Please let me know if you need further info

Regards Abdul

From: Assane, Tahirou (MTO) < Tahirou. Assane@ontario.ca >

To: Abdul Shaikh

Cc: Sarris, Larry (MTO) < <a href="mailto:Larry.Sarris@ontario.ca">Larry.Sarris@ontario.ca</a>>

**Sent**: Wed Nov 23 08:08:20 2011

Subject: GWP 2144-07-00 - Highway 410 Widening - Navigability of Etobicoke Creek

Hi Abdul,

I saw that on the EA/PD study for Drew Road Extension from Dixie Road to Tomken Road, the City filed an application with Transport Canada (<a href="http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=63091&ForceNOC=Y">http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=63091&ForceNOC=Y</a>) in relation to Etobicoke Creek under the *Navigable Waters Protection Act*. Would you know if Transport Canada confirmed that Etobicoke Creek was navigable within the boundary of your project?

Please advise,

Best regards,

#### Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation
Highway Engineering - Planning and Design — Peel & Halton Section
1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8
Phone: (416) 235 5451 Fax: (416) 235 3576
Email: Tahirou.Assane@ontario.ca

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From:

Sent:

Friday, November 25, 2011 6:19 AM

To: Cc: Wright, Holly Bird, Bob C

Subject:

RE: Notice of Commencement of Detail Design- Highway 410 Widening From South of

Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00

Thank you Holly.

Much appreciated.

Best Regards

From: holly.wright@urs.com

To:

CC: bob.c.bird@urs.com

Subject: RE: Notice of Commencement of Detail Design- Highway 410 Widening From South of Highway 401 Northerly to

Queen Street - G.W.P. 2144-07-00 Date: Thu, 24 Nov 2011 21:46:54 +0000

Good afternoon

Thank you for your interest in the Detail Design for the Highway 410 Widening from South of Highway 401 Northerly to Queen Street- a distance of about 12 km.

The Ministry of Transportation (MTO) completed a Preliminary Design Study and filed a Transportation Environmental Study Report (TESR) for this section of Highway 410 in 2010. The original study limits extended from south of Highway 401 northerly to Steeles Avenue. The project limits were extended northerly to Queen Street in consultation with the public and stakeholders during the Preliminary Design Process.

In May 2011, MTO retained URS to undertake the detailed design for the widening of Highway 410 from six lanes to ten lanes from south of Highway 401 northerly to Queen Street as recommended in the approved TESR. The expansion of Highway 410 will provide an additional HOV lane and a general purpose lane in each direction, as well as safety upgrade with the addition of a median concrete barrier and other enhancements.

With respect to the section of Highway 410 from Queen Street to Bovaird Drive, the ministry is initiating a preliminary design and environmental assessment project to examine the need for widening. As part of this study MTO will be consulting with various stakeholders and the public on the study findings and recommended solutions.

While these projects (Highway 401 to Queen Street and Queen St to Bovaird Drive) are not currently part of MTO's 5-year construction program, they are identified as "Planning for the Future" projects in the Ministry's Southern Highways Program for 2011-2015. The start of construction for these projects will depend on their prioritization in relation to other needs across the province and funding availability.

For background purposes, MTO has carried out the extension of Highway 410 from Bovaird Drive to Highway 10. The final section of the Highway 410 Extension project (Mayfield Road to Highway 10) was opened to traffic in 2009.

Should you have additional questions or comments please do not hesitate to contact either myself or Tahirou Assane, P. Eng, Project Engineer, Ministry of Transportation by phone at (416) 235 5451 or by e-mail at Tahirou.Assane@Ontario.ca.

Thank you for your assistance with this project and we look forward to your continued participation in the project.

-Holly

#### Holly Wright, B.E.S., EA

Environmental Planner

Environmental Planning Department Sustainable Transportation Group

**URS Canada Inc.** - Consulting Engineers & Geoscientists 75 Commerce Valley Drive East, Markham, ON Canada L3T 7N9

Tel: 905.882.4401, ext. 111 Cell: 416.953.2778

Fax: 905.882.4399

E-mail: holly wright@urscorp.com www.urs.ca



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From:

Sent: Wednesday, October 05, 2011 6:49 AM

To: Wright, Holly Cc: Bird, Bob

Subject: RE: Notice of Commencement of Detail Design- Highway 410 Widening From South of Highway 401 Northerly

to Queen Street - G.W.P. 2144-07-00

Thank you very much Holly.

I know you may not be the right individual where my concern should be raised - but why stop at Queen Street? Coming NB on 410, from 4 lanes (leaving the HOV aside), the congestion will be at Queen and 410 and the traffic would back-up, probably upto the South of 401.

Likewise, going SB on 410, there will be congestion from Mayfield or Sandalwood Pkwy (as it is today), right up to Queen and then 'hopefully', it will open up, with the 4 lanes.

We encountered this same scenario about 12 years, when the 410 was extended both sides by one lane from Queen to Bovaird - I asked the question, why not extend it by two lanes on each side (since it is already being extended by one lane), and the answer was - for the time being this is what has been approved. Coming back at a later date to extend the 410 by an extra lane, would be another opportunity to have more jobs. I think it is a waste of taxpayers money, when all levels of government, including hard working individuals are chasing the dollar.

I would apprecaite if you could forward my comments to the appropriate individuals/dept.

Have a nice day.

Best Regards

From: holly.wright@urs.com
To:

CC: bob.c.bird@urs.com

Subject: Notice of Commencement of Detail Design- Highway 410 Widening From South of Highway 401 Northerly to

Queen Street - G.W.P. 2144-07-00 Date: Tue, 4 Oct 2011 16:16:40 +0000

Please review the attached letter. If you have any questions, please contact me.

Holly Wright, B.E.S., EA Environmental Planner

Environmental Planning Department Sustainable Transportation Group

**URS Canada Inc.** - Consulting Engineers & Geoscientists 75 Commerce Valley Drive East, Markham, ON Canada L3T 7N9

Tel: 905.882.4401, ext. 111 Cell: 416.953.2778

Fax: 905.882.4399

E-mail: <a href="mailto:holly-wright@urscorp.com">holly-wright@urscorp.com</a> <a href="www.urs.ca">www.urs.ca</a></a>
<a href="https://pubm.nih.gov

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From:

Sent:

	Holly; Pritchard, Roy; Syed, Saad; Ivanovic, Sanja
· · · · · · · · · · · · · · · · · ·	
Subject: Re: Highway 410 Widening South of Frequest	Highway 401 to Queen Street - TRCA information
Attachments: EtobicokeCreek_Final.zip	
Jenny,	
Please find attached the model.	
Please give me a call if you have any questions.	
Thank you, Sharon Lingertat Acting Senior Planner, Environmental Assessment Planning Toronto and Region Conservation Authority 5 Shoreham Drive, Toronto, ON M3N 1S4 Ph: 416 661-6600 ext. 5717 Fax: 416-661-6898 Web: www.trca.on.ca	
"Dai, Jenny" < ienny.dai@urs.com > To "slingertat@trca.on.	ca" <slingertat@trca.on.ca></slingertat@trca.on.ca>
04/03/2012 10:52 AM Sprian plazek@urs.	sanja.ivanovic@urs.com>, "Plazek, Brian" com>, "Pritchard, Roy" < <u>roy.pritchard@urs.com</u> >, "Schueler, ler@urs.com>, "Wright, Holly" < <u>holly.wright@urs.com</u> >, "Syed, @urs.com>
Subject Highway 410 Wider request	ning South of Highway 401 to Queen Street - TRCA information

Sharon Lingertat <SLingertat@trca.on.ca>

Wednesday, January 04, 2012 2:28 PM

Good Morning Sharon,

URS Canada Inc. has been retained by MTO to prepare detail design of Highway 410 Widening South of Highway 401 to Queen Street (refers to the attachment). The study area is located in Etobicoke Creek watershed and crosses over the Main Branch of Etobicoke Creek and its tributaries. In order to conduct hydraulic analyses and prepare stormwater management plan, we request floodplain map, regulation limits, environmental sensitive area (if applicable) and the latest version of hydraulic model for the study area. We would appreciate it if you could provide this information. If you have any questions or need more information, please do not hesitate to contact the undersigned.

Best regards,

#### Jenny Dai, M. Eng., P.Eng.

Water Resources Engineer

URS Canada Inc.
Consulting Engineers & Geoscientists

123 Commerce Valley Drive East, Markham, ON Canada L3T 7W8

Tel: 905.731.7222, ext. 7018

Fax: 905.882.4399

E-mail: Jenny.dai@urs.com

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[attachment "Study Area.pdf" deleted by Sharon Lingertat/MTRCA]

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Thank you."

Syed, Saad From:

Friday, January 27, 2012 2:58 PM Sent: hoeun.heng@infrastructureontario.ca To:

Pritchard, Roy; Schueler, Chris; Wright, Holly; Sarris, Larry (MTO) Cc:

(Larry.Sarris@ontario.ca); Tahirou Assane (Tahirou.Assane@ontario.ca)

GWP 2144-07-00 - Highway 410 Widening - Notice of Commencement (follow up) **Subject:** 

410 External Letter Hoeun Heng\_IO.PDF **Attachments:** 

Hi Miss Heng,

Happy new year.

Could you kindly provide us with an update as to the status of the stakeholder response form for the above noted project? The original letter was sent out via mail on October 19<sup>th</sup> 2011 and a follow up e-mail was sent on 17 November 2011.

Thank you, Saad

#### Saad Syed, M.A.Sc., P.Eng.

Civil Engineer, Highways Design

**URS Canada Inc.** – Consulting Engineers & Geoscientists 75 Commerce Valley Drive East, Markham, ON, Canada L3T 7N9

Tel: 905.882.4401, ext. 325 Fax: 905.882.4399 E-mail: saad.syed@urs.com www.urs.ca



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From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

**Sent:** Monday, January 23, 2012 12:22 PM

To: Cc:

Wright, Holly; Pritchard, Roy; Syed, Saad; Sarris, Larry (MTO)

Subject: GWP 2144-07-00 - Highway 410 Widening - Ramp from 401 W to 410 N

Follow Up Flag:

Follow up

Flag Status: Flagged

Hi

Thank you for taking the time this morning to return my call and to provide comments on the Highway 401 West to Highway 410 North ramp.

To summarize our discussion, I am pleased to let you know that the ministry retained an engineering consultant (URS Canada) to undertake the design for the widening of Highway 410 from six lanes to ten lanes from south of Highway 401 northerly to Queen Street - a distance of about 12 km. The expansion of Highway 410 will provide an additional HOV lane and a general purpose lane, as well as safety upgrade with the addition of a median concrete barrier and other enhancements.

As part of the project the existing circular exit ramp from 410 South to Courtneypark Drive East/West will be replaced with a directional ramp and the left lane coming the 401 West to 410 North ramp will now continue to the Courtneypark Drive interchange. I trust this configuration would address your comments, as drivers coming from 401 West to Highway 410 North and planning to exit at the Courtneypark interchange will not need to change lane on Highway 410. Likewise the lane coming from the Courtneypark Drive East/West ramp to 410 South will now continue to the Highway 410/Highway 401 interchange.

While this project is not currently part of MTO's 5-year construction program, it is identified as "Planning for the Future" projects in the Ministry's Southern Highways Program for 2011-2015. The start of construction for the project will depend on their prioritization in relation to other needs across the province and funding availability.

By copy of this e-mail, I am requesting Ms. Holly Wright from URS to add both, your contact and your second second on the project mailing list.

Please do not hesitate to contact either me or Ms. Holly Wright (Holly.Wright@urs.com) if there are any questions.

Thank you for bringing your concerns to our attention.

Best regards,

Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation
Highway Engineering - Planning and Design – Peel & Halton Section
1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8
Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

Sharon Lingertat <SLingertat@trca.on.ca> From: Friday, February 24, 2012 8:51 AM Sent: Dai, Jenny To: Plazek, Brian; Schueler, Chris; Wright, Holly; Pritchard, Roy; Syed, Saad; Ivanovic, Sanja; Cc: tahirou.assane@ontario.ca RE: Highway 410 Widening South of Highway 401 to Queen Street - TRCA information Subject: request Hi Jenny, The file is too large to send via email, so I'm sending a DVD in the mail today. You should receive it next week. Thank you, Sharon Lingertat Senior Planner, Environmental Assessment Planning Toronto and Region Conservation Authority 5 Shoreham Drive, Toronto, ON M3N 1S4 Ph: 416 661-6600 ext. 5717 Fax: 416-661-6898 Web: www.trca.on.ca "Dai, Jenny" <jenny.dai@urs.com> To Sharon Lingertat <SLingertat@trca.on.ca> cc "Plazek, Brian" <a href="mailto:scom">"Schueler, Chris" <a href="mailto:com">"Schueler, Chris" <a href="mailto:com">"Schueler: Chris" <a href="mailto:com">"Schueler: Chris" <a href="mailto:com">"Pritchard, Roy" <a href="mailto:com">"Non: Chris" <a href="mailto:com">"Pritchard, Roy" <a href="mailto:com">"Syed, Saad" <a href="mailto:com">"Syed, Saad"<a href="mailto:com">"Syed, S 02/21/2012 11:22 AM Sanja" <sanja.ivanovic@urs.com>, "tahirou.assane@ontario.ca" <tahirou.assane@ontario.ca> Subject RE: Highway 410 Widening South of Highway 401 to Queen Street - TRCA information request Good morning Sharon, According to our schedule, we couldn't wait for the updated model. I would like to have information from the current hydrology study to proceed our hydrology analyses now. However, if time is allowable, I would like to request the updated model later for a final check when your hydrology updates be completed. Thanks a lot, Best regards, Jenny

From: Sharon Lingertat [mailto:SLingertat@trca.on.ca]

Sent: Friday, February 17, 2012 2:57 PM

To: Dai, Jenny

**Cc:** Plazek, Brian; Schueler, Chris; Wright, Holly; Pritchard, Roy; Syed, Saad; Ivanovic, Sanja; tahirou.assane@ontario.ca **Subject:** RE: Highway 410 Widening South of Highway 401 to Queen Street - TRCA information request

Hi Jenny,

Our engineering group is undertaking a hydrology update for the entire watershed and are expecting to complete the study in April. It would be preferable to wait and use the updated hydrology model. However, if this isn't possible due to time constraints, we can provide you with the drainage area plan and VO2 model from the current hydrology study.

Please let me know how you'd like to proceed.

Thank you, Sharon Lingertat Acting Senior Planner, Environmental Assessment Planning Toronto and Region Conservation Authority 5 Shoreham Drive, Toronto, ON M3N 1S4 Ph: 416 661-6600 ext. 5717

Fax: 416-661-6898 Web: <u>www.trca.on.ca</u>

"Dai, Jenny" <<u>jenny.dai@urs.com</u>>

To Sharon Lingertat < SLingertat@trca.on.ca>

02/17/2012 11:49 AM

cc "Plazek, Brian" < <a href="mailto:brian.plazek@urs.com">"Schueler, Chris" < <a href="mailto:chris.schueler02@urs.com">"Wright, Holly" < <a href="mailto:holly.wright@urs.com">"Pritchard, Roy" < <a href="mailto:roy.pritchard@urs.com">roy.pritchard@urs.com</a>, "Syed, Saad" < <a href="mailto:saad.syed@urs.com">saad.syed@urs.com</a>, "Ivanovic, Sanja" < <a href="mailto:saad.syed@urs.com">saad.syed@urs.com</a>, "Ivanovic, Saad.syed@urs.com</a>, "Ivanovic, Saad.syed@urs.com</a>

Subject RE: Highway 410 Widening South of Highway 401 to Queen Street - TRCA information request

#### Good morning Sharon,

We are doing hydrology assessment for Highway 410 crossings. All the crossings are located in the Etobicoke Creek watershed. It would be great to have the latest Etobicoke Creek watershed hydrologic model, watershed discretization map in digital format and report (if applicable).

Thank you for your help	Thank	you	for	your	hel	p,
-------------------------	-------	-----	-----	------	-----	----

Best regards,

Jenny

Jenny Dai, M. Eng., P.Eng.

Water Resources Engineer

URS Canada Inc.
Consulting Engineers & Geoscientists

123 Commerce Valley Drive East, Markham, ON Canada L3T 7W8

Tel: 905.731.7222, ext. 7018

Fax: 905.882.4399

E-mail: Jenny.dai@urs.com

From: Sharon Lingertat [mailto:SLingertat@trca.on.ca]

Sent: Wednesday, January 04, 2012 9:49 AM

To: Dai, Jenny

Cc: Plazek, Brian; Schueler, Chris; Wright, Holly; Pritchard, Roy; Syed, Saad; Ivanovic, Sanja

Subject: Re: Highway 410 Widening South of Highway 401 to Queen Street - TRCA information request

Hi Jenny,

Digital information regarding natural features, fish monitoring and engineered flood plain mapping was sent to Tahirou Assane at MTO in September 2011. Trail and pond planting guidelines were sent in October 2011. Please contact MTO for that information.

In the meantime, I will request the latest version of the hydraulic model.

Thank you,
Sharon Lingertat
Acting Senior Planner, Environmental Assessment Planning
Toronto and Region Conservation Authority
5 Shoreham Drive, Toronto, ON M3N 1S4
Ph: 416 661-6600 ext. 5717

Fax: 416-661-6898 Web: <u>www.trca.on.ca</u>

"Dai, Jenny" <<u>jenny.dai@urs.com</u>>

01/03/2012 10:52 AM

Subject Highway 410 Widening South of Highway 401 to Queen Street - TRCA information request

To "slingertat@trca.on.ca" <slingertat@trca.on.ca>

cc "Ivanovic, Sanja" <<u>sanja.ivanovic@urs.com</u>>, "Plazek, Brian" <<u>brian.plazek@urs.com</u>>, "Pritchard, Roy" <<u>roy.pritchard@urs.com</u>>, "Schueler, Chris" <<u>chris.schueler@urs.com</u>>, "Wright, Holly" <<u>holly.wright@urs.com</u>>, "Syed, Saad" <<u>saad.syed@urs.com</u>>, "Syed, Saad" <<u>saad.syed@urs.com</u>>

URS Canada Inc. has been retained by MTO to prepare detail design of Highway 410 Widening South of Highway 401 to Queen Street (refers to the attachment). The study area is located in Etobicoke Creek watershed and crosses over the Main Branch of Etobicoke Creek and its tributaries. In order to conduct hydraulic analyses and prepare stormwater management plan, we request floodplain map, regulation limits, environmental sensitive area (if applicable) and the latest version of hydraulic model for the study area. We would appreciate it if you could provide this information. If you have any questions or need more information, please do not hesitate to contact the undersigned.

Best	regards,
------	----------

#### Jenny Dai, M. Eng., P.Eng.

Water Resources Engineer

URS Canada Inc.
Consulting Engineers & Geoscientists
123 Commerce Valley Drive East, Markham, ON Canada L3T 7W8
Tel: 905.731.7222, ext. 7018

Fax: 905.882.4399

E-mail: Jenny.dai@urs.com

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[attachment "Study Area.pdf" deleted by Sharon Lingertat/MTRCA]

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Thank you."

<sup>&</sup>quot;\*PLEASE CONSIDER THE ENVIRONMENT WHEN DECIDING TO PRINT THIS MESSAGE\*

Subject:

FW: GWP 2144-07-00 - Highway 410 Widening - Carpool Hwy 410 & Williams Pkway.

From:

**Sent:** May 12, 2012 7:41 PM **To:** White, Justin (MTO)

Subject: Fw: Carpool Hwy 410 & Williams Pkway.

---- Forwarded Message -----

From:

To: "justin.white@ontatio.ca" <justin.white@ontatio.ca>

Cc:

Sent: Saturday, May 12, 2012 3:49:26 PM Subject: Carpool Hwy 410 & Williams Pkway.

Hi Justin, just to bring you up to date from my end.

When this location was first opened up to the public (Fall 2011) I don't believe we had more that 6 - 10 vehicles using it on any day.

I made contact with the Region of Peel and had them use their "mobile signs" to promote this location, also my M.P.P for this area agreeded to put a notation in her Newsletter, this I believe boosted usage of the Carpool Lot to about 24 - 30 vehicles. I believe and hope that my City Councilors will also have an article in their next Newsletter?

My goal is to FILL this location, and therefore help reduce the number of vehicles using the 410, making the highway a little safer, and hopefully the M.T.O. will consider a future extension of this Lot.

G.O. Bus service, now has a scheduled local service at this lot, that may be expanded for other location. This is a plus.

The original data that I had received from the M.T.O., indicated that there could be a future Carpool Lot planned for Hwy 410 & Clark Blvd., is this still in the M.T.O. plan for the 400 series highways? Please advise.

Regards,

Copy

From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

**Sent:** Thursday, May 17, 2012 8:30 AM

To: Wright, Holly; Pritchard, Roy; Sarris, Larry (MTO)

Subject: RE: GWP 2144-07- 00 - Highway 410 Widening - Carpool Lot Opportunities

Dear

I would like to confirm that your name was added to the project mailing list.

Best regards,

#### Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation
Highway Engineering - Planning and Design – Peel & Halton Section
1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8
Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

From:

Sent: May 16, 2012 3:15 PM
To: Assane, Tahirou (MTO)
Cc: susan.fennell@brampton.ca

Subject: Re: GWP 2144-07-00 - Highway 410 Widening - Carpool Lot Opportunities

Dear Tahirou, thank you so much for your update. Yes please place my name on your project mailing list. This morning in passing by this Carpool Lot, I counted about 36 - 40 vehicles using this lot, this is the best so far. Hopefully my promoting efforts had something to do with this, and I'm still not finished. The widening of Hwy 410 along with other safety measures is certainly good news. With Brampton's high Auto., Insurance rates, and the City having grown to the 9 th largest in our nation (Pop., 523,911) our main artery in and out of the City needs all the attention it can get.

Once again my thanks,

Regards

From: "Assane, Tahirou (MTO)" < Tahirou. Assane@ontario.ca>

To:

Cc: "White, Justin (MTO)" < Justin.White@ontario.ca >; "Sarris, Larry (MTO)" < Larry.Sarris@ontario.ca >; "Wright, Holly" < holly.wright@urs.com >; "Pritchard, Roy" < roy.pritchard@urs.com >

Sent: Wednesday, May 16, 2012 10:43:25 AM

Subject: GWP 2144-07-00 - Highway 410 Widening - Carpool Lot Opportunities

Dear

Thank you for your e-mail of May 12, 2012, to Justin White, regarding carpool lot opportunities on Highway 410. I am MTO Planning and Design Project Engineer responsible for the Highway 410 corridor and I welcome the opportunity to respond.

I am pleased to let you know that the ministry retained an engineering consultant to undertake the design for the widening of Highway 410 from six I a nes to ten lanes from south of Highway 401 northerly to Queen Street - a distance of about 12 km. The expansion of Highway 410 will provide an additional HOV lane and a general purpose lane, as well as safety upgrades including the addition of a median concrete barrier and other enhancements.

As part of this project, the ministry is considering the implementation of carpool lots at the southwest quadrant of the Clark Boulevard interchange and at the northeast quadrant of the Courtneypark interchange.

While the project is not currently part of MTO's 5-year construction program, it is identified as "Planning for the Future" project in the Ministry's Southern Highways Program for 2011-2015. The start of construction for the project will depend on its prioritization in relation to other needs across the province and funding availability.

Please do not hesitate to contact me directly by phone at (416) 235-5441 or by e-mail at <a href="mailto:Tahirou.Assane@Ontario.ca">Tahirou.Assane@Ontario.ca</a> if you would like to obtain additional information, provide further comments, or to have your name placed on the project mailing list.

Thank you for bringing your concerns to our attention and for promoting carpooling.

Sincerely,

#### Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation Highway Engineering - Planning and Design – Peel & Halton Section 1201 Wilson Avenue | Building D | 4th Floor | Downsview , ON Canada M3M 1J8 Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

# Wright, Holly

**Subject:** FW: IO response - Hwy 410 widening **Attachments:** IO response letter - Hwy 410 widening.pdf

From: Drygas, Tyler

**Sent:** Friday, July 06, 2012 2:42 PM

To: Wright, Holly

Cc: Bird, Bob C; Schueler, Chris

Subject: FW: IO response - Hwy 410 widening

From: Ena Ayson [mailto:Ena.Ayson@infrastructureontario.ca]

**Sent:** Friday, July 06, 2012 1:50 PM

To: Drygas, Tyler

**Subject:** IO response - Hwy 410 widening

Hi Tyler,

Please find attached the response letter from Infrastructure Ontario regarding the widening of Hwy 410 in Brampton and Mississauga. Sorry for the delay.

Regards,

# **Ena Ayson**

Summer Associate - Environment & Heritage

Infrastructure Ontario Phone: (416) 314-6497

Email: ena.ayson@infrastructureontario.ca

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July 6, 2012

To Mr. Tyler Drygas

**RE: Notice of Commencement of Detail Design** Hwy 410 widening from south of Hwy 401 northerly to Queen St Class EA Group 'B' Project

Thank you for circulating Infrastructure Ontario (formerly the Ontario Realty Corporation) on your Notice of Commencement. Infrastructure Ontario (IO) is the strategic manager of the government's real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government.

As you may be aware, IO is responsible for managing real property that is owned by the Ministry of Infrastructure (MOI). Our preliminary review of your notice and supporting information indicates that IO-managed property is directly in the study area. As a result, your proposal may have the potential to impact this property and/or the activities of tenants present on IO-managed lands. Attached please find a map that identifies these properties to assist you in identifying and avoiding potential impacts on IO-managed lands. Please note that lands managed by Hydro One, on behalf of IO are in the study area. These lands are also subject to the same following requirements.

# **Potential Negative Impacts to IO Tenants and Lands**

# **General Impacts**

Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise and vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and Ministry of Natural Resources (MNR) and Ministry of the Environment (MOE) standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

# **Impacts to Land holdings**

Negative impacts to land holdings, such as the taking of developable parcels of IO managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be present. IO requests circulation of the draft EA report prior to finalization if potential impacts to IO-managed lands are present as part of this study.

# Heritage Management Process & Class Environmental Assessment (EA) Process

Should the proposed activities impact cultural heritage features, on IO managed lands, a request to examine cultural heritage issues which can include the cultural landscape, archaeology and places of sacred and secular value could be required. The IO (formerly Ontario Realty Corporation) Heritage Management Process should be used for identifying and conserving heritage properties in the provincial portfolio (this document be downloaded from the Heritage section of our website: can http://www.ontariorealty.ca/What-We-Do/Heritage.htm). Through this process, IO identifies, communicates and conserves the values of its heritage places. In addition, the Class EA ensures that IO considers the potential effects of proposed undertakings on the environment, including cultural heritage.

# Potential Triggers Related to MOI's Class EA

IO is required to follow the MOI Class Environmental Assessment Process for Realty Activities Not Related to Electricity Projects (MOI Class EA). The MOI Class EA applies to a wide range of realty and planning activities including leasing or letting, planning approvals, dispostion, granting of easements, demolition and property maintenance/repair. For details on the IO Class EA please visit the Environment and Heritage page of our website found at <a href="http://www.infrastructureontario.ca/What-We-Do/Buildings/Realty-Services/Environmental-Management/Class-EAs/">http://www.infrastructureontario.ca/What-We-Do/Buildings/Realty-Services/Environmental-Management/Class-EAs/</a>.

If the MOI Class EA is triggered, and deferral to another ministry's or agency's Class EA or individual EA is requested, the alternative EA will be subject to a critical review prior to approval for any signoff of a deferral by the proponent. The alternative EA needs to fulfill the minimum criteria of the MOI Class EA. When evaluating an alternative EA there must be explicit reference to the corresponding undertaking in the MOI Class EA (e.g., if the proponent identifies the need to acquire land owned by MOI, then "acquisition of MOI-owned land", or similar statement, must be referenced in the EA document). Furthermore, sufficient levels of consultation with MOI's/IO's specific stakeholders, such as the Ontario Ministry of Natural Resources, must be documented with the relevant information corresponding to MOI's/IO's undertaking and the In addition to archaeological and heritage reports, a Phase I associated maps. Environmental Site Assessment (ESA), on IO lands should also be incorporated into the alternative EA study. Deficiencies in any of these requirements could result in an inability to defer to the alternative EA study and require completing MOI's Class EA prior to commencement of the proposed undertaking.

In summary, the purchase of MOI-owned/IO-managed lands or disposal of rights and responsibilities (e.g. easement) for IO-managed lands triggers the application of the MOI Class EA. If any of these realty activities affecting IO-managed lands are being proposed as part of any alternative, please contact the Sales and Marketing Group through IO's main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672), and contact the undersigned at your earliest convenience to discuss next steps.

# **Specific Comments**

If an EA for this project is currently being undertaken and the undertaking directly affects all or in part any IO-managed property, please send the undersigned a copy of the DRAFT EA report and allow sufficient time (minimum of 30 calendar days) for comments and discussion prior to finalizing the report to ensure that all MOI Class EA requirements can be met through the EA study.

# **Concluding Comments**

J.Myslicki

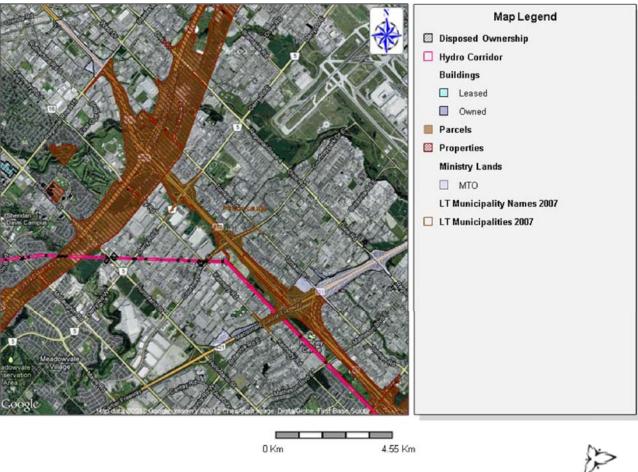
Thank you for the opportunity to provide initial comments on this undertaking. If you have any questions on the above I can be reached at the contacts below.

Sincerely,

Lisa Myslicki

Environmental Advisor
Infrastructure Ontario - Professional Services
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768
lisa.myslicki@infrastructureontario.ca

Figure 1: Site Map



Date: 1:33:59 PM Friday, July 06, 2012 For discussion purposes only.



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From: Drygas, Tyler

**Sent:** Friday, July 06, 2012 2:42 PM

**To:** Wright, Holly

Cc: Bird, Bob C; Schueler, Chris

Subject: FW: IO response - Hwy 410 widening

From: Ena Ayson [mailto:Ena.Ayson@infrastructureontario.ca]

**Sent:** Friday, July 06, 2012 1:50 PM

To: Drygas, Tyler

Subject: IO response - Hwy 410 widening

Hi Tyler,

Please find attached the response letter from Infrastructure Ontario regarding the widening of Hwy 410 in Brampton and Mississauga. Sorry for the delay.

Regards,

# **Ena Ayson**

Summer Associate - Environment & Heritage

Infrastructure Ontario Phone: (416) 314-6497

Email: ena.ayson@infrastructureontario.ca

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# Wright, Holly

From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

**Sent:** Monday, July 23, 2012 9:35 AM

To:

Cc: Wright, Holly; Pritchard, Roy; Sarris, Larry (MTO); Cooling, Judy (MTO)

Subject: RE:GWP 2144-07-00 - Highway 410 Widening email is in response to

your recent inquiry (HWY 410) to the Ministry of Transportation

Dear

Thank you for your interest. I would like to confirm that your name was added to the project mailing list.

Best regards,

Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation Highway Engineering - Planning and Design - Peel & Halton Section 1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8 Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

From:

Sent: July 19, 2012 5:10 PM To: Assane, Tahirou (MTO)

Subject: Email is in response to your recent inquiry (HWY 410) to the Ministry of Transportation

Dear Mr. Assane,

Could you kindly place my name on your Project Mailing List for Highway 410.

Myself and a 'growing' number of friends and neighbours who use Hwy 410 daily are anxious to see some progress on efforts to alleviate the extreme rush hour congestion, on this roadway.

With thanks,



From: Politano, Lou (MTO)

Sent: Wednesday, July 18, 2012 11:48 AM

Subject: Email below is in response to your recent inquiry to the Ministry of Transportation

The email below is in response to your recent inquiry to the Ministry of Transportation.

Dear

Thank you for your follow-up e-mail of July 9, 2012, regarding the timing and progressive staging of expansion along Highway 410.

The Ministry of Transportation will continue to examine the highway programs and project priorities across the province. While there is currently no funding available for any portion of the Highway 410

expansion project, the ministry will investigate opportunities to implement the expansion of Highway 410 in phases (either by length or by number of lanes) pending the availability of funding, should this occur.

To obtain additional information, provide further comments, or to have your name placed on the Highway 410 project mailing list, please contact Mr. Tahirou Assane, P. Eng., Project Engineer, by phone at (416) 235-5441 or by e-mail at Tahirou.Assane@Ontario.ca.

Thank you for your interest in Highway 410.

Sincerely,

Lou Politano, P.Eng. Regional Director

Lou Politano, P. Eng. - Regional Director Ministry of Transportation, Central Region, 2nd Floor, Bldg. D 1201 Wilson Avenue, Toronto, Ontario M3M 1J8

### RE: No (MTO) Cameras on Hwy 410 + Congestion

Thank you so much for your response and the details provided below.

While we are happy to hear that Hwy 410 is being looked at, it is disappointing to learn that nothing is even planned for this very clogged roadway, before 2015.

And with the hundreds of new homes being built between will only become worse.

clogged rush-hour situation

Is there a possibility of proceeding with just one lane now to alleviate the growing mess, rather than waiting until after 2015, for the planned resolution?

With thanks,



From: Cooling, Judy (MTO)

To:

Sent: Monday, July 09, 2012 11:54 AM

Subject

mail below is in response to your recent inquiry to the Ministry of Transportation

The email below is in response to your recent inquiry to the Ministry of Transportation.

Dear L

Thank you for your e-mail of June 13, 2012 regarding the ministry's plan for Highway 410. I have been asked to respond on behalf of the ministry.

The Ministry of Transportation recognizes the important role that Highway 410 plays in the efficient movement of goods and people in the Greater Toronto Area. As you noted, the ministry received EA approval in 2010 for the widening of Highway 410 from south of Highway 401 to Queen Street. Since that time, the ministry has initiated detail design for two additional lanes on Highway 410 in each direction to provide a High Occupancy Vehicle lane and a new General Purpose lane. Highway camera implementation is part of the overall Highway 410 expansion plan.

While the Highway 410 widening is not currently part of the ministry's 5-year construction plan, it is identified as a "Planning for the Future" project in our Southern Highways Program for 2011-2015. Each year the ministry carefully plans for and re-examines its our highway programs and project priorities across the province. There is no funding for this project at this time. However, the ministry is continuing to develop the detail design to get this project ready for construction.

Thank you for your interest in Highway 410.

Sincerely,

Lou Politano, P. Eng. Regional Director Ministry of Transportation Central Region 2nd Floor, Bldg. D 1201 Wilson Avenue Toronto, Ontario M3M 1J8

----Original Message----

From:

Sent: June 13, 2012 5:49 PM

To: Minister of Transportation Correspondence (Web Account)

Subject: No Cameras on Hwy 410 + Congestion

Below is the result of your feedback form. It was submitted by

on Wednesday, June 13, 2012 at 17:49:18

\_\_\_\_\_

subject: No Cameras on Hwy 410 + Congestion

comments: 1 - Your predecessor advised that Hwy 410 was approved to be widened from 401 to Queen street. Nothing was done!

- 2- Also, there are no cameras on 410 (except Courtney park) for us to check conditions.
- 3 Hwy 410 is a blocked mess during rush hour.

Are you currently aware of these problems and is anything being planned to alleviate this. I'd be happy to provide more details.

With thanx,

# Wright, Holly

From:	Assane, Tahirou (MTO) < Tahirou. Assane@ontario.ca >
Sent:	Thursday, August 02, 2012 4:36 PM
To: Cc:	Wright, Holly Pritchard, Roy; Sarris, Larry (MTO); Syed, Saad; Schueler, Chris
Subject:	FW: GWP 2144-07-00 - Highway 410 Widening - No access to Courtney Pk Drive from
Subject.	Hwy 410?
Fyi.	
I will respond.	
•	
Best regards,	
Original Message	
From:	
Sent: July 31, 2012 8:46 PM	
To: MTOINFO, St. Catharines (	(MTO)
Subject: No access to Courtne	y Pk Drive from Hwy 410?
Dolousia the manult of very for	edback form. It was submitted by
July 31, 2012 at 20:46:18	edback form. It was submitted by the state of the state o
	***************************************
77.7	
comments, Diago avalois wh	with are is no people to Countries Dk Drive from the court hound longs of Highway 410, and
	y there is no access to Courtney Pk Drive from the southbound lanes of Highway 410, and from Courtney Pk to northbound 410. Most GTA interchanges provide access to and from
	Il the four points of the compass, north, south, east & west. Why is this particular
interchange only half complet	·
reply: true	
7557	ž.

# Wright, Holly

From: Assane, Tahirou (MTO) <Tahirou.Assane@ontario.ca>

Sent: Thursday, August 02, 2012 5:32 PM

To:

Cc: MTOINFO, St. Catharines (MTO)

**Subject:** Access to Highway 410 at the Courtneypark Drive Interchange

Dear

Thank you for your e-mail of July 31, 2012, to the Ministry of Transportation, regarding access at the Highway 410 / Courtneypark Drive Interchange. I am responding on behalf of the ministry.

I am pleased to inform you that the ministry has finalized a Transportation Environmental Study Report (TESR) in 2010 for the widening of Highway 410 from south of Highway 401 to Queen Street. The main recommendations include two-lane widening of Highway 410 in each direction to provide a High Occupancy Vehicle lane and a new General Purpose lane.

As part of the TESR, the ministry assessed several options for improvements to the Courtneypark Drive interchange. To address traffic operation needs, the preferred interchange alternative consists of modifications to the existing south oriented ramps.

The TESR also allowed for potential phased future modifications to the Courtneypark Drive interchange; including the addition of the two north oriented ramps noted in your e-email, namely:

- \*A new east/west to north (E/W-N) ramp from Courtneypark Drive to Highway 410 northbound;
- \*A new north to east / west (N-E/W) ramp from Highway 410 southbound to Courtneypark Drive.

The phased implementation of these two north oriented ramps will be predicated on ongoing discussions with the Region of Peel and the City of Mississauga, which has jurisdiction over Courtneypark Drive.

Please do not hesitate to contact me directly by phone at (416) 235-5441 or by e-mail at <u>Tahirou.Assane@Ontario.ca</u> if you would like to obtain additional information, or to provide further comments.

Thank you for bringing your concerns to our attention.

Sincerely,

# Tahirou Assane, MASc., P.Eng., PMP, PRINCE2, AVS

Project Engineer | Ministry of Transportation
Highway Engineering - Planning and Design – Peel & Halton Section
1201 Wilson Avenue | Building D | 4th Floor | Downsview, ON Canada M3M 1J8
Phone: (416) 235 5451 Fax: (416) 235 3576

Email: Tahirou.Assane@ontario.ca

# Martins, Trish

**Subject:** FW: GWP 2144-07-00

----Original Message-----

From: Marinelli, Mike (MTO) [mailto:Mike.Marinelli@ontario.ca]

Sent: Monday, December 02, 2013 8:37 AM

To: Sarris, Larry (MTO); Schueler, Chris; Pritchard, Roy; Wright, Holly

Subject: FW: GWP 2144-07-00

All,

For your records.

Mike

Mike Marinelli | Project Manager Ministry of Transportation | Central Region Planning and Design - Peel & Halton Section | 4th Floor, Bldg.D 1201 Wilson Avenue | Downsview T: 416-235-4639 | F: 416-235-3576

----Original Message-----

From: mmacleod@alderville.ca [mailto:mmacleod@alderville.ca]

Sent: November 29, 2013 11:01 AM

To: Marinelli, Mike (MTO) Subject: Re: GWP 2144-07-00

Hi there,

Sent on behalf of Dave Simpson. Please find attached our response letter to the above noted consultation.

Thanks,

Mary MacLeod-Beaver Land and Resources, Clerical Support Alderville First Nation



# ALDERVILLE FIRST NATION 11696 Second Line P.O. Box 46 Roseneath, Ontario K0K 2X0

Phone: (905) 352-2011 Fax: (905) 352-3242 Chief: James R. Marsden
Councillor: Julie Bothwell
Councillor: Jody Holmes
Councillor: Dave Mowat
Councillor: Angela Smoke

November 29, 2013

Ministry of Transportation Engineering Office, Central Region 4<sup>th</sup> Floor, Bldg. D 1201 Wilson Avenue Downsview, ON M3M 1J8

Att: Mike Marinelli, Project Manager

**Re:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street

G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project

**Ontario Ministry of Transportation** 

Dear Mike Marinelli,

Thank you for your consultation request to Alderville First Nation regarding the Highway 401 Widening which is being proposed within our Traditional and Treaty Territory. We appreciate the fact that the Ministry of Transportation recognizes the importance of First Nations Consultation and that your office is conforming to the requirements within the Duty to Consult Process.

As per the Alderville First Nation Consultation Protocol, your proposed project is deemed a level 3, having minimal potential to impact our First Nations' rights, therefore, please keep Alderville apprised of any archaeological findings, burial sites or any environmental impacts, should any occur. I can be contacted at the mailing address above or electronically via email, at the email address below.

In good faith and respect,

Dave Simpson <u>dsimpson@aldervillefirstnation.ca</u>

Lands and Resources
Communications Officer
Alderville First Nation
Tele: (905) 352-2662
Fax: (905) 352-3242

### Ministry of Aboriginal Affairs

160 Bloor St. East, 9th Floor Toronto, ON M7A 2E6 Tel: (416) 326-4740 Fax: (416) 325-1066 www.aboriginalaffairs.gov.on.ca

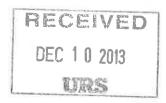
### Ministère des Affaires Autochtones

160, rue Bloor Est, 9e étage Toronto ON M7A 2E6 Tél.: (416) 326-4740 Téléc.: (416) 325-1066 www.aboriginalaffairs.gov.on.ca



Reference: T23

Christopher Schueler, P.Eng. Consultant Project Manager URS Canada Inc. 30 Leek Crescent, 4th Floor Richmond Hill, ON L4B 4N4



Re: **Notice Public Information Centre** 

Highway 410 Widening from South of Highway 401 to Queen Street

G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project **Ontario Ministry of Transportation** 

Dear Mr. Schueler:

Thank you for informing the Ministry of Aboriginal Affairs (MAA) of your project. Please note that MAA treats all letters, emails, general notices, etc. about a project as a request for information about which Aboriginal communities may have rights or interests in the project area.

As a member of the government review team, the Ministry of Aboriginal Affairs (MAA) identifies First Nation and Métis communities who may have the following interests in the area of your project:

- · reserves;
- land claims or claims in litigation against Ontario;
- existing or asserted Aboriginal or treaty rights, such as harvesting rights; or
- an interest in the area of the project.

MAA is not the approval or regulatory authority for your project, and receives very limited information about projects in the early stages of their development. In circumstances where a Crown-approved project may negatively impact a claimed Aboriginal or treaty right, the Crown may have a duty to consult the Aboriginal community advancing the claim. The Crown often delegates procedural aspects of its duty to consult to proponents. Please note that the information in this letter should not be relied on as advice about whether the Crown owes a duty to consult in respect of your project, or what consultation may be appropriate. Should you have any questions about your consultation obligations, please contact the appropriate ministry.

You should be aware that many First Nations either have or assert rights to hunt and fish in their traditional territories; these territories typically include lands and waters outside of their reserves.

In some instances, project work may impact aboriginal archaeological resources. If any Aboriginal archaeological resources could be impacted by your project, you should contact your regulating or approving Ministry to inquire about whether any additional Aboriginal communities should be contacted. Aboriginal communities with an interest in archaeological resources may include communities who are not presently located in the vicinity of the proposed project.

With respect to your project, and based on the brief materials you have provided, we can advise that the project appears to be located in an area where First Nations may have existing or asserted rights or claims in Ontario's land claims process or litigation, that could be impacted by your project. Contact information is below:

Six Nations of the Grand River Territory P.O. Box 5000, 1695 Chiefswood Road OHSWEKEN, Ontario N0A 1M0	Chief Ava Hill (519) 445-2201 (Fax) 445-4208	
Haudenosaunee Confederacy Chiefs Council 2634 6th Line Road RR 2 Ohsweken, ON N0A 1M0	Hohahes Leroy Hill Secretary to Haudenosaunee Confederacy Chiefs Council Cell 519 717 7326 jocko@sixnationsns.com	
Mississaugas of the New Credit First Nation 2789 Mississauga Rd., R.R. #6 HAGERSVILLE, Ontario N0A 1H0	Chief Bryan LaForme (905) 768-1133 (Fax) 768-1225 bryanlaforme@newcreditfirstnation.com	

The information upon which the above comments are based is subject to change. First Nation or Métis communities can make claims at any time, and other developments can occur that could result in additional communities being affected by or interested in your undertaking.

Through Aboriginal Affairs and Northern Development (AANDC), the Government of Canada sometimes receives claims that Ontario does not receive, or with which Ontario does not become involved. AANDC's Consultation and Accommodation Unit (CAU) established a "single window" to respond to requests for baseline information held by AANDC on established or potential Aboriginal Treaty and rights. To request information from the Ontario Subject Matter Expert send an email to: <a href="https://docs.px.edu/UCA-CAU@aadnc-aandc.gc.ca">UCA-CAU@aadnc-aandc.gc.ca</a>

Additional details about your project or changes to it that suggest impacts beyond what you have provided to date may necessitate further consideration of which Aboriginal communities may be affected by or interested in your undertaking. If you think that further consideration may be required, please bring your inquiry to whatever government body oversees the regulatory process for your project. MAA does not wish to be kept informed of the progress of the project; please be sure to remove MAA from the mailing list.

Yours truly,

Heather Levecque

Manager, Consultation Unit

Aboriginal Relations and Ministry Partnerships Division

# Martins, Trish

**Subject:** FW: 46228 - PIC Response

From: Sharon Lingertat [mailto:SLingertat@trca.on.ca]

**Sent:** Friday, January 03, 2014 9:48 AM

To: Wright, Holly

Cc: Schueler, Chris; mike.marinelli@ontario.ca; Beth Williston; Chandra Sharma; Vince D'Elia

Subject: 46228 - PIC Response

Hi Holly,

Thank you for sending the PIC boards. Please find our response attached.

Regards, Sharon

Sharon Lingertat, MCIP, RPP | Senior Planner, Environmental Assessment Planning | Toronto and Region Conservation Authority | 5 Shoreham Drive | Toronto, ON | M3N 1S4 | 416-661-6600 ext. 5717 | Singertat@trca.on.ca | 4 www.trca.on.ca

"\*PLEASE CONSIDER THE ENVIRONMENT WHEN DECIDING TO PRINT THIS MESSAGE\*

Toronto and Region Conservation Authority Confidentiality Notice:

The information contained in this communication including any attachments may be confidential, is intended only for use of the recipient(s) named above, and may be legally privileged. If the reader of the message is not the intended recipient, you are hereby notified that any dissemination, distribution, disclosure or copying of this communication is strictly prohibited. If you have received this communication in error, please resend this communication to the sender and delete it permanently from your computer system.

Thank you."



January 3, 2014

CFN 46228

### BY E-MAIL ONLY (holly.wright@urs.com)

Holly Wright
URS Canada Inc.
30 Leek Crescent, 4<sup>th</sup> Floor
Richmond Hill, ON L4B 4N4

Dear Ms. Wright:

Re: Response to Public Information Centre (PIC) Materials

Highway 410 Widening (South of Highway 401 to North of Queen Street)

Etobicoke Creek Watershed; City of Mississauga and City of Brampton; Region of Peel

Toronto and Region Conservation Authority (TRCA) received the PIC materials on December 16, 2013. Staff has reviewed the information provided and note that 14 watercourses are located within the study area and that the Etobicoke Creek bridge will be widened as a part of these works.

As indicated in our correspondence dated August 23, 2011, please ensure the comments previously provided in letters dated April 20, 2010 and June 15, 2009 are addressed in the design submission, particularly as it relates to updating the hydrologic and hydraulic models and impacts to vegetation communities. Please also provide one (1) hard copy of the Design and Construction Report together with a digital copy of the report and the modeling.

Should you have any questions or require any additional information, please contact me at extension 5717 or at slingertat@trca.on.ca.

Sincerely,

Sharon Lingertat

Senior Planner, Environmental Assessment Planning

Planning and Development

BY E-MAIL

<u>----</u>

URS: Chris Schueler (<u>chris.schueler@urs.com</u>)

MTO: Mike Marinelli (mike marinelli@ontario.ca)

TRCA: Beth Williston, Senior Manager, Environmental Assessment Planning

Chandra Sharma, Etobicoke/Miimico Watershed Specialist Vince D'Elia, Project Manager, Watershed Planning

C:\A\46228 - PIC Response.Docx

# Martins, Trish

**Subject:** FW: 46228 - Hwy 410 - PIC

From: Wright, Holly

Sent: Monday, December 16, 2013 5:40 PM

To: 'Sharon Lingertat'

Cc: mike.marinelli@ontario.ca; Beth Williston; Chandra Sharma; Vince D'Elia; Schueler, Chris; Syed, Saad; Ristic, Serge

Subject: RE: 46228 - Hwy 410 - PIC

Hi Sharon,

As requested, attached is a copy of the Public Information Centre display material presented on December 11, 2013.

Should you require further information regarding this project, please feel free to contact us.

Regards,

-Holly

Please note our new office location.

Holly Y. Wright, MEB, BES, EA

Project Environmental Planner

Environmental Planning Department, Sustainable Transportation Group

**URS Canada Inc.** – Consulting Engineers & Geoscientists

4<sup>th</sup> Floor, 30 Leek Crescent, Richmond Hill, ON L4B 4N4 Canada

Direct: 905.747.1805 URS Main: 905.882.4401 Cell: 416-953-2778

Fax: 905.882.4399

E-mail: holly.wright@urs.com www.urs.ca

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# Martins, Trish

**Subject:** FW: 46228 - Hwy 410 - PIC

**Attachments:** 46228 - PIC.pdf

From: Sharon Lingertat [mailto:SLingertat@trca.on.ca]

Sent: Monday, December 16, 2013 2:46 PM

To: Schueler, Chris

Cc: mike.marinelli@ontario.ca; Wright, Holly; Beth Williston; Chandra Sharma; Vince D'Elia

**Subject:** 46228 - Hwy 410 - PIC

Hi Chris,

Please find attached our response to the Notice of PIC.

Regards, Sharon

Sharon Lingertat, MCIP, RPP | Senior Planner, Environmental Assessment Planning | Toronto and Region Conservation Authority | 5 Shoreham Drive | Toronto, ON | M3N 1S4 | 416-661-6600 ext. 5717 | Singertat@trca.on.ca | 48 www.trca.on.ca

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Thank you."

<sup>&</sup>quot;\*PLEASE CONSIDER THE ENVIRONMENT WHEN DECIDING TO PRINT THIS MESSAGE\*



December 16, 2013

CFN 46228

# BY E-MAIL ONLY (chris.schueler@urs.com)

Christopher Schueler URS Canada Inc. 30 Leek Crescent, 4<sup>th</sup> Floor Richmond Hill, ON L4B 4N4

Dear Mr. Schueler.

Re: Response to Notice of Public Information Centre

Highway 410 Widening (South of Highway 401 Northerly to Queen Street)

Etobicoke Creek Watershed; City of Mississauga and City of Brampton; Region of Peel

Toronto and Region Conservation Authority (TRCA) staff received notice of the Public Information Centre (PIC) held on December 11, 2013. Further to TRCA correspondence dated February 24, 2012, staff has expressed interest in this project. While staff was unable to attend the meeting, please forward one copy of any handouts or display materials from this meeting for our files.

Should you have any questions, please contact me at extension 5717 or at slingertat@trca.on.ca.

Yours truly,

Sharon Lingertat

Senior Planner, Environmental Assessment Planning

Planning and Development

BY E-MAIL

c: MTO: Mike Marinelli (mike marinelli@ontario.ca)

URS: Holly Wright (holly.wright@urs.com)

TRCA: Beth Williston, Senior Manager, Environmental Assessment Planning

Chandra Sharma, Etobicoke/Mimico Watershed Specialist Vince D'Elia, Project Manager, Watershed Planning

C:\A\46228 - PIC.Docx

From: Wright, Holly
To: "Varghese, Bino"

Cc: Sarris, Larry (MTO) (Larry.Sarris@ontario.ca); mike.marinelli@ontario.ca; Schueler, Chris; Syed, Saad; Pritchard,

Roy

Subject: RE: G.W.P. 2144-07-00 - Highway 410 Widening - From South of Highway 401 Northerly to Queen Street -

Detail Design & Class Environmental Assessment - Upcoming Public Information Centre December 11, 2013

**Date:** Friday, January 10, 2014 10:21:00 AM

Dear Mr. Varghese,

On behalf of the *Highway 410 Widening from South of Highway 401 Northerly to Queen Street* Project Team thank you for your interest in this project.

As you have requested, our Project Team will send you a copy of the final Detail Design drawings in March of this year.

Please feel free to contact me if you have any further questions.

Regards,

-Holly

### Holly Y. Wright, MEB, BES, EA

Project Environmental Planner

Environmental Planning Department, Sustainable Transportation Group

**URS Canada Inc.** – Consulting Engineers & Geoscientists

4<sup>th</sup> Floor, 30 Leek Crescent, Richmond Hill, ON L4B 4N4 Canada Direct: 905.747.1805 URS Main: 905.882.4401 Cell: 416-953-2778

Fax: 905.882.4399

E-mail: holly.wright@urs.com www.urs.ca

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From: Varghese, Bino [mailto:Bino.Varghese@brampton.ca]

Sent: Thursday, December 19, 2013 10:36 AM

**To:** Wright, Holly

Cc: Sarris, Larry (MTO) (Larry.Sarris@ontario.ca); mike.marinelli@ontario.ca; Schueler, Chris; Syed,

Saad

**Subject:** RE: G.W.P. 2144-07-00 - Highway 410 Widening - From South of Highway 401 Northerly to Queen Street - Detail Design & Class Environmental Assessment - Upcoming Public Information Centre

December 11, 2013

Holly,

As discussed, please provide 90% detailed design submission for this project to City of Brampton for review and comments.

Thanks,

Bino

From: Wright, Holly [mailto:holly.wright@urs.com]

**Sent:** 2013/12/04 3:30 PM **To:** Varghese, Bino

Cc: Sarris, Larry (MTO) (Larry.Sarris@ontario.ca); mike.marinelli@ontario.ca; Schueler, Chris; Syed,

Saad

**Subject:** G.W.P. 2144-07-00 - Highway 410 Widening - From South of Highway 401 Northerly to Queen Street - Detail Design & Class Environmental Assessment - Upcoming Public Information Centre

December 11, 2013

Good afternoon,

As requested, attached is a copy of the Public Information Centre display material.

We look forward to meeting with you tomorrow.

Regards, -Holly

Please note our new office location.

### Holly Y. Wright, MEB, BES, EA

Project Environmental Planner

Environmental Planning Department, Sustainable Transportation Group

**URS Canada Inc.** – Consulting Engineers & Geoscientists

4<sup>th</sup> Floor, 30 Leek Crescent, Richmond Hill, ON L4B 4N4 Canada Direct: 905.747.1805 URS Main: 905.882.4401 Cell: 416-953-2778

Fax: 905.882.4399

E-mail: <a href="mailto:holly.wright@urs.com">holly.wright@urs.com</a> <a href="mailto:www.urs.ca">www.urs.ca</a>

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5650 Hurontario Street Mississauga, ON, Canada L5R 1C6 t 905.890.1010 1.800.668.1146 f 905.890.6747 www.peelschools.org

January 2, 2014

Mr. Christopher Schueler, P.Eng. Consultant Project Manager URS Canada Inc. 30 Leek Crescent, 4th Floor Richmond Hill, ON L4B 4N4

Dear Mr. Schueler:

RE: **Notice of Public Information Centre (PIC)** 

Highway 410 Widening - South of Highway 401 Northerly to Queen Street

G.W.P 2144-07-00

Detail Design and Class Environmental Assessment Group "B" Project **Ontario Ministry of Transportation** 

Thank you for your letter dated November 27, 2013 informing the Board of the PIC that was held on December 11, 2013 for the above noted project. The Peel District School Board is interested in this project. Please keep us informed of the status of this project and provide us with any information available so that we may monitor its progress and provide comments as necessary.

If you require any further information please contact me at 905-890-1010, ext. 2724.

Yours truly,

Branko Vidovic

Intermediate Planning Officer

Planning and Accommodation Department

D. Dundas, Peel District School Board c.

M. Marinelli, Ontario Ministry of Transportation

H. Wright, URS Canada Inc.

410 Widening south of 401 northerly to queen street PIC.doc



# Martins, Trish

Subject:

FW: Highway 410 widening etc.

From: Wright, Holly

Sent: Tuesday, January 07, 2014 3:27 PM

To:

Cc: Sarris, Larry (MTO) (Larry.Sarris@ontario.ca)

Subject: RE: Highway 410 widening etc.

Dear

On behalf of the Highway 410 Widening from South of Highway 401 Northerly to Queen Street Project Team thank you for your interest in this project.

As you have requested, attached is a copy of the display package presented at the December 11, 2013 Public Information Centre (PIC).

The project limits extend from south of Highway 401 northerly to just north of Queen Street (a distance of about 12 km). MTO is focusing on the widening of Highway 410 from Highway 401 to Queen Street presently. In the future MTO will initiate a planning study on Highway 410 from Queen to Bovaird. The timing of the study will be prioritized against other provincial needs.

This study is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the study. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list. We will continue to notify you of all future consultation activities related to this project.

If you would like to provide comments, or if you require further information regarding this study, please feel free to contact me.

Sincerely, Holly

## Holly Y. Wright, MEB, BES, EA

Project Environmental Planner

Environmental Planning Department, Sustainable Transportation Group

**URS Canada Inc.** – Consulting Engineers & Geoscientists

4<sup>th</sup> Floor, 30 Leek Crescent, Richmond Hill, ON L4B 4N4 Canada Direct: 905.747.1805 URS Main: 905.882.4401 Cell: 416-953-2778

Fax: 905.882.4399

E-mail: holly.wright@urs.com www.urs.ca

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From: Martins, Trish

**Sent:** Monday, January 06, 2014 8:14 AM

To: Wright, Holly

Subject: FW: Highway 410 widening etc.,

From:

Sent: Saturday, January 04, 2014 5:52 PM

To: Martins, Trish

Subject: Highway 410 widening etc.,

Dear Trish, I had received your invite to attend the Public Information session on Dec., 11th 2013, at the Courtyard Marriott.

Unfortunitly I could not attend, due to a number of issues going on in Brampton at that time i.e. City 2014 Budget, Audit meetings, etc.,

As a follow up, I was wondering if indeed you may have an Information Report of what transpired at your meeting.

One question that perhaps you could confirm for me is: Does the planned expansion / extension only go as far north as Queen St or could it carry on up to Bovaird Dr?

Again, sorry I did not get there, Regards,

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From: Marinelli, Mike (MTO)

To: "Varghese, Bino"; Syed, Saad; Schueler, Chris
Cc: Lai, Joseph (MTO); Pritchard, Roy; Wright, Holly

Subject: RE: PIC BOARD

**Date:** Wednesday, January 15, 2014 2:06:22 PM

Bino,

Thank you for your comments. I have reviewed your comments and have the following reply.

- The car pool lot at Clark Boulevard has been designed using provincial standards with respect to designing of access, aisles, parking spaces etc.
- It would preferable if the City of Brampton could delay the construction of the Etobicoke Creek Trail in the vicinity of Hwy. 410 as this area will be under construction beginning in the summer of 2014 and lasting 5 yrs. Access to the area will be restricted for this period.

If you have any further questions or concerns please feel free to contact me.

**Thanks** 

Mike

# Mike Marinelli | Project Manager Ministry of Transportation | Central Region

Planning and Design - Peel & Halton Section | 4th Floor, Bldg.D

1201 Wilson Avenue | Downsview T: 416-235-4639 | F: 416-235-3576

**From:** Varghese, Bino [mailto:Bino.Varghese@brampton.ca]

**Sent:** January 9, 2014 4:21 PM

**To:** Syed, Saad (saad.syed@urs.com); Schueler, Chris (chris.schueler@urs.com); Marinelli, Mike (MTO)

Subject: FW: PIC BOARD

Hi All,

Please find attached the consolidated comments from City of Brampton.

Regards,

Bino

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MTO-2144-07-00 Highway 410 Widening (PIC BOARD)					
Jason Preet	Steeles Ave:	o Provide photometric analysis for intersections if modifying pole locations with street lighting fixtures. o overpass lighting to be maintained. o Will rehabilitation of bridge affect light poles mounted onto bridge structure?			
	Glidden Rd:	o Consultant to confirm electrical layout and location of power supplies for underpass lighting o Underpass lighting to be maintained. o If underpass lighting is impacted by bridge widening, temporary and permanent lighting to be provided, complete with photometrics			
	Orenda Rd:	o Consultant to confirm electrical layout and location of power supplies for underpass lighting o Underpass lighting to be maintained. o If underpass lighting is impacted by bridge widening, temporary and permanent lighting to be provided, complete with photometrics			
	Queen St:	o Provide photometric analysis for intersections if modifying pole locations with street lighting fixtures. o overpass lighting to be maintained. o Will rehabilitation of bridge affect light poles mounted onto bridge structure? o If yes, temporary and permanent lighting to be provided, complete with photometrics			
	Board 6	<ul> <li>I am surprised that Air Quality and Groundwater is listed under Socio- Economic Impacts as opposed to the Natural Environment</li> </ul>			
		Under Socio-Economic Impact there should be recognition of future     Etobicoke Creek Trail – the trail has been planned and is generally approved under Highway 410. This is an important trail connection for the City linking Brampton to Mississauga, and the Greenbelt to Lake Ontario. The City hopes to construct this trail sometime in 2014 or shortly thereafter.  Fish & Fish Habitat			

Susan Jorgenson		<ul> <li>in-water construction is noted; however, there is no indication of channel/channel bank stabilization and remediation to address this construction</li> </ul>	
	Board 15	<ul> <li>there is no indication of post- construction bank/overbank treatment within the new culvert extension – vegetation is being removed and therefore, some form of stabilization of new banks is required</li> </ul>	
		<ul> <li>Terrestrial (Vegetation) – notes minimizing disturbance of vegetation but not future stabilization and/or restoration plantings except "Temporarily disturbed areas will be restored and salvage/reuse of original vegetation and topsoil will be considered where possible". Should include need for additional plantings as determined through detailed design.</li> </ul>	
	Board 16 & 17	<ul> <li>should acknowledge Etobicoke Creek Trail and issues of pedestrian trail passage during construction if feasible.</li> <li>Lastly, based on the comments above, it might be advisable that they include a PIC board regarding the Etobicoke Creek crossing and the pedestri an trail.</li> </ul>	
GHAZ MOHAMMAD		New Carpool Lot at Clark Boulevard:     City's standards will be followed  with respect to designing of second.	
		with respect to designing of access, aisles, parking spaces etc.	

From: Zirger, Rosi (MTCS)
To: Wright, Holly

Cc: Schueler, Chris; Marinelli, Mike (MTO); Sarris, Larry (MTO); Syed, Saad

Subject: RE: Highway 410 widening from south of Highway 401 northerly to Queen Street (G.W.P.2144-07-00)

**Date:** Tuesday, January 14, 2014 2:51:33 PM

### Hi Holly

Thank you for providing this project information. It is very helpful.

# Best regards Rosi

# Rosi Zirger

Heritage Planner
Ministry of Tourism, Culture & Sport
Culture Division | Programs & Services Branch | Culture Services Unit
401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7
Tel. 416.314.7159 | Fax 416.314.7175 | E-mail: rosi.zirger@ontario.ca

**From:** Wright, Holly [mailto:holly.wright@urs.com]

**Sent:** January 14, 2014 2:21 PM

To: Zirger, Rosi (MTCS)

Cc: Schueler, Chris; Marinelli, Mike (MTO); Sarris, Larry (MTO); Syed, Saad

Subject: RE: Highway 410 widening from south of Highway 401 northerly to Queen Street

(G.W.P.2144-07-00)

Dear Ms. Zirger,

On behalf of the *Highway 410 Widening from South of Highway 401 Northerly to Queen Street* Project Team thank you for your interest in this project.

As you have requested, we have updated the Project Contact List to remove the name of Chris Junker-Andersen and will send future notices to yourself.

## **Archaeology**

A Preliminary Design study was undertaken previously and a Transportation Environmental Study Report (TESR) was prepared for this segment of Highway 410 and issued in January 2010. This TESR with minor amendments was prepared and circulated in August 2010 to affected parties. In Preliminary Design the study area was determined to be previously disturbed and the commitment was made in the TESR that 'for any property acquisition outside of the Ministry of Transportation right-of-way, a Stage 1 archaeological assessment will be required for undisturbed areas'.

URS Canada Inc. (URS) was retained by the MTO to conduct a Stage 1 archaeological assessment for the Detail Design of widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga, City of Brampton, Regional Municipality of Peel. As per the Preliminary Design study TESR commitments, in Detail Design, URS conducted a

Stage 1 field assessment on one (1) site on May 31st, 2012 to determine any archaeological potential. The area assessed is a small commercial parcel backing on to Highway 410, behind "The Brick" located at 6765 Kennedy Road in Mississauga, Ontario. The PIF is P123-096-2012.

# **Built Heritage and Cultural Heritage Landscapes**

The heritage assessment undertaken during Preliminary Design and as documented in the TESR (January 2010, amended August 2010) concluded that there are no designated properties, or significant built heritage features within the study area. No impact assessment or mitigation recommendations are necessary at this time. There are several bridges within the Project Limits out of which (9) overpass bridges will be rehabilitated and widened and two (2) underpass bridges will be rehabilitated only as part of this project. None of the bridges are 40 years old or over (see table below).

Bridge	Site Number	Built
Matheson Blvd	24-354/1	1982
Etobicoke Creek (NBL)	24-313/1	1978
Etobicoke Creek (SBL)	24-313/2	1988
Glidden Road (NBL)	24-487/1	1986
Glidden Road (SBL)	24-487/2	1986
CNR Overhead (NBL)	24-477/1	1985
CNR Overhead (SBL)	24-477/2	1985
Orenda Road (NBL)	24-476/1	1984
Orenda Road (SBL)	24-476/2	1984
Clark Blvd Underpass	24-471	1984
Queen St. Underpass	24-343/1&2	1985

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the study. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list. We will continue to notify you of all future consultation activities related to this project.

Please do not hesitate to contact me if you have any further questions.

Regards, Holly

Holly Y. Wright, MEB, BES, EA

Project Environmental Planner

Environmental Planning Department, Sustainable Transportation Group **URS Canada Inc.** – Consulting Engineers & Geoscientists

4<sup>th</sup> Floor, 30 Leek Crescent, Richmond Hill, ON L4B 4N4 Canada Direct: 905.747.1805 URS Main: 905.882.4401 Cell: 416-953-2778

Fax: 905.882.4399

E-mail: <a href="mailto:holly.wright@urs.com">holly.wright@urs.com</a> <a href="mailto:www.urs.ca">www.urs.ca</a>



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From: Zirger, Rosi (MTCS) [mailto:Rosi.Zirger@ontario.ca]

Sent: Thursday, January 09, 2014 12:39 PM

**To:** Schueler, Chris; Marinelli, Mike (MTO); Wright, Holly

Subject: Highway 410 widening from south of Highway 401 northerly to Queen Street (G.W.P.2144-

07-00)

Project: Highway 410 widening from south of Highway 401 northerly to Queen Street -

Detail Design Class EA Group B Project (G.W.P.2144-07-00)

Location: Cities of Mississauga and Brampton, Region of Peel

MTCS File: 00542

To: Christopher Schueler, Consultant Project Manager, URS Canada Inc. Holly Wright, Consultant Project Environmental Planner, URS Canada Inc. Mike Marinelli, Project Manager, Ministry of Transportation

On December 5th, 2013 the Ministry of Tourism, Culture and Sport (MTCS) received a Notice of Public Information Centre for the project mentioned above. As part of the Class Environmental Assessment process, the MTCS has an interest in the conservation of cultural heritage resources including:

- · archaeological resources,
- built heritage resources, and
- cultural heritage landscapes.

MTCS would, therefore, be interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process. We would ask that you update your contact list to remove the name of Chris Junker-Andersen send future notices to **Rosi Zirger Heritage Planner at the address below**.

The information provided indicates that key details of the recommended plan include:

- widening of a number of bridges
- rehabilitation of two underpass structures
- introduction of carpool lots

### **Archaeology**

Could you please advise whether archaeological assessments will be undertaken as part of this EA? If so could you please provide the relevant PIF numbers. Could you also advise whether archaeological assessments were completed as part of early phases of the EA?

# **Built Heritage and Cultural Heritage Landscapes**

Are any of the bridges or structures being widened or rehabilitated 40 years old or over? If so, could you please advise whether the necessary cultural heritage evaluations and/or impact studies have been or are being undertaken?

Thank you in advance.

## Rosi Zirger

Heritage Planner
Ministry of Tourism, Culture & Sport
Culture Division | Programs & Services Branch | Culture Services Unit
401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

# **Appendix C Notification Materials**





# NOTICE OF COMMENCEMENT OF DETAIL DESIGN HIGHWAY 410 WIDENING FROM SOUTH OF HIGHWAY 401 NORTHERLY TO QUEEN STREET G.W.P. 2144-07-00

### **THE PROJECT**

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton. The Recommended Plan from the Preliminary Design and the Transportation Environmental Study Report of January 2010 has widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane. The project will also include an assessment of opportunities for Commuter Parking lots at the Courtneypark Drive and Clark Boulevard interchanges.

### **THE PROCESS**

This project will follow the planning process for a Group "B" project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Design and Construction Report (DCR) will be prepared and made available for a 30-day public review period at the completion of the study.

A Public Information Centre (PIC) will be held to present the design details of the project including construction staging, potential environmental impacts and mitigation measures and provide you with an opportunity to discuss the project with the Project Team.

Notification of the time and location for the PIC and the location for DCR review will be published in this newspaper.



### **COMMENTS**

To obtain additional information, provide comments, or to have your name placed on the project mailing list, please contact:

## Tahirou Assane, P.Eng.

Project Manager Ministry of Transportation 4th Floor, Building "D" 1201 Wilson Avenue Downsview, ON M3M 1J8 Tel: 416-235-5451

Fax: 416-235-3576 tahirou.assane@ontario.ca

# Roy Pritchard, P.Eng.

Senior Project Manager URS Canada Inc. 75 Commerce Valley Drive East Markham, ON L3T 7N9 Tel: 905-882-3533

Fax: 905-882-4399 roy\_pritchard@urscorp.com

Comments and information are being collected to assist in meeting the requirements of the *Environmental Assessment Act.* All comments will become part of the public record, with the exception of personal information in accordance with the *Freedom of Information and Protection of Privacy Act.* 

Renseignements en français disponibles en composant le (905) 882-4401 poste 253 (Karen Cooper) ou karen\_cooper@urscorp.com.

# AVIS DE DÉBUT DE LA CONCEPTION DÉTAILLÉE ÉLARGISSEMENT DE L'AUTOROUTE 410 DU SUD DE L'AUTOROUTE 401 VERS LE NORD, JUSQU'À LA RUE QUEEN G.W.P. 2144-07-00

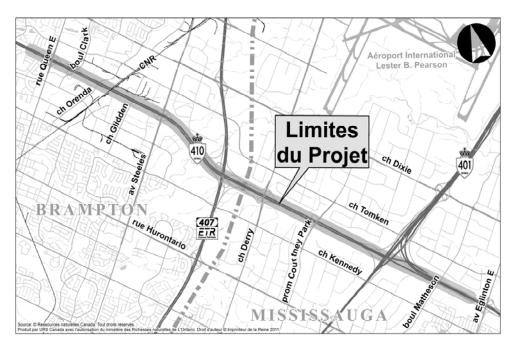
# **LE PROJET**

Le ministère des Transports (MTO) a retenu les services de URS Canada Inc. pour entreprendre la conception détaillée de l'élargissement de l'autoroute 410, du sud de l'autoroute 401 vers le nord, jusqu'à la rue Queen (une distance d'environ 12 km), dans les villes de Mississauga et de Brampton. Le plan recommandé issu du rapport de l'étude de conception préliminaire et évaluation environnementale pour le transport de janvier 2010 comprend l'élargissement de l'autoroute 410 dans le terre-plein central en y construisant deux voies additionnelles dans chaque direction. Une voie dans chaque direction sera réservée aux véhicules multioccupants (VMO). Le projet permettra aussi d'évaluer les possibilités de construction de terrains de stationnement pour navetteurs aux échangeurs de la promenade Courtneypark et du boulevard Clark.

### **LE PROCESSUS**

Le projet suivra le processus de planification pour les projets du groupe « B », selon l'évaluation environnementale de portée générale pour les installations provinciales de transport (2000). Un rapport de conception et de construction sera rédigé et, au terme de l'étude, soumis à une période d'examen public de 30 jours.

Une séance d'information publique (SIP) sera organisée dans le but de présenter la conception détaillée du projet, laquelle comprend notamment la séquence des travaux de construction, les impacts environnementaux potentiels et les mesures d'atténuation. Ainsi, le public aura la possibilité de discuter du projet avec l'équipe de projet.



Des avis portant sur le lieu et la date de la SIP et de l'examen public du rapport de conception et de construction seront publiés dans ce journal.

### **COMMENTAIRES**

Pour obtenir des renseignements supplémentaires, fournir des commentaires ou demander que votre nom soit inscrit à la liste d'envoi du projet, veuillez communiquer avec :

### Tahirou Assane, ing.

Chef de projet
Ministère des Transports
Édifice « D », 4<sup>e</sup> étage
1201, avenue Wilson
Downsview (Ontario) M3M 1J8
Tél.: 416 235-5451

Téléc.: 416 235-3576 tahirou.assane@ontario.ca

# Roy Pritchard, ing.

Chef de projet
URS Canada Inc.
75, promenade Commerce Valley Est
Markham (Ontario) L3T 7N9
Tél.: 905 882-4401

Téléc.: 905 882-4399 roy\_pritchard@urscorp.com

Des commentaires et des renseignements sont recueillis pour que les exigences de la *Loi sur les évaluations environnementales* puissent être respectées. Tous les commentaires feront partie du dossier public à l'exception des renseignements personnels, conformément à la *Loi provinciale sur l'accès à l'information et la protection de la vie privée.* 

Renseignements en français disponibles en composant le (905) 882-4401 poste 253 (Karen Cooper) ou karen\_cooper@urscorp.com.

### EXTERNAL AGENCY LETTER

July 22, 2011

«Agency» «Address»

Attention: «Name» «Title»

RE: Notice of Commencement of Detail Design Highway 410 Widening from south of Highway 401 northerly to Queen Street Class Environmental Assessment Group 'B' Project G.W.P. 2144-07-00

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton (See attached Notice).

A Preliminary Design and the Transportation Environmental Study Report (TESR) were completed in 2010. The following work items are included in this assignment:

- Widening of Highway 410 into the median area with the construction of two additional lanes in each direction. One lane both southbound and northbound will be a dedicated High Occupancy Vehicle (HOV) lane
- Opportunities for Commuter Parking lots at Courtneypark Drive (northeast quadrant) and Clark Boulevard (southwest quadrant) interchanges
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek
- Stormwater Management
- Improvements at CourtneyPark Drive, Derry Road and Steeles Avenue interchanges
- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30-day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

At this time, we are seeking your input and program delivery concerns that may be affected by our construction procedures. Please provide any comments as well as the completed Stakeholder Contact Information Form (see attached) by September 2<sup>nd</sup>, 2011.

Should you have any questions or require further information, please feel free to contact the undersigned.

Yours truly,

Tyler Drygas Senior Environmental Planner (905) 882.4401

cc. T. Assane - MTO Project Manager
L. Sarris - MTO Environmental Planner

R. Pritchard - URS Senior Project Manager

Encl. (notice, map and response form)



## HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



## STAKEHOLDER CONTACT INFORMATION FORM PLEASE RETURN BY SEPTEMBER 2<sup>ND</sup>, 2011

1.) Does your organization wish to participate in activities and information as this study progresses?	this study and continue to receive notices of project  Yes  No
2.) Please provide contact information for the individent NAME:	ual who will act as the main point of contact.
TITLE:	
DEPARTMENT:	
ORGANIZATION:	
MAILING ADDRESS:	
PHONE NUMBER:	
FAX:	
E-MAIL ADDRESS:	
3.) Please indicate if this project will affect the del relevant information.	livery of your programs or services, and/or any other
Your information and comments will be kept on file to	for use during the Study. Please submit this form to:
Submitted By (if different than above):	Tyler Drygas Senior Environmental Planner URS Canada Inc. 75 Commerce Valley Drive East Markham, Ontario, L3T 7N9 Fax: (905) 882-4399 E-mail: tyler_drygas@urscorp.com

### **AAND and MAA LETTER**

July 22, 2011

«Agency» «Address»

Attention: «Name» «Title»

RE: Notice of Commencement of Detail Design
Highway 410 Widening from south of Highway 401 northerly to Queen Street
Class Environmental Assessment Group 'B' Project
G.W.P. 2144-07-00

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake a Detail Design for widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km) in the City of Mississauga and the City of Brampton (See attached Notice).

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- Improvements at CourtneyPark Drive, Derry Road and Steeles Avenue interchanges
- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30 day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

The purpose of this letter is to seek your assistance in identifying any Aboriginal Nation communities who may have an interest in this project, so that we may engage them in constructive consultation. Please provide any comments as well as the completed Stakeholder Contact Information Form (see attached) by September 2<sup>nd</sup>, 2011.

Should you have any questions or require further information, please feel free to contact the undersigned.

Yours truly.

**URS** Canada Inc.

Tyler Drygas Senior Environmental Planner (905) 882.4401

cc. T. Assane - MTO Project Manager

L. Sarris - MTO Environmental PlannerR. Pritchard - URS Senior Project Manager

Encl (notice, map and response form)



## HIGHWAY 410 WIDENING DETAIL DESIGN South of Highway 401 northerly to Queen Street



## STAKEHOLDER CONTACT INFORMATION FORM PLEASE RETURN BY SEPTEMBER 2<sup>ND</sup>, 2011

1.) Does your organization wish to participate in activities and information as this study progresses?	this study and continue to receive notices of project  Yes  No
2.) Please provide contact information for the individent NAME:	ual who will act as the main point of contact.
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DEPARTMENT:	
ORGANIZATION:	
MAILING ADDRESS:	
PHONE NUMBER:	
FAX:	
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3.) Please indicate if this project will affect the del relevant information.	livery of your programs or services, and/or any other
Your information and comments will be kept on file to	for use during the Study. Please submit this form to:
Submitted By (if different than above):	Tyler Drygas Senior Environmental Planner URS Canada Inc. 75 Commerce Valley Drive East Markham, Ontario, L3T 7N9 Fax: (905) 882-4399 E-mail: tyler_drygas@urscorp.com

### **Public Letter**

August 2, 2011

«Agency» «Address»

Attention: «Name» «Title»

RE: Notice of Commencement of Detail Design
Highway 410 Widening from south of Highway 401 northerly to Queen Street
Class Environmental Assessment Group 'B' Project
G.W.P. 2144-07-00

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- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30-day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

Please find the attached Notice of Commencement of Detail Design. Should you have any questions or require further information, please feel free to contact the undersigned.

Yours truly,

Tyler Drygas Senior Environmental Planner (905) 882-4401

cc. T. Assane - MTO Project Manager

L. Sarris - MTO Environmental PlannerR. Pritchard - URS Senior Project Manager

Encl. (notice)

### **First Nation Letter**

Ministry of Transportation Engineering Office Central Region 4th Floor, Bldg. D 1201 Wilson Avenue Downsview, Ontario M3M 1J8 Fax: (416) 235-3576 Ministère des Transports Bureau de génie Région du Centre 4e étage, édifice D 1201 avenue Wilson Downsview Ontario M3M1J8 Téléc: (416) 235-3576



July 22, 2011

«Address»

Attention: «Name» «Title»

RE: Notice of Commencement of Detail Design Highway 410 Widening from south of Highway 401 northerly to Queen Street Class Environmental Assessment Group 'B' Project G.W.P. 2144-07-00

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- Improvements at Courtneypark Drive, Derry Road and Steeles Avenue interchanges
- Installation of High Mast illumination
- Implementation of the COMPASS system within the project boundary

This study will follow the planning process for a Group 'B' project under the *Class Environmental Assessment for Provincial Transportation Facilities* (2000). A Public Information Centre will be conducted to present project details and solicit comments and input from the public and regulatory agencies. At the end of this assignment, a Design and Construction Report (DCR) will be posted for a 30 day review and will outline ongoing consultation, potential environmental impacts and proposed mitigation strategies.

For this Detail Design assignment, we will be examining the environmental factors of:

- Fish and Fish Habitat Conditions and Impact Assessment for the Etobicoke Creek watershed
- Terrestrial Ecosystems to document migratory birds, vegetation compositions and ecological land classification
- Potentially contaminated land, materials and pathways
- Stage 1 archaeological assessment for areas that may be required beyond the current Highway 410 right-of-way following Ministry of Tourism and Culture requirements for the completion of archaeological assessments

### **First Nation Letter**

- Cultural and Economic land uses
- Sediment and erosion areas and avoidance/mitigation techniques
- Groundwater and surface water quality
- Excess material management

A key component of all of these studies is the development of environmental protection and mitigation measures to avoid/prevent or control/mitigate any adverse environmental impacts on the natural environment and cultural resources. All measures developed for this project will be documented in the DCR.

The purpose of this letter is twofold. First, we are seeking to identify any interest you may have in this project and secondly, to identify any information or details on the environment that we may not be aware of.

Should you have any questions or require further information, please feel free to contact the undersigned.

Yours truly,

Tahirou Assane Project Manager (416) 235-5451

cc. L. Sarris - MTO Environmental Planner R. Pritchard - URS Senior Project Manager T. Drygas - URS Environmental Planner

Encl. (notice, map and response form)

## ONTARIO GOVERNMENT NOTICE NOTICE OF PUBLIC INFORMATION CENTRE

## Highway 410 Widening From South of Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00 Detail Design and Class Environmental Assessment

### THE PROJECT

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake the Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km). The project limits are located in the City of Mississauga, City of Brampton in the Region of Peel.

BRAMPTO

### THE DETAIL DESIGN PLAN

Key details of the recommended plan include:

- Widening of Highway 410 into the median to accommodate one high occupancy vehicle (HOV) lane and one general purpose lane (GPL) in each direction:
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange;
- Rehabilitation of existing Highway 410 lanes, shoulders and ramps within the project limits;
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek;
- Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard Interchanges;
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive;
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges;
- Improvements to the stormwater management system and new median storm sewer systems;
- Upgrading the existing lighting systems and provisions for future Advance Traffic Management System;
- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals; and,
- · Rehabilitation of the Clark Boulevard and Queen Street underpass structures.

### THE PROCESS

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.

### **PUBLIC INFORMATION CENTRE**

The public is invited to attend a Public Information Centre (PIC) for this project. The purpose of the PIC is to present the following for public review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects. This PIC will be an informal drop-in centre with representatives from the MTO and the Consultant Team available to answer questions and discuss the project.

The PIC will be held as follows:

Wednesday December 11<sup>th</sup>, 2013 4:00 p.m. to 8:00 p.m. Courtyard Marriott Brampton (Room: Windsor B & C) 90 Biscayne Crescent, Brampton, Ontario L6W 4S1

### COMMENTS

To obtain additional information, to provide input at any point during the project, or to be placed on the project mailing list please contact:

### Mike Marinelli

Project Manager - Planning & Design —
Peel & Halton Section
Ministry of Transportation, Central Region
1201 Wilson Avenue, Building D, 4<sup>th</sup> Floor
Downsview, Ontario M3M 1J8
Tel: 416-235-4639 Fax: 416-235-3576
E-mail: mike.marinelli@ontario.ca

### Christopher Schueler, P.Eng.

Consultant Project Manager
URS Canada Inc.
30 Leek Crescent, 4<sup>th</sup> Floor
Richmond Hill, Ontario L4B 4N4
Tel: 905-882-4401 Fax: 905-882-4399
E-mail: chris.schueler@urs.com

## Holly Wright, M.E.B.

**Public Information Centre** 

**PROJECT** 

**LIMITS** 

Lester B Pearson

Dixie Rd

401

Project Environmental Planner
URS Canada Inc.
30 Leek Crescent, 4<sup>th</sup> Floor
Richmond Hill, Ontario L4B 4N4
Tel: 905-882-4401 Fax: 905-882-4399
Email: holly.wright@urs.com

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

Renseignements en français disponibles en composant le (905) 882-4401 poste 1854 (Karen Cooper) ou karen.cooper@urs.com.



## AVIS DU GOUVERNEMENT DE L'ONTARIO AVIS DU CENTRE D'INFORMATION

Élargissement de l'autoroute 410

Du sud de l'autoroute 401 vers le nord jusqu'à la rue Queen – G.W.P. 2144-07-00 Plan détaillé et évaluation environnementale de portée générale

### **PROJET**

URS Canada s'est fait confier par le ministère des Transports (MTO) le mandat de concevoir le plan détaillé pour l'élargissement de l'autoroute 410, au sud de l'autoroute 401, vers le nord, jusqu'à la rue Queen, soit une distance d'environ 12 km. Le projet est circonscrit aux villes de Mississauga et de Brampton, dans la région de Peel.

Ore

BRAMPTO

Centre d'information publique

407 ETR Limites

du Proiet

Cour

ch Tomken

Aéroport Internation Lester B. Pearson

401

### **PLAN DÉTAILLÉ**

Voici les grandes lignes du plan recommandé :

- Élargissement de l'autoroute 410 jusqu'au terre-plein central afin de créer une voie réservée aux véhicules multioccupants (VMO) et une voie ordinaire dans chaque direction.
- Ajout d'une voie pour VMO le long des voies d'accès en direction nord de l'autoroute 403, tout juste au nord de l'avenue Eglinton jusqu'à l'échangeur des autoroutes 401 et 410.
- Remise en état des voies, des bretelles d'accès et des accotements existants de l'autoroute 410, qui se situent dans les limites du projet.
- Élargissement des ponts du boulevard Matheson, d'Orenda Road, de Glidden Road, du chemin de fer du CN et du ruisseau Etobicoke.
- Création de stationnements pour le covoiturage aux échangeurs de Courtneypark Drive et du boulevard Clark.
- Reconfiguration de la bretelle de sortie de l'autoroute 410 en direction nord, vers Courtneypark Drive.
- Élargissement de la bretelle d'accès et modification de l'intersection de l'extrémité de bretelle aux échangeurs de Derry Road et de l'avenue Steeles.
- Amélioration du système de gestion des eaux pluviales et installation de nouveaux réseaux d'égouts pluviaux sur le terre-plein central.
- Réfection des systèmes d'éclairage existants et aménagement en vue du futur système avancé de gestion de la circulation.
- Achèvement des travaux de remplacement ou de modification des feux de circulation pour l'ensemble des extrémités de bretelle;
- Remise en état des structures de passage inférieur du boulevard Clark et de la rue Queen.

### **PROCESSUS**

Ce projet fait suite au processus de planification approuvé pour un projet du groupe B, conformément à l'évaluation environnementale de portée générale pour les installations provinciales de transport (2000) du MTO. Les citoyens auront l'occasion de s'exprimer tout au long du projet. Un rapport de conception et de construction sera rédigé et rendu public aux fins d'examen par le public et les organismes concernés pour une période de 30 jours, lors de l'achèvement du projet. La période d'examen du rapport de conception et de conception fera l'objet d'une annonce dans les journaux de la région, et le rapport sera envoyé aux personnes inscrites sur la liste d'envoi du projet.

### **CENTRE D'INFORMATION**

Le public est invité à se présenter au centre d'information publique mis sur pied aux fins du projet. Le public pourra y prendre connaissance du plan détaillé recommandé, de l'échelonnement des travaux et des mesures d'atténuation proposées quant aux possibles répercussions environnementales, et faire part de ses commentaires à cet égard. Les personnes intéressées peuvent se présenter à la date et aux heures indiquées au centre, où des représentants du MTO et des membres de l'équipe d'experts-conseils seront sur place pour répondre aux questions et discuter du projet.

Emplacement et heures d'ouverture du centre d'information publique :

Le mercredi 11 décembre 2013 de 16 h à 20 h Courtyard Marriott de Brampton (salles : Windsor B et C) 90, Biscayne Crescent, Brampton (Ontario) L6W 4S1

### **COMMENTAIRES**

Pour obtenir plus de renseignements, faire part de vos commentaires à tout moment pendant le projet ou pour vous inscrire sur la liste d'envoi, veuillez communiquer avec :

## Mike Marinelli

Chef de projet – Planification et conception Peel et Halton

Ministère des Transports, Région du Centre 1201, avenue Wilson, édifice D, 4º étage Downsview (Ontario) M3M 1J8 Tél.: 416 235-4639 Téléc.: 416 235-3576

Courriel: mike.marinelli@ontario.ca

### Christopher Schueler, ing.

Conseiller et chargé de projet URS Canada Inc. 30, Leek Crescent, 4<sup>e</sup> étage Richmond Hill (Ontario) L4B 4N4 Tél.: 905 882-4401 Téléc.: 905 882-4399

Courriel: chris.schueler@urs.com

## Holly Wright, maîtrise en environnement et en administration des affaires

Planificatrice de projet en environnement URS Canada Inc. 30, Leek Crescent, 4e étage Richmond Hill (Ontario) L4B 4N4

Tél.: 905 882-4401 Téléc.: 905 882-4399 Courriel: holly.wright@urs.com

Les commentaires sont recueillis afin d'aider MTO à satisfaire aux exigences prévues par la Loi sur les évaluations environnementales de l'Ontario. Ils seront conservés dans les dossiers pendant la durée du projet, et pourront être inclus dans la documentation de projet. Ces commentaires sont recueillis et utilisés conformément à la Loi sur l'accès à l'information et la protection de la vie privée. Excepté les renseignements personnels, tout commentaire sera intégré aux documents publics.

Renseignements en français disponibles en composant le 905 882-4401, poste 1854 (Karen Cooper) ou karen.cooper@urs.com.



## URS

### FINAL MP/MPP LETTER

November 27, 2013

«Contact Name»

«Organization»

«Address»

Dear «Greeting»:

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project Ontario Ministry of Transportation

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake the Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km). The project limits are located in the City of Mississauga, City of Brampton in the Region of Peel (refer to the enclosed "Notice of Public Information Centre").

Key details of the recommended plan include:

- Widening of Highway 410 into the median to accommodate one high occupancy vehicle (HOV) lane and one general purpose lane (GPL) in each direction;
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange;
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- Upgrading the existing lighting systems and provisions for future Advance Traffic Management System;
- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals; and,
- Rehabilitation of the Clark Boulevard and Queen Street underpass structures.

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.



The purpose of this letter is to notify you that a Public Information Centre (PIC) has now been scheduled for this project. Representatives from external agencies, municipalities, Aboriginal Communities, and elected officials are invited to attend an External Team Meeting prior to the PIC. The purpose of this meeting is to present the following for review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects.

The External Team Meeting will be held on:

Wednesday December 11<sup>th</sup>, 2013 3:00 p.m. to 4:00 p.m. Courtyard Marriott Brampton (Room: Windsor B & C) 90 Biscayne Crescent, Brampton, Ontario L6W 4S1

You are encouraged to attend this meeting and provide us with your views and comments so that they can be addressed as the project progresses. Following the External Team Meeting, the PIC will be open to the public from 4:00 p.m. to 8:00 p.m. You are also welcome to attend the PIC which will be an informal drop-in centre. Representatives from the MTO and the Consultant Team will be available to answer questions and discuss the project.

The enclosed "Notice of Public Information Centre" will appear in the Mississauga News and the Toronto le Metropolitan (Brampton) on Wednesday November 27, 2013 and in the Brampton Guardian on Thursday November 28, 2013.

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me at 905-882-4401 ext. 1865.

Thank you for your cooperation and assistance.

Yours truly,

Cc.

**URS** Canada Inc.

Christopher Schueler, P.Eng.

URS Consultant Project Manager

-Ministry of Transportation Project Manager M. Marinelli

L. Sarris - Ministry of Transportation Environmental Planner

H. Wright - URS Project Environmental Planner

Encl. Notice of Public Information Centre

### FINAL ABORIGINAL COMMUNITIES LETTER

### Ministry of Transportation

Engineering Office Central Region 4th Floor, Bldg. D 1201 Wilson Avenue Downsview, Ontario M3M 1J8 Fax: (416) 235-3576

### Ministère des Transports

Bureau de génie Région du Centre 4e étage, édifice D 1201 avenue Wilson Downsview Ontario M3M1J8 Téléc: (416) 235-3576



November 27, 2013

- «Name»
- «Organization»
- «Address»

### Dear «Greeting»:

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project Ontario Ministry of Transportation

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- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals;
   and,
- Rehabilitation of the Clark Boulevard and Queen Street underpass structures.

### FINAL ABORIGINAL COMMUNITIES LETTER

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.

The environmental investigations for this assignment have included:

- Fish and Fish Habitat Existing Conditions and Impact Assessment Reports.
- Terrestrial Ecosystems Report, including ecological land classification (ELC), botanical inventory, migratory bird activity, and wildlife activity and habitat.
- Groundwater Assessment (i.e. the identification of groundwater resources).
- A Stage 1 Archaeological Assessment following the Ontario Ministry of Tourism Culture and Sport guidelines for the completion of archaeological assessments.
- A Built Heritage and Cultural Heritage Landscape Assessment within the Project Limits.

The purpose of this letter is to notify you that a Public Information Centre (PIC) has now been scheduled for this project. Representatives from Aboriginal Communities, external agencies, municipalities, and elected officials are invited to attend an External Team Meeting prior to the PIC. The purpose of this meeting is to present the following for review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects.

The External Team Meeting will be held on:

Wednesday December 11<sup>th</sup>, 2013 3:00 p.m. to 4:00 p.m. Courtyard Marriott Brampton (Room: Windsor B & C) 90 Biscayne Crescent, Brampton, Ontario L6W 4S1

You are encouraged to attend this meeting and provide us with your views and comments so that they can be addressed as the project progresses. Following the External Team Meeting, the PIC will be open to the public from **4:00 p.m. to 8:00 p.m.** You are also welcome to attend the PIC which will be an informal drop-in centre. Representatives from the MTO and the Consultant Team will be available to answer questions and discuss the project.

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me by phone at 416-235-4639 or by e-mail at <a href="mailto:mike.marinelli@ontario.ca">mike.marinelli@ontario.ca</a>. In addition, if you are interested in meeting as a result of receiving this letter, please contact me to arrange a meeting at your earliest convenience.

Yours truly, **Ministry of Transportation** 

Mike Marinelli

Project Manager Planning and Design - Peel and Halton Section

## FINAL ABORIGINAL COMMUNITIES LETTER

 Ministry of Transportation Environmental Planner
 Ministry of Transportation Regional Archaeologist
 URS Consultant Project Manager
 URS Project Environmental Planner L. Sarris L. Currie Cc.

C. Schueler H. Wright

Notice of Public Information Centre Encl.

## URS

### FINAL EXTERNAL LETTER

November 27, 2013

«Name»

«Organization»

«Address»

Dear «Greeting»:

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project Ontario Ministry of Transportation

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake the Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km). The project limits are located in the City of Mississauga, City of Brampton in the Region of Peel (refer to the enclosed "Notice of Public Information Centre").

Key details of the recommended plan include:

- Widening of Highway 410 into the median to accommodate one high occupancy vehicle (HOV) lane and one general purpose lane (GPL) in each direction;
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange;
- Rehabilitation of existing Highway 410 lanes, shoulders and ramps within the project limits;
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek;
- Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard Interchanges;
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive;
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges;
- Improvements to the stormwater management system and new median storm sewer systems;
- Upgrading the existing lighting systems and provisions for future Advance Traffic Management System;
- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals; and.
- Rehabilitation of the Clark Boulevard and Queen Street underpass structures.

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.



The purpose of this letter is to notify you that a Public Information Centre (PIC) has now been scheduled for this project. Representatives from external agencies, municipalities, Aboriginal Communities, and elected officials are invited to attend an External Team Meeting prior to the PIC. The purpose of this meeting is to present the following for review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects.

The External Team Meeting will be held on:

Wednesday December 11<sup>th</sup>, 2013 3:00 p.m. to 4:00 p.m. Courtyard Marriott Brampton (Room: Windsor B & C) 90 Biscayne Crescent, Brampton, Ontario L6W 4S1

You are encouraged to attend this meeting and provide us with your views and comments so that they can be addressed as the project progresses. Following the External Team Meeting, the PIC will be open to the public from 4:00 p.m. to 8:00 p.m. You are also welcome to attend the PIC which will be an informal drop-in centre. Representatives from the MTO and the Consultant Team will be available to answer questions and discuss the project.

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me at 905-882-4401 ext. 1865.

Thank you for your cooperation and assistance.

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Yours truly,

Cc.

**URS Canada Inc.** 

Christopher Schueler, P.Eng.

URS Consultant Project Manager

M. Marinelli -Ministry of Transportation Project Manager - Ministry of Transportation Environmental Planner

L. Sarris

- URS Project Environmental Planner H. Wright

Encl. Notice of Public Information Centre

## URS

## FINAL PUBLIC LETTER

November 27, 2013

«Name»

«Organization»

«Address»

Dear «Greeting»:

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project Ontario Ministry of Transportation

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Key details of the recommended plan include:

- Widening of Highway 410 into the median to accommodate one high occupancy vehicle (HOV) lane and one general purpose lane (GPL) in each direction;
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange;
- Rehabilitation of existing Highway 410 lanes, shoulders and ramps within the project limits;
- Widening of bridges at Matheson Boulevard, Orenda Road, Glidden Road, CN Rail and Etobicoke Creek;
- Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard Interchanges;
- Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive;
- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue Interchanges;
- Improvements to the stormwater management system and new median storm sewer systems;
- Upgrading the existing lighting systems and provisions for future Advance Traffic Management System;
- Complete replacement of/or modifications to the existing traffic signals at all ramp terminals; and,
- Rehabilitation of the Clark Boulevard and Queen Street underpass structures.

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.



The purpose of this letter is to notify and invite you to the upcoming Public Information Centre (PIC) that has been scheduled for this project. The purpose of the PIC is to present the following for public review and comment: the recommended Detail Design Plan, construction staging details, and proposed mitigation measures to address potential environmental effects.

The PIC will be held as follows:

Wednesday December 11<sup>th</sup>, 2013 4:00 p.m. to 8:00 p.m. Courtyard Marriott Brampton (Room: Windsor B & C) 90 Biscayne Crescent, Brampton, Ontario L6W 4S1

This PIC will be an informal drop-in centre. Representatives from the MTO and the Consultant Team will be available to answer questions and discuss the project.

There is an opportunity at any time during the project for interested persons to provide input to the Project Team including comments and information regarding the project. Comments are being collected to assist MTO in meeting the requirements of the Ontario *Environmental Assessment Act*. This material will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me at 905-882-4401 ext. 1865.

Thank you for your cooperation and assistance.

Yours truly,

Cc.

**URS** Canada Inc.

Christopher Schueler, P.Eng.

URS Consultant Project Manager

M. Marinelli
L. Sarris
- Ministry of Transportation Project Manager
- Ministry of Transportation Environmental Planner

H. Wright - URS Project Environmental Planner

Encl. Notice of Public Information Centre

Group	Organization	Name	Greeting	Address	Phone / Fax	E-mail
Aboriginal Community	Metis Nation of Ontario	Ms. Melanie Paradis	Mc Paradia	75 Sherbourne St., Suite 222	416-977-9881	molonion@motionation
First Nation	Landa, Hoodards and Constitutions Dranen	Director Rhonda Coppaway	Ms. Paradis Ms. Coppaway	Toronto, ON M5A 2P9 R.R. #5, 22521 Island Road	xt.114 Tel. 905-985-1940	melaniep@metisnation.org tgautheier2388@hotmail.com
	Mississaugas of Scugog Island First Nation	Chief Kelly LaRocca	Chief LaRocca	Port Perry, ON L9L 1B6 R.R. #5, 22521 Island Road	Fax. 905-985-8828 Tel. 905-985-3337 ext. 232	klarocca@scugogfirstnation.com
First Nation	Chippewas of Georgina Island First Nation	Chief Donna Big Canoe	Chief Big Canoe	Port Perry, ON L9L 1B6 RR#2, PO Box N13	Fax. 905-985-8828 Tel: (705) 437-1337, Fax:	npriester@georginiaisland.com
First Nation		Chief Sharon Stinson Henry	Chief Sharon Stinson	Sutton West, ON L0E 1R0 5884 Rama Road, Suite 200	(705) 437-4597 Tel. 705-325-3611	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
First Nation	, ,	•	Henry	Rama, ON L0K 1T0	Fax. 705-325-0879	
First Nation		Chief Greg Cowie	Chief Cowie	123 Paudash Street Hiawatha, ON K0L 2G0	Tel. 705-295-4421	
First Nation	Hiawatha First Nation	Councillor Lorne Potash	Councillor Potash	123 Paudash Street Hiawatha, ON K0L 2G0	Tel. 705-295-4421	
First Nation	Beausoleil First Nation (Christian Island)	Chief Roland Monague	Chief Monague	11 Ogemaa Miikaan Christian Island, ON L9M 0A9	T: 705-247-2051 F: 705-247-2239	rolymonague@chimnissing.ca
First Nation	Alderville First Nation	Chief James R. Marsden	Chief Marsden	Alderville Administrative Office 11696 Second Line Rd. P.O. Box 46 Alderville, ON, K0K 2X0	Tel. 905-352-3000	
First Nation	Alderville First Nation	Dave Simpson Lands and Resources Communications Officer	Mr. Simpson	Alderville Administrative Office 11696 Second Line Road, PO Box 46 Alderville, ON K0K 2X0	Tel. 905-352-2662 Fax. 905-352-3242	
First Nation	Alderville First Nation	Melanie Arthur Lakes & Resources Communications Clerk	Ms. Arthur	Alderville Administrative Office 11696 Second Line Road, PO Box 46 Alderville, ON K0K 2X0	Tel: 905-352-3044	marthur@aldervillefirstnation.ca
First Nation	Curve Lake First Nation	Keith Knott	Mr. Knott	22 Winookeeda Road Curve Lake, ON K0L 1R0	705-657-8045	dutytoconsult@curvelakefn.ca
First Nation	Curve Lake First Nation	Councillor Ted Coppaway	Councillor Coppaway	22 Winookeeda Road Curve Lake, ON K0L 1R0	Tel. 705-740-5051 (Ted) Tel. 705-657-8045 (Knott)	
First Nation	Curve Lake First Nation	Chief Phyllis Williams	Chief Williams	22 Winookeeda Road Curve Lake, ON K0L 1R0	(	chief@curvelakefn.ca
First Nation		Karry Sandy-McKenzie Barrister/Solicitor and Coordinator	Ms. Sandy-McKenzie	8 Creswick Court Barrie, ON L4M 2J7	Tel. 705-792-5087	k.a.sandy-mckenzie@rogers.com
First Nation		Chief Bryan LaForme	Chief LaForme	2789 Mississauga Rd., R.R. #6 Hagersville, Ontario NOA 1HO	Tel: (905) 768-1133 Fax: 768-1225	bryanlaforme@newcreditfirstnation.co
First Nation	Mississauga of New Credit	Ms. Margaret Sault	Ms. Sault	2789 Mississauga Road, R.R. #6 Hagersville, ON N0A 1H0	905-768-0100	
First Nation	Kawartha Nishnawbe	Chief Kris Nahrgang	Chief Nahrgang	P.O. Box 1432 Lakefield, ON K0L 2H0	Tel: (705) 654-4661	
AANDC	Aboriginal Affairs and Northern Development Canada (AANDC)	Mei Ling Chen Environmental Assessment Coordination Unit	Ms. Chen	25 St. Clair Avenue East, 8th Floor Toronto, ON M4T 1M2	Tel. 416-326-4754 Fax. 416-326-4017	EACoordination ON@inac-ainc.gc.ca
AANDC	Aboriginal Affairs and Northern Development Canada	Allison Berman Regional Subject Expert for Ontario Consultation and Accommodation Unit Policy and Strategic Direction	Ms. Berman	300 Sparks, Room 205 Ottawa, ON K1A 0H4	Tel. 613-943-5488	melaniep@metisnation.org
MAA	Consultation Unit	Martin Rukavina	Mr. Rukavina	160 Bloor Street East, 9th floor Toronto, ON M7A 2E6	416-327-9594	
MAA	, c	Heather Levecque Manager, Consultation Unit, Aboriginal Relations and Ministry Partnerships Division	Ms. Levecque	160 Bloor Street East, 9th Floor Toronto, ON M7A 2E6		
MAA	Aboriginal Affairs	Francois Lachance Senior Policy Advisor	Mr. Lachance	160 Bloor Street East, 9th Floor Toronto ON M7A 2E6	Tel. 416-326-4754 Fax. 416-326-4017	francois.lachance@ontario.ca
MAA	, 0	Pam Wheaton Director, Policy and Relationships	Ms. Wheaton	720 Bay Street, 4th Floor Toronto, Ontario M5G2K1	Tel. 416-326-4053 Fax 416-326-4017	pam.wheaton@ontario.ca
MAA	Ministry of Aboriginal Affairs	David Didluck Director	Mr. Didluck	720 Bay Street, 4th Floor Toronto, ON M5G 2K1	Tel: 416-326-2839 Fax: 416-326-4017	David.Didluck@osaa.gov.on.ca
MPP		Ms. Amrit Mangat, MPP	Ms. Mangat	7045 Edwards Boulevard, Suite 203 Mississauga, Ontario L5S 1X2	Tel 905-696-0367 Fax 905-696-7545	
MPP	Bramelea-Gore-Malton	Mr. Jagmeet Singh, MPP	Mr. Singh	470 Chrysler Drive, Unit 18 Brampton, Ontario L6N 0C1	Tel 905-799-3939 Fax 905-799-9505	
MPP	Brampton-Springdale	Honourable Linda Jeffrey, MPP	Honourable Jeffrey	2250 Bovaird Drive East, Unit 515 Brampton, Ontario L6R 0W3	Tel 905-495-8030 Fax 905-495-1041	
MPP	Brampton West	Mr. Vic Dhillon, MPP	Mr. Dhillon	Suite 304 37 George Street North Brampton, ON L6X 1R5	Tel 905-796-8669 Fax 905-796-8069	
MP	Brampton West	Mr. Kyle Seeback, MP	Mr. Seeback	160 Main Street South, Unit 29 Brampton, ON L6W 2E1	Tel: 905-846-0076 Fax: 905-846-3901	
MP	Brampton Springdale	Mr. Pram Gill, MP	Mr. Gill	180 Sandalwood Parkway East Unit 3000 Brampton, Ontario L6Z 1Y4	Tel: 905-840-0505 Fax: 905-840-1778	
MP	Mississauga-Brampton South	Ms. Eve Adams, MP	Ms. Adams	4870 Tomken Road, Unit 7 Mississauga, Ontario L4W 1J8	Tel: 905-625-1201 Fax: 905-625-1485	

MP	Bramalea-Gore-Malton	Honourable Bal Gosal, MP	Honourable Gosal	8500 Torbram Road, Unit 44	Tel: 905-790-9211	
External - Federal	Department of Fisheries & Oceans Fish Habitat Management	District Manager	Sir/Madam	Brampton, Ontario L6T 5C6 3027 Harvester Road, Suite 304 Box 85060 Burlington, ON L7R 4K3	Fax: 905-790-9507 Tel. (905) 639-0188 Fax. (905) 639-3549	
External - Federal	Transport Canada Navigable Waters Protection	Regional Manager	Sir/Madam	100 Front St., South Sarnia, Ontario N7T 2M4	866-821-6631	
External - Federal	Canadian Environmental Assessment Agency	Ms. Louise Knox Director	Ms. Knox	55 St. Clair Avenue East Room 907 Toronto, ON M4T 1M2	416-952-1576 416-952-1573	
External - Federal	Canadian Transportation Agency Rail, Air and Marine Disputes Dictorate	Mr. Joseph Dion Director	Mr. Dion	15 Eddy Street Gatineau, Quebec K1A 0N9	819-953-0327 819-953-8353	
External - Provincial	Ministry of Agriculture, Food and Rural Affairs Environmental and Land Use Policy	Jackie Van de Valk Rural Planner	Mr. Van de Valk	Elora Resource Ctr, Unit 10 6484 Wellington Rd #7 Elora, ON N0B 1S0	519-846-3315 519-846-8332	
External - Provincial	Ministry of Municipal Affairs and Housing Provincial Planning Policy Branch	Ms. Emma Goldhawk Planner	Ms. Goldhawk	777 Bay St. 14th Floor Toronto, ON M5G 2E5	416-585-6538	Emma.goldhawk@ontario.ca
External - Provincial	Ministry of Natural Resources Aurora District	Jacquie Burkhart	Ms. Burkhart	50 Bloomington Rd. West Aurora, ON L4G 3G8		
External - Provincial	Ministry of the Environment Central Region	Ms. Chunmei Lui Environmental Planner	Ms. Lui	5775 Yonge Street, 8th Floor North York, ON M2M 4J1	(519) 873-5043	chunmei.lui@ontario.ca
External - Provincial	Ministry of the Environment Halton-Peel District	Ms. Tina Defresne District Manager	Ms. Defresne	4145 North Service Rd. Suite 300 Burlington, ON L7L 6A3	(519) 319-1870	
External - Provincial	Ontario Heritage Trust Conservation Services, Heritage Programs and Operations	Mr. Jeremy Collins	Mr. Collins	10 Adelaide St. East Toronto, ON M5C 1E3	416-325-5017	
External - Provincial	Ministry of Tourism and Culture Culture Services Unit	Mr. Chris Junker-Andersen Heritage Planner	Mr. Andersen	400 University Ave., 4th Floor Toronto, ON M7A 2R9	416-314-7159 905-278-5486	chris.andersen@ontario.ca
External - Provincial	Ontario Provincial Police	S/Sgt Barry Farndon	S/Sgt Farndon	49 South Service Rd. Mississauga, ON L5G 2R8	905-278-6131	
External - Provincial	Ontario Provincial Police	S/Sgt Phil Carter	S/Sgt Carter	49 South Service Rd. Mississauga, ON L5G 2R8	905-278-6131 905-278-5486	
External - Municipal	City of Brampton	Susan Fennell, Mayor	Mayor Fennell	2 Wellington Street West Brampton, ON, L6Y 4R2	Tel. 905.874.2600	susan.fennell@brampton.ca
External - Municipal	City of Brampton	Mr. Faris Georgis Manager, Engineering	Mr. Georgis	2 Wellington St. West Brampton, ON L6Y 4R2	905-874-2441 905-874-2599	Faris.Georgis@city.brampton.on.ca
External - Municipal	City of Brampton	Ms. D. Dubenofsky City Manager	Ms. Dubenofsky	2 Wellington Street West Brampton, ON L6Y 4R2	330 37 4 2000	
External - Municipal	City of Brampton	Mr. Alex D. Macmillan Commissioner of Works and Transportation	Mr. Macmillan	2 Wellington St. West Brampton, ON L6Y 4R2	905-874-2503 905-874-2599	Alex.macmillan@city.brampton.on.ca
External - Municipal	City of Brampton	Peter Fay City Clerk	Mr. Fay	City Hall, 2 Wellington Street West, Brampton ON L6Y 4R2	Tel. 905-874-2100 Fax. 905-874-2130	peter.fay@brampton.ca
External - Municipal	City of Brampton	Vicki Wong Senior Real Estate Co-ordinator	Ms. Wong	2 Wellington St. West Brampton, ON L6Y 4R2	Tel: (905) 874-3449 Fax: (905) 874-3370	vicki.wong@brampton.ca
External - Municipal	City of Brampton	Bino Varghese	Mr. Varghese	2 Wellington St. West Brampton, ON L6Y 4R2		Bino.Varghese@brampton.ca
External - Municipal	City of Brampton	Bob Callahan, Councillor, Ward 3	Mr. Callahan	2 Wellington St. West Brampton, ON L6Y 4R2	T. (905) 874-2603	bob.callahan@brampton.ca
External - Municipal	City of Mississauga	Her Worship Mayor Hazel McCallion Office of the Mayor	Her Worship Mayor Hazel McCallion	300 City Centre Drive Mississauga, Ontario L5B 3C1	T: (905) 896-5555 F: (905) 896-587	mayor@mississauga.ca
External - Municipal	City of Mississauga	Bonnie Crombie, Councillor Ward 5	Ms. Crombie	300 City Centre Drive Mississauga, Ontario L5B 3C1	T. (905) 896-5500 F. (905) 896-5463	bonnie.crombie@mississauga.ca
External - Municipal	City of Mississauga	Crystal Greer, City Clerk Clerk's Office	Ms. Greer	300 City Centre Drive, 2nd Floor Mississauga, ON L5B 3C1	Tel. 905-615-3200 ext 5419	
External - Municipal	City of Mississauga	Janice M. Baker City Manager & CAO	Ms. Baker	300 City Centre Drive Mississauga, ON L5B 3C1		
External - Municipal	City of Mississauga	Mr. Martin Powell Director – Transportation and Engineering	Mr. Powell	3484 Semenyk Court Mississauga, ON L5C 4R1	905-896-5086 905-615-3173	Martin.powell@city.mississauga.on.ca
External - Municipal	City of Mississauga	Farhad Shahla, M. Eng., P. Eng., Transportation Project Engineer Transportation & Infrastructure Planning, Transportation & Works	Farhad Shahla	300 City Centre Drive Mississauga, ON L5B 3C1	905-615-3200 ext. 3377 905-615-3173	Farhad.Shahla@mississauga.ca
External - Municipal	City of Mississauga	Domenic Galati, C.E.T., L.E.L., Capital Project Manager,	Mr. Galati	Capital Project Manager, Engineering and Works Division	Tel. 905-615-3200 ext. 5792	domenic.galati@mississauga.ca
External - Municipal	Peel Region	Steve Ganesh, MCIP, RPP Manager, Infrastructure Programming & Studies Public Works, Transportation Division	Mr. Ganesh	10 Peel Center St. 4th Floor Brampton, ON L4T 4B9	Tel: (905)791-7800, ext. 7824 Fax: (905)791-1442	Steve.Ganesh@peelregion.ca

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External - Municipal	Peel Region	Ms. Carol Reid Regional Clerk	Ms. Reid	5th Floor, 10 Peel Centre Drive, Suite A Brampton, ON L6T 4B9		
External - Municipal	Peel Region	Mr. James L. Carrick Manager, Traffic and Engineering	Mr. Carrick	10 Peel Center St. 4th Floor Brampton, ON L4T 4B9	905-791-7800 x4558 905-791-1442	Jim.carrik@region.peel.on.ca
External - Municipal	Peel Region	Sabbir Saiyed, PhD, P.Eng. Manager Transportation System Planning Transportation Division Public Works	Sabbir Saiyed	10 Peel Center St. Suite B 4th Floor Brampton, ON L6T 4B9	T: 905-791-7800 x 4352 F: 905-791-7920	sabbir.saiyed@peelregion.ca
External - Municipal	Peel Region	Mr. Eric Flora, Principal Planner	Mr. Flora	10 Peel Center St. Suite B 4th Floor Brampton, ON L6T 4B9	T. 905-791-7800 F: 905-791-7920	eric.flora@peelregion.ca
External - ORC	Infrastructure Ontario Ontario Realty Corporation - Professional Services	Lisa Myslicki Environmental Coordinator	Ms. Myslicki	1 Dundas Street West, Suite 2000, Toronto, ON, M5G 2L5	(416) 212-3768	lisa.myslicki@ontariorealty.ca
External - ORC	Infrastructure Ontario	Hoeun Heng	Ms. Heng			hoeun.heng@infrastructureontario.ca
External - Trans.	Greater Toronto Airports Authority	Mr. Jim Bilkas	Mr. Bilkas	3111 Convair Dr., Box 6031 Toronto AMF, ON L5P 1B2	416-776-7732	
External - Trans.	Greater Toronto Airports Authority / Facilities	Jane Lin, P. Eng, Senior Manager, Cogeneration & Utility Recoveries	Ms. Lin	P.O. Box 6031, 3111 Convair Drive, Toronto AMF, Ontario, L5P 1B2	Tel. (416) 776-6117 Fax (416) 776-5014	
External -Trans.	CN Rail	Marissa Crawfod, P. Eng. Manager, Design & Contstruction	Ms. Crawford	1 Administration Road, Box 1000 Concord, ON L4K 1B9	905-669-3114 905-760-3406	marissa.crawford@cn.ca
External -Trans.	CN Rail	Stefan Linder	Mr. Linder			Stefan.Linder@cn.ca
External - Industry	Brampton Board of Trade	Steve Sheils Chief Executive Officer	Mr. Sheils	36 Queen St. East, Ste. 101 Brampton, ON L6V 1A2	905-451-1122	
External - Industry	Mississauga Board of Trade	Sheldon Leiba President & CEO	Mr. Leiba	701-77 City Centre Drive Mississauga, ON L5B 1M5	905-273-6151	
External - TRCA	Toronto and Region Conservation Authority	Chandra Sharma Etobicoke/Mimico Watershed Specialist	Mr. Sharma	5 Shoreham Drive Downsview, ON M3N 1S4	416-661-6600 x5237 416-661-6898	
External - TRCA	Toronto and Region Conservation Authority	Renee Afoom Planner II, EA Review	Mr. Afoom	5 Shoreham Drive Downsview, ON M3N 1S4	416-661-6600	
External - TRCA	Toronto and Region Conservation Authority	Sharon Lingertat Acting Senior Planner, Environmental Assessment Planning	Ms. Lingertat	5 Shoreham Drive Downsview, ON M3N 1S4	Tel: 416 661-6600 ext. 5717 Fax: 416-661-6898	SLingertat@trca.on.ca
External - TRCA	Toronto and Region Conservation Authority	Carolyn Woodland Director, Planning & Development	Ms. Woodland	5 Shoreham Drive Downsview, ON M3N 1S4	416-661-6600	
External - TRCA	Toronto and Region Conservation Authority	Antonietta Gentile, Coordinator Environmental Assessment Planning Planning and Development Division	Ms. Gentile	5 Shoreham Dr. Downsview, ON M3N 1S4	Tel: 416-661-6600 Ext. 5796 Fax: 416-661-6898	
External - TRCA	Toronto and Region Conservation Authority	Beth Williston	Ms. Williston			BWilliston@trca.on.ca
External - EMS	Peel Region Police	Chief Noel Catney	Chief Catney	7750 Hurontario St. Brampton, ON L6V 3W6	905-453-3311	
External - EMS	Halton Mississauga Ambulance Services	Mr. Jim Christine	Mr. Christine	5299 Maingate Dr. Mississauga, ON L4W 1G6	905-507-6000	
External - EMS	Mississauga Fire and Emergency Services	Deputy Chief Kevin Duffy	Deputy Chief Duffy	15 Faierview Rd. West Mississauga, ON L5B 1K7	905-456-5773 905-546-5773	Kevin.duffy@city.mississauga.on.ca
External - EMS	Brampton Fire and Emergency Services	Chief Verrall Clark	Chief Clark	8 Rutherford Rd. S. Brampton, ON L6W 3J1	905-847-2702	
External - EMS	Halton Emergency Services	Mr. James King Director	Mr. King	1151 Bronte Rd. Oakville, ON L6M 3L1	905-825-6607 x7111 905-825-9061	
	Dufferin-Peel Catholic District School Board Planning and Development	Mr. Vince A. Nichilo	Mr. Nichilo	40 Matheson Boulevard West Mississauga, ON L5R 1C5	905-890-0708 x4224	
External - School	Peel District School Board, Brampton Ward 3	Mr. David Green	Mr. Green	5650 Hurontario St. Mississauga, ON L5R 1C6	905-495-4579	
External - School	Peel District School Board, Brampton Ward 5	Mr. Rick Williams	Mr. Williams	5650 Hurontario St. Mississauga, ON L5R 1C6	905-814-6180	
External - School	Peel District School Board	Mr. Randy Wright	Mr. Wright	5650 Hurontario St. Mississauga, ON L5R 1C6	905-890-1010	
External - Utility	Bell Canada Implementation Management	Ms. Cathy Gunn Regional Manager	Ms. Gunn	2 Fieldway Rd. Etobicoke, ON M8Z 3L2	416-234-4560	
External - Utility	Brampton Hydro Networks Inc.	Mr. W. Schaeffer	Mr. Schaeffer	175 Sandalwood Parkway Brampton, ON L7A 1E8	905-840-6300 x270 905-840- 1305	
External - Utility	Enbridge	Mr. Martin Paquette	Mr. Paquette	905 Burnhamthorpe Rd. West Mississauga, ON L5C 3B4	416-758-7943	mattin.paquette@enbridge.com
External - Utility	Enbridge Consumer's gas	Mr. Jeff Fitzpatrick	Mr. Fitzpatrick	905 Burnhamthorpe Rd. West Mississauga, ON L5C 3B4	905-276-1317	
External - Utility	Enersource Corporation (formerly Mississsauga Hydro)	Mr. Bob Kakowski	Mr. Kakowski	3240 Mavis Rd. Mississauga, ON L5C 3K1	905-283-4096	
External - Utility	Rogers Communications	Mr. Roger Keay V.P Technology and Strategic Planning	Mr. Keay	333 Bloor St. East 10 <sup>th</sup> Floor Toronto, ON M4W 1G9	416-935-3533	

External - Utility	Hydro Mississauga	Mr. Dal Cheema	IMr ('haama		905-566-2727 x305 905-566-2737	
External - Utility	Peel Fibre	Norman Baxter PSN Project Manager	Mr. Baxter		905-866-4260	Norman.baxter.psn@sympatico.ca
External - Utility	Hydro One Brampton	Robert Evangelista, C.E.T.	Mr. Evangelista	175 Sandalwood Parkway West Brampton, ON L7A 1E8	(905) 840-6300	revangelista@hydroonebrampton.com
In accordance with the Freedom of Information and Protection of Privacy Act, personal information of public stakeholders has been removed.						

## Appendix D Public Information Centre Displays, Comments and Responses







## PUBLIC INFORMATION CENTRE

## Highway 410 Widening From South of Highway 401 Northerly to Queen Street

City of Mississauga, the City of Brampton, and Regional Municipality of Peel

**Detail Design Project** 

G.W.P. 2144-07-00

December 11<sup>th</sup>, 2013

Welcome

## Please Sign In

Members of the Project Team are available to discuss any questions that you may have regarding this project





## Highway 410 Widening

From South of Highway 401 Northerly to Queen Street

## SCOPE & PURPOSE OF THIS PUBLIC INFORMATION CENTRE

URS Canada Inc. has been retained by the Ministry of Transportation (MTO) to undertake the Detail Design for the widening of Highway 410 from south of Highway 401 northerly to Queen Street (a distance of about 12 km).

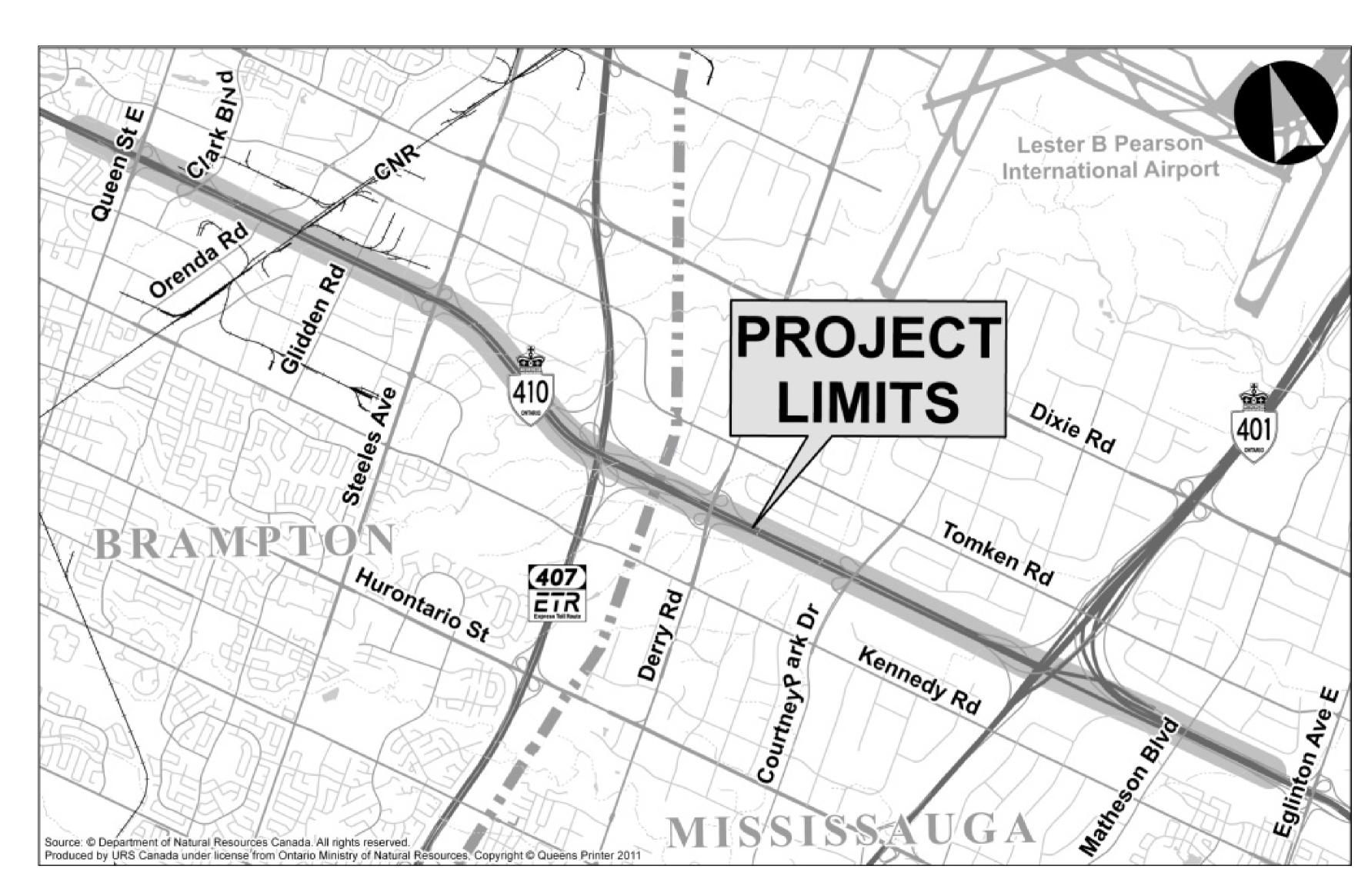
The purpose of this PIC is to present and receive feedback on:

- > The Project Process.
- The Detail Design Plan to facilitate the widening of Highway 410.
- Next Steps.

We also encourage you to complete a comment sheet or take one with you to send in later. We would greatly appreciate receiving your comments by **January 9**, **2014**.

Members of the Project Team are available to discuss any questions that you may have regarding this project.

Pour de l'aide en français, veuillez communiquer avec Karen Cooper.







# Highway 410 Widening

## Highway 410 Widening From South of Highway 401 Northerly to Queen Street

## PROJECT BACKGROUND AND PROCESS

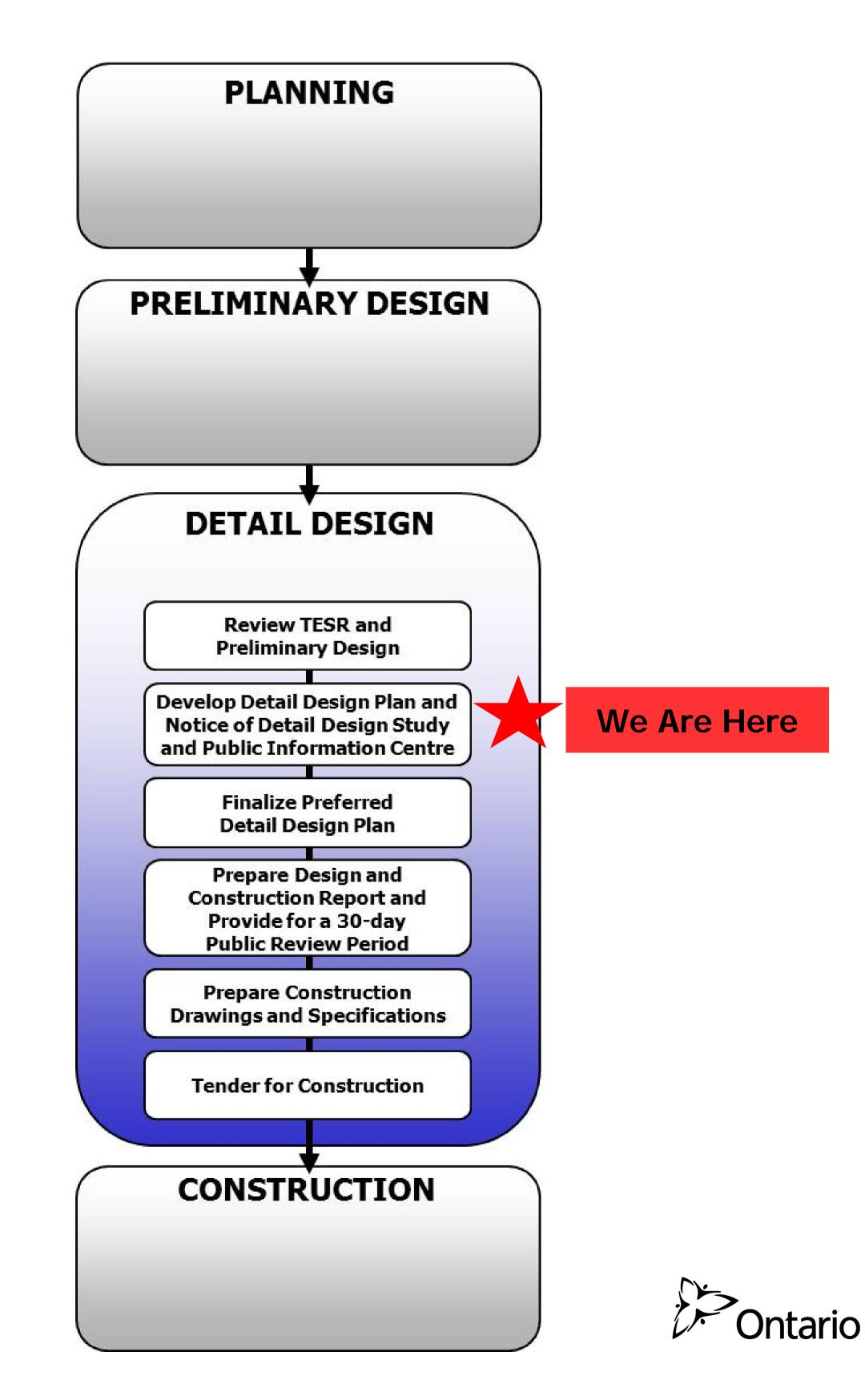
This project is following the requirements for a Group "B" project under the MTO Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000).

A Preliminary Design study was undertaken previously and a Transportation Environmental Study Report (TESR) was prepared for the Highway 410 corridor (January 2010). The TESR was amended in August 2010. In Summer 2011, the project proceeded to Detail Design.

A Design and Construction Report (DCR) will be prepared for this project and made available for a 30-day public review period at the completion of the project which will document:

- > The design details of the proposed improvements.
- A summary of potential environmental effects and mitigation measures.
- > A summary of consultation undertaken throughout the project.

Notification, advising of the times and locations of the availability of the DCR for review, will be published in local newspapers and mailed to those on the Project Contact List.





## PROPOSED IMPROVEMENTS TO HIGHWAY 410

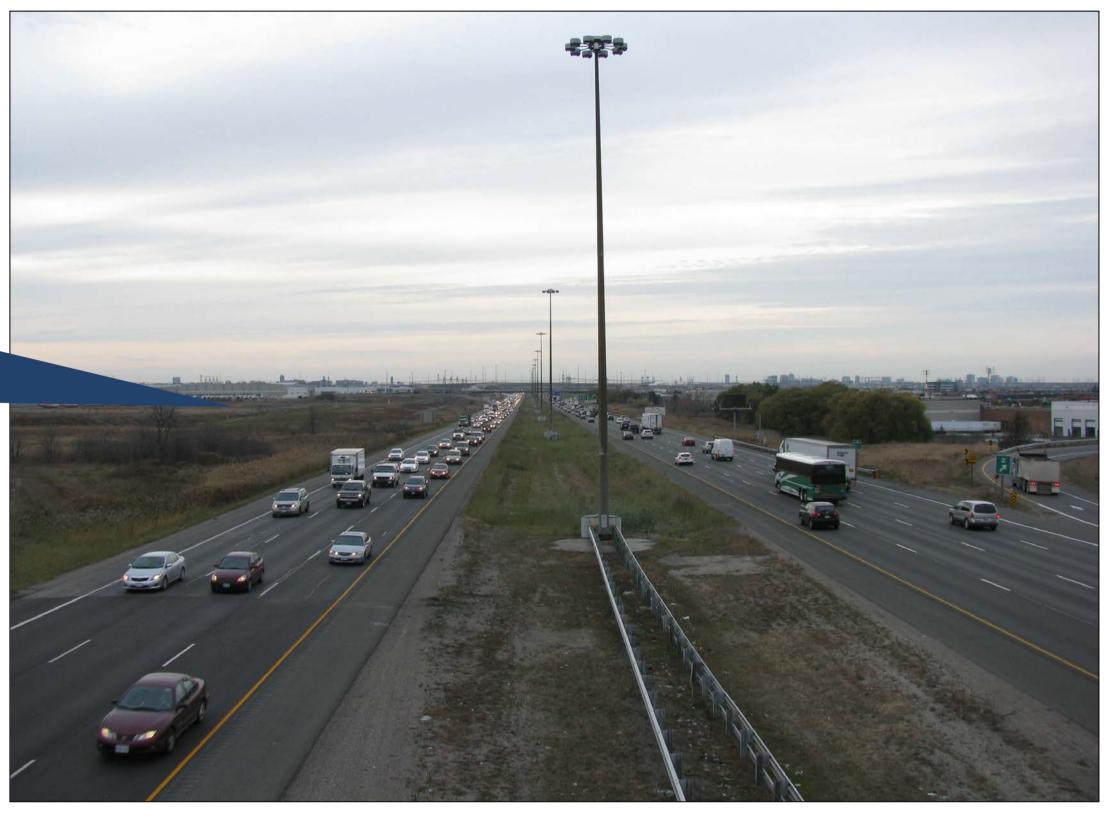
Key details of the recommended plan within the Project Limits include:

- Widening of Highway 410 into the median to accommodate one high occupancy vehicle (HOV) lane and one general purpose lane (GPL) in each direction
- Addition of one HOV lane along the Highway 403 northbound collector lanes, from just north of Eglinton Avenue to the Highway 401/Highway 410 interchange
- Rehabilitation of the existing Highway 410 lanes, shoulders and ramps
- Widening and rehabilitation of 5 overpass structures (Matheson Boulevard, Etobicoke Creek, Glidden Road, CN Rail (CNR) and Orenda Road)
- Estimated travel time savings as a result of widening Highway 410 are:

AM	Highway 410 Southbound
Existing	19:24
Year 2021	14:34
Travel Time Savings	4:50

PM	Highway 410 Northbound
Existing	13:07
Year 2021	10:18
Travel Time Savings	2:49

Existing Highway 410 (Looking north from Courtneypark Drive)



Future Highway 410
(Looking north from Courtneypark Drive)

Conceptual Rendering









## ADDITIONAL PROPOSED IMPROVEMENTS

Other details of the recommended plan includes:

- > Introduction of carpool lots at the Courtneypark Drive and Clark Boulevard interchanges
- > Reconfiguration of the Highway 410 northbound off-ramp to Courtneypark Drive
- > Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue interchanges
- > Improvements to the stormwater management system and new median storm sewer systems
- Upgrading the existing lighting systems including modifications to existing high mast light poles, underpass illumination, and lighting on crossing roads (as required)
- Provisions for future Advance Traffic Management System (ATMS)
- > Complete replacement of/or modifications to the existing traffic signals at all ramp terminals
- > Rehabilitation of the Clark Boulevard and Queen Street underpass structures
- > Replacement of all Overhead Sign Structures (OHSS)
- Culvert lengthening to accommodate widening of Highway 410 and associated ramps, and culvert rehabilitation as required
- Installation of a new tall wall barrier in the median
- Replacement of existing concrete barrier on outside shoulders from Steeles Avenue to Clark Boulevard & replacement of the temporary concrete barrier along Derry Road ramps
- > Installation of a new barrier along both sides of the widened Highway 403 West Highway 410 North Ramp







## OVERVIEW OF EXISTING ENVIRONMENTAL CONDITIONS

Overview	
Natural Environment	Fish & Fish Habitat: An inventory assessment was conducted in 2011 and 2012. 21 drainage features exist (14 watercourses and 7 typical highway drainage swales). All water crossings are associated with Etobicoke Creek and its tributaries. Culvert crossings (of various sizes) exist within the project limits. The most prominent crossing is Etoicoke Creek which hosts fish and fish habitat.  Terrestrial Ecosystems: Vegetation communities along with unevaluated wetlands and the Shagbark Hickory woodlot exist. 45 bird species, 1 amphibian, 7 species of butterfly and the Monarch butterfly (Special Concern) were identified. Barn Swallows are the only species-at-risk observed flying throughout the project limits but no nests were found.  Designated Natural Area (DNA): No DNAs exist.
Socio-Economic Environment	Land Use: The project area consists of industrial and commercialized areas. A residential area exists at the north limits of the project (north of Queen Street).  Noise: A Construction Noise Assessment was undertaken. 16 receptor locations were selected to represent all of the residential dwellings and commercial offices within the project area.  Air Quality: An air quality assessment was undertaken. Both local and regional assessments show a small impact from the project which will be limited to the construction period.  Groundwater: The regional groundwater flow is towards the south while Etobicoke Creek and its tributaries collect surface water and direct it to Lake Ontario.  Navigable Protection Act: Etobicoke Creek is considered navigable. Transport Canada has issued approval for the project work.  Landscaping: Widening of Highway 410 is mainly within the existing median, landscaping is minimal but will be provided along sections of the highway and proposed stormwater management ponds.  Property: No private property is required.  Contamination: A Phase I Environmental Site Assessment (ESA) was conducted on 1 site. No evidence of contamination was identified.
Cultural Environment	Archaeology: A Stage 1 Archaeology Assessment was conducted on 1 site. This site was considered clear of archaeological concern. No further work is required.  Built Heritage: No built heritage or cultural landscape features exist within the project limits.





## PROPOSED CONSTRUCTION STAGING

In order to accommodate traffic safety and efficient construction, construction staging is required to facilitate the proposed improvements.

The overall staging of this project is anticipated to include five (5) major stages of construction over five (5) construction seasons from 2014 to 2018 as follows:

## Stage No. 1 - 2014

- > Rehabilitation of a portion of the outside shoulders of Highway 410 to take traffic in later stages
- > Construction of the stormwater management ponds

## Stage No. 2 – 2015

- > Widening of Highway 410 into the existing grass median from Highway 401 to Etobicoke Creek
- > Widening of the Matheson Boulevard, Etobicoke Creek, Glidden Road, and Orenda Road structures into the median
- Construction of the new median storm sewer
- Modification to existing highway illumination
- Rehabilitation of Steeles Avenue interchange including replacement of traffic signals, and pavement rehabilitation on Steeles Avenue

## Stage No. 3 – 2016

- > Widening of Highway 410 into the existing grass median from Etobicoke Creek to Queen Street
- > Construction of new median storm sewer and modification to existing highway illumination
- Widening of the existing CNR structure





## PROPOSED CONSTRUCTION STAGING (continued)

- Widening of Highway 410 to the outside between Highway 401 and Courtneypark Drive
- Rehabilitation of existing Highway 410 northbound and southbound from south of Highway 401 to Etobicoke Creek
- > Rehabilitation of Matheson Boulevard, Etobicoke Creek and Clark Boulevard structures
- > Realignment of the Highway 410 westbound off-ramp to Courtneypark Drive
- Rehabilitation of Derry Road interchange including ramp widening, replacement of the traffic signals and pavement rehabilitation on Derry Road

## Stage No. 4 – 2017

- > Construction of the separator on Highway 410 northbound from Highway 401 to Courtneypark Drive
- > Rehabilitation of Highway 410 northbound from Etobicoke Creek to Queen Street
- > Rehabilitation of Glidden Road, CNR, Orenda Road, Clark Boulevard and Queen Street structures
- > Rehabilitation of Courtneypark Drive and Clark Boulevard interchanges including ramp widening, replacement of traffic signals, and pavement rehabilitation

## Stage No. 5 – 2018

- Rehabilitation of Highway 410 southbound from Etobicoke Creek to Queen Street
- > Rehabilitation of Glidden Road, CNR, Orenda Road and Queen Street structures
- > Rehabilitation of Queen Street interchange with replacement of traffic signals and pavement rehabilitation



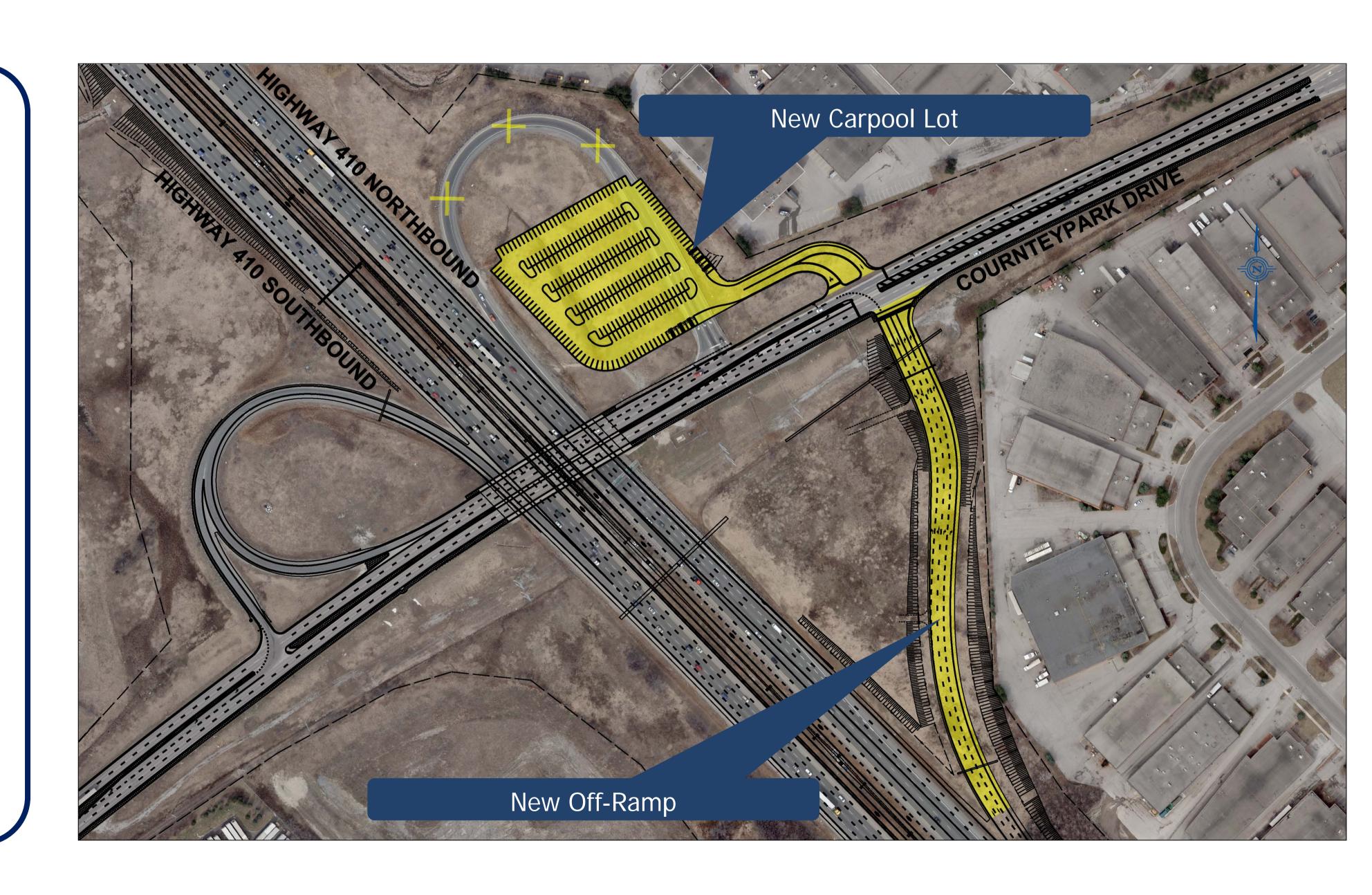




## **NEW CARPOOL LOT**

## Courtneypark Drive

- The new carpool parking lot will be located on the north side of Courtneypark Drive, east of Highway 410, in the location of the existing Highway 410 westbound off-ramp to Courtneypark Drive
- Full access will be provided to the carpool lot from Courtneypark Drive
- Approximately 277 general parking spaces and approximately 12 Accessible Parking Spaces
- A retaining wall system will be constructed to alleviate geometric and property restrictions
- The lot is expandable, in the future, to include a bus pick up/drop off space as required.







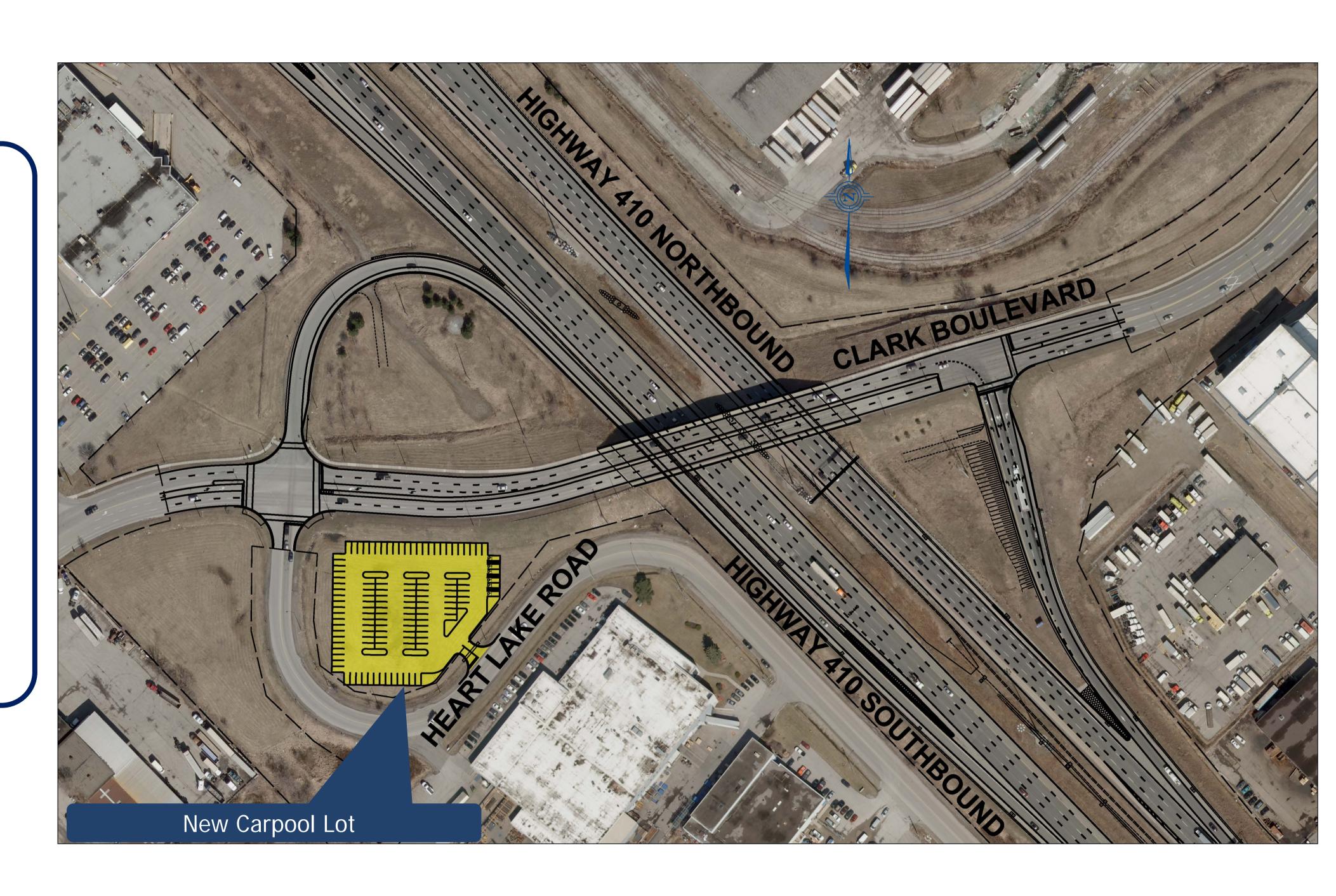


## From South of Highway 401 Northerly to Queen Street

## **NEW CARPOOL LOT**

## Clark Boulevard

- The new carpool parking lot will be located on the south side of Clark Boulevard, west of Highway 410, between Clark Boulevard and Heart Lake Road
- Full access will be provided to the parking lot from Heart Lake Boulevard
- Approximately 80 general parking spaces and approximately 5 Accessible Parking Spaces



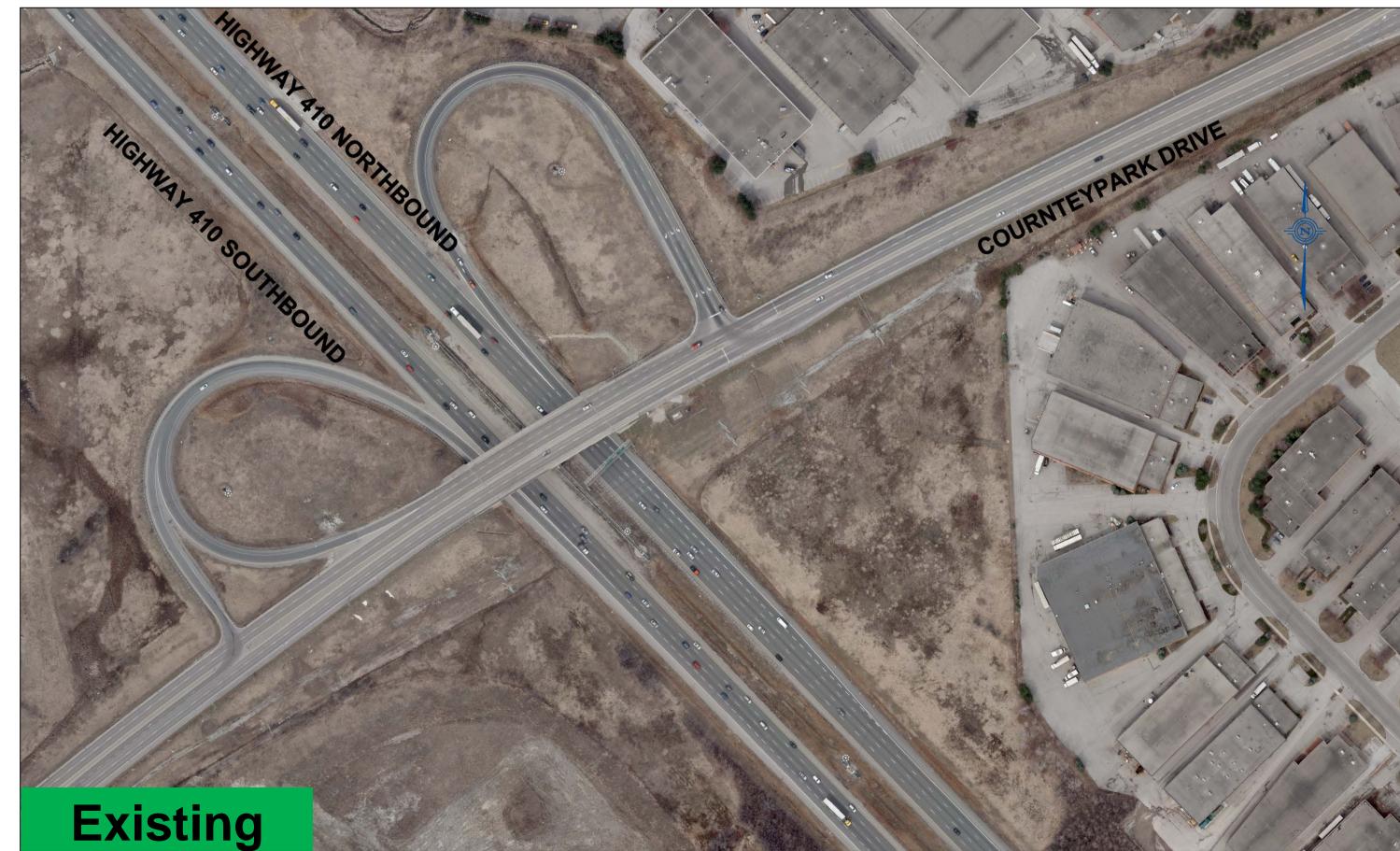


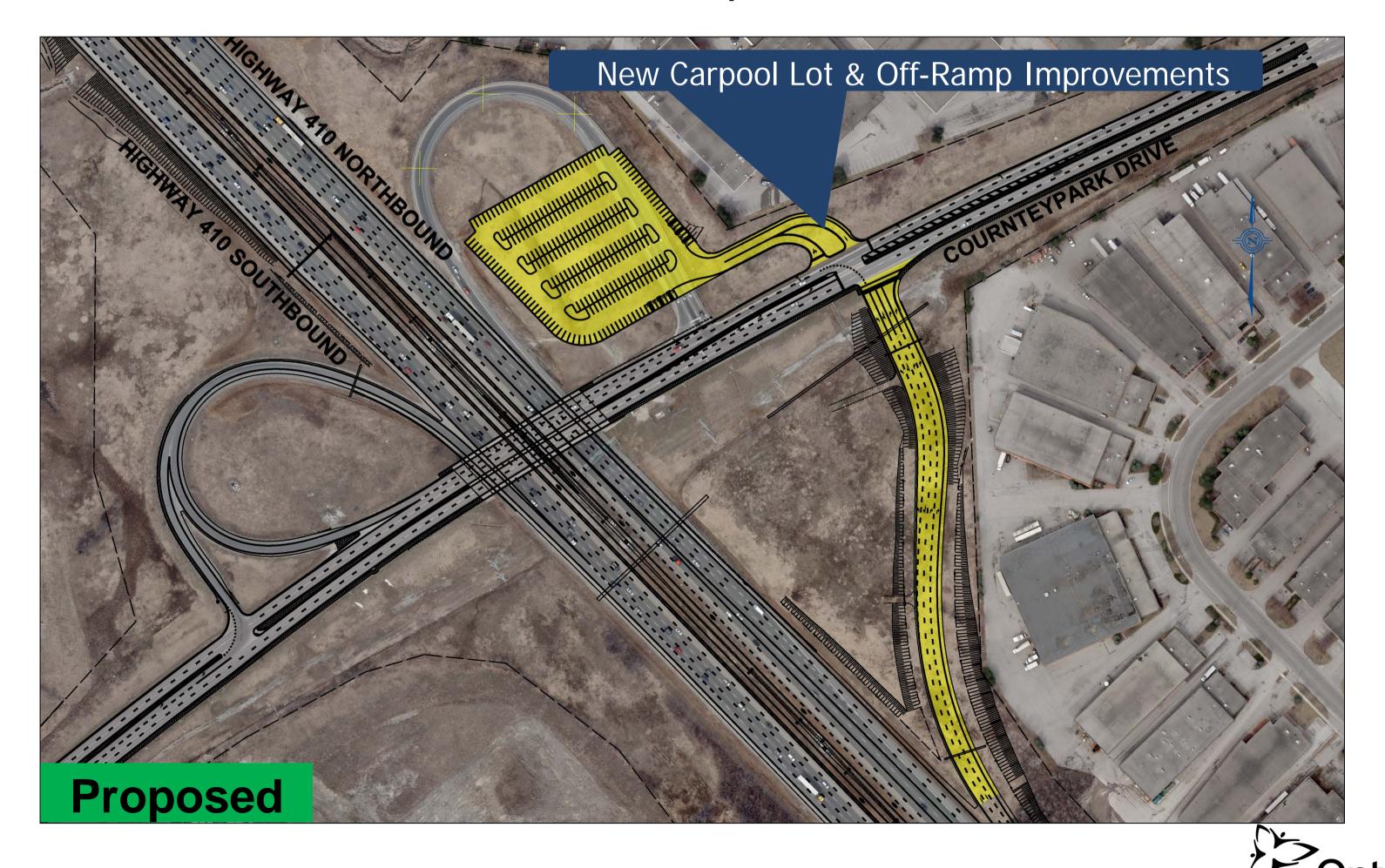


## PROPOSED IMPROVEMENTS AT COURTNEYPARK DRIVE

## Courtneypark Drive Improvements include:

- > Realignment of the Highway 410 westbound off-ramp to Courtneypark Drive and pavement rehabilitation
- > Reconfiguration of the ramp will improve traffic operations
- New carpool lot (see previous board)
- Traffic signals will be replaced at the realigned ramp terminal
- > New traffic signals will also be included at the on-ramp to Highway 410 southbound
- > Widening on the north side of Courtneypark Drive to accommodate access into the new carpool lot





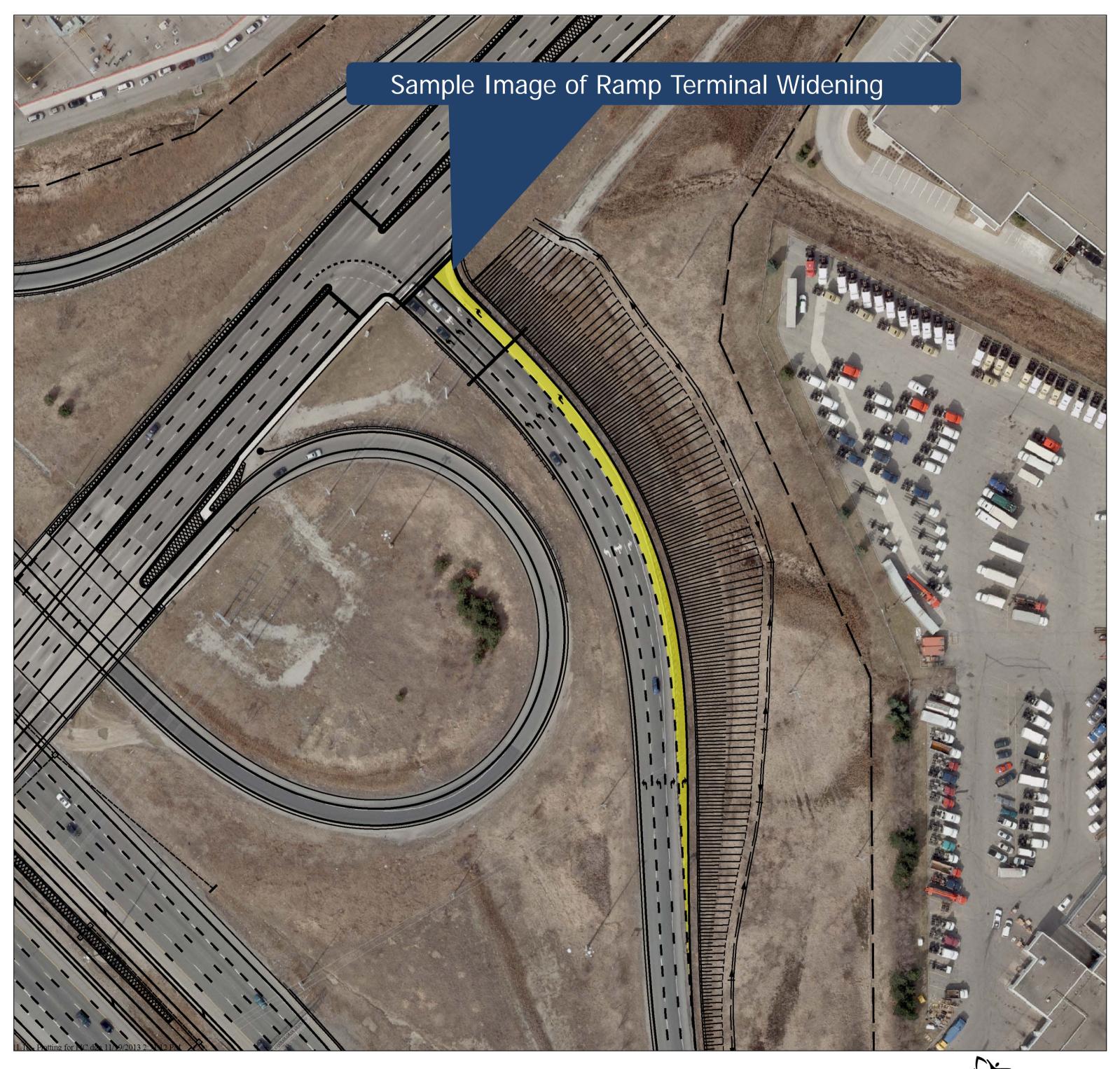




## PROPOSED IMPROVEMENTS AT DERRY ROAD & STEELES AVENUE INTERCHANGES

## Improvements at Derry Road & Steeles Avenue include:

- Ramp widening and ramp terminal intersection modifications at the Derry Road and Steeles Avenue interchanges to reduce congestion and queuing on the ramps
- Widening of the northbound and southbound off ramp terminals from three to four lanes
- > Permanent traffic signals will be replaced or modified
- Pavement rehabilitation and replacement of the existing sidewalk, curb and gutter, medians, etc.
- All lanes are anticipated to be maintained during peak hours
- Off-peak / weekend lane and ramp closures are anticipated









## REHABILITATION AT QUEEN STREET & CLARK BOULEVARD INTERCHANGES

#### Rehabilitation at the Queen Street interchange includes:

- Rehabilitation of the Queen Street structure
- > Pavement rehabilitation on ramps and also on Queen Street
- New traffic signals at the ramp terminals
- No significant impacts to traffic are anticipated
- > Single lane closures (one lane in each direction) will be required to facilitate construction for the duration of the bridge rehabilitation

#### Rehabilitation of the Clark Boulevard interchange includes:

- Rehabilitation of the Clark Boulevard structure
- > Pavement rehabilitation on ramps and also on Clark Boulevard
- New carpool lot (see previous board)
- Temporary lane closures will be required to facilitate construction activities. Efforts will be made to maintain two lanes open in the westbound direction. However, it is anticipated that one stage of construction will require lane closures in both directions
- New traffic signals at the ramp terminals
- No significant impacts to traffic are anticipated





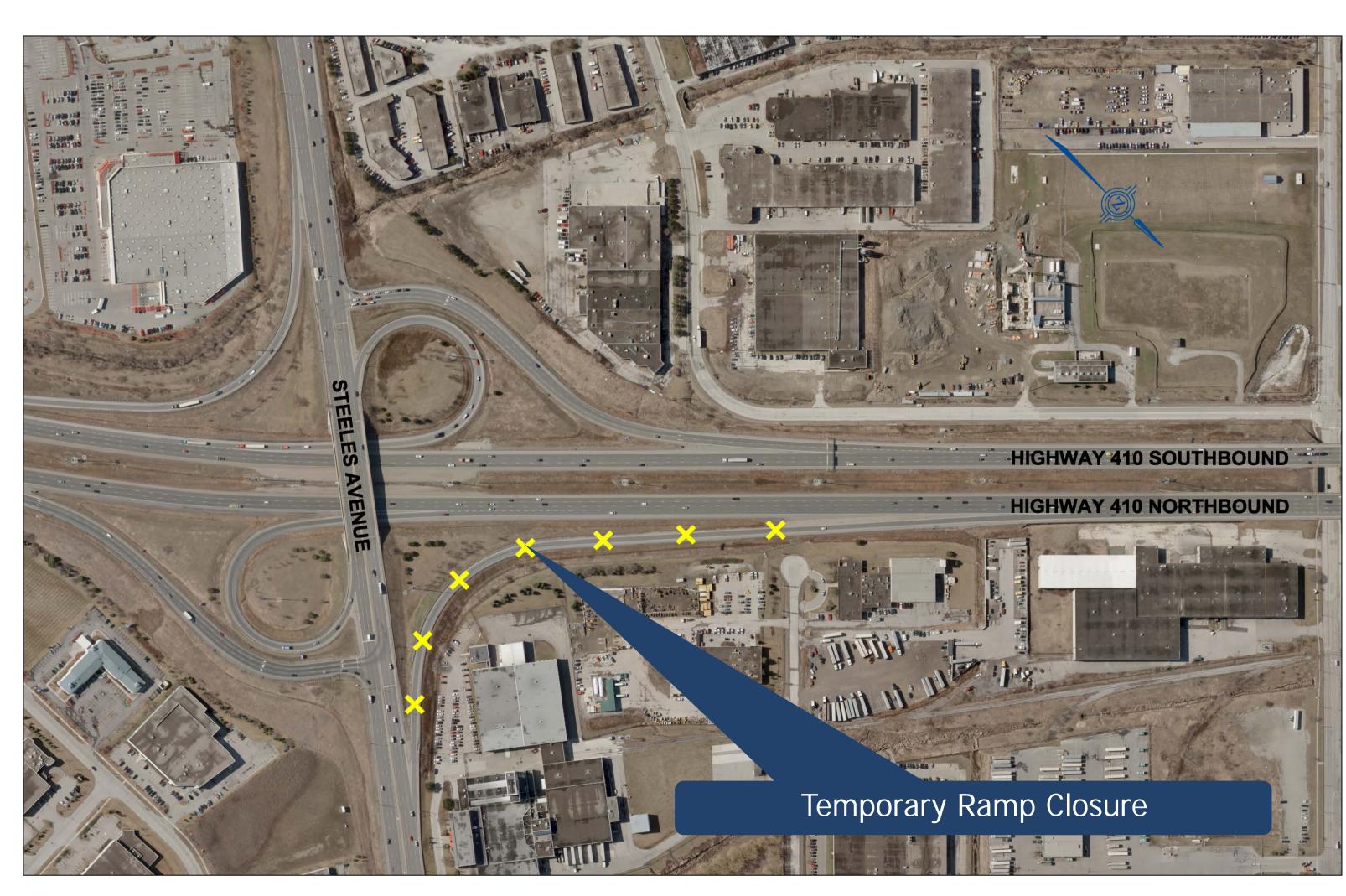


# Highway 410 Widening From South of Highway 401 Northerly to Queen Street

#### PROPOSED TEMPORARY RAMP & LANE CLOSURES

## **Traffic During Construction**

- > Traffic staging will be implemented to minimize disruptions to traffic flow as much as possible during construction
- > All existing lanes of traffic and ramps will be maintained during peak periods, except as follows:
  - > Closure of auxiliary lanes between Steeles Avenue and Clark Boulevard in Stage 4
  - ➤ Closure of the Steeles Avenue eastbound on-ramp to Highway 410 northbound for two construction seasons (anticipated to start in 2016)
  - ➤ Lane closures on Clark Boulevard in Stages 3 and 4
  - ➤ Lane closures on Queen Street in Stages 4 and 5
  - ➤ Lane closures on Matheson Boulevard, Glidden Road, Orenda Road in Stage 2
- Other ramps will have weekend lane closures as required. Highway 403 and Highway 410 will have weekend lane closures
- In advance of highway construction work and long-term and temporary road closure periods, advisory / warning signs will be placed at locations where required and feasible







# Highway 410 Widening From South of Highway 401 Northerly to Queen Street

### **ENVIRONMENTAL IMPACTS & MITIGATION**

The following environmental factors are being assessed during detail design to determine existing environmental conditions and to identify mitigation measures to minimize and/or address potential impacts associated with the proposed works.

Potential Impact	Mitigation Measures / Commitments to Future Work
Natural Environment	
Fish & Fish Habitat  Etobicoke Creek (Crossing 8):  • warmwater/coolwater creek  • bridge widening and construction of four (4) piers, two (2) within the watercourse and two (2) within the riparian area  Culvert Works:  • Patch work and repairs to several culverts  Terrestrial (Vegetation)	<ul> <li>Etobicoke Creek bridge widening is anticipated to not result in a Harmful Alteration Disruption or Destruction (HADD); therefore, formal Fisheries Act Authorization is not required.</li> <li>All crossings within the project area will require in-water construction to be completed during the warmwater window of July 1 to March 31.</li> <li>The proposed culvert extensions and bridge widening works will result in temporary minor levels of impact to fish and fish habitat during construction.</li> <li>Apply standard Erosion and Sediment Control (ESC) measures consistent with MTO Best Management Practices (BMP), Ontario Provincial Standards and Specifications (OPSS), Ministry of Transportation (MTO)/Department of Fisheries and Oceans Canada (DFO)/Ontario Ministry of Natural Resources (OMNR) Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings (2006).</li> <li>Tree protection fencing will be installed as required to protect vegetation.</li> <li>The Shagbark Hickory woodlot, and other remaining woodlots will be delineated and marked in the field, and disturbance to these areas</li> </ul>
	<ul> <li>will be minimized or avoided during construction.</li> <li>Vegetation removal in the Etobicoke Creek valley will be avoided or minimized where ever possible during construction.</li> <li>Temporarily disturbed areas will be restored and salvage/reuse of original vegetation and topsoil will be considered where possible.</li> <li>Appropriate erosion and sediment control methods will be implemented prior to the removal of vegetation near watercourses.</li> <li>The disturbance or removal of riparian vegetation will be minimized in order to maintain shading on the watercourse.</li> </ul>
Terrestrial (Wildlife & Species at Risk (SAR))	<ul> <li>Migratory Birds will be protected during the breeding bird season (which typically runs from May 1 to August 8 for Southern Ontario) as per the <i>Migratory Birds Convention Act (MBCA)</i>.</li> <li>Areas will be surveyed for nests prior to any vegetation clearing (including trees, shrubs and grasslands).</li> <li>Structures (including bridges, light poles, etc.) will also be surveyed for nests prior to the start of construction activities.</li> <li>One SAR, Barn Swallow, was observed flying through the project area in several locations during field investigations. Searches for nests within bridges and culverts were undertaken but none were found in the project area.</li> </ul>
Designated Natural Area (DNA)	<ul> <li>There are no Areas of Natural or Scientific Interest (ANSI's), Environmentally Sensitive Areas (ESA's) or Provincially Significant Wetlands (PSW's) within the project area (MNR, 2012). However, there are a number of MNR unevaluated wetlands.</li> </ul>







# Highway 410 Widening From South of Highway 401 Northerly to Queen Street

## ENVIRONMENTAL IMPACTS & MITIGATION

Potential Impact	Mitigation Measures / Commitments to Future Work
Natural Environment	
Navigable Protection Act (NPA)	• There is one (1) navigable watercourse crossing identified as Etobicoke Creek which crosses under Highway 410 within the limits of the project area. NPA Approval has been obtained from Transport Canada.
Groundwater & Surface Water Resources	• A Permit to Take Water (PTTW) will be requested from the Ministry of the Environment (MOE) as the diversion of surface water and the extraction of groundwater in excess of 50,000 litres per day (24 hours) is anticipated during construction.
Landscaping	<ul> <li>A conceptual landscape design has been developed for the Highway 410 corridor within the project limits.</li> </ul>
Erosion and Sediment Control	• To minimize the potential for erosion to newly exposed slopes and ground surfaces standard mitigation measures will be applied as required (e.g. silt fence, barriers, seed and mulch, sod, erosion control blanket).
Drainage and Watercourses  Etobicoke Creek watershed (from Eglinton Avenue to Queen Street)	• At the present time, stormwater runoff drains laterally from outer lanes into the existing ditch, and stormwater runoff from the inner lanes drains into the existing grass median. Once the existing grass median is urbanized from Highway 401 to Queen Street, due to Highway 410 widening into the median, a median storm sewer system and stormwater management ponds will be introduced.
Socio-Economic Environmen	nt
Noise	<ul> <li>A noise by-law exemption permit issued by the City of Mississauga and the City of Brampton will be obtained (if necessary) to facilitate night time construction.</li> </ul>
	• The Contractor will be required to keep idling of construction equipment to the minimum necessary to perform the work and to maintain equipment in good working order to prevent unnecessary noise from construction activities.
Air Quality	• Air quality during construction may be affected with dust impacts from heavy construction equipment. These impacts will be limited to the construction period and are not considered a recurring activity. Provisions to minimize potential impacts during construction include following best management practices such as dust suppression and periodic watering, as required.
Property	<ul> <li>No permanent property taking is required.</li> <li>Permission to Enter (PTE) is required for one site during construction.</li> </ul>
Excess Waste Management	<ul> <li>Excess material will require proper management (removal, storage and disposal). Materials will be managed in accordance with Ontario Provincial Standard Specification (OPSS) 180 – General Specification for the Management of Excess Materials.</li> </ul>





# Highway 410 Widening From South of Highway 401 Northerly to Queen Street

## ENVIRONMENTAL IMPACTS & MITIGATION

Potential Impact	Mitigation Measures / Commitments to Future Work			
Cultural Environment				
Archaeology	• The Ontario Ministry of Tourism, Culture and Sport (MTCS) will be notified should archaeological material be found during construction activities.			
Built Heritage	No Built Heritage Resources or Cultural Heritage Landscapes have been identified within or immediately adjacent to the project area.			
<b>Technical Considerations</b>				
CN Railway	• Highway 410 northbound and southbound lanes that cross over the CNR, between Glidden Road and Orenda Road will be widened to accommodate the additional lanes on Highway 410.			
Traffic Operations	<ul> <li>New carpool parking facilities will be provided at Courtneypark Drive and Clark Boulevard.</li> </ul>			
Traffic During Construction	<ul> <li>Minimize duration of ramp/lane/auxiliary lane closures during construction as much as possible.</li> <li>Advance signage will notify motorists of construction impacts to traffic.</li> </ul>			
Highway Operations & Safety	<ul> <li>In order to improve safety along Highway 410, the following roadside safety work will be undertaken:</li> <li>New tall wall barrier will be installed in the median separating northbound and southbound traffic</li> <li>New barrier will be installed along both sides of the widened Highway 403 West – Highway 410 North Ramp</li> <li>The existing barrier along the Highway 401 West – Highway 410 North Ramp will be replaced north of the existing structure</li> <li>The temporary concrete barrier along the Derry Road East/West – Highway 410 North Ramp and Highway 410 North – Derry Road East/West Ramp will be replaced with new concrete barrier</li> <li>The existing concrete barrier along the outside shoulders of Highway 410 northbound and southbound from Steeles Avenue to Clark Boulevard will be replaced</li> <li>All remaining existing roadside barriers and attenuators will be assessed and adjusted, extended or replaced as necessary.</li> </ul>			
Utilities	<ul> <li>Relocation strategies will be developed for utilities impacted by the proposed works.</li> <li>Discussion with utility companies will be ongoing.</li> </ul>			







#### **NEXT STEPS**

The following activities will be undertaken following the PIC:

- Respond to comments received at this PIC. Please submit your comments by January 9, 2014 via email, mail or fax
- > Refine mitigation measures to address potential environmental impacts
- Finalize the Detail Design Plan and prepare the contract package for construction
- Prepare the Design and Construction Report (DCR). The DCR will be placed on the public record for a 30-day review period. Notification will be advertised in local newspapers and mailed to those on the Project Contact List. To be added to the Project Contact List please complete a comment sheet.

Comments and information regarding this study are being collected to assist the MTO and URS Canada Inc. in meeting the requirements of the *Ontario Environmental Assessment Act*. This material will be maintained on file for use during the study and may be included in study documentation.

Information collected will be used in accordance with the *Freedom of Information and Protection of Privacy Act.* With the exception of personal information, all comments will become part of the public record.

Thank you for attending!

Please fill out a comment sheet before you leave





#### **COMMENT SHEET**





Highway 410 Widening

From South of Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00 Detail Design and Class Environmental Assessment

Public Information Centre - Wednesday December 11th, 2013 at Courtyard Marriott Brampton

PLEASE PRINT
Name: Address: Postal Code:  Tel:
E-mail:
1) Do you have any comments regarding the Detail Design project consisting of: widening Highway 410 to 10 lanes generally within the median, addition of one new high occupancy vehicle (HOV) lane and one new general purpose lane (GPL) in each direction, two carpool lots, structure rehabilitation, illumination, traffic signals etc.?
How lanes are a washe of time a money!!! Drue on the 403 to Mississanga then Lill me they
We need two new lanes in each
difection
NO HOU.
Do you have any comments with respect to the construction staging plan?





## Highway 410 Widening From South of Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00 Detail Design and Class Environmental Assessment Public Information Centre - Wednesday December 11th, 2013 at Courtyard Marriott Brampton

	environmental effects?
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	Other comments:
	Hor lanes cause accordate when people
(	ross out of them ma-instrug.
	Dive almost been hit funce
	No Hor lanes
_	
_	you require a written response to your comments?  Yes No No
ıc	mments and information regarding this project are being collected to assist the Project Team in meeting the requirements of the Ontari
	vironmental Assessment Act. s material will be maintained on file for use during the project and may be included in project documentation. With the exception of

Please leave your comment sheets in the box provided or mail/fax/e-mail them by January 9, 2014 to:

Ms. Holly Wright, Consultant Project Environmental Planner

URS Canada Inc., 30 Leek Crescent, 4<sup>th</sup> Floor, Richmond Hill, Ontario, L4B 4N4

Fax: (905) 882-4399, E-mail: holly.wright@urs.com

personal information, all comments will become part of the public record.



February 5, 2014



Dear

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street

G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project

**Ontario Ministry of Transportation** 

On behalf of the Highway 410 Widening from south of Highway 401 northerly to Queen Street Project Team thank you for your interest in this project and for submitting your comments at the Wednesday December 16, 2013 Public Information Centre (PIC).

We note your concern regarding the installation of high occupancy vehicle (HOV) lanes on Highway 410 as a waste of money and that HOV lanes cause accidents. We also note your recommendation to include another general purpose lane (GPL) in each direction instead of using HOV lanes.

A Preliminary Design study was undertaken previously and a Transportation Environmental Study Report (TESR) entitled *Highway 410 Widening from south of Highway 401 to Queen Street, W.O. 00-23020 Transportation Environmental Study Report (January 2010, Amended August 2010)* was prepared for the Highway 410 corridor. This TESR focused on the importance of the Highway 410 corridor and its role in the road network. As a primary objective of the Preliminary Design study consideration was given, through the assessment of alternatives, that Highway 410 would support HOV initiatives to encourage greater use of car-pooling in the Greater Toronto Area (GTA). The MTO is supportive of HOV initiatives, where possible, and on Highway 410 it is feasible to build HOV lanes. Section 5.3 of the above mentioned TESR considered various widening alternatives, which included additional widening using 2 or 4 GPLs, widening using 2 HOV lanes only, using 2 HOV lanes plus 2 GPLs, using 4 HOV lanes only, and using 2 reserved bus lanes. The analysis undertaken during the Preliminary Design Study ruled out that using all GPLs is not considered the best alternative for this corridor. Through the Preliminary Design Study it was recommended that widening of Highway 410 will consist of the installation of one HOV lane and one GPL in each direction. The above noted TESR also previously received Environmental Assessment clearance.

The Preliminary Design noted that construction of HOV lanes along the corridor would increase capacity, while at the same time promoting higher vehicle occupancies in the GTA, supporting efforts to reduce total vehicular demand. The Preliminary Design recommended that the Highway 410 Widening project include 'a single HOV lane and a single GPL in each direction'. This recommendation was carried forward to Detail Design in July 2010.

URS Canada Inc.
4<sup>th</sup> Floor, 30 Leek Crescent
Richmond Hill, ON Canada L4B 4N4
Tel: 905.882.4401
Fax: 905.882.4399

www.urs.ca

#### URS

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.

We have added you to the mailing list for this project, so you will be notified in advance of all future consultation activities related to this project.

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me at 905-882-4401 ext. 1865.

Sincerely,

URS Canada Inc.

Christopher Schueler, P.Eng.

URS Consultant Project Manager

Cc. M. Marinelli

-Ministry of Transportation Project Manager

L. Sarris

- Ministry of Transportation Environmental Planner

H. Wright

- URS Project Environmental Planner

S. Syed

- URS Assistant Project Manager

#### **COMMENT SHEET**





Highway 410 Widening
From South of Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00 Detail Design and Class Environmental Assessment

Public Information Centre - Wednesday December 11th, 2013 at Courtyard Marriott Brampton

#### PLEASE PRINT

	Name: Address: Postal Code:	City:
	Do you have any comments regarding the Detail Design project congenerally within the median, addition of one new high occupant purpose lane (GPL) in each direction, two carpool lots, structure references to the project of the proje	nabilitation, illumination, traffic signals etc.?
2)	Do you have any comments with respect to the construction staging what provisions will be motionally steeles companies	g plan? , de for traffic North





#### Highway 410 Widening From South of Highway 401 Northerly to Queen Street - G.W.P. 2144-07-00 Detail Design and Class Environmental Assessment Public Information Centre - Wednesday December 11th, 2013 at Courtyard Marriott Brampton

3)	Do you have any comments regarding the proposed environmental mitigation measures in place to minimize environmental effects?
+	No
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4)	
4)	Other comments:
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Do	o you require a written response to your comments?  Yes  No  No  No  No  No  No  No  No  No  N
1,111	vi Orimeniai Assessment Act,
Thi: per	s material will be maintained on file for use during the project and may be included in project documentation. With the exception of sonal information, all comments will become part of the public record.

Please leave your comment sheets in the box provided or mail/fax/e-mail them by January 9, 2014 to: Ms. Holly Wright, Consultant Project Environmental Planner URS Canada Inc., 30 Leek Crescent, 4th Floor, Richmond Hill, Ontario, L4B 4N4 Fax: (905) 882-4399, E-mail: holly.wright@urs.com



February 5, 2014



Dear

**RE:** Notice of Public Information Centre

Highway 410 Widening from South of Highway 401 Northerly to Queen Street

G.W.P. 2144-07-00

Detail Design and Class Environmental Assessment Group 'B' Project

**Ontario Ministry of Transportation** 

On behalf of the Highway 410 Widening from south of Highway 401 northerly to Queen Street Project Team thank you for your interest in this project and for submitting your comments at the Wednesday December 16, 2013 Public Information Centre (PIC).

We note your comment in that this project should be given high priority to be completed as soon as possible. The Highway 410 Widening from south of Highway 401 northerly to Queen Street Project is one of the new high priority expansion projects announced in the Ministry of Transportation 2013 Provincial Budget and it has an anticipated construction start in 2014. Again, thank you for your support of the project.

We also note your inquiry regarding what provisions will be made for traffic travelling northbound on Highway 410 while the Steeles Avenue westbound on-ramp to Highway 410 northbound is closed.

The Steeles Avenue westbound on-ramp to Highway 410 northbound is anticipated to be closed for two construction seasons (anticipated to start in 2016). There will be no posted detours as the Project Team anticipates that commuters using this corridor are familiar with the area. Traffic trying to access Highway 410 northbound from Steeles Avenue will divert to adjacent interchanges. Impacts to traffic travelling on Highway 410 northbound are expected to be minimal. All other existing lanes of traffic and ramps will be maintained during peak periods with nighttime ramp and lane closures as required.

This project is following the approved planning process for a Group 'B' project under the MTO Class Environmental Assessment for Provincial Transportation Facilities (2000), with the opportunity for public input throughout the project. A Design and Construction Report (DCR) will be prepared and made available for a 30-day public and agency review period at the completion of the project. The DCR review period will be advertised in local newspapers and mailed to those on the project mailing list.

We have added you to the mailing list for this project, so you will be notified in advance of all future consultation activities related to this project.

URS Canada Inc. 4<sup>th</sup> Floor, 30 Leek Crescent Richmond Hill, ON Canada L4B 4N4 Tel: 905.882.4401

Fax: 905.882.4399 www.urs.ca

If you would like to provide comments, or if you require further information regarding this project, please feel free to contact me at 905-882-4401 ext. 1865.

Sincerely,

URS Canada Inc.

Christopher Schueler, P.Eng.

URS Consultant Project Manager

Cc.

M. Marinelli

L. Sarris

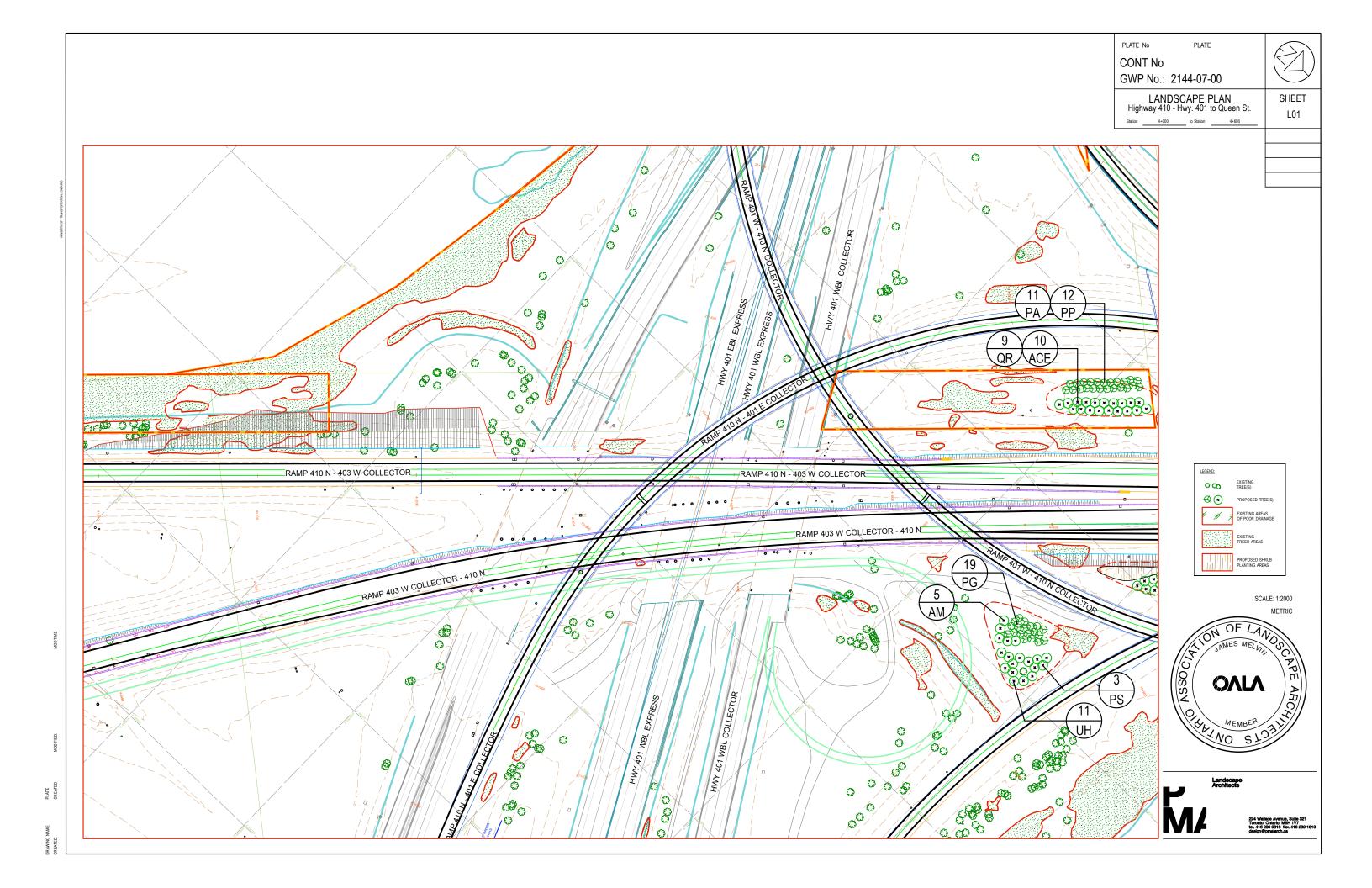
-Ministry of Transportation Project Manager
- Ministry of Transportation Environmental Planner
- URS Project Environmental Planner
- URS Assistant Project Manager

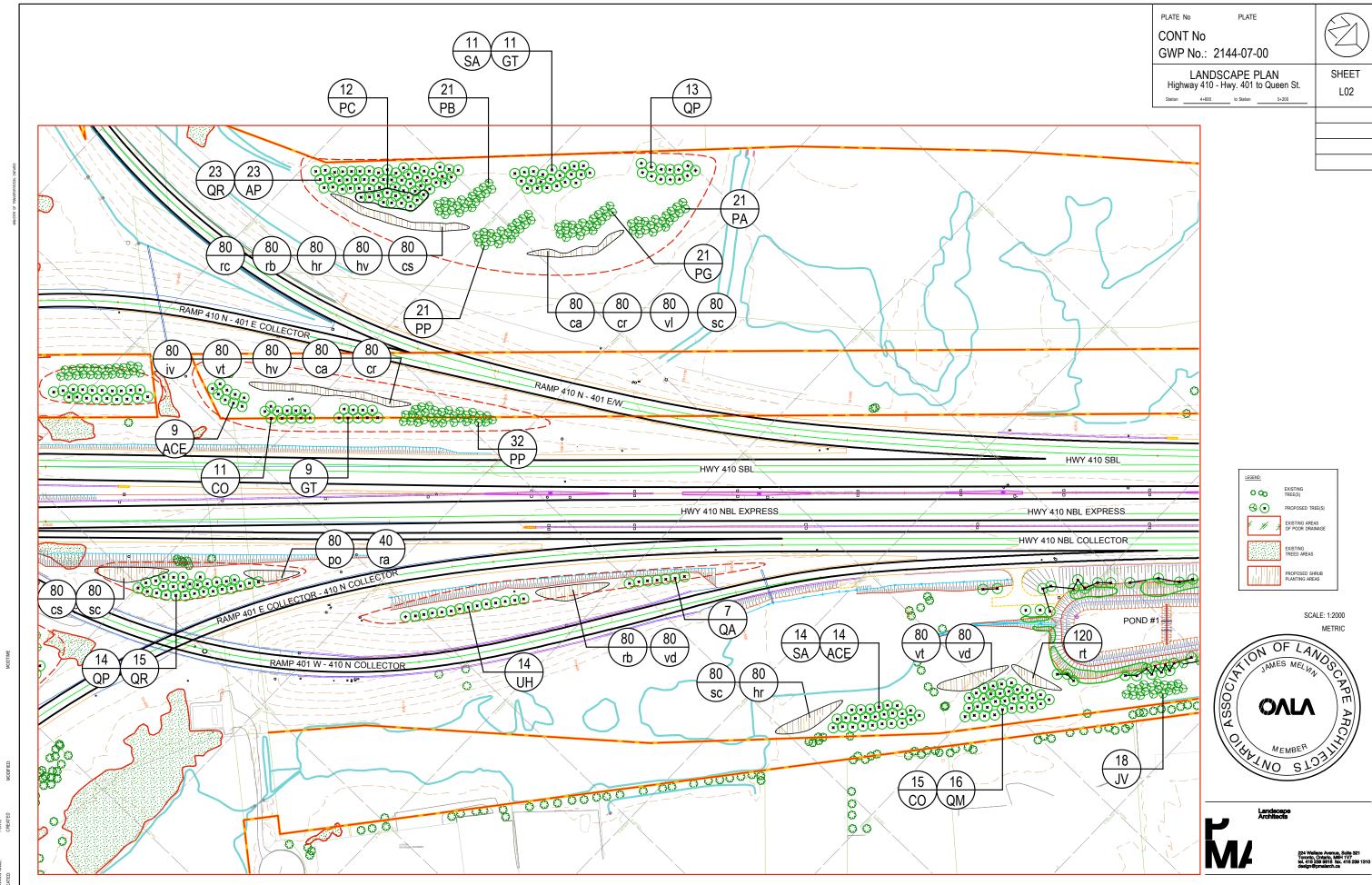
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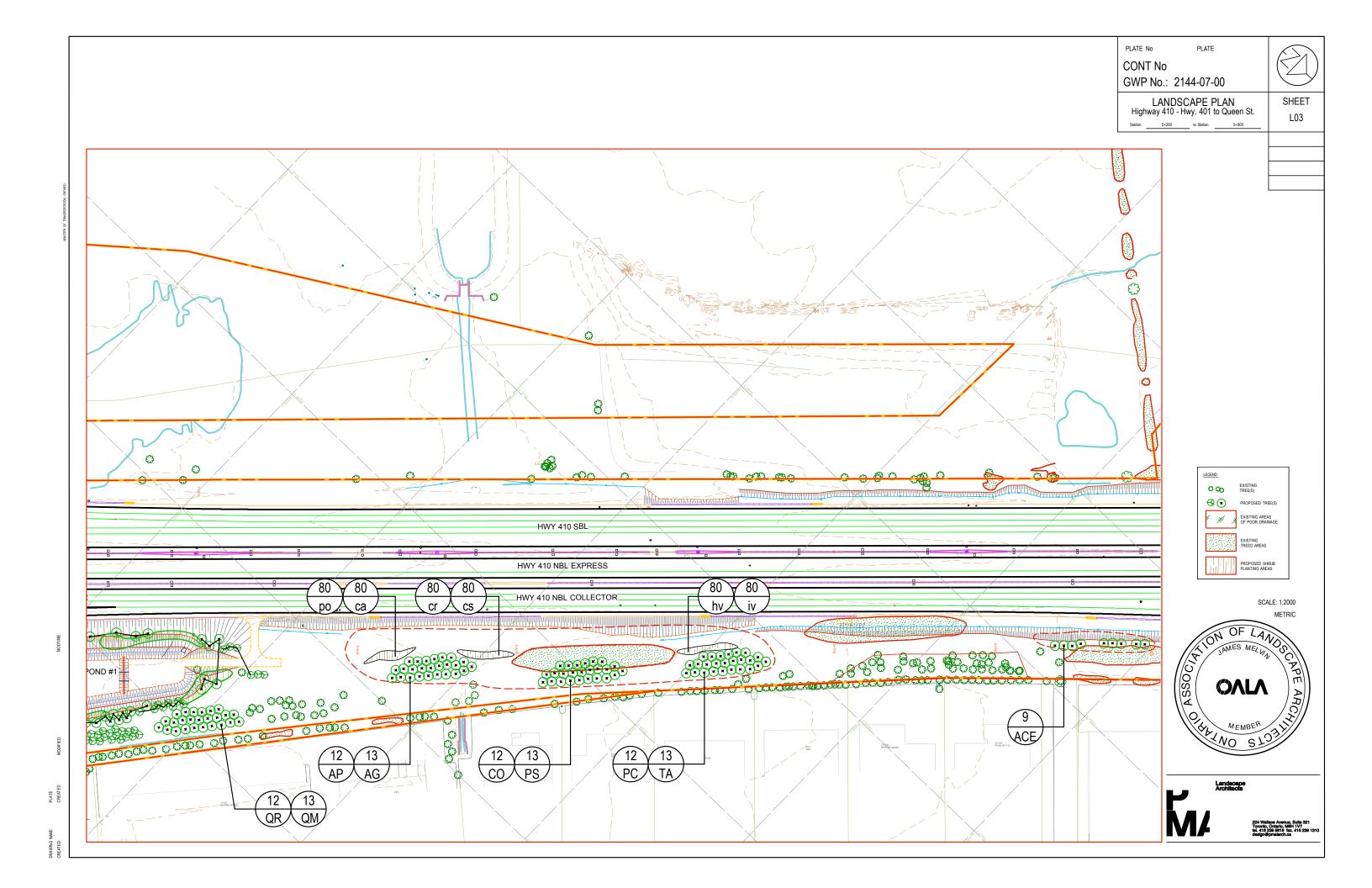
## Appendix E Landscape Plan

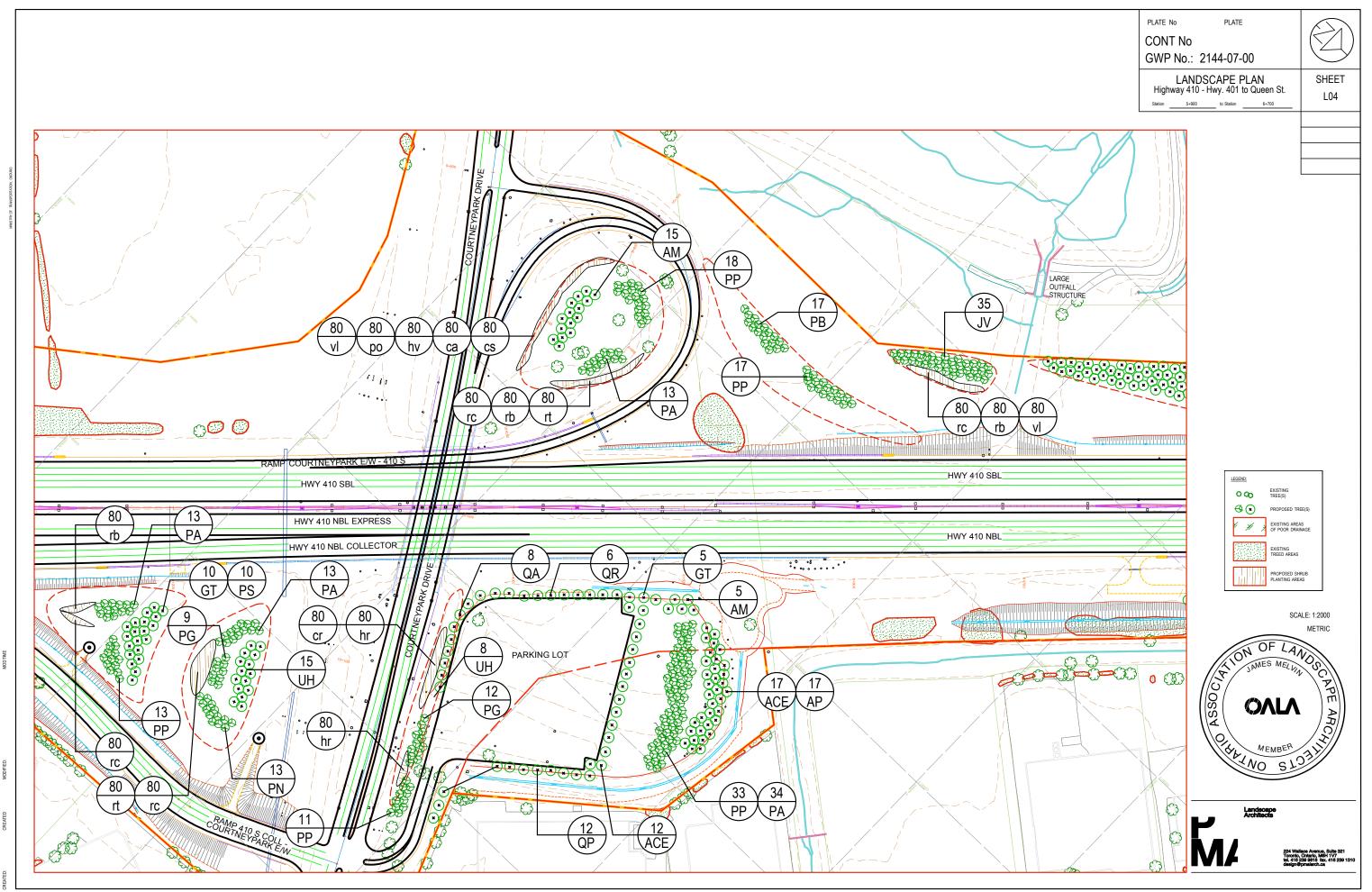


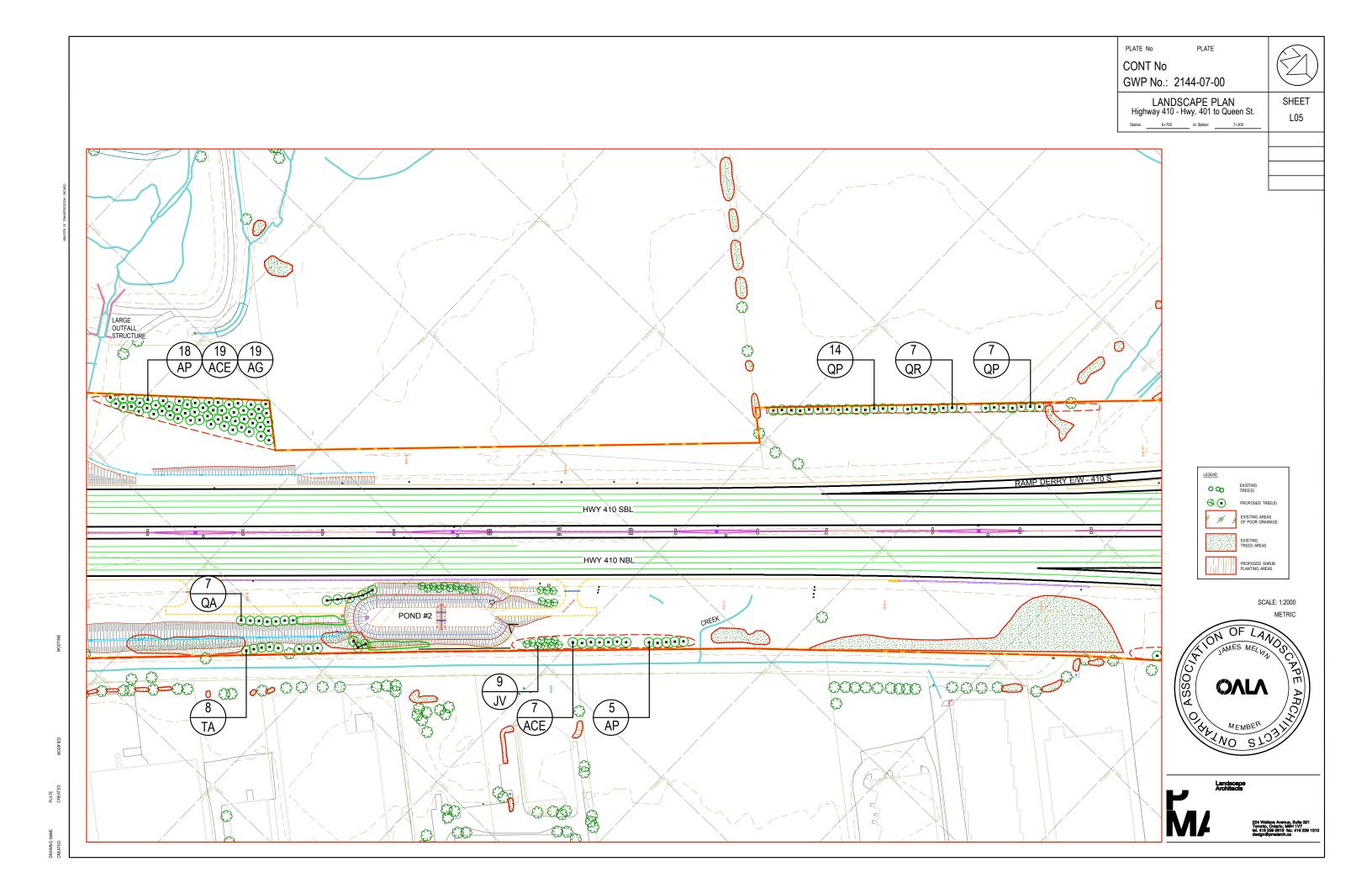


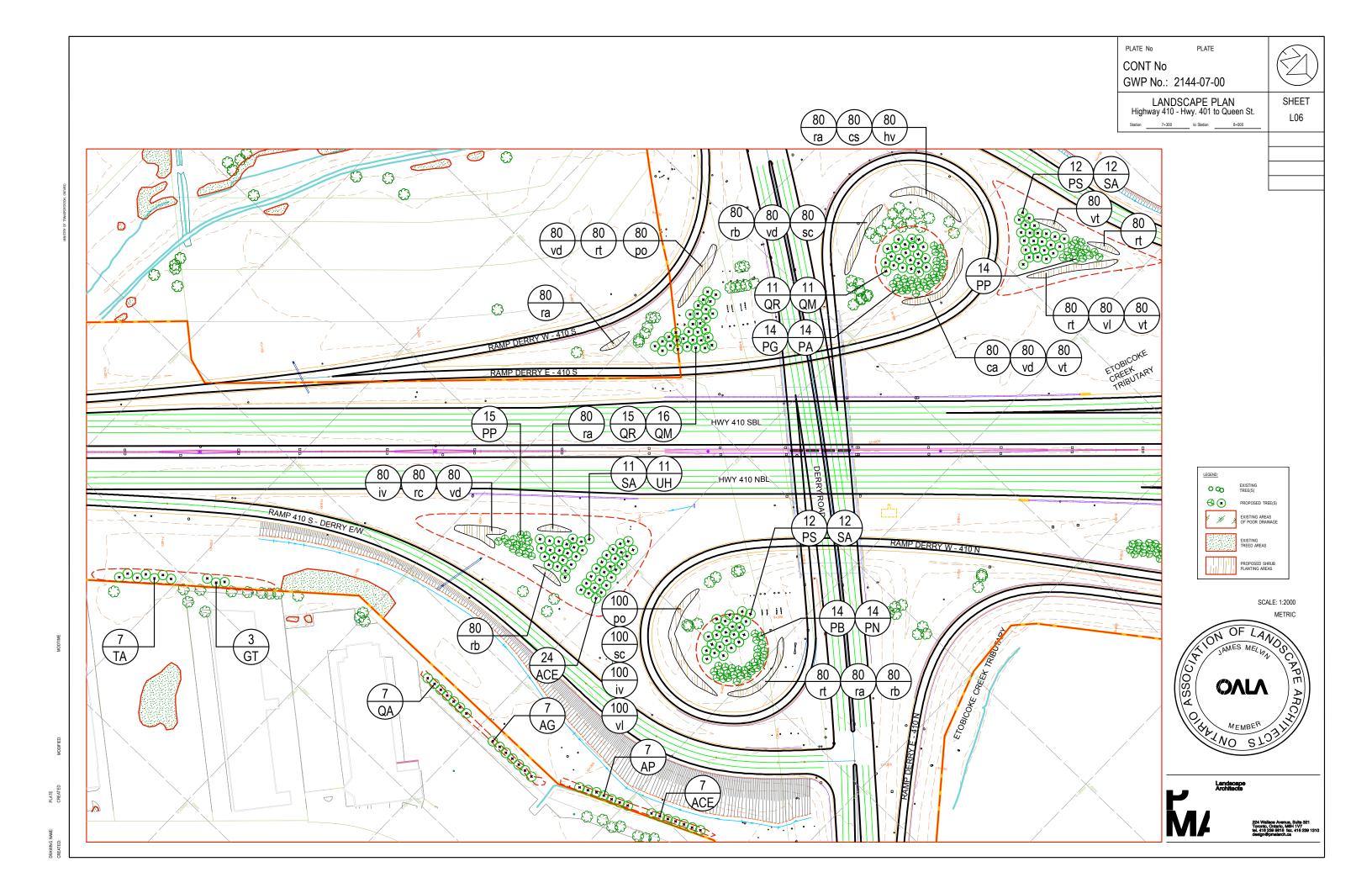


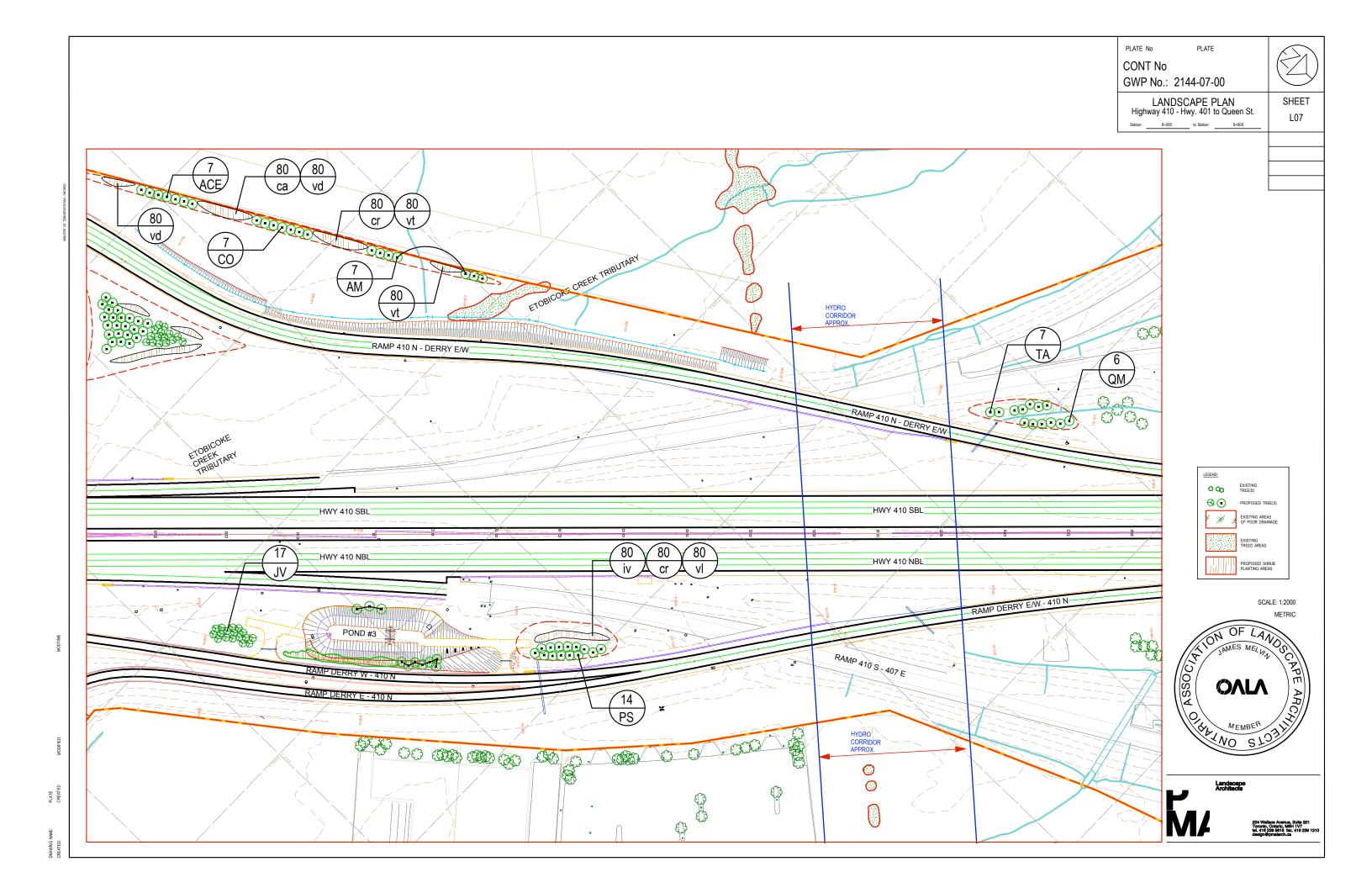


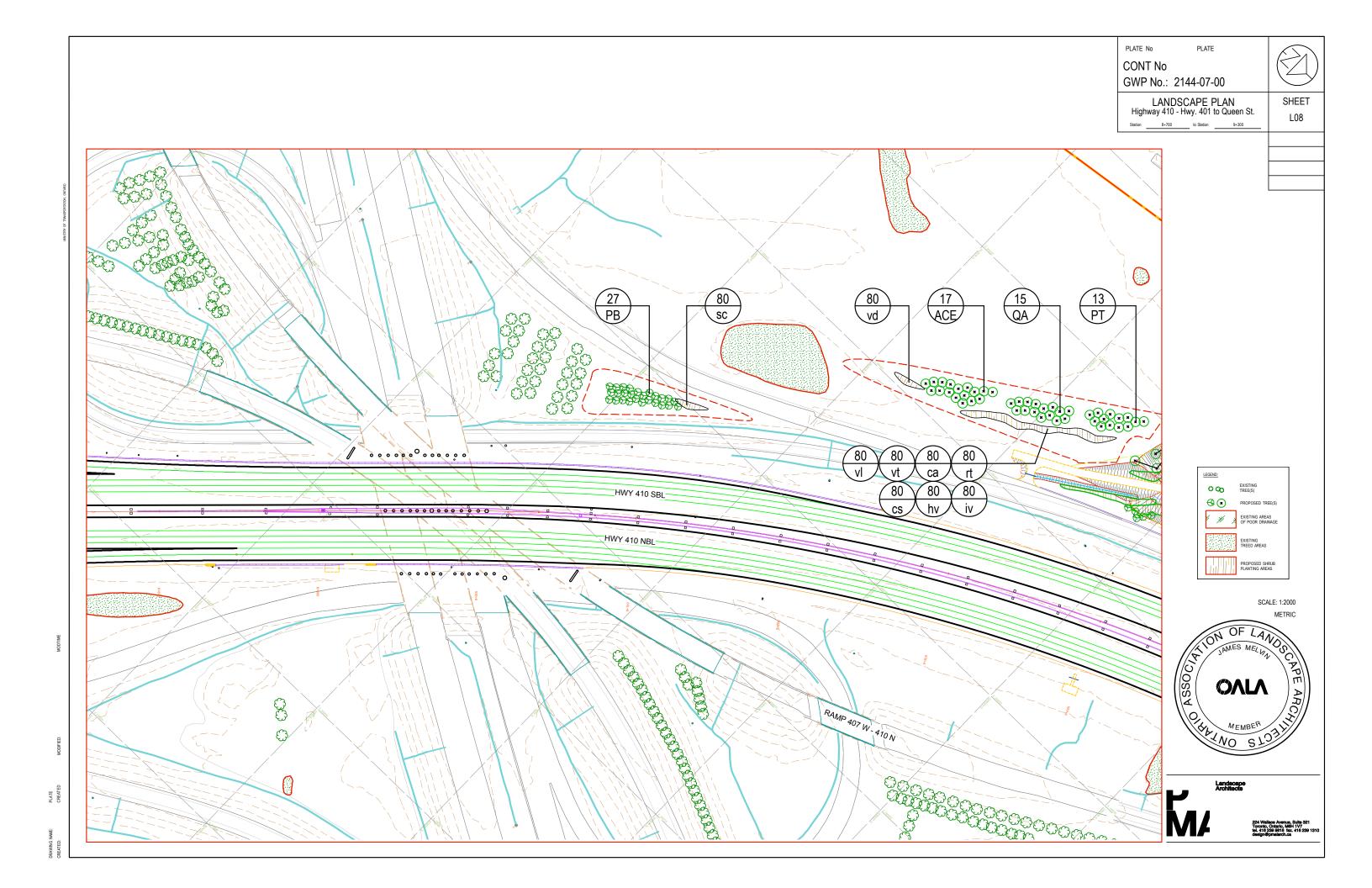


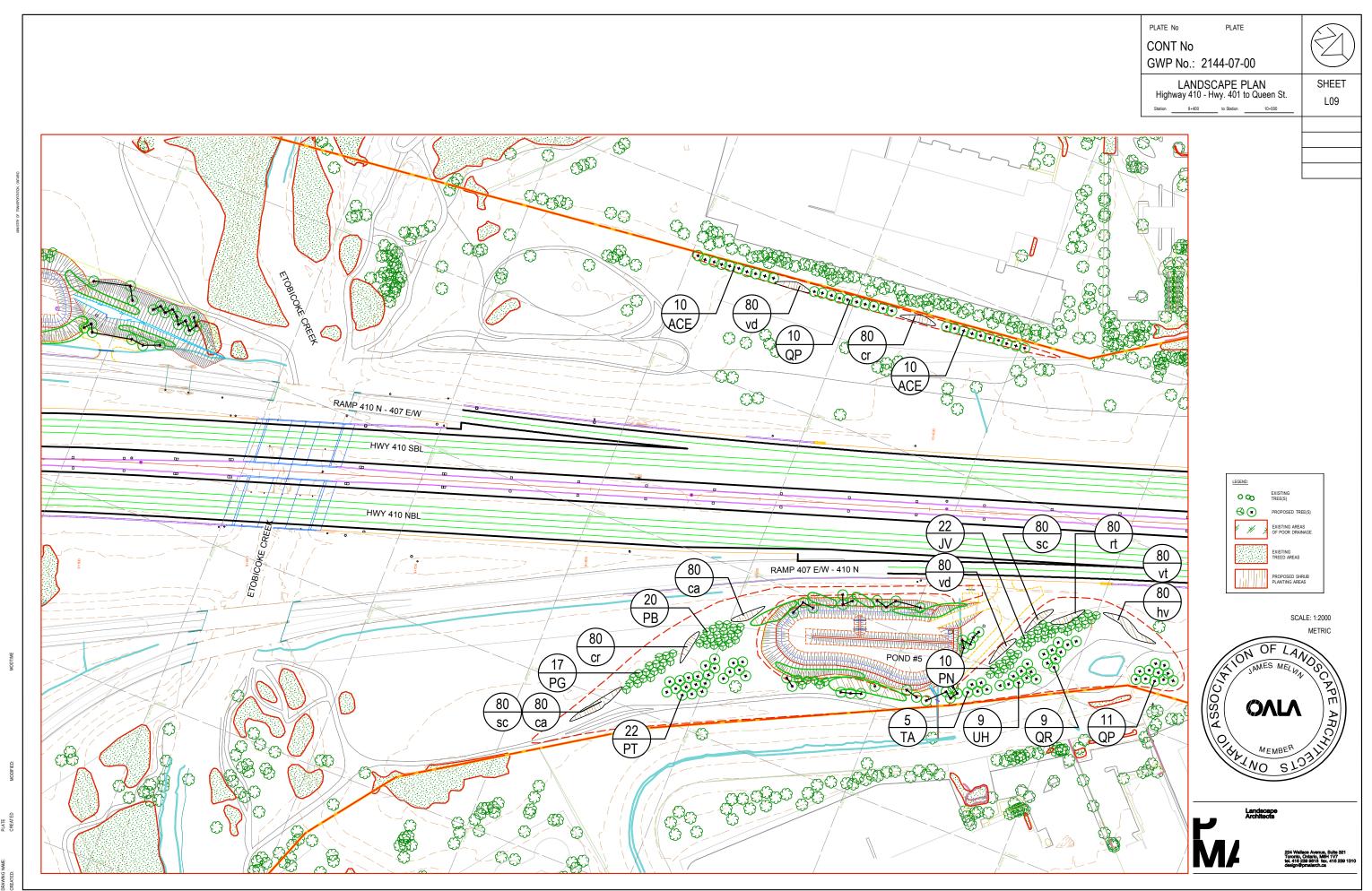


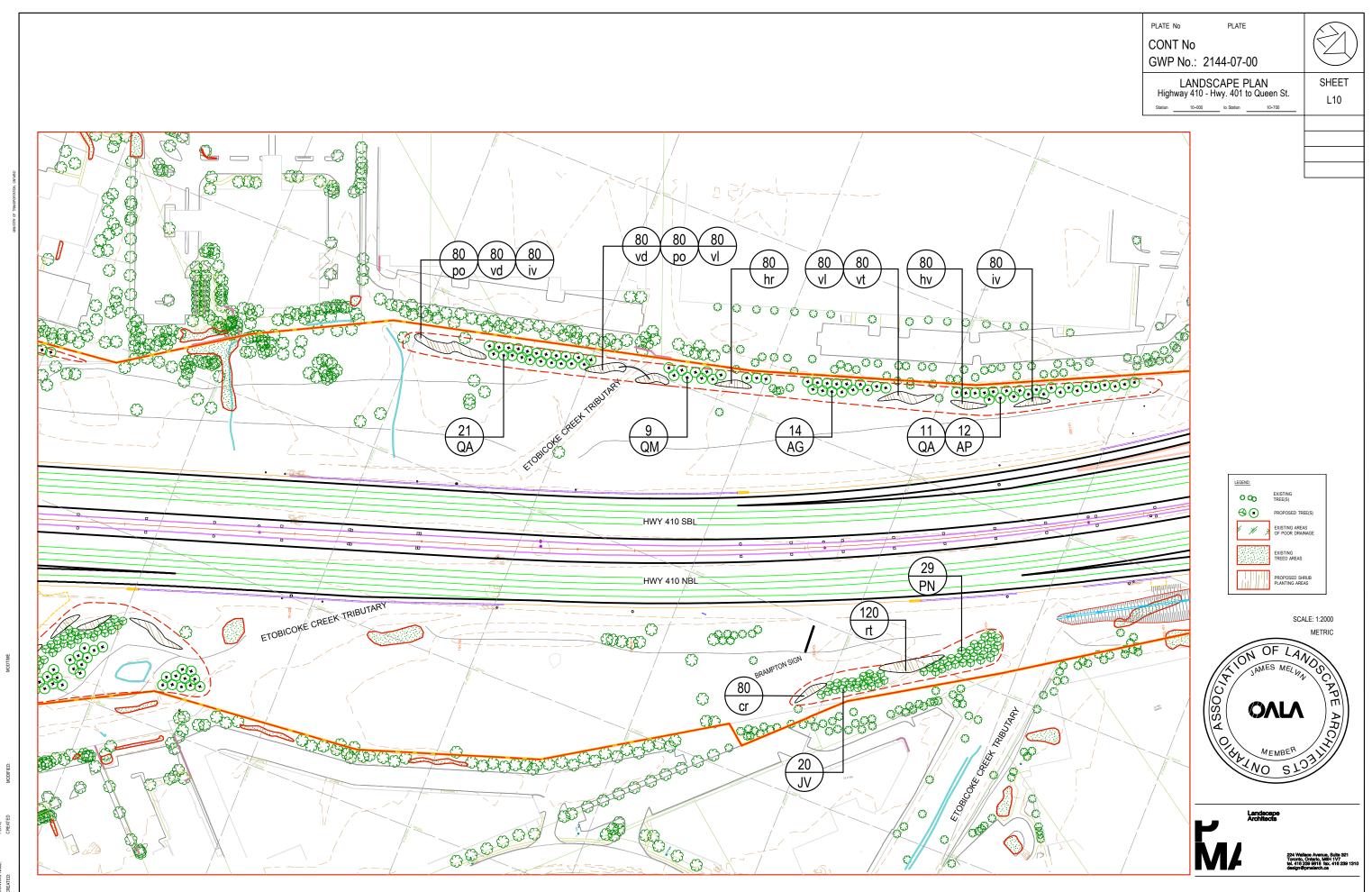


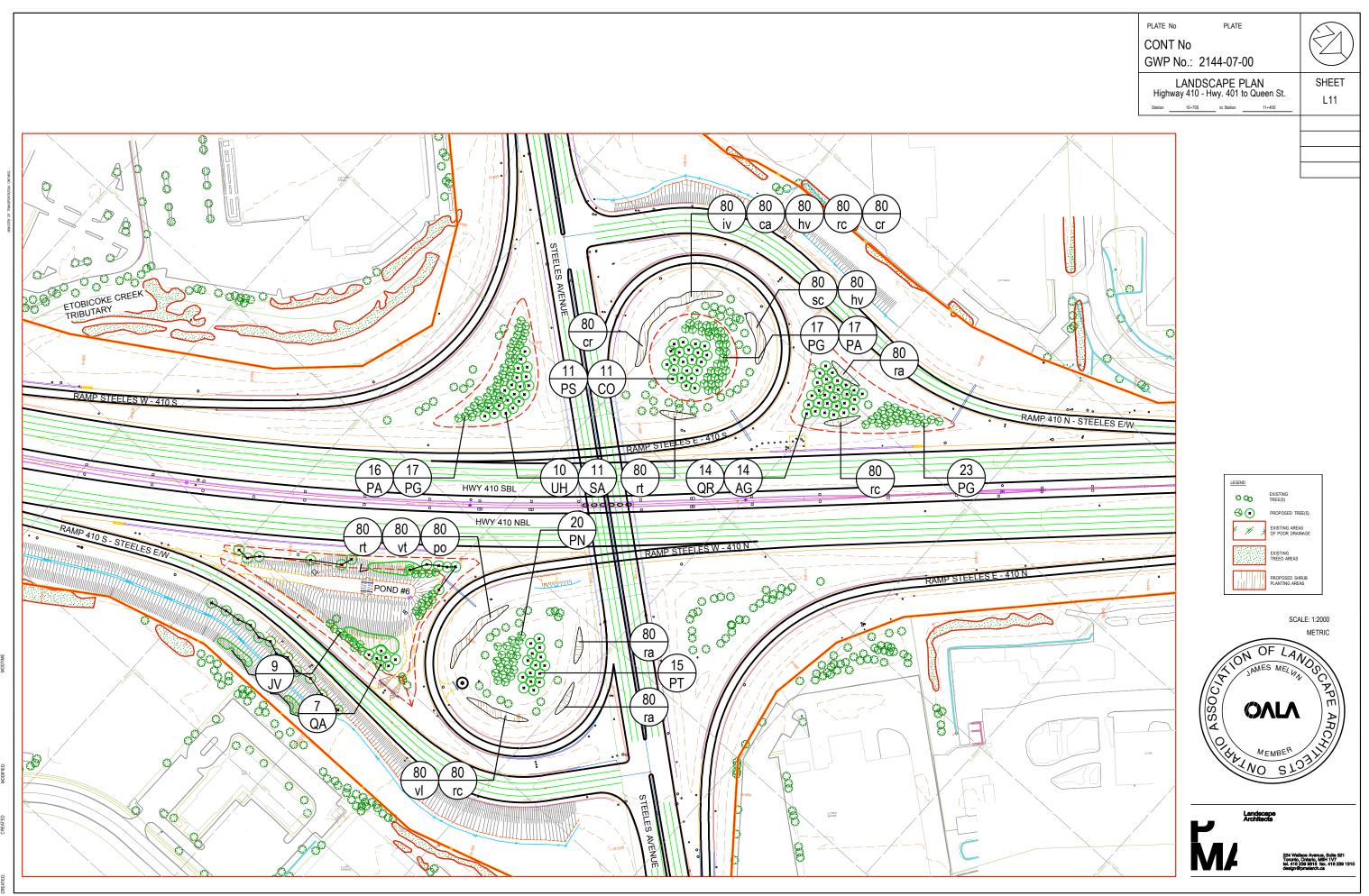


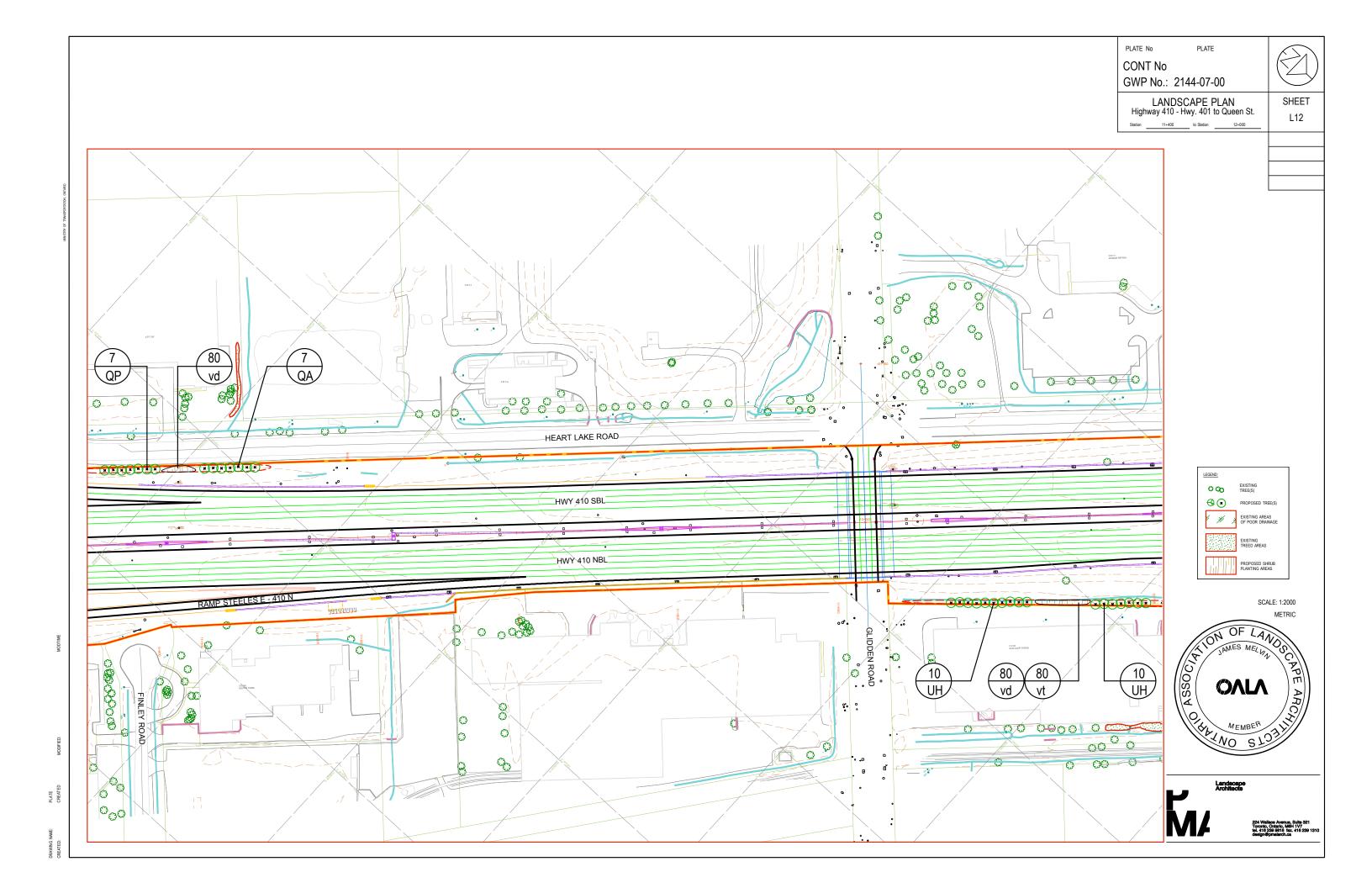


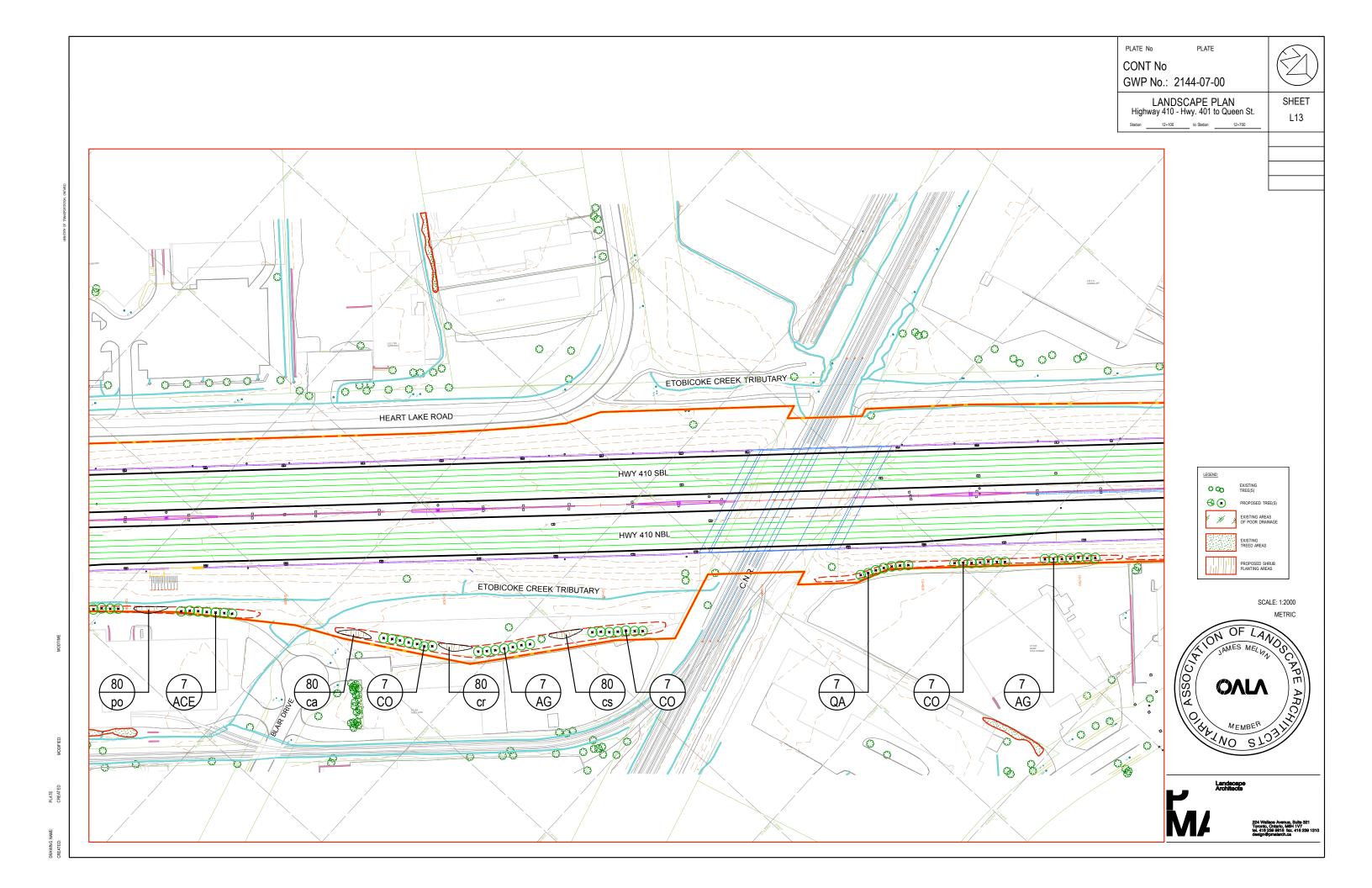


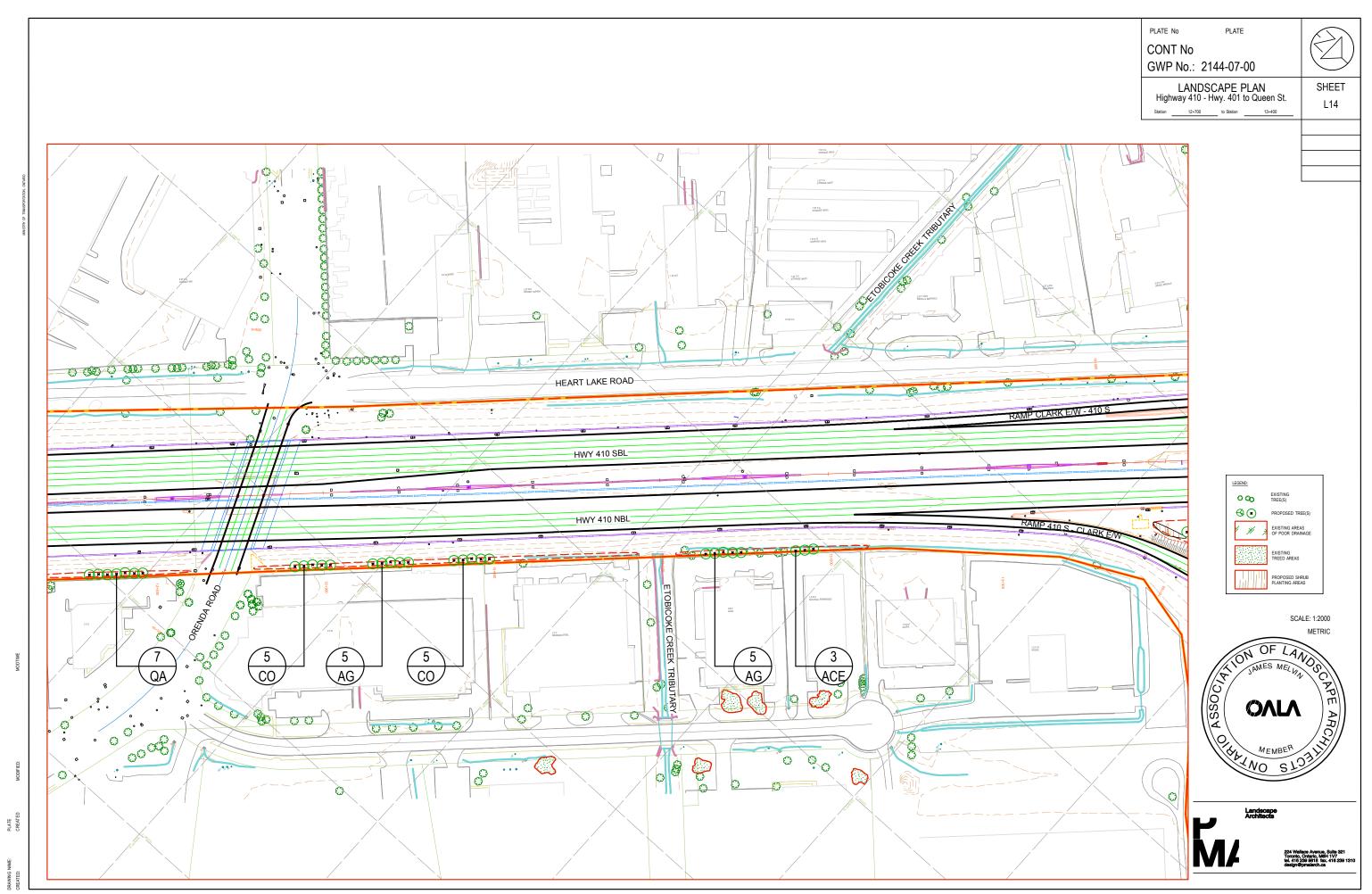


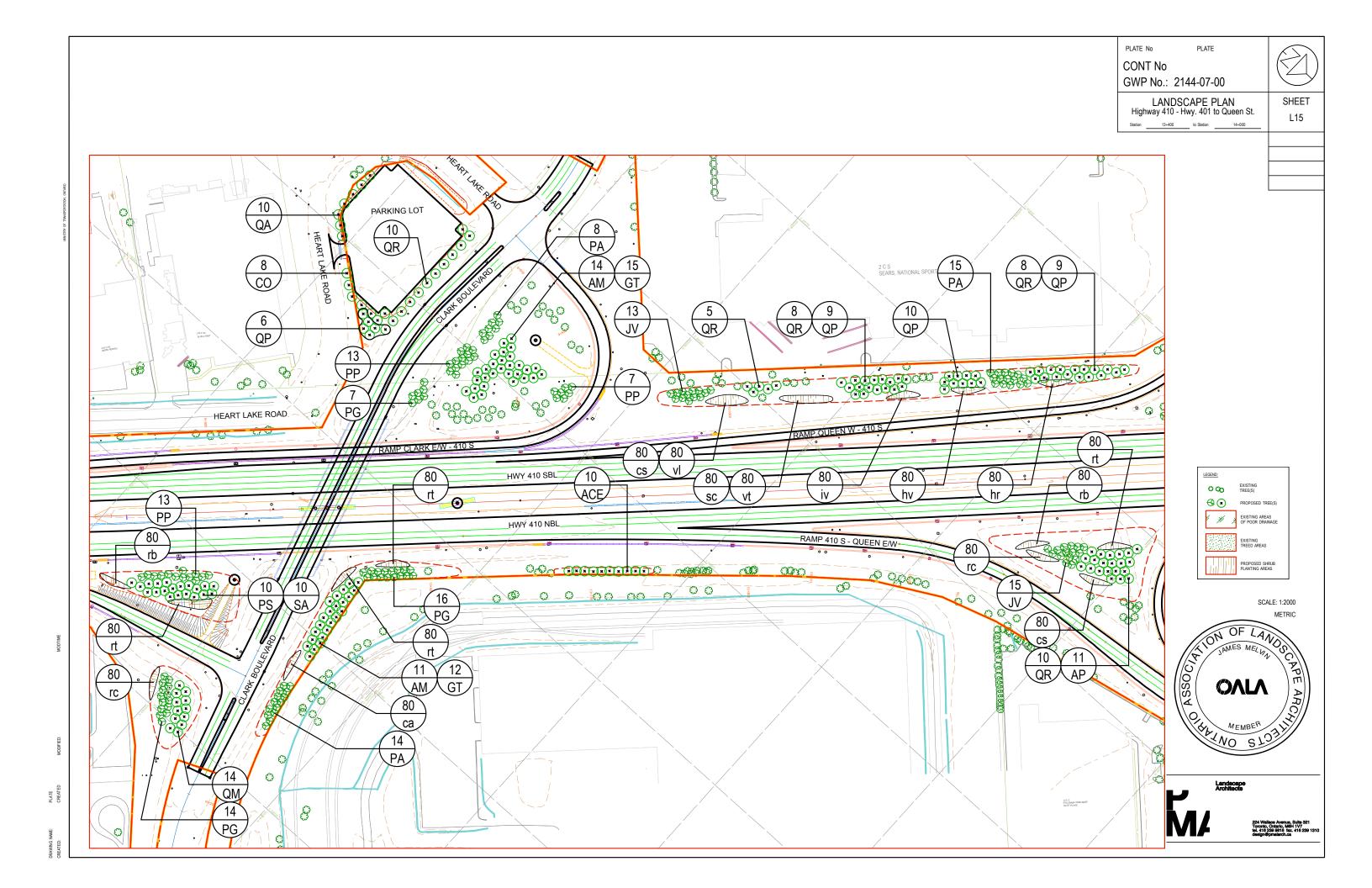


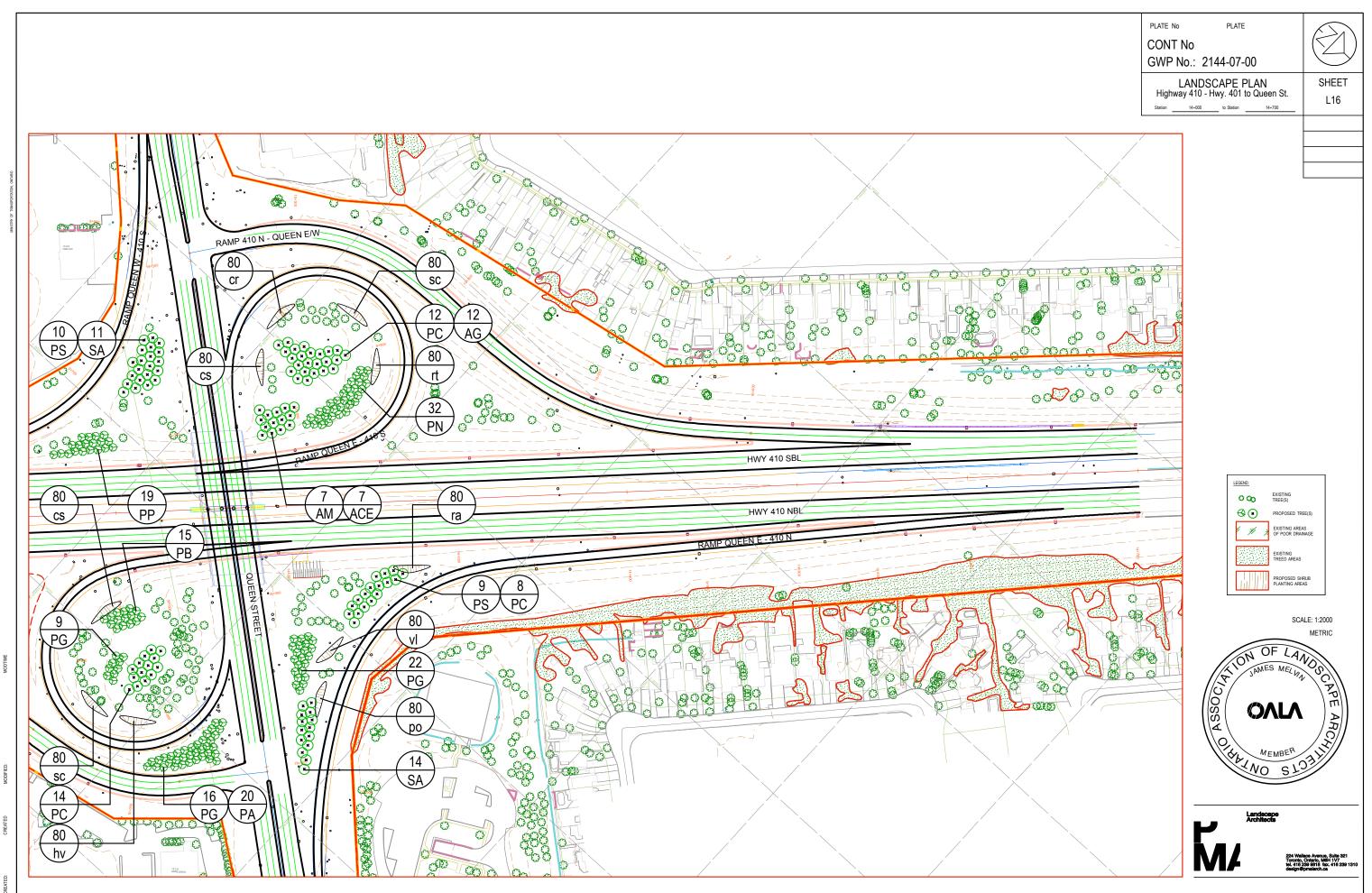












ROADSII	DE PLA	NTING - TREES				
KEY	QTY.	BOTANICAL NAME	COMMON NAME	Cal. (mm)	Root	Remarks
DECIDU	OUS TR	EES:				
AP	113	Acer pseudoplatanus	Sycamore Maple	30	WB	Uniform Specimen/Single Leader
ACE	199	Acer saccharum	Sugar Maple	30	WB	Uniform Specimen/Single Leader
AG	103	Aesculus glabra	Ohio Buckeye	30	WB	Uniform Specimen/Single Leader
AM	64	Amelanchier sp	Serviceberry	30	WB	Uniform Specimen/Single Leader
CO	95	Celtis occidentalis	Common Hackberry	30	WB	Uniform Specimen/Single Leader
GT	65	Gleditsia triacanthos	Honeylocust	30	WB	Uniform Specimen/Single Leader
QA	111	Quercus alba	White Oak	30	WB	Uniform Specimen/Single Leader
QR	156	Quercus rubra	Red Oak	30	WB	Uniform Specimen/Single Leader
QM	85	Quercus macrocarpa	Bur Oak	30	WB	Uniform Specimen/Single Leader
QP	127	Quercus palustris	Pin Oak	30	WB	Uniform Specimen/Single Leader
PC	58	Pyrus calleryana	Chanticleer Pear	30	WB	Uniform Specimen/Single Leader
PS	104	Prunus serotina	Black Cherry	30	WB	Uniform Specimen/Single Leader
PT	50	Popoulus tremuloides	Trembling Aspen	30	WB	Uniform Specimen/Single Leader
SA	106	Sorbus aucuparia	Mountain Ash	30	WB	Uniform Specimen/Single Leader
TA	40	Tilia americana	Basswood	30	WB	Uniform Specimen/Single Leader
UH	98	Ulmus 'Homestead'	Homestead Elm	30	WB	Uniform Specimen/Single Leader
TOTAL	1574					
CONIFER	ROUS T	REES:		Hgt. (mm)		
JV	158	Juniperus virginiana	Eastern Red Cedar	1500	WB	Uniform Specimen
PA	195	Picea abies	Norway Spruce	1500	WB	Single Leader
PB	114	Pinus Banksiana	Jack Pine	1500	WB	Single Leader
PN	118	Pinus Nigra	Austrian Pine	1500	WB	Single Leader
PP	238	Picea pungens	Colorado Spruce	1500	WB	Single Leader
PG	233	Picea glauca	White Spruce	1500	WB	Single Leader
TOTAL	1056					

PLATE No PLATE  CONT No  GWP No.: 2144-07-00	
PROPOSED PLANT LISTS Highway 410 - Hwy. 401 to Queen St.	SHEET L17

ROADS	SIDE PL	ANTING - SHRUBS					
Key	Qty.	Botanical Name	Common Name	Size	Root	Spacing	Remarks
•				Height (mm)		(O.C.) (m)	
SHRUE	BS:						
ca	960	Cornus amomum	Silky Dogwood	600	Pot	1.2	Uniform Specimen
cr	1040	Cornus racemosa	Gray Dogwood	600	Pot	1.2	Uniform Specimen
CS	880	Cornus sericea	Red Osier Dogwood	600	Pot	1.2	Uniform Specimen
hv	960	Hamamelis virginiana	Witch Hazel	600	Pot	1.5	Uniform Specimen
hr	480	Hippophae rhamnoides	Common Sea Buckthorn	600	Pot	1.2	Uniform Specimen
iv	820	llex verticillata	Winterberry	600	Pot	0.9	Uniform Specimen
ро	820	Physocarpus opulifolius	Common Ninebark	600	Pot	0.9	Uniform Specimen
SC	980	Sambucus canadensis	Elderberry	600	Pot	1.2	Uniform Specimen
ra	760	Rhus aromatica	Fragrant Sumac	600	Pot	0.9	Uniform Specimen
rt	1440	Rhus typhinia	Staghorn Sumac	600	Pot	1.2	Uniform Specimen
rb	800	Rosa blanda	Meadow Rosa	600	Pot	0.9	Uniform Specimen
rc	880	Rosa carolina	Pasture Rosa	600	Pot	0.8	Uniform Specimen
vd	1120	Viburnum dentatum	Arrowwood Viburnum	600	Pot	0.8	Uniform Specimen
vl	980	Viburnum lentago	Nannyberry	600	Pot	1.2	Uniform Specimen
vt	1040	Viburnum trilobum	Highbush Cranberry	600	Pot	1.2	Uniform Specimen
TOTAL	13960				_		





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CONTINO

GWP No.: 2144-07-00

LANDSCAPE PLAN
Pond No. 1 Planting
to Station

PLATE

SHEET L18



Plant List for	SWM	Pond No.1				
Key	Qty.	<b>Botanical Name</b>	Common Name	Cal. (mm)	Root	Remarks
AR	10	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
ASC	9	Acer saccharinum	Silver Maple	40	WB	Uniform Specimen/Single Leader
BP	10	Betula papyrifera	Paper Birch	40	WB	Uniform Specimen/Single Leader
LL	6	Larix laricina	American Larch	1500	WB	Uniform Specimen/Single Leader
QA	4	Quercus alba	White Oak	40	WB	Uniform Specimen/Single Leader
PG	8	Picea glauca	White Spruce	1500	WB	Uniform Specimen/Single Leader
SN	2	Salix nigra	Black Willow	40	WB	Uniform Specimen/Single Leader
<b>Total Trees</b>	49					
SHRUBS						Spacing (O.C.) (M)
cr	255	Cornus racemosa	Grey Dogwood	600	POT	1.2
si	340	Salix interior	Sandbar Willow	600	POT	1.2
vl	190	Viburnum lentago	Nannyberry	600	POT	1.2
<b>Total Shrubs</b>	785					
AQUATICS						
tl	150	Typha latifolia	Common Cattail		Plug	1.75/m2





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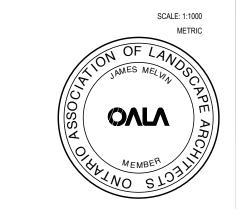
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CONT No GWP No.: 2144-07-00

LANDSCAPE PLAN Pond No. 2 Planting SHEET L19

Access Road4 3 SN	N 4885200	
PG 110 sd	85 vt 85	
10 PG	si	10 PT 115 cr
	100 VC 5 AR	3 AR 70 si
		105 cr

Plant List for SWM Pond No.2						
Key	Qty.	<b>Botanical Name</b>	<b>Common Name</b>	Cal. (mm)	Root	Remarks
AR	8	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
PG	16	Picea glauca	White Spruce	1500	WB	Uniform Specimen/Single Leader
PT	10	Populus tremuloides	Trembling Aspen	40	WB	Uniform Specimen/Single Leader
SN	3	Salix nigra	Black Willow	40	WB	Uniform Specimen/Single Leader
<b>Total Trees</b>	37					
SHRUBS						Spacing (O.C.) (M)
cr	115	Cornus racemosa	Grey Dogwood	600	POT	1.2
sd	110	Salix discolor	Pussy Willow	600	POT	1.2
si	70	Salix interior	Sandbar Willow	600	POT	1.2
VC	100	Viburnum cassinoides	Witherrod	600	POT	1.2
vt	85	Viburnum trilobum	Highbush Cranberry	600	POT	1.2
<b>Total Shrubs</b>	480					





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PLATE No PLATE CONT No GWP No.: 2144-07-00 LANDSCAPE PLAN Pond No. 3 Planting SHEET L20

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Plant List for SWM Pond No.3						
Key	Qty.	<b>Botanical Name</b>	<b>Common Name</b>	Cal. (mm)	Root	Remarks
AR	7	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
PT	30	Populus tremuloides	Trembling Aspen	40	WB	Uniform Specimen/Single Leader
QM	3	Quercus macrocarpa	Burr Oak	40	WB	Uniform Specimen/Single Leader
<b>Total Trees</b>	40					
SHRUBS						Spacing (O.C.) (M)
cr	230	Cornus racemosa	Grey Dogwood	600	POT	1.2
si	100	Salix interior	Sandbar Willow	600	POT	1.2
vl	60	Viburnum lentago	Nannyberry	600	POT	1.2
vt	225	Viburnum trilobum	Highbush Cranberry	600	POT	1.2
<b>Total Shrubs</b>	615					





PLATE No CONT No

GWP No.: 2144-07-00

SHEET

LANDSCAPE PLAN Pond No. 4 Planting

PLATE

L21

Plant List for	SWM	Pond No. 4				
Key		<b>Botanical Name</b>	Common Name	Cal. (mm)	Root	Remarks
AR	6	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
ASC	3	Acer saccharinum	Silver Maple	40	WB	Uniform Specimen/Single Leader
PG	5	Picea glauca	White Spruce	1500	WB	Uniform Specimen/Single Leader
PR	5	Pinus resinosa	Red Pine	1500	WB	Uniform Specimen/Single Leader
PT	10	Populus tremuloides	Trembling Aspen	40	WB	Uniform Specimen/Single Leader
QM	9	Quercus macrocarpa	Burr Oak	40	WB	Uniform Specimen/Single Leader
SN	3	Salix nigra	Black Willow	30	WB	Uniform Specimen/Single Leader
Total Trees	41					
SHRUBS						Spacing (O.C.) (M)
cr	345	Cornus racemosa	Grey Dogwood	600	POT	1.2
rb	205	Rosa palustris	Swamp Rose	600	POT	1.0
si	290	Salix interior	Sandbar Willow	600	POT	1.0
νl	80	Viburnum lentago	Nannyberry	600	POT	1.2
Total Shrubs	920					

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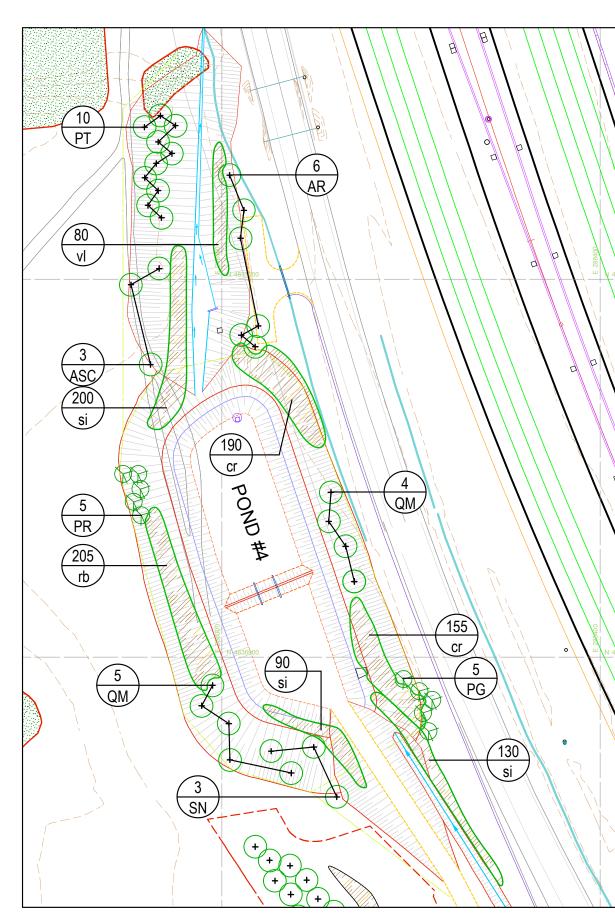
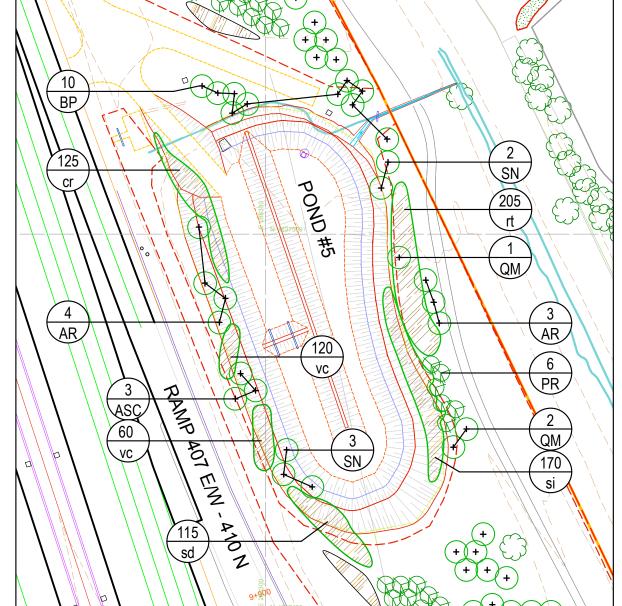


PLATE NO PLATE

CONT NO
GWP No.: 2144-07-00

LANDSCAPE PLAN
Pond No. 5 Planting
Station
to Station
L22



Plant List for	SWM	Pond No. 5				
Key	Qty.	Botanical Name	Common Name	Cal. (mm)	Root	Remarks
AR	7	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
ASC	3	Acer saccharinum	Silver Maple	40	WB	Uniform Specimen/Single Leader
BP	10	Betula papyrifera	Paper Birch	40	WB	Uniform Specimen/Single Leader
PR	6	Pinus resinosa	Red Pine	1500	WB	Uniform Specimen/Single Leader
QM	3	Quercus macrocarpa	Burr Oak	40	WB	Uniform Specimen/Single Leader
SN	5	Salix nigra	Black Willow	40	WB	Uniform Specimen/Single Leader
Total Trees	34					
SHRUBS						Spacing (O.C.) (M)
cr	125	Cornus racemosa	Grey Dogwood	600	POT	1.2
rt	205	Rhus typhina	Staghorn Sumac	600	POT	1.2
sd	115	Salix discolor	Pussy Willow	600	POT	1.2
si	170	Salix interior	Sandbar Willow	600	POT	1.2
VC	60	Viburnum cassinoides	Witherrod	600	POT	1.2
Total Shrubs	675					





PLATE No CONT No

PLATE

GWP No.: 2144-07-00

LANDSCAPE PLAN Pond No. 6 Planting

SHEET

to Station	L23

12 PG 0 M 115 Cr 3	+ + + + + + + + + + + + + + + + + + +	12 AR 60 cr 12 PT
SN 190 si	PR 100 si	65 Cr 66 DD
	6 QM	PR

Plant List for	SWM	Pond No. 6				
Key	Qty.	<b>Botanical Name</b>	<b>Common Name</b>	Cal. (mm)	Root	Remarks
AR	12	Acer rubrum	Red Maple	40	WB	Uniform Specimen/Single Leader
PG	12	Picea glauca	White Spruce	1500	WB	Uniform Specimen/Single Leader
PR	16	Pinus resinosa	Red Pine	1500	WB	Uniform Specimen/Single Leader
PT	12	Populus tremuloides	Trembling Aspen	40	WB	Uniform Specimen/Single Leader
QM	12	Quercus macrocarpa	Burr Oak	40	WB	Uniform Specimen/Single Leader
SN	3	Salix nigra	Black Willow	40	WB	Uniform Specimen/Single Leader
<b>Total Trees</b>	67					
SHRUBS						Spacing (O.C.) (M)
cr	175	Cornus racemosa	Grey Dogwood	600	POT	1.2
rt	160	Rhus typhina	Staghorn Sumac	600	POT	1.2
si	290	Salix interior	Sandbar Willow	600	POT	1.2
<b>Total Shrubs</b>	625					





## Appendix F List of Reference Documents





#### **List of Reference Documents**

- AMEC. (December 2012). Terrestrial Ecosystem Existing Conditions Report for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- AMEC. (November 2012). Fish and Fish Habitat Existing Conditions Report for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- AMEC. (January 2014). Fish and Fish Habitat Impact Assessment Report for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- AMEC. (February 2014). Terrestrial Ecosystems Impact Assessment Report for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- Novus Environmental (August 2012). Air Quality Assessment for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- PMA. (March 2013). Technical Memorandum Landscape Composition prepared to a 60% Detail Design complete level for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- PMA. (February 2014). Landscape Plan for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- SS Wilson Associates. (November 2013). Construction Noise Assessment for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- URS. (August 2012). Stage 1 Archaeology Assessment Report for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- URS. (November 2012). Phase 1 Environmental Site Assessment Vacant Parcel of Land Eastern Portion of 6765 Kennedy Road for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.
- URS. (November 2012). Preliminary Hydrogeological Assessment Technical Memorandum for Highway 410 Widening from South of 401 to Queen Street, City of Mississauga and City of Brampton, Within the Regional Municipality of Peel. G.W.P. 2144-07-00.



