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Attention: Lyle LeDrew
Project Manager

Indian Road Sanitary Trunk Sewer
Project File Report

IBI Group. (IBI) formerly known as Cole Engineering Group, is pleased to submit our Project File Report for the Indian Road Sanitary Trunk Sewer Class Environmental Assessment (EA) Study. Completed as a Schedule "B" Class EA, this report documents Phases 1 and 2 of the Municipal Engineers Association's (MEA) Municipal Class EA process, including a description of the problem/opportunity, identification of alternative solutions, inventory of the natural, socio-economic and cultural environment, consultation with the public and stakeholders, and evaluation of alternative solutions resulting in a preferred solution with identified impacts and mitigation measures.

Best Regards,
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Encls. Project File Report

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Final Review	June 29, 2021	For Client review

Statement of Conditions

This Report / Study (the “Work”) has been prepared at the request of, and for the exclusive use of, the Owner / Client, Region of Peel and its affiliates (the “Intended User”). No one other than the Intended User has the right to use and rely on the Work without first obtaining the written authorization of IBI Group. and its Owner. IBI Group expressly excludes liability to any party except the Intended User for any use of, and/or reliance upon, the work.

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1 Introduction

The Region of Peel (Region) has identified the need to build a new gravity sanitary sewer to provide long-term servicing for residents currently serviced by the Indian Road Sewage Pumping Station (SPS). This is because of the significant upgrades that would be required at the Indian Road Sanitary Pumping Station (SPS) to retain its use. The proposed gravity sewer would extend from the SPS (which the Region will decommission as a separate project) and connect to a sanitary sewer being constructed on Lakeshore Rd West.

IBI Group (IBI) was retained by the Region to undertake a Schedule B Municipal Class Environmental Assessment (EA) to determine the preferred solution for the provision of long-term servicing to residents currently serviced by the Indian Road SPS. The preferred solution, based on all aspects of the environment (social-cultural, environmental, technical and economic considerations), was found to be construction of a new gravity sanitary sewer along Indian Road, Kane Street to Lakeshore Road to connect to a sanitary sewer being constructed on Lakeshore Rd West.

1.1 Study Background

The Indian Road SPS is located at 397 Temagami Crescent, within an unopened road allowance and at the terminus of Indian Road. The pumping station collects wastewater from residential lands through a network of sewers having a catchment area of approximately 83 Ha, as seen in **Figure 1-1**. Built-in 1972, the pumping station requires significant upgrades due to aging infrastructure. Based on a condition assessment completed in 2015, the Region has made the decision to decommission the pumping station and construct a new gravity sanitary sewer from Indian Road to the future tunnelled gravity sanitary trunk sewer located on Lakeshore Road West.

Figure 1-1 Indian Rd SPS Catchment Area

1.2 Description of the Study Area

For the purposes of studies and determining the preferred alignment of the gravity sewer a Study Area was defined to encompass all possible sanitary sewer alignments from Indian Rd to Lakeshore Rd. The Study Area is located in Southern Mississauga, northwest of Lake Ontario. It extends from Indian Rd down to Lakeshore Rd, and from Kane Rd across to the Credit River, as seen in **Figure 1-2.** The Indian Rd SPS is located in the northwest corner of the Study Area. As the SPS is located in close proximity to the Credit River, a portion of the Study Area includes Credit Valley Conservation (CVC) regulated area.

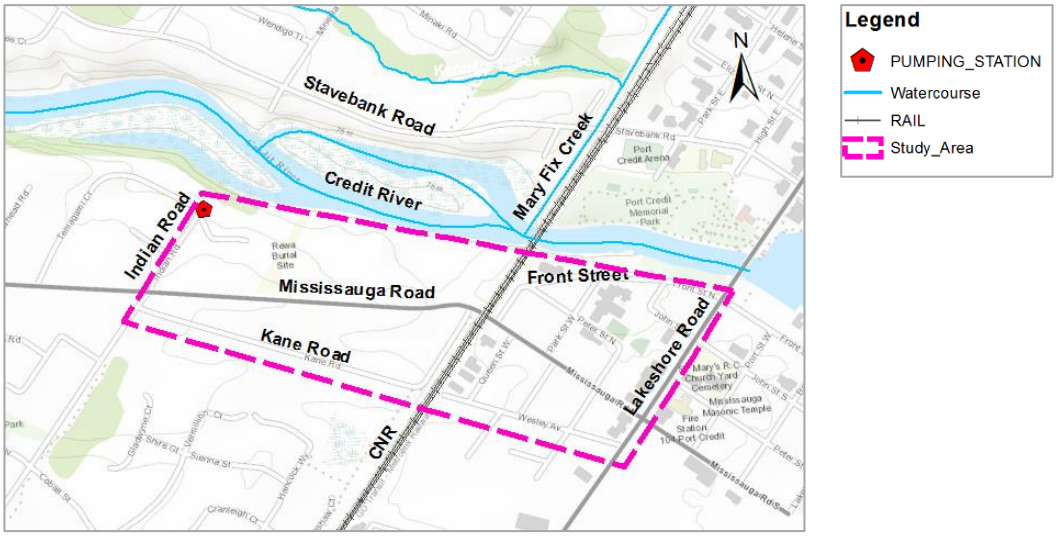

Figure 1-2 Study Area

1.3 Planning and Policy Context

1.3.1 Region of Peel Official Plan

Section 6.4 of the Region's Official Plan (Office Consolidation December 2018) states that the Region is responsible for the supply and distribution of water and the collection and disposal of sanitary sewage. In the southern urban areas of the Region, water and wastewater services are provided in cooperation with the Province through the South Peel Servicing Agreement. As noted in Section 6.4.1 of the Official Plan, it is the Region's objective "to provide water supply and sanitary sewer services to appropriate areas of the region in an adequate, efficient, planned and cost-effective manner consistent with public needs and financial realities". Section 6.4.2.1 states that it is the policy of Regional Council to "require and provide full municipal sewage and water services to accommodate growth in the Urban System to the year 2031…" and as per Section 6.4.2.7, to "ensure that the planning, construction, expansion, extension, operation and maintenance of water and sanitary sewer services protects the environmental systems and natural resources of Peel in a manner consistent with the objectives and policies in this Plan, the Niagara Escarpment Plan, the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan".

Schedule A: Core Areas of the Greenlands System in Peel identifies the Credit River and a swath on either side of the river (which includes the Indian Road SPS) as Core Area Greenlands. This designation is taken into consideration when evaluating alternative solutions.

The proposed municipal servicing improvements (construction of a gravity sewer and decommissioning of the Indian Road SPS) support the development objectives of the Regional Official Plan.

1.3.2 Region of Peel Water and Wastewater Master Plan for the Lake Based Systems

The Region of Peel 2013 Water and Wastewater Master Plan for the Lake Based Systems (Master Plan) was updated in June 2020. Section 4.1.4 Sewage Pumping Stations indicated that there is the potential to decommission existing sewage pumping stations throughout the Region, including Indian Road SPS.

Indian Road SPS and construction of the gravity sewer are not identified as a specific capital works project in the Master Plan. The sewer to be constructed on Lakeshore Road is identified as a capital works project, which once constructed will provide a connection point for the proposed gravity sewer to replace the Indian Road SPS.

1.3.3 Provincial Plans

Consideration was given as to whether parts of the Study Area were subject to the Oak Ridges Moraine Conservation Plan (2017), Niagara Escarpment Plan (2020), Greenbelt Plan (2017) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019). If these plans are applicable to the Study Area, then the relevant policies within these plans would need to be referenced.

The Study Area is within the 'settlement area outside' of the Niagara Escarpment Plan, Greenbelt Plan and Oak Ridges Moraine Conservation Plan (including the Protected Countryside). The Credit River (identified as an urban river valley) is present in the Study Area. The Study Area is located within the built-up area of the Greater Golden Horseshoe.

1.3.4 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) (2020) provides direction to municipalities on matters related to land use planning and development. Policy 1.6 of the PPS provides direction to municipalities regarding infrastructure and public service facilities. Key policies state that infrastructure "shall be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs". Policies 1.6.3 and 1.6.4 state that the use of existing infrastructure should be optimized before consideration is given to developing new infrastructure and infrastructure should be strategically located to support effective and efficient delivery of emergency management services. With respect to wastewater, key sections of Policy 1.6.6 state that planning for sewage services shall:

- Ensure that these systems are provided in a manner that i) can be sustained by the water resources upon which such services rely, ii) prepares for the impacts of a changing climate; iii) is feasible and financially viable over the lifecycle, and iv) protects human health and safety, and the natural environment;
- Promote water conservation and water use efficiency; and
- Integrate servicing and land use considerations at all stages of the planning process.

Policy 2.0 provides for the protection of natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits. Policy 2.1 Natural Heritage identifies that natural features and areas shall be protected for the long term. Specifically, site alteration shall not be permitted in or adjacent to significant wetlands, significant woodlands and valleylands, significant wildlife habitat and significant areas of natural and scientific interest unless the ecological features and areas have been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions. Mitigation measures may be considered to protect, improve or restore sensitive surface water features, sensitive ground water features and their hydrologic functions.

The Provincial Policy Statement also provides direction to regional and local municipalities on infrastructure and public service facilities, specifically sewage, water and stormwater. Section 1.6.6.1 provides planning policies for water servicing that accommodates expected growth in a manner that promotes the optimization and efficient use of existing municipal water services.

2 Needs Assessment and Justification

As it is necessary for the Indian Rd SPS to undergo significant upgrades for continued use, it is necessary for this project to be completed. This project will address the concerns over the aging infrastructure within the pumping station and provide various alternative solutions. In addition to providing long-term servicing for the residents that are currently serviced by the Indian Rd SPS, this project will also provide an outlet for the potential future local servicing for homes located on Mississauga Rd that are currently on private septic systems.

2.1 Problem/Opportunity Statement

The problem or opportunity statement defines the starting point in the undertaking of the Class EA process and assists in defining the scope of the project.

In accordance with the requirements of the MEA Municipal Class EA planning process, the Region of Peel initiated this Municipal Class EA to identify and evaluate alternative solutions. The replacement of the Indian Rd SPS with a gravity sanitary sewer was identified as a Schedule B Class EA as there is potential for some adverse environmental impacts as a result of the close proximity to the Credit River. Additionally, the design alternatives may require temporary easements in order to install the sewer.

The Problem/Opportunity Statement for the Indian Road Sanitary Sewer Municipal Class EA is defined as follows:

To provide long-term sanitary servicing for the residents currently serviced by the Indian Road Sanitary Pumping Station. In addition, providing the opportunity to include the residents along Mississauga Road to connect to municipal servicing and abandon the remaining private septic systems.

3 Overview of the Municipal Class EA Planning Process

This Class EA planning process, which follows the Municipal Engineers Association's (MEA) Municipal Class Environmental Assessment document (October 2000, as amended 2007, 2011 and 2015), takes into consideration the protection of all aspects of the natural, social and economic environment as well as long-term planning for the mitigation of any adverse effects during both construction and commissioning. The Class EA process also includes consultation with the Public, Indigenous Communities, Government Agencies, local interest groups and review bodies to obtain input and feedback and to ultimately attain general acceptance for the preferred alternative.

There are five (5) phases depicted in the Municipal Class EA Planning and Design Process, which include:

- **Phase 1 - Identify the problem(s) or opportunity:** Identify the problem or opportunity that the Class EA is intended to address.
- **Phase 2 - Identification of alternative solutions and selection of a preferred solution:** This is based on a thorough evaluation of the options against a set of criteria. Phase 2 includes a detailed inventory of the natural, social and economic environment as well as the identification of any adverse impacts/effects and associated mitigating measures. Public consultation is held to review the problem/opportunity as well as all alternative solutions in an attempt to gain feedback leading to the selection of the preferred solution.
- **Phase 3 - Identification and assessment of alternative design concepts for the preferred solution:** The preferred solution selected in Phase 2 is expanded on in Phase 3 to include detailed design concepts. A second public consultation event is held to review the alternative design concepts in an attempt to gain further feedback leading to the selection of the preferred design.

- **Phase 4 - Preparation of an Environmental Study Report (ESR):** An ESR is developed documenting all phases and components of the Class EA process. The ESR is placed on public record and a notice of completion is filed.
- **Phase 5 - Implementation:** Implementation of the project works, including complete contract drawings and tender documents followed by construction and commissioning.

The complete Municipal Class EA Planning and Design Process is shown in **Figure 3-1.**

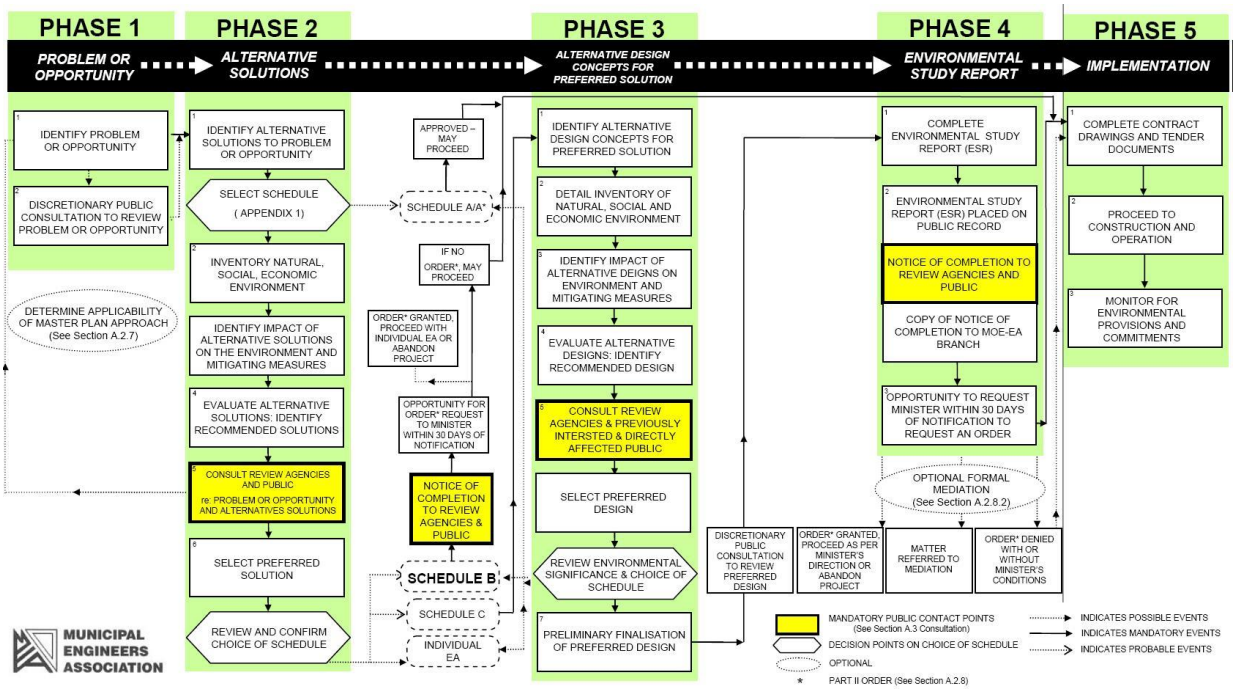

Figure 3-1 Municipal Class EA Planning and Design Process

3.1 Municipal Class EA Schedules

The Class EA document categorizes projects into one of four (4) possible schedules depending on the project's complexity and the nature and significance of potential adverse effects on the environment. The schedule under which a particular project falls determines the specific planning and design phases that must be adhered to. The four (4) schedules are:

- **Schedule A/A+** projects are generally limited in scale and usually consist of minor operational/upgrade works. These projects usually have minimal adverse impacts on the environment and may go ahead without further assessment once the problem is reviewed and a solution is confirmed (i.e. after the completion of Phase 1). Schedule A+ projects require the extra step of notifying stakeholders prior to proceeding with the implementation of the project.
- **Schedule B** projects have the potential for some adverse environment effects and must accordingly proceed through Phase 1 and Phase 2 of the planning and design process. Alternative solutions to the problem must be identified, all impacts to the natural, social-cultural and/or economic environment must be inventoried, and a preferred solution selected through consultation with the Public and government review agencies. The project file must be completed and put on public record for a minimum 30-day public review period prior to proceeding to implementation.

- **Schedule C** projects are the most complex and require a more detailed study, public and agency consultation, and documentation. These projects have the potential for significant environment effects. A Schedule C project must complete all five (5) Phases of the planning and design process. An ESR must be completed and put on public record for a minimum 30-day public review period prior to proceeding to implementation.

3.1.1 Schedule B Classification

The scope of work for providing a gravity sanitary sewer from Indian Road Sanitary Pumping Station (SPS) to a future tunneled sanitary trunk sewer along Lakeshore Road West, is identified as a Schedule B project. This is based on the fact that the alternative alignments considered include a portion of the sewer that would be potentially located outside of an existing road allowance on the Indian Road Sanitary Pumping Station property and includes the crossing of the Metrolinx railway.

The proposed alignment is contained within the existing road right-of-way. However, the need for property acquisition for construction of the proposed sewer has resulted in this being a Schedule B, Class EA project as per the MEA's Municipal Class Environmental Assessment document. Per Appendix 1 – Project Schedules of the document, this is characterized as:

- **Establish, extend, or enlarge a sewage collection system and all works necessary to connect the system to an existing sewage outlet where such facilities are not in an existing road allowance or an existing utility corridor.**

As such, this study is being conducted in accordance with the approved requirements for a Schedule B Municipal Class EA, which requires the completion of Phase 1 and Phase 2 of the planning and design process.

Consultation between the proponent and affected or interested stakeholders early on and throughout the process is a key feature of EA planning, which provides opportunities for the exchange of information by which decision-making may be influenced. In addition, one of the primary goals in effectively consulting stakeholders and Indigenous Communities is to resolve issues proactively to avoid controversy.

In a Schedule B Class EA there exists two mandatory points of contact with the public and review agencies. The first point of contact follows the proponent's identification of the recommended alternative solution. It is at this point, through invitation for public comment and input that an opportunity for stakeholders and Indigenous Communities to assist in the selection of a preferred solution exists. The second point of contact consists of the Notice of Completion of the planning process, which completes the screening requirements for Schedule B projects. Once completed, the final Project File Report will be available for the mandatory 30-day public review period by interested members of the public, Indigenous Communities and agency groups.

4 Existing Conditions

4.1 Natural Environment

Consideration of the natural environment typically includes landforms and soils (geology), groundwater (hydrogeology), terrestrial vegetation such as significant woodlands, wetlands, Environmentally Significant Areas (ESAs), Areas of Natural and Scientific Interest (ANSIs), wildlife and habitat, Species at Risk (SAR), surface water and fisheries, and the connections provided by or between these resources. This information is summarized as applicable in the subsections below.

There is one major watercourse, Credit River, that is located to the Northeast of the Study Area. The Credit River drains into Lake Ontario and is part of the Credit River Watershed. This watershed falls within the jurisdiction of the Credit Valley Conservation Authority. As such, a portion of the Study Area falls within the CVC regulated area. Surrounding the Credit River is a Significant Natural Area which borders on the Study Area. As a result, special consideration for the nearby natural environment had to be made to determine the preferred sewer alignment.

4.1.1 Aquatic Environment

The Credit River runs north-south adjacent to the SPS site. As per the City's Natural Area Survey (NAS), migratory fish species within Natural Area CRR9 include Coho Salmon, Chinook Salmon, Rainbow Trout and Brown Trout.

Figure 4-1 Natural Existing Conditions

4.1.2 Terrestrial Environment

As per Schedule 3 of the City's Official Plan, the Indian Road SPS study area is adjacent to the Credit River Marshes (Provincially Significant Wetlands). The City of Mississauga's NAS identified the SPS as being within natural area CRR9 which includes steep valley lands. The NAS identifies the natural area as generally having 133 floral species and 61 faunal species. Sugar Maple trees area is generally identified along the steep slopes on the west side of the Credit River. The NAS also designates CRR9 as Provincially Significant Wetland, a Regional Life Science Area of Natural and Scientific Interest (ANSI) and Environmentally Significant Area (Credit River Marshes).

4.1.2.1 Significant Wildlife Habitat and Species at Risk

IBI previously completed a significant wildlife habitat and SAR assessment for the Indian Road SPS, which included background review and field investigations. Based on the background review, it was determined that five types of significant wildlife habitat were potentially present within the study area: migratory land bird stopover, raptor roosting site, reptile hibernacula, winter deer yard, and bat maternity colony habitats. Based on the initial site visit, it was determined that the site did not meet the criteria for reptile hibernacula, raptor roosting, or winter deer yard. Further surveys were conducted to determine whether or not the site met bat maternity colony criteria according to the MNRF Guelph District Protocol. These would be present for the portion of the Study Area bordering the Credit River.

4.1.3 Source Water Protection

The 2006 Clean Water Act (CWA) protects existing and future sources of municipal drinking water. As part of the CWA, vulnerable areas are delineated around surface water intakes and wellheads for every existing and planned municipal residential drinking water system that is located in a Source Protection Area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) or surface water Intake Protection Zones (IPZs).

Projects may include activities that, if located in a vulnerable area, could be a threat to drinking water sources. As defined under the Clean Water Act, 2006 a "drinking water threat" means an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat.

As per Regulation 287/07: the establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage is considered to be a prescribed threat. According to the Approved Source Protection Plan: CTC Source Protection Region (2015) the project area is located within the Intake Protection Zone with Vulnerability, specifically IPZ-2, but not within any Wellhead Protection Areas (WHPAs). This means that it is possible for a contaminant to reach the intake if a large storm event were to occur and it is anticipated that this would take a specific period of time to occur, which CTC uses as two hours. The project is located between Lorne Park and Lakeview water treatment plant intakes. Based on MECP *Technical Rules* there can be no significant threats in IPZ-2 if it is located in Lake Ontario.

Based on the Tables of Drinking Water Threats (2017-2018) established by MECP, the issue is pathogens for sanitary sewers. Specifically, Table 4: 2017 Table of Drinking Water Threats for Pathogens is applicable to sanitary sewers that are located within IPZ-2. Table 4 identifies that for the threat for sanitary sewers in the vulnerable zone IPZ-2 the risk associated with the circumstances and vulnerable zones is considered to be 'moderate'.

The Region took into consideration that the project was located within an intake protection zone and a vulnerable area and this was incorporated into mitigation measures and/or construction methodologies.

4.2 Geology and Hydrogeology

4.2.1 Topography

The general topography in the area slopes southeast towards Lake Ontario. The highest elevation in the Study Area is 91masl at the intersection of Indian Rd and Mississauga Rd, and the lowest elevation is 79masl at the intersection of Front St and Lakeshore Rd.

4.2.2 Regional Geology and Hydrogeology

The Study Area is located within the Iroquois Plain physiographic region of Southern Ontario which is largely defined by superficial soils consisting of glacio-lacustrine sand and silty sand. The Iroquois Plain gently slopes from the Lake Ontario Shoreline back 3-5 km. Bedrock in the Study Area is of the Georgian Bay Formation, and consists of shale, limestone, dolostone or siltstone. [*Natural Areas Inventory - Volume 1, Credit River Watershed and Region of Peel, September 2011; Ontario Geological Survey document*].

The groundwater flow is expected to follow the ground surface topography and flow southeast towards Lake Ontario but will be influenced by local watercourses. Precipitation contributes to the recharge of the groundwater (including the bedrock aquifers) however, because of the lower permeability of some soils, infiltration rates are limited [*Front Street Schedule B Class EA*].

Moving forward into the detailed design stage, geotechnical investigation will be undertaken to determine the subsurface conditions at the designated locations along the proposed alignment. In addition, a hydrogeological assessment will be initiated to characterize existing hydrogeological conditions to aid the sewer design and construction methodology, and act as a supporting document toward the water taking

approval process from the MECP, either by submitting a Permit-To-Take-Water ("PTTW") application, or registering with the Environmental Activity and Sector Registry ("EASR"), including addressing potential ground water impacts on private wells and sensitive features that might arise due to construction dewatering during the sewer replacement, and developing recommendations for monitoring and mitigation.

4.3 Social-Cultural and Economic Environment

4.3.1 Land Use

There is a large variety of land uses within the Study Area, including residential, commercial, and institutional. According to City of Mississauga Zoning Map 08 (Schedule "B" to By-Law No. 0225-2007), the SPS is zoned as residential (R1-2) with green lands overlay.

Low-density residential is prominent along Indian Rd, Mississauga Rd, Kane Rd, and Wesley Ave. Commercial buildings are present on Wesley Ave, Mississauga Rd, Front St, and Lakeshore Rd, and a public school is located on Front St. Additionally, the Canadian National Railway bisects the Study Area. As stated above, to the north of the Study Area, surrounding the Credit River, is a Significant Natural Area.

Kane Road is a narrow 2-lane road with no sidewalks and a low volume of traffic which is typically local residents. Wesley Avenue is a narrow 2-lane road with sidewalks and a lower volume of traffic that services the local businesses and residents. Mississauga Road is a major collector with a continuous 23-26m right-of-way width that has sidewalks and has a higher traffic volume moving vehicles north-south connecting to Lakeshore Road West.

4.3.2 Air Quality and Noise

An air quality assessment was not undertaken as the only impacts on air quality and an increase in noise levels would occur during sewer construction activities. Operation of the gravity sewer will not have an impact on air quality or noise levels in the area. There are some residential homes present along Kane Rd and Wesley Ave that are potential sensitive receptors. Therefore, mitigation measures to address potential dust and noise were considered and discussed in **Section 8.4.5**.

4.3.3 Cultural Environment

The cultural environment includes archaeological and cultural heritage resources. The following sections summarize the Stage 1 and 2 Archaeological Assessments and Heritage Impact Assessment previously completed by Archaeological Services Inc. (ASI).

4.3.3.1 Archaeology

The sanitary sewer will be constructed within the road right-of-ways and a portion of the existing Indian Road SPS. In 2017, archaeological assessments were undertaken for three sanitary pumping stations in Mississauga which included the Indian Road SPS property when upgrades to the SPS were being considered. The archaeological assessments completed on the Indian Road SPS property have been considered during the sanitary sewer Class EA since a portion of the property will potentially be used for the construction of the sewer.

For the preferred route, the associated road right-of-ways (Indian Road, Kane Road, Wesley Avenue) were taken into consideration on whether additional archaeological assessments were required. The preferred route alignment (**Alternative 3**) indicates that the roads alignments have been previously heavily disturbed. The heavy disturbance was due to previous construction of the existing watermains, storm sewers and/or sanitary sewers located within the road right-of-ways as follows:

- Indian Road (from Temagami Crescent to Kane Road) has watermain, storm sewer and sanitary sewer present;
- Kane Road (from Indian Road to the railway line) has watermain present; and
- Wesley Avenue (from the railway line to the connection point on Lakeshore Road West) has watermain, storm sewer and sanitary sewer present.

The Stage 1 Archaeological Assessment[1] completed by ASI (refer to **Appendix A** which includes the acceptance letter by MHSTCI) indicated that 16 previously registered archaeological sites are located within 1 km of the Indian Road SPS study area. However, there are no sites located within 50 metres of the Indian Road SPS property. It also noted that a small area near the existing SPS building exhibits archaeological potential. Therefore, a Stage 2 Archaeological Assessment (test pitting) was recommended on these lands.

The Stage 2 Archaeological Assessment[2] was completed by ASI (refer to **Appendix A** which includes the acceptance letter by MHSTCI) and indicated that no further archaeological assessment was required on the lands. The assessment also noted that should the proposed work extend beyond the current Study Area, further archaeological assessment must be conducted to determine the archaeological potential of the surrounding lands. Only the lands located within the study area for the Indian Road SPS will potentially be used for construction of the proposed gravity sewer. The remainder of the sewer will be located within heavily disturbed road right-of-way along Indian Road, Kane Road and Wesley Avenue as well as the Metrolinx railway crossing.

The key lands with potential for archaeological resources related to this project are associated with the Indian Road SPS. The archaeological assessment reviewed the lands within 1 km of the Indian Road SPS property which covers off the shafts on Indian Road and the sewer to be constructed on Indian Road near the Indian Road SPS. No archaeological resources sited within 1 km of the SPS property were found to be located in the road right-of-ways that will be used for construction of the sewer, including the previously disturbed lands for the associated shafts. Completion of the Stage 1 and Stage 2 Archaeological Assessments indicated that no additional assessment was required of the Indian Road SPS site. In reviewing the checklist “Criteria for Evaluating Archaeological Potential” published by MHSTCI, the remaining lands required for the project have been heavily disturbed with the construction of roads and a railway line. The sewer will be constructed within the existing road right-of-ways for Indian Road, Mississauga Road crossing, Kane Road, Wesley Avenue and Lakeshore Road West crossing and includes the crossing of an existing railway line.

Based on the results of the previous archaeological assessments and the heavily disturbed nature of the road right-of-ways, no additional archaeological assessment was considered to be required at this time for construction of the sewer. The preferred sewer alignment only involves crossing of Mississauga Road and Lakeshore Road West. The preferred alignment is also located furthest from the Credit River which minimizes the potential for archaeological resources to be identified during construction within the disturbed road right-of-way. However, it is recognized and will be included in the mitigation measures that if, during construction, any archaeological resources are found the construction activities will cease and a licensed archaeologist will be consulted.

4.3.3.2 Cultural Heritage Resources

The sanitary sewer will be constructed within the road right-of-ways and a portion of the existing Indian Road SPS. In 2017 a Heritage Impact Assessment (HIA) was undertaken for three sanitary pumping stations in Mississauga which included the Indian Road SPS property when upgrades to the SPS were

[1] Stage 1 Archaeological Assessment, Assignment 1: Sewage Pumping Station Upgrades in Mississauga, Part of Lots 5 and 7, Range 1 Credit Indian Reserve, Part of Lot 6 Range 2 Credit Indian Reserve, and Part of Lot 23, Concession 3 South of Dundas Street (Former Township of Toronto, County of Peel), City of Mississauga. Archaeological Services Inc. May 5, 2017.

[2] Stage 2 Archaeological Assessment, Assignment 1: Sewage Pumping Station Upgrades in Mississauga, Part of Lots 5 and 7, Range 1 Credit Indian Reserve, Part of Lot 6, Range 2 Credit Indian Reserve, and Part of Lot 26, Concession 3 South of Dundas Street Former Township of Toronto, County of Peel, City of Mississauga, Regional Municipality of Peel, Ontario. Archaeological Services Inc. January 8, 2018.

being considered. The HIA completed on the Indian Road SPS property was considered during the sanitary sewer Class EA since a portion of the property will potentially be used for the construction of the sewer.

For the preferred route the associated road right-of-ways (Indian Road, Kane Road, Wesley Avenue) were taken into consideration on whether an additional HIA was required. The preferred route alignment (**Alternative 3**) indicates that the roads alignments have been previously heavily disturbed and are located within an urbanized area with houses and/or businesses located along the route. The heavy disturbance was due to previous construction of the existing watermains, storm sewers and/or sanitary sewers located within the road right-of-ways as follows:

- Indian Road (from Temagami Crescent to Kane Road) has watermain, storm sewer and sanitary sewer present;
- Kane Road (from Indian Road to the railway line) has watermains present; and
- Wesley Avenue (from the railway line to the connection point on Lakeshore Road West) has watermain, storm sewer and sanitary sewer present.

The Indian Road SPS is listed on the City of Mississauga's Heritage Register but is not designated under the *Ontario Heritage Act*. This SPS forms part of the Credit River Cultural Landscape, which is identified by the City of Mississauga as a significant natural and cultural heritage landscape.

A Heritage Impact Assessment[3] was completed by ASI (refer to **Appendix B**) which indicated that the SPS does not retain any cultural heritage value. The SPS was also found not to contribute to the landscape environment, historical association or ecological interest of the Credit River Cultural Landscape.

The completion of the HIA and the heavily disturbed nature of the road right-of-ways were taken into consideration when completing the checklist "Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes" (refer to **Appendix B**). The checklist was referred to and used to confirm that the additional lands for the sewer (not covered under the HIA conducted on the Indian Road SPS site) are not recognized as heritage properties (there are no built heritage resources present) nor do they have the potential to be of cultural heritage value for the preferred sewer alignment. The sewer will be constructed within the existing road right-of-ways for Indian Road, Mississauga Road crossing, Kane Road, Wesley Avenue and Lakeshore Road West crossing and includes the crossing of an existing railway line. There are no known cultural heritage landscapes or features identified within these road right-of-ways or the lands required for the associated shafts (within the road right-of-ways and a portion of the Indian Road SPS property). As noted, the lands within these road right-of-ways and railway line have been previously disturbed and no heritage features were found during previous construction work. In addition, the Study Area for this project is located within an urbanized and built up area of the City of Mississauga with houses and/or businesses present along the route.

4.4 Technical Environment

4.4.1 Metrolinx Railway

A Metrolinx (formerly Canadian National) Railway bisects the Study Area in which an overpass is present atop of Mississauga Rd. The main track usage is for freight and passenger. It is a main track utilized by GO Transit (a division of Metrolinx) on their Lakeshore West train line which transports commuters from Hamilton into Toronto and vice versa. The portion of the railway running through the Study Area is located just south of the Port Credit GO Station.

[3] Cultural Heritage Landscape Heritage Impact Assessment: Indian Road Sewage Pumping Station, Part of Road Allowance between Range 1 and Range 2 Cir, Former Township of Toronto, Peel County, City of Mississauga, Regional Municipality of Peel. Archaeological Services Inc. July 2017.

4.4.2 Utilities

Moving forward into the detailed design stage, Subsurface Utility investigations will be undertaken to determine which utilities are present along the preferred alignment.

5 Identification of Alternative Solutions

5.1 Description of Alternative Solutions

In addition to addressing the problem statement, alternative solutions were identified based on technical feasibility and compliance with applicable regulations and land use policies of the Region. As the existing Indian Rd SPS requires upgrades, the “Do Nothing” alternative is considered to be upgrading the pumping station.

The “Do Nothing” option was considered to be upgrading of the pumping station. As a result, an initial evaluation was undertaken to compare the Do Nothing versus the construction of a new gravity sanitary sewer. This evaluation is presented in **Table 5-1** below and determined that the construction of a new sewer is the preferred alternative. As such, this will result in the need to decommission the Indian Rd SPS.

Following the assessment of the Do-Nothing option versus the new sewer, a secondary evaluation was undertaken to determine which of the proposed sewer alignments presented below is the preferred option.

5.1.1 Comparison of Do-Nothing vs Construction of a Gravity Sewer

The following table provides the initial evaluation of the Do Nothing alternative versus construction of a new gravity sewer. As noted in **Section 5.1**, the Do Nothing alternative was considered upgrading the existing Indian Road SPS since the SPS requires significant upgrades due to the aging infrastructure present.

Table 5-1 Sewage Pumping Station Versus Gravity Sewer

Criteria	Do Nothing / Upgrade Existing Indian Rd Sanitary Pumping Station (SPS)	Construct New Gravity Sanitary Sewer
Natural Environment	• Construction impacts limited to existing Indian Road Sanitary Pumping Station (SPS) site • No construction related impacts to surface water, natural heritage areas, groundwater, or vegetation	• Potential construction impacts of sewer within road allowance • Depending on alignment potential impacts to Credit River and regulated area due to close proximity • Water taking permits required at shaft locations at Lakeshore Road
Social-Cultural Environment	• No traffic related disruptions or impacts (construction impacts limited to existing property) • No impacts to cultural/heritage or archaeological features	• Construction impacts to residents, businesses, and school along alignment • Traffic disruption and nuisance impacts during construction • No impacts to cultural/heritage or archaeological features
Technical Considerations	• Does not address problem statement • SPS requires on-site construction for replacement and upgrades • Construction is easier and limited to on-site	• Addresses problem statement and provides opportunity for adjacent residences on Mississauga Road to remove septic systems and connect to municipal sewer • Requires complexity of crossing of Metrolinx railway (including grade separation issue) • Depending on alignment selected may require crossing of Lakeshore Road to tie-in with Lakeshore Road sewer
Financial Considerations	• SPS replacement and upgrades required with associated costs • On-going SPS operation and maintenance/repair costs • No land acquisition or easements required with construction completed on-site of existing SPS	• Lower cost to construct culvert to cross watercourse and through wetland • Lower operation costs with gravity sewer • Temporary easements required during construction • Depending on alignment selected permanent easements may be required
SUMMARY	**Least Preferred** • Does not address problem statement • Ongoing operation and maintenance costs • SPS requires replacement and upgrades	**Preferred** • Addresses problem statement (including opportunity for adjacent residences on Mississauga Road to remove septic systems and connect to municipal sewer) • Ability to minimize impact traffic disruption and nuisance impacts through use of mitigation measures • Ability to minimize impacts to natural environment and technical considerations through alignment selected • Ability to minimize Metrolinx railway crossing issues by alignment selected

5.1.2 Alternative Sewer Alignments

It was determined that construction of a gravity sewer was preferred over upgrading the SPS. Based on this, all proposed sewer alignments incorporate decommissioning of the existing pumping station and using the area as a proposed shaft location. Extending from that shaft location, the sewer will be tunnelled following Indian Rd until the Indian Rd and Mississauga Rd intersection where a secondary shaft location is proposed at the southwest corner. This first length of pipe and secondary shaft location is common to all three sewer alignments. Further details are provided below with respect to each alternative. **Figure 5-1** shows the proposed sewer alignments.

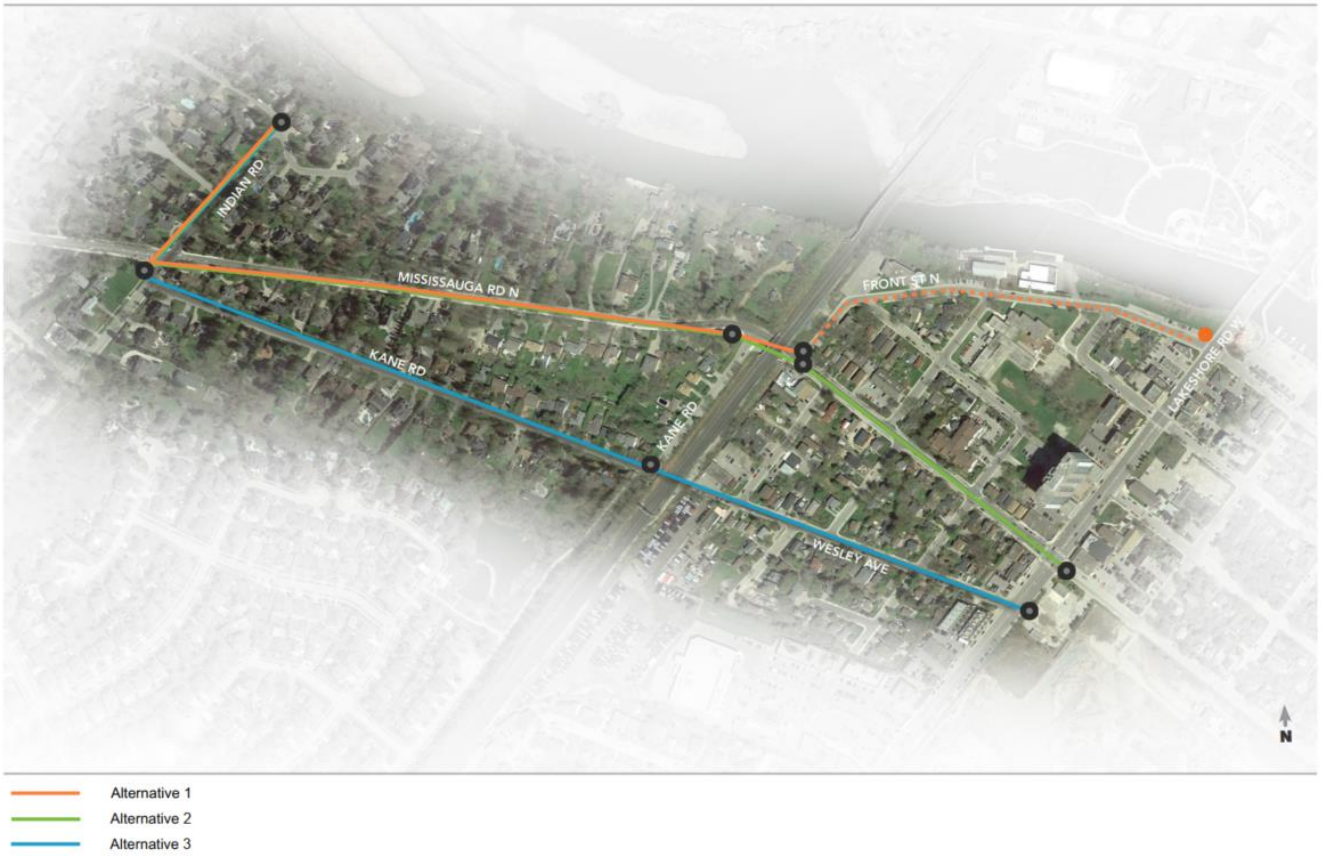

Figure 5-1 Proposed Sewer Alignments

Proposed Sewer Alignment 1: Extending from the second shaft location, the sewer will be tunnelled along the length of Mississauga Rd, where a third shaft location is proposed at the southwest corner of Mississauga Rd and Kane Rd. This would require a partial closure of Kane Rd. The sewer is then proposed to be tunnelled underneath the Metrolinx (formerly Canadian National) Railway overpass, to a final shaft location at the northeast corner of Mississauga Rd and Front St, which would also require a partial closure of Front St. The sewer would then be installed through open cut methods within the CVC regulated area and connect into a maintenance hole of the proposed sewer on Lakeshore Rd. Alignment 1 can be seen below in **Figure 5-2**.

Figure 5-2 Alignment 1

Proposed Sewer Alignment 2: Similar to Alternative 1, the proposed sewer in Alternative 2 will be tunnelled following Mississauga Rd until reaching the same third shaft location at Mississauga Rd and Kane Rd. The sewer will then be tunnelled underneath the Metrolinx railway overpass, to a fourth shaft location at the northeast corner of Mississauga Rd and Front St. Following this, it is proposed that the sewer is tunnelled along the rest of the length of Mississauga Rd until reaching Lakeshore Rd where a final shaft location at the southeast corner of Mississauga Rd and Lakeshore Rd is located. This shaft location will require a partial closure of Lakeshore Rd. The connection point to the proposed sewer on Lakeshore Rd will require a cut in maintenance hole. Alignment 2 is depicted below in **Figure 5-3.**

Figure 5-3 Alignment 2

Proposed Sewer Alignment 3: Extending from the second shaft location, the sewer is proposed to be tunnelled following Kane Rd as opposed to Mississauga Rd until reaching a third shaft location in Kane Rd. This shaft location will require a partial shut down of Kane Rd. From here, the sewer will be tunnelled underneath the Metrolinx railway overpass, and follow Wesley Rd until a final shaft location at the intersection of Wesley Ave and Lakeshore Rd. This shaft location will also require a partial shut down of Lakeshore Rd. Similar to Alternative 2, the connection point to the Lakeshore Rd sewer will require a cut in maintenance hole. **Figure 5-4** shows the proposed Alignment 3.

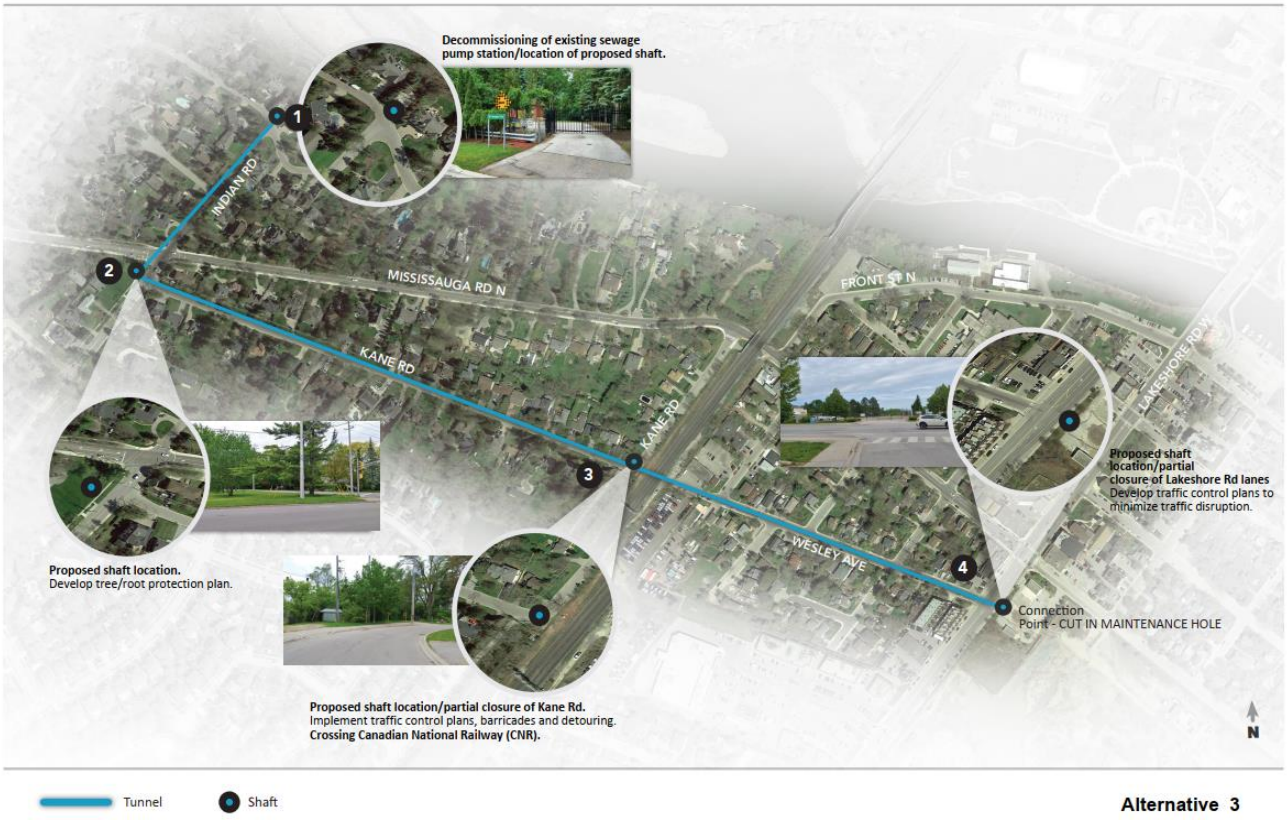

Figure 5-4 Alignment 3

6 Evaluation of Alternative Solutions

This section documents the decision-making process used to evaluate the alternative solutions described in **Section 5.1**. The evaluation criteria and rationale for relative ranking are included.

Taking the existing environment into consideration, the alternative solutions (described in **Section 5.1**) were comparatively evaluated using a descriptive or qualitative assessment based on criteria developed within the following categories (representing the broad definition of the environment as described in the *EA Act*):

- **Natural Environment** – having regard for protecting the natural and physical components of the environment (e.g. air, land, water and biota) including natural and/or ESAs.
- **Social-Cultural Environment** – having regard for residents, neighbourhoods, businesses, community character, social cohesion, community features, historical/archaeological remains, and heritage features.
- **Technical Environment** – having regard for the technical suitability/longevity and other engineering aspects associated with the alternative solutions.
- **Financial Environment** – having regard for the cost implicating items associated with the alternative solutions.

6.1 Evaluation Criteria

Evaluation criteria were developed to assess the alternatives, to identify the potential environmental effects and distinguish the advantages and disadvantages between alternatives. The criteria reflect all components of the environment in the Study Area, the alternative solutions being considered, the problem/opportunity being addressed, and the Class EA requirements. The criteria include the social, cultural, and natural environments, planning policies and technical and financial consideration and are described below in **Table 6-1**.

Table 6-1 Evaluation Criteria

Natural Environmental Impacts	
Surface Water Impacts	Potential for impacts (e.g. erosion) during construction to surface water (e.g. ditches, watercourse, wetland) and proximity to regulated areas
Natural Heritage Area Impacts	Provincially, regionally or locally significant natural areas (e.g., wetlands, areas of natural and scientific interest, environmentally significant areas) located adjacent to or directly intersected by the route
Groundwater/Subsurface Conditions	Proximity to areas of high aquifer vulnerability
Vegetation/Greenspace (Woodlots, Scrublands) Impacts	Loss of vegetation
Socio-Cultural Environments	
Traffic Disruption/Impacts to Private Property/Existing Land Uses	Potential for temporary disruption to traffic as well as nearby public and private properties (e.g., schools and businesses) including access considerations
Traffic Impacts	Potential impacts to traffic flow, amount of traffic potentially using the route (high, moderate, low) and access to commercial, industrial and residential properties during construction
Nuisance Impacts	Potential for vibration, dust and noise issues stemming from construction activities within close proximity to nearby residences, businesses and schools
Cultural/Heritage Areas	Number of cultural / heritage / built heritage areas and type of cultural area surrounding the route
Known Archaeological Features (including First Nations)	Number and significance of known archaeological sites and potential (high or low) for undiscovered archaeological features along the route
Technical Considerations	
Ability to Connect with Existing Infrastructure	Relocation or special construction techniques required as a result of existing buried utilities
Ease of Construction (e.g. Construction Constraints)	Potential for encountering problems during construction (e.g. soil stability, geotechnical considerations, ease of excavation)
Staging Locations	Potential impacts from the location of staging area (e.g., off-site of property)
Locations/Impacts on Other Existing Utilities	Number of and complexity of utilities present on the property (e.g., gas, hydro, telephone, cable, municipal services)
Financial Considerations	
Capital Costs	Total capital costs determined by assumed construction method
Operation and Maintenance Costs	Estimate of level of operating and maintenance costs
Land Acquisition/Easement Requirements	Potential for land acquisition or the need for temporary and permanent easements for access

6.2 Evaluation Methodology

The evaluation criteria were used to comparatively evaluate the alternative solutions as applicable in a descriptive manner as opposed to a quantitative manner. A numerical or weighted ranking system was not used; the evaluation concentrates instead on the strengths and weaknesses of each alternative to identify the best possible solution. Set weightings of criteria were not specifically assigned, however, all evaluation criteria are not necessarily created equal and professional judgement and knowledge of the area and issues was used to understand preferences. For each criterion and for each possible alternative alignment, the potential effects on the environment (natural, social, etc.) were identified. The evaluation is based on the relative advantages and disadvantages of the potential effects for each alternative, taking into account the natural and social-cultural environments as well as technical and financial considerations. The process requires considering trade-offs to select the preferred alternative which needs to take into consideration whether potential impacts can be mitigated or not. Reasonable mitigation measures were then identified to avoid or minimize any potential negative effects. The selection of the preferred alternative is based on the relative advantages and disadvantages of the net environmental effects, including the results of applying mitigation measures.

The ranking of each alternative solution relative to the specific evaluation criteria was conducted using a colour coding system comprised of green, yellow and red, designed to be indicative of most (green) to least (red) preferred. The comparison of each criterion was made horizontally (within a category such as natural environment) between the alternatives and then vertically (between categories such as natural, technical environments) to derive the recommended solution. A summary row is provided where the alternatives are compared against each other within the four categories of natural, social-cultural, technical and financial environments. The summary rows are then compared to determine the recommended alternative solution based on all aspects of the environment. The alternative solution which demonstrated the greatest number of “most” preferred boxes and/or the fewest “least” preferred boxes relative to their potential environmental effects would likely be the preferred alternative. However, this was dependent on the extent of potential effects and whether they could be mitigated. The comparative evaluations for each set of alternatives are provided below in **Table 6-2**.

Table 6-2 Evaluation of Alternative Alignments

	Criteria	Alternative 1 (Mississauga Rd/Front St)	Alternative 2 (Mississauga Rd)	Alternative 3 (Kane Rd/Wesley Ave)
Natural Environment	Surface Water Impacts	• Closest proximity to Credit River • Front St lies within CVC regulated area which requires permit and sediment controls for open cut construction	• Close proximity to Credit River and CVC regulated area	• No surface water features in close proximity
	Natural Heritage Area Impacts	• Closest proximity along most of the route	• Close proximity from Indian Rd to Metrolinx railway • Located west of Front Street and farther away from Credit River	• Located west of Mississauga Rd and farthest away from Credit River
	Groundwater/ Subsurface Conditions	• Large amounts of water taking is anticipated along the deep open cut sections along Front St adjacent to the Credit River and at the shaft location at Lakeshore	• Water taking is anticipated at the shaft location at Lakeshore Road	• Water taking is anticipated at the shaft location at Lakeshore Road
	Vegetation/Greenspace (woodlots, scrublands) Impacts	• East side of Mississauga Rd and Front St are open space and Credit River • Impacts to existing trees from shaft at Indian Rd/Mississauga Rd	• East side of Mississauga Rd near Credit River open space to Metrolinx railway and urban area/ROW Metrolinx railway to Lakeshore Rd • Impacts to existing trees from shaft at Indian Rd/Mississauga Rd	• Urban area/ROW with no specific greenspace or vegetation present • Impacts to existing trees from shaft at Indian Rd/Mississauga Rd
	Natural Environment Summary	• Alignment is closest to Credit River and within regulated area along Front St	• Alignment is close to Credit River (Indian Rd to Metrolinx railway) and then outside of regulated area (Metrolinx railway to Lakeshore Rd)	• Alignment is farthest from Credit River and outside of regulated area
Social-Cultural Environment	Impacts to Private Properties	• Access to residents, businesses and school will be impacted due to the open cut construction along Front St	• No impacts to private property access with tunnel construction in road right-of-way (ROW)	• No impacts to private property access with tunnel construction in road right-of-way (ROW)
	Traffic Impacts	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Rd/ Mississauga Rd and Kane Rd/ Mississauga Rd intersections) • Road closure on Front St at Mississauga Rd (for additional shaft) will require traffic detour • Traffic impacts due to open cut construction along Front St (Metrolinx railway to Lakeshore Rd) and shaft at Lakeshore Rd (for shaft to connect to trunk sewer)	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Rd/ Mississauga Rd and Mississauga Rd/ Kane Rd) • Road closure on Mississauga Rd south of Lakeshore Rd (for shaft to connect to trunk sewer) will require traffic detour. • Lane reduction along Lakeshore Rd at Mississauga Rd	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Road/Mississauga Rd) • Road Closure at Kane Road north of the Metrolinx railway will require traffic detour • Multi-Lane reduction along Lakeshore Road at Wesley Avenue (for shaft to connect to trunk sewer)
	Nuisance Impacts	• Residents (Indian Rd to Metrolinx railway) and some businesses, rowing club and school (Metrolinx railway to Lakeshore Rd)	• Residents (Indian Rd to Metrolinx railway) and businesses (Metrolinx railway to Lakeshore Rd)	• Residents (Indian Rd to Metrolinx railway) and businesses (Metrolinx railway to Lakeshore Rd)
	Known Archaeological Features (including First Nations)	• No known but potential within the open space at the Credit River and proposed shaft location at Front St and Lakeshore Rd	• No known but lower potential with tunnel and shaft construction in disturbed ROW	• No known but lower potential with construction in disturbed ROW
	Social-Cultural Environment Summary	• Greater traffic disruption and nuisance impacts during construction	• Traffic disruption (collector road) and nuisance impacts during construction	• Traffic disruption (collector road) and nuisance impacts during construction

	Criteria	Alternative 1 (Mississauga Rd/Front St)	Alternative 2 (Mississauga Rd)	Alternative 3 (Kane Rd/Wesley Ave)
Technical Considerations	Ability to Provide Wastewater Connection to Trunk Sewer on Lakeshore Rd	• Ability to tie-in to trunk sewer at the proposed Lakeshore Rd and Front St connection	• No tie-in point proposed at Lakeshore Rd but could be added • Tie-in would be south side of Lakeshore Rd	• No tie-in point proposed at Lakeshore Rd but could be added • Tie-in would be south side of Lakeshore Rd south of Wesley Ave
	Ability to Provide Municipal Wastewater Servicing (i.e., replace septic systems)	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Connection is proposed at shaft located at Mississauga Rd and Kane Road	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Connection is proposed at shaft located at Mississauga Rd and Kane Road	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Local sewer will be required along Kane Rd parallel to the Metrolinx railway to the proposed shaft on Kane Rd
	Ease of Construction (e.g., construction constraints)	• Crosses Metrolinx railway at an angle, dip in road and limited space with existing bridge foundations • Angle at intersection of Indian Rd and Mississauga Rd • Additional shaft location required at Front St and Mississauga Rd • Very deep open cut construction along Indian Road also requiring potential utility relocations	• Curved tunnel alignment along Mississauga Rd and Front Street • Crossing of Metrolinx railway and dip in road and limited space with existing bridge foundations	• Straight tunnel alignment along Kane Rd and Wesley Ave • Crosses Metrolinx railway more or less perpendicular • Perpendicular angle at intersection of Indian Rd and Kane Rd
	Staging Locations	• Tie-in is proposed to be located on NE corner of Lakeshore Rd and Front St which is an easier connection point	• Tie-in not proposed and would need to be located south of Lakeshore Rd which requires more difficult road crossing	• Tie-in not proposed and would need to be located south of Lakeshore Rd which requires more difficult road crossing
	Locations/Impacts on Existing Utilities	• Crossing of Metrolinx railway is longer due to angle and there is a grade separation to address	• Crossing of Metrolinx railway is shorter, slight angle and there is a grade separation to address	• Crossing of Metrolinx railway is straight and shortest crossing
	Technical Summary	• Tie-in is proposed to Lakeshore Rd sewer, Lakeshore Rd tie-in is on north side of road and able to replace septic systems between Indian Rd and Metrolinx railway through connection at shaft • Requires additional shaft location, more difficult crossing of Metrolinx railway and deep open cut along Front Street	• No tie-in proposed to Lakeshore Rd sewer and Lakeshore Rd tie-in is more difficult on south side • Difficulty tunneling curved section and crossing of Metrolinx railway • Able to replace septic systems between Indian Rd and Metrolinx railway through connection at shaft	• Easier to construct, fewer shafts and direct crossing of Metrolinx railway • Able to replace septic systems on Mississauga Rd with local sewer along Kane Rd at the Metrolinx railway

	Criteria	Alternative 1 (Mississauga Rd/Front St)	Alternative 2 (Mississauga Rd)	Alternative 3 (Kane Rd/Wesley Ave)
Financial Considerations	Capital Costs	• Able to utilize proposed tie-in to trunk sewer at Lakeshore Rd • Deep open cut construction along Front St, requiring road restoration, dewatering and utility relocations • Similar cost to Alternative 2	• New connection on Lakeshore Rd requiring Traffic Management. • Deeper tunnel shafts • Similar cost to Alternative 1	• New connection on Lakeshore Rd requiring Traffic Management. • Shallower tunnel shafts and shorter tunnel length • Lowest cost option
	Operating and Maintenance Costs	• Similar operating and maintenance costs	• Similar operating and maintenance costs	• Similar operating and maintenance costs
	Land Acquisition / Easement Requirements	• Requires permanent easements along Front St south of Metrolinx railway • Temporary easements needed during construction	• No permanent easements required • Temporary easements needed during construction	• No permanent easements required • Temporary easements needed during construction
	Economic Summary	• High cost option requiring permanent easement	• Higher cost option	• Lowest cost option
OVERALL RATING		**LEAST PREFERRED** **Greater traffic disruptions and nuisance impacts during construction, most difficult to construct and higher cost**	**LESS PREFERRED** **Traffic disruption and nuisance impacts during construction, challenging tunnel construction and high cost option**	**PREFERRED** **Less traffic disruption, easier to construct and lowest cost**

Rating: **Preferred** **Less Preferred** **Least Preferred**

7 Preferred Alternative Solution

Based on the evaluation completed in **Section 6**, it was determined that the preferred alternative solution is the third option in which the sewer will extend from the decommissioned SPS along Kane Rd and Wesley Ave and connect to a sanitary sewer being constructed on Lakeshore Rd West. The downstream connection point for the proposed sanitary trunk sewer is at the corner of Lakeshore Rd, which ties into the future trunk sewer. A preliminary pipe alignment has been defined and can be found in **Figure 7-1.**

In summary, Alignment 3 was considered to be the preferred alternative due to the following:

- Alignment is furthest from Credit River and construction can remain within existing road right-of-ways which minimizes potential impacts to the natural environment;
- Traffic disruptions and nuisance impacts (noise, dust, vibration) can be minimized through mitigation measures;
- Alignment provides the opportunity for future tie-in of residences along Mississauga Road to municipal sewer service and removal of the existing septic systems (this would require construction of a local sewer along Kane Road parallel to Metrolinx railway to the proposed shaft on Kane Road); and
- Alignment is easier to construct (not impacting the crossing Metrolinx railway overpass).

The decommissioning of the existing Indian Road SPS is not considered part of this project. The consideration for detailed design, permits and approvals is separate from construction of the gravity sewer and is not included in the discussions of the preferred solution or the mitigation measures. The Region will address the decommissioning requirements at a later date.

7.1 Proposed Sewer Alignment

The alignment of the proposed sewer is constrained by several factors, which include the following:

- Operational requirement;
- Maintenance of traffic;
- Impact to local residences and access;
- Methods of construction;
- Entry/exit shafts for tunneling;
- Staging Areas for tunneling entry/reception shafts; and
- Coordination with the Region of Peel.

The proposed sanitary trunk sewer will be constructed within the existing road right-of-way (ROW). Exceptions include the shaft locations/compound areas. The shaft compounds will require the acquisition of temporary working easements to facilitate the tunneling activities as described in **Section 7.2.1.**

7.2 Construction Method

The preferred alternative will be installed solely through tunnelling methods. Trenchless pipe installation is suitable for deeper pipeline installations, crossing of environmentally sensitive areas and locations with significant utility congestion. These methods require an entrance and exit shaft in which the pipe is drilled underground in segments until reaching the exit shaft.

Design of the pipe installation using the preferred trenchless method shall be completed in Detailed Design and after the completion of the geotechnical investigation.

7.2.1 Launching and Reception Shafts

Shafts will be required for construction of the sewer using tunnelling methods for pipeline installation. Shafts will generally be constructed as either circular or rectangular structures. Circular shafts are generally cheaper to construct than rectangular shafts. The shafts will also be sized to facilitate the installation of maintenance holes at each of the launching and reception shaft locations.

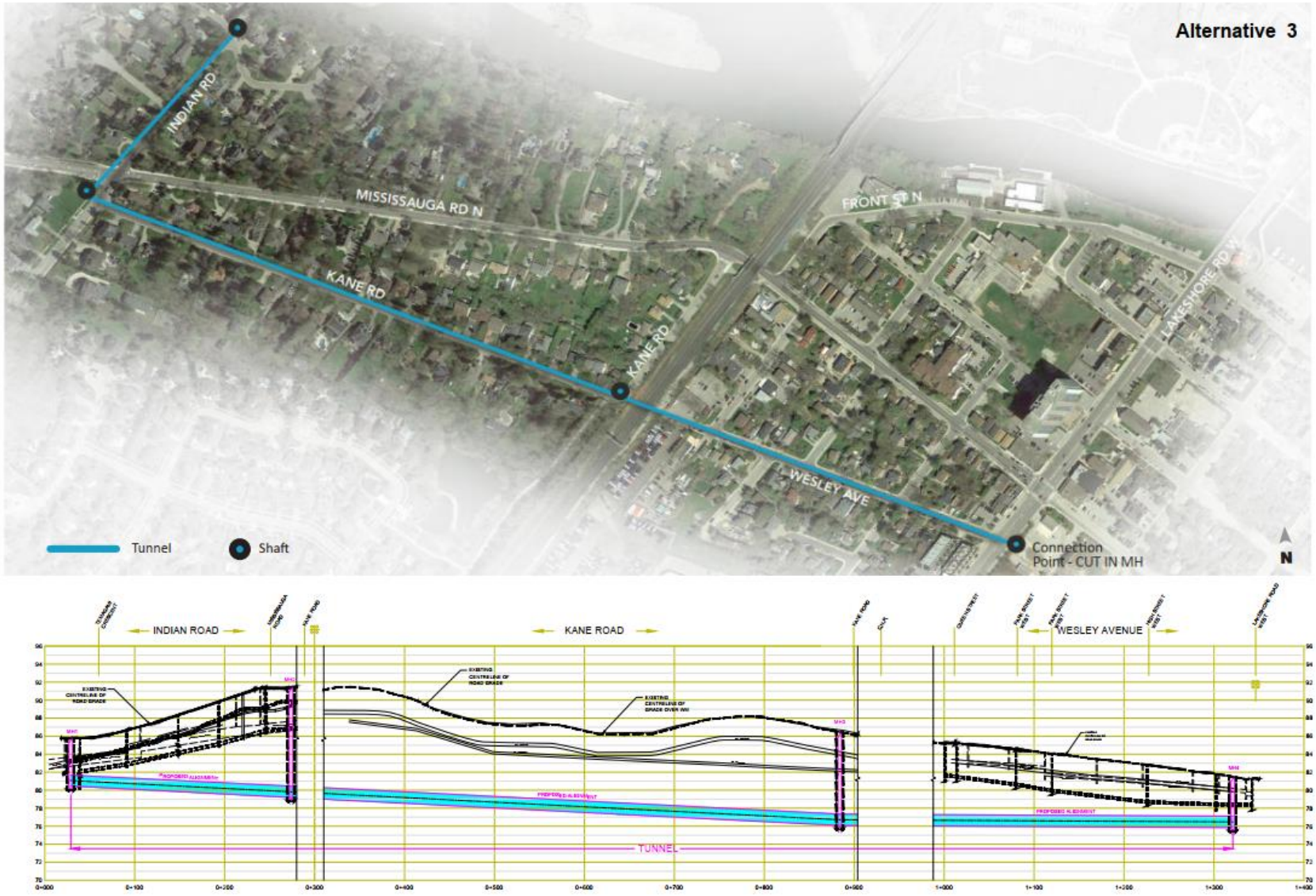

Figure 7-1 Preliminary Pipe Alignment

The shaft size and depth are dependent on the chosen tunnelling methodology. Launching and receiving shafts will be excavated through both soil and rock. Temporary ground support of the shafts will be required and water inflow to the shaft may require localized grouting of the shaft perimeter. The excavation of the shaft will be a top-down approach using sinking shaft methods or acceptable alternatives suggested by the Contractor.

7.2.2 Compound Areas

Compound areas, also known as "lay down" areas, will be necessary for construction of tunnel shaft excavations, tunneling, entrances, etc. Staging areas are also used for storage, temporary spoil storage, shaft support, workshops, mixing and processing slurry for excavation support or tunnel excavation (slurry separation plant), and post excavation slurry treatment. Furthermore, these areas will be used for temporary storage of delivered materials and excavated spoils prior to removal from the site.

Generally, these areas will be required to facilitate access to the tunnel. Typically, a portion of the boulevard, traffic lanes, and/or parking areas, and some temporary working easements from private landowners will be required at various locations for staging. Construction compounds within the streets is also envisioned where no off-street areas can be utilized.

7.3 Permits and Approvals

The following **Table 7-1** summarizes the identified agencies and permitting requirements likely associated with the construction of the sanitary sewer. Should additional permitting requirements be identified, they would be sought during the applicable project phase (e.g. detailed design).

Table 7-1 Permits and Approvals

Agency/Municipality	Requirements
MECP	If the total construction site dewatering is determined to exceed the MECP specified limit of 400,000 L/day, a Permit to Take Water will be needed for the project. If the total construction site dewatering involves more than 50,000 L/day and less than 400,000 L/day, an Environmental Activity and Sector Registry (EASR) registration is required. Confirmation that no Species At Risk issues are likely with the construction in the area. Otherwise a permit may be required.
MNRF	Consultation required due to close proximity to Credit River and Significant Natural Area.
Credit Valley Conservation	Consultation required due to close proximity to Credit River and CVC regulated land.
City of Mississauga	A Road Occupancy Permit is needed to do work or other activities on or beside the roads that the preferred alignment follows.
Metrolinx	Consultation required due to the Metrolinx railway (GO Transit) crossing.
Public Utilities Co-ordination Committee	Communication and cooperation with public utilities for utility conflict resolutions.

7.4 Climate Change (Mitigation and Adaptation)

7.4.1 Project Impacts on Climate Change (Mitigation)

Climate change considerations were taken into account during the evaluation of alternatives. Potential impacts were considered of the project on climate change by examining direct greenhouse gas emissions of the alternatives and whether they would positively or negatively affect the storage of carbon or removal of carbon dioxide from the atmosphere. The sewer would have potential impacts on the climate change during the construction phase. Do Nothing would have limited potential impacts since the construction related activities are associated with upgrades to an existing sanitary pumping station. Alternatives 1 to 3 would have potential impacts, but these would be limited to the construction phase. This was considered further in the selection of the preferred alternative and the mitigation measures through limiting idling during the operation of construction equipment.

Most of the construction will be undertaken in the road right-of-way. There is minimal vegetation that will be impacted by construction of the sewer and thus there are limited alternative methods (e.g., construction scheduling) that could be considered.

7.4.2 Impacts of Climate Change on the Project (Adaptation)

The sewer will be constructed to meet the Region's design criteria which consider potential climate change issues for construction, operation and decommissioning. The construction will be scheduled to minimize the potential impacts on the environment (e.g., season, precipitation). The sewer will largely be located within the road right-of-way which minimizes the potential impacts from climate change.

8 Identification of Impacts and Mitigation Measures

Based on the results of the alternatives evaluations, the preferred gravity sanitary sewer alignment may result in some negative impacts that are considered manageable with the appropriate mitigation techniques. The potential impacts and mitigation measures for each are discussed in the sections below. In most cases, impacts will be limited to the period of construction and during periodic future maintenance activities.

8.1 Property Requirements

The preferred alternative ensures that no permanent easements will be required; only temporary easements will be necessary during construction.

8.2 Utilities

The exact number and locations requiring utility support or re-location will be determined during detailed design.

8.3 Metrolinx Railway Crossing

The preferred alignment incorporates the shortest crossing under the Metrolinx railway as the alignment is perpendicular to the tracks whereas in the other alternatives, the crossing would occur on an angle. In addition, the crossing of the railway at Mississauga Rd would be limited by the overpass bridge foundations and the dip in the road to proceed under the overpass. These issues would not arise in the preferred alternative because there is no overpass at the Kane Rd. As such, this would allow for greater ease in construction and limit the disruption to the Metrolinx tracks.

8.4 Social-Cultural Environment Impacts

8.4.1 Traffic

As the preferred alternative follows the Kane Rd and Wesley Ave alignment, it allows for traffic impacts on Mississauga Rd to be limited. Given that Mississauga Rd is a major collector with a continuous 23-26m

ROW width, it is favourable to avoid traffic impacts on this road. Although there are many private driveways along Kane Rd and Wesley Ave, as well as numerous industrial/commercial buildings, the use of tunnel construction that is constrained to the road right-of-way will ensure these driveways and entrances are not impacted during installation.

With respect to the third and fourth shaft locations, situated at Kane Rd and the intersection of Wesley Ave and Lakeshore Rd respectively, partial road closures will be required during construction. Road closures will occur at Kane Rd, north of the Metrolinx railway which will require traffic detours. As well, multi-lane reductions will be required along Lakeshore Rd at Wesley Ave. A generalized Traffic Management Plan (TMP) will be submitted to the Region and will be completed based on Ontario Traffic Manual Book 7.

8.4.2 Public Notification

Public notification should occur in advance of construction to ensure that area residents are kept informed. Adjacent residents, and community services should be notified directly of impending works.

8.4.3 Temporary Access to Private Property

Impacts on adjacent private properties should be minimized to the extent possible by confining all construction activities to the working area, and the Contractor would not be allowed to enter or occupy any private property, unless prior written permission from the landowner has been obtained and provided to the Region. Should access to private property be granted, the property will be restored to its original condition or better following the completion of construction activities.

8.4.4 Generation of Excess Materials

The proposed works are likely to require excavation and filling. Various types of materials, including asphalt and soil may be generated during these project activities which will require appropriate management. All excess and unsuitable materials generated during construction should be managed appropriately.

Any contaminated wastes should be taken to an approved waste disposal site and transported by a licensed waste disposal carrier as per the operational constraint for the management of contaminated materials. The Contractor should be required to manage all waste materials generated by construction activities in accordance with all provincial and federal regulations and approval requirements.

8.4.5 Noise, Dust, and Vibration Control

There may be temporary impacts to nearby residential areas during the installation of the preferred alternative. Noise disturbance will be limited by ensuring that construction takes place during normal working hours and complies with the local noise by-law.

Material handling, such as excavation, loading and hauling presents the most significant sources of dust during construction. Dust will be controlled through construction contract obligations.

To prevent air quality impacts associated with construction vehicle exhaust fumes, emission control devices on equipment should be functional and effective and new or well-maintained heavy equipment and machinery, preferably fitted with muffler/exhaust system baffles and engine covers, should be used.

8.4.6 Encountering Unknown Archaeology Remains

In the unlikely event that unknown archaeological remains are encountered during construction, the Ministry of Heritage, Sport, Tourism and Culture Industries(MHSTCI) and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services shall be contacted immediately.

8.5 Natural Environment Impacts

8.5.1 Vegetation

The preferred alignment is located entirely within Urban areas and road ROWs; therefore, no greenspace or vegetation will be impacted during and after construction.

The second shaft location, situated at the southwest corner of Kane Rd and Indian Rd, is in close proximity to several mature trees. As a result, a tree/root protection plan will be developed to ensure the trees are not negatively affected during construction.

In the event that the design will result in the loss of vegetation and tree removal, this loss should be quantified. A qualified arborist may identify that some of the trees to be removed should be mitigated through the implementation of a compensation plan. The compensation will provide a long-term net benefit to the terrestrial resources with improved diversity of native species. Tree protection fencing should be installed as necessary and buffer setbacks established during consultation with CVC, Municipal Forestry staff, or qualified biologist, as deemed necessary, prior to any tree removal or start-up of construction.

8.5.2 Dewatering

As the preferred alternative is to be installed solely through tunnelling methods, it reduces the amount of dewatering required in comparison to the first alternative which incorporates a large open-cut portion. However, dewatering is still expected at the fourth shaft location at Lakeshore Rd and Wesley Ave.

Discharged water will require filtration through sediment filter bags prior to any discharge into the environment. Further coordination with the CVC and the Region is necessary to determine if permitted to discharge into the existing drainage ditches or culverts. Protection of ditches and culverts will be required.

8.5.3 Surface Water

The preferred option is located the furthest from the Credit River. As such, it is not expected for there to be any impacts to the river since it is not located within the CVC regulated area. Additionally, the preferred alignment is not located close to any other surface water features.

8.5.4 Climate Change (Mitigation)

With respect to Climate Change, this project will consider all opportunities to mitigate its contributions to greenhouse gas emissions and adapt to potential climate change impacts. Measures to mitigate greenhouse gas emissions include, where feasible, ensuring construction equipment does not idle unnecessarily.

The proposed sewer will be constructed by trenchless methodology (tunneling) to minimize the impact and disturbance on vegetations and trees. The construction will be also scheduled to minimize the potential impacts on the environment (e.g., season, precipitation).

8.5.5 Erosion and Sediment Control

Mitigation measures will be used for erosion and sediment control (ESC) to prohibit sediment from entering adjacent vegetation communities. To address these principles, the following mitigation measures are proposed:

- According to Ontario Provincial Standard Specifications, silt fencing (OPSD 219.130) is required along all construction areas.
- All surfaces susceptible to erosion should be re-vegetated through the placement of native seeding, upon completion of construction activities in order to stabilize exposed or disturbed soils.

These measures should be incorporated into the initial detailed design drawings and contract specifications. An erosion and sedimentation control plan should be implemented to mitigate potential disturbances from construction activities. This plan should illustrate the location and details of all ESC measures proposed. A maintenance and inspection schedule should also be included in the ESC Plan.

9 Public, Agency and Indigenous Community Consultation

A key feature of the Class EA process is to ensure effective communication with the general public, agencies and other stakeholders throughout the project. To meet the Class EA consultation requirements for this Schedule B study, steps were taken to ensure effective communication throughout the project with the public, Indigenous Communities, agencies and other stakeholders. The overall strategy has been to entertain any and all reasonable forms of communication received from the public, government, agencies, Indigenous Communities and other stakeholders and to review, consider, integrate (as appropriate), file, and respond in a reasonable timeframe. Copies of notification, as well as the list of regulatory agencies and project stakeholders are provided in **Appendix C.** Correspondence between the project team and stakeholders concerning the project is provided in **Appendix D.**

9.1 Notice of Online Public Engagement

Initial communication with stakeholders and the public started with the combined Notice of Online Public Engagement, which addressed study consultation by providing information on the study background along with project contacts and also included a map showing the Study Area and the proposed alternative sewer routes. The Notice was emailed to all agencies and previously identified stakeholders on July 2, 2020.

Notices were dropped off door-to-door to the surrounding residents (**Appendix E**) on July 6, 2020 and emailed out to Agencies, Ministries, Indigenous Communities and other stakeholders (sample of the email sent out to the Project Stakeholder List is included in **Appendix C**). Those stakeholders with email addresses were emailed copies of the information.

For general distribution of project information to the public and stakeholders, the Notice was also posted:

- **On the Region's website on July 2, 2020.**
- **In the Mississauga News newspaper on July 2, 2020.**

The Notice also provided information on the project and included a "How to Get Involved" section which provided a link to the online public engagement display boards.

9.2 Online Public Engagement

In lieu of a Public Information Centre (due to Provincial in-person meeting restrictions), an Online Public Engagement was created in order to communicate the details of the proposed project with the public and stakeholders. The Online Public Engagement ran from July 2, 2020 until July 24, 2020. The display boards were made available through a link provided in the Notice of Online Public Engagement. Outlined within the display boards were the three alternatives and a decision matrix which summarized the different impacts that the three alternatives would have. The recommended alternative was displayed such that any concerns

over the alignment could be brought to the attention of IBI to consider and address. A copy of the display boards is provided in **Appendix F.**

9.3 Public and Agency Comments

Following the distribution of the Notice of Online Public Engagement, comments were received from five residents in the area (**Appendix D**).

Additionally, comments were received from the Councillor Ward 2, MECP, MHSTCI, and Telus. The comments received from MECP and MHSTCI were taken into consideration and incorporated into the Class EA process and documented in the Project File Report.

The comments received from the area residents, Councillor, MECP, MHSTCI and Telus have been summarized along with all associated responses. The comments and responses have been logged in a table which shows the stakeholder, date of their response, type of comment, summary of comment, response provided, and date of response and this table can be found in **Appendix D**. Comments were also received from the Credit Valley Conservation confirming consideration of the Source Water Protection Plan. The email correspondence has been included in **Appendix D**.

The comments received from the public and agencies did not result in changes to the recommended alignment and the alignment was confirmed and carried forward as the preferred alignment. In general, the comments received from the residents were related to clarification on access to the information and connection of existing residents on septic systems. As well the preferred route was identified by some residents as Kane Rd. The comments and responses can be reviewed in **Appendix D**.

9.4 Notice of Study Completion

The Notice of Study Completion will be sent out to stakeholders (include all agencies, ministries, Indigenous Communities and previously identified stakeholders), the residents that provided comments and residents and businesses located on Indian Road, Kane Road and Wesley Avenue (within the Study Areas). The Notice provides a minimum 30-day review period and outlines the MECP's revised Part II Order request process. To provide a more general distribution the Notice will be placed on two dates in the Mississauga News newspaper and posted on the Region's website.

9.5 Indigenous Communities Consultation

Indigenous Community consultation was undertaken to ensure that effective communication was undertaken with those with potential interest. The following initiatives were undertaken to notify Indigenous Communities of the Class EA project:

- Each of the potentially affected Indigenous Communities included in the agency contact list, was sent notices to ensure that they were kept apprised of the Project's progress and methods for providing input.
- An Opportunity for follow-up contact with any that expressed an interest in the project.

The following Indigenous Communities or associations were provided a copy of all project notices and will also receive the Notice of Completion:

- Six Nations of the Grand River First Nation
- Haudenosaunee Confederacy Development Institute
- Métis Nation of Ontario Head Office
- Mississaugas of the Credit First Nation
- Alderville First Nation
- Chippewas of Rama First Nation

The Ministry of Heritage, Sport, Tourism and Culture Industries indicated in their comments of July 21, 2020 that “While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous Communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous Communities includes a discussion about known or potential cultural heritage resources that are of value to these communities.” Indigenous Communities were forwarded a copy of the project notices. The preferred alternative is construction of the new sewer alignment within the previously disturbed, existing road right-of-way and the Metrolinx railway located within the built-up area of Mississauga. Based on this additional information related to cultural heritage resources was not anticipated to be received. Following completion of the Class EA process, additional consultation will be considered during the detailed design phase.

10 References

Natural Areas Inventory - Volume 1, Credit River Watershed and Region of Peel, September 2011

Region of Peel, Front Street Wastewater Pumping Station Wastewater Diversion Schedule 'B' Class Environmental Assessment, June 05, 2019 (prepared by WSP Canada Inc.).

Ontario Geological Survey document

Provincial Standard Specifications, silt fencing (OPSD 219.130).

S.O. 2006. Chapter 22 – Clean Water Act and Ontario Regulation 287/07: General.

Appendix A

Archaeological Assessment
MTCS Acceptance Letter
Archaeological Checklist

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
ASSIGNMENT 1: SEWAGE PUMPING STATION UPGRADES IN MISSISSAUGA
PART OF LOTS 5 AND 7, RANGE 1 CREDIT INDIAN RESERVE, PART OF LOT 6 RANGE 2 CREDIT INDIAN RESERVE, AND PART OF LOT 23, CONCESSION 3 SOUTH OF DUNDAS STREET (FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL) CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL, ONTARIO

ORIGINAL REPORT

Prepared for:

Cole Engineering Group Ltd.
195 King Street East
St. Catharines, ON L2R 3J6

Archaeological Licence #P1066 (Lytle)
Ministry of Tourism, Culture and Sport PIF# P1066-0029-2017
ASI File: 16EA-262

5 May 2017

ASI Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 F 416-966-9723 asiheritage.ca

Stage 1 Archaeological Assessment
Assignment 1: Sewage Pumping Station Upgrades in Mississauga
Part of Lots 5 and 7, Range 1 Credit Indian Reserve,
Part of Lot 6 Range 2 Credit Indian Reserve, and
Part of Lot 23, Concession 3 South of Dundas Street
(Former Township of Toronto, County of Peel)
City of Mississauga
Regional Municipality of Peel, Ontario

EXECUTIVE SUMMARY

Archaeological Services Inc. (ASI) was contracted by Cole Engineering Group Limited to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Assignment 1: Sewage Pumping Station Upgrades in Mississauga, Schedule B, Municipal Class Environmental Assessment. The project involves the replacement of three existing sewage pumping stations: Rosemere Road, Indian Road, and Silver Birch Trail.

The Stage 1 background study determined that 22 previously registered archaeological sites are located within one kilometre of the Study Areas, none of which are within 50 metres of the Study Areas. The property inspection determined that parts of the Study Areas exhibit archaeological potential and will require Stage 2 assessment.

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

1. The Study Areas exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at a five metre intervals prior to any proposed impacts to the property;

2. The remainder of the Study Areas do not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,

3. Should the proposed work extend beyond the current Study Areas, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

ASI

PROJECT PERSONNEL

Senior Project Manager:	Lisa Merritt, MSc. (P094) *Partner | Director* *Environmental Assessment Division*
Project Coordinator:	Sarah Jagelewski, Hon. BA (R405) *Archaeologist | Assistant Manager* *Environmental Assessment Division*
Project Director (Licensee):	Jessica Lytle, MSc (P1066) *Archaeologist | Project Manager* *Environmental Assessment Division*
Project Manager:	Eliza Brandy, MA (R1109) *Archaeologist | Project Manager* *Environmental Assessment Division*
Field Director:	Peter Carruthers (P163) *Senior Associate*
Report Preparation:	Eliza Brandy
Graphics:	Jonas Fernandez, MSc (R281) *Archaeologist | Assistant Manager - Fleet & Geomatics Specialist* *Operations Division* Blake Williams, MLitt (P383) *Archaeologist | Geomatics Specialist* *Operations Division*
Report Reviewer:	Lisa Merritt

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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Cole Engineering Group Limited to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Assignment 1: Sewage Pumping Station Upgrades in Mississauga, Schedule B, Municipal Class Environmental Assessment. The project involves the replacement of three existing sewage pumping stations: Rosemere Road, Indian Road, and Silver Birch Trail (Figure 1).

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2009) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS).

In the S & G, Section 1, the objectives of a Stage 1 archaeological assessment are discussed as follows:

- To provide information about the history, current land conditions, geography, and previous archaeological fieldwork of the Study Areas;
- To evaluate in detail the archaeological potential of the Study Areas that can be used, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the Study Areas; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment, if necessary.

This report describes the Stage 1 archaeological assessment that was conducted for this project and is organized as follows: Section 1.0 summarizes the background study which provides the historical and archaeological contexts for the project Study Areas; Section 2.0 addresses the field methods used for the property inspection to document the general environment, current land use history and conditions of the Study Areas; Section 3.0 analyses the characteristics of the project Study Areas and evaluates their archaeological potential; Section 4.0 provides recommendations; and the remaining sections contain other report information that is required by the S & G, e.g., advice on compliance with legislation, works cited, mapping and photo-documentation.

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (1990) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015) document.

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Cole Engineering Group Limited on March 30, 2017.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the

Study Areas. A summary is first presented of the current understanding of the Indigenous land use of the Study Areas. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990, 2009; Brown 1995:13).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. Exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence et al. 1990:155, 164). It is also during this period that maize was first introduced into southern Ontario, though it would have only supplemented people's diet (Birch and Williamson 2013:13–15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From approximately 1,000 BP until approximately 300 BP, lifeways became more similar to that described in early historical documents. During the Early Iroquoian phase (AD 1000-1300), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By the second quarter of the first millennium BP, during the Middle Iroquoian phase (AD 1300-1450), this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990:343). In the Late Iroquoian phase (AD 1450-1649) this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed. By AD 1600, the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries.

In the 1640s, the traditional enmity between the Haudenosaunee[1] and the Huron-Wendat (and their Algonkian allies such as the Nippissing and Odawa) led to the dispersal of the Huron-Wendat. After the dispersal, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario, including Teiaiagon, near the mouth of the Humber River; and Ganestiquiagon, near the mouth of the Rouge River. Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The west branch of the Carrying Place followed the Humber River valley northward over the drainage divide, skirting the west end of the Oak Ridges Moraine, to the East Branch of the Holland River. Another trail followed the Don River watershed.

When the Senecas established Teiaiagon at the mouth of the Humber, they were in command of the traffic across the peninsula to Lake Simcoe and the Georgian Bay. Later, Mississauga and earliest European presence along the north shore, was therefore also largely defined by the area's strategic importance for accessing and controlling long established economic networks. Prior to the arrival of the Seneca, these economic networks would have been used by indigenous groups for thousands of years. While the trail played an important part during the fur trade, people would also travel the trail in order to exploit the resources available to them across south-central Ontario, including the various spawning runs, such as the salmon coming up from Lake Ontario or herring or lake trout in Lake Simcoe.

Due, in large part, to increased military pressure from the French upon their homelands south of Lake Ontario, the Haudenosaunee abandoned their north shore frontier settlements by the late 1680s, although they did not relinquish their interest in the resources of the area, as they continued to claim the north shore as part of their traditional hunting territory. The territory was immediately occupied or re-occupied by Anishinaabek groups, including the Mississauga, Ojibwa (or Chippewa) and Odawa, who, in the early seventeenth century, occupied the vast area extending from the east shore of Georgian Bay, and the north shore of Lake Huron, to the northeast shore of Lake Superior and into the upper peninsula of Michigan. Individual bands were politically autonomous and numbered several hundred people. Nevertheless, they shared common cultural traditions and relations with one another and the land. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming. Their movement southward also brought them into conflict with the Haudenosaunee.

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century, the Crown acknowledged the Mississaugas as the owners of the lands between Georgian Bay and Lake Simcoe and entered into negotiations for additional tracts of land as the need arose to facilitate European settlement.

[1] The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian–speaking groups - the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.

In 1805, the Mississaugas were granted one mile (approximately 1.6 km) on either side of the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1818, the majority of the Mississauga Tract was acquired by the Crown excluding the lands tracts flanking the Credit River, Twelve Mile Creek and Sixteen Mile Creek. In 1820, the remainder of Mississauga land was surrendered except approximately 81 hectares (ha) along the Credit River (Heritage Mississauga 2012:18). In 1825-26 the Credit Indian Village was established as an agricultural community and Methodist mission near present day Port Credit (Heritage Mississauga 2009a; Mississaugas of the New Credit First Nation 2014). By 1840 the village was under significant pressure from Euro-Canadian settlement that plans begun to relocate the settlement. In 1847 the Credit Mississaugas were made a land offer by the Six Nations Council to relocate at the Grand River. In 1847, 266 Mississaugas settled at New Credit, approximately 23 km southwest of Brantford. In 1848 a mission of the Methodist Church was established there by Rev. William Ryerson (Woodland Indian Cultural Education Centre 1985). Although the majority of the former Mississauga Tract had been surrendered from the Mississauga by 1856 (Gould 1981), this does not exclude the likelihood that the Mississauga continued to utilise the landscape at large during travel (Ambrose 1982) and for resource extraction.

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Living in both Euro-Canadian and Indigenous societies, the Métis acted as agents and subagents in the fur trade but also as surveyors and interpreters. Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). By the mid-twentieth century, Indigenous communities, including the Métis, began to advance their rights within Ontario and across Canada, and in 1982, the Métis were federally recognized as one of the distinct Indigenous peoples in Canada. Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Areas are located in the Former Toronto Township, County of Peel: the Rosemere Road component is located on part of Lot 5, Range 1 Credit Indian Reserve (CIR); the Indian Road component is within the historical road allowance between Lot 6 Range 2 CIR and Lot 7 Range 1 CIR; and the Silver Birch Trail component is on part of Lot 23, Concession 3 South of Dundas Street (SDS).

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the

siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).

In 1788, the County of Peel was part of the extensive district known as the "Nassau District." After the province of Quebec was divided into Upper and Lower Canada in 1792, the Nassau District became known as Home District. The same year, Upper Canada was subdivided into nineteen counties by its first Lieutenant Governor, Colonel John Graves Simcoe, and by 1852, the Home District was replaced by the Counties of York, Ontario and Peel.

After Simcoe established York as the capital of Upper Canada he commissioned the Queen's Rangers to build the Dundas Highway (also known as the Governor's Road) running west to Ancaster and east toward Kingston, hooking up with Kingston Road. This important transportation corridor was intended to provide an overland military route between Lake Ontario, Lake St. Clair, and Lake Huron. The road (later known as Dundas Street now Highway 5) was intended to serve a dual purpose – to support settlement in Upper Canada and as a deterrent to expansionist American interests. Work on the Governor's Road began in 1793, but progress was slow. Once the colonial government had purchased new lands adjacent to it, Dundas Street did facilitate settlement in southern Ontario.

Along the lakeshore, the pre-existing trail was widened and improved as a public road by 1798, but bridges were lacking. By 1826, a regular stagecoach service ran between York and Niagara. The Toronto Road Company purchased the Lakeshore Road in 1850, turning it into a toll road.

Toronto Township

The Township of Toronto was originally surveyed in 1806 by Mr. Wilmot, Deputy Surveyor. The first settler in this Township, and also the County of Peel, was Colonel Thomas Ingersoll. The whole population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until the war broke out in 1812, which gave considerable check to its progress. When the war was over, the Township's growth revived and the rear part of the Township was surveyed and called the "New Survey". The greater part of the New Survey was granted to a colony of Irish settlers from New York City, who suffered persecution during the war.

The Credit River runs through the western portion of the Township, and proved to be a great source of wealth to its inhabitants, as it was not only a good watering stream, but there were endless mill privileges along the entire length of the river.

In 1855, the Hamilton and Toronto Railway completed its lakeshore line. In 1871, the railway was amalgamated with the Great Western Railway, which in turn, was amalgamated in 1882, with the Grand Trunk Railway, and then in 1923, with Canadian National Railway (Andreae 1997:126–127). Several villages of varying sizes had developed by the end of the nineteenth century, including Streetsville, Meadowvale, Churchville, and Malton. A number of crossroad communities also began to grow by the

end of the nineteenth century. These included Britannia, Derry, Frasers Corners, Palestine, Mt Charles, and Grahamsville.

Port Credit

Around 1804, Col. Ingersoll, the first settler, built a trading store. At around the same time, a Government Inn was established on the east bank of the river to accommodate and direct new settlers. Port Credit was officially surveyed and established as a village in 1834. The land on the west side of the Credit River was the first to be surveyed and developed. However, a disastrous fire in 1855 halted its growth. In 1856, a survey of the land on the east side of the river was undertaken, and surveyed lots between the lakefront and the railway were quickly occupied (cw. Figures 2-3). Port Credit attained status as a police village by 1909, and in 1961, it was incorporated as a town. In 1974, Port Credit amalgamated with the City of Mississauga. The first train station opened in 1855 just north of the town limits to accommodate the Hamilton and Toronto Railway. While the railway boosted the local economy, it lead to the decline in use of the port. The original station was destroyed by fire in the early twentieth century, and the former Western Hotel was built in its place on Stavebank Road (Heritage Mississauga 2009b).

Clarkson

Settlement first began in this rural village in 1807 after the first survey and among the first settlers were the Bradley, Clarkson, Gable, Greeniaus, Hammond, Hendershott, Jarvis, Marlatt, Merigold, Monger, Oliphant, Shook and Thompson families. The area was first referred to as "Merigold's Point", and later became known as "Clarkson's Corners" after early settler Warren Clarkson, who also operated the post office and general store. By 1850, the road bordering Warren Clarkson's property was known as Clarkson Road and a train station for the Great Western Railway was built in 1855 on part of Warren Clarkson's property. (Heritage Mississauga 2009c)

1.2.3 Historical Map Review

The 1859 Map of the County of Peel (Tremaine 1859) and the 1877 Illustrated Historical Atlas of the County of Peel, Toronto Township South page (Pope 1877), were examined to determine the presence of historic features within the Study Areas during the nineteenth century (Figures 2 and 3).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.

Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Areas

		1859		*1887*	
Con #	**Lot #**	**Property Owner(s)**	**Historical Feature(s)**	**Property Owner(s)**	**Historical Feature(s)**
Rosemere Road					
Range 1 CIR	5	None	None	Jas. Cotton	None
Indian Road					
Range 1 CIR	7	None	None	Peel Manufacturing Co.	None
Range 2 CIR	6	R & J Cotton	None	Peel Manufacturing Co.	None
Silver Birch Trail					
3 SDS	23	Peer Bros.	None	John Peer	None

According to the maps, no structures were located within or adjacent to the Study Areas. The 1859 map indicates that Hamilton and Toronto Railway had been constructed and the town of Port Credit was well established at the mouth of the Credit River, southeast of the Rosemere Road component of the Study Areas. The Peel Manufacturing Company owned most of the lots surrounding the Study Areas by 1877.

1.2.4 Twentieth-Century Mapping Review

The 1909 National Topographic Series Brampton Sheet and the 1954 aerial photograph of Port Credit were examined to determine the extent and nature of development and land uses within the Study Areas (Figures 4 and 5). The 1909 map does not illustrate any structures within the Study Areas.

A review of available Google satellite imagery, since 2004, shows that the Study Areas have remained within residential subdivisions in the City of Mississauga near the Town of Port Credit.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Areas, environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land uses and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MTCS through "Ontario's Past Portal"; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

A Stage 1 property inspection was conducted on April 24, 2017 that noted the Study Areas are within modern residential subdivisions within the City of Mississauga. Rosemere Road is a dead-end road northwest of the railway line northeast of Stavebank Road on the east bank of the Credit River and the existing SPS is located at the end of the road. Indian Road terminates at Temagami Crescent on the west bank of the Credit River and the existing SPS is between two houses. Silver Birch Trail terminates

southeast of Marshwood Place at the Rattray Marsh Conservation Area and the existing SPS is located adjacent to a house and the entrance to a trail in the conservation area.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Areas.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, and plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including; food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Iroquois Plain physiographic region of Southern Ontario is a lowland region bordering Lake Ontario. This region is characteristically flat, and formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of 300 km (Chapman and Putnam 1984:190). The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman and Putnam 1984:196). The Study Areas include sand plains and shale plains.

Figure 6 depicts surficial geology for the Study Areas. The surficial geology mapping demonstrates that the Study Areas are underlain by coarse textured glaciolacustraine deposits of sand and gravel, with a part of the Silver Birch Trail component underlain by modern alluvial deposits of sand (Ontario Geological Survey 2010). Soils in the Study Areas consist of Bottom Land, an alluvial soil with imperfect drainage, and Fox Sand, a grey-brown podzolic well-sorted outwash soil with good drainage (Figure 7).

The Study Areas are within the Credit River watershed, which drains an area of approximately 860 square kilometres from its headwaters in Orangeville, Erin, and Mono, passing through part of the Niagara Escarpment and the Oak Ridges Moraine, and draining into Lake Ontario at the town of Port Credit (Credit Valley Conservation 2009). The river was named "*Mis.sin.ni.he*" or "*Mazinigae-zeebi*" by the Mississaugas, and surveyor Augustus Jones believed this signified "the trusting creek", or could also be translated as "to write or give and make credit", while the French name used when the river was first mapped in 1757 was "*Riviere au Credit*". These names refer to the fur trading period, when the French, British, and Indigenous traders would meet along this river (Jameson 1838:73–74; Smith 1987:255–257; Rayburn 1997:84; Scott 1997:182; Gibson 2002:177; Robb et al. 2003:6). The Credit River was historically considered to be one of the best potential power sources for milling in all of southern Ontario, which led to the development of early of saw and grist mill industries, and later textile mills, distilleries, bottling plants, and hydro-electric plants spawned communities throughout the river valley, typically close to the Niagara Escarpment (Town of Caledon 2009:7.1).

Part of the Study Areas are within the Sheridan Creek subwatershed, including Kenollie Creek. This subwatershed is a long, narrow, urbanized watershed located on the west side of the City of Mississauga which drains an area of approximately 1,035 hectares into Rattray Marsh on Lake Ontario (Aquafor Beech Ltd. 2011). Increased development of the Sheridan Creek watershed in the twentieth century led to major modifications to the Sheridan Creek watercourse.

The Rattray Marsh Conservation Area is one of the last remaining baymouth bar coastal wetlands on the western end of Lake Ontario, and supports a wide variety of plant and animal life (Harrington and Hoyle Ltd. 2009). It was previously known as the Masting Lot, because the British Navy harvested white pines to make masts, or as the Oliphant Swamp, after early settlers, until Major Rattray bought the property in 1945(Heritage Mississauga 2009c). The City of Mississauga purchased the property in 1959.

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Areas under review are located in Borden block *AjGv*.

According to the OASD, 22 previously registered archaeological sites are located within one kilometre of the Study Areas, none of which are within 50 metres of the Study Areas (Ministry of Tourism, Culture and Sport 2016). A summary of the sites is provided below.

Table 2: List of previously registered sites within one kilometre of the Study Area Components

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
Indian Road				
AjGv-1	Hare	Archaic, Laurentian; Middle Woodland	Camp	TRCA 2012
AjGv-3	Hogsback	Pre-Contact Indigenous	Burial	ROM 19; NDA 2011
AjGv-4	Stillmeadow	Pre-Contact Indigenous	Camp	Konrad 1972

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
AjGv-10	Stavebank	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-17	Nunan	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-32	Scott-O'Brien	Middle Woodland, Pickering and Point Penninsula	Camp	MPP 1988; ASI 1991
AjGv-46	N/A	Pre-Contact Indigenous	Findspot	ASI 1999
AjGv-47	N/A	Pre-Contact Indigenous	Findspot	ASI 1999
AjGv-48	N/A	Pre-Contact Indigenous	Findspot	ASI 2000
AjGv-50	Atoka	Early and Middle Woodland	Scatter	ASI 2001
AjGv-57	Rewa	Middle Woodland	Burial	ASI 2003
AjGv-73	AjGv-73	Euro-Canadian; Middle Woodland	Scatter	ASI 2011
AjGv-74	Stavebank Roal	Late Archaic; Middle Woodland	Camp	ASI 2011; NDA 2012
AjGv-75	AjGv-75	Pre-Contact Indigenous	Scatter	ASI 2011
AjGv-83	N/A	Middle-Late Archaic, Woodland	Camp	ASI 2016, 2017
AjGv-84	Kane	Euro-Canadian; Woodland	Unknown	NDA 2014
Silver Birch Trail				
AjGv-82	Rattray Marsh	Indigenous Pre-Contact	Camp	TRCA 2012
Rosemere Road				
AjGv-1	Hare	Archaic, Laurentian; Middle Woodland	Camp	TRCA 2012
AjGv-5	Glenburny	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-9	Avonbridge	Archaic	Camp	Konrad 1972
AjGv-10	Stavebank	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-32	Scott-O'Brien	Middle Woodland, Pickering and Point Penninsula	Camp	MPP 1988; ASI 1991
AjGv-57	Rewa	Middle Woodland	Burial	ASI 2003
AjGv-73	AjGv-73	Euro-Canadian; Middle Woodland	Scatter	ASI 2011
AjGv-83	N/A	Middle-Late Archaic, Woodland	Camp	ASI 2016, 2017
AjGv-84	Kane	Euro-Canadian; Woodland	Unknown	NDA 2014

According to the background research, one previous report details fieldwork within 50 m of the Study Areas.

ASI (2016a) conducted a Stage 2 archaeological assessment of 1142 Mona Road, approximately 30 metres from the current Study Area. The field survey was conducted in 2016 by means of a test pit survey at five metre intervals in areas deemed to have potential. One site was identified, AjGv-83, approximately 90 metres from the current Study Area. The site consisted of 12 non-diagnostic lithic artifacts. ASI (2016b) proceeded with Stage 3 investigation, resulting in the identification of three cultural features and 63 artifacts (55 lithics, five ceramics, and one calcinced faunal fragment), suggesting AjGv-83 is a small Woodland campsite. Due to the context of this site within the proposed residential development, avoidance and protection was not considered a viable option. ASI (2017 under MTCS review) conducted Stage 4 mitigative excavation by block excavation and mechanical topsoil removal. A total of 126 contiguous units were excavated around two main loci of cultural heritage value or interest (CHVI) resulting in the recovery of 779 artifacts (748 lithics, 24 ceramics, and seven faunal fragments). The site represents a pre-contact Indigenous site with multiple occupations spanning the Middle to Late Archaic (6000-500 BC) and Woodland (800 BC-AD 1600) periods. The site was fully mitigated and is not considered to retain further CHVI.

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Peter Carruthers (P163) of ASI, on April 24, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Areas. It was a visual inspection only and did not include excavation or collection of archaeological resources. Fieldwork was only conducted when weather conditions were deemed suitable, per S&G Section 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the Study Areas in Section 7.0 (Figures 1-10) and associated photographic plates are presented in Section 8.0 (Plates 1-18).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Areas. These data are presented below in Section 3.1. Results of the analysis of the Study Areas property inspection are presented in Section 3.2.

3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Areas meet the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (see Table 2);
- Water sources: primary, secondary, or past water source (Credit River, Sheridan Creek);
- Early historic transportation routes (GWR, Stavebank Rd, Indian Rd);
- Proximity to early settlements (Port Credit); and
- Well-drained soils (Fox Sand)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no properties within the Study Areas are Listed or Designated under the Ontario Heritage Act.

These criteria are indicative of potential for the identification of Indigenous and Euro-Canadian archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

3.2 Analysis of Property Inspection Results

The property inspection determined that parts of the Study Areas exhibit archaeological potential (Plates 2, 3, 6, 12, 18; Figure 8-10: areas highlighted in green). These areas will require Stage 2 archaeological assessment by test pit survey at five metre intervals, prior to any development. According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide.

The remainder of the Study Areas have been subjected to deep soil disturbance events associated with the construction of the existing SPS's and buried utilities, and according to the S & G Section 1.3.2 do not retain archaeological potential (Plates 1-17; Figure 8: areas highlighted in yellow). These areas do not require further survey.

3.3 Conclusions

The Stage 1 background study determined that 22 previously registered archaeological sites are located within one kilometre of the Study Areas, none of which are within 50 metres of the Study Area. The property inspection determined that part of the Study Area exhibits archaeological potential and will require Stage 2 assessment.

4.0 RECOMMENDATIONS

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

1. The Study Areas exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at five metre intervals prior to any proposed impacts to the property;

2. The remainder of the Study Areas do not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,

3. Should the proposed work extend beyond the current Study Areas, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the MTCS should be immediately notified.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act.*

- 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 sec. 48 (1) of the *Ontario Heritage Act*.

- 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.

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7.0 MAPS

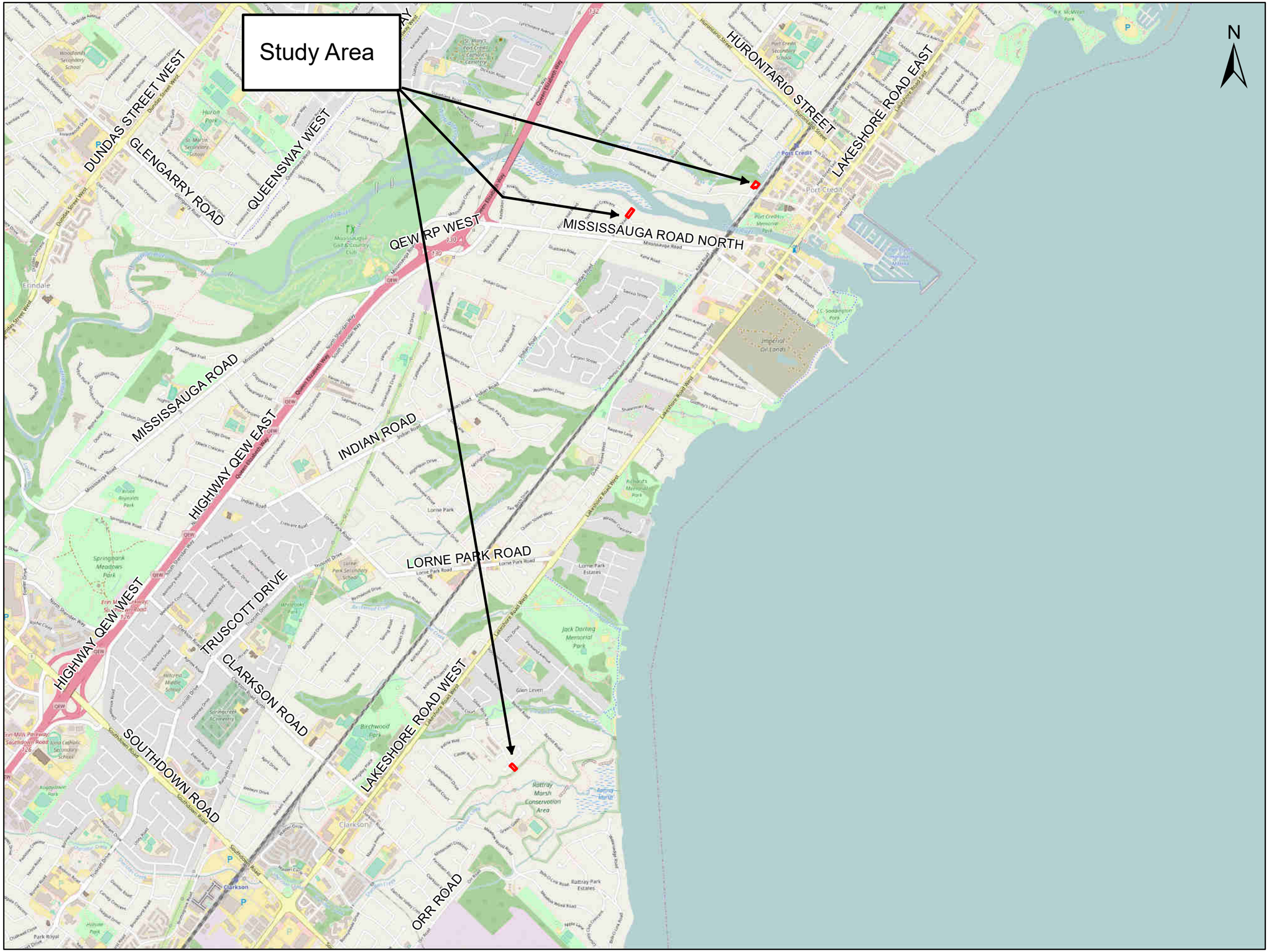

Figure 1: Assignment 1: Sewage Pumping Station Upgrades in Mississauga - Location of the Study Areas

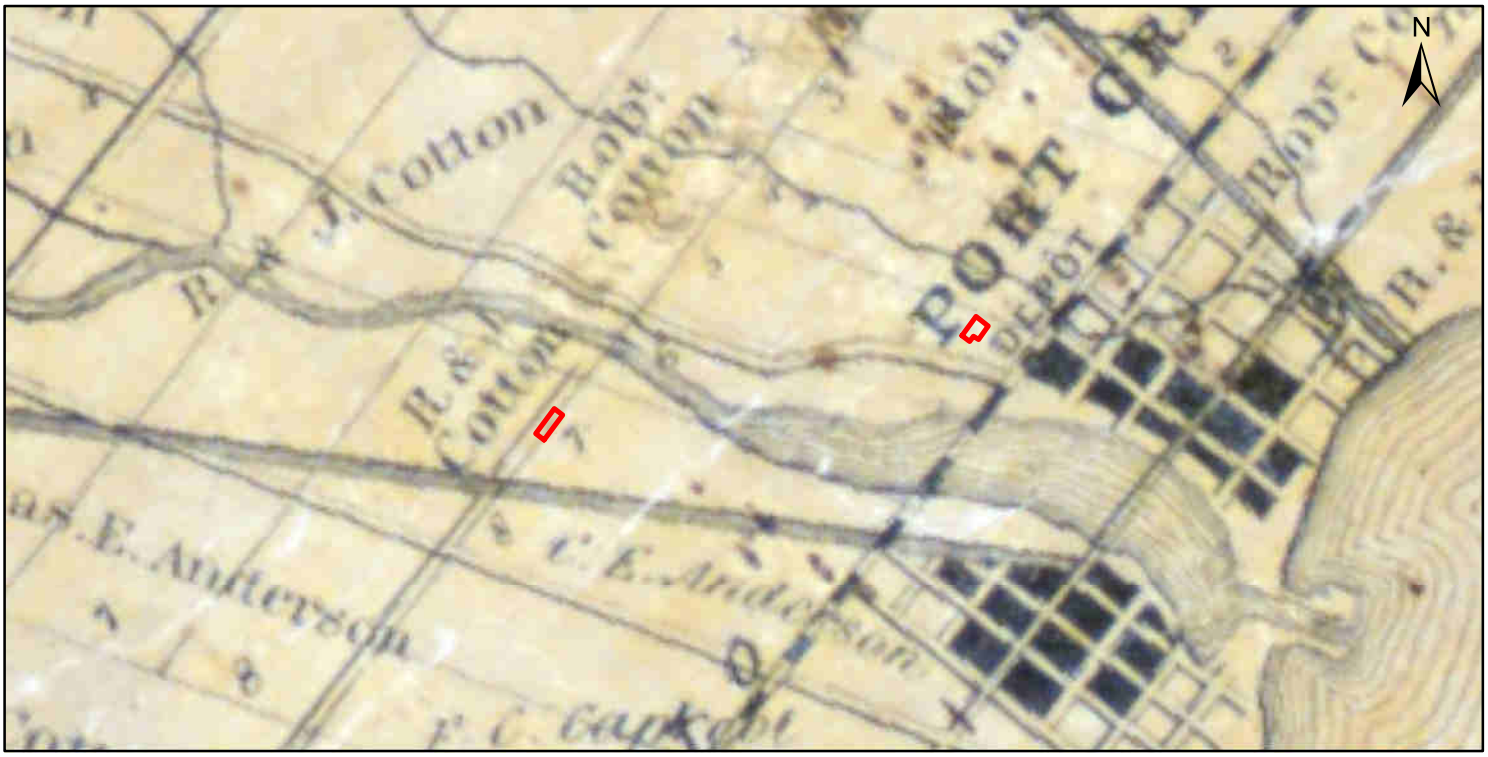

Figure 2: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas (Approximate Locations) Overlaid onthe 1859 Map of the County of Peel

Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 | F416-966-9723 | asiheritage.ca	Study Area		0 500 Metres ASI PROJECT NO.: 16EA-262 DRAWN BY: BW DATE: 21 Apr 2017 FILE: 16EA262_Fig2_1859

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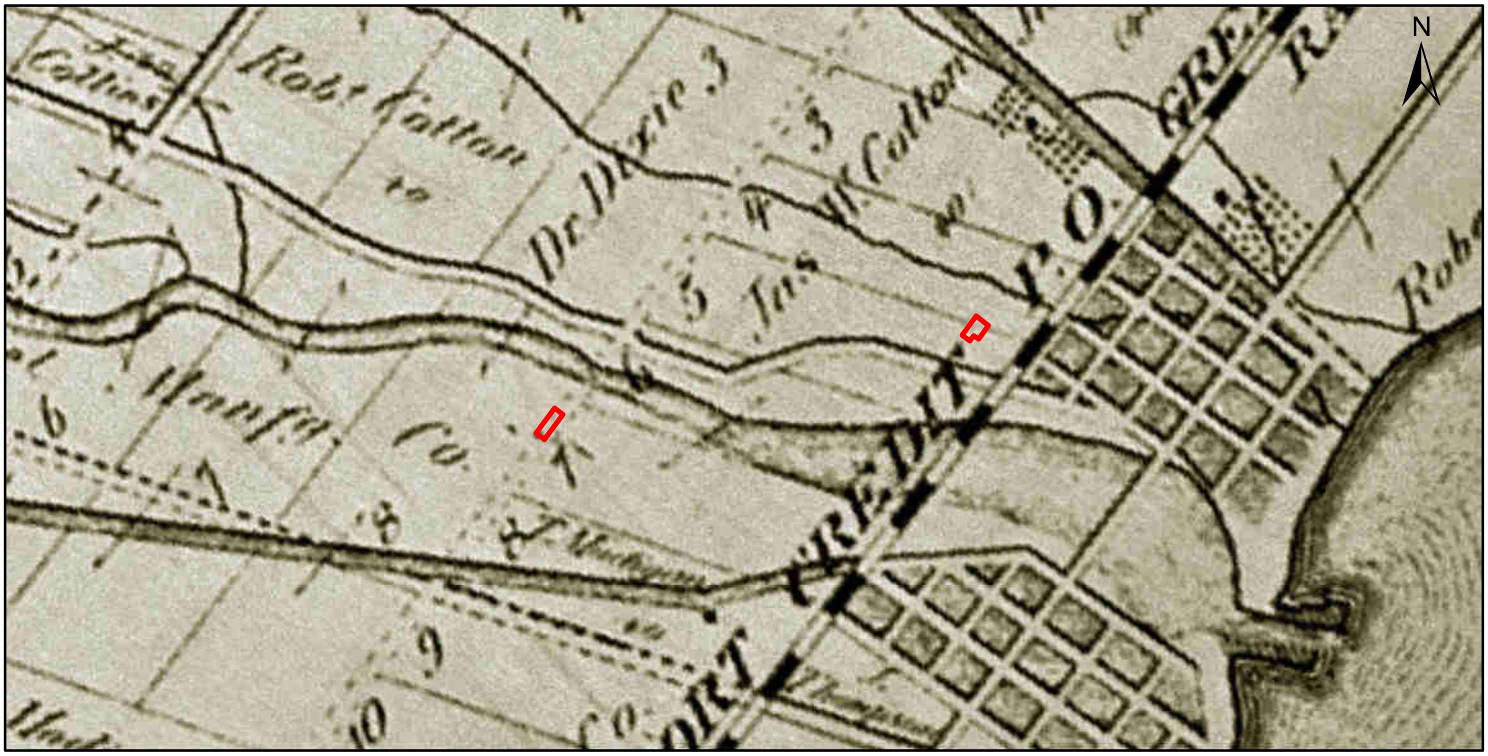

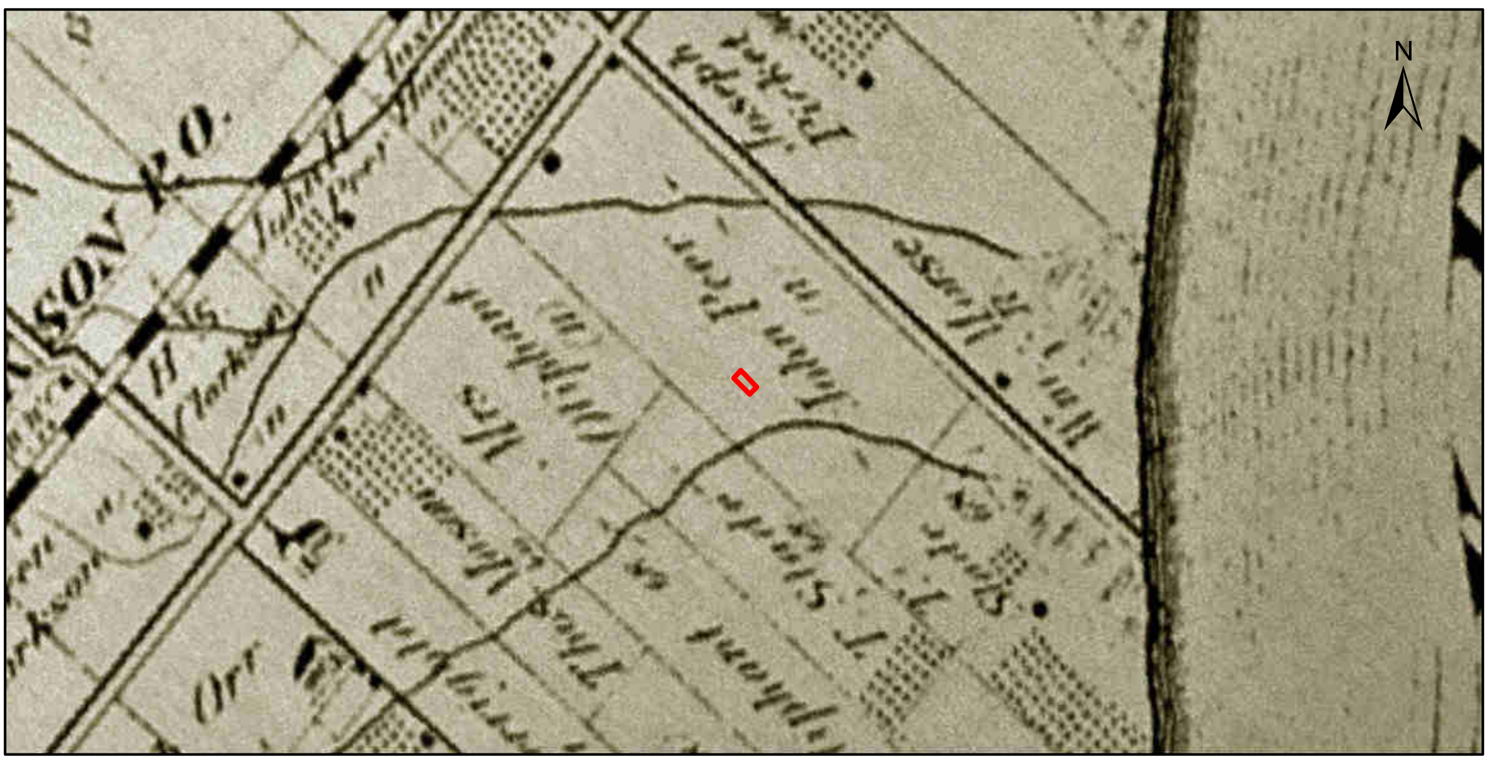

Figure 3: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas (Approximate Locations) Overlaid onthe1877 Illustrated Historical Atlas of the Township of Toronto

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Study Area

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Figure 4: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas (Approximate Locations) Overlaid onthe 1909 National Topographic Series Brampton Sheet

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Study Area

0 500
Metres

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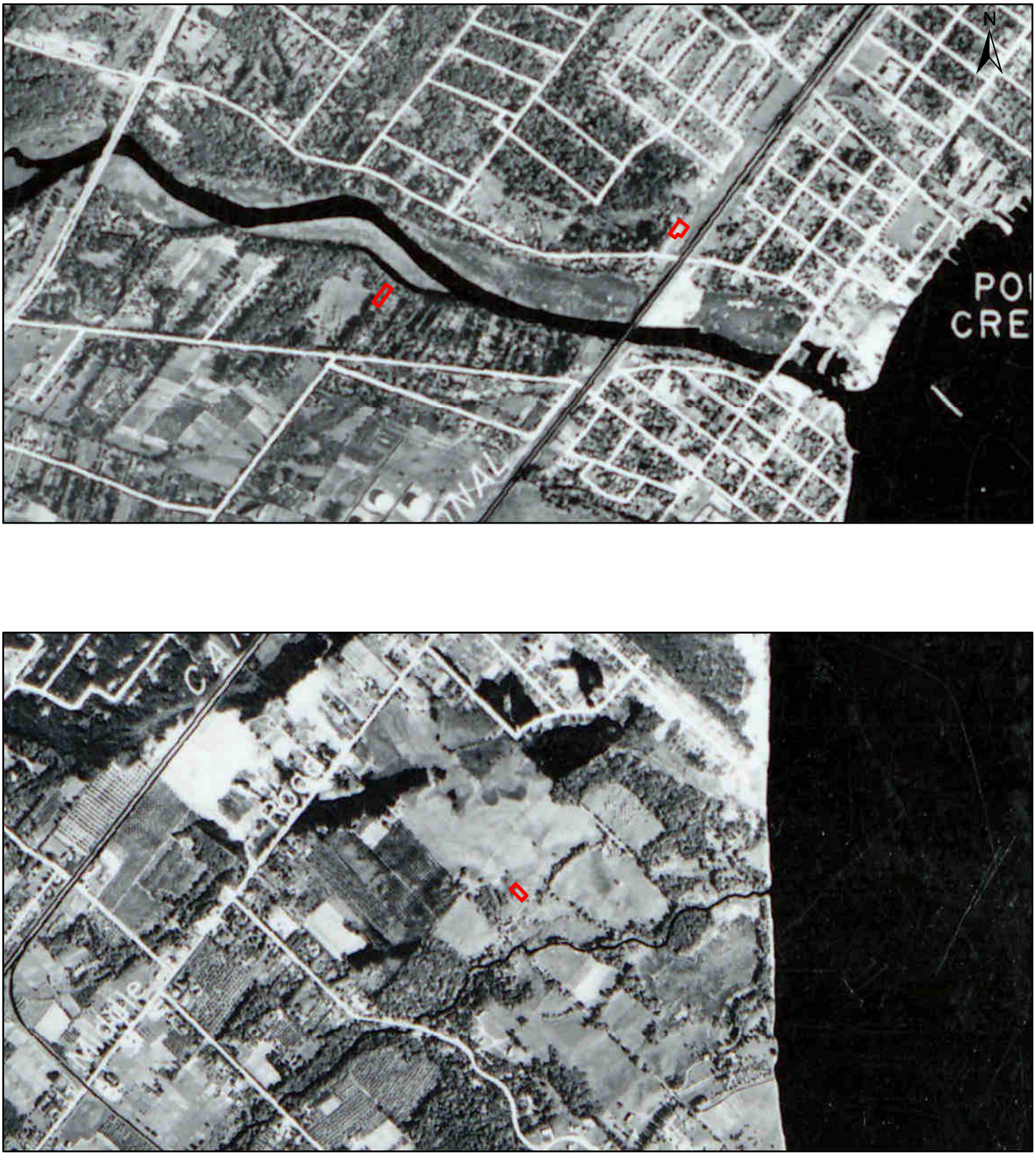

Figure 5: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas (Approximate Locations) Overlaid onthe 1954 Aerial Photograph of Mississauga

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Study Area

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Figure 6: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas - Surficial Geology

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Study Area

Surficial Geology of Southern Ontario Dataset produced by the Ontario Geological Survey, Ministry of Northern Development and Mines, © Queen's Printer for Ontario, 2003.

0 500
Metres

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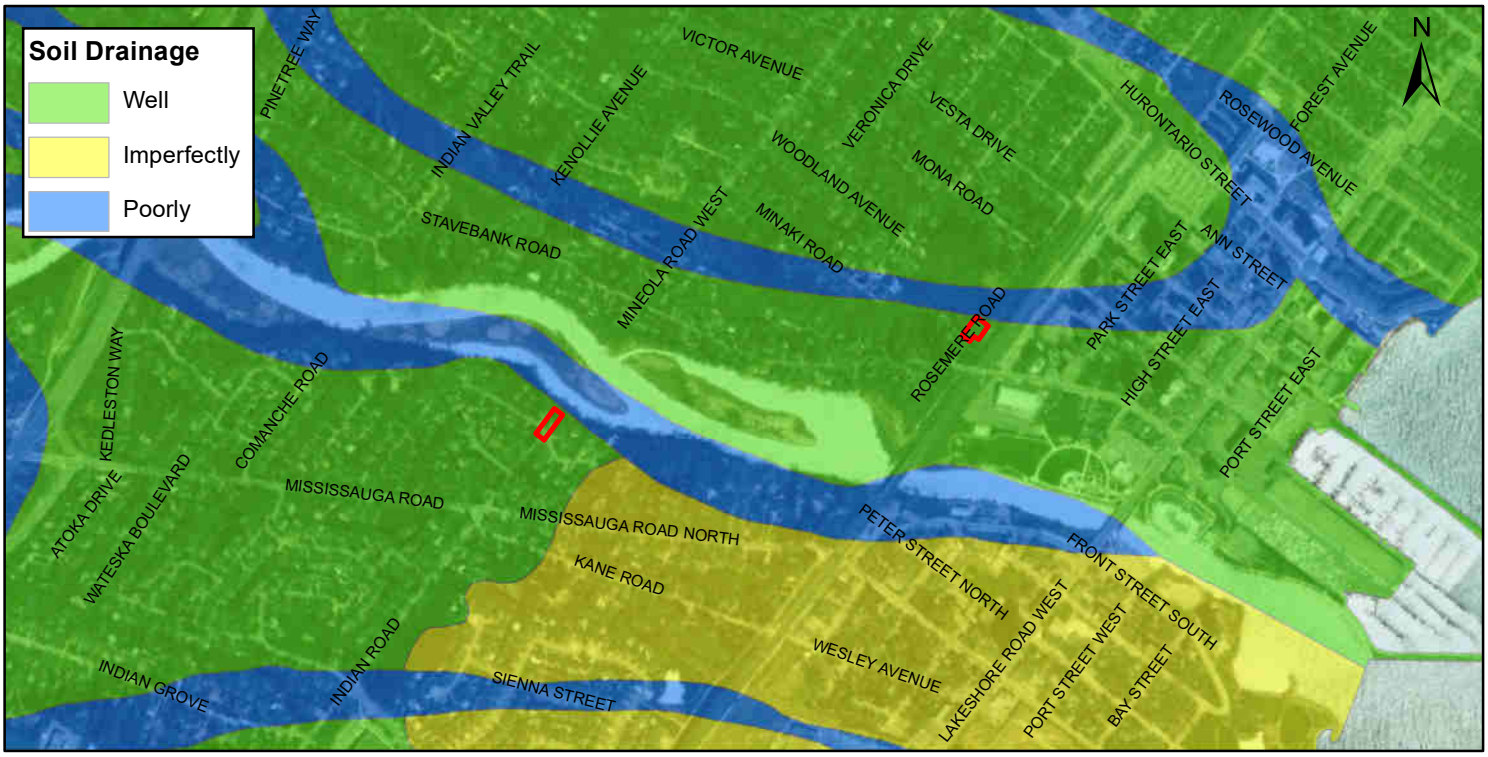

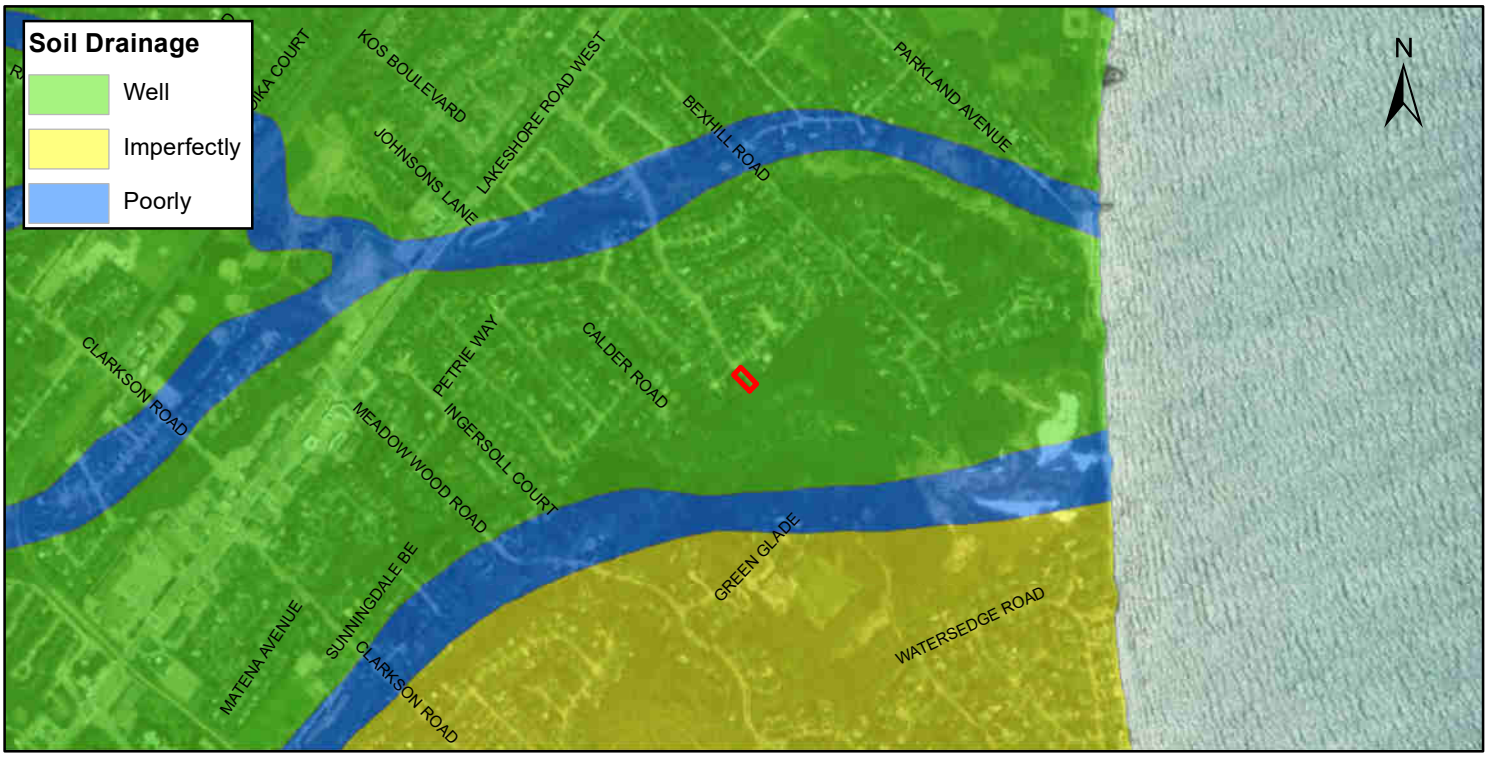

Figure 7: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas - Soil Drainage

Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
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Study Area

Surficial Geology of Southern Ontario Dataset produced by the Ontario Geological Survey, Ministry of Northern Development and Mines, © Queen's Printer for Ontario, 2003.

0 500
Metres

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DATE: 4/27/2017
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Study Area

Photo Location and Direction

Stage 1 Assessment Results

Archaeological Potential - Requires Stage 2 Test Pit Survey

Disturbed - No Stage 2 Required

BASE:

Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 20
Metres

ASI PROJECT NO.: 16EA-262 DRAWN BY: JF
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Figure8: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection at Rosemere Road (Sheet1)

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Study Area

Photo Location and Direction

Stage 1 Assessment Results

Archaeological Potential - Requires Stage 2 Test Pit Survey

Disturbed - No Stage 2 Required

BASE:

Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 20
Metres

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Figure 9 : Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection at Indian Road (Sheet 2)

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Study Area

Photo Location and Direction

Stage 1 Assessment Results

Archaeological Potential - Requires Stage 2 Test Pit Survey

Disturbed - No Stage 2 Required

BASE:

Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 20
Metres

ASI PROJECT NO.: 16EA-262 DRAWN BY: JF
DATE: 4/27/2017 FILE: 16EA262_Fig10_S3_SilverBirch

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Figure 10: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection at Silver Birch Trail (Sheet 3)

8.0 IMAGES

Plate 1: North view of the Rosemere Rd. Study Area; Work will be done within the disturbed ROW on buried utilities, no Stage 2 required

Plate 2: Northeast view of the Rosemere Rd. Study Area; Temporary work area between the road and fenceline, south of the existing SPS, exhibits potential, requires Stage 2 test pit survey

Plate 3: North view of the Rosemere Rd. Study Area; Temporary work areas west and east of the existing buried utilities (as marked in pink) exhibit potential, requires Stage 2 test pit survey

Plate 4: Northeast view of the Rosemere Rd. Study Area; Temporary work areas west and east of the existing buried utilities (as marked in pink) exhibit potential, requires Stage 2 test pit survey

Plate 5: West view of the Rosemere Rd. Study Area; Area surrounding the existing SPS is disturbed, no Stage 2 required

Plate 6: North view of the Rosemere Rd. Study Area; Temporary work areas west and east of the existing buried utilities (as marked in pink) exhibit potential, requires Stage 2 test pit survey

Plate 7: Northeast view of the Indian Road Study Area; Area is within the disturbed ROW, no Stage 2 required

Plate 8: North view of the Indian Road Study Area; Area is within the disturbed ROW, no Stage 2 required

Plate 9: Northeast view of the Indian Road Study Area; Area is disturbed, no Stage 2 required

Plate 10: North view of the Indian Road Study Area; Area is disturbed, no Stage 2 required

Plate 11: Northeast view of the Indian Road Study Area; Proposed work is within the disturbed paved area and buried utilities, no Stage 2 required

Plate 12: Northeast view of the Indian Road Study Area; Temporary work space west of the buried utilities exhibits potential, requires Stage 2 test pit survey

Plate 13: Southeast view of the Silver Birch Trail Study Area; Proposed work is within the disturbed paved area and buried utilities, no Stage 2 required

Plate 14: Southeast view of the Silver Birch Trail Study Area; Proposed work is within the disturbed paved area and buried utilities, no Stage 2 required

Plate 15: Southeast view of the Silver Birch Trail Study Area; Area is disturbed, no Stage 2 required

Plate 16: Southeast view of the Silver Birch Trail Study Area; Area is disturbed, no Stage 2 required

Plate 17: Northwest view of the Silver Birch Trail Study Area; Area is disturbed, no Stage 2 required

Plate 18: Southeast view of the Silver Birch Trail Study Area and Rattray Marsh Trail; Temporary work space north of the paved area and buried utilities exhibits potential, requires Stage 2 test pit survey

STAGE 2 ARCHAEOLOGICAL ASSESSMENT
ASSIGNMENT 1: SEWAGE PUMPING STATION UPGRADES IN MISSISSAUGA
PART OF LOTS 5 AND 7, RANGE 1 CREDIT INDIAN RESERVE, PART OF LOT 6, RANGE 2 CREDIT INDIAN RESERVE, AND PART OF LOT 26, CONCESSION 3 SOUTH OF DUNDAS STREET
FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL, ONTARIO

ORIGINAL REPORT

Prepared for:

Cole Engineering Group Ltd.
195 King Street, Unit 205
St. Catherine's, ON, L2R 3J6
T: 416.525.5462

Archaeological Licence P094 (Merritt)
Ministry of Tourism, Culture and Sport PIF# P094-0248-2017
ASI File: 17EA-085

08 January 2018

ASI Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 F 416-966-9723 asiheritage.ca

Stage 2 Archaeological Assessment
Assignment 1: Sewage Pumping Station Upgrades in Mississauga
Part of Lots 5 and 7, Range 1 Credit Indian Reserve,
Part of Lot 6, Range 2 Credit Indian Reserve, and
Part of Lot 23, Concession 3 South of Dundas Street
Former Township of Toronto, County of Peel
City of Mississauga, Regional Municipality of Peel, Ontario

EXECUTIVE SUMMARY

Archaeological Services Inc. (ASI) was contracted by Cole Engineering Group Ltd. on behalf of the City of Mississauga, to conduct a Stage 2 Archaeological Assessment (Property Assessment) for the proposed Sewage Pumping Station Upgrades, Detailed Design. The project involves the replacement of three existing sewage pumping stations: Rosemere Road, Indian Road, and Silver Birch Trail. The combined study area for the three pumping station locations is approximately 0.35 ha in size.

A Stage 1 archaeological assessment was previously completed to assess the archaeological potential of the study area for this project. ASI completed this assessment in 2017 and the results were summarized in a report submitted to the Ministry of Tourism, Culture and Sport. The Stage 1 determined that portions of each pumping station location in the study area retain potential for archaeological resources. A Stage 2 Archaeological Assessment was recommended prior to any ground disturbing activities.

The Stage 2 property survey was conducted by ASI on 10 October 2017 in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists* (S & G). Judgemental test pit survey at 5 to 10 metre intervals was completed on all lands with archaeological potential, where appropriate, in the study area. All test pits showed disturbed soil profiles.

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

1. The study area for the proposed Mississauga Sewage Pumping Station Upgrades, including the Rosemere Road, Indian Road, and Silver Birch Trail sewage pumping stations, has been fully documented and no further archaeological assessment is required on these lands; and,

2. Should the proposed work extend beyond the current study area, further archaeological assessment must be conducted to determine the archaeological potential of the surrounding lands.

PROJECT PERSONNEL

Senior Project Manager:	Lisa Merritt, MSc. (P094) *Partner / Director - Environmental Assessment Division*
Project Manager:	Sarah Jagelewski, BA (Hon) (R405) *Archaeologist / Assistant Manager - Environmental Assessment Division*
Project Director (Licensee):	Lisa Merritt, MSc. (P094)
Field Director:	Alanna Martini, BA (R1088)
Field Archaeologists	Meagan Butt, MA Emily Meikle, MMSt
Report Preparation:	Michael Brand, PhD (P160) *Archaeologist / Technical Writer - Environmental Assessment Division*
Graphics:	Blake Williams, MLitt (P383) *Geomatics Specialist, Staff Archaeologist*
Report Reviewers:	Lisa Merritt Sarah Jagelewski

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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Cole Engineering Group Ltd., on behalf of the Region of Peel, to conduct a Stage 2 Archaeological Assessment (Property Assessment) for the proposed Sewage Pumping Station Upgrades, Detailed Design (Figure 1). The project involves the replacement of three existing sewage pumping stations (SPS): Rosemere Road, Indian Road, and Silver Birch Trail. The combined study area for the three pumping station locations is approximately 0.35 ha.

Following the *Standards and Guidelines for Consultant Archaeologists* (S & G), the objectives for this report are:

- To provide information about the geography, history, previous archaeological fieldwork and current land condition of the study area (Stage 1 background study);
- To document all archaeological resources in the study area;
- To determine whether the study area contains archaeological resources with cultural heritage value or interest (CHVI) that would require further assessment; and,
- To recommend appropriate Stage 3 Site-specific Assessment strategies for any archaeological sites identified.

This report addresses these objectives in terms of the Project as follows: Section 1.0 first identifies the development context for the Project, then summarizes the historical and archaeological context represented by the Stage 1 background study and property inspection that was previously conducted; Section 2.0 first outlines the field methods employed to conduct the Stage 2 fieldwork, then summarizes the survey results; Section 3.0 documents archaeological resources that were recovered; Section 4.0 provides an analysis on the background research and the fieldwork completed; Section 5.0 presents recommendations for the next assessment steps; and the remaining sections contain other report information that is required by the S & G, which is administered by the Ministry of Tourism, Culture and Sport (MTCS), such as advice on compliance with legislation, references cited, photo-documentation and mapping.

1.1 Development Context

All work has been undertaken as required by the Environmental Assessment Act, RSO (1990) and regulations made under the Act, and are therefore subject to all associated legislation. This project was conducted in accordance with the Municipal Engineers' Association Municipal Class Environmental Assessment (2000 as amended in 2007, 2011 and 2015) document.

The Stage 2 is being conducted to satisfy recommendations made in the Stage 1 archaeological assessment that was undertaken by ASI in 2017 under the Municipal Class EA process.

All activities carried out during this assessment were completed in accordance with the terms of the *Ontario Heritage Act* and the S & G.

Authorization to carry out the activities necessary for the completion of the Stage 2 Archaeological Assessment, including permission to access the study area was granted to ASI by Cole Engineering Group Ltd. on 07 June 2017.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use, the settlement history and any other relevant historical information gathered through the previous Stage 1 background research, supplemented where necessary. First, a summary is presented of the current understanding of the Indigenous land use of the study area. This is followed by a review of Euro-Canadian settlement history.

1.2.1 Indigenous History

The background research (ASI 2017) determined that the study area has been occupied by Indigenous peoples for millennia. The study area is within the Credit River watershed, which has a well-documented ancestral Huron-Wendat settlement sequence. In the 1640s, the traditional enmity between the Haudenosaunee[1] and the Huron-Wendat led to the dispersal of the Huron-Wendat. The study area was subsequently utilized by the Haudenosaunee, who established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. The Haudenosaunee abandoned their north shore settlements by the late 1680s, although they did not relinquish their interest in the resources of the area. The territory was immediately occupied or re-occupied by Anishinaabek groups, including the Mississauga, Ojibwa (or Chippewa) and Odawa. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century. The Crown acknowledged the Mississaugas as the owners of the lands between Georgian Bay and Lake Simcoe and entered into negotiations tracts of land to facilitate European settlement.

1.2.2 Euro-Canadian Settlement History

Historically, the three sewage pumping stations that make up the study area are located in the former Township of Toronto, County of Peel as follows: the Rosemere Road SPS is located on part of Lot 5, Range 1 Credit Indian Reserve (CIR); the Indian Road SPS is within the historical road allowance between Lot 6 Range 2 CIR and Lot 7 Range 1 CIR; and the Silver Birch Trail SPS is on part of Lot 23, Concession 3 South of Dundas Street (SDS).

Township of Toronto

The Township of Toronto was originally surveyed in 1806 by Samuel Wilmot, Deputy Surveyor. The first settler was Colonel Thomas Ingersoll. The population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until war broke out in 1812. When the war was over, the Township's growth revived and the rear part of the Township

[1] The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois, and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian–speaking groups - the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.

was surveyed and called the "New Survey." Several villages of varying sizes had developed by the end of the nineteenth century, including Streetsville, Meadowvale, Churchville, and Malton. A number of crossroad communities, including Britannia, Derry, Frasers Corners, Palestine, Mt. Charles, and Grahamsville, began to grow by the end of the nineteenth century.

Port Credit

Around 1804, Col. Ingersoll built a trading store, and a Government Inn was established on the east bank of the Credit River to accommodate and direct new settlers. Port Credit was officially surveyed and established as a village in 1834. The land on the west side of the Credit River was the first to be surveyed and developed. In 1856, a survey of the land on the east side of the river was undertaken, and surveyed lots between the lakefront and the railway were quickly occupied. Port Credit attained status as a police village by 1909, and in 1961, it was incorporated as a town. In 1974, Port Credit amalgamated with the City of Mississauga (Heritage Mississauga 2009a).

Clarkson

Settlement began in this rural village in 1807 after the first survey. The area was originally referred to as "Merigold's Point", and later became known as "Clarkson's Corners" after early settler Warren Clarkson, who operated the post office and general store. By 1850, the road bordering Warren Clarkson's property was known as Clarkson Road. The Great Western Railway built a train station on part of Clarkson's property in 1855 (Heritage Mississauga 2009b).

1.3 Archaeological Context

1.3.1 Previous Archaeological Research

According to a 2017 review of the Ontario Archaeological Sites Database (OASD), which is maintained by the MTCS, there are 22 previously registered archaeological sites within 1 km of the study area (MTCS 2017). Sites located within 1 km of each pumping station are shown in Tables 1-3.

Table 1: List of previously registered sites within 1 km of the Rosemere Road Pumping Station study area.

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
AjGv-1	Hare	Archaic, Laurentian; Middle Woodland	Camp	TRCA 2012
AjGv-4	Stillmeadow	Unknown	Unknown	1971
AjGv-5	Glenburny	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-8	Eley	Archaic	Camp	Konrad 1971
AjGv-9	Avonbridge	Archaic	Camp	Konrad 1972
AjGv-10	Stavebank	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-11	Port Street	Unknown	Unknown	1971
AjGv-13	Fort Toronto	Post-contact	Village	Konrad 1971
AjGv-32	Scott-O'Brien	Middle Woodland, Pickering and Point Penninsula	Camp	MPP 1988; ASI 1991
AjGv-57	Rewa	Middle Woodland	Burial	ASI 2003
AjGv-71	James Taylor	Unknown	Unknown	2010
AjGv-73	AjGv-73	Euro-Canadian; Middle Woodland	Scatter	ASI 2011
AjGv-74	Stavebank Roal	Late Archaic, Middle Woodland		ASI 2011, Woodley 2012

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
AjGv-75	AjGv-75	Archaic	Scatter	ASI 2011
AjGv-83	N/A	Middle-Late Archaic, Woodland	Camp	ASI 2016, 2017
AjGv-84	Kane	Euro-Canadian; Woodland	Unknown	NDA 2014

Table 2: List of previously registered sites within 1 km of the Indian Road Pumping Station study area.

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
AjGv-1	Hare	Archaic, Laurentian; Middle Woodland	Camp	TRCA 2012
AjGv-3	Hogsback	Pre-Contact Indigenous	Burial	ROM 19; NDA 2011
AjGv-4	Stillmeadow	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-5	Glenburny	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-9	Avonbridge	Archaic	Camp	Konrad 1972
AjGv-10	Stavebank	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-17	Nunan	Pre-Contact Indigenous	Camp	Konrad 1972
AjGv-32	Scott-O'Brien	Middle Woodland, Pickering and Point Penninsula	Camp	MPP 1988; ASI 1991
AjGv-46	N/A	Pre-Contact Indigenous	Findspot	ASI 1999
AjGv-47	N/A	Pre-Contact Indigenous	Findspot	ASI 1999
AjGv-48	N/A	Pre-Contact Indigenous	Findspot	ASI 2000
AjGv-49	Klinker	Late Archaic	Scatter	ASI 2000
AjGv-50	Atoka	Early and Middle Woodland	Scatter	ASI 2001
AjGv-57	Rewa	Middle Woodland	Burial	ASI 2003
AjGv-73	AjGv-73	Euro-Canadian; Middle Woodland	Scatter	ASI 2011
AjGv-74	Stavebank Roal	Late Archaic; Middle Woodland	Camp	ASI 2011; NDA 2012
AjGv-75	AjGv-75	Pre-Contact Indigenous	Scatter	ASI 2011
AjGv-83	N/A	Middle-Late Archaic, Woodland	Camp	ASI 2016, 2017
AjGv-84	Kane	Euro-Canadian; Woodland	Unknown	NDA 2014

Table 3: **List of previously registered sites within 1 km of the Silver Birch Trail Pumping Station study area.**

Borden	Site Name	Cultural Affiliation	Site Type	Researcher
AjGv-82	Rattray Marsh	Indigenous Pre-Contact	Camp	TRCA 2012

1.3.2 Current Land Use and Field Conditions

The study area is within modern residential subdivisions in the City of Mississauga. Rosemere Road is a dead-end road northwest of the railway line, and northeast of Stavebank Road on the east bank of the Credit River. The existing Rosemere Road SPS is located at the end of the road. Indian Road terminates at Temagami Crescent on the west bank of the Credit River and the existing SPS is between two houses. Silver Birch Trail terminates southeast of Marshwood Place at the Rattray Marsh Conservation Area. The existing SPS is located adjacent to a house and the entrance to the Silver Birch Trail in the Rattray Marsh Conservation Area.

The Stage 2 property survey was conducted under the field direction of Alanna Martini (R1088) on 10 October 2017, in accordance with the *Ontario Heritage Act* and the S & G, Section 2.1.

1.3.3 Physiography

The study area is situated in the Iroquois Plain physiographic region of Southern Ontario, a lowland region bordering Lake Ontario. This region is characteristically flat, and was formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of 300 km (Chapman and Putnam 1984:190). The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman and Putnam 1984:196). The study area include sand plains and shale plains.

Surficial geology mapping demonstrates that the study area is underlain by coarse textured glaciolacustraine deposits of sand and gravel, with a part of the Silver Birch Trail component underlain by modern alluvial deposits of sand (Ontario Geological Survey 2010). Soils in the study area consist of Bottom Land, an alluvial soil with imperfect drainage, and Fox Sand, a grey-brown podzolic well-sorted outwash soil with good drainage.

The study area is within the Credit River watershed, which drains an area of approximately 860 square kilometres from its headwaters in Orangeville, Erin, and Mono, passing through part of the Niagara Escarpment and the Oak Ridges Moraine, and draining into Lake Ontario at the town of Port Credit (Credit Valley Conservation 2009). Parts of the study area is within the Sheridan Creek sub-watershed, including Kenollie Creek. This sub-watershed is a long, narrow, urbanized watershed located on the west side of the City of Mississauga, which drains an area of approximately 1,035 hectares into Rattray Marsh on Lake Ontario (Aquafor Beech Ltd. 2011). Increased development of the Sheridan Creek watershed in the twentieth century led to major modifications to the Sheridan Creek watercourse. The Rattray Marsh Conservation Area is one of the last remaining baymouth bar coastal wetlands on the western end of Lake Ontario, and supports a wide variety of plant and animal life (Harrington and Hoyle Ltd. 2009).

2.0 FIELD METHODS

The Stage 2 property survey of the Mississauga Sewage Pumping Station Upgrade study area was conducted on 10 October 2017, under the field direction of Alanna Martini (R1088), in accordance with the *Ontario Heritage Act* and the S & G, Section 2.1. Weather conditions for the property survey were appropriate for the completion of fieldwork, permitting good visibility of land features as per S & G Section 2.1, Standard 3. The Stage 2 study area is approximately 0.35 ha in size. The Stage 1 assessment determined that approximately 85% (0.30 ha) of the study area had been previously disturbed and had no archaeological potential (Plates 1-3). The remaining 15% (0.05 ha) requires Stage 2 assessment by test pit survey.

Lands that exhibited archaeological potential were assessed by test pit survey in accordance with the S & G, Section 2.1.2. The test pit survey was started at a 5 m interval; all initial test pits indicated disturbed ground. Based on these results the test pit survey was changed to judgemental testing at a 10 m interval (Figures 2-4, Plates 4-8) to confirm previous disturbance, in accordance with Section 2.1.8 of the S & G. All test pits were excavated by hand following the S & G, Section 2.1.2, Standards 2-9. All test pits were excavated to a minimum of 30 cm in diameter and, where possible, into the first 5 cm of subsoil. Test pits were examined for stratigraphy, cultural features, and evidence of fill, and all excavated soil was

screened through 6 mm mesh to facilitate artifact recovery. Afterwards, all test pits were backfilled and their locations recorded. Factors that precluded the excavation of test pits (i.e., previous disturbance) were noted and the areas mapped and photographed, as per the S & G, Section 2.1, Standard 6, and Section 7.8.6.

The Rosemere Road SPS portion of the study area is 0.13 ha in size, of which 0.10 ha was previously assessed as disturbed, and 0.03 ha was subject to judgemental test pit survey at 5 m to 10 m intervals. Test pits were judgementally placed where possible. The stratigraphic profile for test pits consisted of 20 cm of disturbed, brownish grey clay (10YR 4/1) that contained gravel, asphalt and coal. Between 20 cm and 40 cm below surface yellowish brown subsoil (10YR 5/8) was mixed in with the clay. Between 40 cm and 55 cm below surface the matrix consisted of subsoil mixed with grey clay. At 55 cm below surface the test began to fill with water (Plate 6).

The Indian Road SPS portion of the study area is 0.13 ha in size, of which 0.12 ha was previously assessed as disturbed, and 0.01 ha was subject to judgemental test pit survey at 5 m to 10 m intervals. Test pits were judgementally placed where possible given the disturbance and small size of the study area. Test pit profiles consisted of a dull yellow orange (10YR 6/3) sand fill with grey clay inclusions immediately below the sod (Plate 7). Test pits excavated to 100 cm below surface did not find subsoil, indicating that this area has been heavily disturbed.

The Silver Birch Trail SPS portion of the study area is 0.09 ha in size, of which 0.08 ha was previously assessed as disturbed, and 0.01 ha was subject to judgemental test pit survey at 5 m to 10 m intervals. Disturbance at the Silver Birch Trail SPS portion of the study area is visually obvious. Test pits were judgementally placed where possible given the disturbance. Stratigraphic profiles consisted of sand fill with asphalt, gravel and grey clay inclusions; overlying bright yellowish brown sand (10YR 6/8) subsoil (Plate 8).

3.0 RECORD OF FINDS

No archaeological resources were recovered during the Stage 2 property survey of the Mississauga Sewage Pumping Station Upgrades study area.

3.1 Documentary and Material Record

The documentation related to this archaeological assessment will be curated by ASI until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the MTCS, and any other legitimate interest groups.

Table 4 provides an inventory and location of the documentary and material record for the project in accordance with the S & G, Sections 6.7 and 7.8.2.3.

Table 4: Inventory of Documentary and Material Record

Document/Material	Location	Comments
Written Field Notes, Annotated Field Maps, GPS Logs, etc.	Archaeological Services Inc., 528 Bathurst Street, Toronto, ON M5S 2P9	Field notes hard copy, GPS data (digital)
Field Photography (Digital)	As above	Stored on ASI network servers
Research/Analysis/Reporting Materials (Various Formats)	As above	Hard copy and/or digital files stored on ASI network servers

4.0 ANALYSIS AND CONCLUSIONS

A Stage 2 Archaeological Assessment was conducted as part of the Mississauga Sewage Pumping Station Upgrades Detailed Design, following recommendations made in the Stage 1 report previously completed by ASI (2017).

The Stage 2 property survey was conducted by means of judgemental test pit survey at 5 m and 10 m intervals. No archaeological resources were identified during the course of the Stage 2 assessment.

5.0 RECOMMENDATIONS

In light of the above results, ASI makes the following recommendations:

1. The study area for the Mississauga Sewage Pumping Station Upgrades, including the Rosemere Road, Indian Road, and Silver Birch Trail sewage pumping stations, has been fully documented, and no further archaeological assessment is required on these lands; and

2. Should the proposed work extend beyond the current study area, further archaeological assessment must be conducted to determine the archaeological potential of the surrounding lands.

Notwithstanding the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Archaeology Programs Unit of the MTCS should be immediately notified.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

In addition, the following advice on compliance is provided:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the MTCS, a letter will be issued by the Ministry stating

that there are no further concerns with regard to alterations to archaeological sites by the proposed development;

- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*;

- 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 sec. 48 (1) of the *Ontario Heritage Act*; and

- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

7.0 REFERENCES CITED

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2017 PastPortal

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8.0 MAPPING

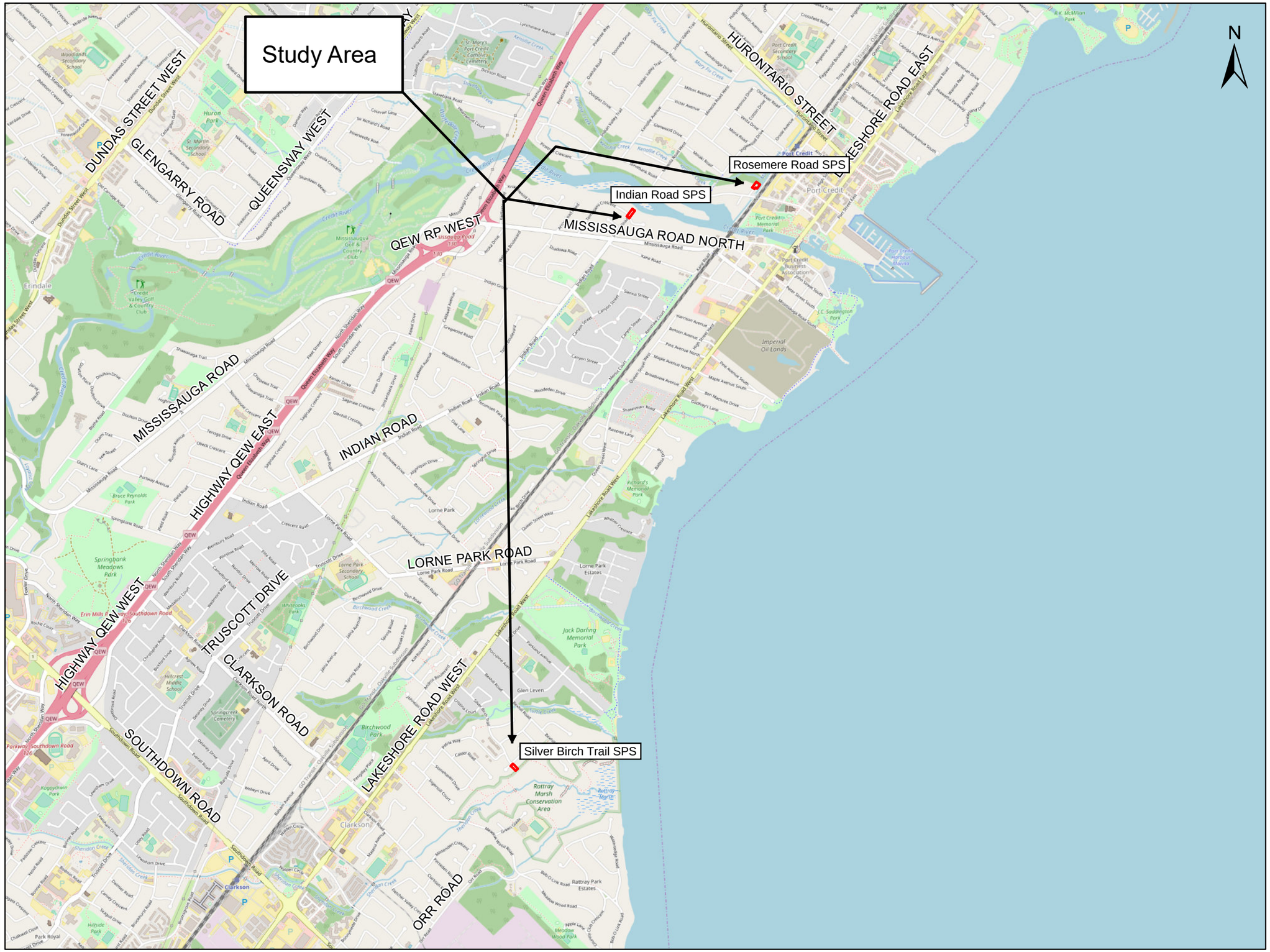
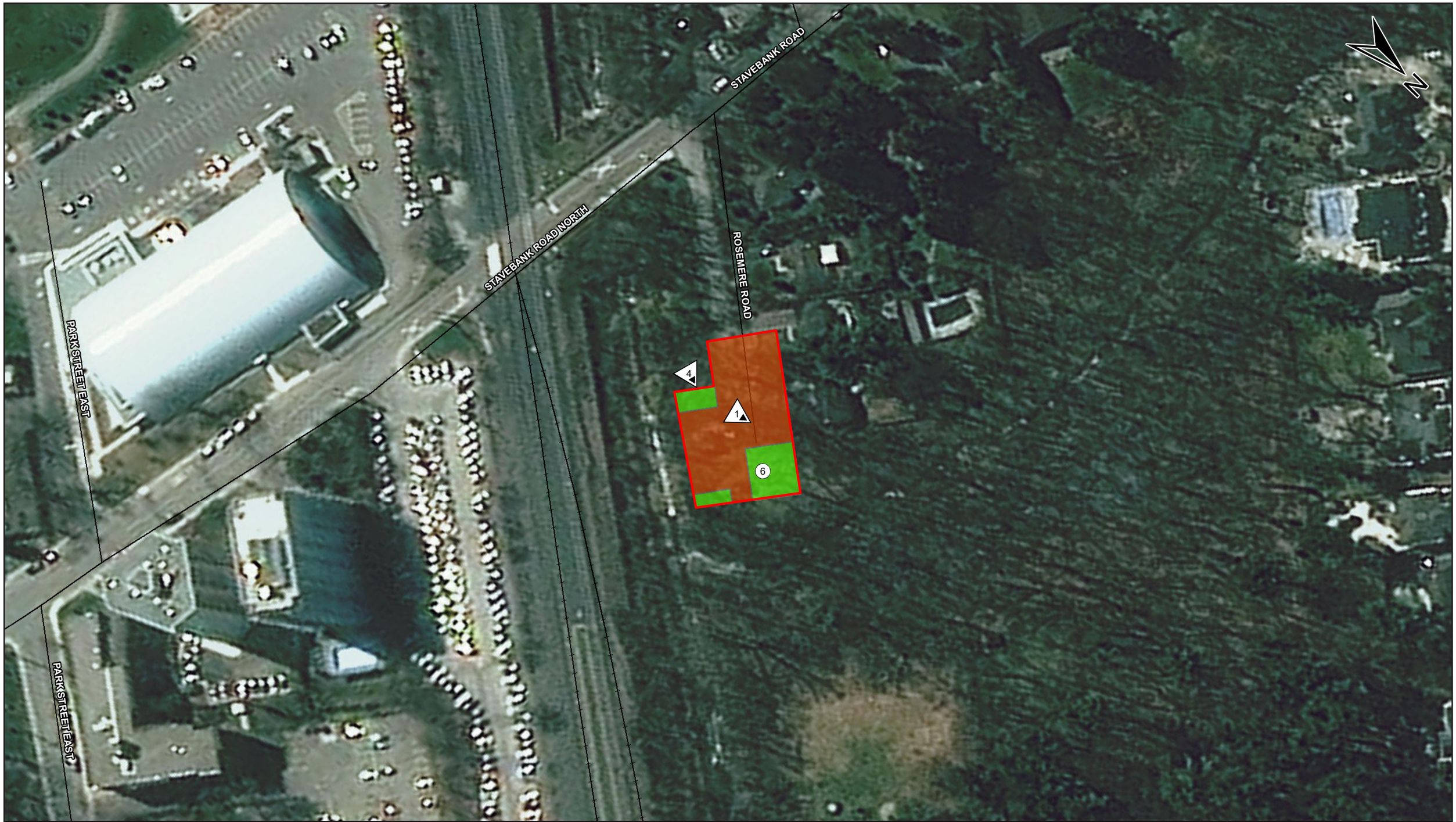


Figure 1: Assignment 1: SPS Study Area Locations



Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 | F416-966-9723 | asiheritage.ca

Study Area
Photo Plate
Detail Photo
Roads
Judgmental Test Pit Survey: 5-10 m Intervals
No Potential (ASI 2017)

BASE:
Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 50
Metres

ASI PROJECT NO.: 17EA-085
DATE: 13-Nov-17
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Figure 2: Assignment 1: SPS Stage 2 Property Survey Results - Rosemere Road

Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 | F416-966-9723 | asiheritage.ca

Study Area
Photo Plate
Detail Photo
Roads
Judgmental Test Pit Survey: 5-10m Intervals
No Potential (ASI 2017)

BASE:
Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 50
Metres

ASI PROJECT NO.: 17EA-085
DATE: 13-Nov-17
DRAWN BY: BW
FILE: 17EA085_Fig3_Indn

Figure 3: Assignment 1: SPS Stage 2 Property Survey - Indian Road

Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 | F416-966-9723 | asiheritage.ca

Study Area
Photo Plate
Detail Photo
Roads
Judgmental Test Pit Survey: 5-10 m Intervals
No Potential (ASI 2017)

BASE:
Ortho
Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

0 50
Metres

ASI PROJECT NO.: 17EA-085
DATE: 13-Nov-17
DRAWN BY: BW
FILE: 17EA085_Fig4_Silvr

Figure 4: Assignment 1: SPS Stage 2 Property Survey - Silver Birch Trail

9.0 IMAGES

Plate 1: View north at previous disturbance at the Rosemere Road SPS study area.

Plate 2: View northeast at previous disturbance at the Indian Road SPS study area.

Plate 3: View southwest at previous disturbance at the Silver Birch Trail SPS study area.

Plate 4: View northeast, showing crew test pitting adjacent to structure at Rosemere Road SPS study area.

Plate 5: View west, showing crew test pitting at the Indian Road SPS study area.

Plate 6: Disturbed test pit profile at the Rosemere Road SPS study area.

Plate 7: Disturbed test pit profile at the Indian Road SPS study area.

Plate 8: Disturbed test pit profile at the Silver Birch Trail SPS study area

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Ministry of Tourism, Culture and Sport

Archaeology Programs Unit
Programs and Services Branch
Culture Division
401 Bay Street, Suite 1700
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Tel.: (416) 314-7152
Email: Sarah.Roe@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes d'archéologie
Direction des programmes et des services
Division de culture
401, rue Bay, bureau 1700
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Ontario

Aug 22, 2017

Jessica Lytle (P1066)
ASI Archaeological and Cultural Heritage Services
200 - 2321 Fairview Burlington ON L7R 2E3

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "STAGE 1 ARCHAEOLOGICAL ASSESSMENT ASSIGNMENT 1: SEWAGE PUMPING STATION UPGRADES IN MISSISSAUGA PART OF LOTS 5 AND 7, RANGE 1 CREDIT INDIAN RESERVE, PART OF LOT 6 RANGE 2 CREDIT INDIAN RESERVE, AND PART OF LOT 23, CONCESSION 3 SOUTH OF DUNDAS STREET (FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL) CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL, ONTARIO", Dated May 5, 2017, Filed with MTCS Toronto Office on Jul 5, 2017, MTCS Project Information Form Number P1066-0029-2017, MTCS File Number 0006577

Dear Ms. Lytle:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 Standards and Guidelines for Consultant Archaeologists set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figure8 : Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection at Rosemere Road (Sheet1) and Figure 9: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection (Sheet 2) and Figure 10: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection (Sheet 3)of the above titled report and recommends the following:

1. The Study Areas exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at a five metre intervals prior to any proposed impacts to the property;

2. The remainder of the Study Areas do not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,

3. Should the proposed work extend beyond the current Study Areas, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Sarah Roe
Archaeology Review Officer

cc. Archaeology Licensing Officer
Jennifer Whittard,Cole Engineering Group Ltd.
Jimmy Chong,Regional Municipality of Peel, Wastewater Division

[1]In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

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Ontario

Ministry of Tourism, Culture and Sport

Programs & Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7

Criteria for Evaluating Archaeological Potential

A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area may contain archaeological resources i.e., have archaeological potential
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Archaeological assessment

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a licensed consultant archaeologist (see page 4 for definitions) to undertake an archaeological assessment.

The assessment will help you:

- identify, evaluate and protect archaeological resources on your property or project area
- reduce potential delays and risks to your project

Note: By law, archaeological assessments **must** be done by a licensed consultant archaeologist. Only a licensed archaeologist can assess – or alter – an archaeological site.

What to do if you:

- **find an archaeological resource**

  If you find something you think may be of archaeological value during project work, you must – by law – stop all activities immediately and contact a licensed consultant archaeologist

  The archaeologist will carry out the fieldwork in compliance with the *Ontario Heritage Act* [s.48(1)].

- **unearth a burial site**

  If you find a burial site containing human remains, you must immediately notify the appropriate authorities (i.e., police, coroner's office, and/or Registrar of Cemeteries) and comply with the *Funeral, Burial and Cremation Services Act*.

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – separate checklist
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages when completing this form.

Project or Property Name

Indian Road Sanitary Trunk Sewer

Project or Property Location (upper and lower or single tier municipality)

Region of Peel, City of Mississauga

Proponent Name

Region of Peel

Proponent Contact Information

Lyle LeDrew, Project Manager, Wastewater Capital Works, 905-791-7800 Ext 7836

Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	☐	☑

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

	Yes	No
2. Has an archaeological assessment been prepared for the property (or project area) and been accepted by MTCS?	☐	☑

If Yes, do **not** complete the rest of the checklist. You are expected to follow the recommendations in the archaeological assessment report(s).

The proponent, property owner and/or approval authority will:

- summarize the previous assessment
- add this checklist to the project file, with the appropriate documents that demonstrate an archaeological assessment was undertaken e.g., MTCS letter stating acceptance of archaeological assessment report

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g., environmental assessment document
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Are there known archaeological sites on or within 300 metres of the property (or the project area)?	☐	☑
4. Is there Aboriginal or local knowledge of archaeological sites on or within 300 metres of the property (or project area)?	☐	☑
5. Is there Aboriginal knowledge or historically documented evidence of past Aboriginal use on or within 300 metres of the property (or project area)?	☐	☑
6. Is there a known burial site or cemetery on the property or adjacent to the property (or project area)?	☐	☑
7. Has the property (or project area) been recognized for its cultural heritage value?	☐	☑

If Yes to any of the above questions (3 to 7), do **not** complete the checklist. Instead, you need to hire a licensed consultant archaeologist to undertake an archaeological assessment of your property or project area.

If No, continue to question 8.

	Yes	No
8. Has the entire property (or project area) been subjected to recent, extensive and intensive disturbance?	☑	☐

If Yes to the preceding question, do **not** complete the checklist. Instead, please keep and maintain a summary of documentation that provides evidence of the recent disturbance.

An archaeological assessment is not required.

If No, continue to question 9.

	Yes	No
9. Are there present or past water sources within 300 metres of the property (or project area)?	☐	☐

If Yes, an archaeological assessment is required.

If No, continue to question 10.

	Yes	No
10. Is there evidence of two or more of the following on the property (or project area)?	☐	☐

- elevated topography
- pockets of well-drained sandy soil
- distinctive land formations
- resource extraction areas
- early historic settlement
- early historic transportation routes

If Yes, an archaeological assessment is required.

If No, there is low potential for archaeological resources at the property (or project area).

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g., under the *Environmental Assessment Act, Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

In this context, the following definitions apply:

- **consultant archaeologist** means, as defined in Ontario regulation as an archaeologist who enters into an agreement with a client to carry out or supervise archaeological fieldwork on behalf of the client, produce reports for or on behalf of the client and provide technical advice to the client. In Ontario, these people also are required to hold a valid professional archaeological licence issued by the Ministry of Tourism, Culture and Sport.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may be already in place for identifying archaeological potential, including:

- one prepared and adopted by the municipality e.g., archaeological management plan
- an environmental assessment process e.g., screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport under the Ontario government's Standards & Guidelines for Conservation of Provincial Heritage Properties [s. B.2.]

2. Has an archaeological assessment been prepared for the property (or project area) and been accepted by MTCS?

Respond 'yes' to this question, if all of the following are true:

- an archaeological assessment report has been prepared and is in compliance with MTCS requirements
  - a letter has been sent by MTCS to the licensed archaeologist confirming that MTCS has added the report to the Ontario Public Register of Archaeological Reports (Register)
- the report states that there are no concerns regarding impacts to archaeological sites

Otherwise, if an assessment has been completed and deemed compliant by the MTCS, and the ministry recommends further archaeological assessment work, this work will need to be completed.

For more information about archaeological assessments, contact:

- approval authority
- proponent
- consultant archaeologist
- Ministry of Tourism, Culture and Sport at archaeology@ontario.ca

3. Are there known archaeological sites on or within 300 metres of the property (or project area)?

MTCS maintains a database of archaeological sites reported to the ministry.

For more information, contact MTCS Archaeological Data Coordinator at archaeology@ontario.ca.

4. Is there Aboriginal or local knowledge of archaeological sites on or within 300 metres of the property?

Check with:

- Aboriginal communities in your area
- local municipal staff

They may have information about archaeological sites that are not included in MTCS' database.

Other sources of local knowledge may include:

- property owner
- local heritage organizations and historical societies
- local museums
- municipal heritage committee
- published local histories

5. Is there Aboriginal knowledge or historically documented evidence of past Aboriginal use on or within 300 metres of the property (or property area)?

Check with:

- Aboriginal communities in your area
- local municipal staff

Other sources of local knowledge may include:

- property owner
- local heritage organizations and historical societies
- local museums
- municipal heritage committee
- published local histories

6. Is there a known burial site or cemetery on the property or adjacent to the property (or project area)?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulation Unit, Ontario Ministry of Consumer Services – for database of registered cemeteries
- Ontario Genealogical Society (OGS) – to locate records of Ontario cemeteries, both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to locate early cemeteries

In this context, 'adjacent' means 'contiguous', or as otherwise defined in a municipal official plan.

7. Has the property (or project area) been recognized for its cultural heritage value?

There is a strong chance there may be archaeological resources on your property (or immediate area) if it has been listed, designated or otherwise identified as being of cultural heritage value by:

- your municipality
- Ontario government
- Canadian government

This includes a property that is:

- designated under *Ontario Heritage Act* (the OHA), including:
  - individual designation (Part IV)
  - part of a heritage conservation district (Part V)
  - an archaeological site (Part VI)
- subject to:
  - an agreement, covenant or easement entered into under the OHA (Parts II or IV)
  - a notice of intention to designate (Part IV)
  - a heritage conservation district study area by-law (Part V) of the OHA
- listed on:
  - a municipal register or inventory of heritage properties
  - Ontario government's list of provincial heritage properties
  - Federal government's list of federal heritage buildings
- part of a:
  - National Historic Site
  - UNESCO World Heritage Site
- designated under:
  - *Heritage Railway Station Protection Act*
  - *Heritage Lighthouse Protection Act*
- subject of a municipal, provincial or federal commemorative or interpretive plaque.

To determine if your property or project area is covered by any of the above, see:

- Part A of the MTCS Criteria for Evaluating Potential for Built Heritage and Cultural Heritage Landscapes

Part VI – Archaeological Sites

Includes five sites designated by the Minister under Regulation 875 of the Revised Regulation of Ontario, 1990 (Archaeological Sites) and 3 marine archaeological sites prescribed under Ontario Regulation 11/06.

For more information, check Regulation 875 and Ontario Regulation 11/06.

8. Has the entire property (or project area) been subjected to recent extensive and intensive ground disturbance?

Recent: after-1960

Extensive: over all or most of the area

Intensive: thorough or complete disturbance

Examples of ground disturbance include:

- quarrying
- major landscaping – involving grading below topsoil
- building footprints and associated construction area
  - where the building has deep foundations or a basement
- infrastructure development such as:
  - sewer lines
  - gas lines
  - underground hydro lines
  - roads
  - any associated trenches, ditches, interchanges. **Note**: this applies only to the excavated part of the right-of-way; the remainder of the right-of-way or corridor may not have been impacted.

A ground disturbance does **not** include:

- agricultural cultivation
- gardening
- landscaping

Site visits

You can typically get this information from a site visit. In that case, please document your visit in the process (e.g., report) with:

- photographs
- maps
- detailed descriptions

If a disturbance isn't clear from a site visit or other research, you need to hire a licensed consultant archaeologist to undertake an archaeological assessment.

9. Are there present or past water bodies within 300 metres of the property (or project area)?

Water bodies are associated with past human occupations and use of the land. About 80-90% of archaeological sites are found within 300 metres of water bodies.

Present

- Water bodies:
  - primary - lakes, rivers, streams, creeks
  - secondary - springs, marshes, swamps and intermittent streams and creeks
- accessible or inaccessible shoreline, for example:
  - high bluffs
  - swamps
  - marsh fields by the edge of a lake
  - sandbars stretching into marsh

Water bodies not included:

- man-made water bodies, for example:
  - temporary channels for surface drainage
  - rock chutes and spillways
  - temporarily ponded areas that are normally farmed
  - dugout ponds
- artificial bodies of water intended for storage, treatment or recirculation of:
  - runoff from farm animal yards
  - manure storage facilities
  - sites and outdoor confinement areas

Past

Features indicating past water bodies:

- raised sand or gravel beach ridges – can indicate glacial lake shorelines
- clear dip in the land – can indicate an old river or stream
- shorelines of drained lakes or marshes
- cobble beaches

You can get information about water bodies through:

- a site visit
- aerial photographs
- 1:10,000 scale Ontario Base Maps - or equally detailed and scaled maps.

10. Is there evidence of two or more of the following on the property (or project area)?

- elevated topography
- pockets of well-drained sandy soil
- distinctive land formations
- resource extraction areas
- early historic settlement
- early historic transportation routes

- **Elevated topography**

  Higher ground and elevated positions - surrounded by low or level topography - often indicate past settlement and land use.

  Features such as eskers, drumlins, sizeable knolls, plateaus next to lowlands, or other such features are a strong indication of archaeological potential.

  Find out if your property or project area has elevated topography, through:

  - site inspection
  - aerial photographs
  - topographical maps

- **Pockets of well-drained sandy soil, especially within areas of heavy soil or rocky ground**

  Sandy, well-drained soil - in areas characterized by heavy soil or rocky ground - may indicate archaeological potential

  Find out if your property or project area has sandy soil through:

  - site inspection
  - soil survey reports

- **Distinctive land formations**

  Distinctive land formations include – but are not limited to:

  - waterfalls
  - rock outcrops
  - rock faces
  - caverns
  - mounds, etc.

  They were often important to past inhabitants as special or sacred places. The following sites may be present – or close to – these formations:

  - burials
  - structures
  - offerings
  - rock paintings or carvings

  Find out if your property or project areas has a distinctive land formation through:

  - a site visit
  - aerial photographs
  - 1:10,000 scale Ontario Base Maps - or equally detailed and scaled maps.

- **Resource extraction areas**

  The following resources were collected in these extraction areas:

  - food or medicinal plants e.g., migratory routes, spawning areas, prairie
  - scarce raw materials e.g., quartz, copper, ochre or outcrops of chert
  - resources associated with early historic industry e.g., fur trade, logging, prospecting, mining

  Aboriginal communities may hold traditional knowledge about their past use or resources in the area.

- **Early historic settlement**

  Early Euro-Canadian settlement include – but are not limited to:

  - early military or pioneer settlement e.g., pioneer homesteads, isolated cabins, farmstead complexes
  - early wharf or dock complexes
  - pioneers churches and early cemeteries

  For more information, see below – under the early historic transportation routes.

- **Early historic transportation routes** - such as trails, passes, roads, railways, portage routes, canals.

  For more information, see:

  - historical maps and/or historical atlases
    - for information on early settlement patterns such as trails (including Aboriginal trails), monuments, structures, fences, mills, historic roads, rail corridors, canals, etc.
    - Archives of Ontario holds a large collection of historical maps and historical atlases
    - digital versions of historic atlases are available on the Canadian County Atlas Digital Project
  - commemorative markers or plaques such as local, provincial or federal agencies
  - municipal heritage committee or other local heritage organizations
    - for information on early historic settlements or landscape features (e.g., fences, mill races, etc.)
    - for information on commemorative markers or plaques

Appendix B

Heritage Impact Assessment
Heritage/Cultural Checklist

CULTURAL HERITAGE LANDSCAPE
HERITAGE IMPACT ASSESSMENT:
INDIAN ROAD SEWAGE PUMPING STATION

PART OF ROAD ALLOWANCE BETWEEN RANGE 1 AND RANGE 2 CIR
FORMER TOWNSHIP OF TORONTO, PEEL COUNTY
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL

Prepared for:

Jennifer Whittard
Cole Engineering Group Ltd.
195 King Street East
St. Catharines, ON
L2R 3J6

ASI File: 16EA-306

July 2017 (Finalized October 2017)

ASI Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
T 416-966-1069 F 416-966-9723 ASIheritage.ca

CULTURAL HERITAGE LANDSCAPE
HERITAGE IMPACT ASSESSMENT:
INDIAN ROAD SEWAGE PUMPING STATION

PART OF ROAD ALLOWANCE BETWEEN RANGE 1 AND RANGE 2 CIR
FORMER TOWNSHIP OF TORONTO, PEEL COUNTY
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL

EXECUTIVE SUMMARY

ASI was contracted by Cole Engineering Group Ltd. to conduct a Heritage Impact Assessment (HIA) of the Indian Road Sewage Pumping Station (SPS) located at the northern terminus of Indian Road, in an untravelled road allowance, in the City of Mississauga. The study area is located on the southern bank of the Credit River, which is oriented in a northwest-southeast direction adjacent to the study area. The Indian Road SPS study area is located within the Credit River Cultural Landscape, identified by the City of Mississauga as a significant natural and cultural heritage landscape (City of Mississauga 2005). The present report follows the City of Mississauga's Terms of Reference for HIAs in areas identified as Cultural Heritage Landscapes (CHLs) (City of Mississauga 2016).

Based on the results of archival research, an analysis of the structures design and construction, field investigations, and application of *Ontario Heritage Act* Regulation 9/06, the Indian Road SPS was determined not to retain any cultural heritage value. The Indian Road SPS was also found to not contribute to the landscape environment, historical association, and ecological interest of the Credit River CHL.

Accordingly, the following recommendations and mitigation measures should be considered and implemented:

1. The subject property does not meet the criteria for heritage designation under Ontario Regulation 9/06 of the *Ontario Heritage Act*, and is not considered a contributing element in the Credit River Cultural Landscape.

2. The subject property does not warrant conservation as per the definition in the *Provincial Policy Statement.*

3. Two hard copies as well as a digital version of this report should be submitted to the City of Mississauga for review and commentary from the Heritage staff, Planning and Building Department, and any other relevant stakeholders within the Corporation, and submitted to and filed with the City of Mississauga Heritage Advisory Committee.

PROJECT PERSONNEL

Senior Project Manager:	Annie Veilleux, MA Cultural Heritage Specialist, Manager, Cultural Heritage Division
Project Manager:	Lauren Archer, Hon. BA Cultural Heritage Specialist, Cultural Heritage Division
Project Administrator:	Carol Bella, Hon. BA Research Archaeologist
Project Coordinator:	Sarah Jagelewski, Hon. BA Staff Archaeologist Assistant Manager, Environmental Assessment Division
Field Survey:	Lauren Archer
Report Preparation:	John Sleath, MA Cultural Heritage Assistant, Cultural Heritage Division
	Lauren Archer
Graphics:	Blake Williams, MA Geomatics Specialist
Report Reviewer:	Annie Veilleux

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LIST OF PLATES

1.0 INTRODUCTION

ASI was contracted by Cole Engineering Group Ltd. to conduct a Heritage Impact Assessment (HIA) of the Indian Road Pumping Station located at the northern terminus of Indian Road, in an untravelled road allowance in the City of Mississauga. The Region of Peel has identified three Sewage Pumping Stations (SPS) that need to be upgraded due to their aging infrastructure, including the Indian Road SPS (397 Temagami Crescent). As a result a Schedule B Municipal Class Environmental Assessment (EA) study has been initiated to determine the best solution for the required upgrades. The study area is located on the southern bank of the Credit River, which is oriented in a northwest-southeast direction adjacent to the study area (Figure 1). The Indian Road SPS study area is located within the Credit River Cultural Landscape, identified by the City of Mississauga as a significant natural and cultural heritage landscape (City of Mississauga 2005). The present report follows the City of Mississauga's Terms of Reference for HIAs in areas identified as Cultural Heritage Landscapes (CHLs) (City of Mississauga 2016).

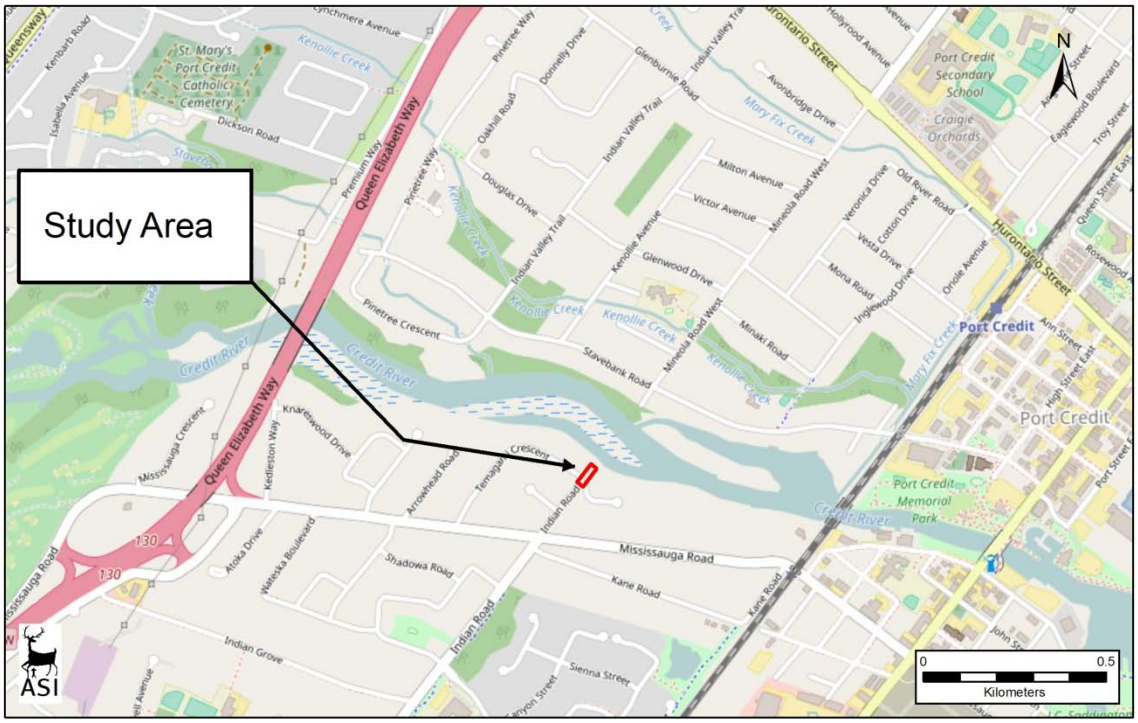

Figure 1: Location of the Study Area.

Base Map: ©OpenStreetMap and contributors,
Creative Commons-Share Alike License (CC-BY-SA ESRI Street Maps)

The following report is presented as part of an approved planning and design process subject to Environmental Assessment (EA) requirements. This portion of the EA study is intended to address the proposed replacement of the subject structure. The Indian Road SPS study area is located within the Credit River Cultural Landscape (City of Mississauga 2005), and as such, the present report is guided by the City of Mississauga's *Cultural Landscape Heritage Impact Assessment (HIA) Terms of Reference* (2016). The principal aims of this report are to:

- Describe existing conditions and heritage integrity;
- Evaluate significance of the subject property within Regulation 9/06 of the *Ontario Heritage Act* and draw conclusions about the heritage attributes of the study area; and
- If warranted, assess impacts of the undertaking, ascertaining sensitivity to change in the context of identified heritage attributes and recommend appropriate mitigation measures that would minimize negative impacts to any identified heritage attributes or resources.

2.0 LEGISLATION AND POLICY CONTEXT

Infrastructure projects have the potential to impact cultural heritage resources in a variety of ways. These include loss or displacement of resources through removal or demolition and the disruption of resources by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resources and/or their setting.

A 40-year-old threshold is used as a guiding principle when considering cultural heritage resources in the context of improvements to specified areas. While identification of a resource that is 40 years old or older does not confer outright heritage significance, this threshold provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from retaining heritage value.

The analysis used throughout the cultural heritage resource assessment process addresses cultural heritage resources under various pieces of legislation and their supporting guidelines:

- *Environmental Assessment Act* (R.S.O. 1990, Chapter E.18)
    - *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (MCC 1992)
    - *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (MCR 1981)

- *Ontario Heritage Act* (R.S.O. 1990, Chapter O.18) and a number of guidelines and reference documents prepared by the Ministry of Tourism and Culture (MTC):
    - *Ontario Heritage Tool Kit* (MCL 2006)
    - *Screening for Impacts to Built Heritage and Cultural Heritage Landscapes (November 2010)*

2.1 Municipal Context and Policies

2.1.1 The City of Mississauga

The Indian Road SPS study area is located within the Credit River Cultural Landscape (City of Mississauga 2005), and as such, the present report is guided by the City of Mississauga's *Cultural Landscape Heritage Impact Assessment (HIA) Terms of Reference* (2016). Criteria relevant to the subject resource and the present undertaking include the evaluation and conservation of the following, where applicable:

Landscape Environment
• scenic and visual quality
• natural environment
• horticultural interest
• landscape design, type and technological interest

Built Environment
• aesthetic/visual quality
• consistent with pre World War II environs
• consistent scale of built features
• unique architectural features/buildings
• designated structures

Historical Associations
• illustrates a style, trend or pattern
• direct association with important person or event
• illustrates an important phase of social or physical development
• illustrates the work of an important designer

Other
• historical or archaeological interest
• outstanding features/interest
• significant ecological interest
• landmark value

2.1.2 Consultation

The following stakeholders were contacted with inquiries regarding the heritage status of and for information on the Indian Road SPS study area.

Table 1: Results of Consultation

Contact	Organization	Date(s) of Communications	Description of Information Received
Paula Wubbenhorst, Senior Heritage Coordinator	City of Mississauga	16 May 2017; 24 May 2017	Response received. Confirmed that no previous heritage studies have been completed, and that the structure itself is not on the heritage inventory. Confirmed that the property is within the Credit River CHL, and the CHL HIA Requirements.

2.2 Cultural Heritage Landscape Heritage Impact Assessment Report

Using background information and data collected during the site visit, the cultural heritage resource is evaluated using criteria contained within Regulation 9/06 of the *Ontario Heritage Act*.

Ontario Heritage Act Regulation 9/06 provides a set of criteria, grouped into the following categories which determine the cultural heritage value or interest of a potential heritage resource in a municipality:

i) Design/Physical Value;
ii) Historical/Associative Value; and
iii) Contextual Value.

Should the potential heritage resource meet one or more of the above mentioned criteria, a Heritage Impact Assessment (HIA) is required and the resource considered for designation under the *Ontario Heritage Act*.

The scope of a Heritage Impact Assessment (HIA) is provided by the MTC's *Ontario Heritage Tool Kit.* An HIA is a useful tool to help identify cultural heritage value and provide guidance in supporting environmental assessment work. As part of a heritage impact assessment, proposed site alterations and project alternatives are analyzed to identify impacts of the undertaking on the heritage resource and its heritage attributes. The impact of the proposed development on the cultural heritage resource is assessed, with attention paid to identifying potential negative impacts, which may include, but not limited to:

- Destruction of any, or part of any, significant heritage attributes or features;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;
- A change in land use (such as rezoning a church to a multi-unit residence) where the change in use negates the property's cultural heritage value;
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect a cultural heritage resource, including archaeological resources.

Where negative impacts of the development on the cultural heritage resource are identified, mitigative or avoidance measures, alternative development, or site alteration approaches are considered.

3.0 HISTORICAL CONTEXT AND CONSTRUCTION

3.1 Introduction

Cultural heritage resources are those buildings, structures or landscapes that have one or more heritage attributes. Heritage attributes are constituted by and linked to historical associations, architectural or engineering qualities and contextual values. Inevitably many, if not all, heritage resources are inherently tied to "place"; geographical space, within which they are uniquely linked to local themes of historical activity and from which many of their heritage attributes are directly distinguished today. In certain cases, however, heritage features may also be viewed within a much broader context. Section 3.0 of this report details a brief historical background to the settlement of the surrounding area. A description is also provided of the construction of the SPS within its historical context.

3.2 Township Survey and Settlement

This section provides a brief summary of historical research and a description of identified above ground cultural heritage resources that may be affected by the proposed undertaking. A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of Euro-Canadian settlement and land use. Historically, the study area is located in the former Township of Toronto, County of Peel immediately northwest of the Village of Port Credit in part of road allowance between Range 1 and Range 2 CIR.

3.2.1 Toronto Township

The Township of Toronto was originally surveyed in 1806 by Mr. Wilmot, Deputy Surveyor. The first settler in this Township, and also the County of Peel, was Colonel Thomas Ingersoll. The whole population of the Township in 1808 consisted of seven families scattered along Dundas Street. The number of inhabitants gradually increased until war erupted in 1812, which gave considerable check to its progress. When the war was over, the Township's growth revived and the rear part of the Township was surveyed and called the "New Survey." The greater part of the New Survey was granted to a colony of Irish settlers from New York City who suffered persecution during the war.

The Credit River runs through the western portion of the Township and proved to be a great source of wealth to its inhabitants, as it was not only a good watering stream, but there were endless mill privileges along the entire length of the river.

Within the Township of Toronto, several villages of varying sizes had developed by the end of the nineteenth century including Streetsville, Meadowvale, Churchville, and Malton. A number of crossroad communities also began to grow by the end of the nineteenth century. These included Britannia, Derry, Frasers Corners, Palestine, Mt Charles, and Grahamsville.

3.2.2 Village of Port Credit

Around 1804, Col. Ingersoll, the first settler, built a trading store. At around the same time, a Government Inn was established on the east bank of the river to accommodate and direct new settlers. Port Credit was officially surveyed and established as a village in 1834. The land on the west side of the Credit River was the first to be surveyed and developed. However, a disastrous fire in 1855 halted its growth. In 1856, a survey of the land on the east side of the river was undertaken, and surveyed lots between the lakefront and the railway were quickly occupied. Port Credit attained status as a police village by 1909, and in 1961, it was incorporated as a town. In 1974, Port Credit amalgamated with the City of Mississauga (Hicks 2007: 3). The first train station opened in 1855 just north of the town limits to accommodate the Hamilton and Toronto Railway. While the railway boosted the local economy, it led to the decline in use of the port. The original station was destroyed by fire in the early twentieth century, and the former Western Hotel was built in its place on Stavebank Road (Heritage Mississauga 2009b).

3.2.3 Credit River Cultural Landscape

The Credit River Cultural Landscape is identified as a significant natural landscape in the City of Mississauga's *Cultural Landscape Inventory* (2005) due to its significant landscape environment, historical association, and ecological interest. The Credit River is approximately 58 miles in length, oriented generally north-south, and drains an area approximately 328 square miles into Lake Ontario. The Credit River acted as a food source and transportation route for Indigenous populations and early settlers, and spurred industry in the area by powering saw and grist mills. The river continues to provide important recreational, educational experiences for local residents (City of Mississauga 2005).

3.3.1 Evolution of the Surrounding Setting

The subject property was first surveyed in 1821 as a part of the Credit Indian Reserve lands. Toronto Township was divided into three survey areas: the Old Survey (1806), New Survey (1819), and the Credit Indian Reserve (1821). The Credit Indian Reserve lands comprise lands within a one-mile strip along both sides of the Credit River between the waterfront and modern Eglinton Avenue. The Credit Indian Reserve was divided into several parts over periods of time. The First Part consists of Ranges 1 and 2 North of Dundas Street (NDS) and Ranges 1 and 2 South of Dundas Street (SDS). These ranges were divided into 50-acre lots, and other sizes, and are part of the lands known as the "Racey Tract". Lots are numbered from West to East. Situated North of Range 2 NDS are Ranges 3 through 5 NDS, also running West to East. This area is known as the "Credit Reserve". On the South side of Dundas Street, south of Range 2, SDS, was another division referred to as the "Credit Indian Reserve". These lands were also divided into Ranges 1 through 3. The lots for these Ranges run East to West. In this division, Range 1 is the most southerly, and Range 3 abuts the south side of the Range 2 from the Racey Tract. The closest Range to Lake Ontario is known as a Broken Range because of the irregularity of the shore line (PAMA Peel Region, n.d.).

In the 1846 (to 1854) *Map of the Township of Toronto*, the subject property is identified as being owned by James Cotton. The Town Plot for the Village of Port Credit was surveyed, as well as the historically surveyed road now known as Indian Road. The survey is centred around the Credit River, which dominates the map, including marshy areas on either side of the river. The Great Western Railway line has not yet been completed at this time (Figure 2).

In the 1859 *Map of the County of York*, the Great Western Railway line, identified as the Toronto Hamilton Railway, has been completed. At this time, the subject property is owned by the railway. The area to the south of the railway is identified as being within the boundaries of the historical settlement of Port Credit, while the area northwest of the railway, including the subject property, has a predominantly agricultural character. Stavebank Road appears heading north, out of the village at this time (Figure 3).

In the 1877 *Historical Atlas Map of the Township of Toronto*, the Great Western Railway remains the dividing line between the historical settlement of Port Credit and the agricultural areas to the northwest of the village. Indian Road appears as a dotted line, indicating it is an unopened road allowance at this time (Figure 4).

In the 1954 aerial mapping of the City of Mississauga Indian Road has yet to be extended towards the Credit River from Mississauga Road. The area is predominantly agricultural, and very little development has occurred. No structures appear on the subject site at this time (Figure 5).

In the 1966 aerial mapping of the City of Mississauga, Indian Road has been extended, and Temagami Crescent has been built. Several suburban homes have been constructed. The subject property remains in an unopened road allowance. No structures appear on the subject site at this time (Figure 6).

In the 1980 aerial mapping of the City of Mississauga, the area has undergone gradual suburban development, resulting from infill along Temagami Crescent. The existing SPS was original constructed in 1972 and was concequently upgraded in 1980, 1991 and 2000, however, due to the low resolution of the images, the subject structure does not clearly appear on the property at this time. (Figure 7).

In the 1985 aerial mapping of the City of Mississauga, the area has undergone gradual suburban development, resulting from infill along Temagami Crescent. At this time, the lot appears as a sewage pumping station, and a structure can be seen on the current site (Figure 8).

In the 2004 and 2013 aerial mapping of the City of Mississauga, the subject are retains its suburban character, and does not undergo any significant further development or changes (Figures 9 and 10).

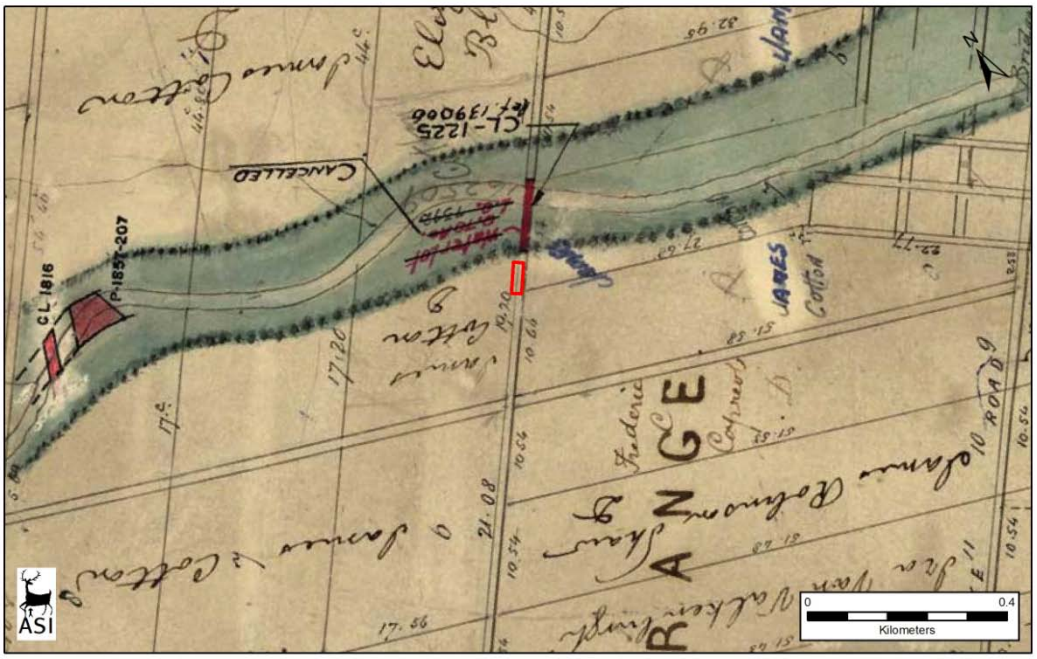

Figure 2: The location of the Indian Road SPS overlaid on the 1846 (to 1854) Map of the Township of Toronto.

Source: City of Mississauga, 1854

Figure 3: The location of the Indian Road SPS overlaid on the 1859 Map of the County of York.

Source: Tremaine, 1859

Figure 4: The location of the Indian Road SPS on the 1877 Historical Atlas Map of the Township of Toronto.

Source: Miles & Co. 1878

Figure 5: The location of the Indian Road SPS overlaid on 1954 aerial mapping.
Source: City of Mississauga, 1954

Figure 6: The location of the Indian Road SPS overlaid on 1966 aerial mapping.
Source: City of Mississauga, 1966

Figure 7: The location of the Indian Road SPS overlaid on 1980 aerial mapping.
Source: City of Mississauga, 1980

Figure 8: The location of the Indian Road SPS overlaid on 1985 aerial mapping.
Source: City of Mississauga, 1985

Figure 9: The location of the Indian Road SPS overlaid on 2004 aerial mapping.
Source: City of Mississauga, 2004

Figure 10: The location of the Indian Road SPS overlaid on 2013 aerial mapping.
Source: City of Mississauga, 2013

3.3.2 Land Use History

The subject property at 397 Temagami Crescent is located within part of an untraveled road allowance, represented by the historically surveyed road between Range 1 and Rage 2 CIR in the former Township of Toronto, what is now known as Indian Road in the City of Mississauga. Toronto Township was divided into three survey areas: the Old Survey (1806), New Survey (1819), and the Credit Indian Reserve (1821). The subject land was surveyed in 1821 as a part of the Credit Indian Reserve and was opened for settlement (PAMA Peel Region, n.d.).

As a historically surveyed road, the subject property was set aside as Crown Land for the future use as a provincial road or highway. This status was described in the Public Roads and Highways Act 1810 which stated: *"12 (2) ... all allowances for roads, made by the King's surveyors in any town, township or place already laid out, or which shall be made ... and also all roads laid out by virtue of any Act of the Parliament of this province, or any roads whereon the public money has been expended for opening ... or whereon the statute labour hath been usually performed, or any roads passing through the Indian lands, shall be deemed common and public highways, unless any such roads have been already altered according to law, or until... altered according to the provisions of this Act."* (Russell et al 1996)

The Municipal Act of 1849 formally permitted residents the ability to organize under municipal councils, and further allowed municipalities to adopt by-laws. By 1858, most local municipal councils had jurisdiction over the original road allowances within their boundaries. The title to the soil and freehold remained in the Crown until 1913, when this land was transferred into the ownership of the municipality, which in this case, would have been the Township of Toronto (Russell et al 1996).

In 1968 the Township of Toronto became the Town of Mississauga. The City of Mississauga was incorporated in 1974 through the amalgamation of the Town of Mississauga and the villages of Port Credit and Streetsville, and portions of the Townships of Toronto Gore and Trafalgar (PAMA Peel Region, n.d.).

The subject land has remained in the ownership of the City of Mississauga since 1974. The subject sewage pumping station was built in 1972 as a part of the suburbanization of Mississauga, and was and subsequently upgraded in 1980, 1991, and 2000.

4.0 EXISTING CONDITIONS AND INTEGRITY

A field review was undertaken by Lauren Archer on 18 May 2017 to conduct photographic documentation of the study area and to collect data relevant for completing a heritage evaluation of the subject property. Results of the field review and secondary sources were then utilized to describe the existing conditions of the study area. This section provides a general description of the study area and associated cultural heritage features. Photographic documentation is provided in Appendix A.

The Indian Road SPS was built in 1972 as a part of the suburbanization of Mississauga, and was and subsequently upgraded in 1980, 1991, and 2000. It provides wastewater pumping services to the Temagami Crescent neighborhood and adjacent areas.

The subject property is located at the northern terminus of Indian Road, in an untraveled road allowance at the terminus of Indian Road. The subject property is located to the southwest of the Credit River, and is therefore located within the Credit River CHL. The Credit River is located to the rear of the property,

following a steep decline to the river banks. The subject building is not visible from the river bank, however, the river is visible from some areas of the subject site.

The site is flat and the majority of the property is paved with asphalt. It is visibly separated from the Temagami Crescent community through the use of a chain link fence and tall deciduous hedges. The sides of the property are lined with mature blue spruce, which visibly separates the property from the neighbouring houses. The rear of the property consists of a steep decline towards the Credit River, and a young but established wooded area.

Temagami Crescent is lined with mature trees. The street contains a number of large suburban infill homes, ranging in construction date from the early 1960s to more contemporary infill. The majority of homes have been recently constructed, and reflect an area of great affluence. Residential homes are between one and three storeys, and are detached single family homes. Yards are landscaped, with a number of mature trees and bushes.

The subject site contains an existing diesel generator and control building, a wet well, a dry well which houses two pumps, valves and appurtenances, a paved asphalt area, a gate, and chain link fence. The diesel generator and control building is a one storey mansard roof, red brick utilitarian building, built for its specific purpose. A single brown metal door provides access to the interior of the building. The interior of the diesel generator and control building consists of a single room, filled with a diesel generator and controls. No notable features of heritage interest were identified. The dry well consists of a green metal cylinder, which emerges from the paved asphalt to the south of the diesel generator and control building. The gate is a black metal gate, and the fencing is chain link.

The Indian Road SPS is currently owned and maintained by the Region of Peel.

5.0 HERITAGE EVALUATION OF THE STUDY AREA

Table 2 contains the evaluation of the Indian Road SPS against criteria as set out in Ontario Regulation 9/06. Within the Municipal EA process, Ontario Regulation 9/06 is the prevailing evaluation tool when determining if a heritage resource has cultural heritage value.

Table 2: Evaluation of the Indian Road SPS using Ontario Regulation 9/06

1. The property has design value or physical value because it:		
Ontario Heritage Act Criteria	Yes/No	Analysis
i. is a rare, unique, representative or early example of a style, type, expression, material or construction method;	No	This structure does not meet this criterion. The Indian Road SPS is a one storey utilitarian red brick building built in 1972 for the purpose of pumping wastewater. It is not a representative example of any significant heritage style or an early or significant example of its type.
ii. displays a high degree of craftsmanship or artistic merit, or;	No	This structure does not meet this criterion. The Indian Road SPS does not display a degree of craftsmanship or artistic merit, as it is a utilitarian structure.

Table 2: Evaluation of the Indian Road SPS using Ontario Regulation 9/06

iii. demonstrates a high degree of technical or scientific achievement.	No	This structure does not meet this criterion. The Indian Road SPS is not considered to exhibit a high degree of technical achievement given its build date of 1972.

2. The property has historical value or associative value because it:

Ontario Heritage Act Criteria	Yes/No	Analysis
i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;	No	This structure does not meet this criterion. The Indian Road SPS maintains some association with the Temagami Crescent neighborhood and the suburbanization of rural Mississauga, however, the property itself does not display or exhibit this relationship. Further, the property has little to no association with the identified historical significance of the Credit River.
ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or;	No	This structure does not meet this criterion.
iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.	No	This structure does not meet this criterion. The Indian Road SPS is a utilitarian building, the builder and designer are not identified.

3. The property has contextual value because it:

Ontario Heritage Act Criteria	Yes/No	Analysis
i. is important in defining, maintaining or supporting the character of an area;	No	This structure does not meet this criterion. The Indian Road SPS is not visible from the Temagami Crescent neighborhood or from the Credit River. It does not contribute to the defining character of the area. The subject property does not contribute to the identified landscape significance of the Credit River, nor does it contribute to or define its ecological significance.
ii. is physically, functionally, visually or historically linked to its surroundings, or;	No	This structure does not meet this criterion. The Indian Road SPS is not visible from the Temagami Crescent neighborhood or from the Credit River. It is not historically linked to the subject area. It has a functional purpose, but that purpose is visually and physically separated from its surroundings.
iii. is a landmark.	No	This structure does not meet this criterion. The Indian Road SPS is not visible from the Temagami Crescent neighborhood or from the Credit River.

Table 2: Evaluation of the Indian Road SPS using Ontario Regulation 9/06

		It has not been identified as a landmark.

The above evaluation confirms that the Indian Road SPS does not meet the criteria contained in Regulation 9/06 of the *Ontario Heritage Act*. The subject property also has not been found to contribute to the landscape environment, historical association, and ecological interest of the Credit River CHL. Accordingly, this structure is not considered to be a cultural heritage resource and is not eligible for designation under the *Ontario Heritage Act.*

5.1 Draft Statement of Cultural Heritage Value

The Indian Road SPS does not meet the criteria contained in Regulation 9/06 of the *Ontario Heritage Act*, nor has it been found to contribute to the landscape environment, historical association, and ecological interest of the Credit River CHL. Accordingly, no Draft Statement of Cultural Heritage Value has been prepared.

6.0 DESCRIPTION OF PROPOSED WORK

In early 2015, the Region of Peel identified three Sewage Pumping Stations (SPS) that needed to be upgraded due to their aging infrastructure, including the Indian Road SPS. This will result in the removal of the existing infrastructure, and replacement with new infrastructure designed to meet the growing needs of the City of Mississauga. This will require the demolition and replacement of the existing diesel generation and control building, wet well and dry well, as well as the replacement of the existing asphalt. The shrubbery and chain link fencing along the front of the property will also be removed temporarily, but will be replaced in kind upon the completion of the project.

A new valve chamber, wet well and generator and control building has been proposed within the footprint of the existing site. The proposed new generator and control building is also a one storey building. Detailed existing conditions, preliminary removal, and conceptual drawings are available in Appendix B and C. It is noted that the drawings provided in Appendix B and C are conceptual and are subject to change as detailed design advances.

6.1 Evaluation of Impacts

To assess the potential impacts of the proposed alternatives, the cultural heritage resource and identified heritage attributes were considered against a range of possible impacts (Table 4) as outlined in the Ministry of Tourism and Culture document entitled *Screening for Impacts to Built Heritage and Cultural Heritage Landscapes* (November 2010), which are consistent with the City of Mississauga CHL HIA Terms of Reference, which include:

- Destruction of any, or part of any, significant heritage attribute or feature (III.1).
- Alteration which means a change in any manner and includes restoration, renovation, repair or disturbance (III.2).
- Shadows created that alter the appearance of a heritage attribute or change the visibility of a natural feature of plantings, such as a garden (III.3).

- Isolation of a heritage attribute from its surrounding environment, context, or a significant relationship (III.4).
- Direct or indirect obstruction of significant views or vistas from, within, or to a built and natural feature (III.5).
- A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces (III.6).
- Soil disturbance such as a change in grade, or an alteration of the drainage pattern, or excavation, etc. (III.7).

The Indian Road SPS does not meet the criteria contained in Regulation 9/06 of the *Ontario Heritage Act*, nor has it been found to contribute to the landscape environment, historical association, and ecological interest of the Credit River CHL. Accordingly, no impacts to any cultural heritage resource or identified heritage attributes are anticipated.

8.0 CONCLUSIONS

Based on the results of archival research, an analysis of the design and construction, field investigations, and application of Regulation 9/06 of the *Ontario Heritage Act*, the Indian Road SPS was determined to not retain significant cultural heritage value. The Indian Road SPS was also found not contribute to the landscape environment, historical association, and ecological interest of the Credit River Cultural Landscape. Given that the Indian Road SPS does not meet at least one of the criteria contained in Regulation 9/06, this structure is not considered to be a cultural heritage resource and is not eligible for designation under the *Ontario Heritage Act.*

9.0 RECOMMENDATIONS

The Indian Road SPS does not meet the criteria contained in Regulation 9/06 of the *Ontario Heritage Act*, nor has it been found to contribute to the landscape environment, historical association, and ecological interest of the Credit River CHL. Accordingly, no negative impacts to any cultural heritage resource or identified heritage attributes is anticipated.

Accordingly, the following recommendations should be considered and implemented:

1. The subject property does not meet the criteria for heritage designation under Ontario Regulation 9/06 of the *Ontario Heritage Act*, and is not considered a contributing element in the Credit River Cultural Landscape.

2. The subject property does not warrant conservation as per the definition in the *Provincial Policy Statement*

3. Two hard copies as well as a digital version of this report should be submitted to the City of Mississauga for review and commentary from the Heritage staff, Planning and Building Department, and any other relevant stakeholders within the Corporation, and submitted to and filed with the City of Mississauga Heritage Advisory Committee.

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APPENDIX A: Photographic Plates

Plate 1: View of the Indian Road SPS diesel generation and control building, looking northwest.

Plate 2: View of the Indian Road SPS diesel generation and control building, front elevation, looking north.

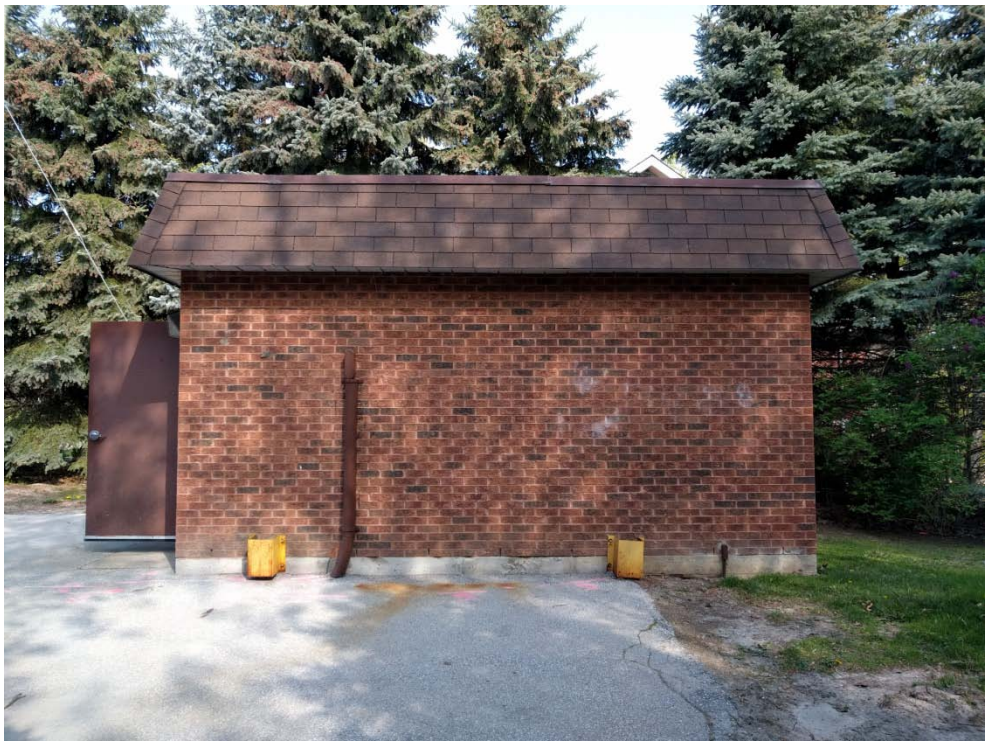


Plate 3: View of the Indian Road SPS diesel generation and control building, side elevation looking west.

Plate 4: View of the Indian Road SPS diesel generation and control building, from rear of property, looking south.

Plate 5: View of the Indian Road SPS, wet well and pump, looking southwest.

Plate 6: View of the Indian Road SPS from the entrance gate, looking north.

Plate 7: View of the Credit River from the rear of the Indian Road SPS property, looking north.

Plate 8: View of the Indian Road SPS from the top of the bank of the Credit River, looking south.

Plate 9: View of the Indian Road SPS from Temagami Crescent, looking north.

Plate 10: View of Temagami Crescent, looking northwest.

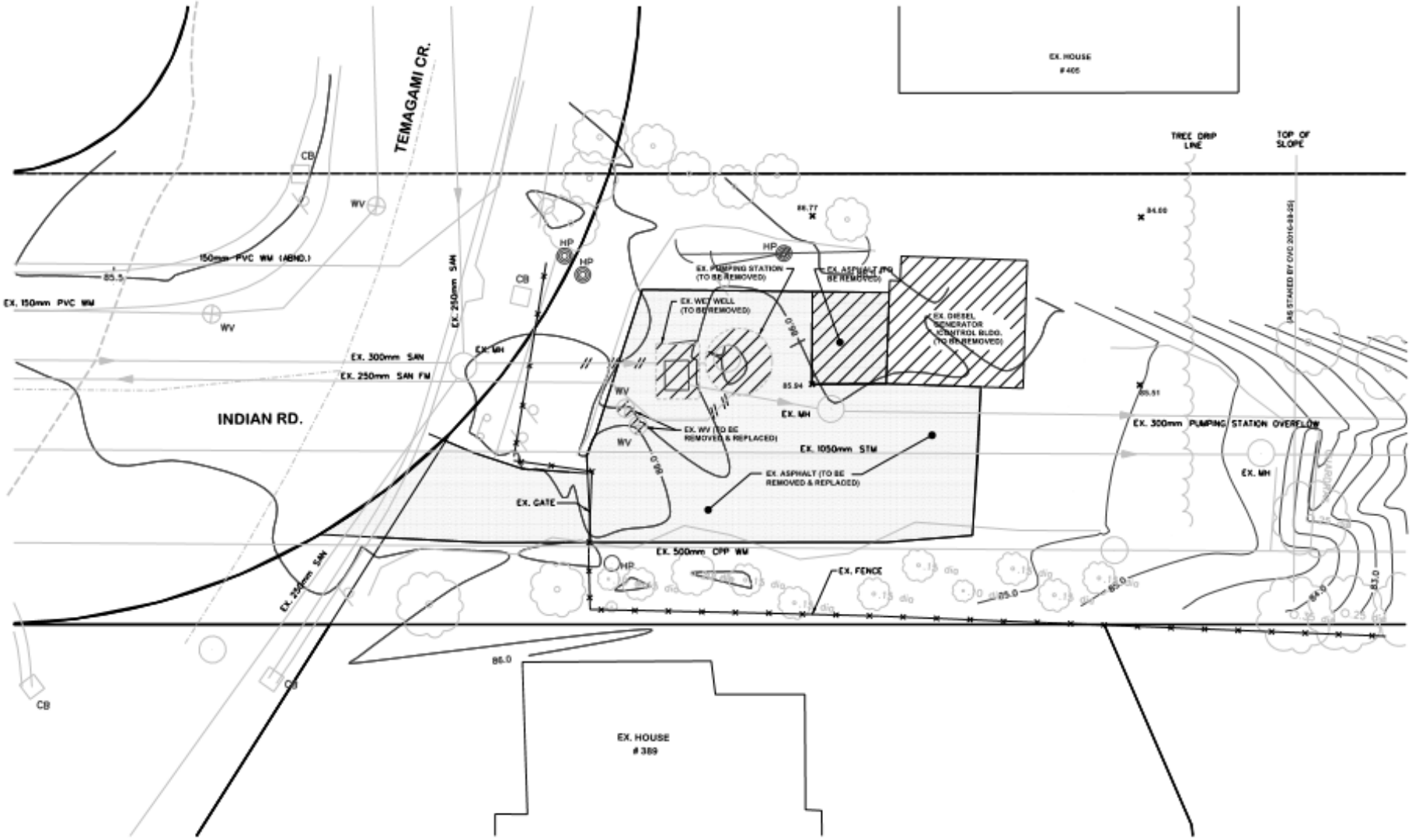
Plate 11: View of Temagami Crescent, looking southeast.

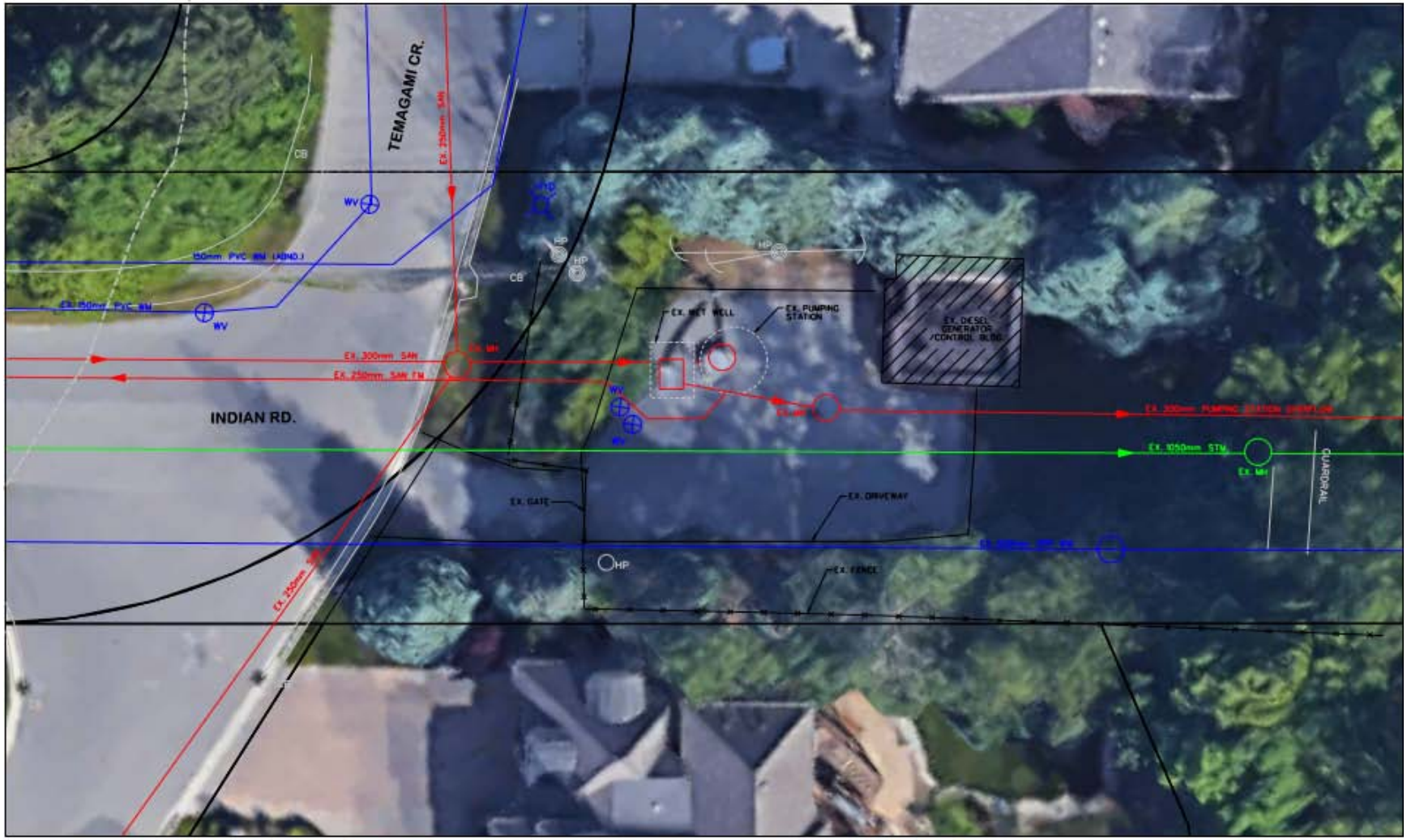
Plate 12: View of Indian Road SPS gate from Temagami Crescent, looking northwest.

Plate 13: Adjacent residential property, Temagami Crescent.

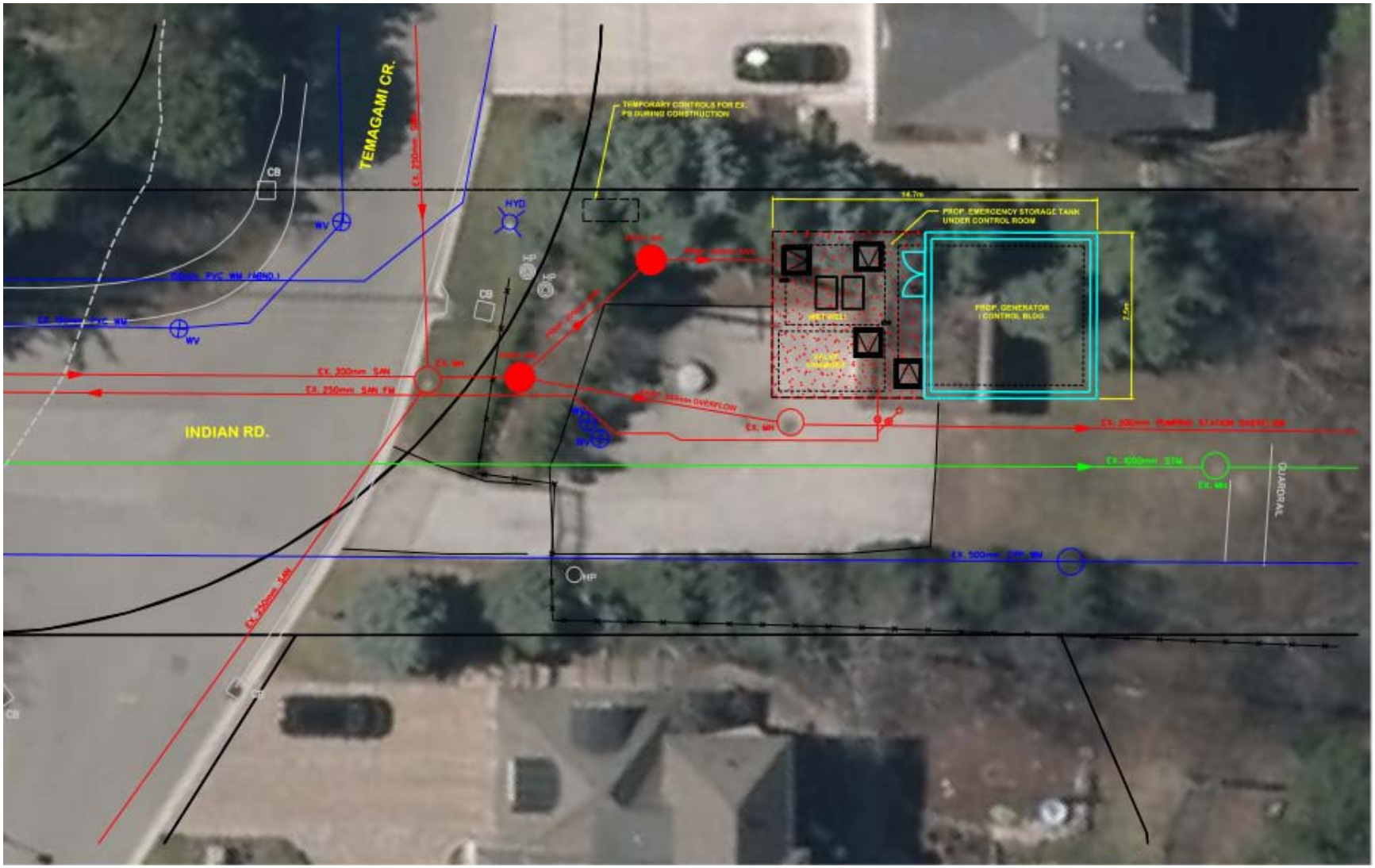
Plate 14: Adjacent residential property, Temagami Crescent.

APPENDIX B: Existing Conditions Site Plan




TEMAGAMI CR.
INDIAN RD.
EX. 300mm SAN
EX. 250mm SAN
EX. WET WELL
EX. PUMPING STATION
EX. DIESEL GENERATOR /CONTROL BLDG.
EX. 1050mm STM
EX. GATE
EX. DRIVEWAY
EX. FENCE
GUARDRAIL
WV
HP
CB

APPENDIX C: Proposed Site Plan and Drawings



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Ontario

Ministry of Tourism, Culture and Sport

Programs & Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7

Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
  - is a recognized heritage property
  - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – separate checklist
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Indian Road Sanitary Trunk Sewer

Project or Property Location (upper and lower or single tier municipality)

Region of Peel, City of Mississauga

Proponent Name

Region of Peel

Proponent Contact Information

Lyle LeDrew, Project Manager, Wastewater Capital Works, 905-791-7800 Ext 7836

Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	☐	☑

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value?	☐	☑

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?	☐	☑
b. a National Historic Site (or part of)?	☐	☑
c. designated under the *Heritage Railway Stations Protection Act*?	☐	☑
d. designated under the *Heritage Lighthouse Protection Act*?	☐	☑
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	☐	☑
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	☐	☑

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	☐	☑
b. has or is adjacent to a known burial site and/or cemetery?	☐	☑
c. is in a Canadian Heritage River watershed?	☐	☑
d. contains buildings or structures that are 40 or more years old?	☐	☑

Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	☐	☑
b. has a special association with a community, person or historical event?	☐	☑
c. contains or is part of a cultural heritage landscape?	☐	☑

If Yes to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act, Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's Ontario Heritage Toolkit or Standards and Guidelines for Conservation of Provincial Heritage Properties.

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's Standards & Guidelines for Conservation of Provincial Heritage Properties [s.B.2.]

Part A: Screening for known (or recognized) Cultural Heritage Value

2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note**: To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- Ontario Heritage Trust
- local land registry office (for a title search)

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ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- Ontario Heritage Trust - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

---

iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

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iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act.* **Note**: To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- Ontario Heritage Trust

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v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

3b. Is the property (or project area) a National Historic Site (or part of)?

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the National Historic Sites website.

3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the Directory of Designated Heritage Railway Stations.

3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the Heritage Lighthouses of Canada website.

3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the Federal Heritage Buildings Review Office.

See a directory of all federal heritage designations.

3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – World Heritage Site website.

Part B: Screening for potential Cultural Heritage Value

4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- municipal heritage committees or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's Heritage directory – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a list of plaques commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a list of plaques commemorating Canada's history

4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a database of registered cemeteries
- Ontario Genealogical Society (OGS) – to locate records of Ontario cemeteries, both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to locate early cemeteries

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the Canadian Heritage River System.

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide Heritage Property Evaluation.

Part C: Other Considerations

5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- municipal heritage committees or local heritage organizations
- Ontario Historical Society's "Heritage Directory" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through Ontario Trails.

Appendix C

Public and Agency Notification Stakeholder Mailing List

Public and Agency Notification

Public Notice

Region of Peel
working with you

Environmental Assessment Study

NOTICE OF ONLINE PUBLIC ENGAGEMENT- SCHEDULE B

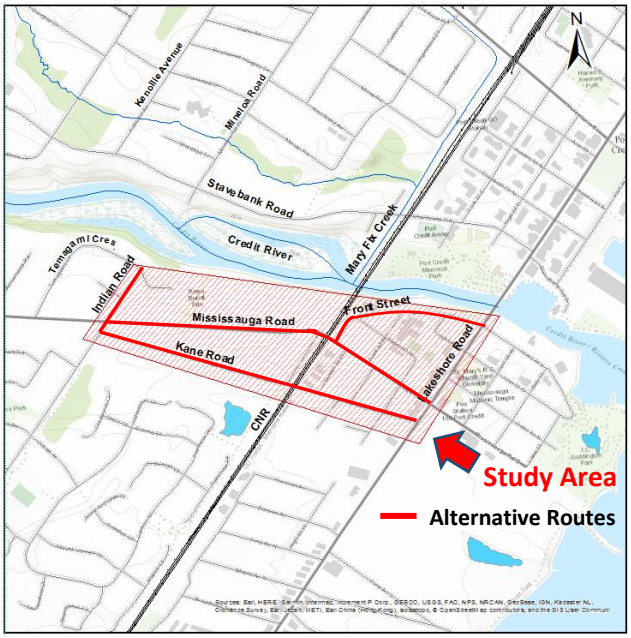
GRAVITY SANITARY SEWER FROM INDIAN ROAD SEWAGE PUMPING STATION CONNECTION TO LAKESHORE ROAD TRUNK SEWER

Study Background

The Region of Peel has identified the need to build a new gravity sanitary sewer to provide long term servicing for residents currently serviced by the Indian Road Sewage Pumping Station (SPS). The sewer would extend from Indian Rd and connect to a sanitary sewer being constructed on Lakeshore Rd West. These upgrades are needed to address aging infrastructure, reduce operation costs and mitigate the potential abandonment of septic systems along Mississauga Rd. A Schedule B Municipal Class Environmental Assessment (EA) study has been initiated to identify the best solution for the required sanitary sewer routing. The Class EA includes public and stakeholder discussion and feedback.

How to Get Involved

As part of the Study, online public engagement has been arranged to allow local residents and interested members of the public an opportunity to review and comment on the alternatives, including the preferred alternative, the evaluation process, and next steps in the Study process.



Display boards will be made available to the public on **peelregion.ca/public-works/environmental-assessments** starting **July 2, 2020**.

Please submit any comments or concerns by **July 24, 2020**. Any input received by that date will be incorporated into the Project File Report, which will be available for public review when the study is completed.

For further information and to provide your comments, please contact:

Lyle LeDrew, C.E.T
Project Manager, Water & Wastewater
905-791-7800 ext. 7836
Lyle.ledrew@peelregion.ca

This notice was first issued on July 2, 2020.

From:	Krista Turco
Sent:	Thursday, July 02, 2020 5:02 PM
To:	Krista Turco
Cc:	'Lyle.ledrew@peelregion.ca'; Sal Marrelli
Subject:	Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer
Attachments:	16-2905 - Indian Road SPS - Notice of Online Public Engagement.pdf

Good Afternoon,

The Region of Peel, along with their Consultant (Cole Engineering Group Ltd.), is undertaking a Schedule B under the Municipal Engineer's Association Class Environmental Association (EA) process related to the provision of long term sanitary servicing for the area serviced by the existing Indian Road Sanitary Pumping Station (SPS) located in the City of Mississauga. The Indian Road SPS would require upgrades to address the aging infrastructure, reduce operation costs and provide the opportunity for potential abandonment of septic systems along Mississauga Road.

An evaluation of alternative solutions has been completed and the recommended alternative is replacement of the Indian Road SPS with construction of a new gravity sanitary extending west on Indian Road from the Indian Road SPS and south on Kane Road/Wesley Avenue to Lakeshore Road West. The gravity sewer would connect to a sanitary sewer that is being constructed on Lakeshore Road West.

Due to the current restrictions for public meetings the Region is conducting online public engagement to replace the typical Public Information Centre and to address the Schedule B Class EA consultation requirement. The attached Public Notice provides information on the project and a link to the Online Public Engagement presentation. The Notice indicates that comments are due by July 24, 2020 and who to forward any comments to.

We thank you in advance for your participation in the project.

Krista Turco
Project Coordinator
Municipal Infrastructure

Cole Engineering Group Ltd.
70 Valleywood Dr., Markham, ON L3R 4T5
Tor. Line: 416-987-6161 Ext 366 T. 905-940-6161
F: 905-940-2064
Email: kturco@coleengineering.ca
Website: www.ColeEngineering.ca

Stakeholder Mailing List

Region of Peel
working with you

Indian Road Environmental Assessment
Agency Stakeholder Contact List

	Organization	First Name	Last Name	Position	Address	Ct_Pr_Postal Code	Telephone	Email	Notes/Comments
FEDERAL AGENCIES	Fisheries and Oceans Canada	Hilary	Prince	Communications Manager - Central and Arctic Region	867 Lakeshore Road	Burlington, ON L7R 4A6	P: 905-336-4974	PrinceH@dfo-mpo.gc.ca	
	Environment Canada	Rob	Dobos	Manager, Environmental Assessment Section	Box 5050: 867 Lakeshore Road	Burlington, ON L7R 4A6	905-336-4953	rob.dobos@ec.gc.ca	
	Indigenous and Northern Affairs Canada							cau-uca@aadnc-aandc.gc.ca	
	Trans Canada Trail Ontario	Michael	Goodyear	Trans Canada Trail, Manager, Trail Development Eastern Canada	P.O. Box 27	Lindsay, ON K9V 4R8		mgoodyear@tctrail.ca	
PROVINCIAL AGENCIES	Ministry of the Environment, Conservation and Parks	Trevor	Bell	Environmental Planner & EA Coordinator	8th Flr, 5775 Yonge Street	Toronto, ON M2M 4J1	416-326-3577	trevor.bell@ontario.ca	Primary MECP contact
	Ministry of the Environment, Conservation and Parks							ClassEAnotices@ontario.ca	Generic email for Class EA Notices
	Ministry of the Environment, Conservation and Parks	Tina	Dufresne	District Manager, Halton-Peel District Office	4145 North Service Road, Suite 300	Burlington, ON L7L 6A3	905-319-1870	tina.dufresne@ontario.ca	
	Ministry of the Environment, Conservation and Parks	Lauren	Sharkey	Species at Risk Biologist	5th Flr, 300 Water Street	Peterborough, ON K9J 3C7	705-755-5656	lauren.sharkey@ontario.ca	formerly MNRF now MECP does SAR
	Ministry of Natural Resources and Forestry	Steven	Strong	Senior District Planner	50 Bloomington Road	Aurora, ON L4G 0L8	905-713-7366	steven.strong@ontario.ca	
	Ministry of Heritage, Sport, Tourism and Culture Industries	Dan	Minkin	Heritage Planner	401 Bay Street, Suite 1700	Toronto, ON M7A 0A7	416-314-7147	Dan.Minkin@ontario.ca	
	Ministry of Heritage, Sport, Tourism and Culture Industries	Rosi	Zirger	Heritage Advisor (Acting)	401 Bay Street, Suite 1700	Toronto, ON M7A 0A7	416-314-7159	rosi.zirger@ontario.ca	
	Ministry of Transportation	Ted	Lagakos	Senior Project Manager, Corridor Management Section	Bldg D 7th Flr, 159 Sir William Hearst Avenue	Toronto, ON M3M 0B7	(416)235-3497	ted.lagakos@ontario.ca	
	Infrastructure Ontario	Erica	Anderson	Environmental Specialist, Environmental Management	1 Dundas Street West, Suite 2000	Toronto, ON M5G 1Z3	519-826-4685	erica.anderson@infrastructureontario.ca	
	Ministry of Municipal Affairs and Housing	Heather	Watt	Manager, Community Planning and Development	College Park, 13th Floor, 777 Bay Street	Toronto, ON M7A 2J3	416-585-6048	heather.watt@ontario.ca	
	Credit Valley Conservation	Jakub	Kilis	Planner, Environmental Assessment	1255 Old Derry Road West	Mississauga, ON L5N 6R4	905-670-1615 ext. 287	jkilis@creditvalleyca.ca	
OTHER AGENCIES	City of Mississauga	Stephen	Dasko	Mississauga Ward 1	300 City Centre Drive	Mississauga, ON L5B 3C1	905-896-5100	stephen.dasko@mississauga.ca	
	City of Mississauga	Karen	Ras	Mississauga Ward 2	300 City Centre Drive	Mississauga, ON L5B 3C1	905-896-5200	karen.ras@mississauga.ca	To be contacted through City staff
	City of Mississauga	Auryn	Soares	Storm Drainage Coordinator: Watercourses	300 City Centre Drive	Mississauga, ON L5B 3C1	905-615-3200 ext. 3363	auryn.soares@mississauga.ca	To coordinate amongst all City staff
	City of Mississauga	Evelyn	Krolicka	Storm Drainage Technologist				evelyn.krolicka@mississauga.ca	Notice forwarded by Auryn Soares
	City of Mississauga	Ghazwan	Yousif	Storm Drainage Technologist, environmental services	201 City Centre Drive	Mississauga, ON L5B 2T4	905-615-3200 ext. 3526	ghazwan.yousif@mississauga.ca	
	Peel District School Board	Bianca	Bielski	Planning & Accommodation Support Services	5650 Hurontario Street	Mississauga, ON L5R 1C6	905-890-1010 ext. 2221	bianca.bielski@peelsb.com	
	Dufferin-Peel Catholic District School Board	Joanne	Rogers	Planner	40 Matheson Boulevard West	Mississauga, ON L5R 1C5		joanne.rogers@dpcdsb.org	
	Credit Reserve Association	John	McKinnon	Chairman			905-274-6673	jmckinnon@credit-reserve.com	Redirected to Mary Furlin (905 271 3562), called left voicemail. Also sent information through Credit Reserve website.
	Meadow Wood - Rattray Ratepayers Association	Sue	Shanly	President			905-822-2409	mwrra@rogers.com	
	Mississauga Oakridge Ratepayers Association	Hans	Van Monsjou		1393 Beemer Avenue	Mississauga, ON L5H 2A8	905-274-1970	jjvanm@rogers.com	
	Port Credit				105 Lakeshore Rd W	Mississauga, ON L5H 1E9	905-278-7742	info@portcredit.com	
PUCC	Bell Canada Municipal Operations Centre	Sharmila	Kumar		200 Town Centre Boulevard	Markham, ON L3R 8G5	905-470-2112 ext. 40309	Bell.moc@telecon.ca	
	Blink Communications c/o Rogers Cable	Edgar	Henriquez		3573 Wolfedale Road	Mississauga, ON L5C 3T6	905-987-6457	edgar.henriquez@rci.rogers.com	
	Cogeco Data Services Inc.	Samir	Patel		413 Horner Avenue	Etobicoke, ON M8W 4W3	416-840-8755	samir.patel@cogecodata.com	
	Enbridge Gas Distribution Inc.	Diana	Beaulne	Mark-Up Administrator	500 Consumers Road, 4th Floor	North York, ON M2J 1P8	416-495-5520	markups@enbridge.com	
	GT Fiber Services Inc. c/o Netricom	Rayma	Varma		200 Town Centre Boulevard	Markham, ON L3R 8G5	905-470-2112 ext. 40265	gt.moc@presigetel.com	Bounce back email, sent by mail on May 29, 2018.
	Hydro One Networks Services	Mark	Hamilton	OP&CS Department - OGCC	230 Bayview Drive	Barrie, ON L4N 4Y8	705-797-4142	tpumarkup@hydroone.com	
	MTS Allstream	Ian	Fleming		50 Worster Road	Toronto, ON M9W 5X2	416-345-3406	utility.circulations@mtsallstream.com	Bounce back email, sent by mail on May 29, 2018
	Telus Network	Paul	Totino		25 York Street, 22nd Floor	Toronto, ON M5J 2V5	416-992-0617	paul.totino@telus.com	
	Telus Network	Marcel	Vien					marcel.vien@telus.com	Notice forwarded by Paul Totino
	City of Mississauga	Thomas	Nightinglale					Thomas.Nightingale@mississauga.ca	
FIRST NATIONS	Six Nations of the Grand River First Nation	Joanne	Thomas	Consultation Supervisor	2498 Chiefwood Road	Oshweken, ON N0A 1M0	519-445-2201	jthomas@sixnations.ca	Forward to dlaforme@sixnations.ca
	Six Nations of the Grand River First Nation	Dawn	LaForme	Secetary/Receptionist		Oshweken, ON		dlaforme@sixnations.ca	
	Mississaugas of the Credit First Nation	Cathie	Jamieson		2789 Mississauga Rd, R.R. #6	Hagersville, ON N0A 1H0	905-869-5761	CathieJ@mncfn.ca	
	Chippewas of Mnjikaning (Rama) First Nation				200-5884 Rama Road	Rama, ON L3V 6H6	705-325-3611	consultation@ramafirstnation.ca	
	Alderville First Nation	David	Mowat		P.O. Box 46 11696 Second Line Road	Roseneath, ON K0K 2X0	905-352-2011	dmowat@alderville.ca	
	Haudenosaunee Confederacy Development Institute	Hazel	Hill		16 Sunrise Court, Suite 600	Ohsweken, Ontario N0A 1M0		hdi2@bellnet.ca	
	Metis Nation of Ontario Head Office			Metis Consultation Unit	500 Old St. Patrick Street, Unit D	Ottawa, ON K1N 9G4	613-798-1488	consultations@metisnation.org	

Appendix D

Public and Agency Correspondence

Stakeholder	Respondent's Name	Date of Response	Comment Format	Comment / Request	Response	Response Date
Ministry of the Environment, Conservation and Parks	Trevor Bell	2-Jul-20	Email	Thanks for your email. Was a Notice of Commencement previously submitted to the Ministry of the Environment, Conservation and Parks, Central Region Office for this project.	Trevor I am Cole's Environmental/Consultation Specialist on this Schedule B, Class EA Project so I will respond to your email. We were unsure when the notice would be formally published and distributed and I was waiting to receive confirmation of the publish date. We were uncertain whether the Notice would be sent out today, Friday or on Monday so I had not forwarded the Project Information Form to MECP until we knew the date it was published. Since the Notice was published today (July 2) I have now submitted the Project Information Form with a pdf of the Project Notice to MECP's Central Region office email. For your reference, this is the first notice to be issued for this project and it is a combined Notice of Commencement and Online Public Engagement. If you have any other questions regarding the Notice please feel free to contact me directly. Thanks, Pat	2-Jul-20
Ministry of Heritage, Sport, Tourism and Culture Industries	Dan Minkin	21-Jul-20	Email - Attached Letter	Lyle LeDrew, Please find attached MHSTCI's comments on the above referenced project. Contact Dan Minkin with any further questions or concerns.	MHSTCI's comments reviewed, and the Criteria for evaluating Archaeology Potential Checklist and Criteria for evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes have been incorporated into the Project File Report.	
City of Mississauga (Councillor Ward 2)	Karen Ras	3-Jul-20	Email	Thank you for the information Krista. Will the residents who live in the study area receive a hand delivered notice? If the preferred route is along Kane Road, what kind of road disruption will there be? There are no sidewalks and it is a narrow street?	Good Morning Councillor Ras, Yes, notices will be hand delivered to all residents in the study area. Both the Kane or Mississauga Road routes will be completed using micro-tunnel, so that direct impacts along the route are minimized. The most significant areas of impact will be at compound locations, where the tunneling will take place. Please let me know if you have any questions or require additional information.	3-Jul-20
Independent Stakeholder	[redacted]	7-Jul-20	Email	Sir, We live at the above noted address. We would be in favor of the alternate route through Kane road for several reasons: a) Mississauga road is a busy through street with only two lanes and the cars travel at higher speeds than on Kane road b) Kane road is far more accessible and less intrusive on traffic than mississauga road c) there is a stretch of Mississauga road on it's east side (inclusive our house) that is not on sewers but on septic, and I would prefer keeping it that way as the city's suggestion in 2010 for us to build and maintain these sewers to our home AND exclusively maintained by us personally was idiotic and insulting. d) There are existing sewers on kane road which may aid in positioning new sewers thereby saving some costs. e) Mississauga road is considered a scenic road by the city and having sewer maintenance on such a road may lead to malodorous issues which would temper the scenic in scenic f) construction would hamper and prevent access not only to mississauga road residents but those that would live in the lakeshore community. g) by the design the kane road option would lead to a staright line extension whereas mississauga road would have an elbow at a low point which would cause greater problems with flooding and stop gaps thereby increasing maintenance costs. In other words no to Mississauga road and yes to Kane Road. Regards Bohdan A. Shulakewych	Good Afternoon [redacted] Thank you for tanking the time to provide your comments below. We do appreciate feedback from the local residents as you understand the area better than we would be able to. Should you have any questions or have additional comments, feel free to contact me anytime. Lyle LeDrew C.E.T.	7-Jul-20
Telus	Marcel Vien	3-Jul-20	Email	TELUS does not have any existing structure within your proposed work zone. We do have exisitng fibre located inside Bell conduit on the rail property. Please reach out to Bell regarding rail fibre and please CC me. Thank you		
Independent Stakeholder	[redacted]	7-Jul-20	Email	Dear Lyle I live on Kane Road. A Public Notice was dropped yesterday to my mailbox informing me that there is an environmental assessment study going on in the ara I live. However, I was not able to locate the Display board mentioned in the notice. Will you please send me the link to the mentioned display board. (see the notice in attachment) Regards: Laslo	Good morning [redacted] Thank you for reaching out. Here's the link. This one take you to all the current EA's at the Region: https://www.peelregion.ca/public-works/environmental-assessments/#current And this link will take you directly to the project boards: https://www.peelregion.ca/public-works/environmental-assessments/_media/ric-boards-indian-road.pdf Take a look and let me know if you have any questions. Lyle LeDrew C.E.T.	7-Jul-20

Stakeholder	Respondent's Name	Date of Response	Comment Format	Comment / Request	Response	Response Date
Independent Stakeholder	Laslo Semy	7-Jul-20	Email	Thank you , Laslo		
Independent Stakeholder	[redacted]	7-Jul-20	Email	According to your "Public Notice" on July 2nd. 2020, "Display Boards" will be made available. Where are they? How do I find them? Thank you in advance for your response!	Good Afternoon [redacted] Thank you for reaching out. Here are the links you're looking for. This one take you to all the current EA's at the Region: https://www.peelregion.ca/public-works/environmental-assessments/#current And this link will take you directly to the project boards: https://www.peelregion.ca/public-works/environmental-assessments/_media/ric-boards-indian-road.pdf Take a look and let me know if you have any questions. Lyle LeDrew C.E.T.	7-Jul-20
Independent Stakeholder	[redacted]	7-Jul-20	Email	Today, Tues. July 7, 2020, we found a folded piece of paper in our mailbox at 1162 Mississauga Road, which is south of Indian Road, North of the train tracks on the west side. We have lived at this residence for 41 years. In 1979, sewers were built and installed down Mississauga Road. The former owner and builder of our house refused to hook up, and our residence was charged $100.00 per year, EXTRA on our property tax bill, for the "privilege" of being able to hook up if we wanted to after 1979. This went on for 20 years, so , we in fact, have paid $2,000 to the City. We are still on septic tank, and I know other people who live on Kane Road who are also on septic tanks. Your notice has a statement " ....mitigate the potential abandonment of septic systems along Mississauga Road" What does that mean? We have no problem with our septic tank.. We have it pumped out regularly. Is the city going to force us, and others, to go on the sewer system? If so, why? We are retired, professional people, and live in a democratic society. Please advise us... Stan Baj and Carole Agnew Baj	Good Afternoon [redacted] Thank you for bringing your concerns to the Region's attention. To quickly address your main concern, no one will be forced to connect to the Region's wastewater system. You can continue to use your septic tank as long as you desire. The purpose of the proposed sanitary sewer along Mississauga Road or Kane Road is two fold. First being the decommissioning of the aging Indian Road wastewater pumping station which is located at the end of Indian Road on the west bank of the Credit River. With the upcoming installation of a deep sewer along Lakeshore Road, we have the opportunity to connect this area using a gravity sewer and eliminate the pumping station. This approach is much more cost effective as a pipe is much easier and less costly to maintain in the long term. A secondary benefit of installing a sanitary sewer along either of these routes is that it would provide the future potential for residents to make a sanitary sewer connection and abandon their septic tank, should they choose to do so. As stated earlier, these connections would be driven by residents themselves with no obligation to connect. This project would simply provide an additional option that isn't there today. I hope this helps to provide some insight into our projects intent. Should you have further questions or require clarification, please contact me anytime to discuss. Lyle LeDrew C.E.T.	7-Jul-20
Independent Stakeholder	[redacted]	7-Jul-20	Email	Thank you for your response to our email. We do have another question. 41 years ago, the City of Mississauga/and/or/The Region of Peel charged all homeowners $2,000 when the sewers came down Mississauga Road (we purchased our home on Sept. 30, 1979, and did not know anything about these charges until we saw the solitary extra " $100.00" charge on our City of Mississauga property tax bill in 1980.) We inquired at the tax office why we were charged an extra $100.00 and were told that we would be charged this for the next 20 years, and in fact, we were. We were told that it was a levy to all homeowners because the sewers were there "just in case we wanted to hook up" So, now that the proposal is there for something new and different, are we going to charged again for this "privilege"? In theory, the City got $2,000 from us , for something of which we never availed ourselves. Are they going to do this again? Thank you. [redacted]	[redacted] Excellent question. I don't have the specific details for your particular situation so I'll have to try and break things down using the "typical" approach. The intent of the Region or City is to have each home or business pay the costs for all associated infrastructure (water, sewer, sewer, roads, etc.) that services their home. In a new subdivision, these costs are borne by the builder and factored into the cost of the new home. In a situation like yours from the 80's, a project must have been set-up to provide sanitary service to a few homes along west side of Mississauga Road, just north of the tracks. Looking at our servicing map (see below), appears there's a sewer running in the backyards of the homes along the west side of Mississauga Road. So the monies collected over the years would have been to offset the costs to install and make available that sanitary line. The new pipe in question would provide an outlet and opportunity to extend a local sewer along Mississauga Road, to service the homes on the east side of Mississauga Road, as they currently don't have a viable option for sanitary servicing. Looking forward, should these residents decide it would be advantageous to pursue a sanitary connection and abandon their septic systems, all costs for that construction would be borne by them, similar to what your family experienced many years ago. So to summarize, you and the homes along the west side of Mississauga Road wouldn't be charged again for the pipe as ones already available to connect to. Hope this helps clarify. Let me know if you have any further questions. Lyle **(MAP INSERTED IN EMAIL)**	7-Jul-20

Stakeholder	Respondent's Name	Date of Response	Comment Format	Comment / Request	Response	Response Date
Independent Stakeholder	[redacted]	9-Jul-20	Email	Hello Mr. LeDrew I live at 1135 and 1139 Mississauga Rd. I received a copy of a Public Notice regarding the Gravity Sanitary Sewer from the Indian Rd. pumping station. We live on the east side of Mississauga Rd. were it bends just north of the CN Railway. Our existing sanitary sewer is a gravity sewer from the house out to a manhole on the street. How will the proposed decommissioning of the pumping station and rerouting of the sewers affect the existing sewers in front of our lots? In the case of alternative 3 would the existing gravity sewers on the south eastern end of Kane Rd. continue to flow to Mississauga Rd.? [redacted]	Good Afternoon [redacted] The proposed works will not make any modifications to the sanitary sewer line running in the area. Flows from Kane will continue to flow to Mississauga Road. The proposal is to install an additional line from the pumping station to the new trunk sewer proposed along Lakeshore. All home connections will remain as they are today. In the future, should residents that don't have a sanitary sewer connection desire one, new servicing options would become available along Mississauga Road. The current set up north of your home, along Mississauga Road is by means of a low pressure forcemain and there are many other homes further north that don't have any municipal wastewater servicing options available. I've attached a little map of the sanitary sewer setup as a reference. If you have any questions or require additional information, please contact me anytime.	13-Jul-20
Independent Stakeholder	[redacted]	13-Jul-20	Email	I am still somewhat confused. I came across the following on page 16 of the online RIC-Boards " Local sewer will be required along Kane Rd parallel to the CN Railway to the proposed shaft on Kane Rd ". From your map of the sewer setup, it is my understanding that the proposed shaft is near MH 6558415 and the section of sewer being described runs from MH 6558415 to MH 1783863 where our gravity sewer is connected. In the case of the preferred alignment #3, would there still be flow from MH 6558415 to MH 6558420? The wording would suggest that the flow is towards MH6558415. [redacted]	Good Morning [redacted] Great question! With Option #3, we would need to install a second local sewer between Kane Road and Mississauga Road which flows in the opposite direction to the current setup. This would be at a lower elevation than the current system, providing sufficient depth to run a gravity sewer up Mississauga Road. If residents along Mississauga Road decide in the future to install a sewer, then both that sewer along Mississauga Road and the local sewer on Kane would be installed at the same time. Essentially 2 separate systems. Here's a rough sketch to illustrate this concept. (MAP INSERTED IN EMAIL)	14-Jul-20

Review Agency Correspondence

Councillor, Ward 2

Krista Turco

From: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Sent: Friday, July 03, 2020 11:24 AM
To: Ras, Karen; Krista Turco
Cc: Sal Marrelli; Ras, Karen
Subject: RE: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Follow Up Flag: Follow up
Flag Status: Completed

Good Morning Councillor Ras,

Yes, notices will be hand delivered to all residents in the study area.

Both the Kane or Mississauga Road routes will be completed using micro-tunnel, so that direct impacts along the route are minimized. The most significant areas of impact will be at compound locations, where the tunneling will take place.

Please let me know if you have any questions or require additional information.

Lyle LeDrew C.E.T.
Project Manager
Wastewater Capital Works
10 Peel Centre Dr., suite B, 4th Floor
Brampton, ON L6T 4B9
Office: 905-791-7800 x 7836
Mobile: 416-573-0263

Region of Peel
working with you

From: Karen Ras <Karen.Ras@mississauga.ca>
Sent: July 3, 2020 9:26 AM
To: Krista Turco <kturco@coleengineering.ca>
Cc: LeDrew, Lyle <lyle.ledrew@peelregion.ca>; Sal Marrelli <smarrelli@coleengineering.ca>; Ras, Karen <karen.ras@mississauga.ca>
Subject: RE: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Thank you for the information Krista. Will the residents who live in the study area receive a hand delivered notice? If the preferred route is along Kane Road, what kind of road disruption will there be? There are no sidewalks and it is a narrow street.

Thanks,
Karen Ras
Councillor, Ward 2

From: Krista Turco [mailto:kturco@coleengineering.ca]
Sent: Thursday, July 2, 2020 5:02 PM
To: Krista Turco
Cc: Lyle.ledrew@peelregion.ca; Sal Marrelli
Subject: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Good Afternoon,

The Region of Peel, along with their Consultant (Cole Engineering Group Ltd.), is undertaking a Schedule B under the Municipal Engineer's Association Class Environmental Association (EA) process related to the provision of long term sanitary servicing for the area serviced by the existing Indian Road Sanitary Pumping Station (SPS) located in the City of Mississauga. The Indian Road SPS would require upgrades to address the aging infrastructure, reduce operation costs and provide the opportunity for potential abandonment of septic systems along Mississauga Road.

An evaluation of alternative solutions has been completed and the recommended alternative is replacement of the Indian Road SPS with construction of a new gravity sanitary extending west on Indian Road from the Indian Road SPS and south on Kane Road/Wesley Avenue to Lakeshore Road West. The gravity sewer would connect to a sanitary sewer that is being constructed on Lakeshore Road West.

Due to the current restrictions for public meetings the Region is conducting online public engagement to replace the typical Public Information Centre and to address the Schedule B Class EA consultation requirement. The attached Public Notice provides information on the project and a link to the Online Public Engagement presentation. The Notice indicates that comments are due by July 24, 2020 and who to forward any comments to.

We thank you in advance for your participation in the project.

Krista Turco
Project Coordinator
Municipal Infrastructure

Cole Engineering Group Ltd.
70 Valleywood Dr., Markham, ON L3R 4T5
Tor. Line: 416-987-6161 Ext 366 T. 905-940-6161
F: 905-940-2064
Email: kturco@coleengineering.ca
Website: www.ColeEngineering.ca

Krista Turco

From: Harvey, Joseph (MHSTCI) <Joseph.Harvey@ontario.ca>
Sent: Tuesday, July 21, 2020 12:47 PM
To: Lyle.ledrew@peelregion.ca
Cc: Minkin, Dan (MHSTCI); Barboza, Karla (MHSTCI); Krista Turco
Subject: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer
Attachments: 2020-07-21_GravitySanitarySewerMHSTCI-Ltr.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Lyle LeDrew,

Please find attached MHSTCI's comments on the above referenced project. Contact Dan Minkin with any further questions or concerns.

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Ministry of Tourism, Culture and Sport

Archaeology Programs Unit
Programs and Services Branch
Culture Division
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel.: (416) 314-7152
Email: Sarah.Roe@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes d'archéologie
Direction des programmes et des services
Division de culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
Tél. : (416) 314-7152
Email: Sarah.Roe@ontario.ca

Ontario

Aug 22, 2017

Jessica Lytle (P1066)
ASI Archaeological and Cultural Heritage Services
200 - 2321 Fairview Burlington ON L7R 2E3

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "STAGE 1 ARCHAEOLOGICAL ASSESSMENT ASSIGNMENT 1: SEWAGE PUMPING STATION UPGRADES IN MISSISSAUGA PART OF LOTS 5 AND 7, RANGE 1 CREDIT INDIAN RESERVE, PART OF LOT 6 RANGE 2 CREDIT INDIAN RESERVE, AND PART OF LOT 23, CONCESSION 3 SOUTH OF DUNDAS STREET (FORMER TOWNSHIP OF TORONTO, COUNTY OF PEEL) CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL, ONTARIO", Dated May 5, 2017, Filed with MTCS Toronto Office on Jul 5, 2017, MTCS Project Information Form Number P1066-0029-2017, MTCS File Number 0006577

Dear Ms. Lytle:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 Standards and Guidelines for Consultant Archaeologists set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figure8 : Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection at Rosemere Road (Sheet1) and Figure 9: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection (Sheet 2) and Figure 10: Assignment 1: Sewage Pumping Station Upgrades in Mississauga Study Areas – Results of the Property Inspection (Sheet 3)of the above titled report and recommends the following:

1. The Study Areas exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit survey at a five metre intervals prior to any proposed impacts to the property;

2. The remainder of the Study Areas do not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,

3. Should the proposed work extend beyond the current Study Areas, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Sarah Roe
Archaeology Review Officer

cc. Archaeology Licensing Officer
Jennifer Whittard,Cole Engineering Group Ltd.
Jimmy Chong,Regional Municipality of Peel, Wastewater Division

[1]In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Ministry of the Environment, Conservation and Parks

Reply Reply All Forward

Re: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Bell, Trevor (MECP) [Trevor.Bell@ontario.ca]

To: Pat Becker

Cc: LeDrew, Lyle [Lyle.ledrew@peelregion.ca]; Sal Marrelli

Friday, July 03, 2020 11:39 AM

Hi Pat,

Thanks for clarifying!

Best regards,
Trevor

From: Pat Becker <pbecker@coleengineering.ca>
Sent: July 2, 2020 6:49 PM
To: Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>
Cc: LeDrew, Lyle <lyle.ledrew@peelregion.ca>; Sal Marrelli <smarrelli@coleengineering.ca>
Subject: RE: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Trevor

I am Cole's Environmental/Consultation Specialist on this Schedule B, Class EA Project so I will respond to your email. We were unsure when the notice would be formally published and distributed and I was waiting to receive confirmation of the publish date. We were uncertain whether the Notice would be sent out today, Friday or on Monday so I had not forwarded the Project Information Form to MECP until we knew the date it was published. Since the Notice was published today (July 2) I have now submitted the Project Information Form with a pdf of the Project Notice to MECP's Central Region office email.

For your reference, this is the first notice to be issued for this project and it is a combined Notice of Commencement and Online Public Engagement.

If you have any other questions regarding the Notice please feel free to contact me directly.

Thanks,

Pat

Patricia Becker, MES
Environmental Specialist
Cole Engineering Group Ltd.

c: 416-529-3613

Krista Turco

From: Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>
Sent: Thursday, July 02, 2020 5:42 PM
To: Krista Turco
Cc: Lyle.ledrew@peelregion.ca; Sal Marrelli
Subject: RE: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Krista,

Thanks for your email. Was a Notice of Commencement previously submitted to the Ministry of the Environment, Conservation and Parks, Central Region Office for this project?

Best regards,
Trevor

Trevor Bell | Environmental Planner/Environmental Assessment Coordinator
Project Review Unit, Environmental Assessment and Permissions Branch
Ministry of the Environment, Conservation and Parks
5775 Yonge Street, 8th floor, Toronto ON, M2M 4J1
Phone: 416-326-3577 | trevor.bell@ontario.ca

From: Krista Turco <kturco@coleengineering.ca>
Sent: July 2, 2020 5:02 PM
To: Krista Turco <kturco@coleengineering.ca>
Cc: Lyle.ledrew@peelregion.ca; Sal Marrelli <smarrelli@coleengineering.ca>
Subject: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

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requirement. The attached Public Notice provides information on the project and a link to the Online Public Engagement presentation. The Notice indicates that comments are due by July 24, 2020 and who to forward any comments to.

We thank you in advance for your participation in the project.

Krista Turco
Project Coordinator
Municipal Infrastructure

Cole Engineering Group Ltd.
70 Valleywood Dr., Markham, ON L3R 4T5
Tor. Line: 416-987-6161 Ext 366 T. 905-940-6161
F: 905-940-2064
Email: kturco@coleengineering.ca
Website: www.ColeEngineering.ca

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

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

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

Direction des évaluations environnementales

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

August 17, 2020

Lyle LeDrew, C.E.T
Project Manager, Water & Wastewater
Region of Peel
lyle.ledrew@peelregion.ca
BY EMAIL ONLY

Re: **Gravity Sanitary Sewer from Indian Road Sewage Pumping Station Connection to Lakeshore Road Trunk Sewer**
Region of Peel
Schedule B Municipal Class Environmental Assessment
Notice of Study Commencement

Dear Mr. LeDrew,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Region of Peel has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Engineers Association's Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project**, the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially

affected by the proposed project:

- Mississaugas of the Credit First Nation;
- Six Nations of the Grand River;
- Haudenosaunee Confederacy Chiefs Council; and
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process".

Additional information related to Ontario's *Environmental Assessment Act* is available online at: www.ontario.ca/environmentalassessments

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of Environmental Assessment Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Part II Order request is expected based on impacts to Aboriginal or treaty rights.

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Once the Project File is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the Proponent.

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

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

and

Director, Environmental Assessment Branch

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

Please note the project cannot proceed until at least 30 days after the end of the public review period provided for in the Notice of Completion.

Further, the project may not proceed after this time if:

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

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent.

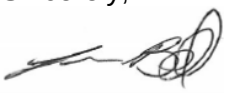
Once the requested information has been received, the Minister will have 30 days to make a decision or impose conditions on your project.

A draft copy of the report should be sent to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account (eanotification.cregion@ontario.ca) after the draft report is finalized.

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

Sincerely,



Trevor Bell
Regional Environmental Assessment Coordinator

cc: Tina Dufresne, Manager, Halton Peel District Office, MECP
Agni Papageorgiou, Supervisor, Project Review Unit, MECP
Patricia Becker, Environmental Specialist, Cole Engineering Group Ltd.
Krista Turco, Project Coordinator, Cole Engineering Group Ltd.

Attachments: Areas of Interest
A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities

AREAS OF INTEREST

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

☐ Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

☐ Planning and Policy

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: https://www.placestogrow.ca.

- Parts of the study area may be subject to the A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019), Oak Ridges Moraine Conservation Plan (2017), Niagara Escarpment Plan (2017), Greenbelt Plan (2017) or Lake Simcoe Protection Plan (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.

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

☐ Source Water Protection (all projects)

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

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

- In October 2015, the MEA Parent Class EA document was amended to include reference to the

Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

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

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

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

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php.The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Jennifer Stephens at (416) 661-6600 ext 5568 or jstephens@trca.on.ca. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

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

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

Climate Change

Ontario is leading the fight against climate change through the Climate Change Action Plan. Recently released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term

targets. As a commitment of the action plan, **the province has now finalized a guide, "Considering Climate Change in the Environmental Assessment Process" (Guide).**

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

- The MECP expects proponents to:

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

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

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

Air Quality, Dust and Noise

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

- **If a full Air Quality Impact Assessment is not required for the project, the report should still contain:**

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

- A discussion of potential mitigation measures.

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

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

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

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

Ecosystem Protection and Restoration

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

- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:

  - Areas of Natural and Scientific Interest (ANSIs)
  - Rare Species of flora or fauna
  - Watercourses
  - Wetlands
  - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

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

  - Strategies to address potential water quantity and erosion impacts related to stormwater

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

- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

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

Groundwater

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

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

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

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

Contaminated Soils

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with

Part XV.1 of the Environmental Protection Act (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.

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

- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

Excess Materials Management

- Activities involving the management of excess soil should be completed in accordance with the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

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

Servicing and Facilities

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed infrastructure.

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

Mitigation and Monitoring

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

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

- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

Consultation

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

Class EA Process

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

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act*, although the plan itself would not be.

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

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

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

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

Definitions

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. Purpose

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. Why is it Necessary to Consult with Aboriginal Communities?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. The Crown's Role and Responsibilities in the Delegated Consultation Process

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. The Proponent's Role and Responsibilities in the Delegated Consultation Process

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;

- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. What are the Roles and Responsibilities of Aboriginal Communities' in the Consultation Process?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigates any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. What if More Than One Provincial Crown Ministry is Involved in Approving a Proponent's Project?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Utilities

Krista Turco

From: Marcel Vien <Marcel.Vien@telus.com>
Sent: Friday, July 03, 2020 8:19 AM
To: Krista Turco
Cc: Paul Totino; Fred Sua; Lyle.ledrew@peelregion.ca; Sal Marrelli; Marcel Vien
Subject: RE: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Importance: High

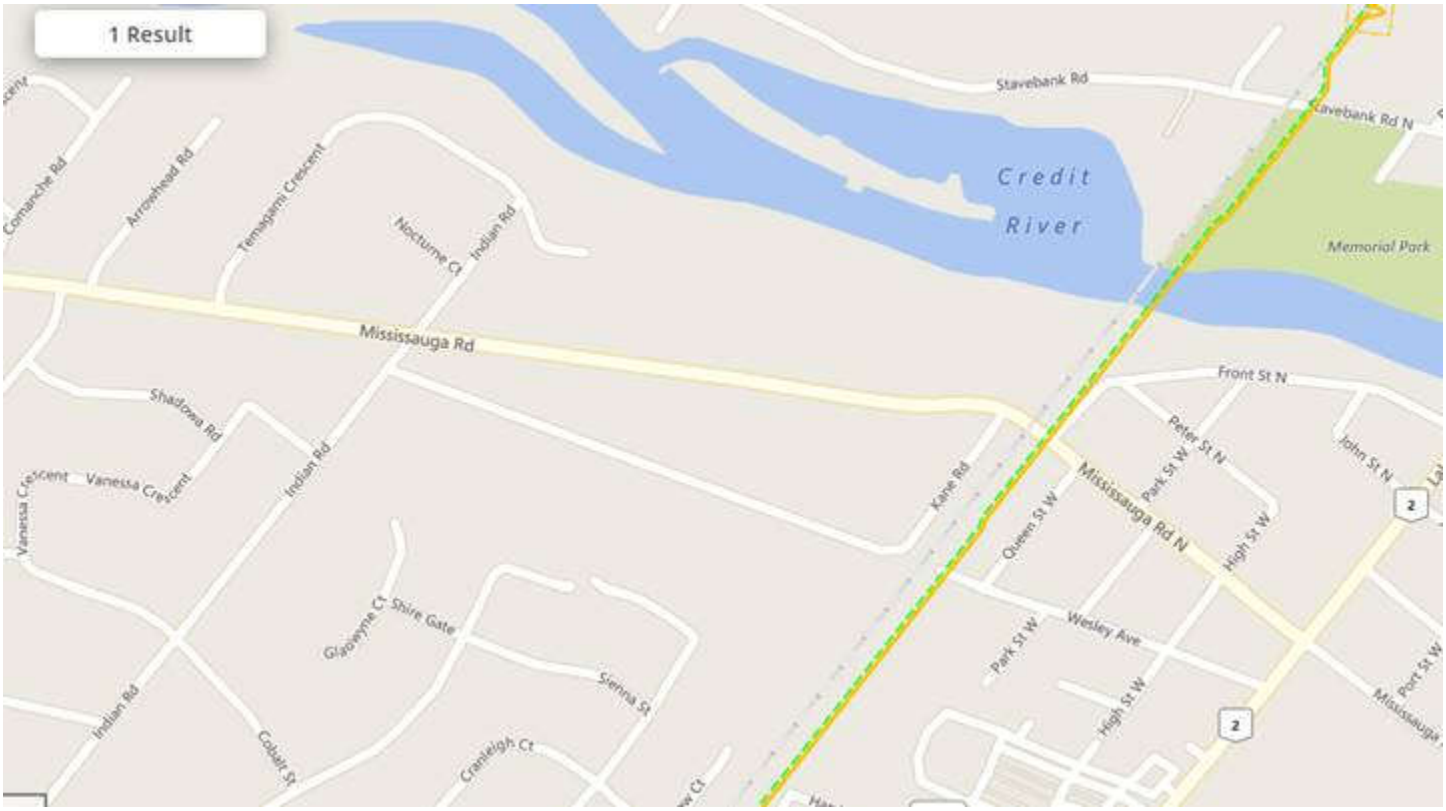
Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Krista

TELUS does not have any existing structure within your proposed work zone.

We do have existing fibre located inside Bell conduit on the rail property. Please reach out to Bell regarding rail fibre and please CC me.

Thank you.



From: Paul Totino <Paul.Totino@TELUS.Com>
Sent: July 2, 2020 5:04 PM
To: Marcel Vien <Marcel.Vien@telus.com>; Fred Sua <Frederic.Sua@telus.com>

Subject: FW: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

FYI/FYA…

From: Krista Turco <kturco@coleengineering.ca>
Sent: July 2, 2020 05:02 PM
To: Krista Turco <kturco@coleengineering.ca>
Cc: Lyle.ledrew@peelregion.ca; Sal Marrelli <smarrelli@coleengineering.ca>
Subject: Class EA Public Notice - Gravity Sanitary Sewer from Indian Road Sewage Pumping Station to Lakeshore Road Trunk Sewer

Good Afternoon,

The Region of Peel, along with their Consultant (Cole Engineering Group Ltd.), is undertaking a Schedule B under the Municipal Engineer's Association Class Environmental Association (EA) process related to the provision of long term sanitary servicing for the area serviced by the existing Indian Road Sanitary Pumping Station (SPS) located in the City of Mississauga. The Indian Road SPS would require upgrades to address the aging infrastructure, reduce operation costs and provide the opportunity for potential abandonment of septic systems along Mississauga Road.

An evaluation of alternative solutions has been completed and the recommended alternative is replacement of the Indian Road SPS with construction of a new gravity sanitary extending west on Indian Road from the Indian Road SPS and south on Kane Road/Wesley Avenue to Lakeshore Road West. The gravity sewer would connect to a sanitary sewer that is being constructed on Lakeshore Road West.

Due to the current restrictions for public meetings the Region is conducting online public engagement to replace the typical Public Information Centre and to address the Schedule B Class EA consultation requirement. The attached Public Notice provides information on the project and a link to the Online Public Engagement presentation. The Notice indicates that comments are due by July 24, 2020 and who to forward any comments to.

We thank you in advance for your participation in the project.

Krista Turco
Project Coordinator
Municipal Infrastructure

Cole Engineering Group Ltd.
70 Valleywood Dr., Markham, ON L3R 4T5
Tor. Line: 416-987-6161 Ext 366 T. 905-940-6161
F: 905-940-2064
Email: kturco@coleengineering.ca
Website: www.ColeEngineering.ca

Public Comments Received and Responses

Krista Turco

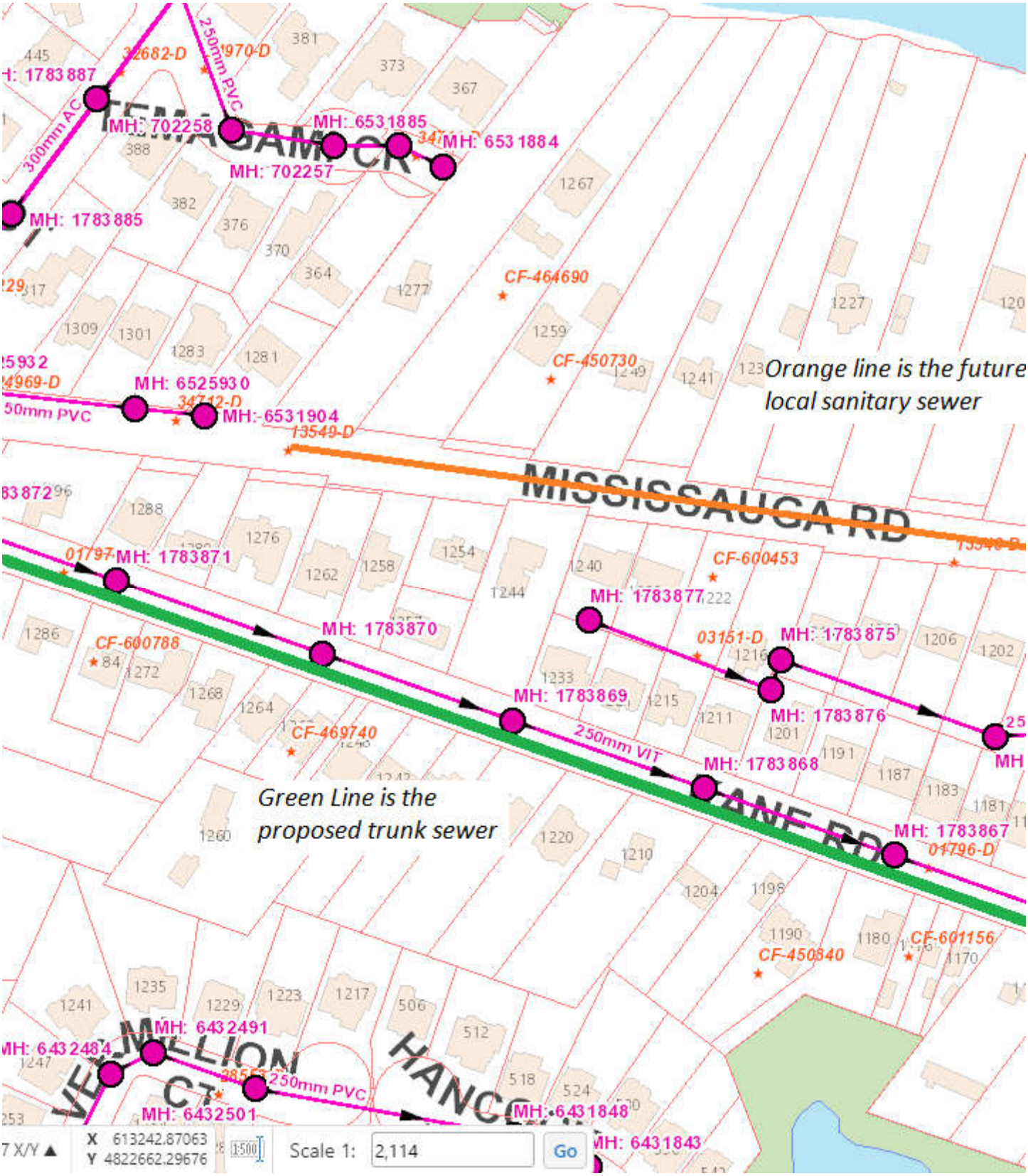
From: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Sent: Tuesday, July 14, 2020 10:54 AM
To: [redacted]
Cc: Sal Marrelli; Krista Turco
Subject: RE: decommissioning of the Indian Road SPS

Follow Up Flag: Follow up
Flag Status: Flagged

Good Morning [redacted]

Great question! With Option #3, we would need to install a second local sewer between Kane Road and Mississauga Road which flows in the opposite direction to the current setup. This would be at a lower elevation than the current system, providing sufficient depth to run a gravity sewer up Mississauga Road. If residents along Mississauga Road decide in the future to install a sewer, then both that sewer along Mississauga Road and the local sewer on Kane would be installed at the same time. Essentially 2 separate systems.

Here's a rough sketch to illustrate this concept.



From: [redacted]
Sent: July 13, 2020 10:09 PM
To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: Re: decommissioning of the Indian Road SPS

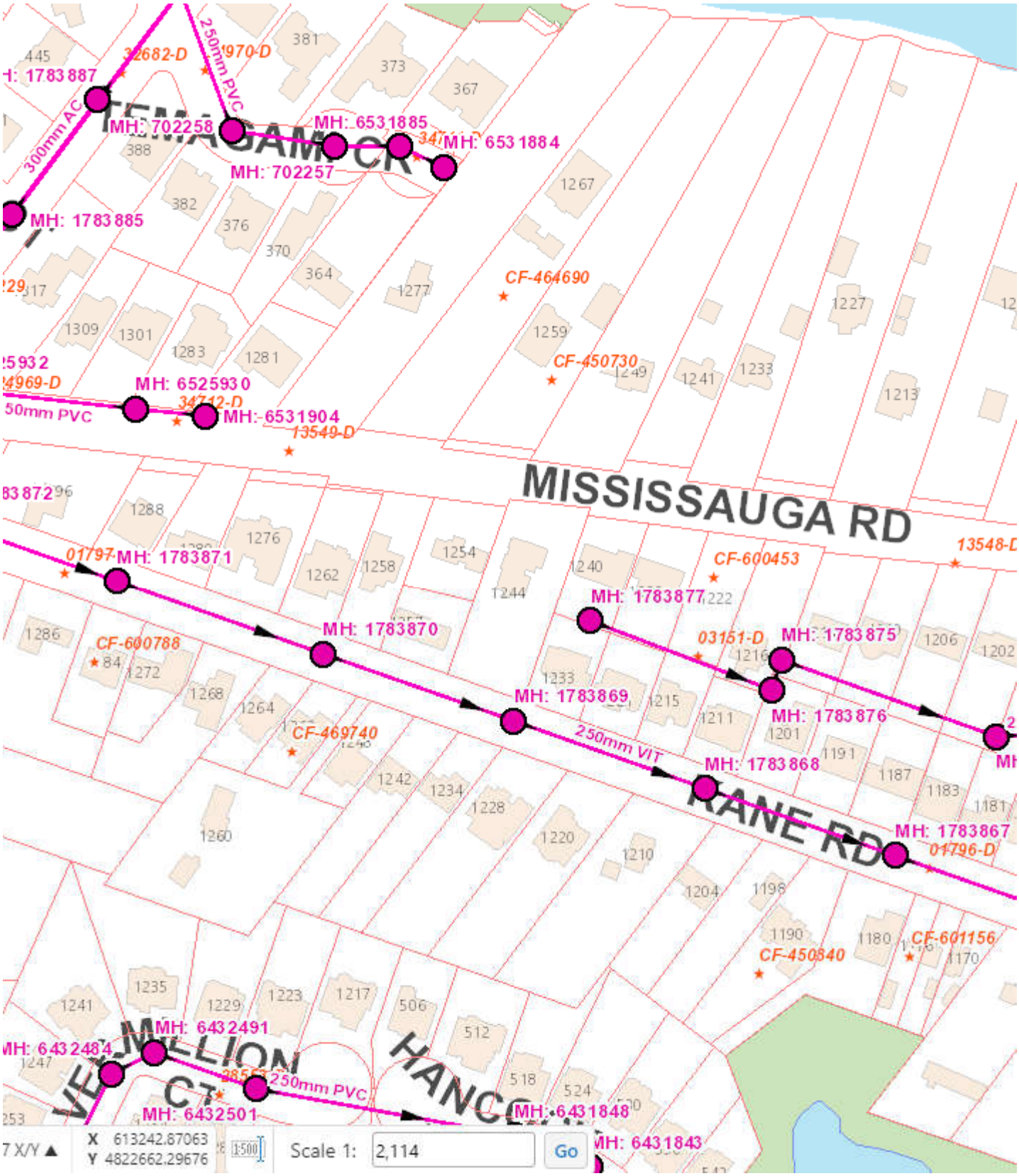
CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.

I am still somewhat confused. I came across the following on page 16 of the online RIC-Boards " Local sewer will be required along Kane Rd parallel to the CN Railway to the proposed shaft on Kane Rd ". From your map of the sewer setup, it is my understanding that the proposed shaft is near MH 6558415 and the section of sewer being described runs from MH 6558415 to MH 1783863 where our gravity sewer is connected. In the case of the preferred alignment #3, would there still be flow from MH 6558415 to MH 6558420? The wording would suggest that the flow is towards MH6558415.

[redacted]

On Mon, Jul 13, 2020 at 5:48 PM LeDrew, Lyle <lyle.ledrew@peelregion.ca> wrote:

> Good Afternoon [redacted]
>
> The proposed works will not make any modifications to the sanitary sewer line running in the area. Flows from Kane will continue to flow to Mississauga Road. The proposal is to install an additional line from the pumping station to the new trunk sewer proposed along Lakeshore. All home connections will remain as they are today. In the future, should residents that don't have a sanitary sewer connection desire one, new servicing options would become available along Mississauga Road. The current set up north of your home, along Mississauga Road is by means of a low pressure forcemain and there are many other homes further north that don't have any municipal wastewater servicing options available. I've attached a little map of the sanitary sewer setup as a reference.
>
> If you have any questions or require additional information, please contact me anytime.
>
> **Lyle LeDrew C.E.T.**
>
> Project Manager
>
> Wastewater Capital Works
>
> 10 Peel Centre Dr., suite B, 4th Floor
>
> Brampton, ON L6T 4B9
>
> Office: 905-791-7800 x 7836
>
> Mobile: 416-573-0263
>
> Region of Peel
> working with you



From: [redacted]
Sent: July 9, 2020 4:55 PM

To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: decommissioning of the Indian Road SPS

CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.

Hello Mr. LeDrew

I live at 1135 and 1139 Mississauga Rd. I received a copy of a Public Notice regarding the Gravity Sanitary Sewer from the Indian Rd. pumping station. We live on the east side of Mississauga Rd. were it bends just north of the CN Railway. Our existing sanitary sewer is a gravity sewer from the house out to a manhole on the street. How will the proposed decommissioning of the pumping station and rerouting of the sewers affect the existing sewers in front of our lots? In the case of alternative 3 would the existing gravity sewers on the south eastern end of Kane Rd. continue to flow to Mississauga Rd.?

[redacted]

Krista Turco

From: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Sent: Tuesday, July 07, 2020 4:42 PM
To: [redacted]
Cc: Sal Marrelli; Krista Turco
Subject: RE: Notice of Environmental Assessment Study

Follow Up Flag: Follow up
Flag Status: Completed

[redacted]

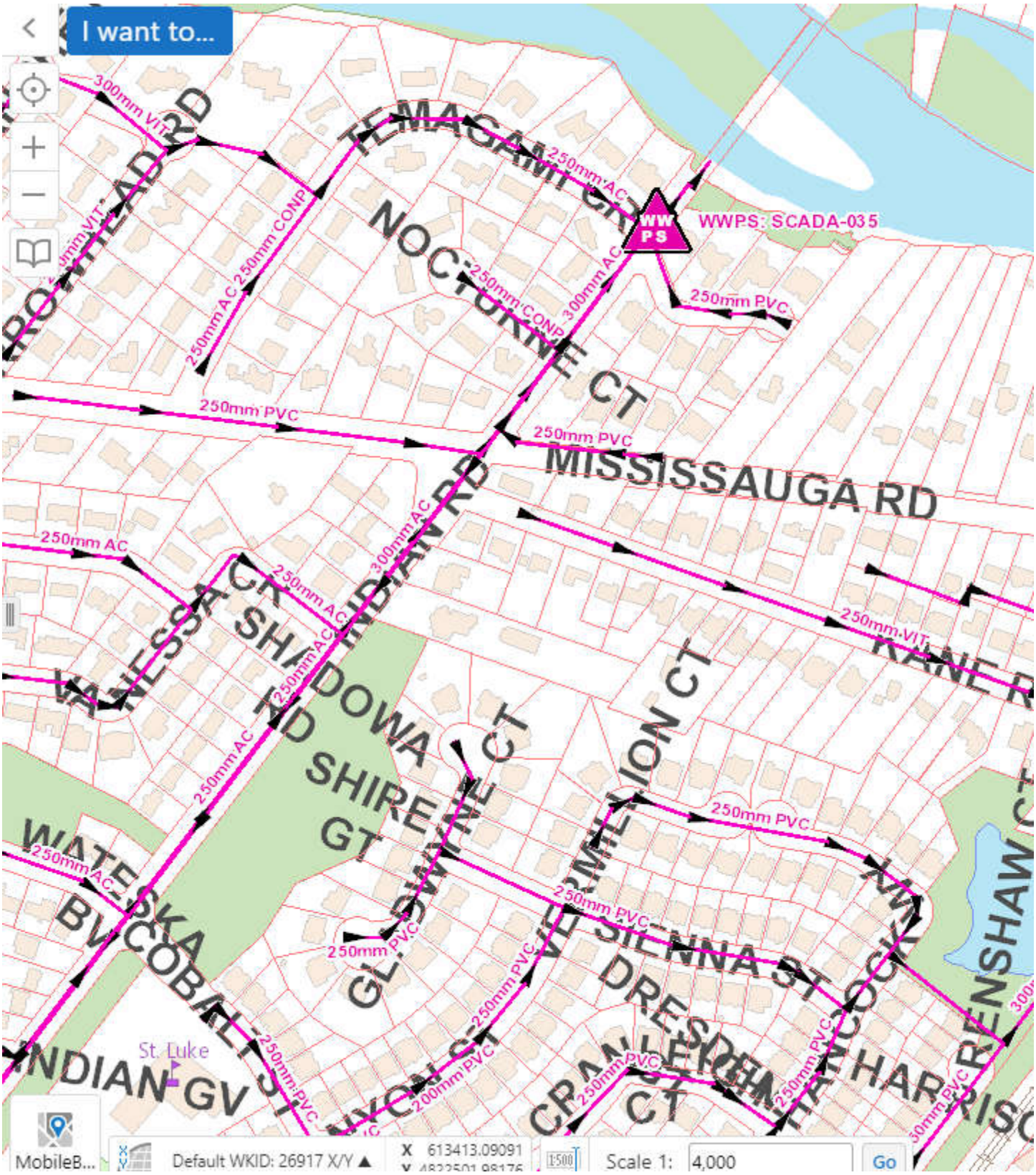
Excellent question. I don't have the specific details for your particular situation so I'll have to try and break things down using the "typical" approach.

The intent of the Region or City is to have each home or business pay the costs for all associated infrastructure (water, sewer, sewer, roads, etc.) that services their home. In a new subdivision, these costs are borne by the builder and factored into the cost of the new home. In a situation like yours from the 80's, a project must have been set-up to provide sanitary service to a few homes along west side of Mississauga Road, just north of the tracks. Looking at our servicing map (see below), appears there's a sewer running in the backyards of the homes along the west side of Mississauga Road. So the monies collected over the years would have been to offset the costs to install and make available that sanitary line.

The new pipe in question would provide an outlet and opportunity to extend a local sewer along Mississauga Road, to service the homes on the east side of Mississauga Road, as they currently don't have a viable option for sanitary servicing. Looking forward, should these residents decide it would be advantageous to pursue a sanitary connection and abandon their septic systems, all costs for that construction would be borne by them, similar to what your family experienced many years ago.

So to summarize, you and the homes along the west side of Mississauga Road wouldn't be charged again for the pipe as ones already available to connect to. Hope this helps clarify. Let me know if you have any further questions.

Lyle



From: [redacted]
Sent: July 7, 2020 4:04 PM
To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: RE: Notice of Environmental Assessment Study

Thank you for your response to our email. We do have another question. 41 years ago, the City of Mississauga/and/or/The Region of Peel charged all homeowners $2,000 when the sewers came down Mississauga Road (we purchased our home on Sept. 30, 1979, and did not know anything about these charges until we saw the solitary extra " $100.00" charge on our City of Mississauga property tax bill in 1980.) We inquired at the tax office why we were charged an extra $100.00 and were told that we would be charged this for the next 20 years, and in fact, we were. We were told that it was a levy to all homeowners because the sewers were there "just in case we wanted to hook up" So, now that the proposal is there for something new and different, are we going to charged again for this "privilege"? In theory, the City got $2,000 from us , for something of which we never availed ourselves. Are they going to do this again? Thank you. Carole Agnew Baj

---------- Original Message ----------
From: "LeDrew, Lyle" <lyle.ledrew@peelregion.ca>
Date: July 7, 2020 at 3:32 PM

Good Afternoon [redacted]

Thank you for bringing your concerns to the Region's attention. To quickly address your main concern, no one will be forced to connect to the Region's wastewater system. You can continue to use your septic tank as long as you desire.

The purpose of the proposed sanitary sewer along Mississauga Road or Kane Road is two fold. First being the decommissioning of the aging Indian Road wastewater pumping station which is located at the end of Indian Road on the west bank of the Credit River. With the upcoming installation of a deep sewer along Lakeshore Road, we have the opportunity to connect this area using a gravity sewer and eliminate the pumping station. This approach is much more cost effective as a pipe is much easier and less costly to maintain in the long term.

A secondary benefit of installing a sanitary sewer along either of these routes is that it would provide the future potential for residents to make a sanitary sewer connection and abandon their septic tank, should they choose to do so. As stated earlier, these connections would be driven by residents themselves with no obligation to connect. This project would simply provide an additional option that isn't there today.

I hope this helps to provide some insight into our projects intent. Should you have further questions or require clarification, please contact me anytime to discuss.

Lyle LeDrew C.E.T.

Project Manager

Wastewater Capital Works

10 Peel Centre Dr., suite B, 4th Floor

Brampton, ON L6T 4B9

Office: 905-791-7800 x 7836

Mobile: 416-573-0263

From: [redacted]
Sent: July 7, 2020 7:41 AM
To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: Notice of Environmental Assessment Study

CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.

Today, Tues. July 7, 2020, we found a folded piece of paper in our mailbox at 1162 Mississauga Road, which is south of Indian Road, North of the train tracks on the west side. We have lived at this residence for 41 years. In 1979, sewers were built and installed down Mississauga Road. The former owner and builder of our house refused to hook up, and our residence was charged $100.00 per year, EXTRA on our property tax bill, for the "privilege" of being able to hook up if we wanted to after 1979. This went on for 20 years, so , we in fact, have paid $2,000 to the City. We are still on septic tank, and I know other people who live on Kane Road who are also on septic tanks. Your notice has a statement " ....mitigate the potential abandonment of septic systems along Mississauga Road"

What does that mean? We have no problem with our septic tank.. We have it pumped out regularly. Is the city going to force us, and others, to go on the sewer system? If so, why? We are retired, professional people, and live in a democratic society. Please advise us... Stan Baj and Carole Agnew Baj

Krista Turco

From: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Sent: Tuesday, July 07, 2020 3:24 PM
To: [redacted]
Cc: Sal Marrelli; Krista Turco
Subject: RE: Gravity sanity Sewer from Indian road sewage pumping station to lakeshore road trunk sewer: Re 1267 Mississauga road

Follow Up Flag: Follow up
Flag Status: Completed

Good Afternoon [redacted]

Thank you for tanking the time to provide your comments below. We do appreciate feedback from the local residents as you understand the area better than we would be able to.

Should you have any questions or have additional comments, feel free to contact me anytime.

Lyle LeDrew C.E.T.
Project Manager
Wastewater Capital Works
10 Peel Centre Dr., suite B, 4th Floor
Brampton, ON L6T 4B9
Office: 905-791-7800 x 7836
Mobile: 416-573-0263

Region of Peel
working with you

From: [redacted]
Sent: July 7, 2020 3:18 PM
To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: Gravity sanity Sewer from Indian road sewage pumping station to lakeshore road trunk sewer: Re 1267 Mississauga road

Sir,

We live at the above noted address.

We would be in favor of the alternate route through Kane road for several reasons:

a) Mississauga road is a busy through street with only two lanes and the cars travel at higher speeds than on Kane road

b) Kane road is far more accessible and less intrusive on traffic than mississauga road

c) there is a stretch of Mississauga road on it's east side (inclusive our house) that is not on sewers but on septic, and I would prefer keeping it that way as the city's suggestion in 2010 for us to build and maintain these sewers to our home AND exclusively maintained by us personally was idiotic and insulting.

d) There are existing sewers on kane road which may aid in positioning new sewers thereby saving some costs.

e) Mississauga road is considered a scenic road by the city and having sewer maintenance on such a road may lead to malodorous issues which would temper the scenic in scenic

f) construction would hamper and prevent access not only to mississauga road residents but those that would live in the lakeshore community.

g) by the design the kane road option would lead to a staright line extension whereas mississauga road would have an elbow at a low point which would cause greater problems with flooding and stop gaps thereby increasing maintenance costs.

In other words no to Mississauga road and yes to Kane Road.

Regards

[redacted]

Krista Turco

From: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Sent: Tuesday, July 07, 2020 12:29 PM
To: [redacted]
Cc: Sal Marrelli; Krista Turco
Subject: RE: Public Notice - Gravity Sanitary Sewer

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon [redacted]

Thank you for reaching out. Here are the links you're looking for.

This one take you to all the current EA's at the Region:
https://www.peelregion.ca/public-works/environmental-assessments/#current

And this link will take you directly to the project boards:
https://www.peelregion.ca/public-works/environmental-assessments/_media/ric-boards-indian-road.pdf

Take a look and let me know if you have any questions.

Lyle LeDrew C.E.T.
Project Manager
Wastewater Capital Works
10 Peel Centre Dr., suite B, 4th Floor
Brampton, ON L6T 4B9
Office: 905-791-7800 x 7836
Mobile: 416-573-0263

-----Original Message-----
From: [redacted]
Sent: July 7, 2020 12:25 PM
To: LeDrew, Lyle <lyle.ledrew@peelregion.ca>
Subject: Public Notice - Gravity Sanitary Sewer

CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.

Web Form Title :: Project Manager

This email was sent by the following person. Please reply to them:

Sender's Name: [redacted]
Sender's Email: pfelder@sympatico.ca

The message was submitted through an Automated Email Service on Peel's Website Tue Jul 7 12:24:13 2020:

According to your "Public Notice" on July 2nd. 2020, "Display Boards" will be made available.
Where are they? How do I find them?
Thank you in advance for your response!

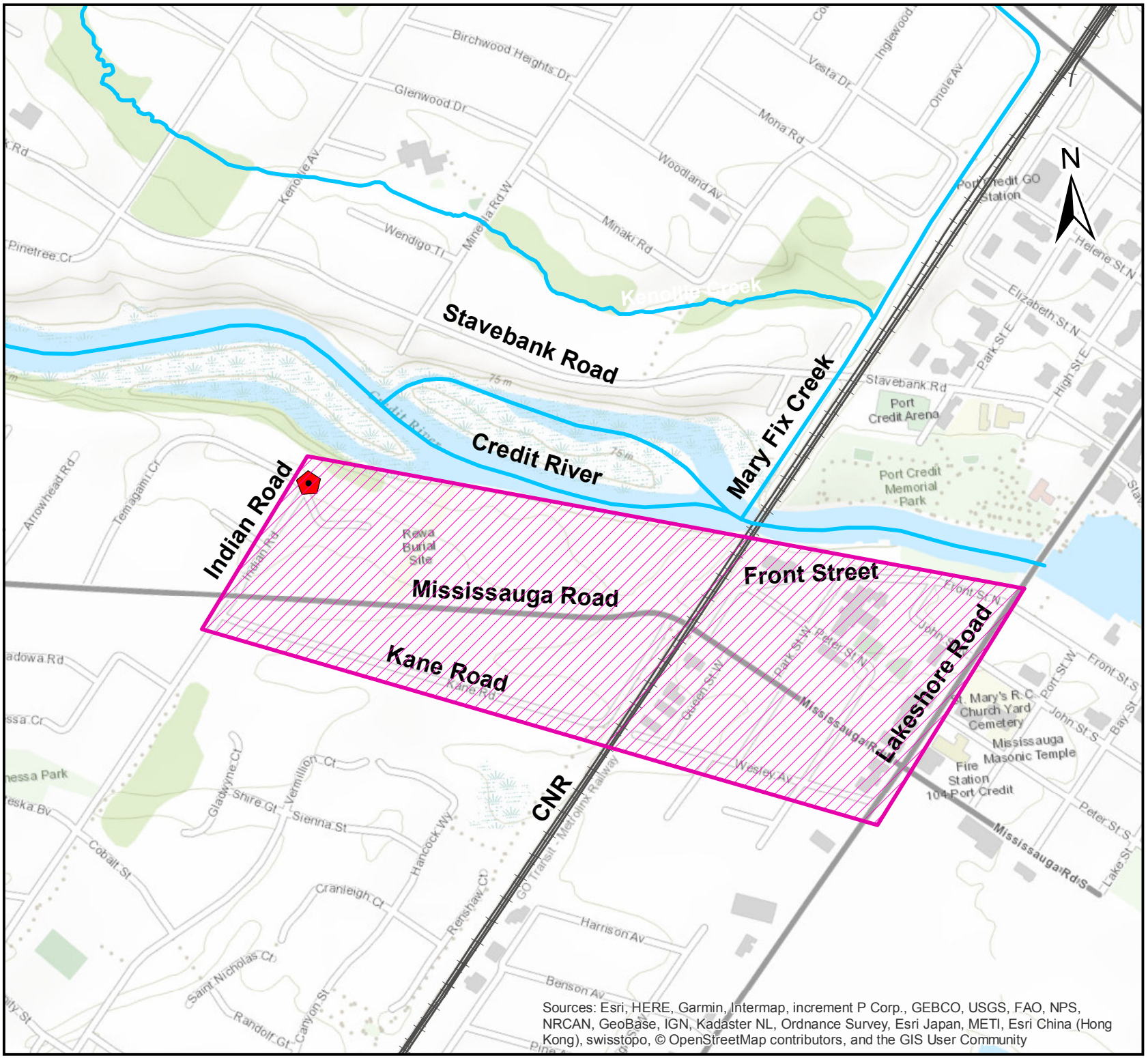
It is the Region of Peel's policy to reply to e-mails within two working days.

For assistance, please contact the webmaster@peelregion.ca

:: NOTE ABOUT CONTACT INFORMATION ::
Contact information can be forged. There is no way to accurately verify a person's name and email address on the Internet.

Appendix E

Study Area (Properties Received Notification)


Legend
Pumping Station
Watercourse
Rail
Study Area
(Properties Received Notice)
N
Stavebank Road
Credit River
Mary Fix Creek
Kenolite Creek
Indian Road
Mississauga Road
Front Street
Kane Road
Lakeshore Road
CNR
Rewa Burial Site
Port Credit Arena
Port Credit Memorial Park
Port Credit GO Station
Mississauga Masonic Temple
Fire Station 104 Port Credit
St. Mary's R.C. Church Yard Cemetery
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Appendix F

Online Public Engagement Display Boards

ONLINE PUBLIC ENGAGEMENT

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT SCHEDULE "B"

GRAVITY SANITARY SEWER FROM INDIAN ROAD SEWAGE PUMPING STATION CONNECTION TO LAKESHORE ROAD TRUNK SEWER

PROJECT BACKGROUND

Indian Road Sanitary Pumping Station (SPS):

- Built in 1972
- 83 hectare catchment area
- Located within City's unopened road allowance and CVC regulated area
- Backs onto Credit River
- Indian Road SPS collects wastewater from residential lands through a network of sewers
- Needs major upgrades/repairs

Legend

- Watercourse
- Drainage Area for Indian Road SPS
- Indian Road SPS

PROBLEM/OPPORTUNITY STATEMENT

Phase 1 of the Municipal Class EA process defines the starting point for any Class EA as the "Problem/Opportunity Statement."

The Problem/Opportunity Statement for the Indian Road Sanitary Sewer Municipal Class EA is defined as follows:

To provide long term sanitary servicing for the residents currently serviced by the Indian Road Sanitary Pumping Station. In addition, providing the opportunity to include the residents along Mississauga Road to connect to municipal servicing and abandon the remaining private septic systems.

In accordance with the requirements of the MEA Municipal Class EA planning process, the Region of Peel initiated this Municipal Class EA to identify and evaluate alternative solutions to address this Problem/Opportunity Statement.

PROJECT DESCRIPTION

Why is the Project Necessary?

- Indian Road SPS requires significant upgrades
- Addresses aging infrastructure associated with the Indian Road SPS
- Potential abandonment of private septic systems on Mississauga Road

What does the Project Involve?

- Continuing to provide long term servicing for the residents currently serviced by the Indian Road SPS
- Providing this service either by:
  - Upgrading the Indian Road SPS or;
  - Construction of a new gravity sanitary sewer that would extend from Indian Road and connect to a sanitary sewer being constructed on Lakeshore Road West
- Providing an outlet for future local servicing to be installed to address private septic systems located on Mississauga Road

MUNICIPAL CLASS EA PROCESS

Municipal infrastructure projects are required to meet the Class EA process. Projects are assigned a project 'Schedule' according to the anticipated level of environmental impact.

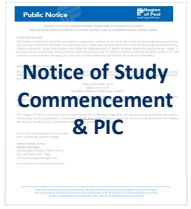
Schedule B projects have the potential for some adverse environmental effects and require the proponent to proceed through Phases 1 and 2 of the Class EA process. Examples of Schedule B projects include expansions or improvements to existing facilities. At the end of the Class EA process, a project file is prepared to document the planning process and made available for public and agency review for 30 calendar days.

Key component of the Municipal Class EA process is the requirement to undertake consultation.

- Consultation can be met by making this presentation accessible for review and comment by the public, agencies, Indigenous communities and other interested parties.
- Notice of Completion and release of Project File at the end of the project for review and comment is the final consultation step for the project.

MUNICIPAL CLASS EA PROCESS

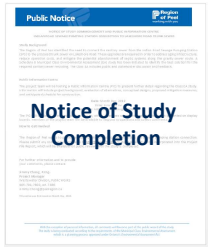
Phase 1: Problem or Opportunity
- Identify the problem(s) or opportunities



Phase 2: Alternative Solutions
- Identify alternative solutions
- Inventory natural, cultural and social-economic environments
- Identify potential impacts of the alternative solutions after mitigation
- Evaluate the alternative solutions considering environmental and technical impacts
- Identify a recommended solution
- Confirm the preferred solution based on input from the PIC and review agencies

We are here

Project File Report:
- Prepare project file report to describe the activities undertaken through Phases 1 and 2
- Notify stakeholders of completion of the study and of the Part II Order provision in the EA Act
- Place project file report on public record for review for 30 calendar days



Implementation:
- Proceed to detailed design and construction

ONLINE PUBLIC ENGAGEMENT

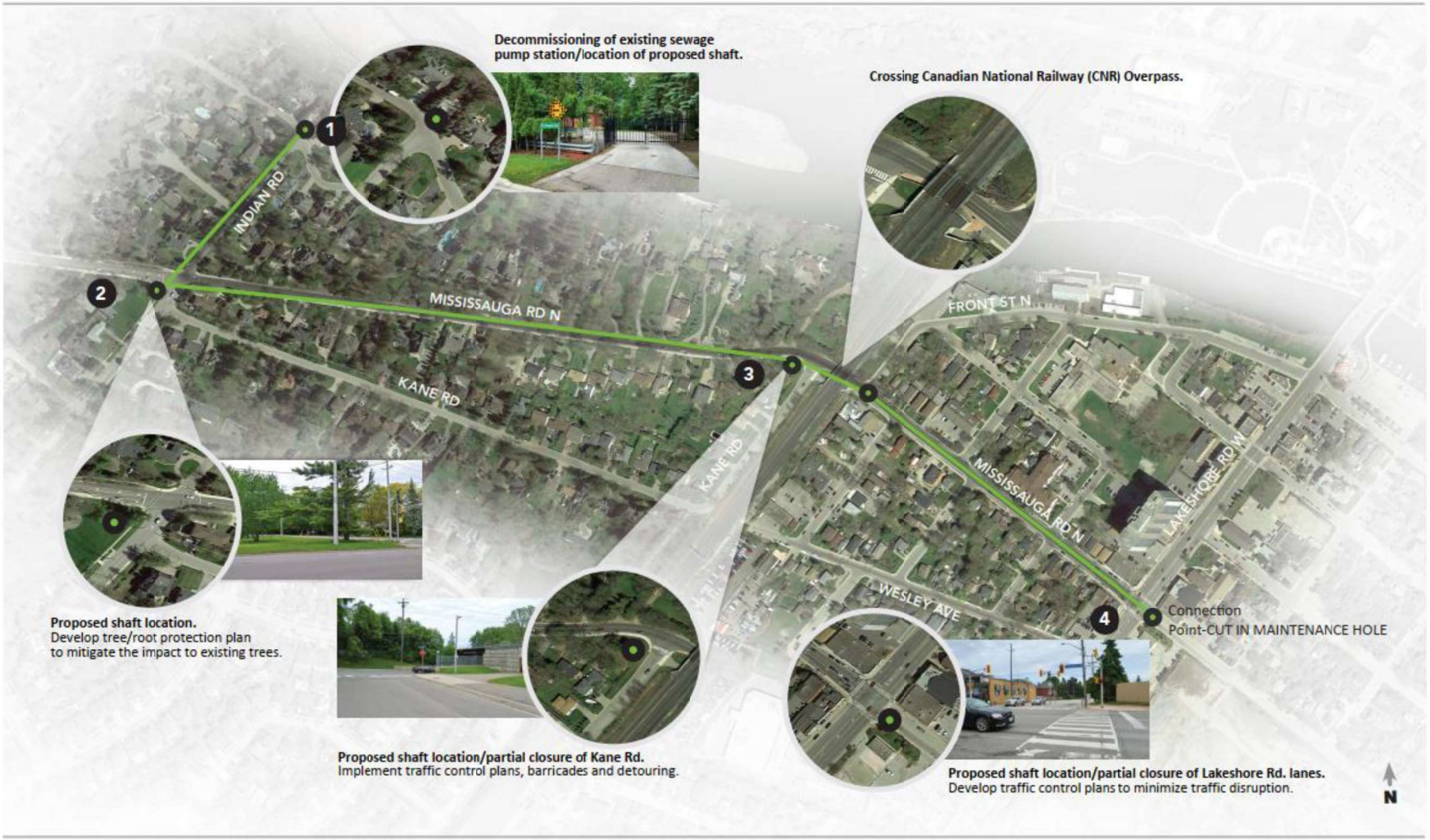
NATURAL EXISTING CONDITIONS

GRAVITY SEWER ALIGNMENTS

- Close proximity of the Credit River means that the existing natural environment conditions need consideration in determining the best possible gravity sewer alignment
- Based on the road right-of-ways there are 3 possible sewer alignments that are feasible
- Maps for each sewer alternative show:
  - Proposed sewer alignment is shown as the coloured line
  - Key considerations associated with each alignment are provided
  - Construction methodology to be used is shown whether it is open cut (with construction on the ground) or by tunnel (underground construction but these require shafts for access)

PROPOSED SEWER ALIGNMENT 1

PROPOSED SEWER ALIGNMENT 2



PROPOSED SEWER ALIGNMENT 3

SPS UPGRADES VERSUS GRAVITY SEWER

Criteria	Do Nothing / Upgrade Existing Indian Road Sanitary Pumping Station (SPS)	Construct New Gravity Sanitary Sewer
Natural Environment	• Construction impacts limited to existing Indian Road Sanitary Pumping Station (SPS) site • No construction related impacts to surface water, natural heritage areas, groundwater or vegetation	• Potential construction impacts of sewer within road allowance • Depending on alignment potential impacts on to Credit River and regulated area due to close proximity • Water taking permits required at shaft locations at Lakeshore Road
Social-Cultural Environment	• No traffic related disruptions or impacts (construction impacts limited to existing property) • No impacts to cultural/heritage or archaeological features	• Construction impacts to residents, businesses and school along alignment • Traffic disruption and nuisance impacts during construction • No impacts to cultural/heritage or archaeological features
Technical Considerations	• Does not address problem statement • SPS requires on-side construction for replacement and upgrades • Construction is easier and limited to on-site	• Addresses problem statement and provides opportunity for adjacent residences on Mississauga Road to remove septic systems and connect to municipal sewer • Requires complexity of crossing of CN Railway (including grade separation issue) • Depending on alignment selected may require crossing of Lakeshore Road to tie-in with Lakeshore Road sewer
Financial Considerations	• SPS replacement and upgrades required with associated costs • On-going SPS operation and maintenance/repair costs • No land acquisition or easements required with construction completed on-site of existing SPS	• Lower cost to construct culvert to cross watercourse and through wetland • Lower operation costs with gravity sewer • Temporary easements required during construction • Depending on alignment selected permanent easements may be required
SUMMARY	Least Preferred • Does not address problem statement • Ongoing operation and maintenance costs • SPS requires replacement and upgrades	Preferred • Addresses problem statement (including opportunity for adjacent residences on Mississauga Road to remove septic systems and connect to municipal sewer) • Ability to minimize impact traffic disruption and nuisance impacts through use of mitigation measures • Ability to minimize impacts to natural environment and technical considerations through alignment selected • Ability to minimize CN Railway crossing issues by alignment selected

EVALUATION PROCESS

- Existing Indian Road SPS requires upgrades so “Do Nothing” was considered to be upgrading the Indian Road SPS
- Comparison of Do Nothing versus construction of a new gravity sewer identified that a new gravity sewer is preferred
- Selection of gravity sewer as the preferred alternative will result in the need to decommission the Indian Road SPS
- Comparatively evaluate the 3 alternative gravity sewer alignments
  - Identify evaluation criteria
  - Evaluation takes into consideration: 1) natural, 2) social-cultural, 3) technical and 4) economic (costs) aspects of the environment
  - Evaluation findings are summarized in the tables
  - Overall the 4 considerations are colour coded to easily identify preferences (green = preferred, yellow = less preferred and red = least preferred)
  - Process requires considering trade-offs to select the preferred alternative which needs to take into consideration whether potential impacts can be mitigated or not

EVALUATION CRITERIA

CRITERIA	MEASURES
Natural Environment	
Surface Water Impacts	Potential for impacts (e.g., erosion) during construction to surface water (e.g., ditches, watercourse, wetlands) and proximity to regulated areas
Natural Heritage Area Impacts	Provincially, regionally or locally significant natural areas (e.g., wetlands, areas of natural and scientific interest, environmentally significant areas) located adjacent to or directly intersected by the route
Groundwater / Subsurface Conditions	Proximity to areas of high aquifer vulnerability
Vegetation / Greenspace (Woodlots, Scrublands) Impacts	Loss of vegetation
Social and Cultural Environment	
Traffic Disruption / Impacts to Private Properties / Existing Land Uses	Potential for temporary disruption to traffic as well as nearby public and private properties (e.g., schools and businesses) including access considerations
Traffic Impacts	Potential impacts to traffic flow, amount of traffic potentially using the route (high, moderate, low) and access to commercial, industrial and residential properties during construction
Nuisance Impacts	Potential for vibration, dust and noise issues stemming from construction activities within close proximity to nearby residences, businesses and schools
Cultural / Heritage Areas	Number of cultural / heritage / built heritage areas and type of cultural area surrounding the route
Known Archaeological Features (including First Nations)	Number and significance of known archaeological sites and potential (high or low) for undiscovered archaeological features along the route
Technical Considerations	
Ability to Connect with Existing Infrastructure	Relocation or special construction techniques required as a result of existing buried utilities
Ease of Construction (e.g., Construction Constraints)	Potential for encountering problems during construction (e.g. soil stability, geotechnical considerations, ease of excavation)
Staging Locations	Potential impacts from the location of staging area (e.g., off-site of property)
Locations / Impacts on Other Existing Utilities	Number of and complexity of utilities present on the property (e.g., gas, hydro, telephone, cable, municipal services)
Economic (Costs) Considerations	
Capital Costs	Total capital costs determined by assumed construction method
Operating and Maintenance Costs	Estimate of level of operating and maintenance costs
Land Acquisition / Easement Requirements	Potential for land acquisition or the need for temporary and permanent easements for access

EVALUATION OF ALTERNATIVE ALIGNMENTS

Region of Peel
working with you

	Criteria	Alternative 1 (Mississauga Rd/Front St)	Alternative 2 (Mississauga Rd)	Alternative 3 (Kane Rd/Wesley Ave)
Natural Environment	Surface Water Impacts	• Closest proximity to Credit River • Front St lies within CVC regulated area which requires permit and sediment controls for open cut construction	• Close proximity to Credit River and CVC regulated area	• No surface water features in close proximity
	Natural Heritage Area Impacts	• Closest proximity along most of the route	• Close proximity from Indian Rd to CN Railway • Located west of Front Street and farther away from Credit River	• Located west of Mississauga Rd and farthest away from Credit River
	Groundwater/ Subsurface Conditions	• Large amounts of water taking is anticipated along the deep open cut sections along Front St adjacent to the Credit River and at the shaft location at Lakeshore	• Water taking is anticipated at the shaft location at Lakeshore Road	• Water taking is anticipated at the shaft location at Lakeshore Road
	Vegetation/Greenspace (woodlots, scrublands) Impacts	• East side of Mississauga Rd and Front St are open space and Credit River • Impacts to existing trees from shaft at Indian Rd/Mississauga Rd	• East side of Mississauga Rd near Credit River open space to CN Railway and urban area/ROW CN Railway to Lakeshore Rd • Impacts to existing trees from shaft at Indian Rd/ Mississauga Rd	• Urban area/ROW with no specific greenspace or vegetation present • Impacts to existing trees from shaft at Indian Rd/Mississauga Rd
	Natural Environment Summary	• Alignment is closest to Credit River and within regulated area along Front St	• Alignment is close to Credit River (Indian Rd to CN Railway) and then outside of regulated area (CN Railway to Lakeshore Rd)	• Alignment is farthest from Credit River and outside of regulated area
Social-Cultural Environment	Impacts to private properties	• Access to residents, businesses and school will be impacted due to the open cut construction along Front St	• No impacts to private property access with tunnel construction in road right-of-way (ROW)	• No impacts to private property access with tunnel construction in road right-of-way (ROW)
	Traffic Impacts	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Rd/ Mississauga Rd and Kane Rd/ Mississauga Rd intersections) • Road closure on Front St at Mississauga Rd (for additional shaft) will require traffic detour • Traffic impacts due to open cut construction along Front St (CN Railway to Lakeshore Rd) and shaft at Lakeshore Rd (for shaft to connect to trunk sewer)	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Rd/ Mississauga Rd and Mississauga Rd/ Kane Rd) • Road closure on Mississauga Rd south of Lakeshore Rd (for shaft to connect to trunk sewer) will require traffic detour. • Lane reduction along Lakeshore Rd at Mississauga Rd	• Traffic impacts at shaft locations due to truck traffic and lane reductions (Indian Road/Mississauga Rd) • Road Closure at Kane Road north of the CN Railway will require traffic detour • Multi-Lane reduction along Lakeshore Road at Wesley Avenue (for shaft to connect to trunk sewer)
	Nuisance Impacts	• Residents (Indian Rd to CN Railway) and some businesses, rowing club and school (CN Railway to Lakeshore Rd)	• Residents (Indian Rd to CN Railway) and businesses (CN Railway to Lakeshore Rd)	• Residents (Indian Rd to CN Railway) and businesses (CN Railway to Lakeshore Rd)
	Known Archaeological Features (including First Nations)	• No known but potential within the open space at the Credit River and proposed shaft location at Front St and Lakeshore Rd	• No known but lower potential with tunnel and shaft construction in disturbed ROW	• No known but lower potential with construction in disturbed ROW
	Social-Cultural Environment Summary	• Greater traffic disruption and nuisance impacts during construction	• Traffic disruption (collector road) and nuisance impacts during construction	• Traffic disruption (collector road) and nuisance impacts during construction

Rating:	Preferred		Less Preferred		Least Preferred	

EVALUATION OF ALTERNATIVE ALIGNMENTS

Region of Peel
working with you

	Criteria	Alternative 1 (Mississauga Rd/Front St)	Alternative 2 (Mississauga Rd)	Alternative 3 (Kane Rd/Wesley Ave)
Technical Considerations	Ability to Provide Wastewater Connection to Trunk Sewer on Lakeshore Rd	• Ability to tie-in to trunk sewer at the proposed Lakeshore Rd and Front St connection	• No tie-in point proposed at Lakeshore Rd but could be added • Tie-in would be south side of Lakeshore Rd	• No tie-in point proposed at Lakeshore Rd but could be added • Tie-in would be south side of Lakeshore Rd south of Wesley Ave
	Ability to Provide Municipal Wastewater Servicing (i.e., replace septic systems)	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Connection is proposed at shaft located at Mississauga Rd and Kane Road	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Connection is proposed at shaft located at Mississauga Rd and Kane Road	• Provides opportunity for adjacent residences/businesses on Mississauga Rd to connect to municipal sewer and remove existing septic systems. Local sewer will be required along Kane Rd parallel to the CN Railway to the proposed shaft on Kane Rd
	Ease of Construction (e.g., construction constraints)	• Crosses CN Railway at an angle, dip in road and limited space with existing bridge foundations • Angle at intersection of Indian Rd and Mississauga Rd • Additional shaft location required at Front St and Mississauga Rd • Very deep open cut construction along Indian Road also requiring potential utility relocations	• Curved tunnel alignment along Mississauga Rd and Front Street • Crossing of CN Railway and dip in road and limited space with existing bridge foundations	• Straight tunnel alignment along Kane Rd and Wesley Ave • Crosses CN Railway more or less perpendicular • Perpendicular angle at intersection of Indian Rd and Kane Rd
	Staging Locations	• Tie-in is proposed to be located on NE corner of Lakeshore Rd and Front St which is an easier connection point	• Tie-in not proposed and would need to be located south of Lakeshore Rd which requires more difficult road crossing	• Tie-in not proposed and would need to be located south of Lakeshore Rd which requires more difficult road crossing
	Locations/Impacts on Existing Utilities	• Crossing of CN Railway is longer due to angle and there is a grade separation to address	• Crossing of CN Railway is shorter, slight angle and there is a grade separation to address	• Crossing of CN Railway is straight and shortest crossing
	Technical Summary	• Tie-in is proposed to Lakeshore Rd sewer, Lakeshore Rd tie-in is on north side of road and able to replace septic systems between Indian Rd and CN Railway through connection at shaft • Requires additional shaft location, more difficult crossing of CN Railway and deep open cut along Front Street	• No tie-in proposed to Lakeshore Rd sewer and Lakeshore Rd tie-in is more difficult on south side • Difficulty tunneling curved section and crossing of CN Railway • Able to replace septic systems between Indian Rd and CN Railway through connection at shaft	• Easier to construct, fewer shafts and direct crossing of CN Railway • Able to replace septic systems on Mississauga Rd with local sewer along Kane Rd at the CN Railway
Economic (Costs) Considerations	Capital Costs	• Able to utilize proposed tie-in to trunk sewer at Lakeshore Rd • Deep open cut construction along Front St, requiring road restoration, dewatering and utility relocations • Similar cost to Alternative 2	• New connection on Lakeshore Rd requiring Traffic Management. • Deeper tunnel shafts • Similar cost to Alternative 1	• New connection on Lakeshore Rd requiring Traffic Management. • Shallower tunnel shafts and shorter tunnel length • Lowest cost option
	Operating and Maintenance Costs	• Similar operating and maintenance costs	• Similar operating and maintenance costs	• Similar operating and maintenance costs
	Land Acquisition / Easement Requirements	• Requires permanent easements along Front St south of CN Railway • Temporary easements needed during construction	• No permanent easements required • Temporary easements needed during construction	• No permanent easements required • Temporary easements needed during construction
	Economic Summary	• High cost option requiring permanent easement	• Higher cost option	• Lowest cost option
OVERALL RATING		LEAST PREFERRED Greater traffic disruptions and nuisance impacts during construction, most difficult to construct and higher cost	LESS PREFERRED Traffic disruption and nuisance impacts during construction, challenging tunnel construction and high cost option	PREFERRED Less traffic disruption, easier to construct and lowest cost

Rating: Preferred | Less Preferred | Least Preferred

ONLINE PUBLIC ENGAGEMENT

RECOMMENDED ALTERNATIVE

- Alternative Alignment 3 (Kane Road/Wesley Avenue) is the recommended alignment
- Alignment is furthest from Credit River and construction can remain within existing road right-of-ways which minimizes impacts to natural environment
- Traffic disruptions and nuisance impacts (noise, dust, vibration) can be minimized through mitigation measures
- Provides opportunity for future tie-in of residences along Mississauga Road to municipal sewer service and remove existing septic systems (would require local sewer along Kane Road parallel to CN Railway to proposed shaft on Kane Road)
- Easier to construct (not impacting the crossing CN Railway overpass)
- Construction of a gravity sewer will require decommissioning of the Indian Road SPS

PROPOSED MITIGATION MEASURES

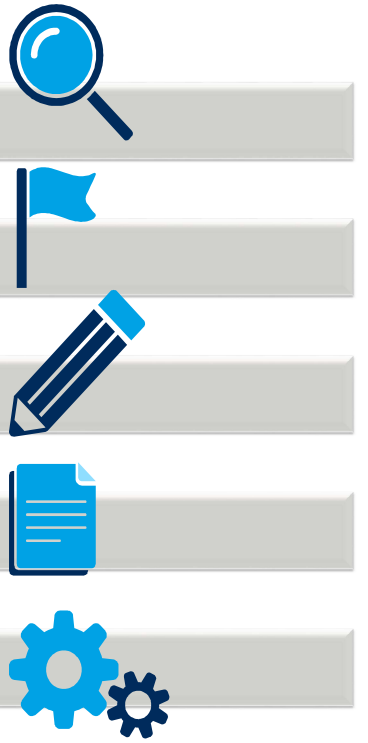
Ability to minimize some potential impacts through mitigation measures such as:

- Work confined to the working area minimizing impacts to adjacent private properties
- All excess and unsuitable materials generated (e.g., from excavation work) managed appropriately and dust controlled, where applicable
- Noise disturbance controlled by limiting construction during normal working hours and complying with City's noise by-law
- Refuelling and stockpiling kept a minimum of 30 m from watercourses
- Traffic control plans, barricades and detouring implemented to minimize traffic disruptions
- Tree/root protection plan developed to mitigate impact on existing trees

RECOMMENDED ALIGNMENT
(ALTERNATIVE 3)

NEXT STEPS

- Incorporate Comments Received from Public and Review Agencies
- Confirmation of Preferred Solution
- Prepare Project File Report
- Issue Notice of Completion
- Proceed to Detail Design and Construction



REMAIN INVOLVED IN THE STUDY

Your comments are important as they will be reviewed and considered as part of the study. Please indicate your interest to remain involved with the study or if you have any questions by contacting one of the following team members by July 24, 2020:

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