Stage 1 Archaeological Assessment

Class EA for Transmission Facilities
Hydro One Networks Inc.
Durham Kawartha Power Line Project

Various Lots and Concessions
Multiple Lower Tier Municipalities
Regional Municipality of Durham, City of Kawartha Lakes, and Peterborough County, Ontario

Original Report

Submitted to:
Ministry of Citizenship and Multiculturalism

Prepared for:
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Environmental Services
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PIF No:	P324-0967-2024
Project No:	2024-337
Dated:	March 14, 2025

EXECUTIVE SUMMARY

In 2024, TMHC Inc. (TMHC) was contracted by Hydro One Networks Inc. (Hydro One) to conduct a Stage 1 archaeological assessment for the proposed double circuit 230 kV transmission line between Hydro One's Clarington Transformer Station (TS) in the Municipality of Clarington and Dobbin TS in the Township of Selwyn, Peterborough County. In addition to the Preferred Route, two route alternatives have been proposed for evaluation within a Class Environmental Assessment (EA) process (Maps 1 to 4). These route options are parallel alternatives that would connect two existing transmission corridors north of the Clarington TS (Maps 1 and 2). There will also be planned work at the Clarington TS and the Dobbin TS as part of this project to facilitate the connections as well as the removal of existing transmission line components, as required. Collectively, lands within 300 m of the centre line of each route alternative comprise the Project Area. The need for archaeological assessment work was determined through Hydro One's internal environmental review of the project lands, as per the Class EA for Transmission Facilities (Hydro One 2024).

The Stage 1 background study included a review of current land use, historic and modern maps, past settlement history for the area and a consideration of topographic and physiographic features, soils, and drainage. It also involved a review of previously registered archaeological resources within 1 km of the Project Area and previous archaeological assessments within 50 m. According to the map-based review and background research, the majority of the Project Area exhibits potential for the discovery of archaeological sites due to proximity (within 300 m) to:

- registered archaeological sites (BaGp-1, BaGp-47, BaGq-5, BbGo-10, BbGp-14/BpGp-14);
- watercourses and wetlands (including Pigeon River, Fleetwood Creek, and Jackson Creek, in addition to tributaries of Farewell Creek, East Oshawa Creek, Bownmanville Creek, East Cross Creek, Pigeon River, Fleetwood Creek, Cavan Creek, and Jackson Creek);
- glacial shorelines (Glacial Lake Iroquois);
- mapped 19th-century structures in Clarington, Cartwright, Manvers, Cavan, and Smith Townships;
- known cemeteries (Graham's Cemetery);
- historic 19th-century transportation routes (including the early settlement roads of Enfield Road, Concession Road 9, Concession Road 10, Old Scugog Road, Bowmanville Avenue, Boundary Road, Cartwright East Quarter Line, Manvers Scugog Townline Road, Waite Road, Wilmont Road, Ballyduff Road, Highway 35, Highway 7A, Sharpe Line, County Road 10, Stewart Line, Hooton Drive, Mount Pleasant Road, Highway 7, Parkhill Road West, the Midland Railway, and the Grand Junction Railway); and,
- 19th-century settlement areas (including Enfield, Lotus, Ballyduff, Bethany, Ida, Mt. Pleasant, Peterborough).

A map-based review of the Preferred Route and two proposed route alternatives for the new Hydro One Durham Kawartha 230 kV Power Line Project was undertaken and the archaeological potential evaluated based on proximity of features signaling the likelihood for archaeological resources to exist. This established that the majority of lands within the Project Area and proposed route alternatives had potential for the discovery of archaeological resources, noting that a detailed field review should be conducted as part of the Stage 2 assessment once the preferred alternative is chosen. Based on this investigation the following recommendations are made:

- Previously Assessed Areas:
    - For the lands within the Project Area that were previously subject to Stage 2 assessment using methodologies in keeping with the 2011 Standards and Guidelines for Consultant Archaeologists and for which there are no outstanding archaeological concerns, no further assessment is required.
- Areas of Low Archaeological Potential:
    - Areas of previous disturbance (e.g., building footprints and existing roads or laneways), as well as low-lying and wet areas are considered to have low archaeological potential.
    - As a field inspection was not conducted as part of this study, areas of low archaeological potential within the preferred route alternative will need to be confirmed and photo-documented at the time of Stage 2 survey (MTC 2011:28; Section 2.1.2).
- Stage 2 Methodologies:
    - Once the preferred route alternative is determined, a more detailed review of existing conditions should be undertaken, alongside a comparison to archaeological potential mapping provided in this report (Maps 33 to 66; SD Maps 6 to 9).
    - In keeping with provincial standards, the agricultural fields should be ploughed for pedestrian survey; however, for any impact areas that are linear corridors less than 10 m wide, test pit survey can be undertaken (as per Section 2.1.2 Standard 1.f.).
    - In keeping with the provincial standards, the non-ploughable areas must be subject to test pit assessment. In both cases, a 5 m transect interval is recommended to achieve the provincial standard.
- Cemeteries:
    - The portions of the Project Area that run within close proximity to known cemeteries are areas of continued archaeological concern. It is recommended that the selected hydro corridor route be located at least 20 m away from the cemeteries and on the opposite side of the road. If impacts are planned within 20 m of the assumed boundaries of a cemetery, a Stage 1 archaeological assessment including detailed background research to determine the boundaries of the cemetery and the extent of potential burials associated with that cemetery is recommended.
    - If any invasive (Stage 2-4) archaeological fieldwork will impact the cemetery, or lands adjacent to the cemetery where the boundaries have not been credibly determined, then a Cemetery Investigation Authorization (CIA) would be required further to the Registrar's Directive: "Authorization for Invasive Stages 2-4 Archaeological Fieldwork" issued by the Bereavement Authority of Ontario (BAO) under the authority of the *Funeral, Burial and Cremation Services Act*, 2002. If the Stage 1 archaeological assessment can credibly identify the boundaries of the cemetery, and the proposed archaeological assessment will not impact the cemetery lands, a CIA is not required. All work should be completed in consultation with the MCM and the BAO as per the Registrar's Directive.
    - This will minimally involve Stage 1 background research to collect information about the history of the cemetery and location of burials in proximity to the ROW, potentially followed by Stage 2 test pit survey and mechanical topsoil removal to actively search for burials.

- There are four previously registered archaeological sites located within or adjacent to the Project Area that may have further CHVI. It is recommended that this area be avoided, if possible. If this is not possible, further archaeological assessment may be required. Should impacts be proposed at the location of these sites, the following site-specific recommendations apply:
    - BbGo-10 (McCreef Site) is a sparse scatter of 19th-century materials. It is not clear if this assessment was completed using methodologies in keeping with the 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required;
    - BaGq-5 (Porter Site) is an isolated Indigenous findspot with no temporal affiliation. BaGq-5 was not investigated utilizing methodologies in keeping with 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required;
    - BaGp-1 (Strong Site) is reportedly classified as an Iroquoian campsite, though it was also described as a roughly two- or three-acre scatter, which may suggest it may be a hamlet or village. It is not clear if this assessment was completed using methodologies in keeping with the 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required; and,
    - BpGp-14 (Woodland Hills Site)/BbGp-14 is a multicomponent site attributed to the Late Woodland period (1350-1500 CE) and mid-19th century. It includes evidence of a longhouse and two middens. BpGp-14 has been subject to avoidance and protection measures; therefore, it retains CHVI and is recommended for Stage 4 mitigation. If the site is anticipated to be impacted by construction and further investigation is planned, the methodology for Stage 4 assessment should follow Section 4.2.2 of the *Standards and Guidelines*.
- While BaGp-47 falls within the Project Area, it was been fully assessed to current MCM standards and no additional work is required.
- Changes to Extent of Project Area:
    - If the extent of the Project Area or route alternatives change to incorporate lands not addressed in this study, further assessment will be required.

Our recommendations are subject to the conditions laid out in Section 6.0 of this report and to the MCM's review and acceptance of this report into the provincial registry.

TERRITORIAL ACKNOWLEDGEMENT

The Project Area is located on the treaty and traditional lands of the Michi Saagiig and Chippewa Anishinaabe (conventionally referred to as the Williams Treaties First Nations of Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Scugog Island First Nation, Rama First Nation, Beausoleil First Nation, and Georgina Island First Nation) and the traditional lands of the Huron-Wendat Nation and Haudenosaunee peoples. This Project Area is part of the Williams Treaties of 1923 and the 2018 Williams Treaties Settlement Agreement which reaffirmed the harvesting rights of Williams Treaties First Nations across all pre-confederation treaties: 5, 16, 18, 20, 27, 27 ¼, Gunshot Treaty, and the Crawford Purchase. The Indigenous First Nations of these treaties continue to be contemporary caretakers of these lands.

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PROJECT PERSONNEL

Project Manager	Matthew Beaudoin, PhD (P324)
	Amelia Pilon, MA (P1265)
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Report Writer/Researcher	Amelia Pilon, MA (P1265)
Senior Reviewer	Matthew Beaudoin, PhD (P324)

ACKNOWLEDGEMENTS

Paul Dalmazzi	Senior Environmental Specialist, Hydro One Networks Inc.
Rhona Scott	Environmental Planner, Hydro One Networks Inc.
Kenndal Soulliere	Environmental Planner, Hydro One Networks Inc.

ABOUT TMHC

Established in 2003, with a head office in London, Ontario, TMHC provides a broad range of archaeological assessment heritage planning and consultation services throughout the Province of Ontario, founded on over forty years of progressive and responsible experience. We provide consulting services for Indigenous communities, municipal heritage planning and training, public outreach, and educational programs, and have established specialties in community engagement, cemetery investigations, faunal analysis, and ground penetrating radar surveys. Since TMHC's inception, we have evolved with the needs of our clients, the demands of the regulatory environment, and the growth in the industry.

Since 2004, TMHC has held retainers with Infrastructure Ontario (formerly the Ontario Realty Corporation), Hydro One, the Ministry of Transportation and the City of Hamilton. Presently, TMHC was successfully added to the Infrastructure Ontario, Ministry of Transportation, Hydro One, Metrolinx, and Niagara Parks retainers. In addition, TMHC has successfully managed a wider variety of highly sensitive, large, and complicated projects and have a proven track record in successfully managing and navigating them to completion. In 2013, TMHC earned the Ontario Archaeological Society's award for Excellence in Cultural Resource Management.

KEY STAFF BIOS

Matthew Beaudoin, PhD, Principal, Manager – Archaeological Assessments

Matthew Beaudoin received a PhD in Anthropology from Western University in 2013 and became a Principal at TMHC in 2019. During his archaeological career, Matthew has conducted extensive field research and artifact analysis on Indigenous and Settler sites from Labrador and Ontario. In addition, Matthew has also conducted ethnographic projects in Labrador. Since joining TMHC in 2008, Matthew has been involved with several notable projects, such as the Imperial Oil's Waterdown to Finch Project, the Camp Ipperwash Project, and the Scugog Island Natural Gas Pipeline Project.

Matthew is an active member of the Canadian Archaeological Association, the Ontario Archaeological Association, the Ontario Historical Society, the World Archaeology Congress, the Council for Northeastern Historical Archaeology, the Society for American Archaeology, and the Society for Historical Archaeology.

Amelia Pilon, MA – Archaeological Specialist

Amelia earned an MA in Public Issues Anthropology from the University of Waterloo where, as part of her research, she used GIS to analyze intra-site settlement patterns at an Early Paleo period site in Hamilton, Ontario.

Since joining TMHC in 2018, Amelia has performed various roles including field directing, report production, artifact analysis, and project management. She has both participated in and supervised both large- and small-scale projects (Stages 1 through 4) on Indigenous and 19th-century sites across Ontario. Her field experience includes notable projects such as Hydro One's St. Clair Transmission Line, Metrolinx Ontario Line, and Imperial Oil Waterdown to Finch, as well as projects for MTO and Infrastructure Ontario. Amelia regularly collaborates with Indigenous community representatives with whom she has fostered positive working relationships.

Amelia is a professionally-licensed archaeologist with the MCM and current member of the Ontario Archaeological Society and the Canadian Archaeological Association.

STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the "Report") has been prepared by TMHC Inc. (TMHC) for the benefit of the Client (the "Client") in accordance with the agreement between TMHC and the Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations, and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations");
- represents TMHC's professional judgment in light of the Limitation and industry standards for the preparation of similar reports;
- may be based on information provided to TMHC which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made, or issued;
- must be read as a whole and sections thereof should not be read out of such context; and
- was prepared for the specific purposes described in the Report and the Agreement.

TMHC shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. TMHC accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental, or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

TMHC agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but TMHC makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information, or any part thereof.

Except (1) as agreed to in writing by TMHC and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

TMHC accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of TMHC to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to, and forms part of the Report and any use of the Report is subject to the terms hereof.

QUALITY INFORMATION

Report prepared by: _____

Amelia Pilon, MA (P1265)

Archaeology Specialist

Report reviewed by: _____

Matthew Beaudoin, PhD (P324)

Principal/Manager of Archaeological Assessment

1 PROJECT CONTEXT

1.1 Development Context

1.1.1 Introduction

In 2024, TMHC Inc. (TMHC) was contracted by Hydro One Networks Inc. (Hydro One) to conduct a Stage 1 archaeological assessment for the proposed double circuit 230 kV transmission line between Hydro One's Clarington Transformer Station (TS) in the Municipality of Clarington and Dobbin TS in the Township of Selwyn, Peterborough County. In addition to the Preferred Route, two route alternatives have been proposed for evaluation within a Class Environmental Assessment (EA) process (Maps 1 to 4). These route options are parallel alternatives that would connect two existing transmission corridors north of the Clarington TS (Maps 1 and 2). There will also be planned work at the Clarington TS and the Dobbin TS as part of this project to facilitate the connections as well as the removal of existing transmission line components, as required. Collectively, lands within 300 m of the centre line of each route alternative comprise the Project Area. The need for archaeological assessment work was determined through Hydro One's internal environmental review of the project lands, as per the Class EA for Transmission Facilities (Hydro One 2024).

All archaeological consulting activities were performed under the Professional Archaeological License of Matthew Beaudoin, PhD (P324) and in accordance with the Standards and Guidelines for Consultant Archaeologists (MTC 2011). Permission to commence the study was given by Rhona Scott of Hydro One.

1.1.2 Purpose and Legislative Context

The Ontario Heritage Act (R.S.O. 1990) makes provisions for the protection and conservation of heritage resources in the Province of Ontario. Heritage concerns are recognized as a matter of provincial interest in Section 4.6 of the Provincial Planning Statement (PPS) which states:

> Planning authorities shall not permit development and site alteration on lands containing archaeological resources or areas of archaeological potential unless the significant archaeological resources have been conserved (PPS 2024).

In the PPS, the term conserved means:

> the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches should be included in these plans and assessments (PPS 2024).

The EA Act provides for the protection and conservation of the environment. In this case, the environment is widely defined to cover "cultural heritage" resources. Section 5(3)(c) of the Act stipulates that heritage resources to be affected by a proposed undertaking be identified during the environmental screening process. Within the EA process, the purpose of a Stage 1 background study is to determine if there are known cultural resources within the proposed study area, or potential for such resources to exist. Subsequently, it can act as a planning tool by identifying areas of concern that, where possible, could be avoided to minimize environmental impact. It is also used to determine the need for a Stage 2 field assessment involving the search for archaeological sites.

The Class EA for Transmission Facilities document was developed as a streamlined process to ensure minor transmission projects that have a predictable range of effects are carried out in an environmentally acceptable manner (Hydro One 2024). The Class EA Process is required to meet the terms of Section 3.0 of the Class EA for Transmission Facilities. The project is also subject to Section 92 of the Ontario Energy Board Act, 1998 which requires transmitters and distributors to obtain approval from the Ontario Energy Board for the construction, expansion, or reinforcement of electricity transmission and distribution lines or interconnections. Hydro One contracted TMHC to carry out a Stage 1 archaeological assessment and develop plans for Stage 2 assessment.

2 BACKGROUND REVIEW

2.1 Research Methods and Sources

A Stage 1 overview and background study was conducted to gather information about known and potential cultural heritage resources within the Project Area. According to the *Standards and Guidelines*, a Stage 1 background study must include a review of:

- an up-to-date listing of sites from the Ministry of Citizenship and Multiculturalism's (MCM) PastPortal for 1 km around the Project Area;
- reports of previous archaeological fieldwork within a radius of 50 m around the Project Area;
- topographic maps at 1:10,000 (recent and historical) or the most detailed scale available;
- historical settlement maps (e.g., historical atlas, survey);
- archaeological management plans or other archaeological potential mapping when available; and,
- commemorative plaques or monuments on or near the Project Area.

For this project, the following activities were carried out to satisfy or exceed the above requirements:

- a database search was completed through MCM's PastPortal system that compiled a list of registered archaeological sites within 1 km of each route alternatives (completed September 19, 2024)
- a review of known prior archaeological reports for the Project Area, adjacent lands, or areas of interest related to the route alternatives;
- Ontario Base Mapping (1:10,000) was reviewed through ArcGIS and mapping layers provided by geographynetwork.ca;
- detailed mapping provided by the client was also reviewed; and,
- a series of historic maps and photographs was reviewed related to the post-1800 land settlement.

Additional sources of information were also consulted, including modern aerial photographs, local history accounts, cemetery and burial databases, soils and physiographic data provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and both 1:50,000 (Natural Resources Canada) and finer scale topographic mapping.

When compiled, background information was used to create a summary of the characteristics of the Project Area, in an effort to evaluate its archaeological potential. The Province of Ontario (MTC 2011; Section 1.3.1) has defined the criteria that identify archaeological potential as:

- previously identified archaeological sites;
- water sources;
    - primary water sources (e.g., lakes, rivers, streams, creeks);
    - secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps);
    - features indicating past water sources (e.g., glacial lake shorelines, relic river or stream channels, shorelines of drained lakes or marshes, cobble beaches);
    - accessible or inaccessible shorelines (e.g., high bluffs, sandbars stretching into a marsh);
- elevated topography (e.g., eskers, drumlins, large knolls, plateau);
- pockets of well-drained sandy soils;

- distinctive land formations that might have been special or spiritual places (e.g., waterfalls, rock outcrops, caverns, mounds, promontories, and their bases);
- resource areas, including:
    - food or medicinal plants (e.g., migratory routes, spawning areas, prairies);
    - scarce raw materials (e.g., quartz, copper, ochre, or chert outcrops);
    - early Settler industry (e.g., fur trade, logging, prospecting, mining);
- areas of early 19th-century settlement, including:
    - early military locations;
    - pioneer settlement (e.g., homesteads, isolated cabins, farmstead complexes);
    - wharf or dock complexes;
    - pioneer churches;
    - early cemeteries;
- early transportation routes (e.g., trails, passes, roads, railways, portage routes);
- a property listed on a municipal register, designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site; and,
- a property that local histories or informants have identified with possible archaeological sites, historical event, activities, or occupations.

In Southern Ontario (south of the Canadian Shield), any lands within 300 m of any of the features listed above are considered to have potential for the discovery of archaeological resources.

Typically, a Stage 1 assessment will determine potential for Indigenous and 19th-century period sites independently. This is due to the fact that lifeways varied considerably during these eras, so the criteria used to evaluate potential for each type of site also varies.

It should be noted that some factors can also negate the potential for discovery of intact archaeological deposits. The *Standards and Guidelines* (MTC 2011; Section 1.3.2) indicates that archaeological potential can be removed in instances where land has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. Major disturbances indicating removal of archaeological potential include, but are not limited to:

- quarrying;
- major landscaping involving grading below topsoil;
- building footprints; and,
- sewage and infrastructure development.

Some activities (agricultural cultivation, surface landscaping, installation of gravel trails, etc.) may result in minor alterations to the surface topsoil but do not necessarily affect or remove archaeological potential. It is not uncommon for archaeological sites, including structural foundations, subsurface features, and burials, to be found intact beneath major surface features like roadways and parking lots. Archaeological potential is, therefore, not removed in cases where there is a chance of deeply buried deposits, as in a developed or urban context or floodplain where modern features or alluvial soils can effectively cap and preserve archaeological resources.

2.2 Project Context: Archaeological Context

2.2.1 Project Area: Overview and Physical Setting

Hydro One is planning for the construction of a double circuit 230 kV transmission line between Hydro One's Clarington Transformer Station (TS) in the Municipality of Clarington northwest of Langmaid Road and Concession Road 7 and Dobbin TS, located southwest of Ackison Road and Lily Lake Road in the Township of Selwyn, Peterborough County (Maps 1 and 2). In addition to the Preferred Route, two route alternatives for a small section of line have been proposed for consideration within a Class Environmental Assessment (EA) process: 1) Route A; and 2) Route B. There will also be planned work at the Clarington TS and the Dobbin TS as part of this project to facilitate the connections as well as the removal of existing transmission line components, as required. Collectively, lands within 300 m of the centre line of each route alternative comprise the Project Area to allow for route planning and deviation of the proposed routes. The Stage 1 archaeological assessment evaluated data collected from 1 km outside of the Project Area.

2.2.1.1 Route A

The Preferred Route with Route Alternative A (shown in pink on Maps 1 to 4) measures 52.8 km in length. It starts along the Preferred Route at the Clarington TS and runs parallel to an existing transmission corridor to Langmaid Road. From there, it veers northward across Regional Road 3 and diverges from the existing transmission corridors. Route A parallels Enfield Road approximately 590 m to the west until north of Concession Road 9, where it reconnects with the Preferred Route at an existing transmission corridor and veers northeast to follow the corridor to the Dobbin TS.

2.2.1.2 Route B

The Preferred Route with Route Alternative B (shown in green on Maps 1 to 4) measures 52.9 km in length. It starts along the Preferred Route at the Clarington TS and runs parallel to an existing transmission corridor to Langmaid Road. From there, it veers northward across Regional Road 3. Route B then continues northeast before diverging to parallel Enfield Road approximately 210 m to the west until north of Concession Road 9, where it reconnects with the Preferred Route at an existing transmission corridor and veers northeast to follow the corridor to the Dobbin TS.

2.2.2 *Physiography*

The southwestern terminus of the Project Area within the vicinity of the Clarington TS falls within the South Slope (Map 5). The South Slope is the southern slope of the Oak Ridges Moraine and extends from the Niagara Escarpment in the west to the Trent River in the east (Chapman and Putnam 1984:172-174). It meets the Moraine at heights of approximately 300 m above sea level and descends southward towards Lake Ontario. The South Slope predominantly consists of shallow shale and till plains.

Continuing northeast, the Project Area crosses through the Oak Ridges Moraine (Map 5), a notable end moraine and surface features that runs from the Niagara Escarpment to the Trent River and forms a high point of land dividing the streams that flow south to Lake Ontario and those that flow north into the Georgian Bay (Chapman and Putnam 1984:176). It is characterized by a hilly surface with a knob-and-basin relief typical of and end-moraine. The hills most commonly are comprised of sand or gravel but occasionally are formed of boulder clay.

The eastern section of the Project Area runs across the Peterborough Drumlin Field to its terminus at the Dobbin TS (Map 5). The Peterborough Drumlin Field is a rolling till plain covering an area of approximately 1,750 square meters north of the Oak Ridges Moraine (Chapman and Putnam 1984:169-171). The region contains approximately 3,000 drumlins and a number of drumlinoid hills and eskers. Most of the drumlins in this field are oriented on an axis leading from the northeast to the southwest due to the direction of glacial ice movements over the till plain. They are composed of highly calcareous till; however, in Victoria County the drumlins contain large quantities of angular limestone rubble, while in Peterborough, Northumberland, and Hastings Counties, they are composed of smaller limestone rubble. Sandy till is found to the west and at the southern border of this field. The drumlins increase in size as one moves from the north edge of the Peterborough Drumlin Field to its southern boundaries where the drumlins can be found to exceed 200 feet in height (Chapman and Putnam 1984:169-171).

2.2.3 Soils

Soils in the southernmost portion of the Project Area (Map 6) and overlapping with the South Slope physiographic region predominantly belong to the Bondhead series: a matrix developed in this area from smooth limestone till once waterworn by Lake Iroquois. These soils are typically a grey brown loam or sandy loam over light brown loam over brownish clayey loam over grey stony loam, and has good drainage (Webber, Morwich, and Richards 1946:14, 28-29).

Dundonald sandy loam and Pontypool sand comprise the majority of soils within the southern portion of the Oak Ridges Moraine physiographic region at the western end of the Project Area (Map 6). Dundonald sandy loam are well-draining soils formed from sandy outwash from the moraine over limestone till plain and are typically a grey-brown sandy loam over light brownish sand over brownish loam over grey calcareous till (Webber, Morwich, and Richards 1946:14, 28, 31). The Pontypool series soils are formed from glacial meltwater materials, consisting generally of a light grey brown sand or sandy loam over yellowish sand over coarse calcareous sand, and have good to excessive drainage (Webber, Morwich, and Richards 1946:14, 36-37).

To the northeast, soils are typically light loams and sands associated with the Peterborough Drumlin Field (Maps 6 to 7), such as the predominant Otonabee Loam in addition to Bondhead fine sandy loam, Schomberg silty loam, and Darlington sandy loam but also include heavy muck in the vicinity of watercourses. Otonabee soils formed from drumlinized limestone till plains. These are typically well-draining with shallow profiles, especially on steeply sloped drumlins where rainfall runoff occurs. They consist of dark grey brown loam over greyish brown loam over brownish loam or clay loam and has good drainage (Webber, Morwich, and Richards 1946:30-31). Schomberg silt loam was formed when fine-textured sediments settled in glacial waterbodies. These well-draining soils are dark grey-brown silt loam over greyish silt loam over brownish sticky clay over dull grey or greyish silts and clays. Sheet erosion is common where surface water runoff occurs (Webber, Morwich, and Richards 1946:42, 44). Also developed from limestone till parent materials, Darlington soils are generally well-draining, and typically contain moderately dark grey-brown loam over light brown loam over light brownish loam or clay loam over greyish calcareous till (Webber, Morwich, and Richards 1946:33). Very poorly-draining organic muck is found predominantly in depressions and around watercourses in the Trent River Region in the eastern portion of the Project Area where water flow is slow (Webber, Morwich, and Richards 1946:49).

Table 1: Soils within the Project Area

Soil	Parent Material	Drainage
Bondhead Fine Sandy Loam	Calcareous materials rich in lime	Good
Bondhead Loam	Calcareous materials rich in lime	Good
Darlington Sandy Loam	Calcareous materials rich in lime	Good
Dundonald Sandy Loam	Calcareous materials rich in lime	Good
Otonabee Loam	Calcareous materials rich in lime	Good
Pontypool Gravelly Sand	Fluvio-glacial materials	Good to excessive
Pontypool Sand	Fluvio-glacial materials	Good to excessive
Pontypool Sandy Loam	Fluvio-glacial materials	Good to excessive
Schomberg Silt Loam	Lacustrine deposits	Good

2.2.4 Drainage

The Project Area is drained by watercourses and tributaries that generally flow south to Lake Ontario or northwest and northeast into the broader Kawartha Lakes system. The watercourses draining toward Lake Ontario flow downward on a steeper grade to empty into the lake, therefore experiencing quicker moving water and as a result, exhibit deep streambeds with significant erosion. On the other hand, waterways within the Trent River Region tend to be slow-moving amongst wide marsh and swamp areas (Webber, Morwich, and Richards 1946:17). During the 19th century, intensive land-clearing and the associated lumber industry led to the construction of sawmills, dams, and flood control measures, impacting the wetland ecology and traditional land-use of Indigenous people (Conolly 2020:4).

The areas around the Clarington TS are drained by Harmony Creek and Oshawa Creek that flow southward before emptying into Lake Ontario (Map 1). From here, the Project Area continues northward, crossing two tributaries of Farwell Creek at Langmaid Road and Regional Road 3. From there, Route A crosses two tributaries of East Oshawa Creek between Regional Road 3 and the point where it veers to the northeast while Route B crosses one across this section. Moving eastward, the Project Area transects the Bowmanville Creek watershed, crossing at least six sections of its tributaries and three associated wetlands, which ultimately empty into Lake Ontario.

The central and east portions of the Project Area fall within the Trent River Region, a roughly 18,000 km² area containing the Kawartha Lakes which account for 250 km² of water across 12 main waterbodies and 1,500 km of shoreline. The Kawartha Lakes are described as a lake-wetland complex forming an interlocked whole (Conolly 2020:2). Continuing to the northeast (Map 1), the Project Area crosses four watercourses flowing north to East Cross Creek before meeting Scugog River and emptying into Scugog Lake. Upon reaching Manvers Township, the Project Area crosses a tributary, then Pigeon River which flows northeast to Pigeon Lake. From there, it crosses at least seven more tributaries of Pigeon River, nearly all of which are surrounded by sections of wetland, before reaching Ballyduff.

From there, the Project Area crosses at least five tributaries of Fleetwood Creek, wetlands, and the creek itself in the vicinity of Bethany (Map 2). Fleetwood Creek meets with Pigeon River southwest of Omemee. On the west side of Cavan Township, the Project Area crosses five tributaries of Cavan Creek, flowing eastward to empty into the Otonabee River to the southwest of Peterborough. The Project Area continues northeast, crossing Jackson Creek and at least seven of its tributaries between the vicinity of Mt. Pleasant and Highway 7 west of Peterborough. From there, it follows a path between a wetland section containing a Jackson Creek tributary and Jackson Creek until reaching the Dobbin TS.

2.2.5 Natural Vegetation

Prior to land clearing, the natural vegetation in the Durham County and the Kawartha Lakes Region included mixed boreal and deciduous forests, with variation in species related to soil. In general, sugar maple and beech were the predominant tree species in well-draining locales; however, basswood, white elm, birch, white ash, and oaks were also common with a scattering of hemlock, white pine, hickory, ironwood, butternut, and black cherry. In poorly-draining soils, white cedar, certain elm species, tamarack, alders, willows, ironwood, basswood, white spruce, and white pine were prevalent. Hawthorn and choke cherry shrubs were also commonplace in the region (Webber, Morwich, and Richards 1946:18; Conolly 2020:3).

2.2.6 Summary of Registered or Known Archaeological Sites

According to PastPortal (accessed September 19, 2024), there are 18 registered archaeological sites within 1 km of the Project Area (Table 2).

2.2.6.1 Known Sites within 50 m of the Project Area

There is at least one registered archaeological site that is in close proximity to the Preferred Route that may pose a planning concern for this project:

- BbGo-10 (McCreef Site) – a sparse scatter of materials tentatively dated between 1830 and 1860 (Adams 1992). It is unclear whether the methods employed for this survey were in keeping with current standards and the site was not recommended for further assessment. Based on the report, Hydro One had planned to construct an access road through the section of corridor containing BbGo-10. Therefore, the CHVI of BbGo-10 is currently unknown. MCM records indicate that this site is located outside the Preferred Route; however, the consultant report depicts this site within the Preferred Route (SD Map 11), which poses a planning concern;

2.2.6.2 Known Sites within 300 m of the Project Area

There are also four or five sites of note found within 300 m of the Preferred Route and may pose a planning concern for this project:

- BaGp-47 – an isolated Indigenous artifact determined to be possibly related to a Paleo occupation (TMHC 2013:23). BaGp-47 was subject to Stage 3 assessment and no longer retains CHVI. The site falls within 250 m of the Preferred Route (SD Map 9) and does not pose a planning concern;
- BaGq-5 (Porter Site) – an isolated Indigenous findspot with no temporal affiliation documented by Arthur Roberts in 1978 (Roberts 1978). BaGq-5 was not investigated utilizing methodologies in keeping with current standards; therefore, its CHVI is currently unknown. The site is within 300 m of the Preferred Route (SD Map 7) and does not pose a planning concern;
- BaGp-1 (Strong Site) – reportedly classified as an Iroquoian campsite, though it was also described as a roughly two- or three-acre scatter, which may suggest it may be a hamlet or village. It was supposedly excavated by the Strong family of Ballyduff prior to its documentation with the MCM; however, documentation was lacking. As a result, the extent and results of the excavations are unclear, along with the cultural affiliation and CHVI of BaGp-1. It was also noted that the site had been previously disturbed by looters, who dug a line of five-foot squares. The site is within 300 m of the Preferred Route (SD Map 8) and may pose a planning concern; and,
- BbGp-14/BpGp-14 – these sites are recorded separately in PastPortal with different location data. According to MCM records, BpGp-14 was investigated by This Land Archaeology Inc. (TLA 2014); however, the corresponding report documents the site as BbGp-14. Although records of both are described below, it is likely that they are one in the same and BbGp-14 is the accurate Borden number for the Woodland Hills Site.
    - BbGp-14 (Woodland Hills) – a multicomponent site reportedly investigated in 1998 by David J. G. Slattery and consisting of Indigenous artifacts (79 sherds of pottery, pipe fragments, chert chipping detritus, and one projectile point) as well as settler container glass and ceramics (Slattery 1998). The extent of the investigation is unknown, though it was recorded as having further CHVI. This site is reportedly located within 100 m of the Preferred Route; if this location data is accurate, BbGp-14 may pose a planning concern.

- BpGp-14 (Woodland Hills Site) – a multicomponent site reportedly first investigated by North York Archaeological Services, then by TLA (2014) after the former report was not produced. TLA carried out Stage 1 through 3 archaeological assessments, resulting in the recovery of both settler and Indigenous components, including evidence of a longhouse and two middens. Given the presence of one longhouse and diagnostic artifacts attributed to the Late Woodland period (1350-1500 CE), the Indigenous component of the Woodland Hills Site was interpreted as a seasonal occupation. The 19th-century assemblage is indicative of a log cabin associated with William Copeland, who was the recorded lot owner in 1851. In collaboration with the proponent, it was recommended that the site be protected. It therefore retains CHVI and is recommended for Stage 4 mitigation should impacts be anticipated in the future. This site is reportedly within 250 m of the Preferred Route (SD Map 10); assuming this location data is accurate, the Woodland Hills Site does not pose a planning concern.

Table 2: Registered Archaeological Sites within 1 km of the Project Area

Borden Number	Site Name	Time Period	Affinity	Site Type	Reported By	Status	Distance from Preferred Route
AlGr-305	P1	Middle Archaic	Indigenous	Scatter	ASI	No Further CHVI	>300 m
AlGr-321	CH37	Post-Contact	Settler	Farmstead	Scarlett Janusas Archaeology Inc.	No Further CHVI	>300 m
BaGp-1	Strong	Late Woodland	Iroquoian	Camp		Unknown CHVI	<300 m
BaGp-47	Location 1	Paleo	Indigenous	Findspot	TMHC (2015)	No Further CHVI	>300 m
BaGp-49	Location 5	19th Century	Settler	Scatter	TMHC	Further CHVI	>300 m
BaGp-50	Location 3	Late-19th/Early-20th Ccentury	Settler	Scatter	TMHC	Further CHVI	>300 m
BaGp-51	Location 6	19th Century	Settler		TMHC	Further CHVI	>300 m
BaGp-52	Location 2	Pre-Contact	Indigenous	Findspot	TMHC	No Further CHVI	>300 m
BaGq-42	Hooey	Pre-Contact; Post-Contact	Indigenous; Settler	Unknown; House	GTA	Further CHVI	>300 m
BaGq-5	Porter	Pre-Contact	Indigenous	Findspot	Roberts (1978)	Unknown CHVI	<300 m
BaGq-6	Lloyd Smith	Pre-Contact	Indigenous	Findspot	Roberts	Unknown CHVI	>300 m from Route B
BbGo-10	McCreef	Post-Contact	Settler	Homestead	Adams (1992)	Unknown CHVI	Within Preferred Route
BbGo-5	Seeney	Pre-Contact	Indigenous		Roberts	Unknown CHVI	>300 m
BbGp-14	Woodland Hills	Late Woodland; Post-Contact	Indigenous; Settler	Camp; Homestead	Slattery	Further CHVI	<100 m
BbGp-4		Pre-Contact	Indigenous	Findspot	Roberts	Unknown CHVI	>300 m
BbGp-5		Pre-Contact	Indigenous	Findspot	Roberts	Unknown CHVI	>300 m
BbGp-8		Pre-Contact	Indigenous		Roberts	Unknown CHVI	>300 m
BpGp-14	Woodland Hills Site	Pre-Contact; Post-Contact	Indigenous		This Land Archaeology Inc. (2014)	Further CHVI	<300 m

2.2.7 Summary of Past Archaeological Investigations within 50 m

During the course of this study, records were found for 14 archaeological investigations within 50 m of the Project Area. However, it should be noted that the MCM currently does not provide an inventory of archaeological assessments to assist in this determination.

2.2.7.1 North Shore of Lake Ontario Survey – Roberts (1978)

In the winter of 1977 to 1798, Arthur Roberts conducted a survey within a study area generally located along the northern shore of Lake Ontario which included at least a portion of the current Study Area (Map 8). This research involved systematically interviewing landowners about any archaeological resources identified on their properties. Roberts then recorded site information and photographed artifact collections. The survey resulted in the recording of 258 new archaeological sites in addition to 30 site references that required follow up (SD Map 1). Four sites fall within 1 km of the Preferred Route; however, none are situated within 300 m. The results of this study are presented in a report entitled *Interim Licence and Grand Report to Ministry of Culture and Recreation on an Archaeological Survey in Selected Townships Along the North Shore of Lake Ontario* (Roberts 1978; Licenses 77-C-0147 and 78-D-0231).

2.2.7.2 Highway 7 Design Project – Archaeological Services Inc. (ASI; 2006)

In 2004, ASI undertook a Stage 1 archaeological assessment by NCE Limited on behalf of the Ministry of Transportation (MTO) in advance of the proposed Highway 7 improvements within the City of Kawartha Lakes and County of Peterborough. The project area was approximately 13 km in length and crosses the current Project Area at Highway 7 and Mount Pleasant Road. The Stage 1 assessment consisted of background research and a site inspection, concluding that the majority of the project area had potential for the recovery of archaeological resources and recommending these lands for Stage 2 assessment (Map 9). The results of this assessment are presented in a report entitled *Stage 1 Archaeological Assessment: Highway 7 Preliminary Design Study From Fowlers Corners to County Road 28, City of Kawartha Lakes and Peterborough County, Ontario* (ASI 2006; Licensee, Robert Pihl; PIF P057-106).

2.2.7.3 Sumac Ridge Wind Farm Project – TMHC (2010, 2011, 2014a, 2014b, 2015)

In 2010, TMHC conducted a Stage 1 archaeological assessment on behalf of Ortech Environmental in advance of the proposed Sumac Ridge Wind Farm project, located northeast of Ballyduff in Manvers Township. Though a combination of background research and field reconnaissance, the Study Area, which overlaps with the current Project Area, was determined to retain potential for the discovery of archaeological resources and recommended for Stage 2 assessment (Map 10). The results of this assessment are presented in a report entitled *Stage 1 Archaeological Assessment, Sumac Ridge Wind Farm, Geographic Township of Manvers, City of Kawartha Lakes, Ontario* (TMHC 2010; Licensee, Arthur Figura; PIF P083-061-2010).

From 2010 to 2011, TMHC carried out the ensuing Stage 2 archaeological assessment for areas anticipated to be impacted by construction of the proposed wind turbines and associated infrastructure. The Project Area overlaps with the current Project Area northeast of Ballyduff (Map 50). The pedestrian and test pit surveys did not result in the documentation of any archaeological materials; therefore, no further work was recommended (Map 11). The results of this assessment area presented in a report entitled *Stage 2 Archaeological Assessment, Sumac Ridge Wind Farm, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601* (TMHC 2011; Licensee, Arthur Figura; PIF P083-085-2010).

In 2013, TMHC undertook a Stage 1-2 archaeological assessment for potential Renewable Energy Approval (REA) lands associated with the Sumac Ridge Wind Farm project, a portion of which falls within the current Project Area (Map 50). One parcel which fell outside the original Study Area was subject to Stage 1 assessment while Stage 2 was carried out via pedestrian and test pit survey on the remaining parcels (Map 12). Six archaeological locations were identified, one of which (BaGp-47) falls within the current Project Area (SD Map 2). BaGp-47 consists of an isolated Indigenous artifact determined to possibly be attributed to Paleo period occupation and was recommended for further assessment. The results of this assessment are presented in a report entitled *Stage 1 & 2 Archaeological Assessment, Sumac Ridge Wind Farm, Potential Renewable Energy Approval Lands, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601* (TMHC 2014a; Licensee, Matthew Beaudoin; PIF P324-006-2013).

Also in 2013, TMHC conducted a Stage 2 archaeological assessment for multiple alternative access options for the Sumac Ridge Wind Farm project (Maps 13 and 50). No archaeological materials were identified over the course of the test pit survey. The results of this assessment are presented in a report entitled *Stage 2 Archaeological Assessment, Sumac Ridge Wind Farm, Alternate Access Routes, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601* (TMHC 2014b; Licensee, Matthew Beaudoin; PIF P324-004-2013).

In 2014, TMHC carried out Stage 3 archaeological assessments for BaGp-47 and BaGp-52: only the former BaGp-47 falling within the Project Area. BaGp-47 was identified by an isolated Indigenous artifact possibly attributed to Paleo occupation. The Stage 3 testing consisted of the excavation of 18 one m² units, resulting in the recovery of no additional artifacts (Map 14; SD Map 2). As such, the site is considered fully documented and no further investigation is required. The results of this assessment are presented in a report entitled *Stage 3 Archaeological Assessment, Sumac Ridge Wind Farm, Location 1 (BaGp-47) and Location 2 (BaGp-52), Part of Lot 14, Concession 6, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601* (TMHC 2015; Licensee, Matthew Beaudoin; PIF P324-0066-2015 [Loc. 1]; P324-0067-2015 [Loc 2.]).

2.2.7.4 Settler's Landing Wind Park Project – AMICK Consultants Ltd. (AMICK; 2012)

In 2011, AMICK undertook a Stage 1-2 archaeological assessment of lands anticipated to be impacted by the proposed Setter's Landing Wind Farm in Manvers Township, overlapping with the current Project Area southwest of Ballyduff (Map 47). The assessment employed pedestrian and test pit survey, resulting in the identification of no archaeological resources and was not recommended for further investigation (Map 15). The results of this assessment are presented in a report entitled *Stage 1-2 Archaeological Assessment, Settler's Landing Wind Park, Part of Lots 7, 8 & 9, Concession 3, Part of Lot 7, Concession 8 (Geographic Township of Manvers, Historic County of Durham), City of Kawartha Lakes, County of Victoria* (AMICK 2012; Licensee, Michael Henry; PIF P058-692-2010 & P058-728-2011).

2.2.7.5 Ballyduff Wind Farm Project – AMICK (2013)

In 2009, AMICK carried out a Stage 1 archaeological assessment of a roughly 1700 ha study area in advance of the proposed Ballyduff Wind Farm. Parcel 2 falls within the current Project Area southwest of Ballyduff while Parcel 3 overlaps with current Project Area northeast of Ballyduff. Background research indicated that the majority of the study area had high potential for the recovery of archaeological resources and Stage 2 assessment was recommended (Maps 16 and 17). The results of this assessment are presented in a report entitled *Revised Report on the 2009 Stage 1 Archaeological Background Research Of Ballyduff Wind Farm, Part of Lots 7 and 8, Concessions 3, Part of Lot 7, Concession 5, All of Lot 15, Concession 6, Township of Manvers, City of Kawartha Lakes, Formerly the County of Durham* (AMICK 2013; Licensee, Michael Henry; PIF P058-502-2009).

2.2.7.6 Woodland Hills Community Development Project – This Land Archaeology Inc. (TLA; 2014)

In 2010, TLA undertook a Stage 1-2 archaeological assessment for a 250-ac proposed development northeast of the community of Bethany in Manvers Township. The lands surveyed had been previously subject to assessment by North York Archaeological Services, resulting in the identification of two sites: BbGp-14 (a multicomponent site Late Woodland period and settler affiliations) as well as BbGp-15 (a 19th-century findspot). However, as the report summarizing the work was never completed, a second assessment was required. Overlapping with the current Project Area east of Ski Hill Road (Map 54), the fieldwork consisted of pedestrian survey in areas not steeply sloped or disturbed and successfully re-identified BbGp-14, which was subject to Stage 3 controlled surface pickup (SD Map 3). Based on the presence of Indigenous pottery fragments and settler ceramic artifacts suggesting an occupation prior to 1850, BbGp-14 was recommended for Stage 3 assessment.

In 2011, TLA carried out Stage 3 test unit excavations at BbGp-14, wherein 46 1 m² units were excavated across the site as well as additional test pitting northwest of the site where it extended outside the agricultural field. An additional 12 test trenches were mechanically excavated around the perimeter, four of which contained post moulds of longhouse walls in the northwest portion of the site (Map 18). A total of 503 Indigenous and settler artifacts were recorded throughout these excavations. One square located at the north end of the longhouse produced 50 Indigenous artifacts and was interpreted as a midden.

In 2013, the MTCS (now MCM) requested additional Stage 3 unit excavations in the north and western portions of BbGp-14 to ensure site limits were established. Twelve units and one trench were excavated, resulting in no further identification of features (Map 18). Given the presence of one longhouse and diagnostic artifacts attributed to the Late Woodland period (1350-1500 CE), the Indigenous component of BbGp-14 was interpreted as a seasonal occupation. The 19th-century assemblage within BbGp-14 is indicative of a log cabin associated with William Copeland, who was the recorded lot owner in 1851. In collaboration with the proponent, it was recommended that BbGp-14 be protected while the project area outside the site buffer was not recommended for further work.

The results of these assessments are presented in a report entitled *Revised Report on the 2010 and 2011 and 2013 Stage 1 to 3 Archaeological Assessments of Woodland Hills Community Inc.'s Property, Woodland Hills Site (BbGp-14), Part of Lots 24 and 25, Concession 8, City of Kawartha Lakes, Ontario* (TLA 2014; Licensee, William Finlayson; PIF P059-227-2010 & P059-303-2011).

2.2.7.7 MTO Culvert Replacements – Central Archaeology Group (CAG; 2015)

In 2015, CAG carried out Stage 1-2 archaeological assessments of three proposed culvert replacements in Durham County. Two of these fall within the Project Area along Highway 7A west of the community of Bethany in the City of Kawartha Lakes (Map 52). It was determined that the majority of these study areas were deeply disturbed, steeply sloped, or low and wet; however, unaffected sections were subject to Stage 2 assessment via test pit survey (Maps 19 and 20). No archaeological resources were documented over the course of this project. The results of this assessment are presented in a report entitled *Stage 1 and 2 Archaeological Assessment, Culvert Replacements on Highway 7A between Bethany and Highway 35, Part of Lot 19, Concession 7, Road Allowance between Lot 20, Concession 7 and Lot 20, Concession 8 and Road Allowance between Lot 23, Concession 7 and Lot 23, Concession 8, Geographic Township of Manvers, Durham County, MTO Project: 14829-7* (CAG 2015; Licensee, Laura McRae; PIF P248-0233-2015).

2.2.7.8 Graham's Cemetery Investigation – Archaeological Research Associates Ltd. (ARA; 2020)

In 2018, ARA conducted Stage 1,2 and 3 archaeological assessments as part of a cemetery investigation of Graham's Cemetery, located within the Project Area west of the community of Bethany in the City of Kawartha Lakes (Map 52). These assessments were carried out ahead of a proposed lot line adjustment to accommodate improvements to the cemetery entrance. The Stage 1 site inspection and Stage 2 test pit survey were carried out concurrently, resulting in no encountered archaeological resources or human remains. In an effort to further confirm that no deeply buried interments were present, mechanical stripping was employed in the proposed impact area. Still no archaeological sites or human remains were identified (Map 21). The results of these assessments are presented in a report entitled *Stage 1, 2 and 3 Archaeological Assessments, Cemetery Investigation, Graham's Cemetery (Cemetery Site #4460), 1047 Porter Road, City of Kawartha Lakes, Lot 20, Concession 8, Geographic Township of Manvers, Durham County, Ontario* (ARA 2020; Licensee, Paul Racher; PIF P007-0884-2018 & P007-0885-2018).

2.2.7.9 ARROW Kawartha Lakes Cambpellford Former Rail Line Project – Stantec (2021)

In 2021, Stantec undertook a Stage 1 archaeological assessment of the ARROW Kawartha Lakes Campbellford Former Rail Line on behalf of Infrastructure Ontario (IO). The project area was approximately 120 km in length and overlaps with the current Project Area along Lily Lake Road immediately south of the Dobbin TS. Background Research and a site inspection confirmed that, while parts of the project area are previously disturbed and no longer retain archaeological potential, the majority was recommended for Stage 2 assessment (Maps 22 and 23). The results of this assessment are presented in a report entitled *Stage 1 Archaeological Assessment: ARROW Kawartha Lakes Campbellford Former Rail Line, Various Lots and Concessions, Various Geographic Townships, Various Lower Tier Municipalities, Hastings County, Northumberland County, Peterborough County, and Kawartha Lakes, Ontario* (Stantec 2021; Licensee, Patrick Hoskins; PIF P415-286-2021).

2.2.7.10 Bobcaygeon Community Expansion Project – Stantec (2022)

In 2021, Stantec carried out a Stage 1 archaeological assessment in advance of Enridge Gas' proposed Bobcaygeon Community Expansion Project in the City of Kawartha Lakes and Township of Cavan-Monaghan, falling within the current Project Area in the vicinity of County Road 10 (Map 57). The roughly 50 km-long project area encompassed a preferred route and route alternative for each of the Supply Lateral and Reinforcement components. The Stage 1 assessment involved background research and site inspection and determined that the majority of the project area retained potential for the recovery of archaeological resources and was recommended for Stage 2 (Map 24). The results of this assessment are presented in a report entitled *Stage 1 Archaeological Assessment: Bobcaygeon Community Expansion Project, Various Lots and Concessions, Geographical Townships of Emily and Verulam, Victoria County, Geographical Township of Harvey, Peterborough County, and Geographical Townships of Manvers and Cavan, Durham County, Ontario* (Stantec 2022; Licensee, Patrick Hoskins; PIF P415-0323-2021).

2.2.8 Summary of Past Archaeological Investigations Related to Hydro One Projects

Currently there are three previous archaeological assessments directly related to Hydro One projects and the current Project Area.

2.2.8.1 Ontario Hydro Chats Falls x Dobbin TS Survey – Adams Heritage Consultants (AHC; 1992)

In 1992, AHC undertook an archaeological assessment of selected portions of a proposed 230 kv transmission line extending from the Chats Falls to Dobbin TS in Smith Township. Their study area parallels the Preferred Route in the vicinity of the Dobbin TS (Map 25). As the survey was done prior to the implementation of provincial standards in 1993, it was a targeted activity. AHC examined the proposed route to identify areas with archaeological potential, which were then subject to a combination of pedestrian survey and test pit survey. The assessment resulted in the identification of three archaeological locations, one of which (BbGo-10) is located within 50 m of the current Study Area (SD Map 4). BbGo-10 was reported as a sparse scatter of mid 19th-century material, deemed to be insignificant and not recommended for further work; however, its presence may be indicative nearby sites. The results of this assessment are presented in a report entitled *Chats Falls x Dobbin TS Survey of High Archaeological Site Potential and Identification of Mitigation Measures* (AHC 1992; Licensee, Nicholas Adams; License No. 92-048).

2.2.8.2 Hydro One Clarington Transformer Station Project – Mayer Heritage Consultants Inc. (MHC; 2006)

In 2006, MHC conducted a Stage 1 archaeological assessment for lands anticipated to be impacted by construction activities for the proposed site of the Clarington TS. The northern portion of the Project Area falls within close proximity to the southwestern terminus of the current Study Area (Map 26). Through a combination of background research and a visual inspection, it was determined that the Study Area retained moderate to high potential for the recovery of archaeological resources and Stage 2 assessment was recommended. The results of this assessment are presented in a report entitled *Revised Report on Archaeological Assessment (Stage 1), Hydro Right of Way, Concession 7, Lots 33-35, Township of Darlington, Region of Durham, Ontario* (MHC 2006; Licensee, Paul O'Neal; PIF P040-170-2006).

2.2.8.3 Hydro One Clarington Transformer Station Project – Archaeological Services Inc. (ASI; 2012a, 2012b)

In 2012, ASI carried out a Stage 2 archaeological assessment for the lands previously recommended for further assessment by MHC in advance of the proposed Hydro One Clarington TS. The northern portion of the Project Area falls within the southwestern terminus of the current Project Area (Map 33). Their project area was subject to pedestrian survey and test pit survey, resulting in the documentation of a small lithic scatter, including a Middle Archaic Period Brewerton Corner-Notched type projectile point and three non-diagnostic artifacts (AlGr-305; Map 27 and SD Map 5). It was determined that the site retained cultural heritage value or interest (CHVI) and Stage 3 testing was recommended. AlGr-305 is located roughly 200 m southeast of the current Study Area and 500 m from the Preferred Route. The results of this assessment are presented in a report entitled *Stage 2 Archaeological Assessment, Property Assessment, Hydro One Networks Inc. Clarington Transformer Station, Concession 7, Lots 33-35, Township of Darlington, Region of Durham, Ontario* (ASI 2012a; Licensee, Lisa Merritt; P094-131-2012).

ASI carried out the ensuing Stage 3 archaeological assessment of AlGr-305 in 2012. Two CSPs did not result in the identification of any additional archaeological materials. Ten test units were then excavated across the site, yielding a total of five pieces of chipping detritus (SD Map 6). AlGr-305 was deemed to be fully documented and not have further CHVI. The results of this assessment are presented in a report entitled *Stage 3 Site-*

Specific Assessment, Site AlGr-305, Oshawa Clarington Area Transformer Station, Concession 7, Lot 33, Township of Darlington, Regional Municipality of Durham, Ontario (ASI 2012b; Licensee, Lisa Merritt; P094-161-2012).

2.3 Project Context: Historical Context

2.3.1 Indigenous Settlement in Southeastern Ontario

Southeastern Ontario attracted considerable Indigenous settlement in the past. The region is home to numerous archaeological sites. In recent years, our archaeological knowledge of the area has improved greatly, at the hands of various cultural resource management surveys and archaeological research projects that have accompanied commercial and residential growth. Using existing data and regional syntheses, it is possible to propose a generalized model of Indigenous settlement in the region. The general themes, time periods and cultural traditions of Indigenous settlement, based on archaeological evidence, are provided below and in Table 3.

Table 3: Chronology of Indigenous Settlement in Southeastern Ontario

Period	Time Range	Diagnostic Features	Archaeological Complexes
Early Paleo	9000-8400 BCE	fluted projectile points	Gainey, Barnes, Crowfield
Late Paleo	8400-8000 BCE	non-fluted and lanceolate points	Holcombe, Hi-Lo, Lanceolate
Early Archaic	8000-6000 BCE	serrated, notched, bifurcate base points	Nettling, Bifurcate Base Horizon
Middle Archaic	6000-2500 BCE	stemmed, side & corner notched points	Brewerton, Otter Creek, Stanly/Neville
Late Archaic	2000-1800 BCE	narrow points	Lamoka
Late Archaic	1800-1500 BCE	broad points	Genesee, Adder Orchard, Perkiomen
Late Archaic	1500-1100 BCE	small points	Crawford Knoll
Terminal Archaic	1100-950 BCE	first true cemeteries	Hind
Early Woodland	950-400 BCE	expanding stemmed points, Vinette pottery	Meadowood
Middle Woodland	400 BCE-500 CE	dentate, pseudo-scallop pottery	Point Peninsula
Transitional Woodland	500-900 CE	first corn, cord-wrapped stick pottery	Princess Point
Late Woodland	900-1300 CE	first villages, corn horticulture, longhouses	Pickering
Late Woodland	1300-1400 CE	large villages and houses	Uren, Middleport
Late Woodland	1400-1650 CE	tribal emergence, territoriality	
Contact Period - Indigenous	1700 CE-present	treaties, mixture of Indigenous & European items	
Contact Period - Settler	1796 CE-present	industrial goods, homesteads	Pioneer life, municipal settlement

2.3.1.1 Paleo Period

Archaeological evidence indicates that people were inhabiting the region by 10,000 and 12,000 years ago, coincident with the end of the last period of glaciation; however, it should be noted that the oral traditions from several Indigenous communities speak to a longer and more complex habitation on the landscape at this time. Climate and environmental conditions were significantly different than they are today; local environs were inhospitable to anything but short-term settlement. During the Paleo Period Ontario's Indigenous peoples would have crossed the landscape in small groups (i.e., bands or family units) searching for food, particularly migratory game species. In this area, caribou may have provided a dietary staple, supplemented by wild plants, small game and fish. Given the low density of populations on the landscape at this time and their mobile nature, sites from this period are small and ephemeral. They are usually identified by the presence of distinctive fluted projectile points, usually manufactured on high quality raw materials, including Onondaga chert from the Niagara Escarpment and Fossil Hill chert from Blue Mountains. Paleo Period sites have commonly been found in association with relic glacial lakeshores throughout Ontario.

2.3.1.2 Archaic Period

Settlement and subsistence patterns changed significantly during the Archaic Period (ca. 8,000 to 950 BCE) as both the landscape and ecosystem adjusted to the retreat of the glaciers. Building on earlier patterns, early Archaic populations continued the mobile lifestyle of their predecessors. Through time and with the development of more resource rich local environments, these groups gradually reduced the size of the territories they exploited on a regular basis. A seasonal pattern of warm season riverine or lakeshore settlements and interior cold weather occupations has been documented in the archaeological record. The large cold-weather mammals that formed the basis of the subsistence pattern during the Paleo Period became extinct or moved northward with the onset of warmer climate conditions. Thus, Archaic populations had a more varied diet, exploiting a range of plant, bird, mammal and fish species. Over time, reliance on specific food resources like fish, deer and nuts became more pronounced and the presence of more hospitable environments and resource abundance led to the expansion of band and family sizes. This is evident in the archaeological record in the form of larger sites and aggregation camps, where several families or bands would come together in times of plenty. The change to more preferable environmental circumstances led to a rise in population density. As a result, Archaic sites are more plentiful than those from the earlier period. Artifacts typical of these occupations include a variety of stemmed and notched projectile points, chipped stone scrapers, ground stone tools (e.g., celts, adzes) and ornaments (e.g., bannerstones, gorgets), bifaces or tool blanks, animal bone (where and when preserved) and waste flakes, a by-product of the tool making process.

2.3.1.3 Early, Middle and Transitional Woodland Periods

Significant changes in cultural and environmental patterns are witnessed in the Early, Middle and Transitional Woodland periods (ca. 950 BCE to 1000 CE). Although traditionally mobile lifeways did persist for some peoples, archaeological evidence suggests that other occupations became increasingly more permanent in this period, culminating in major semi-permanent villages by 1,000 years ago. Archaeologically, one of the most significant changes evident by the start of the Woodland Period is the appearance of artifacts manufactured from modeled clay and the emergence of more sedentary villages. The Woodland Period is often defined by the occurrence of pottery, storage facilities and residential areas. The earliest pottery was made by the coiling method and early house structures were simple oval enclosures. Both the Early and Middle Woodland sub-periods are characterized by an elaborate burial complex that in some areas in Ontario involved the construction of large burial mounds. Trade in exotic items, including rare stone and shell objects, became

common at this time, reflecting interconnections between Ontario populations and those in the Ohio and Mississippi river valleys to the south.

2.3.1.4 Late Woodland Period

Beginning around ca. 1000 CE the archaeological record documents the emergence of more substantial, semi-permanent settlements and the adoption of corn horticulture. Late Woodland Period sites may be identified by a predominance of finely-made pottery decorated with various simple and geometric motifs, triangular projectile points, clay pipes and ground stone artifacts. Items of European manufacture can be an indicator of sites that post-date direct European contact; however, objects may be present on Indigenous sites prior to direct contact through various trade networks. Items of European manufacturer could consist of trade goods (e.g., glass beads, copper/brass kettles, iron axes, knives and other metal implements) in addition to the personal items of European visitors and Jesuit missionaries (e.g., finger rings, stoneware, rosaries, and glassware). It is acknowledged that many Late Woodland Period villages were cosmopolitan centres, hubs for trading and social interaction between Algonquian and Iroquoian-speaking groups. They were occupied for both long and short periods by groups and individuals, Iroquoian and Anishinaabe, often resulting in complex and varying assemblages indicative of multicultural populations.

2.3.2 Indigenous Community – Shared Histories

There is no single, monolithic version of Indigenous or Ontario history. In the past, the histories of Indigenous communities, of Ontario, and of Canada, have been presented through a single colonial perspective with inherent biases. Although its focus is reconstructing the past through material remains, archaeology has inherited many of the cultural prejudices and perspectives of the colonial histories that have shaped current understanding of the origins, movements, and activities of contemporary Indigenous communities. The archaeological chronology and summary presented earlier in this report presents only one version of the past.

Indigenous communities have long contested elements of both colonial and archaeological histories. As a means to combat these colonial versions of their past, Indigenous communities have been sharing their own histories shaped by oral history, community memory, culturally-informed readings of historical events and documents, language, and tradition. These histories survive in traditional knowledge, stories, and the remembrances of elders; they persist despite the long-term effects of residential schools and government programs aimed to erase Indigenous culture. In the spirit of the Truth and Reconciliation Commission Calls to Action, community-based histories are included here as a way for Indigenous groups to share their own versions of the past.

Each Indigenous community maintains its own histories. These may represent not only the historical narratives of particular interest to a community (such as reserve histories and treaty negotiations), but also their unique perspectives on shared stories, events, places, and people (such as conflicts and migration stories). As such, different Indigenous community histories may approach the same subject in different, and sometimes contradicting, ways. Individual communities may not agree on the same series of events, the use of territories, or on various impetus for change, for example. Some draw on archaeological knowledge and some do not. These differences do not diminish the value of these histories. Instead, they emphasize the distinct languages, experiences, and priorities of different Indigenous communities and nations. Together, they offer a multitude of perspectives on Ontario's first peoples and offer important counterpoints to colonial stories.

The following sections include project-relevant community histories from Chippewas of Rama First Nation, Curve Lake First Nation, and the Huron-Wendat Nation.

2.3.2.1 Community History of the Chippewas of Rama First Nation

The Chippewas of Rama First Nation are an Anishinaabe (Ojibway) community located at Rama First Nation, Ontario. Our history began with a great migration from the East Coast of Canada into the Great Lakes region. Throughout a period of several hundred years, our direct ancestors again migrated to the north and eastern shores of Lake Huron and Georgian Bay. Our Elders say that we made room in our territory for our allies, the Huron-Wendat Nation, during their times of war with the Haudenosaunee. Following the dispersal of the Huron-Wendat Nation from the region in the mid-1600s, our stories say that we again migrated to our territories in what today is known as Muskoka and Simcoe County. Several major battles with the Haudenosaunee culminated in peace being agreed between the Anishinaabe and the Haudenosaunee, after which the Haudenosaunee agreed to leave the region and remain in southern Ontario. Thus, since the early 18th century, much of central Ontario into the lower parts of northern Ontario has been Anishinaabe territory.

The more recent history of Rama First Nation begins with the creation of the "Coldwater Narrows" reserve, one of the first reserves in Canada. The Crown intended to relocate our ancestors to the Coldwater reserve and ultimately assimilate our ancestors into Euro-Canadian culture. Underlying the attempts to assimilate our

ancestors were the plans to take possession of our vast hunting and harvesting territories. Feeling the impacts of increasingly widespread settlement, many of our ancestors moved to the Coldwater reserve in the early 1830s. Our ancestors built homes, mills, and farmsteads along the old portage route which ran through the reserve, connecting Lake Simcoe to Georgian Bay (this route is now called "Highway 12"). After a short period of approximately six years, the Crown had a change of plans. Frustrated at our ancestors continued exploiting of hunting territories (spanning roughly from Newmarket to the south, Kawartha Lakes to the east, Meaford to the west, and Lake Nipissing to the north), as well as unsuccessful assimilation attempts, the Crown reneged on the promise of reserve land. Three of our Chiefs, including Chief Yellowhead, went to York under the impression they were signing documents affirming their ownership of land and buildings. The Chiefs were misled, and inadvertently allegedly surrendered the Coldwater reserve back to the Crown.

Our ancestors, then known as the Chippewas of Lakes Simcoe and Huron, were left landless. Earlier treaties, such as Treaty 16 and Treaty 18, had already resulted in nearly 2,000,000 acres being allegedly surrendered to the Crown. The Chippewas made the decision to split into three groups. The first followed Chief Snake to Snake Island and Georgina Island (today known as the Chippewas of Georgina Island). The second group followed Chief Aissance to Beausoleil Island, and later to Christian Island (Beausoleil First Nation). The third group, led by Chief Yellowhead, moved to the Narrows between Lakes Simcoe and Couchiching and eventually, Rama (Chippewas of Rama First Nation).

A series of purchases, using Rama's own funds, resulted in Yellowhead purchasing approximately 1,600 acres of abandoned farmland in Rama Township. This land makes up the core of the Rama Reserve today, and we have called it home since the early 1840's. Our ancestors began developing our community, clearing fields for farming and building homes. They continued to hunt and harvest in their traditional territories, especially within the Muskoka region, up until the early 1920's. In 1923, the Williams Treaties were signed, surrendering 12,000,000 acres of previously unceded land to the Crown. Once again, our ancestors were misled, and they were informed that in surrendering the land, they gave up their right to access their seasonal traditional hunting and harvesting territories.

With accessing territories difficult, our ancestors turned to other ways to survive. Many men guided tourists around their former family hunting territories in Muskoka, showing them places to fish and hunt. Others worked in lumber camps and mills. Our grandmothers made crafts such as porcupine quill baskets and black ash baskets, and sold them to tourists visiting Simcoe and Muskoka. The children were forced into Indian Day School, and some were taken away to Residential Schools. Church on the reserve began to indoctrinate our ancestors. Our community, along with every other First Nation in Canada, entered a dark period of attempted genocide at the hands of Canada and the Crown. Somehow, our ancestors persevered, and they kept our culture, language, and community alive.

Today, our community has grown into a bustling place, and is home to approximately 1,100 people. We are a proud and progressive First Nations community.

2.3.2.2 History of the Nation Huronne-Wendat

As an ancient people, traditionally, the Huron-Wendat, a great Iroquoian civilization of farmers and fishermen-hunter-gatherers and also the masters of trade and diplomacy, represented several thousand individuals. They lived in a territory stretching from the Gaspé Peninsula in the Gulf of Saint Lawrence and up along the Saint Lawrence Valley on both sides of the Saint Lawrence River all the way to the Great Lakes. Huronia, included in Wendake South, represents a part of the ancestral territory of the Huron-Wendat Nation in Ontario. It extends from Lake Nipissing in the North to Lake Ontario in the South and Île Perrot in the East to around

Owen Sound in the West. This territory is today marked by several hundred archaeological sites, testifying to this strong occupation of the territory by the Nation. It is an invaluable heritage for the Huron-Wendat Nation and the largest archaeological heritage related to a First Nation in Canada.

According to our own traditions and customs, the Huron-Wendat are intimately linked to the Saint Lawrence River and its estuary, which is the main route of its activities and way of life. The Huron-Wendat formed alliances and traded goods with other First Nations among the networks that stretched across the continent.

Today, the population of the Huron-Wendat Nation is composed of more than 4000 members distributed on-reserve and off-reserve.

The Huron-Wendat Nation band council (CNHW) is headquartered in Wendake, the oldest First Nations community in Canada, located on the outskirts of Quebec City (20 km north of the city) on the banks of the Saint Charles River. There is only one Huron-Wendat community, whose ancestral territory is called the Nionwentsïo, which translates to "our beautiful land" in the Wendat language.

The Huron-Wendat Nation is also the only authority that have the authority and rights to protect and take care of their ancestral sites in Wendake South.

2.3.2.3 Oral History of the Michi Saagiig (Mississauga Anishinaabeg)

This historical context was shared by Gitiga Migizi, a respected Elder and Knowledge Keeper of the Michi Saagiig Nation.

The traditional homelands of the Michi Saagiig (Mississauga Anishinaabeg) encompass a vast area of what is now known as southern Ontario. The Michi Saagiig are known as “the people of the big river mouths” and were also known as the “Salmon People” who occupied and fished the north shore of Lake Ontario where the various tributaries emptied into the lake. Their territories extended north into and beyond the Kawarthas as winter hunting grounds on which they would break off into smaller social groups for the season, hunting and trapping on these lands, then returning to the lakeshore in spring for the summer months.

The Michi Saagiig were a highly mobile people, travelling vast distances to procure subsistence for their people. They were also known as the “Peacekeepers” among Indigenous nations. The Michi Saagiig homelands were located directly between two very powerful Confederacies: The Three Fires Confederacy to the north and the Haudenosaunee Confederacy to the south. The Michi Saagiig were the negotiators, the messengers, the diplomats, and they successfully mediated peace throughout this area of Ontario for countless generations.

Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years. These stories recount the “Old Ones” who spoke an ancient Algonquian dialect. The histories explain that the current Ojibwa phonology is the 5th transformation of this language, demonstrating a linguistic connection that spans back into deep time. The Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. They are the original inhabitants of southern Ontario, and they are still here today.

The traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands. This also includes all the tributaries that flow from the height of land north of Toronto like the Oak Ridges Moraine, and all of the rivers that flow into Lake Ontario (the Rideau, the Salmon, the Ganaraska, the Moira, the Trent, the Don, the Rouge, the Etobicoke, the Humber, and the Credit, as well as Wilmot and 16 Mile Creeks) through

Burlington Bay and the Niagara region including the Welland and Niagara Rivers, and beyond. The western side of the Michi Saagiig Nation was located around the Grand River which was used as a portage route as the Niagara portage was too dangerous. The Michi Saagiig would portage from present-day Burlington to the Grand River and travel south to the open water on Lake Erie.

Michi Saagiig oral histories also speak to the occurrence of people coming into their territories sometime between 500-1000 A.D. seeking to establish villages and a corn growing economy – these newcomers included peoples that would later be known as the Huron-Wendat, Neutral, Petun/Tobacco Nations. The Michi Saagiig made Treaties with these newcomers and granted them permission to stay with the understanding that they were visitors in these lands. Wampum was made to record these contracts, ceremonies would have bound each nation to their respective responsibilities within the political relationship, and these contracts would have been renewed annually (see Migizi and Kapyrka 2015). These visitors were extremely successful as their corn economy grew as well as their populations. However, it was understood by all nations involved that this area of Ontario were the homeland territories of the Michi Saagiig.

The Odawa Nation worked with the Michi Saagiig to meet with the Huron-Wendat, the Petun, and Neutral Nations to continue the amicable political and economic relationship that existed – a symbiotic relationship that was mainly policed and enforced by the Odawa people.

Problems arose for the Michi Saagiig in the 1600s when the European way of life was introduced into southern Ontario. Also, around the same time, the Haudenosaunee were given firearms by the colonial governments in New York and Albany which ultimately made an expansion possible for them into Michi Saagiig territories. There began skirmishes with the various nations living in Ontario at the time. The Haudenosaunee engaged in fighting with the Huron-Wendat and between that and the onslaught of European diseases, the Iroquoian speaking peoples in Ontario were decimated.

The onset of colonial settlement and missionary involvement severely disrupted the original relationships between these Indigenous nations. Disease and warfare had a devastating impact upon the Indigenous peoples of Ontario, especially the large sedentary villages, which mostly included Iroquoian speaking peoples. The Michi Saagiig were largely able to avoid the devastation caused by these processes by retreating to their wintering grounds to the north, essentially waiting for the smoke to clear.

Michi Saagiig Elder Gitiga Migizi (2018) recounts:

> *"We weren't affected as much as the larger villages because we learned to paddle away for several years until everything settled down. And we came back and tried to bury the bones of the Huron but it was overwhelming, it was all over, there were bones all over – that is our story.*
>
> *There is a misnomer here, that this area of Ontario is not our traditional territory and that we came in here after the Huron-Wendat left or were defeated, but that is not true. That is a big misconception of our history that needs to be corrected. We are the traditional people; we are the ones that signed treaties with the Crown. We are recognized as the ones who signed these treaties and we are the ones to be dealt with officially in any matters concerning territory in southern Ontario.*
>
> *We had peacemakers go to the Haudenosaunee and live amongst them in order to change their ways. We had also diplomatically dealt with some of the strong chiefs to the north and tried to make peace as much as possible. So, we are very important in terms of keeping the balance of relationships in harmony.*

> *Some of the old leaders recognized that it became increasingly difficult to keep the peace after the Europeans introduced guns. But we still continued to meet, and we still continued to have some wampum, which doesn't mean we negated our territory or gave up our territory – we did not do that. We still consider ourselves a sovereign nation despite legal challenges against that. We still view ourselves as a nation and the government must negotiate from that basis."*

Often times, southern Ontario is described as being "vacant" after the dispersal of the Huron-Wendat peoples in 1649 (who fled east to Quebec and south to the United States). This is misleading as these territories remained the homelands of the Michi Saagiig Nation.

The Michi Saagiig participated in eighteen treaties from 1781 to 1923 to allow the growing number of European settlers to establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move into small family groups around the present-day communities: Curve Lake First Nation, Hiawatha First Nation, Alderville First Nation, Scugog Island First Nation, New Credit First Nation, and Mississauga First Nation.

The Michi Saagiig have been in Ontario for thousands of years, and they remain here to this day.

2.3.3 Treaty History

The Project area lies at the intersection of a complex history of treaties.

For centuries prior to European contact, Anishinaabeg and Iroquoian-speaking peoples inhabited much of Southern Ontario. By 1650, a period of warfare and disease had decimated many Indigenous populations of Southern Ontario who lived predominantly in large villages (Denby 2011). Meanwhile, the Anishinaabeg retained more mobile ways of life and had been able to mitigate some of these devastating effects by moving northward to their hunting grounds in the Sault Ste. Marie area (Migizi 2018). Around the end of the 17th century the Mississaugas, a branch of the Algonquian-speaking Ojibway, returned to Southern Ontario together with the lucrative fur trade with early European traders, settling into communities at the mouth of the Credit River, and on the shores of Rice Lake, Little Mud Lake and what is now Lake Scugog. For more than 100 years prior to European settlement around Scugog, the Mississaugas had territorial family hunting grounds as far as Kingston in the east and Lake Nipissing to the north (MSIFN 2024).

In 1787-88, the Johnson-Butler Purchases sought to acquire the territory occupied by the Mississauga nations along the north shore of Lake Ontario and further inland. Also known as the Gunshot Treaty, these purchases proved difficult to uphold due to unclear records and poorly defined boundaries (Surtees 1984). Treaty 20, also known as the Rice Lake Purchase, was signed on November 5, 1818 by the Anishinabee people and the Crown (Canada 1891; Map 13). Treaty 20 encompassed Peterborough and Victoria Counties, as well as parts of Northumberland, the north half of Durham, the northern tip of Ontario County and parts of Muskoka and Haliburton. However, there were a lot of inconsistencies with the early treaties that were signed. It was not until the Williams Treaties of 1923 that these claims were revisited with the Anishinaabe nations now affiliated with that treaty, the Williams Treaties Nations of the Mississaugas of Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Scugog Island First Nation and the Chippewas of Beausoleil First Nation, Georgina Island First Nation and Rama First Nation (Surtees 1986). However, the Williams Treaties were also contentious, having been interpreted by Canada to have extinguished the First Nations' rights to hunt, fish, and harvest on the territory. As soon as these communities were made aware of this policy, they began formally challenging the interpretation as they depended on these activities for survival.

In 2018, Canada, Ontario, and Williams Treaties First Nations ratified the Williams Treaties First Nations Settlement Agreement, which confirms that the Crown did not act honourably when making and implementing the Williams Treaties (Canada 2018). Specifically, the Crown never provided proper compensation or additional lands as promised, and that First Nations' harvesting rights had been unjustly denied. The negotiated settlement agreement recognizes pre-existing treaty harvesting rights for First Nations members in Treaties 5, 16, 18, 20, 27, 27 ¼, Crawford Purchase and Gunshot Treaty, provides for the acquisition of additional reserve lands, includes financial compensation, and resulted in both federal and provincial apologies for the negative impacts of the Williams Treaties on First Nations.

2.3.4 Nineteenth-Century and Municipal Settlement

The southwestern portions of the Project Area fall within the Municipality of Clarington (former Township of Darlington) and Township of Scugog (former Township of Cartwright) in the Regional Municipality of Durham (formerly Durham County). The central portions of the Project Area fall within the City of Kawartha Lakes (former Township of Manvers, Victoria County) and Township of Cavan Monoghan (former Township of Cavan), Peterborough County. The eastern portion of the Project Area falls within the Township of Cavan Monaghan (former Township of Monaghan) and Township of Selwyn (former Township of Smith) in Peterborough County. A brief discussion of early 19th-century and municipal settlement in these places is provided below and provides the context for evaluating historic era archaeological potential.

2.3.4.1 Durham County

In 1788, Lord Dorchester, Captain General and Governor in Chief, of the old Province of Quebec, divided the areas of Upper and Lower Canada into districts, including the District of Durham. Then, in 1792, Lieutenant-Governor John Graves Simcoe divided the Districts of Upper Canada into 19 counties, one of which he named the County of Durham. At this same time, the County of Durham was divided into ridings, including the Township of Darlington and Cartwright (H. Belden & Co 1878:i-ii).

2.3.4.2 Darlington Township

Prior to the initial surveys of Darlington Township in 1793 and 1797 the area was settled by the Mississaugas. Beginning in 1794, the township witnessed the arrival of numerous families from the United States, who fled their homeland following the American Revolution and claimed loyalty to the British Crown (H. Belden & Co 1878:iii-iv). Some of these first settlers in Darlington Township and United Empire Loyalists were John Burk, John Trull, Roger Conat and their families. Leonard Sopher moved to Darlington in 1805 and erected the township's first saw mill, which burned the following year but was later replaced. At around the same time John Burke established a saw mill on Barber's Creek, where the settlement of Darlington Mills emerged. That community was renamed Bowmanville in 1823. Bowmanville was incorporated as a village in 1853 and by 1878 had a population of 3,500. Its initial success was due to the fact that it acted as a port of entry, had an excellent source of waterpower and became a railway stop over and shipping point (H. Belden & Co 1878:iii-iv). The Grand Trunk Railway opened in Bowmanville in 1856 (Taws 2012). The Township of Darlington saw considerable settlement after 1830. By 1851 its population was 8,005 (UCCBC 1967:27).

2.3.4.3 Cartwright Township

The first settler to Cartwright Township was John Hoople, who arrived in 1816. The township was formally surveyed in 1833, at which point, predominantly Irish immigrants increasingly began to settle around Lake Scugog. A government body was elected for Cartwright Township in 1837 and the settlement that would become Blackstock was established as its seat. The township's farming industry flourished and an annual agricultural fair was founded in 1865 (Mika and Mika 1977a:373-374).

2.3.4.4 Victoria County

The first settlers in Victoria County were Irish and Scottish families who arrived soon after the County was opened up in 1821, clearing land for lumber and farming. By 1842, Victoria County was home to five schools. Despite the densely forested landscape, lumber was milled so intensively for 60 years that it resulted in barren land with soils unfit for agriculture. It wasn't until the 1920s that reforestation became a concern and has since been in the process of careful rehabilitation (Mika and Mika 1977c:580-581).

2.3.4.5 Manvers Township

Manvers Township was initially surveyed in 1816 to 1817 by Samuel S. Wilmot, with the first recorded legal settler arriving in 1830 (Armstrong 2004:145). Compared to other townships in Durham, County, Manvers Township experienced late initial settlement and slow population growth. By 1842, there were 400 acres of Crown lands for sale within the Township at a cost of eight shillings per acre, no doubt encouraging settlement in a township whose meagre population of 697 was considerably behind others in the county (Smith 1846:110). Early settlers to the township were predominantly farmers from Ireland. The Preston brothers built mills approximately two miles from each other on Pigeon Creek near what would become Bethany. Bethany also became the seat of Manvers Township government, the first meeting of which took place in 1850 (Mika 1977b:609-610). In 1878, the principal villages were Bethany, Franklin, Lifford, Ballyduff, Burton, Lotus, Yelvertonn, Genetsville, and Drum (MTP 2010).

2.3.4.6 Cavan Township

Previously part of the United Counties of Northumberland and Durham, Cavan Township was initially surveyed in 1816 to 1817. Irishman John Deyell was the first to settle in the township in what would become Millbrook, assisting with the survey and establishing a tavern. In the years that followed, he built the township's first grist and sawmills. Cavan is named after the county in Ireland from which most of its early settlers had emigrated and Protestants were the only newcomers made welcome. By 1830, agriculture was the predominant industry and the township contained four mills, five stores, two distilleries, a church, and a schoolhouse (Mika and Mika 1977a:382-383).

2.3.4.7 Peterborough County

Peterborough County is one of the largest counties in Ontario. The lands in what would become Peterborough County were largely unexplored by European settlers until the year 1818, when a small group of settlers made their way to the recently surveyed Township of Smith (Poole 1867:2). Several of the settlers continued on to Mud Lake while the others, prospecting for a good location to open a mill, stopped at a steep bank on the Otonabee River, establishing the site for what would become the City of Peterborough. By 1825, the number of settlers within the townships north of Rice Lake was no greater than 500. Later that year, the Honourable Peter Robinson worked to speed up the settlement in the county, facilitating the movement of 415 families from the south of Ireland into the area, followed by a land grant of 100 acres to each family (Poole 1867:3). The County was established as the District of Colborne in 1838, becoming the County of Peterborough in 1850 (Peterborough County 2021).

2.3.4.8 North Monaghan Township

North Monaghan Township was originally surveyed in the summers of 1817 and 1818 (History of the County of Peterborough 1884:402-404). Despite being the smallest township in the county, North Monoghan owed much of its prosperity to its proximity to Peterborough and the early settlers who arrived in 1818 and quickly began clearing land for farming. The population of the township in 1841 was 1,620 inhabitants, and at this time the number included the town of Peterborough (Poole 1876:51). The town was incorporated in 1850, and in 1861, the population of the township was 1,281 (Poole 1876:49-51).

2.3.4.9 Smith Township

Initially part of Newcastle District, Smith Township was initially surveyed in 1818 by Samuel Wilmot and Richard Birdsall. A previous Indigenous portage route connecting Chemong Lake to the Otonabee River would become Communication Road: the principal road through the township, which was heavily forested

until it was cleared using a grant from the Upper Canada Legislature in 1932 (Trent University Library & Archives 2024; Borg 1967:99). Industry in Smith Township was centred around lumber, with settlements growing around mills in Bridgenorth, Young's Point, Lakefield, and what would become Peterborough. By 1840, the population was 1,286. The introduction of steamship transportation on Chemong Lake attracted settlers and by 1860, the population had nearly tripled (Trent University Library & Archives 2024).

2.3.5 Review of Historic Maps

Early maps and historical textural sources illustrate and describe late-18th and 19th-century features within the Project Area that reflect archaeological potential. These are inventoried below. Four major sets of maps were considered during the compilation of 19th-century features of archaeological potential:

- Jones' 1795 Map of Whitby Township
- Tremaine's 1861 Map of the County of Durham (Maps 28 to 29);
- H. Belden & Co.'s 1878 Illustrated Historical Atlas of the Counties of Northumberland and Durham (Maps 30 to 31);
- Miles & Co.'s 1879 New Topographical Atlas of the County of Peterborough (Maps 30 to 31);
- H. Beldon & Co.'s 1881 Illustrated Historical Atlas of the County of Victoria (Maps 30 to 31);

2.3.5.1 Transportation Routes

The Durham region's earliest surveys documented the presence of prominent Indigenous trails connecting major waterways. Jones' 1795 map of Whitby Township depicts the Scugog Carrying Place: a roughly 29-kilometer portage trail from present-day Oshawa to Lake Scugog, which facilitated travel throughout the Kawartha Lakes and Great Lakes region more broadly. Two branches are illustrated, the westernmost of which generally followed Oshawa Creek to the west of the Project Area northward to modern-day Port Perry. The eastern branch is shown along Harmony Creek travelling toward the northeast but ends just beyond the boundary of Whitby Township northeast of Townline Road and Concession Road 9. It is said that the eastern branch ended at present-day Caesarea on the southeast shore of Lake Scugog, where Mississauga people gathered to harvest wild rice (Karcich 2017:176). This route would have travelled in the vicinity of the southwestern end of the Project Area near Enfield.

Another notable Indigenous trail falls within the City of Peterborough and Smith Township from the Otonabee River to Chemong Lake. Though situated roughly 5 km from the Project Area at its closest point, the Chemong Portage was a well-travelled path through Indigenous hunting grounds for centuries before forming the route for the present-day Chemong Road, around which 19th-century trades and municipal lots were established (Karcich 2017:95).

Several prominent roads within the Project Area were early settlement and transportation routes in the late-18th and 19th centuries, allowing for the passage of people and supplies between prominent settlement and trade centres. The 1861 historic maps (Maps 28 to 29) showing the Project Area indicated that most of the municipal roads were open by that time and the 1878 to 1881 historic maps (Maps 31 to 31) show no significant changes. From the Clarington TS in the former Darlington Township, the Project Area crosses Langmaid Road, Regional Road 3, and Concession Road 9 before veering to the northeast and crossing Enfield Road, the former northward route of Concession Road 9, Wotten Road, Union School Road, a former road between Lots 23 and 22 of Concession 9, Concession Roads 9 and 10, Old Scugog Road, and former roads between Lots 15 and 16 as well as between Lots 14 and 15 of Concession 10.

In Cartwright Township, the Project Area crosses Fowler Line, a former extension of Cartwright East Quarter Line, and Manvers Scugog Townline Road. Across Manvers Township, the Project Area crosses Waite Road, Wilmont Road, Ballyduff Road, Highway 35, Gray Road, a former road between Lots 13 and 14 of Concession 6, Wild Turkey Road, a former route of Gray Road through Lot 19, Concession 7, Highway 7A, Porter Road, Ski Hill Road, and Dranoel Road. In Cavan Township, the Project Area crosses Sharpe Line,

Winslow Quarter Line, Sharpe Line again, Stewart Line, County Road 10, Hooton Drive, Howden Quarter Line, Mount Pleasant Road, and present Highway 7.

Railway lines are also visible on the historic mapping. Both the 1861 and 1878 through 1881 historic maps depict the former Midland Railway running from Port Hope in the southeast, through the community of Bethany, then northward to Brunswick and beyond to the town of Lindsay. The Project Area crosses the line on the north side of Bethany (Map 31). With a goal of facilitating the trade of lumber products from the Kawartha Lakes region, the Port Hope and Peterborough Railway was incorporated in 1846 and construction completed in 1856, including a branch from Port Hope to Lindsay. In 1869, its name was changed to the Midland Railway of Canada (Farrell 2019). It was abandoned in the 1970s and now forms part of the Ganaraska Hiking Trail. The Project Area also crosses the Grand Junction Railway just south of the Dobbin TS (Map 31). Connecting Bellville to Peterborough, it was part of a venture by the Grand Trunk Railway to consolidate the Midland into a larger regional rail system and completed from 1881 to 1882 (Canada-Rail 2024).

2.3.5.2 Mapped Settlement Areas

Nineteenth century maps also depict notable settlement areas within or nearby the overall Project Area, several of which have already been described. These include:

- Enfield (Enfield Road and Concession Road 9; Darlington Township), a crossroads community with a church built in 1877 (Map 30);
- Lotus (Ballyduff Road and Lotus Road; Manvers Township), an early Irish community initially settled in the 1860s and 70s around saw and grist mill sites, which quickly grew to include a general store, several blacksmiths, a tailor, shoeshop, hotel, post office, and school (Map 30);
- Ballyduff (Ballyduff and Highway 35; Manvers Township), an early community with a church, schoolhouse, and post office established by the 1850s (Maps 28 and 30);
- Bethany (on Highway 7A at Ski Hill Road; Manvers Township), an early community which experienced rapid growth around the establishment of a Midland Railway (later the Grand Trunk Railway, then the Canadian National Railway) station in the 1850s (Maps 29 and 31);
- Ida (formerly Churchville; County Road 10 at Sharpe Line; Cavan Township), the site of the first church in Cavan Township (Maps 29 and 31);
- Mt. Pleasant (County Road 10 at Mount Pleasant Road; Cavan Township), an early community established after the first mill in Cavan Township was built to the east in 1830 (Maps 29 and 31); and,
- Peterborough (on the north side of the Otonabee River between railway junction and Chemong Road; North Monaghan and Smith Townships), an early urban settlement that emerged around a mill as an agricultural market centre for the surrounding townships and was incorporated as a town in 1850 (Map 31).

2.3.5.3 Known and Registered Cemeteries

All historic and modern cemetery data was collected from the CanadaGen Web's Cemetery Project (2022) and complemented with information from the Find a Grave (2022) Database. Only one cemetery is known within 300 m of the Project Area. Graham's Cemetery is located approximately 125 m northwest of the Preferred Route within Lot 20, Concession 8, in Manvers Township (Map 32). Its limits are not well-defined and it contains at least 93 burials with dates ranging from 1851 to 2020. It does not pose a planning concern for this study.

2.3.5.4 Mapped Buildings

Tremaine's 1861 Map of the County of Durham (Maps 28 to 29) was reviewed in addition to the 1878 historical atlas of Durham County, the 1881 historical atlas of Victoria County, and the 1879 topographical atlas of Peterborough County, showing numerous built structures, including a number depicted within 300 m of the route alternatives (Maps 30 to 31). Table 5 inventories the mapped structures within 300 m of the Preferred Route and Route Alternatives. It should be noted that, in general, the 1877 to 1881 maps do not depict the location of many buildings, with the exception of non-residential structures. Nor are landowners' names associated with the majority of properties, largely due to the fact that owners had to pay a subscriber's fee to be inventoried in the atlas.

Two structures fall within or in immediate proximity to route alternatives. Information about these structures has been supplemented by archive records from McGill University (2001). The structures include:

- Lot 31, Concession 9, Darlington Township (1861): the Jonathan Hymers house is within or immediately adjacent to the Preferred Route;
- Lot 26, Concession 9, Darlington Township (1861): the Whitewell Hall (?) house is within or immediately adjacent to the Preferred Route;
- Lot 24, Concession 2, Cartwright Township (1878): the H. McQuade house is within or immediately adjacent to the Preferred Route; and
- Lot 13, Concession 6, Manvers Township (1881): the Estate of J. Leach house is within or immediately adjacent to the Preferred Route.

Table 4: Summary of 19th-century Settlement History on Properties Within the Project Areas as Depicted on Tremaine's 1861 Map of the County of Durham

Lot	Con	Structure	Name Listed	Part	Comments
Darlington Township					
31	9	House	Jonathan Hymers	S ½	Within/in immediate proximity of Route B
31	9	House	Jonathan Hymers	S ½	<100 m from Route B
31	9	House	Jonathan Hymers	S ½	>100 m from Route B
26	9	House	Whitewell Hall (?)	S ½	Within/in immediate proximity of Preferred Route
Manvers Township					
20	8	Church	John Graham	S½	<100 m from Preferred Route
21	8	House	Thomas Graham	-	<50 m from Preferred Route
19	13	House	Edward Sanderson Jr	W½	<50 m from Preferred Route

Table 5: Summary of 19th-century Settlement History on Properties Within the Project Areas as Depicted on the 1878 to 1881 Historic Atlases

Lot	Con	Structure	Name Listed	Part	Comments
Darlington Township					
32	8	House	Richard Pascoe	N ½	<100 m from Route A
32	8	School?	Richard Pascoe	N ½	>100 m from Route A
		House		S ½	>100 m from Route B
31	8	House	R.H. Campbell	S ½	>100 m from Route B
31	8	House	Daniel Dyer	N½	>100 m from Route B
31	8	House		N½	>100 m from Route B
31	8	House		N½	>100 m from Route B
31	9	House		S ½	>100 m from Route B
31	9	House		S ½	>100 m from Route B
31	9	House		S ½	>100 m from Route B
31	9	House	Daniel Dyer	S ½	>100 m from Route B
30	9	House	George McCullouch	S ½	<100 m from Preferred Route
26	9	House	Simon Hunter	S ½	>100 m from Preferred Route
25	9	House	W. Green	N ½	>100 m from Preferred Route
17	10	House	Thomas Brimacomb	SE ¼	>100 m from Preferred Route
Cartwright Township					
16	1	House	Western Dean	S½	>100 m from Preferred Route
19	2	House	R. Bradburn	S½	>100 m from Preferred Route
20	2	House Steam Saw Mill	Abraham Dean	E½	<50 m from Preferred Route
20	1	House	Joseph Watson	W½	<100 m from Preferred Route
20	1	House	William Watson	E½	>100 m from Preferred Route
24	2	House	H. McQuade	N½	Within/in immediate proximity to Preferred Route
Manvers Township					
1	4	House	John Campbell	SW½	>100 m from Preferred Route

Lot	Con	Structure	Name Listed	Part	Comments
2	4	House	W. & J. Sanderson	N½	>100 m from Preferred Route
2	5	House	W. Sanderson	SW½	>100 m from Preferred Route
2	5	House	John Livingstone	S½	>100 m from Preferred Route
3	4	House	William Belch	W½	>100 m from Preferred Route
3	4	House	John Ferguson	E½	>100 m from Preferred Route
6	5	House	William Hamilton	W½	>100 m from Preferred Route
7	5	House	Estate of George McCullough	E½	>100 m from Preferred Route
8	5	House	L. Brown	N½	<100 m from Preferred Route
9	6	House	Estate of William Byers	S½	>100 m from Preferred Route
11	6	House	Evan Porter	W½	>100 m from Preferred Route
13	6	House	Estate of J. Leach	NW½	Within/in immediate proximity to Preferred Route
14	6	House	John Porter	NE½	>100 m from Preferred Route
14	7	House	Mark Raper	S½	<100 m from Preferred Route
15	6	House	Richard Armstrong	N½	>100 m from Preferred Route
16	7	House	J.K. Steer	SW½	>100 m from Preferred Route
20	7	House	James Crozier	NW½	<50 m from Preferred Route
20	8	House	Adam Preston	S½	>100 m from Preferred Route
21	8	House	Thomas Graham	-	<50 m from Preferred Route
22	8	House	Jaffrey Graham	-	>100 m from Preferred Route
23	8	House	John Copeland	-	>100 m from Preferred Route
Cavan Township					
5	11	2 Houses	David Elsey	W½	>100 m from Preferred Route
5	10	House	Andrew Stewart	N½	<50 m from Preferred Route
6	11	House	Thomas Bradburn	S½	>100 m from Preferred Route
7	11	School?	Henry Sharp	SW½	>100 m from Preferred Route
12	13	House	Robert Mills	S½	<100 m from Preferred Route
12	13	2 Houses	Robert Mills	S½	>100 m from Preferred Route
17	12	House	Edward Johnston	N½	>100 m from Preferred Route
19	13	House	Edward Sanderson	W½	>100 m from Preferred Route
19	13	House	George McBain	E½	<100 m from Preferred Route
22	13	House	Jane Moncrief	N½	>100 m from Preferred Route
22	14	House	William Jackson	S½	>100 m from Preferred Route
23	13	House	Robert Dunlap	-	<100 m from Preferred Route
Smith Township					
6	1	School?	-	-	>100 m from Preferred Route

2.3.6 Review of Heritage Properties

Municipal and provincial inventories were reviewed to compile a listing of heritage buildings designated under the Ontario Heritage Act and plaques within 300 m of the Project Area. Based on the Ontario Heritage Trust register for designated buildings (2024), one building at 1640 Concession Road 9 (Lot 31, Concession 9, Twp. of Darlington) falls within 300 m of Route B. Further, no heritage plaques or monuments were identified within 300 m of the route.

2.3.7 Current Land Use

Due to the large size of the Project Area a field review was not undertaken for this study. However, based on prior knowledge of existing conditions and existing aerial photography, the proposed route alternatives largely fall within rural lands between the outskirts of the urban centres of Oshawa and Peterborough, and bypassing the rural communities of Enfield, Burketon Station, Ballyduff, Bethany, Ida, and Edgewood Park.

3 ANALYSIS AND CONCLUSIONS

As noted in Section 2.1, the Province of Ontario has identified numerous factors that signal the potential of a property to contain archaeological resources. The Stage 1 background study included a review of current land use, historic and modern maps, past settlement history for the area and a consideration of topographic and physiographic features, soils, and drainage. It also involved a review of previously registered archaeological resources within 1 km of the Project Area and previous archaeological assessments within 50 m. According to the map-based review and background research, the majority of the Project Area exhibits potential for the discovery of archaeological sites due to proximity (within 300 m) to:

- registered archaeological sites (BaGp-1, BaGp-47, BaGq-5, BbGo-10, BbGp-14/BpGp-14);
- watercourses and wetlands (including Pigeon River, Fleetwood Creek, and Jackson Creek, in addition to tributaries of Farewell Creek, East Oshawa Creek, Bownmanville Creek, East Cross Creek, Pigeon River, Fleetwood Creek, Cavan Creek, and Jackson Creek);
- glacial shorelines (Glacial Lake Iroquois);
- mapped 19th-century structures in Clarington, Cartwright, Manvers, Cavan, and Smith Townships;
- known cemeteries (Graham's Cemetery);
- historic 19th-century transportation routes (including the early settlement roads of Enfield Road, Concession Road 9, Concession Road 10, Old Scugog Road, Bowmanville Avenue, Boundary Road, Cartwright East Quarter Line, Manvers Scugog Townline Road, Waite Road, Wilmont Road, Ballyduff Road, Highway 35, Highway 7A, Sharpe Line, County Road 10, Stewart Line, Hooton Drive, Mount Pleasant Road, Highway 7, Parkhill Road West, the Midland Railway, and the Grand Junction Railway); and,
- 19th-century settlement areas (including Enfield, Lotus, Ballyduff, Bethany, Ida, Mt. Pleasant, Peterborough).

There are numerous areas of low archaeological potential identified with the Project Area (e.g., roadways, low-lying and wet areas, standing structures); however, they have not been directly observed and photo documented as part of this study. As this report was generated for planning purposes to help evaluate route alternatives, a site inspection was not conducted at this time. Once the preferred route alternative is selected, a more detailed review of existing conditions and assessment areas will be undertaken as part of the Stage 2 assessment planning. Any areas of low-archaeological potential within the preferred route alternative will need to be photo-documented as part of the Stage 2 assessment.

The Preferred Route and each alternative contains significant areas with the potential for the discovery of archaeological resources due to proximity to past and present watercourses, 19th-century transportation routes, and mapped buildings.

Maps 33 to 66 illustrate features of and lands exhibiting archaeological potential within 300 m of the Preferred Route and route alternatives. Supplementary Documentation (SD) Maps 6 to 9 illustrate archaeological potential in greater detail, including alternatives in relation to registered archaeological sites. Apart from the illustration of the proposed route alternatives shown in Map 1, no detailed proponent mapping was provided for this study. Instead, the information was provided as a GIS shape file. For that reason, our Stage 1 findings are not illustrated on a proponent map per se.

4 RECOMMENDATIONS

A map-based review of the Preferred Route and proposed route alternatives for the new Hydro One Durham Kawartha 230 kV Power Line Project was undertaken and the archaeological potential evaluated based on proximity of features signaling the likelihood for archaeological resources to exist. This established the majority of lands within the Project Area had potential for the discovery of archaeological resources, noting that a detailed field review should be conducted as part of the Stage 2 assessment once the preferred alternative is chosen. Based on this investigation the following recommendations are made:

- Previously Assessed Areas:
    - For the lands within the Project Area that were previously subject to Stage 2 assessment using methodologies in keeping with the 2011 Standards and Guidelines for Consultant Archaeologists and for which there are no outstanding archaeological concerns, no further assessment is required.
- Areas of Low Archaeological Potential:
    - Areas of previous disturbance (e.g., building footprints and existing roads or laneways), as well as low-lying and wet areas are considered to have low archaeological potential.
    - As a field inspection was not conducted as part of this study, areas of low archaeological potential within the preferred route alternative will need to be confirmed and photo-documented at the time of Stage 2 survey (MTC 2011:28; Section 2.1.2).
- Stage 2 Methodologies:
    - Once the preferred route alternative is determined, a more detailed review of existing conditions should be undertaken, alongside a comparison to archaeological potential mapping provided in this report (Maps 33 to 66; SD Maps 6 to 10).
    - In keeping with provincial standards, the agricultural fields should be ploughed for pedestrian survey; however, for any impact areas that are linear corridors less than 10 m wide, test pit survey can be undertaken (as per Section 2.1.2 Standard 1.f.).
    - In keeping with the provincial standards, the non-ploughable areas must be subject to test pit assessment. In both cases, a 5 m transect interval is recommended to achieve the provincial standard.
- Cemeteries:
    - The portions of the Project Area that run within close proximity to known cemeteries are areas of continued archaeological concern. It is recommended that the selected hydro corridor route be located at least 20 m away from the cemeteries and on the opposite side of the road. If impacts are planned within 20 m of the assumed boundaries of a cemetery, a Stage 1 archaeological assessment including detailed background research to determine the boundaries of the cemetery and the extent of potential burials associated with that cemetery is recommended.

  - If any invasive (Stage 2-4) archaeological fieldwork will impact the cemetery, or lands adjacent to the cemetery where the boundaries have not been credibly determined, then a Cemetery Investigation Authorization (CIA) would be required further to the Registrar's Directive: "Authorization for Invasive Stages 2-4 Archaeological Fieldwork" issued by the Bereavement Authority of Ontario (BAO) under the authority of the *Funeral, Burial and Cremation Services Act*, 2002. If the Stage 1 archaeological assessment can credibly identify the boundaries of the cemetery, and the proposed archaeological assessment will not impact the cemetery lands, a CIA is not required. All work should be completed in consultation with the MCM and the BAO as per the Registrar's Directive.
  - This will minimally involve Stage 1 background research to collect information about the history of the cemetery and location of burials in proximity to the ROW, potentially followed by Stage 2 test pit survey and mechanical topsoil removal to actively search for burials.
- There are four previously registered archaeological sites located within or adjacent to the Project Area that may have further CHVI. It is recommended that this area be avoided, if possible. If this is not possible, further archaeological assessment will be required. Should impacts be proposed at the location of these sites, the following site-specific recommendations apply:
  - BbGo-10 (McCreef Site) is a sparse scatter of 19th-century materials. It is not clear if this assessment was completed using methodologies in keeping with the 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required;
  - BaGq-5 (Porter Site) is an isolated Indigenous findspot with no temporal affiliation. BaGq-5 was not investigated utilizing methodologies in keeping with 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required;
  - BaGp-1 (Strong Site) is reportedly classified as an Iroquoian campsite, though it was also described as a roughly two- or three-acre scatter, which may suggest it may be a hamlet or village. It is not clear if this assessment was completed using methodologies in keeping with the 2011 *Standards and Guidelines,* therefore, the CHVI is unknown and the areas within 50 m of its location are recommended for Stage 2 assessment following Section 2.1.1 of the *Standards and Guidelines*. If additional archaeological materials are identified in the vicinity of the site, they would need to be evaluated against current MCM standards and additional work may be required; and,
  - BpGp-14 (Woodland Hills Site)/BbGp-14 is a multicomponent site attributed to the Late Woodland period (1350-1500 CE) and mid-19th century. It includes evidence of a longhouse and two middens. BpGp-14 has been subject to avoidance and protection measures; therefore, it retains CHVI and is recommended for Stage 4 mitigation. If the site is anticipated to be impacted by construction and further investigation is planned, the methodology for Stage 4 assessment should follow Section 4.2.2 of the *Standards and Guidelines*.
- While BaGp-47 falls within the Project Area, it was been fully assessed to current MCM standards and no additional work is required.

- Changes to Extent of Project Area:
    - If the extent of the Project Area or route alternatives change to incorporate lands not addressed in this study, further assessment will be required.

Our recommendations are subject to the conditions laid out in Section 6.0 of this report and to the MCM' review and acceptance of this report into the provincial registry.

5 SUMMARY

A Stage 1 archaeological assessment was conducted for a proposed double circuit 230 kV transmission line between Hydro One's Clarington Transformer Station (TS) in the Municipality of Clarington and Dobbin TS in the Township of Selwyn, Peterborough County. A map-based review established that the majority of lands within the Project Area and proposed route alternatives have archaeological potential due to the proximity of 19th-century transportation routes, settlement areas and structures, registered archaeological sites, as well as ancient and current watercourses and wetlands. Stage 2 survey is recommended for all lands exhibiting archaeological potential and that have not been previously assessed (Maps 33 to 66; SD Maps 6 to 9). A more detailed review of the preferred route alternative will be undertaken once chosen.

6 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the MCM as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O 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 fieldwork and report recommendations ensure the conservation, protection, and preservation 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 MCM, 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 fieldwork 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 (i.e., unknown or deeply buried) archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act.*

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and Registrar of Burial Sites, Ontario Ministry of Government and Consumer Services at 416-212-7499 and FBCSARegistrar@ontario.ca.

7 BIBLIOGRAPHY

Adams, N.

1986 Iroquois Settlement at Fort Frontenac in the Seventeenth and Early Eighteenth Centuries. *Ontario Archaeology* 46. 5-20.

Adams Heritage Consultants (AHC)

1992 Chats Falls x Dobbin TS Survey of High Archaeological Site Potential Areas and Identification of Mitigation Measures. Report on file with the MCM.

Amick Consultants Ltd. (AMICK)

2012 Stage 1-2 Archaeological Assessment, Settler's Landing Wind Park, Part of Lots 7, 8 & 9, Concession 3, Part of Lot 7, Concession 8 (Geographic Township of Manvers, Historic County of Durham), City of Kawartha Lakes, County of Victoria. Licensee, Michael Henry; PIF P058-692-2010 & P058-728-2011. Report on file with the MCM.

2013 Revised Report on the 2009 Stage 1 Archaeological Background Research Of Ballyduff Wind Farm, Part of Lots 7 and 8, Concessions 3, Part of Lot 7, Concession 5, All of Lot 15, Concession 6, Township of Manvers, City of Kawartha Lakes, Formerly the County of Durham. Licensee, Michael Henry; PIF P058-502-2009. Report on file with the MCM.

Archaeological Research Associates Ltd. (ARA)

2020 Stage 1, 2 and 3 Archaeological Assessments, Cemetery Investigation, Graham's Cemetery (Cemetery Site #4460), 1047 Porter Road, City of Kawartha Lakes, Lot 20, Concession 8, Geographic Township of Manvers, Durham County, Ontario. Licensee, Paul Racher; PIF P007-0884-2018 & P007-0885-2018). Report on file with the MCM.

Archaeological Services Inc. (ASI)

2006 Stage 1 Archaeological Assessment: Highway 7 Preliminary Design Study From Fowlers Corners to County Road 28, City of Kawartha Lakes and Peterborough County, Ontario. Licensee, Robert Pihl; PIF P057-106. Report on file with the MCM.

2012a Stage 2 Archaeological Assessment, Property Assessment, Hydro One Networks Inc. Clarington Transformer Station, Concession 7, Lots 33-35, Township of Darlington, Region of Durham, Ontario. Licensee, Lisa Merritt; P094-131-2012. Report on file with the MCM.

2012b *Stage 3 Site-Specific Assessment, Site AlGr-305, Oshawa Clarington Area Transformer Station, Concession 7, Lot 33, Township of Darlington, Regional Municipality of Durham, Ontario.* Licensee, Lisa Merritt; P094-161-2012. Report on file with the MCM.

Armstrong, Frederick H.

2004 *Handbook of Upper Canadian Chronology*. Hamilton: Dundurn Press, Ltd.

Borg, Ronald (editor)

1967 *Peterborough: Land of Shining Waters.* University of Toronto Press, Toronto.

CanadaGenWeb's Cemetery Project

2024 Virtual Database. Website Link. Accessed August 29, 2024.

Canada-Rail

2024 Midland Railway of Canada. Website Link. Accessed September 24, 2024.

Central Archaeology Group Inc. (CAG)

2016 Stage 1 and 2 Archaeological Assessment, Culvert Replacements on Highway 7A between Bethany and Highway 35, Part of Lot 19, Concession 7, Road Allowance between Lot 20, Concession 7 and Lot 20, Concession 8 and Road Allowance between Lot 23, Concession 7 and Lot 23, Concession 8, Geographic Township of Manvers, Durham County, MTO Project: 14829-7. Licensee, Laura McRae; PIF P248-0233-2015. Report on file with the MCM.

Chapman L.J. and D.F. Putnam

1984 *The Physiography of Southern Ontario*. Third Edition. Ontario Ministry of Natural Resources: Ontario. Government of Ontario

Conolly, James

2020 Archaeology and paleogeography of a Lake-Wetland complex: Modeling the postglacial evolution of the Kawartha Lakes, Ontario. *Geoarchaeology* 2020;1-18.

Denby, D.

2011 *First Nation People of the Scugog Basin*. Website Link. Accessed May 31, 2017.

ESRI Canada

2021 Ontario Base Map. Ontario Ministry of Natural Resources Data. ESRI Canada. Website Link. Accessed: April 7, 2021.

Farrell, Stephen M.

2019 Brief History of the Midland Railway of Canada. *Rails to Midland*. Website Link. Accessed: September 24, 2024.

Find a Grave

2024 Virtual Database. Website Link. Accessed August 29, 2024.

Government of Canada (Canada)

1891 *Indian Treaties and Surrenders From 1680-1890*. Two Volumes. Ottawa: Brown Chamberlin, Printer to the Queen's most Excellent Majesty.

2018 *Williams Treaties First Nations Settlement Agreement.* Website Link. Accessed May 2021.

Government of Ontario

1990 *Environmental Assessment Act, R.S.O. 1990.* (c. E.18). Queen's Printer for Ontario. Website Link. Accessed April 7, 2022.

1990 *Ontario Heritage Act, R.S.O. 1990*. (c. 0.18). Online: Publications Ontario. Website Link. Accessed February 16, 2021.

2002 *Funeral, Burial and Cremation Services Act, 2002, So.O. 2002* (c.33). Queen's Printer for Ontario. Website Link. Accessed April 7, 2022.

H. Belden & Co.

1878 *Illustrated Historical Atlas of the Counties of Northumberland and Durham, Ont.* Toronto: Toronto Lith Co. Gorrell Craig & Co

1881 Victoria Supplement. Illustrated Atlas of the Dominion of Canada. In Phelps, E. (ed) *Belden's Illustrated Historical Atlas of the County of Victoria.* Reprint, Ancaster: Alexander Publishing, 2000.

Hydro One Networks Inc.

2024 *Class Environmental Assessment for Transmission Facilities*. Website Link. Accessed April 22, 2024.

J.D. Barnes and First Base Solutions (SWOOP)

2010 Southwestern Ontario Ortho Imagery Project – Imagery for Southwestern Ontario.

Manvers Township Pioneers (MTP)

2010 The Early History and Pioneers of Manvers Township. Website Link. Accessed September 4, 2024.

Mayer Heritage Consultants Inc. (MHC)

2006 Revised Report on Archaeological Assessment (Stage 1), Hydro Right of Way, Concession 7, Lots 33-35, Township of Darlington, Region of Durham, Ontario/ Licensee, Paul O'Neal, PIF P040-170-2006. Report on file with the MCM.

McGill University

2001 The Canadian County Atlas Digital Project. Website Link Accessed September 27, 2024.

Mika, Nick and Helma Mika

1977a Places in Ontario: Their Name Origins and History. Part I: A-E. Volume 1. Mika Publishing Company, Belleville.

1977b Places in Ontario: Their Name Origins and History. Part II: F-M. Volume 2. Mika Publishing Company, Belleville.

1977c Places in Ontario: Their Name Origins and History. Part IIII: N-Z. Volume 3. Mika Publishing Company, Belleville.

Migizi, Gidigaa

2018 *Michi Saagiig Nishnaabg: This is Our Territory*. Winnipeg: ARP Books.

Migizi, Gitigaa and J. Kapyrka

2015 Before, During, and After: Mississauga Presence in the Kawarthas. In Verhulst, D. (ed) *Peterborough Archaeology*. Peterborough, Ont.: Peterborough Chapter of the Ontario Archaeological Society. 127-136.

Miles & Co.

1879 *The New Topographical Atlas of The Province of Ontario*. Toronto.

Ministry of Northern Development and Mines (MNDM)

2007 Physiography of Southern Ontario. Chapman, L.J. and D.F. Putnam, authors. GIS map data layer distributed by the Ontario Geological Survey as Miscellaneous Release – Data (MRD) 228. Queen's Printer for Ontario.

Ministry of Tourism and Culture (MTC; now Ministry of Citizenship and Multiculturalism)

2011 Standards and Guidelines for Consultant Archaeologists. Toronto.

2024 Ontario's PastPortal Online Database. Last Accessed: June 18, 2024.

Mishkodeh Centre for Indigenous Knowledge (MCIK)

n.d. History. Website Link. Accessed October 27, 2022.

Mississaugas of Scugog Island First Nation (MSIFN)

2021 *Origin & History*. Mississaugas of Scugog Island First Nation. Website Link. Last accessed August 16, 2021.

Ontario Fundamental Dataset, Ministry of Natural Resources (2012) and CanVec Geospatial Database (2012)

2013 Base Mapping for the Province of Ontario.

Ontario Heritage Trust

2024 Enfield United Church. Website Link. Accessed September 4, 2024.

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

2006 GIS Layers for Soils and Physiography in the Province of Ontario.

Ministry of Municipal Affairs and Housing (MMAH)

2024 Provincial Planning Statement, 2024. King's Printer for Ontario. Website Link. Accessed October 15, 2024.

Peterborough County

2021 Brief History. Website Link. Accessed October 4, 2024.

Poole, T.W.

1867 *A Sketch of the Early Settlement and Subsequent Progress of the Town of Peterborough and each of Township in the County of Peterborough.* Peterborough: Peterborough Review.

Roberts, Arthur

1978 Archaeological Survey in Selected Townships Along the North Shore of Lake Ontario. Report on file with the MCM.

Slattery, David J. G.

1998 BbGp-14 Site Record Form (2002-074). Site record on file with the MCM.

Smith, Wm. H.

1846 *Smith's Canadian Gazetteer, Canada West*. Toronto: H.&W. Rowsell.

Stantec

2021 Stage 1 Archaeological Assessment: ARROW Kawartha Lakes Campbellford Former Rail Line, Various Lots and Concessions, Various Geographic Townships, Various Lower Tier Municipalities, Hastings County, Northumberland County, Peterborough County, and Kawartha Lakes, Ontario. Licensee, Patrick Hoskins; PIF P415-286-2021. Report on file with the MCM.

2022 Stage 1 Archaeological Assessment: Bobcaygeon Community Expansion Project, Various Lots and Concessions, Geographical Townships of Emily and Verulam, Victoria County, Geographical Township of Harvey, Peterborough County, and Geographical Townships of Manvers and Cavan, Durham County, Ontario. Licensee, Patrick Hoskins; PIF P415-0323-2021. Report on file with the MCM.

Surtees, R.J.

1984 *Indian Land Surrenders in Ontario 1763-1867*. Ottawa: Indian Affairs and Northern Development, Government of Canada.

1986 *Treaty Research Report: The Williams Treaties*. Ottawa: Treaties and Historical Research Centre, Indian and Northern Affairs, Government of Canada.

Taws, C.

2012 History of Bowmanville Valley Part II. *Clarington Promoter.ca* 2(4). May 2012. Website Link. Last accessed August 16, 2021.

TMHC Inc. (TMHC)

2010 Stage 1 Archaeological Assessment, Sumac Ridge Wind Farm, Geographic Township of Manvers, City of Kawartha Lakes, Ontario. Licensee, Arthur Figura, PIF P083-061-2010. Report on file with the MCM.

2011 Stage 2 Archaeological Assessment, Sumac Ridge Wind Farm, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601. Licensee, Arthur Figura, PIF P083-085-2010. Report on file with the MCM.

2014a Stage 1 & 2 Archaeological Assessment, Sumac Ridge Wind Farm, Additional Renewable Energy Approval Lands, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601. Licensee, Matthew Beaudoin, PIF P324-006-2013. Report on file with the MCM.

2014b Stage 2 Archaeological Assessment, Sumac Ridge Wind Farm, Alternate Access Routes, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601. Licensee, Matthew Beaudoin, PIF P324-004-2013. Report on file with the MCM.

2015 Stage 3 Archaeological Assessment, Sumac Ridge Wind Farm, Location 1 (BaGp-47) and Location 2 (BaGp-52), Part of Lot 14, Concession 6, Geographic Township of Manvers, City of Kawartha Lakes, Ontario, FIT Contract No. F-000664-WIN-130-601. Licensee, Matthew Beaudoin; PIF P324-0066-2015 (Loc. 1); P324-0067-2015 (Loc 2.). Report on file with the MCM.

This Land Archaeology Inc. (TLA)

2014 Revised Report on the 2010 and 2011 and 2013 Stage 1 to 3 Archaeological Assessments of Woodland Hills Community Inc.'s Property, Woodland Hills Site (BbGp-14), Part of Lots 24 and 25, Concession 8, City of Kawartha Lakes, Ontario. Licensee, William Finlayson; PIF P059-227-2010 & P059-303-2011. Report on file with the MCM.

Trent University Library & Archives

2024 Smith Township. Website Link. Accessed August 28, 2024.

United Counties Centennial Book Committee (UCCBC)

1967 *Two Centuries of Change: United Counties of Northumberland & Durham 1767-1967.* Coburg: United Counties Centennial Book Committee.

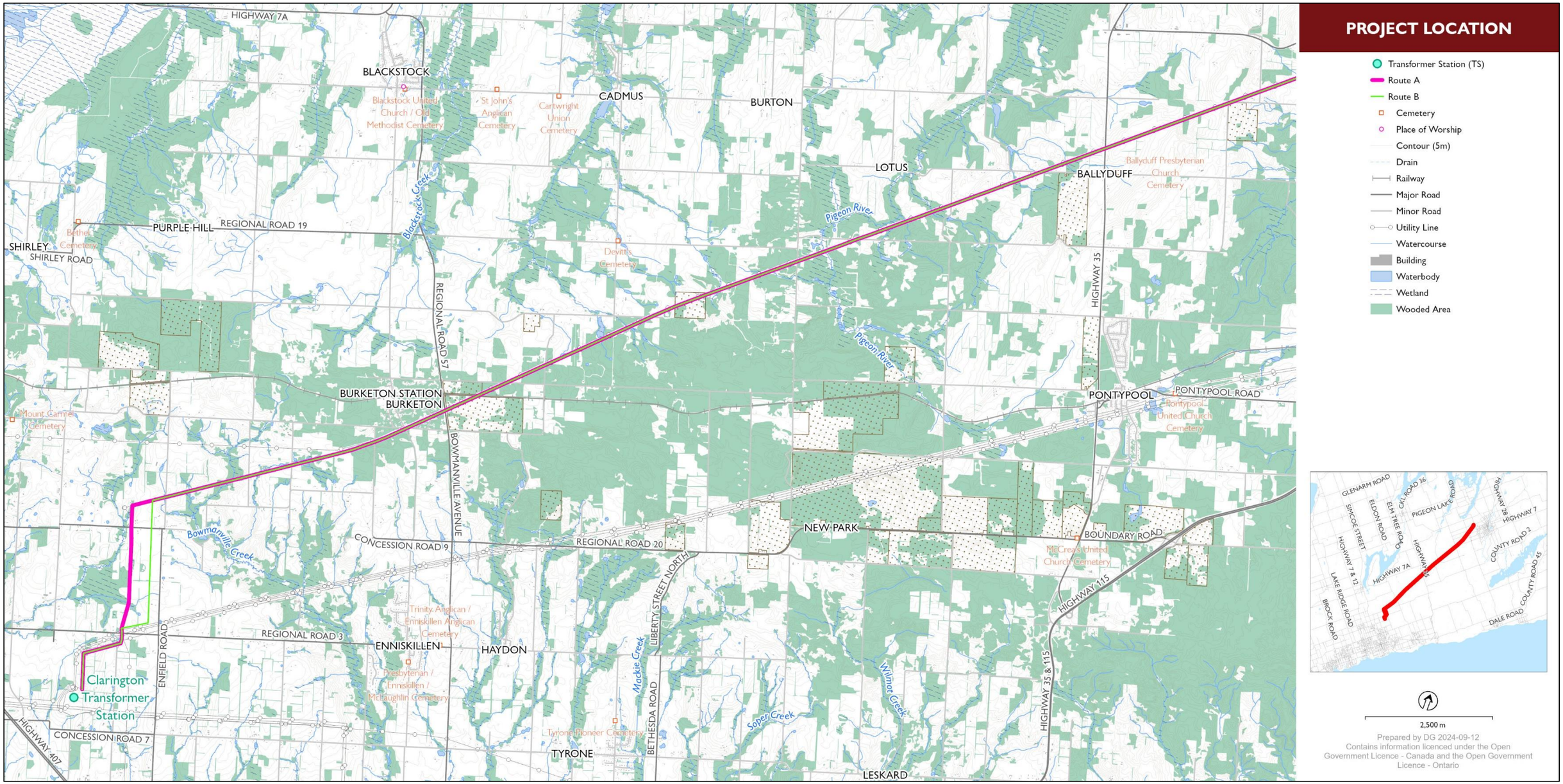
Wallace, S.I.

2018 Williams Treaties. *The Canadian Encyclopedia*. Website Link. Last accessed: November 17, 2021.

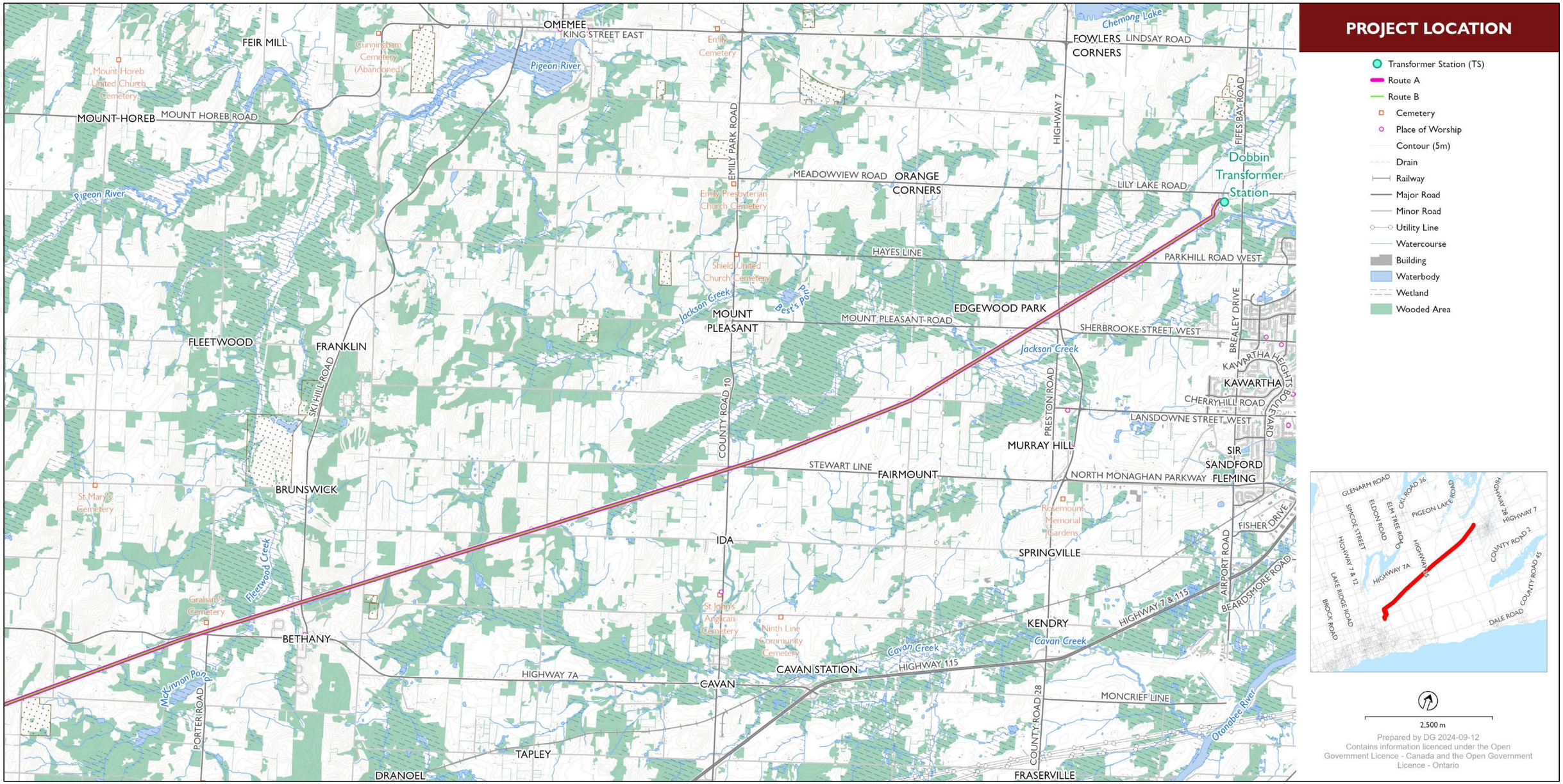
Webber, L.R., F.F. Morwick, and N.R. Richards

1946 *Soil Survey of Durham County.* Report No. 9 of the Ontario Soil Survey. Ottawa: Canada Department of Agriculture and the Ontario Agricultural College.

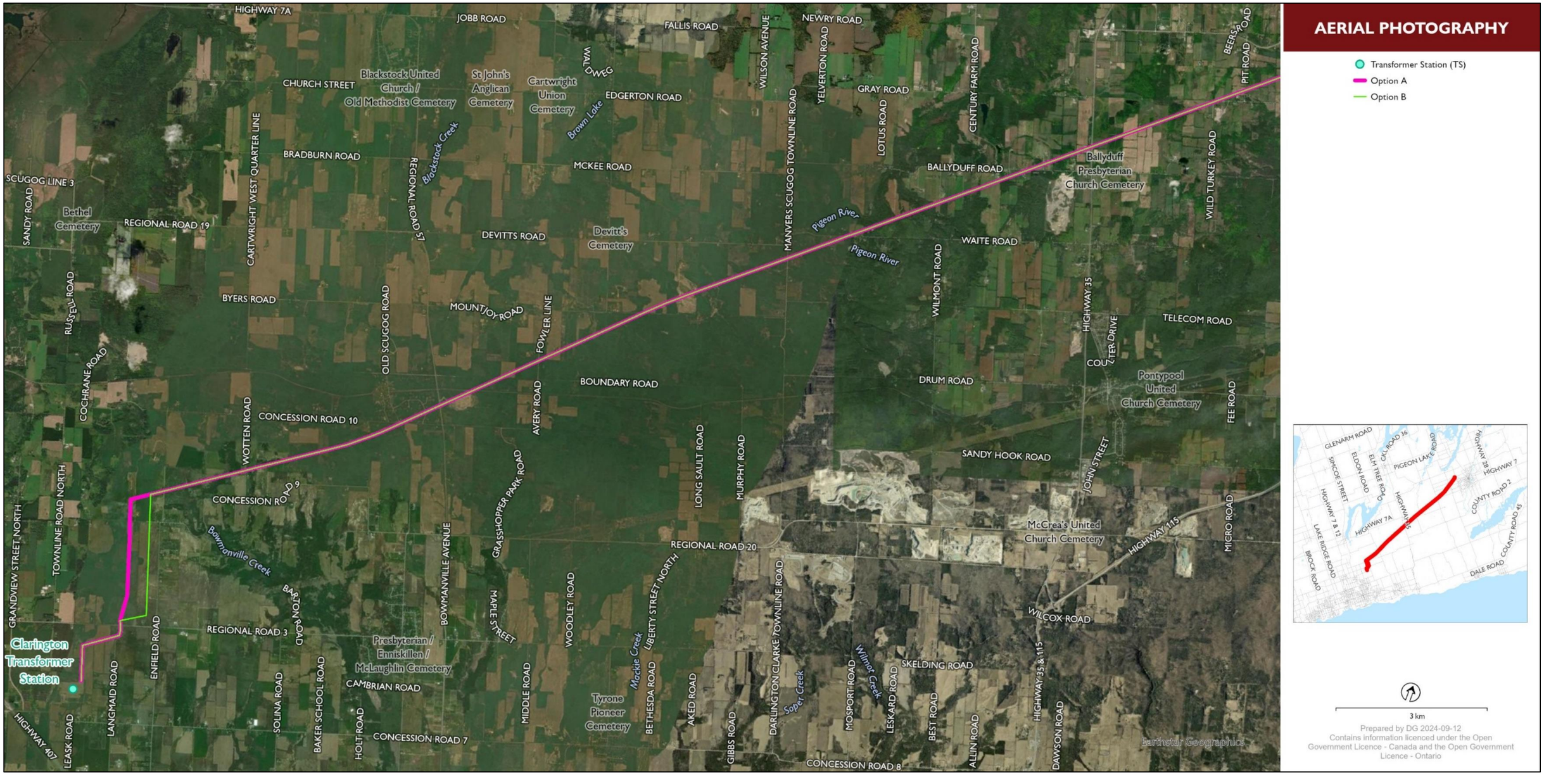
8 MAPS



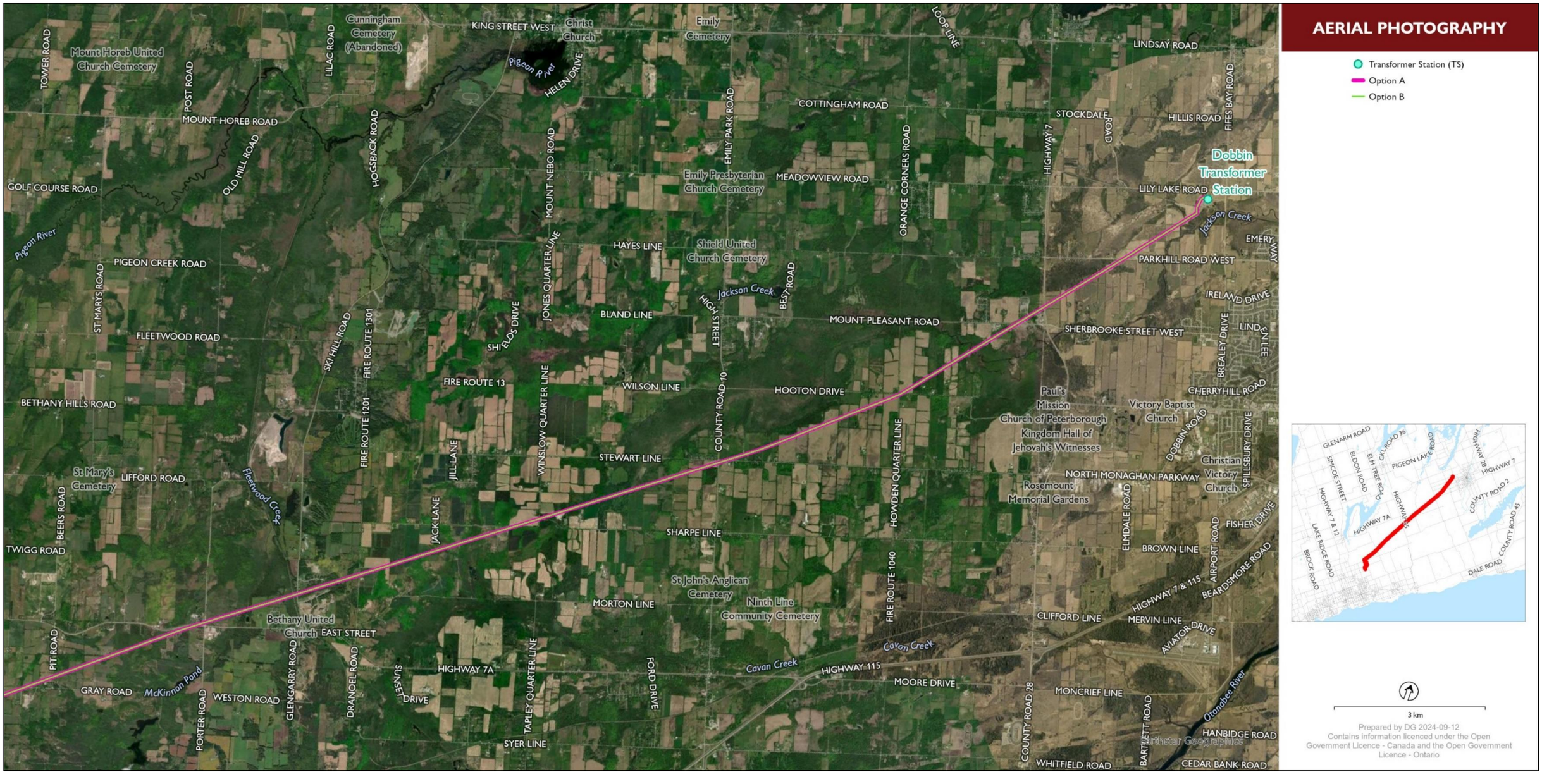
Map 1: Location of the Project Area in the Regional Municipality of Durham and City of Kawartha Lakes, ON (Section 1 of 2)



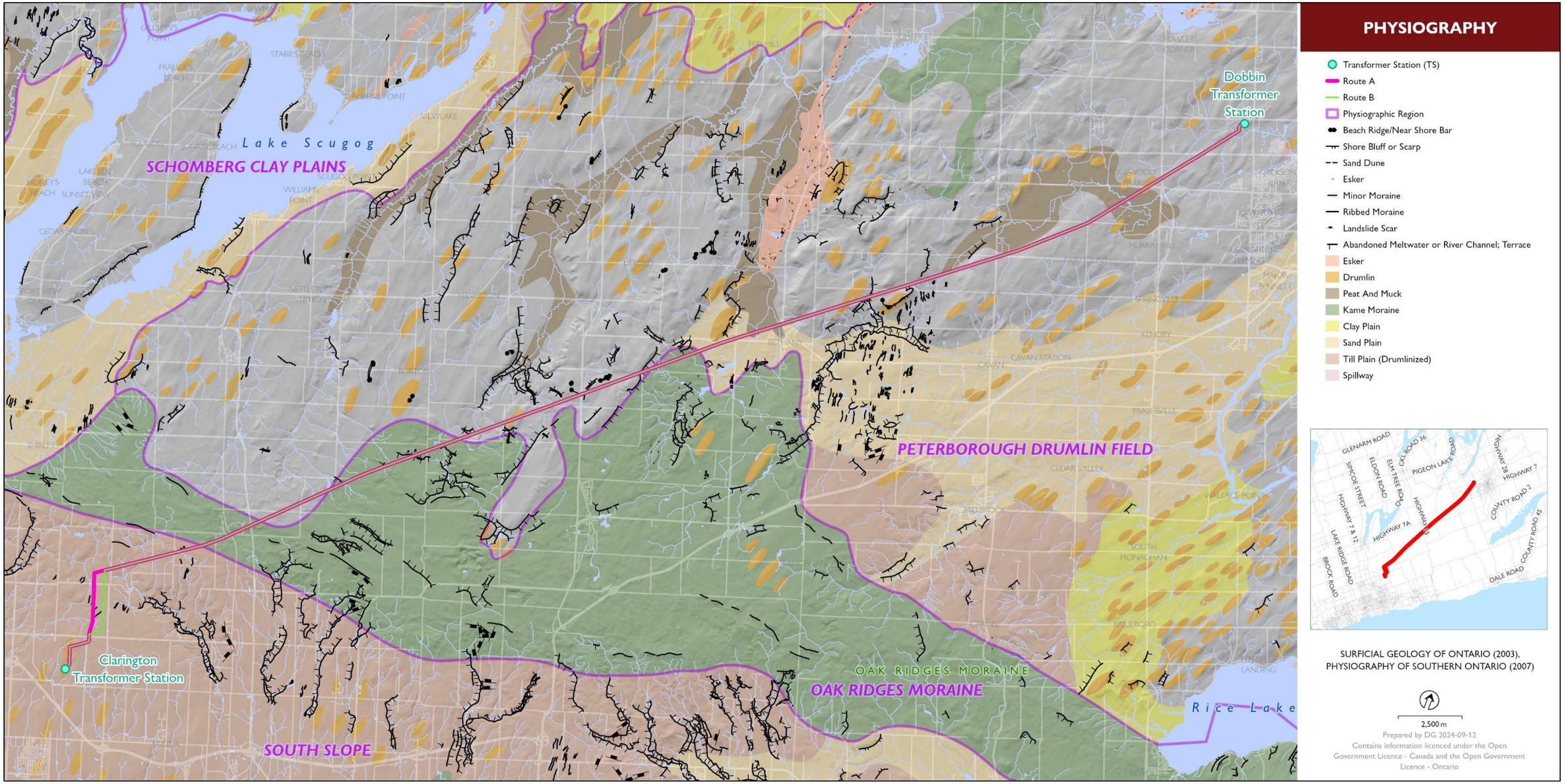
Map 2: Location of the Project in the City of Kawartha Lakes and Peterborough County (Section 2 of 2)



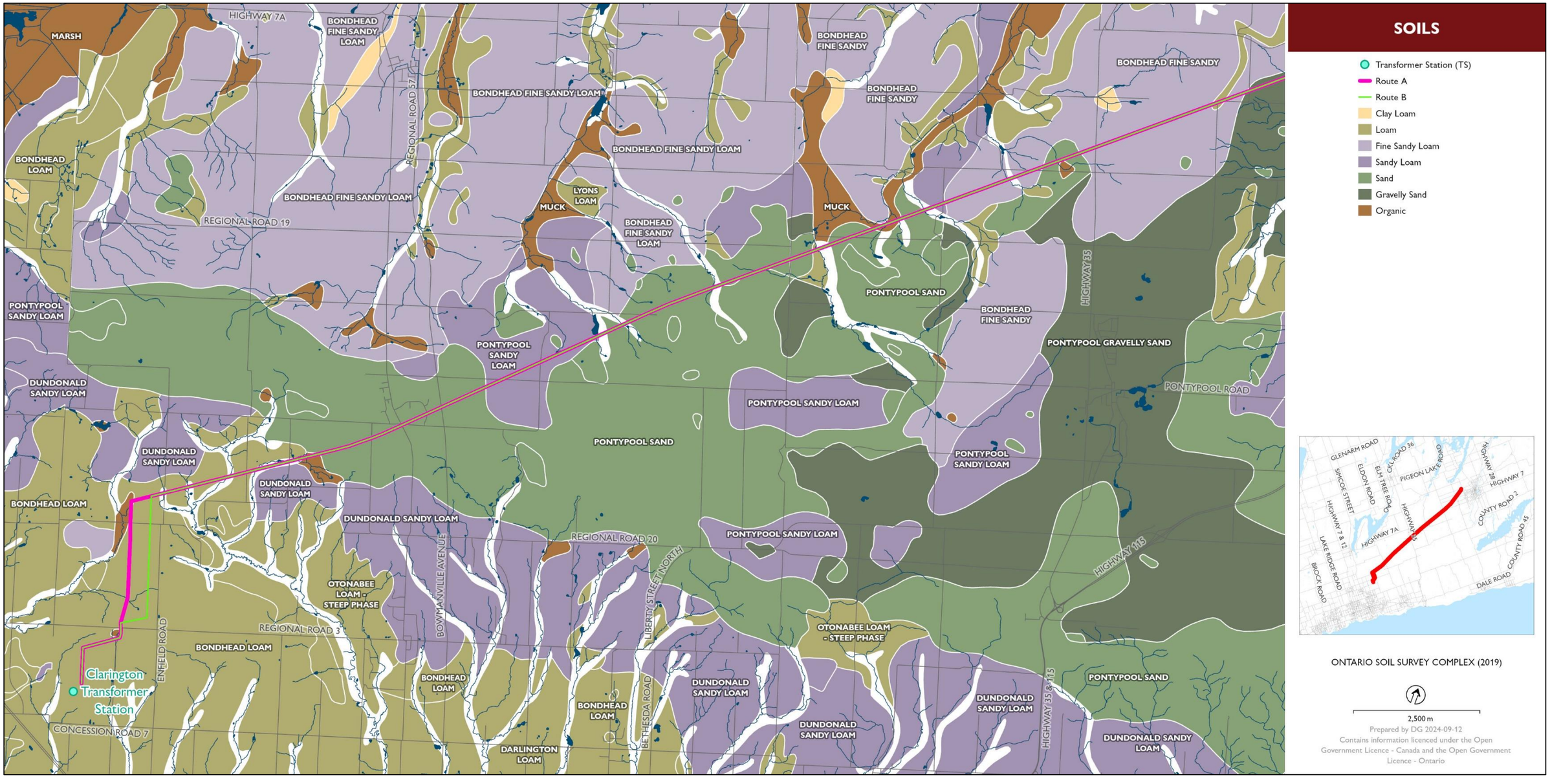
Map 3: Location of the Project Area Shown on Aerial Photography (Section 1 of 2)



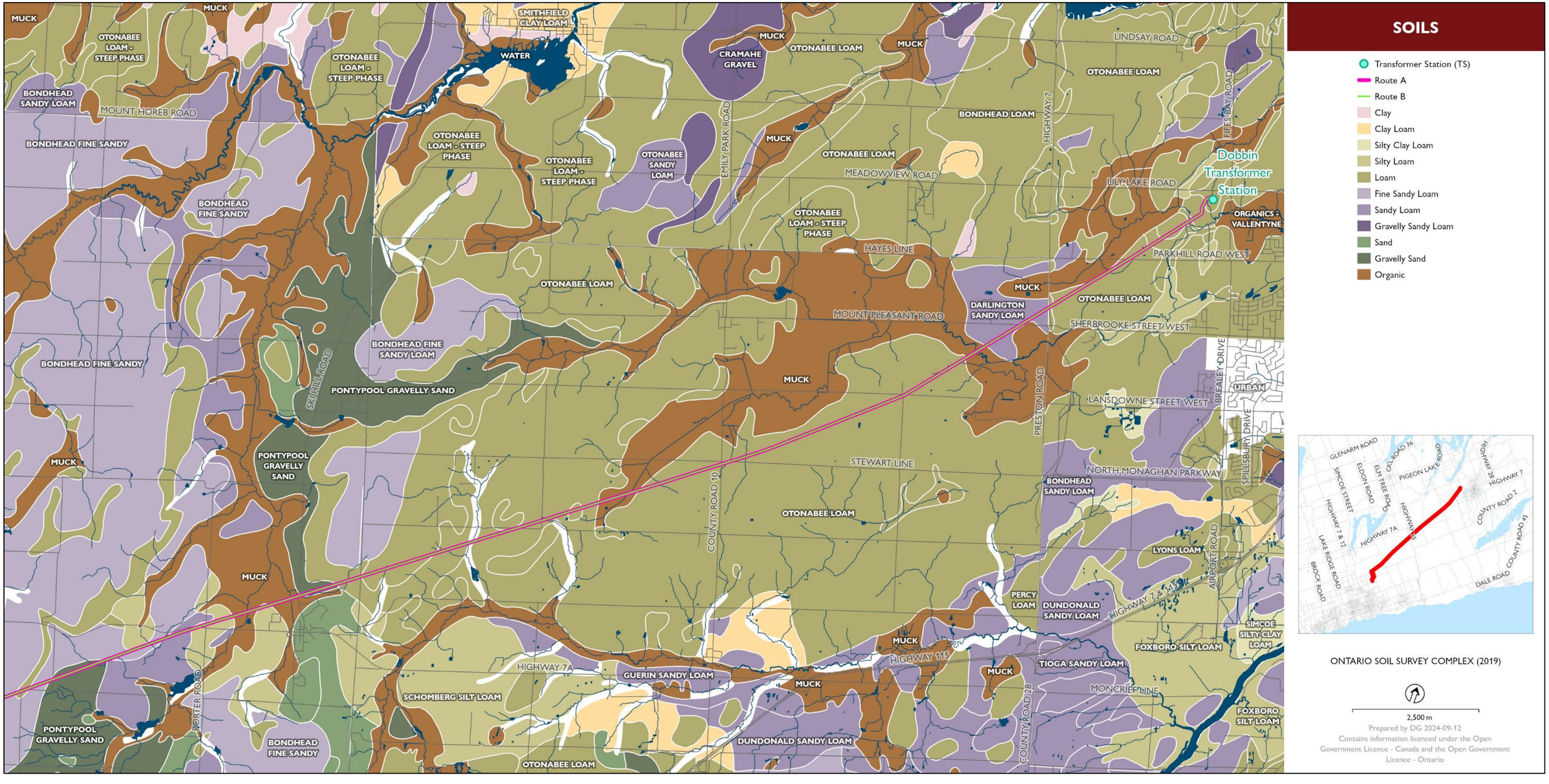
Map 4: Location of the Project Area Shown on Aerial Photography (Segment 2 of 2)



Map 5: Physiography Within the Vicinity of the Project Area



Map 6: Soils Within the Vicinity of the Project Area (Segment 1 of 2)



Map 7: Soils Within the Vicinity of the Project Area (Segment 2 of 2)

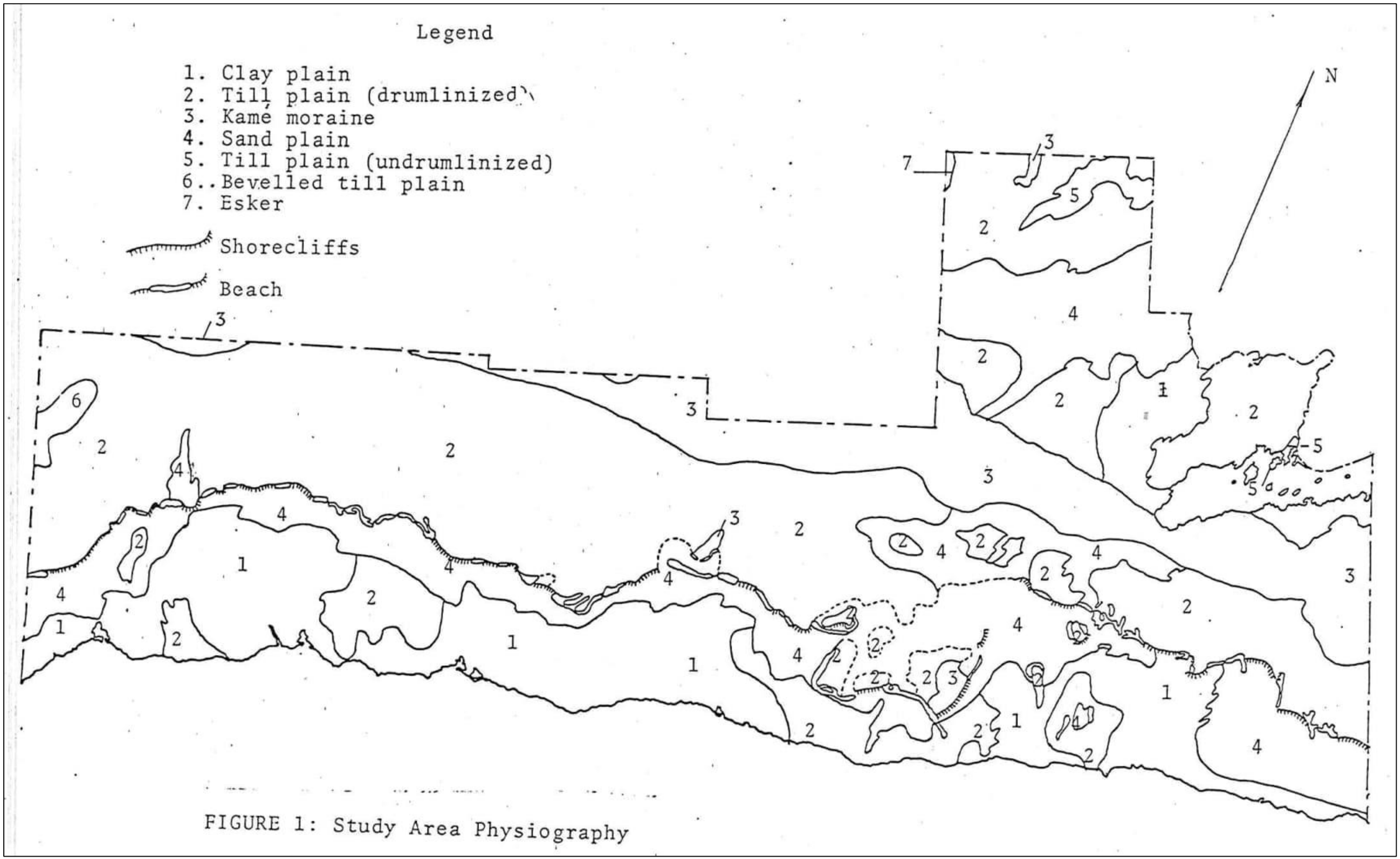
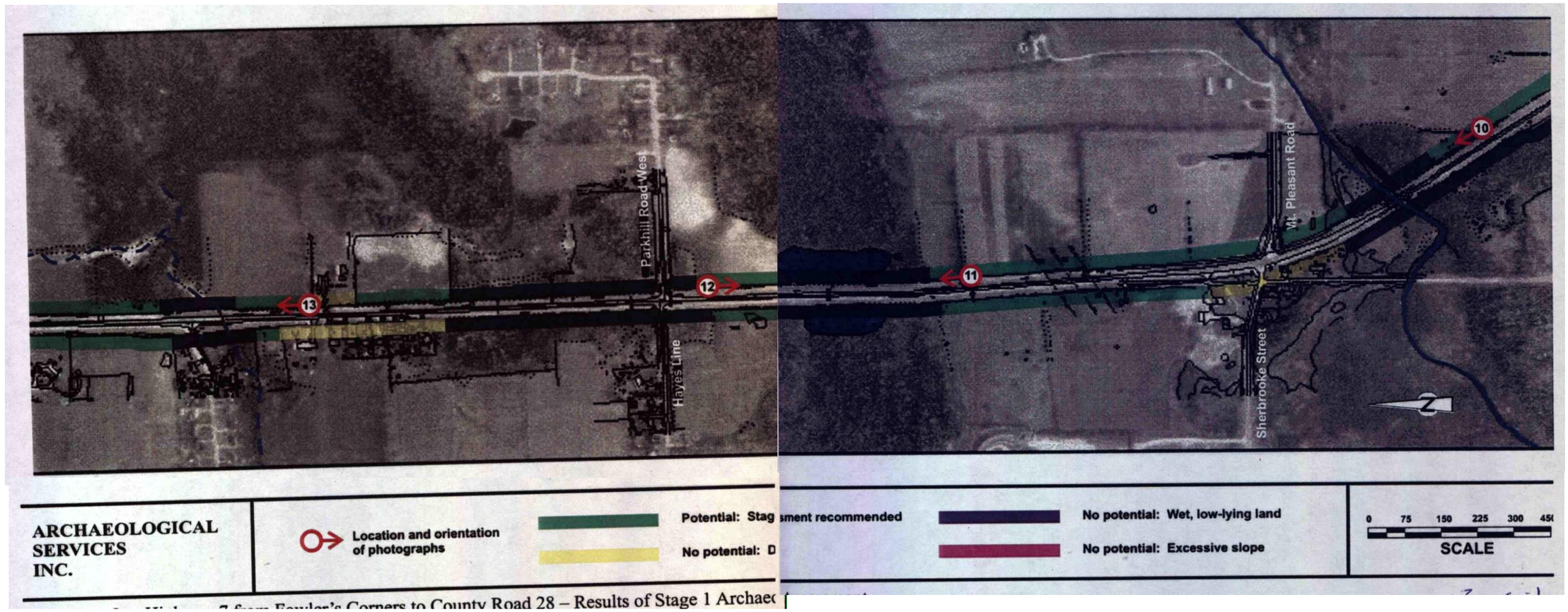
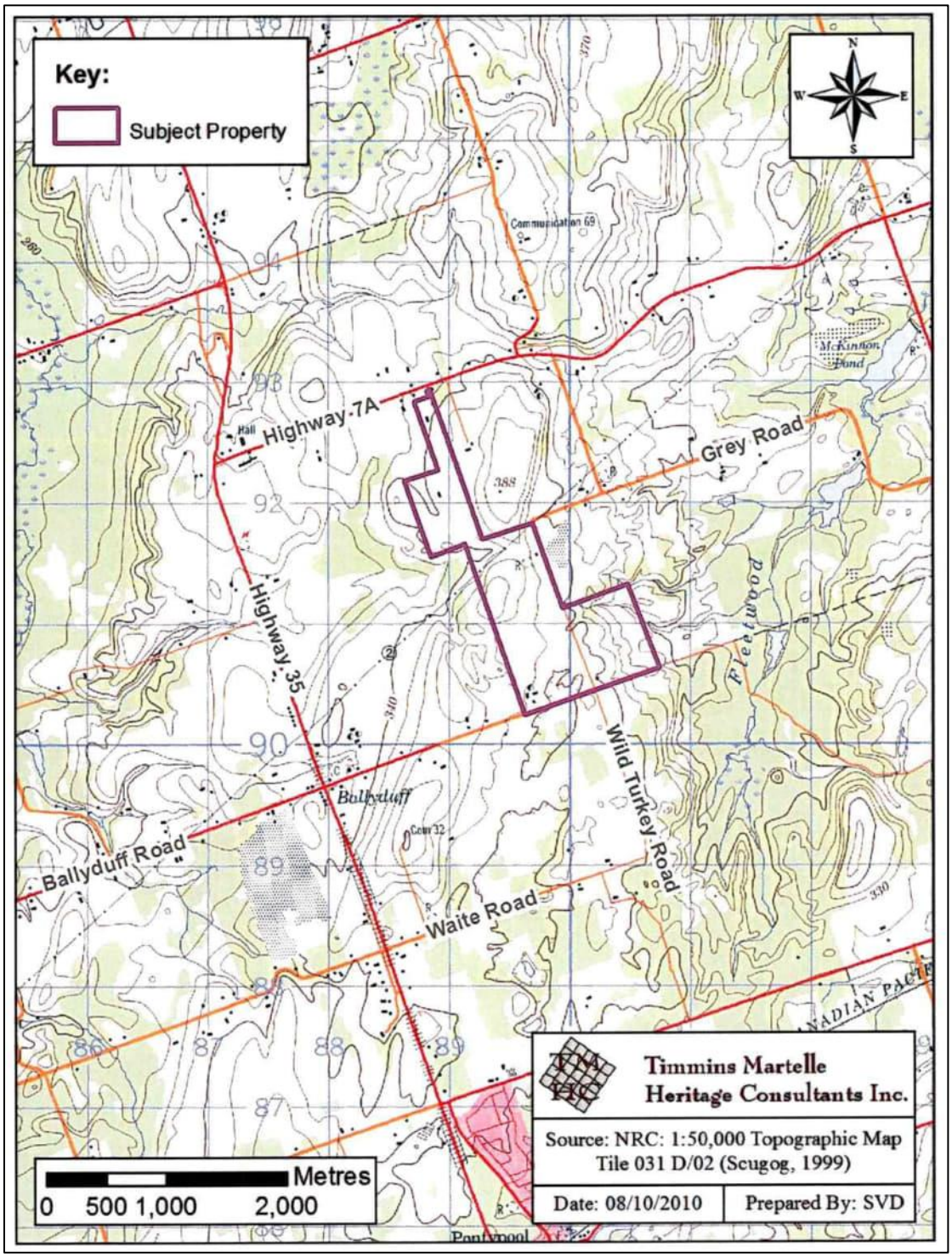


FIGURE 1: Study Area Physiography

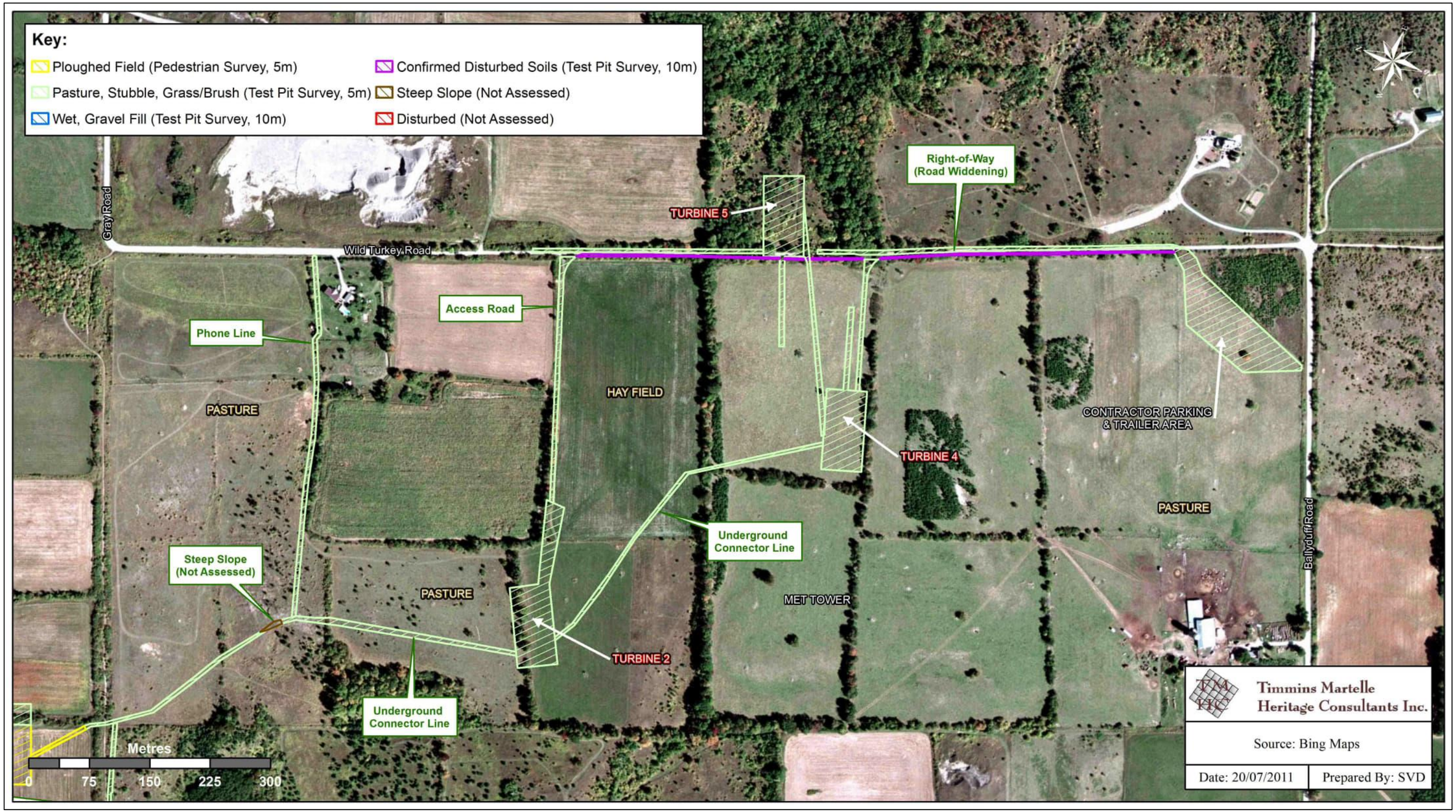
Map 8: Roberts (1978) Archaeological Survey Study Area



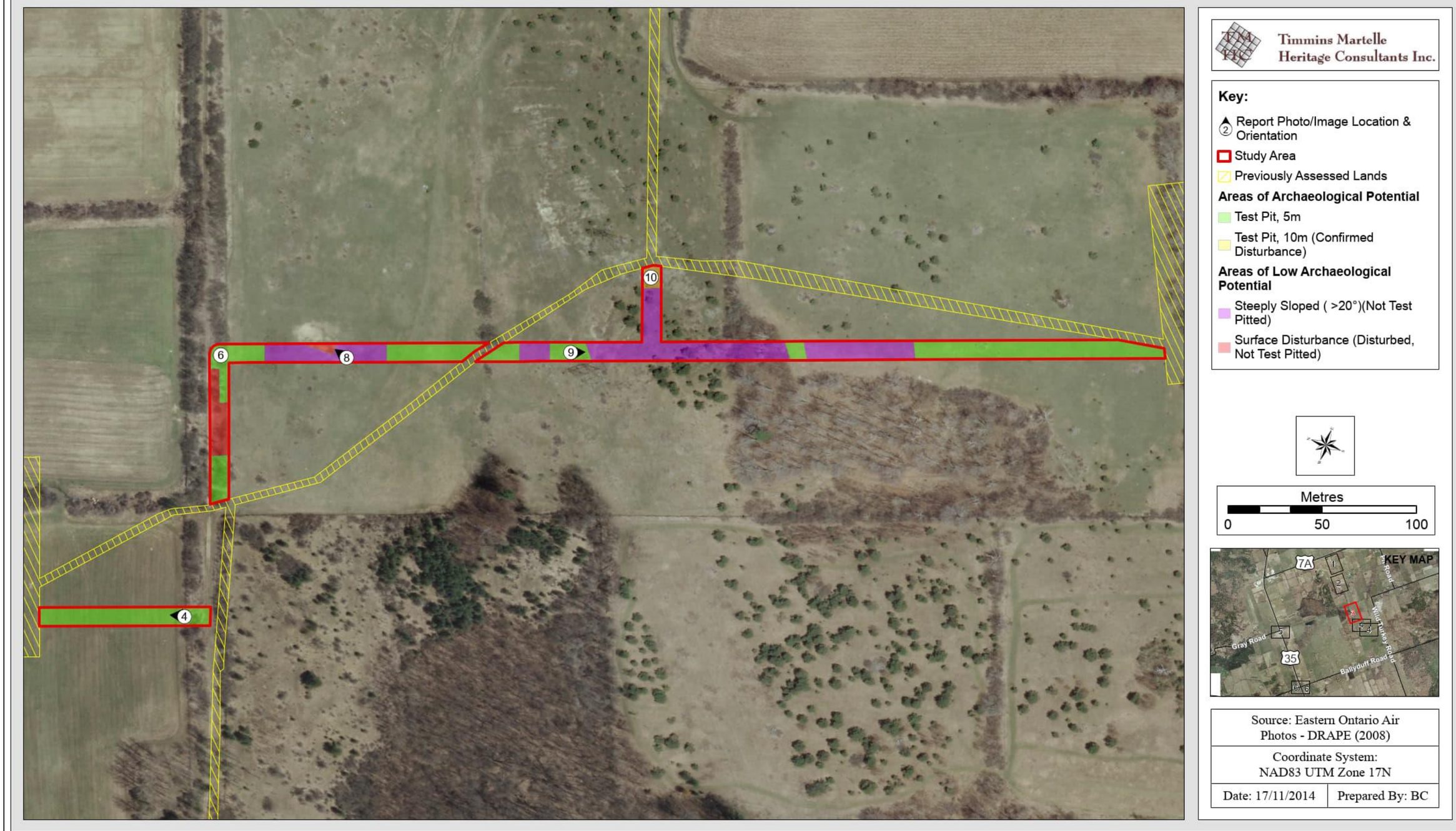
Map 9: ASI (2006) Stage 1 Assessment Results Within Project Area



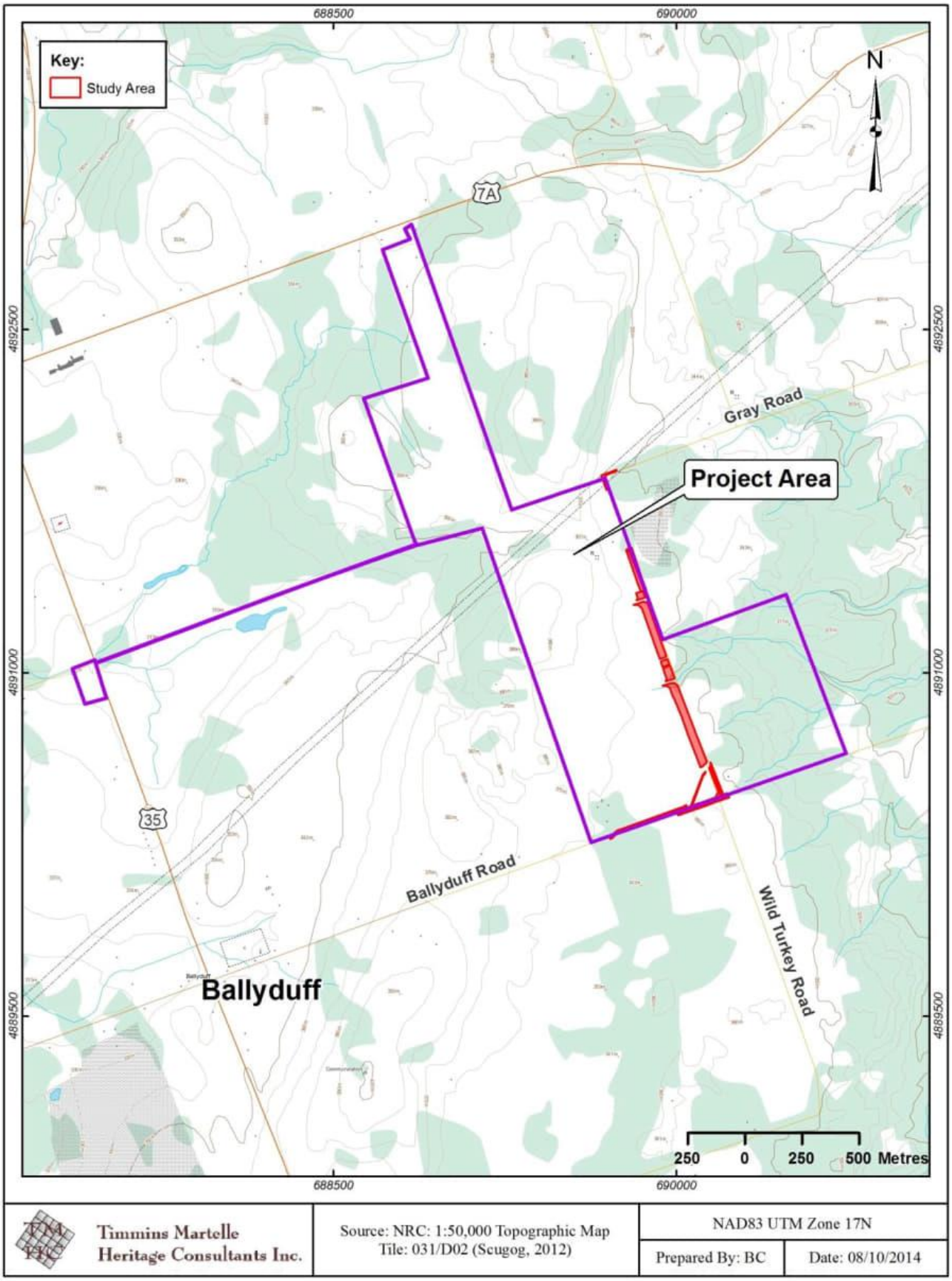
Map 10: TMHC (2010) Stage 1 Archaeological Assessment Within Project Area



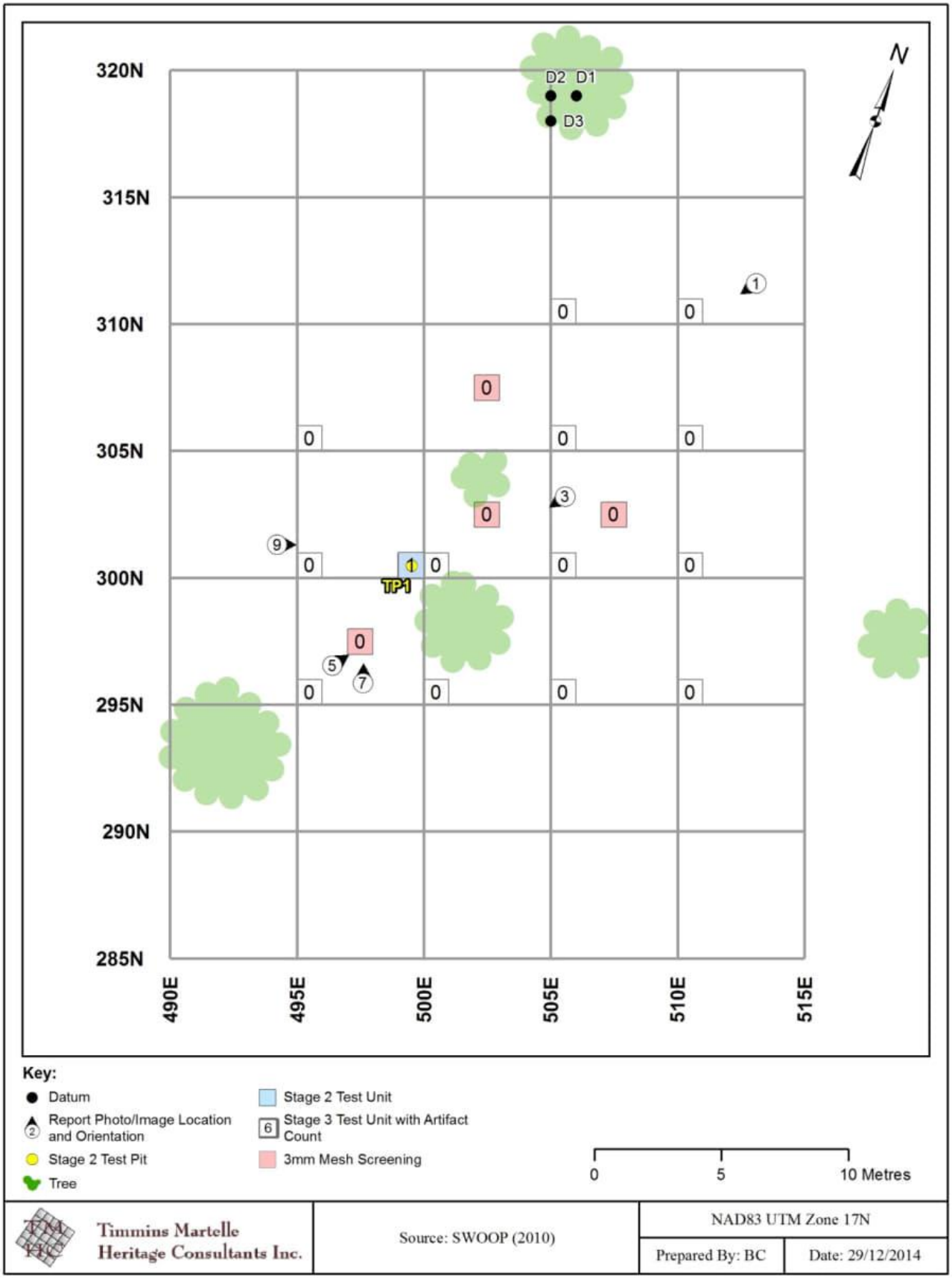
Map 11: TMHC (2011) Stage 2 Archaeological Assessment Within Project Area



Map 12: TMHC (2014a) Stage 2 Assessment Area Within Project Area

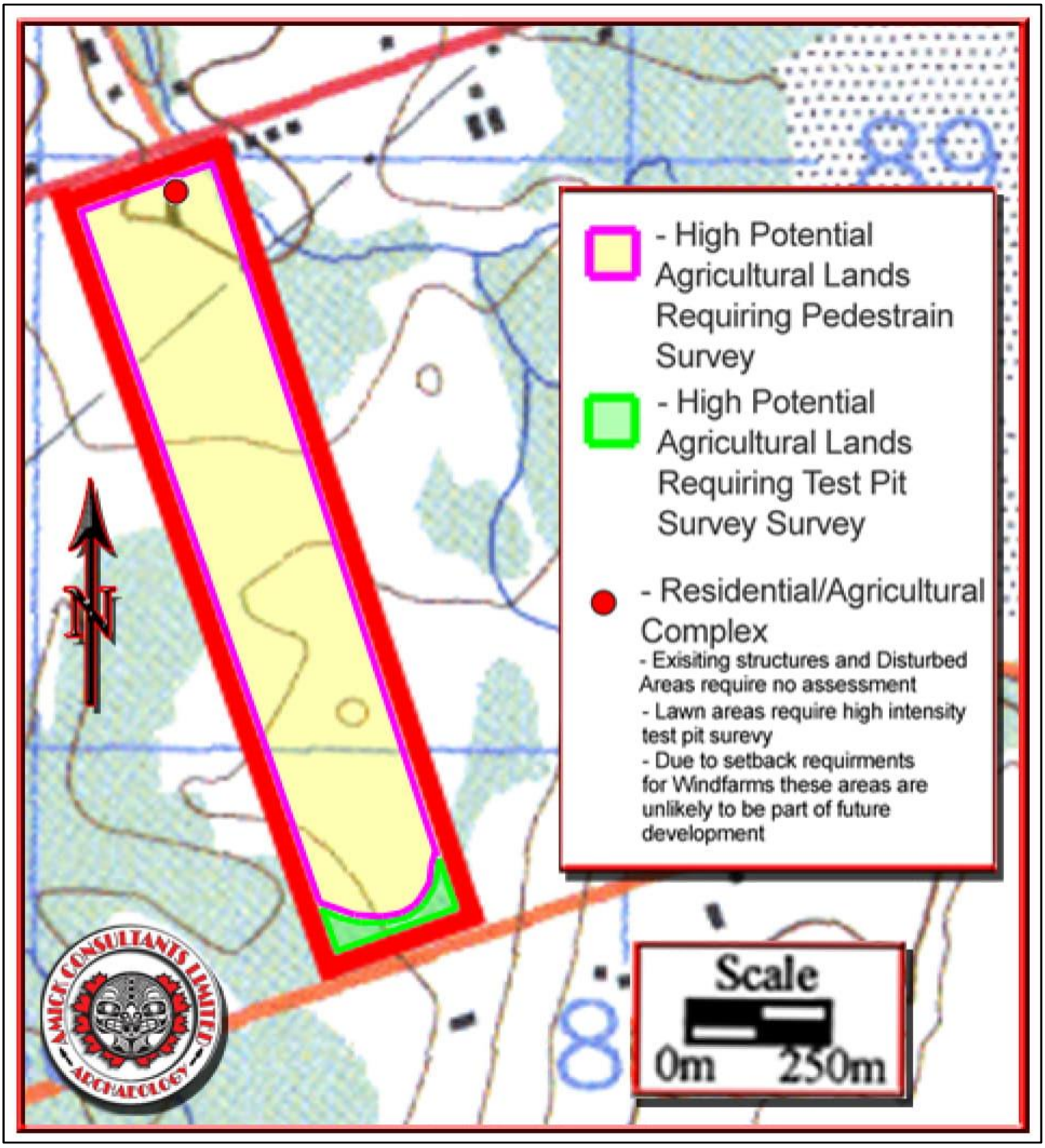


Map 13: TMHC (2014b) Stage 2 Assessment Area Within Project Area

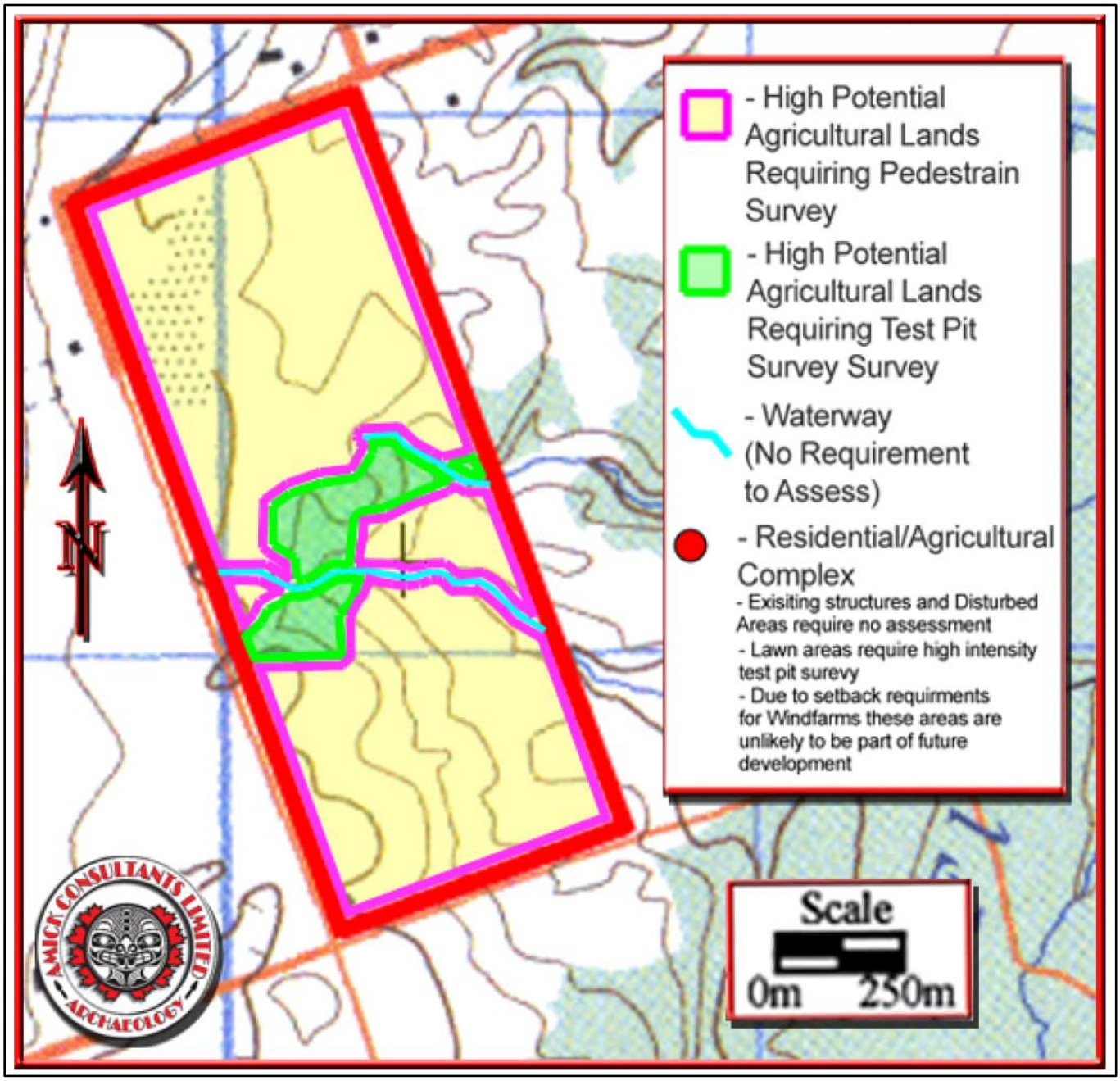


Map 14: TMHC (2015) BaGp-47 Stage 3 Assessment Area Within Project Area

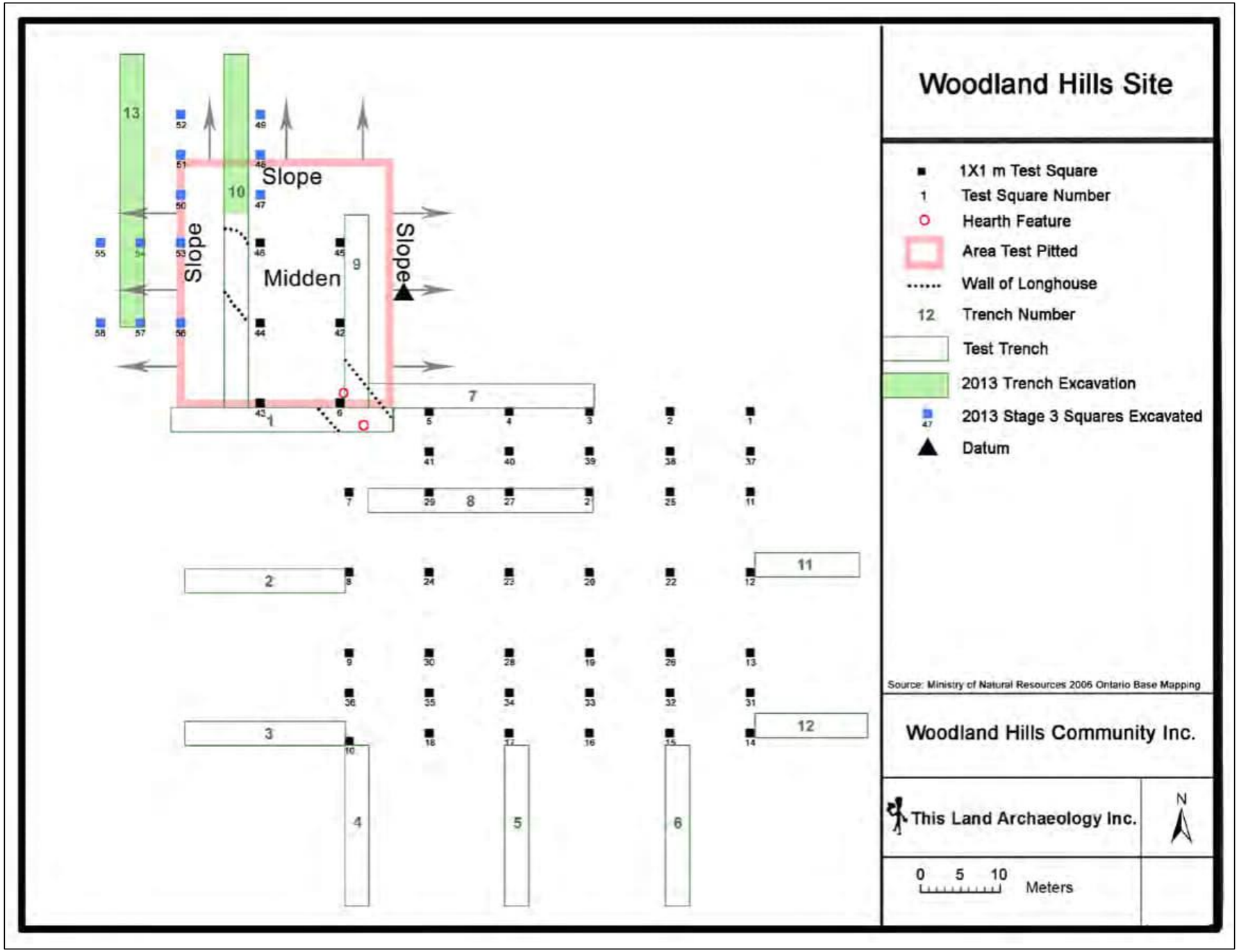
Map 15: AMICK (2012) Stage 1-2 Assessment Results Within Project Area



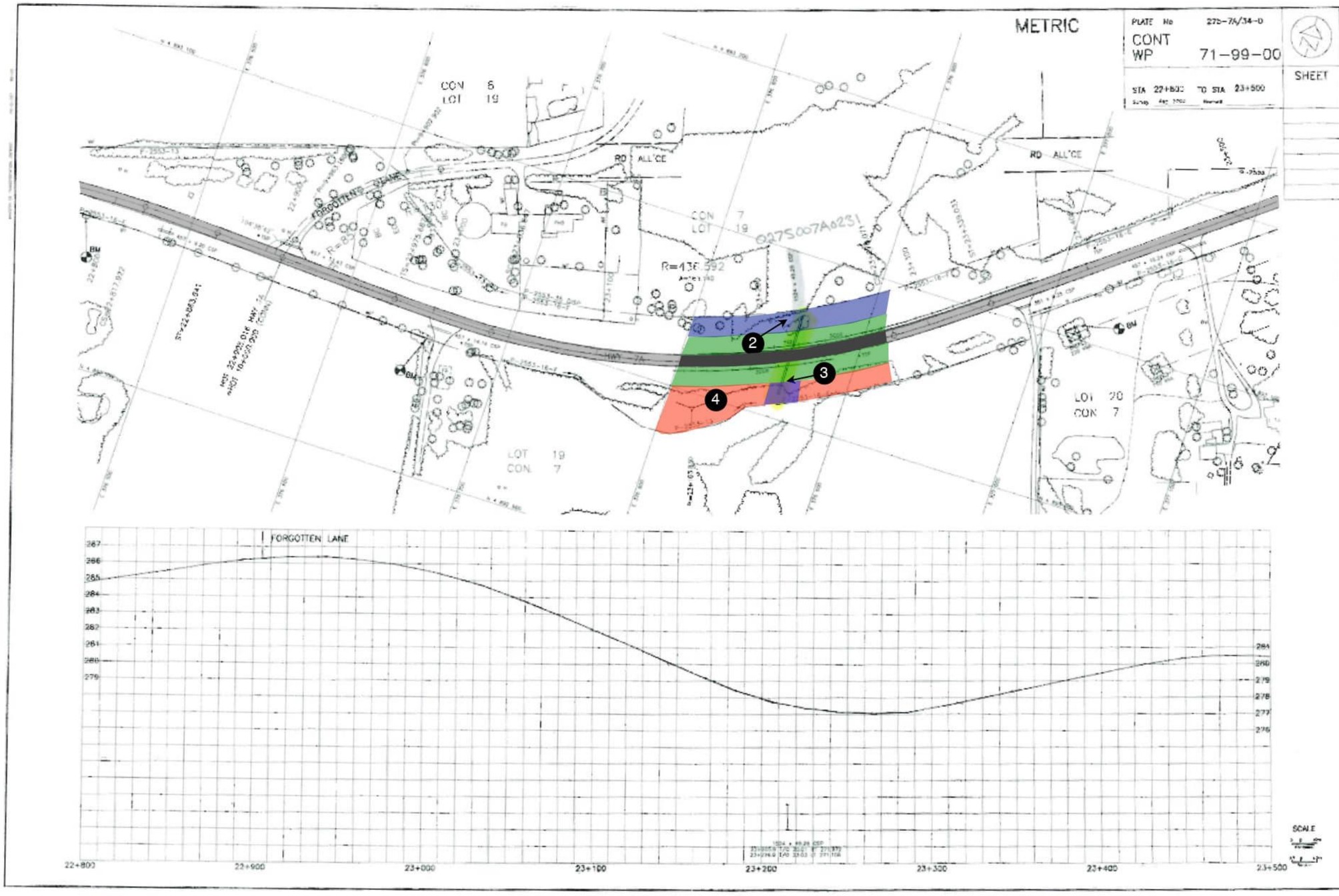
Map 16: AMICK (2013) Stage 1 Assessment – Parcel 2 Results Within Project Area



Map 17: AMICK (2013) Stage 1 Assessment – Parcel 3 Results Within Project Area



Map 18: TLA (2014) BbGp-14 Stage 3 Assessment Results Within Project Area



The Central Archaeology Group Inc.

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144 Upper Turriff Rd. T. 705.201.1066
L'Amable, ON F. 866.231.6071
K0L 2L0 info@centralarchaeology.ca

LEGEND

- Intact: test-pitted at five metre intervals
- Excessively sloped and/or built-up (disturbed): not test-pitted
- Low-lying and wet: not test-pitted
- Roadway: not test-pitted
- # Photograph location and orientation

BASE:

Survey Plan courtesy of MTO

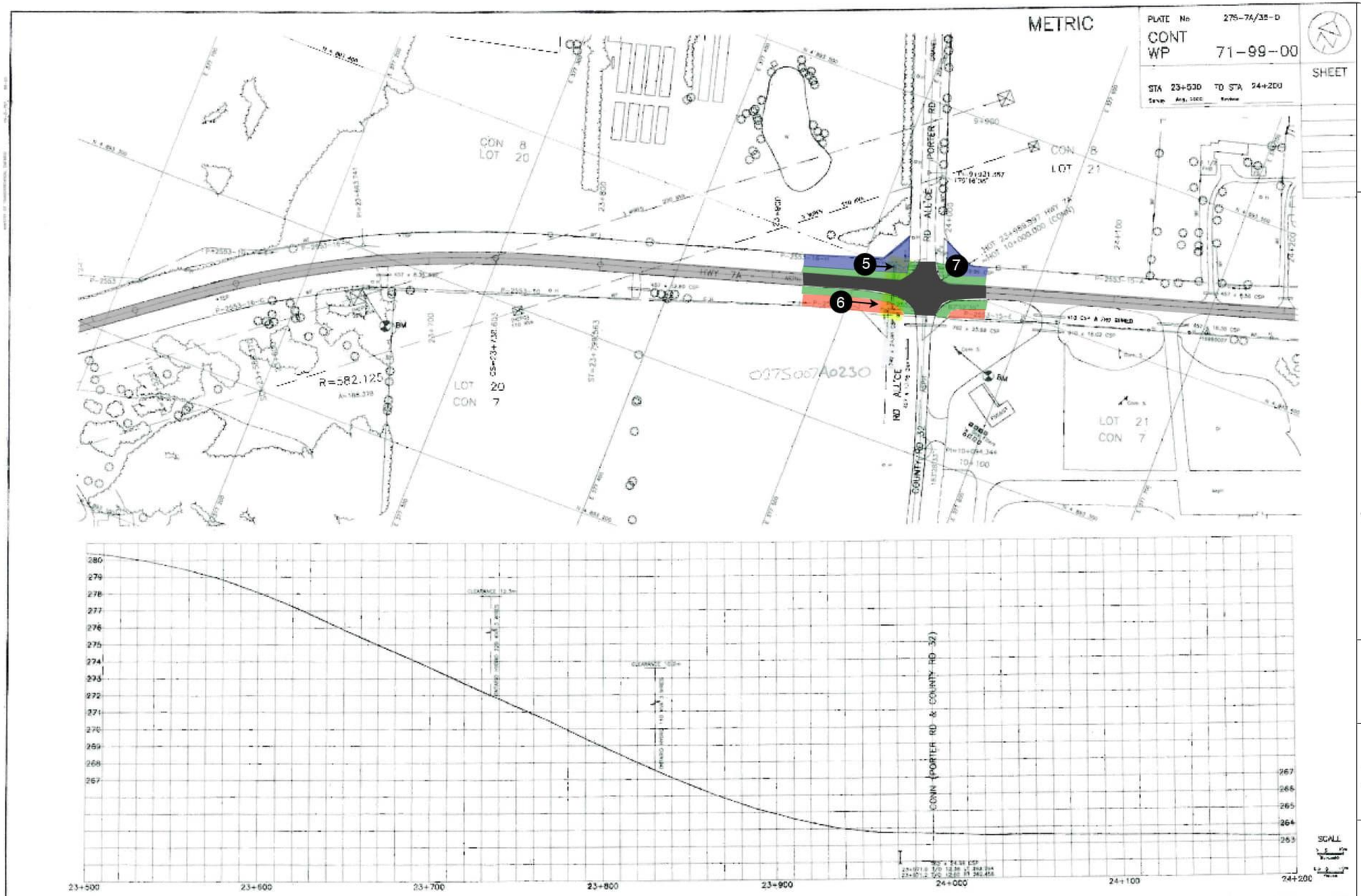
NOTE:

This map should be read in conjunction wit the accompanying report from CAGI.

Hwy 401: MTO 14849-10 September 2015

PIF No. P248-0243-2015 Drawn by L.M.

Map 19: CAG (2015) Stage 1-2 Assessment Results Within Project Area (Page 1 of 2)



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L'Amable, ON F. 866.231.6071
K0L 2L0 info@centralarchaeology.ca

LEGEND

- Intact: test-pitted at five metre intervals
- Excessively sloped and/or built-up (disturbed): not test-pitted
- Low-lying and wet: not test-pitted
- Roadway: not test-pitted
- # Photograph location and orientation

BASE:

Survey Plan courtesy of MTO

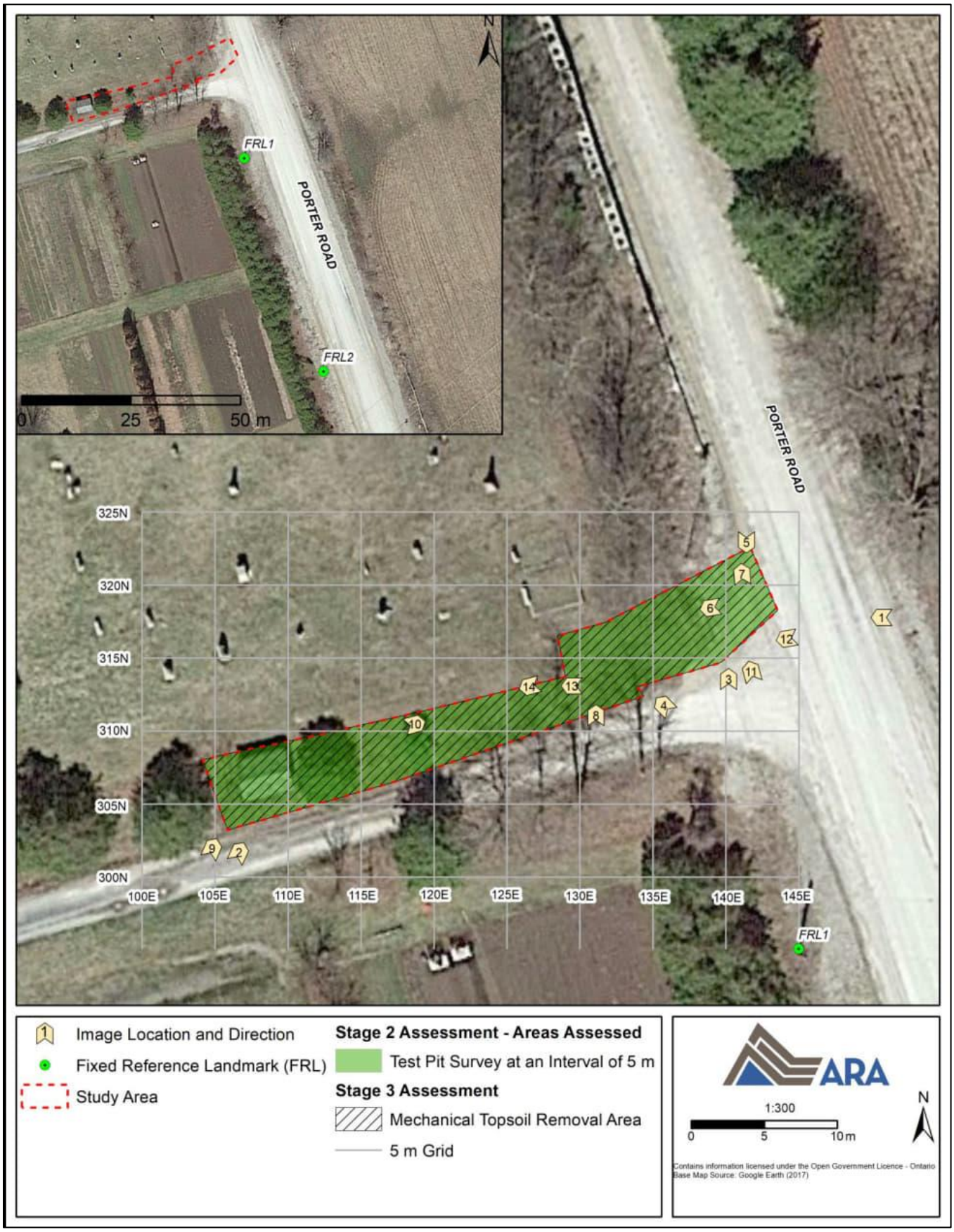
NOTE:

This map should be read in conjunction wit the accompanying report from CAGI.

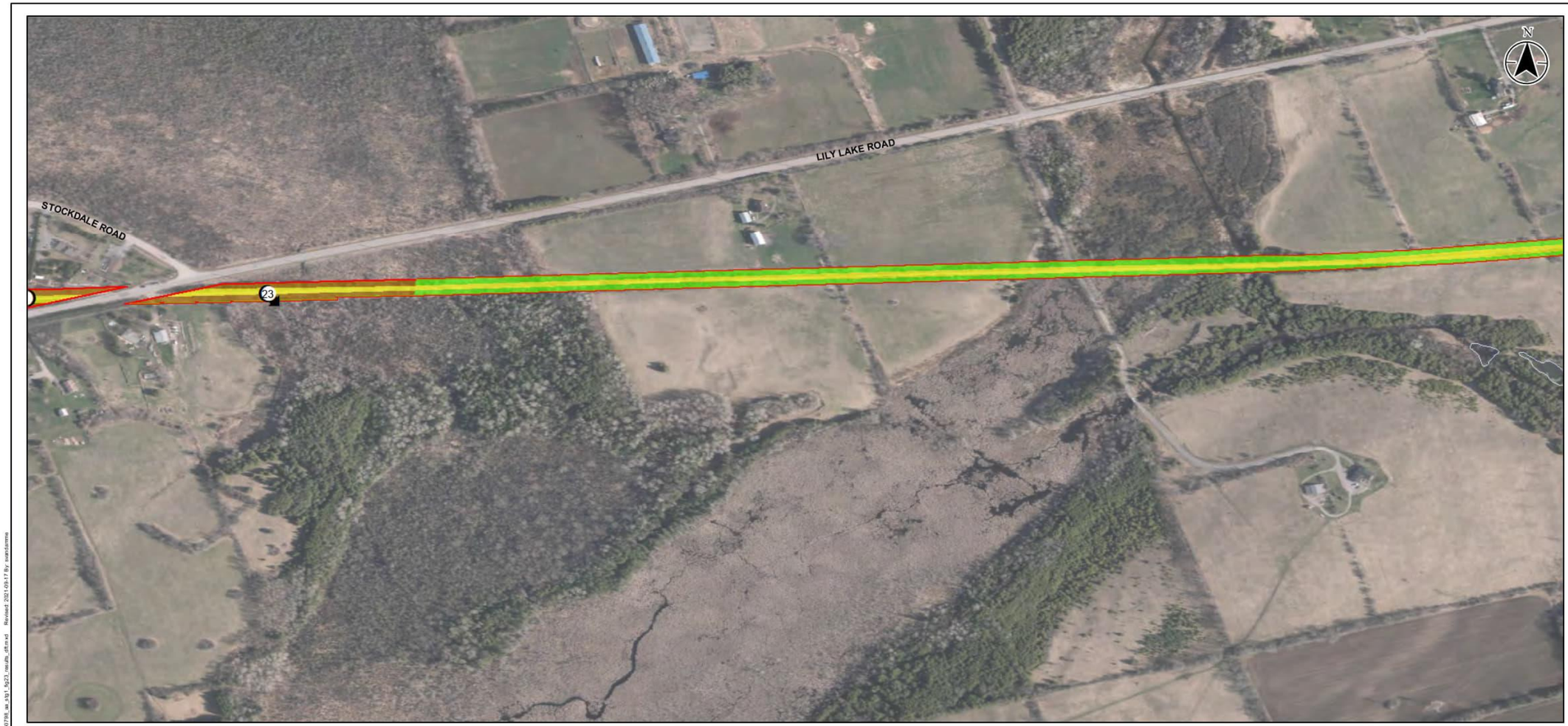
Hwy 401: MTO 14849-10 September 2015

PIF No. P248-0243-2015 Drawn by L.M.

Map 20: CAG (2015) Stage 1-2 Assessment Results Within Project Area (Page 1 of 2)



Map 21: ARA (2020) Stage 1, 2 and 3 Assessment Results Within Project Area



Notes
1. Coordinate System: GCS North American 1983
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.

Legend
- Study Area
- Previously Disturbed - Not Recommended for Stage 2
- Abandoned Rail Line - Previously Disturbed, Not Recommended for Stage 2
- Not Observed - Confirm During Stage 2
- Report Photograph and Direction
- Waterbody

0 100 200 metres
1:5,000 (At original document size of 11x17)

Stantec

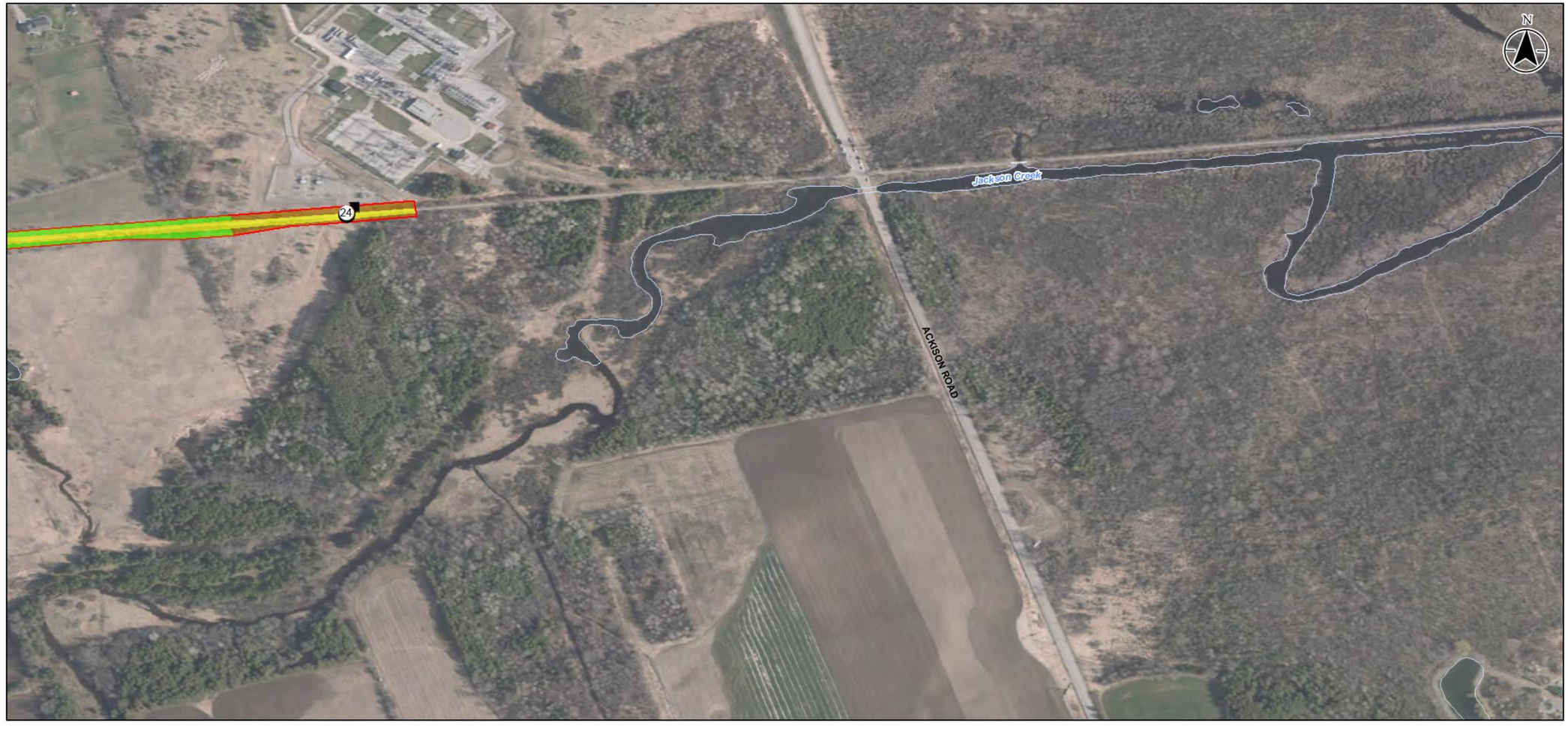
Project Location: Kawartha Lakes to Belleville, Ontario
160940798
Prepared by SVD on 9/17/2021

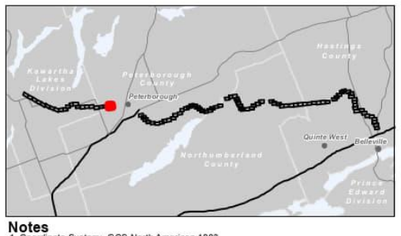
Client/Project
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
INFRASTRUCTURE ONTARIO
KAWARTHA LAKES ARROW

Figure No.
23-20

Title
Stage 1 Results and Recommendations

Map 22: Stantec (2021) Stage 1 Assessment Results Within Project Area





Notes
1. Coordinate System: GCS North American 1983
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.

Legend
- Study Area
- Previously Disturbed - Not Recommended for Stage 2
- Abandoned Rail Line - Previously Disturbed, Not Recommended for Stage 2
- Not Observed - Confirm During Stage 2
- Report Photograph and Direction
- Waterbody

0 100 200 metres
1:5,000 (At original document size of 11x17)

Stantec

Project Location
Kawartha Lakes to Belleville, Ontario

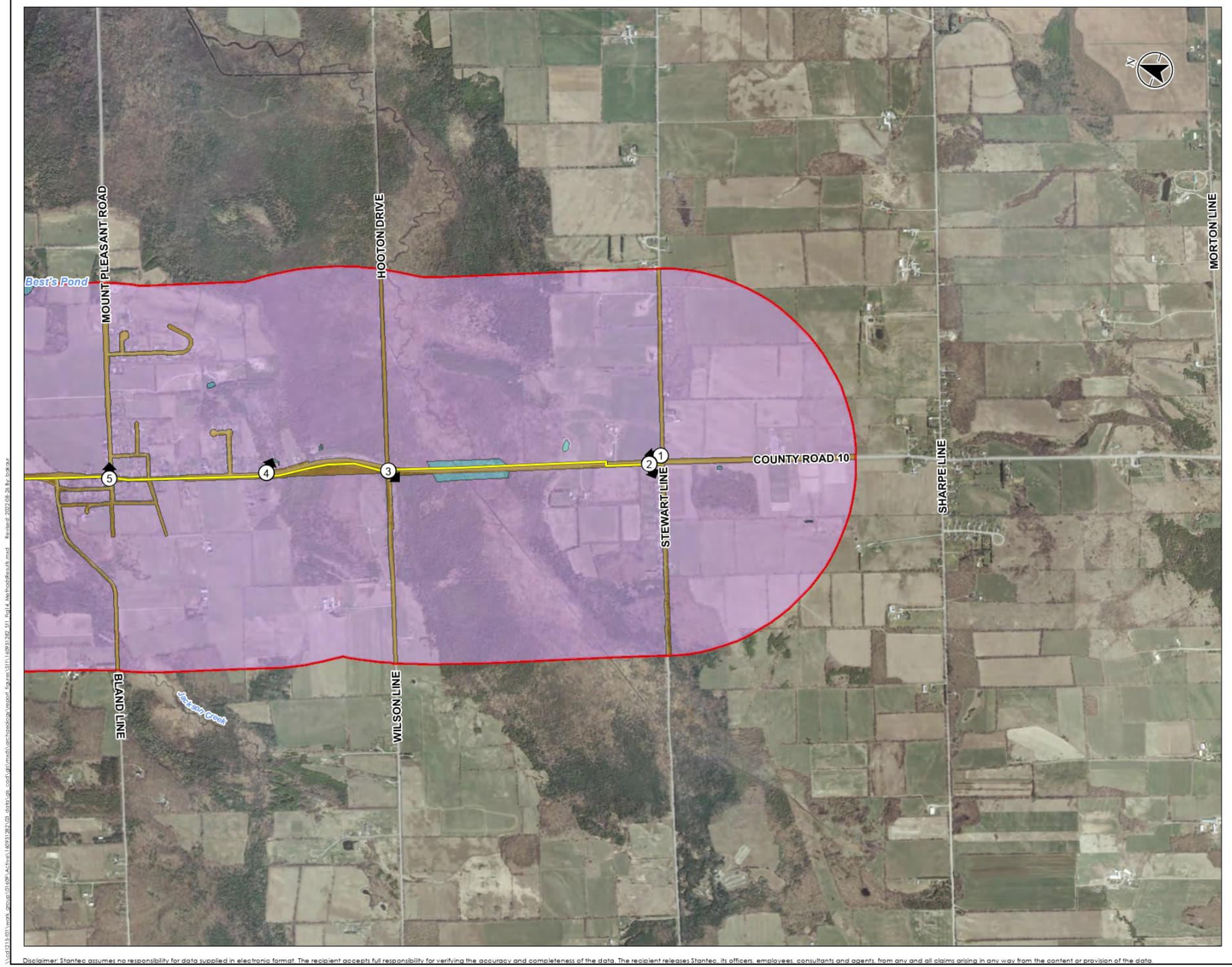
160940798
Prepared by SVD on 9/17/2021

Client/Project
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
INFRASTRUCTURE ONTARIO
KAWARTHA LAKES ARROW

Figure No.
23-21

Title
Stage 1 Results and Recommendations

Map 23: Stantec (2022) Stage 1 Assessment Results Within Project Area



Stantec

Legend

Enbridge Gas Features

Preferred Route (Phase 4 - Part 1)

Archaeology Features

Archaeology Photo Log

Study Area

Assessment Method

Permanently Wet – No Terrestrial Archaeological Potential

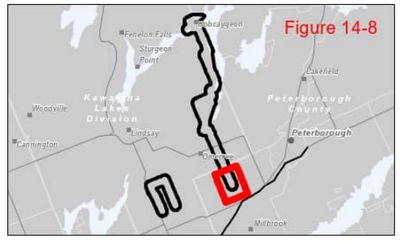
Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required

Area of General Archaeological Potential - Stage 2 Recommended

0 250 500
Metres
1:20,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2021.
3. Orthoimagery © First Base Solutions, 2021. Imagery Date, 2008 and Kawartha Conservation, Imagery date, 2018.



Project Location
City of Kawartha Lakes and County of Peterborough

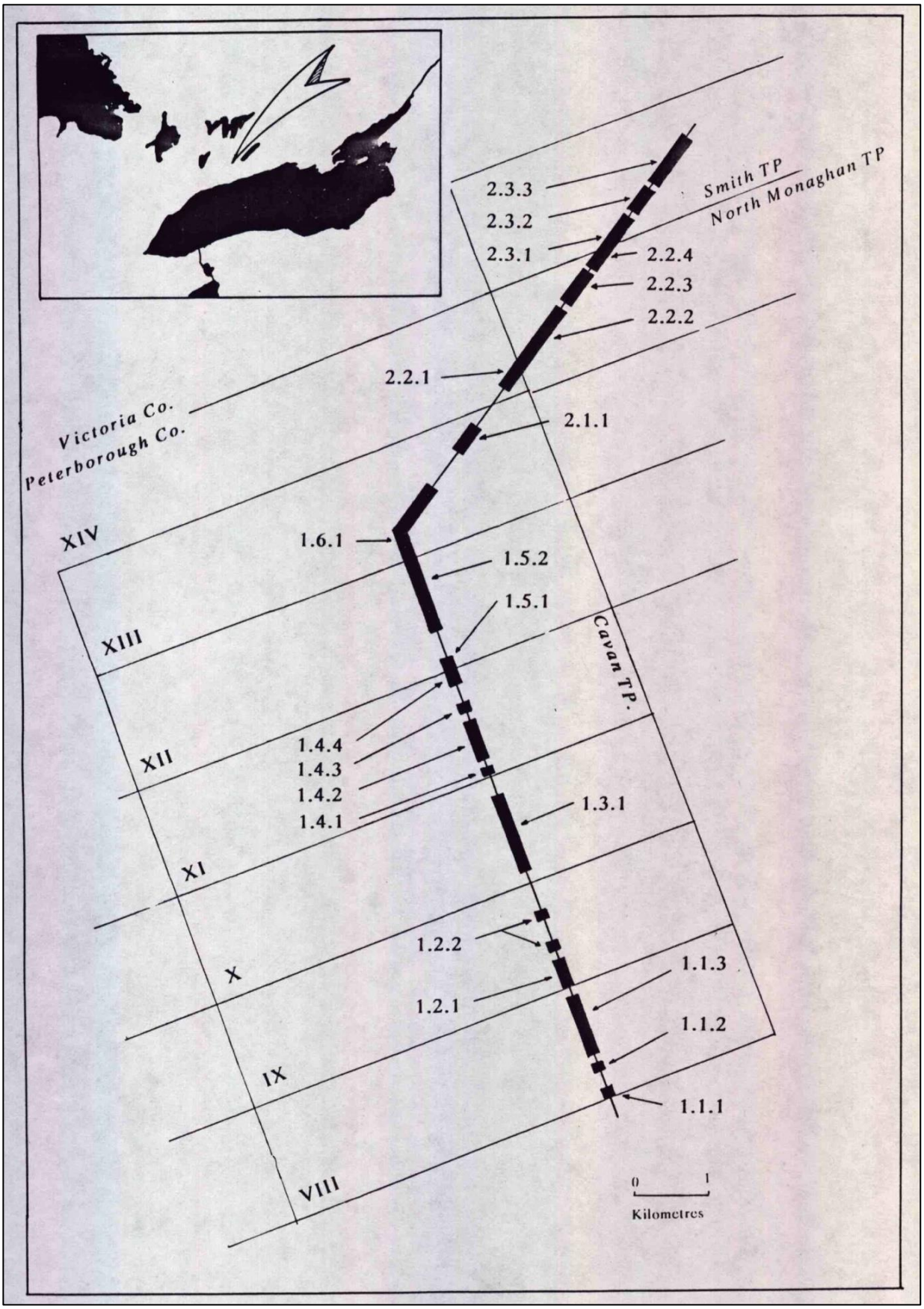
160951282 REVA
Prepared by KB on 2022-08-26
Technical Review by SE on 2021-11-05

Client/Project
ENBRIDGE GAS INC.
PROPOSED NATURAL GAS PIPELINE TO SERVE THE COMMUNITY OF BOBCAYGEON

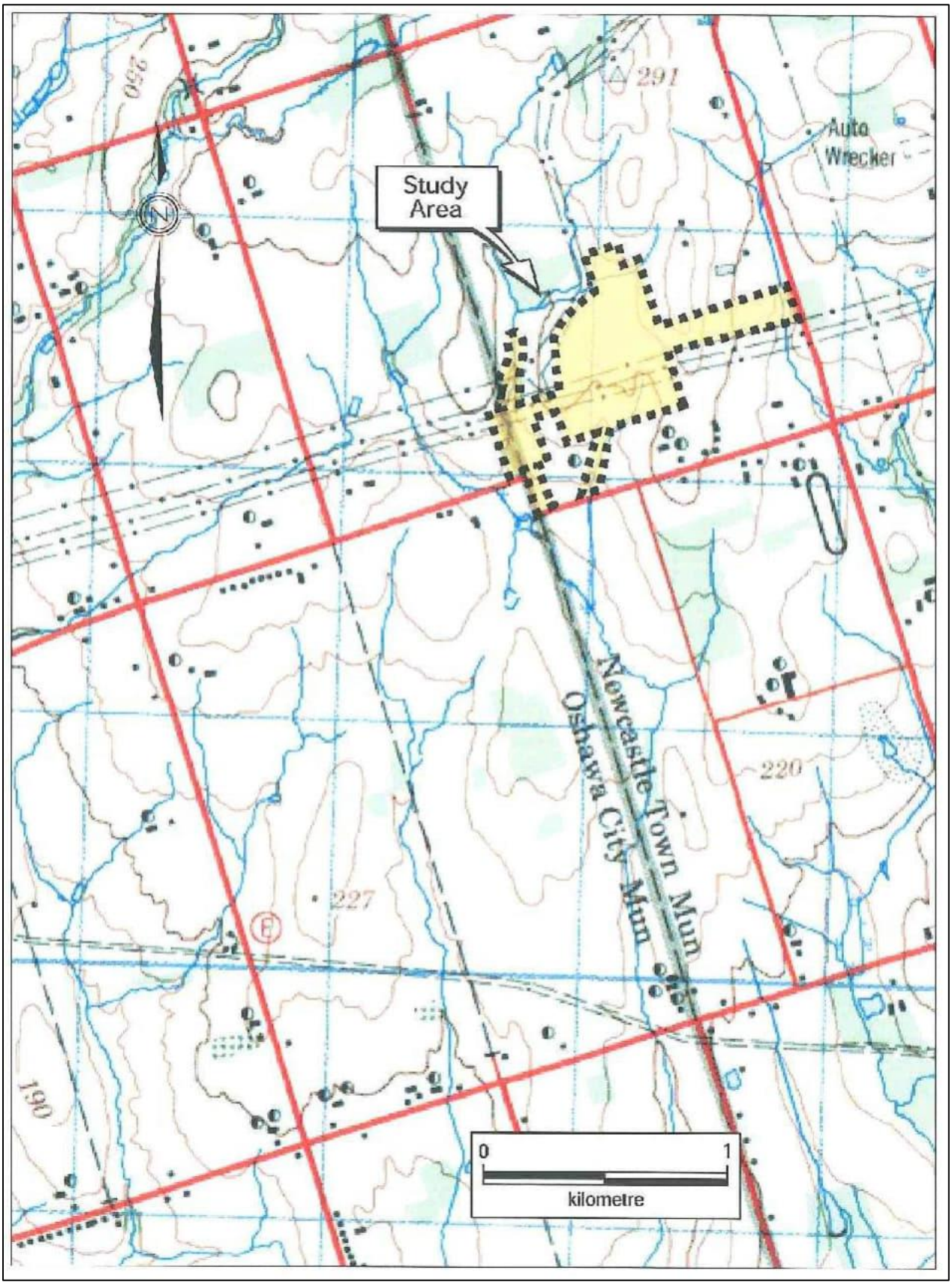
Figure No.
14-8

Title
Stage 1-2 Methods and Results

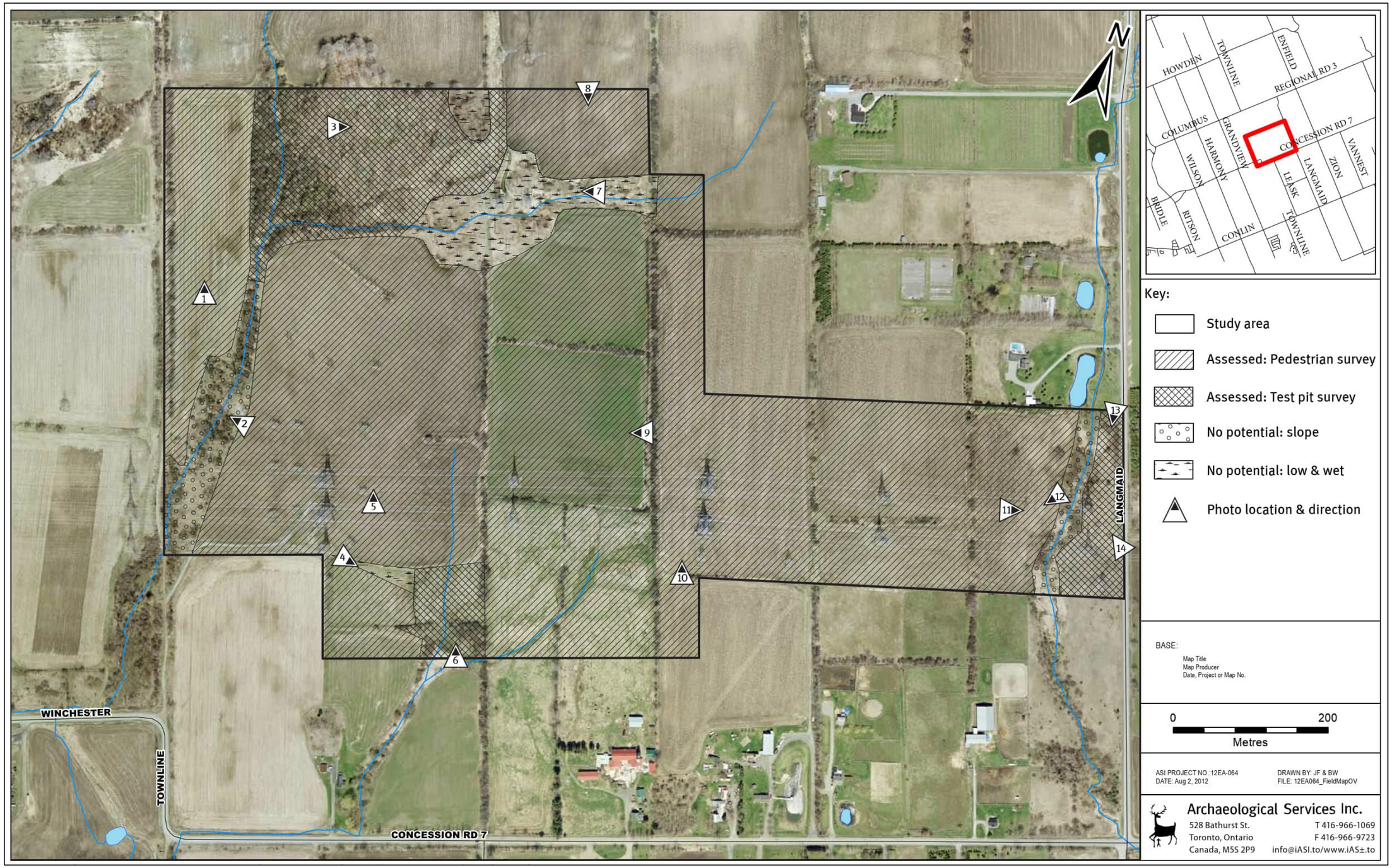
Map 24: Stantec (2022) Stage 1 Assessment Results Within Project Area



Map 25: AHC (1992) Assessment Area Within Close Proximity of Preferred Route



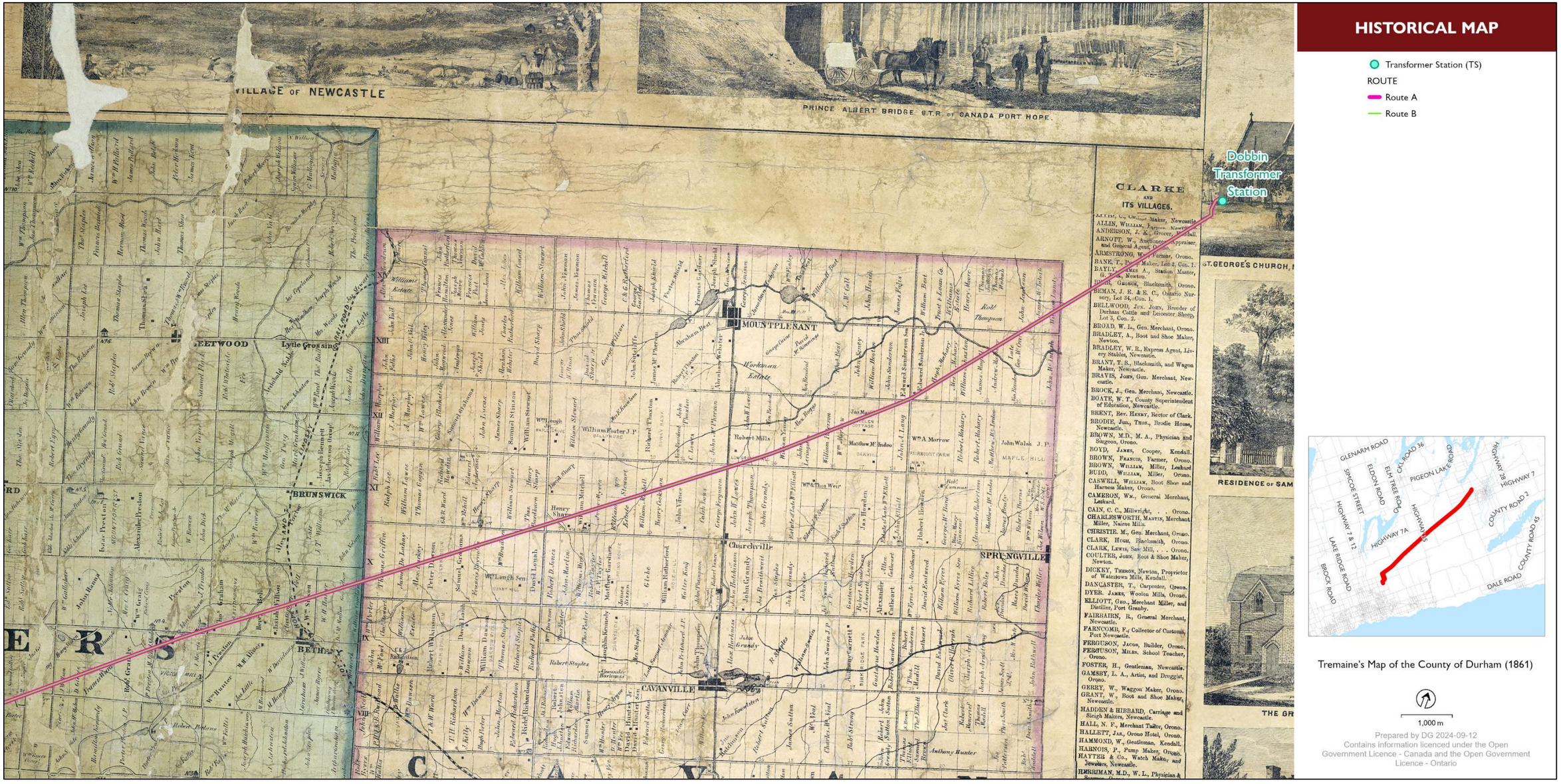
Map 26: MHC (2006) Stage 1 Assessment Area Within Close Proximity of Preferred Route



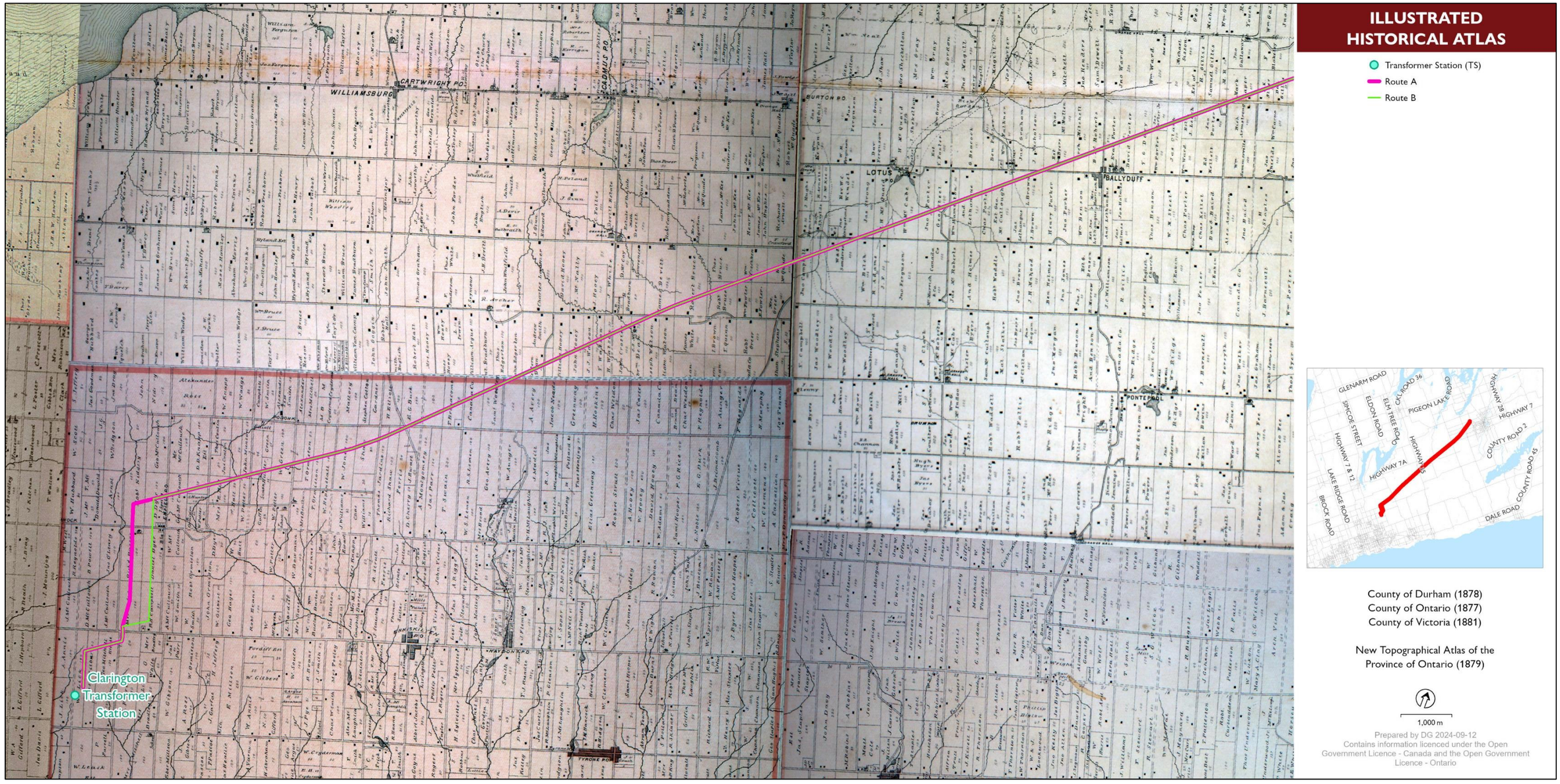
Map 27: ASI (2012) Stage 2 Assessment Area Within Close Proximity of Preferred Route

Tremaine's Map of the County of Durham (1861)

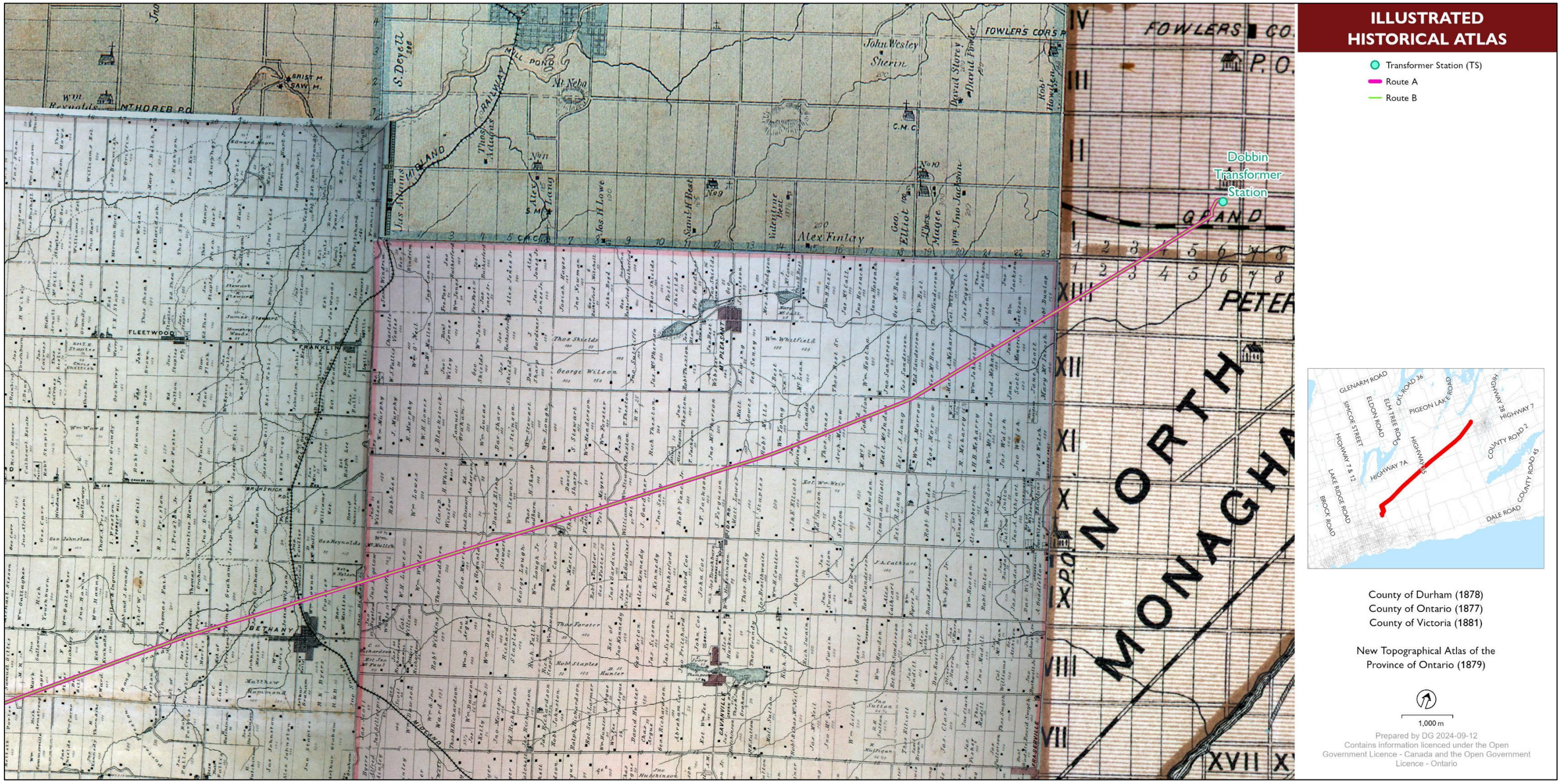
Map 28: Project Area Shown on the Tremaine's 1961 Map of the County of Durham (Section 1 of 2)



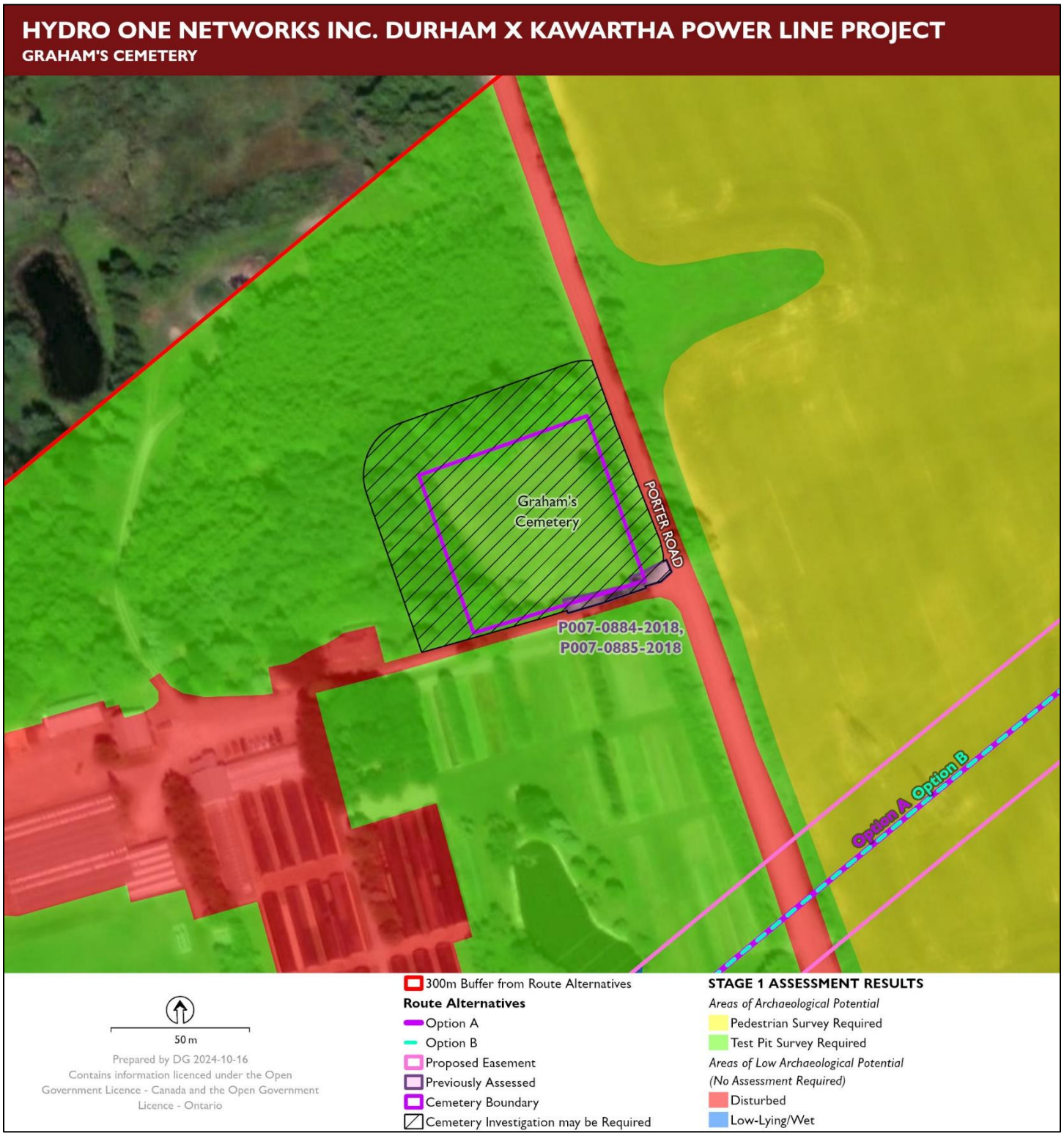
Map 29: Project Area Shown on the Tremaine's 1961 Map of the County of Durham (Section 2 of 2)



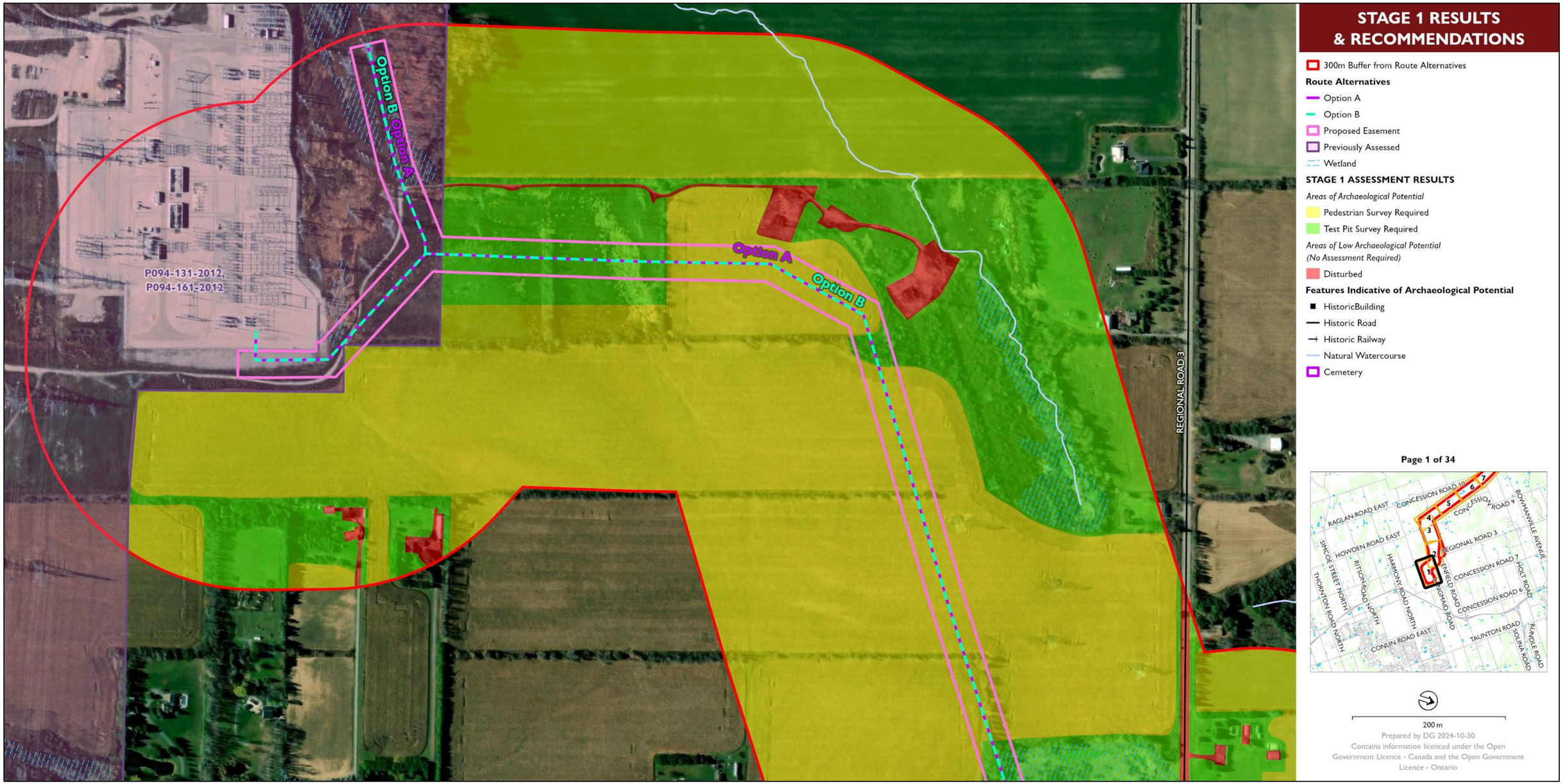
Map 30: Project Area Shown on the 1878/1879/1881 Historical Atlases (Section 1 of 2)



Map 31: Project Area Shown on the 1878/1879/1881 Historical Atlases (Section 2 of 2)



Map 32: Location of Graham's Cemetery within the Project Area



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Previously Assessed
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

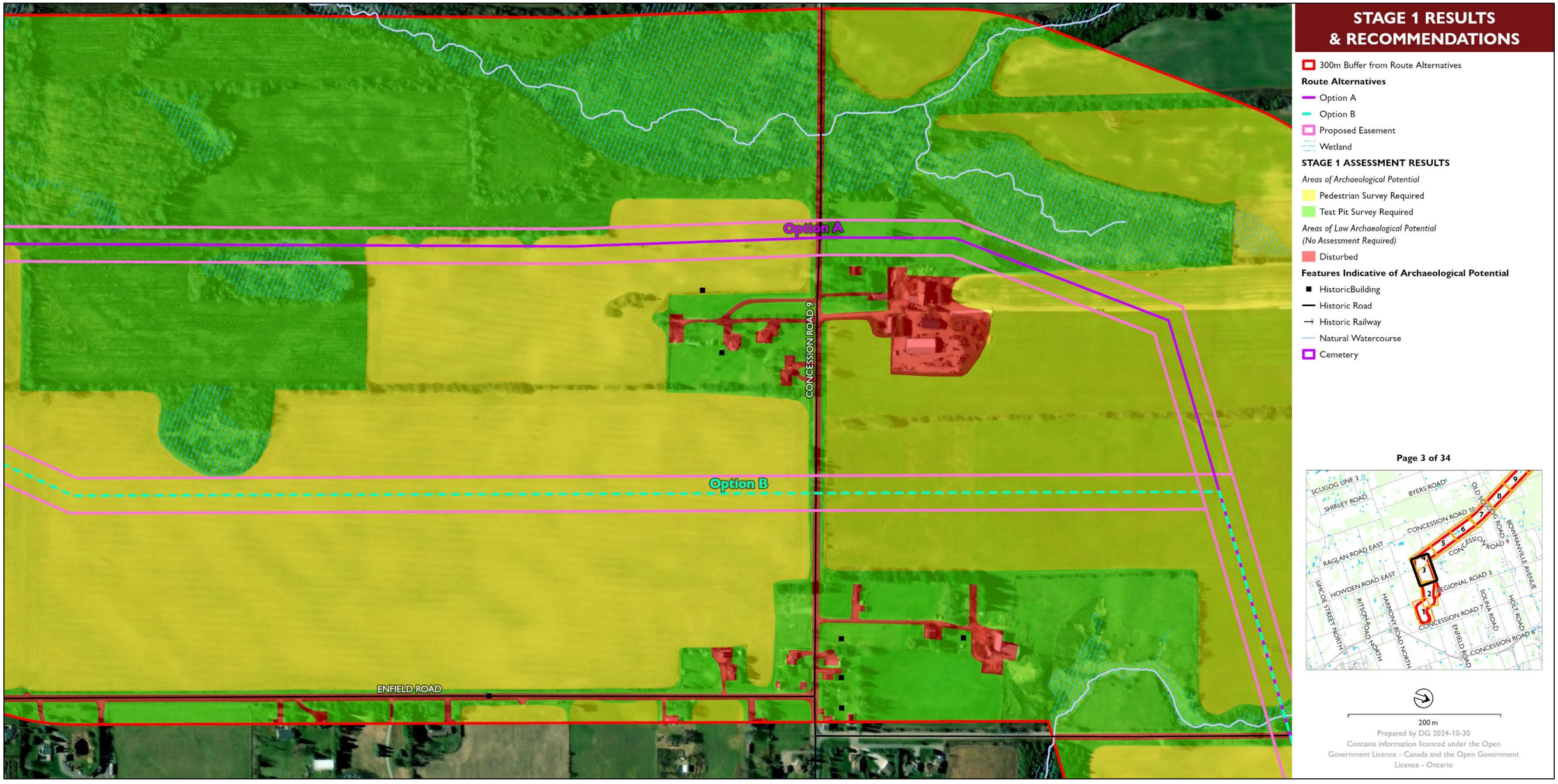
Page 1 of 34

200 m

Prepared by DG 2024-10-30

Map 33: Map of Archaeological Potential and Recommendations (Section 1 of 34)

Map 34: Map of Archaeological Potential and Recommendations (Section 2 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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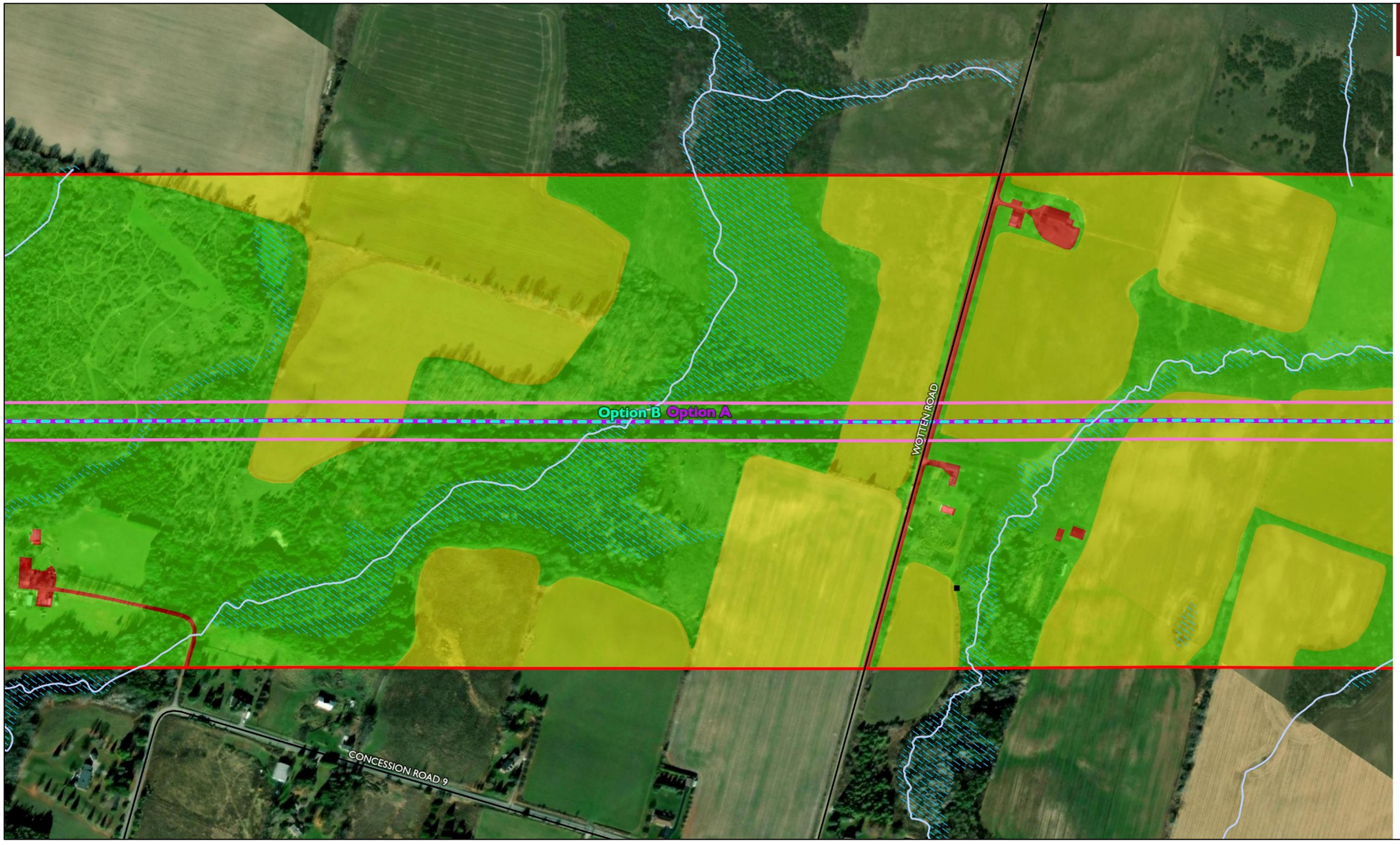
200 m

Prepared by DG 2024-10-30

Map 35: Map of Archaeological Potential and Recommendations (Section 3 of 34)

Map 36: Map of Archaeological Potential and Recommendations (Section 4 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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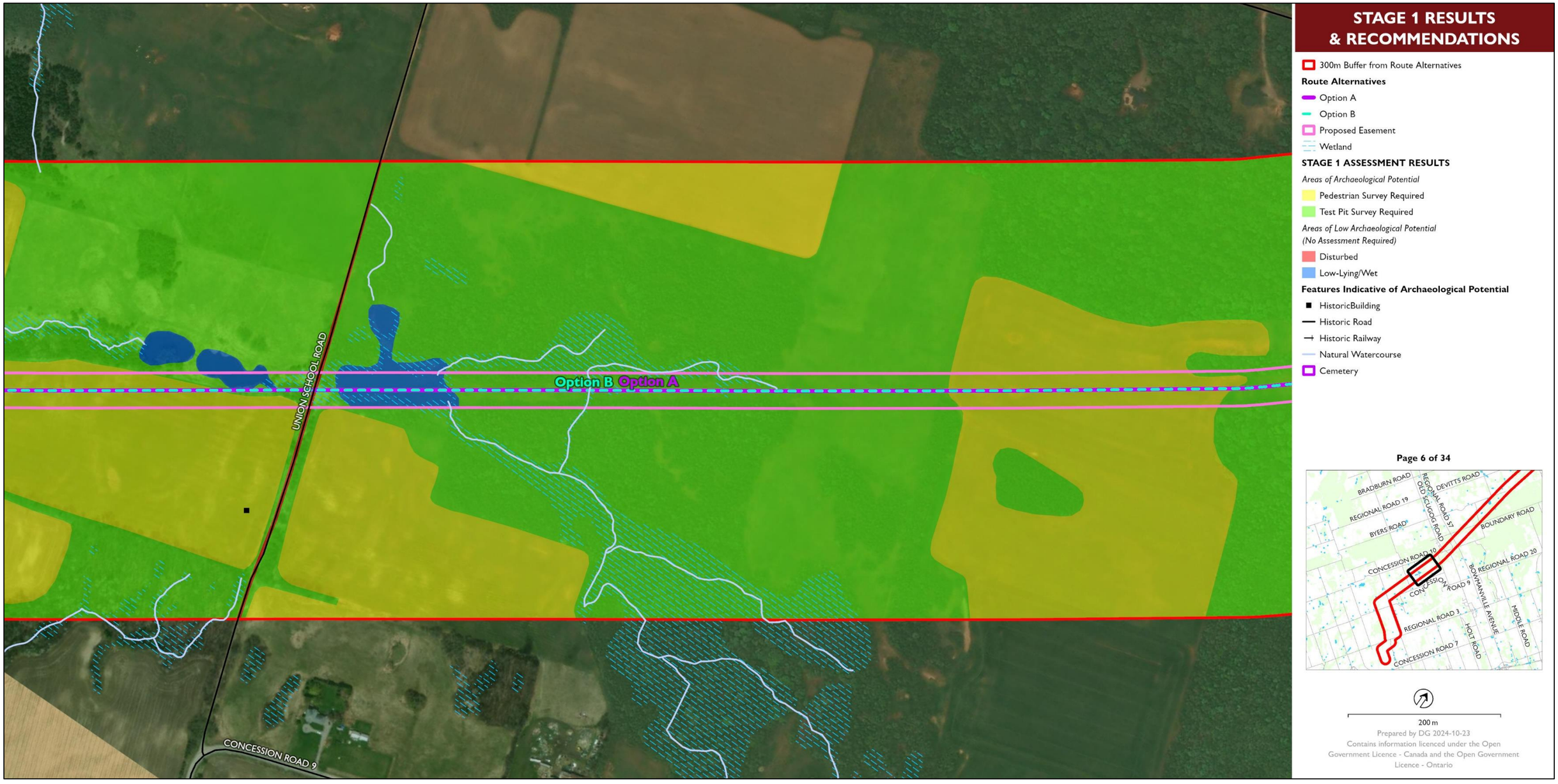
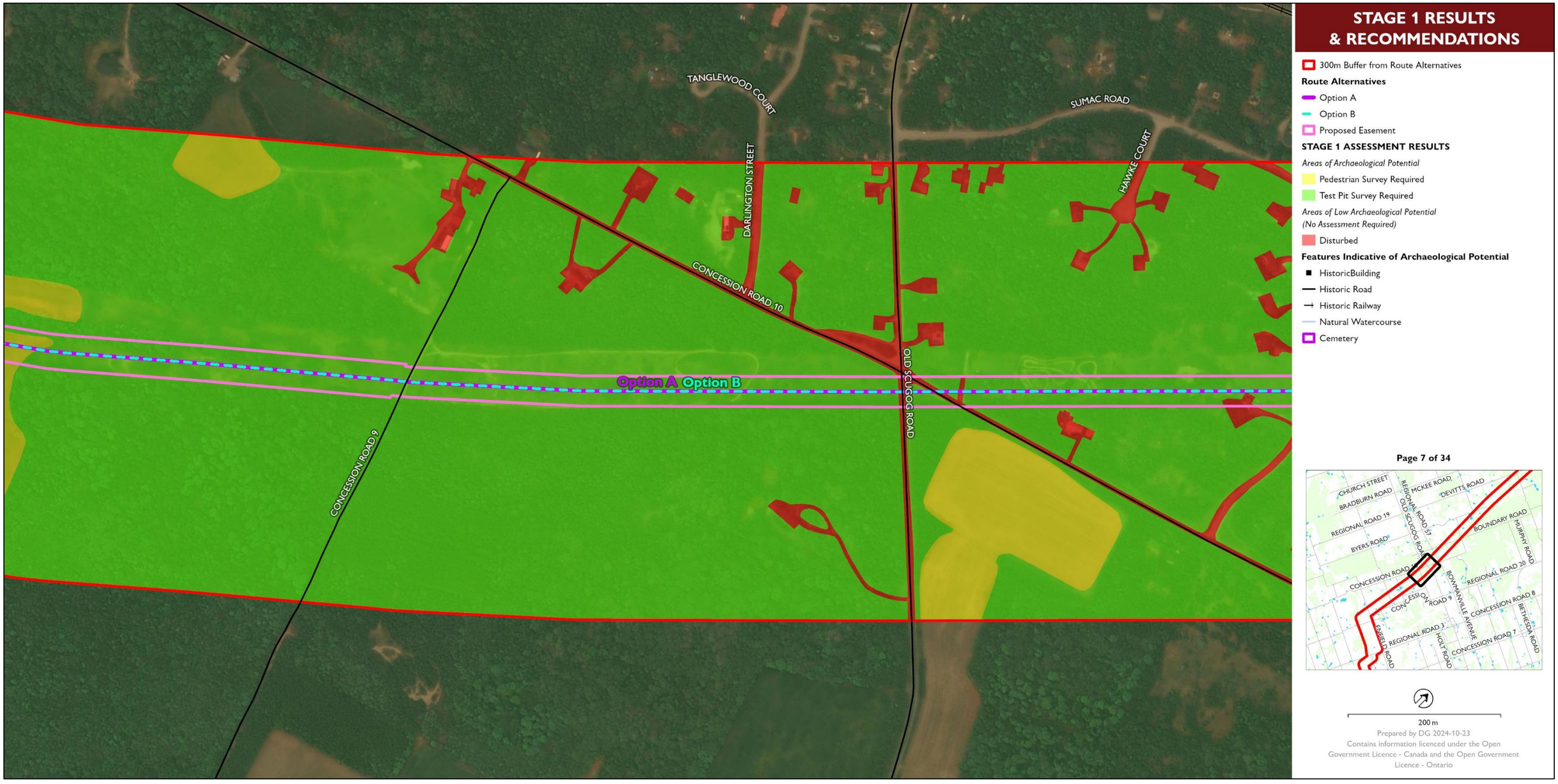
200 m

Prepared by DG 2024-10-23

Map 37: Map of Archaeological Potential and Recommendations (Section 5 of 34)



Map 38: Map of Archaeological Potential and Recommendations (Section 6 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

- 300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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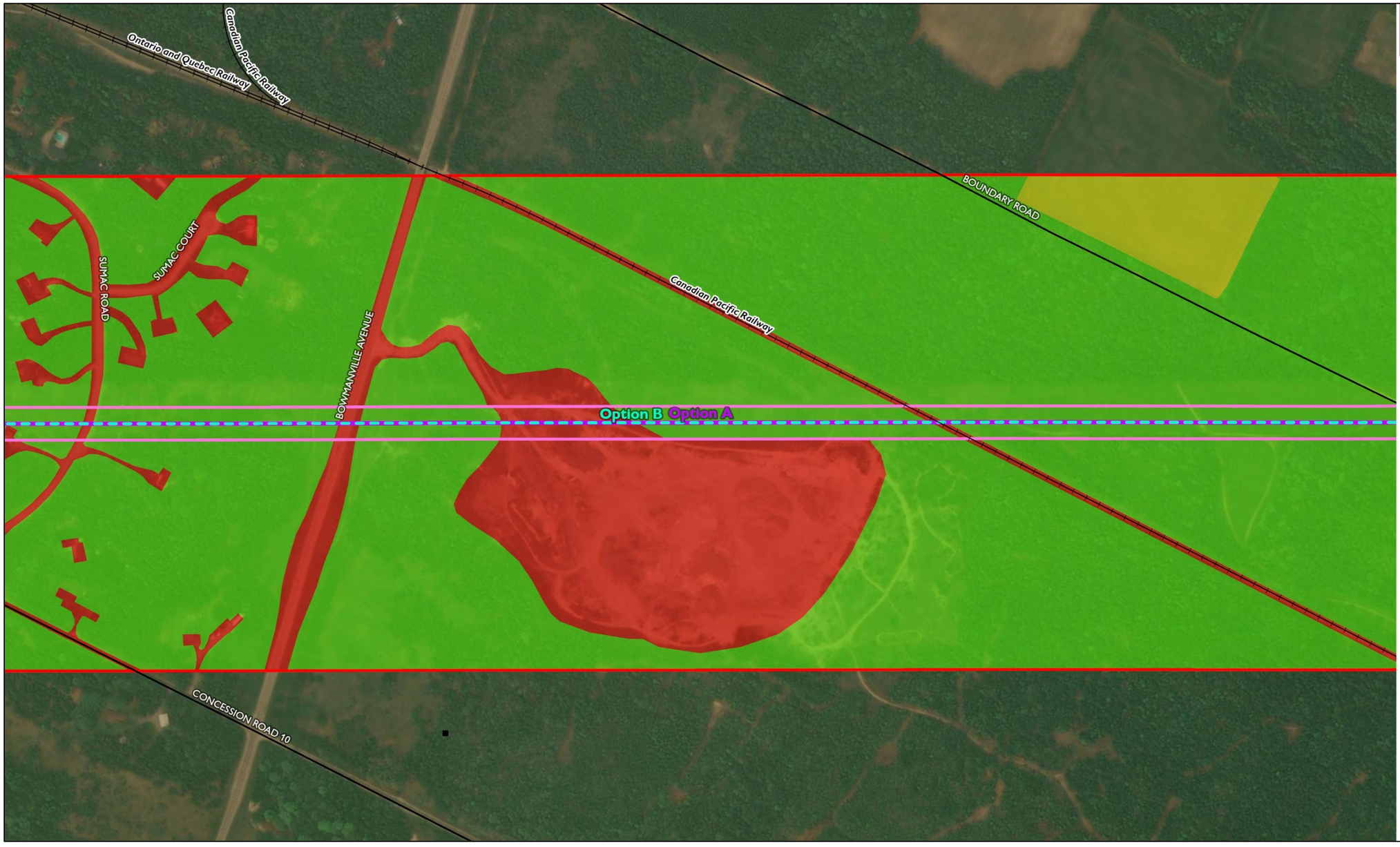
200 m

Prepared by DG 2024-10-23

Map 39: Map of Archaeological Potential and Recommendations (Section 7 of 8)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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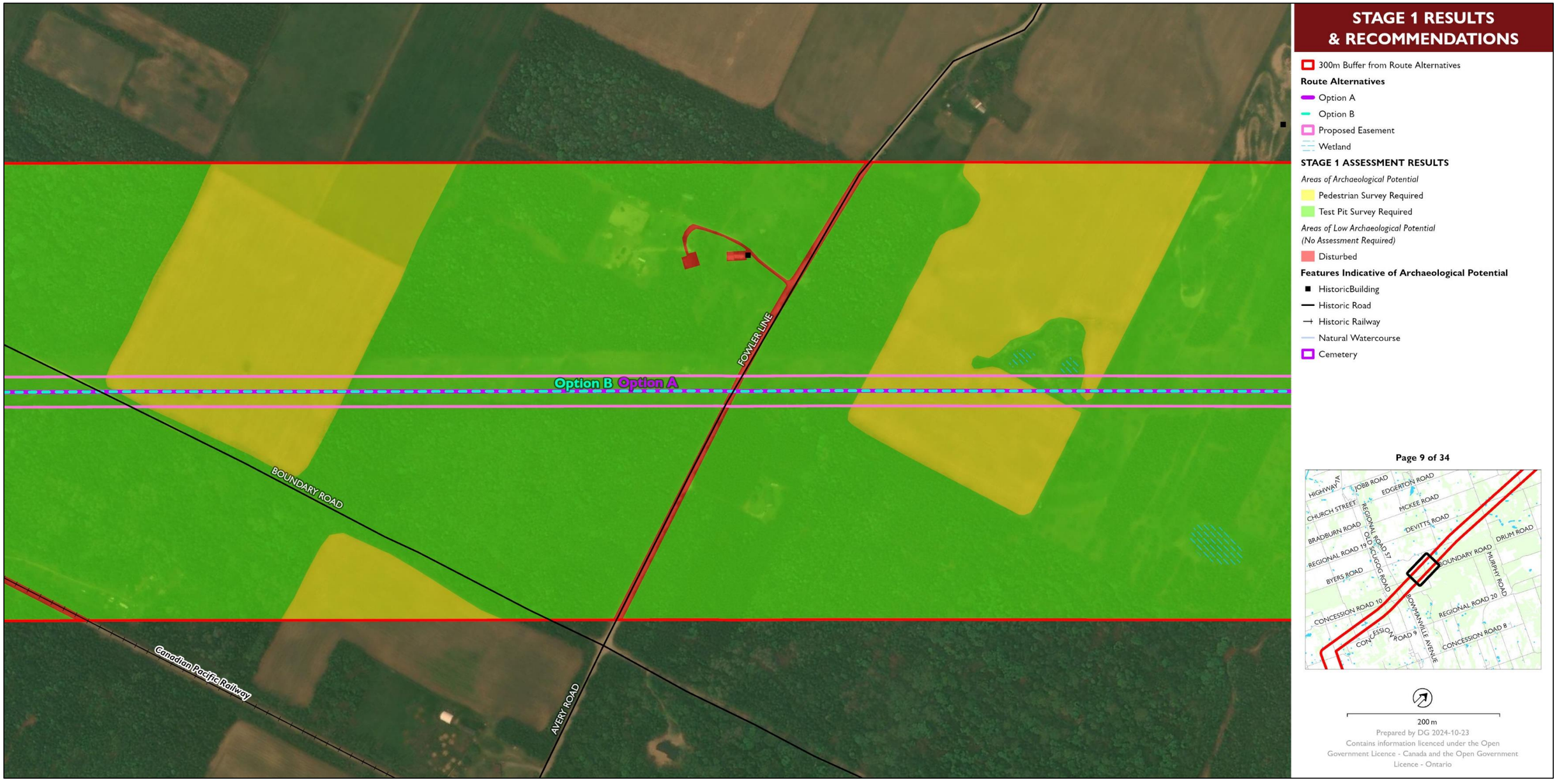
200 m

Prepared by DG 2024-10-23

Map 40: Map of Archaeological Potential and Recommendations (Section 8 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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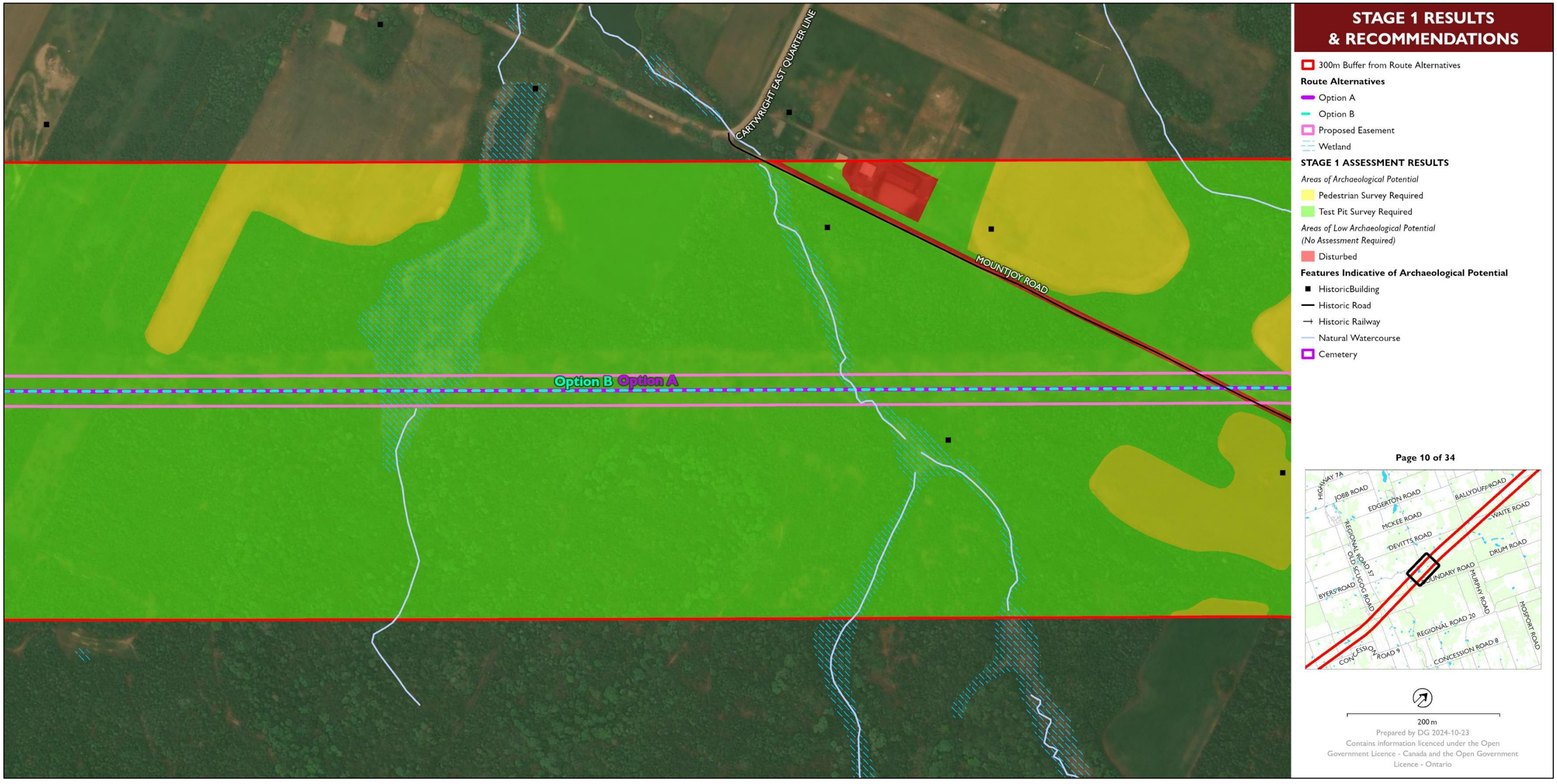
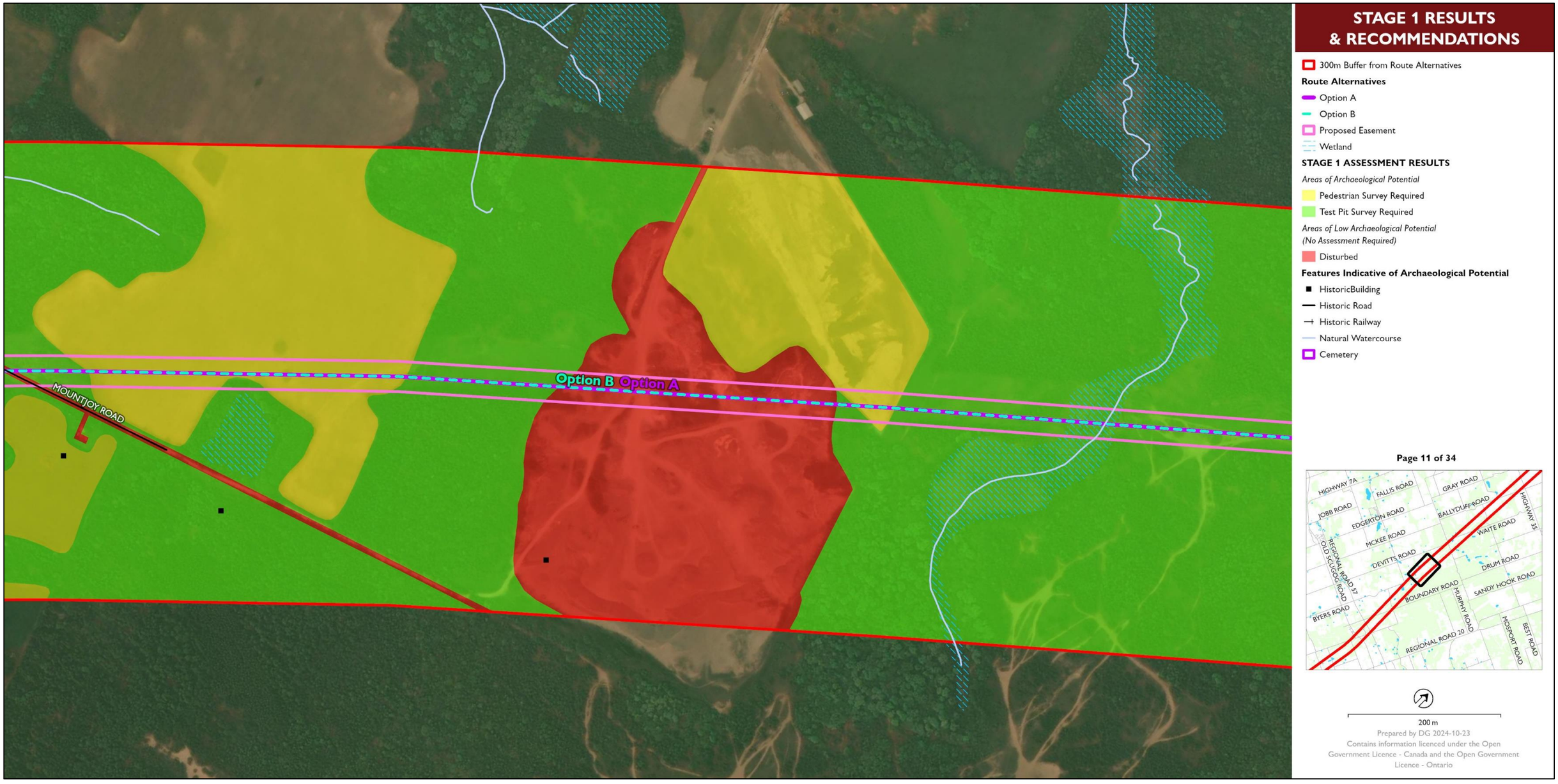
200 m

Prepared by DG 2024-10-23

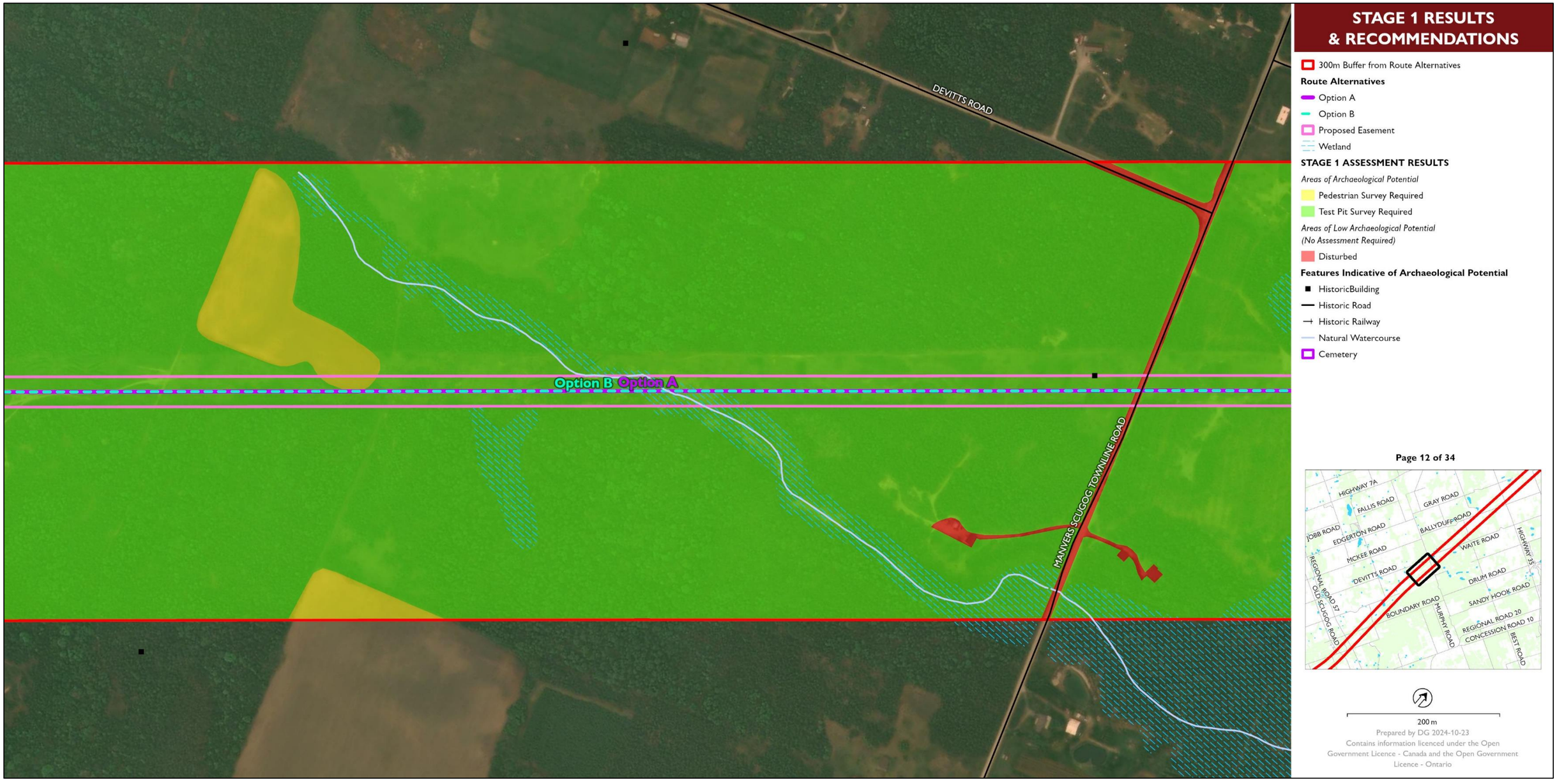
Map 41: Map of Archaeological Potential and Recommendations (Section 9 of 34)



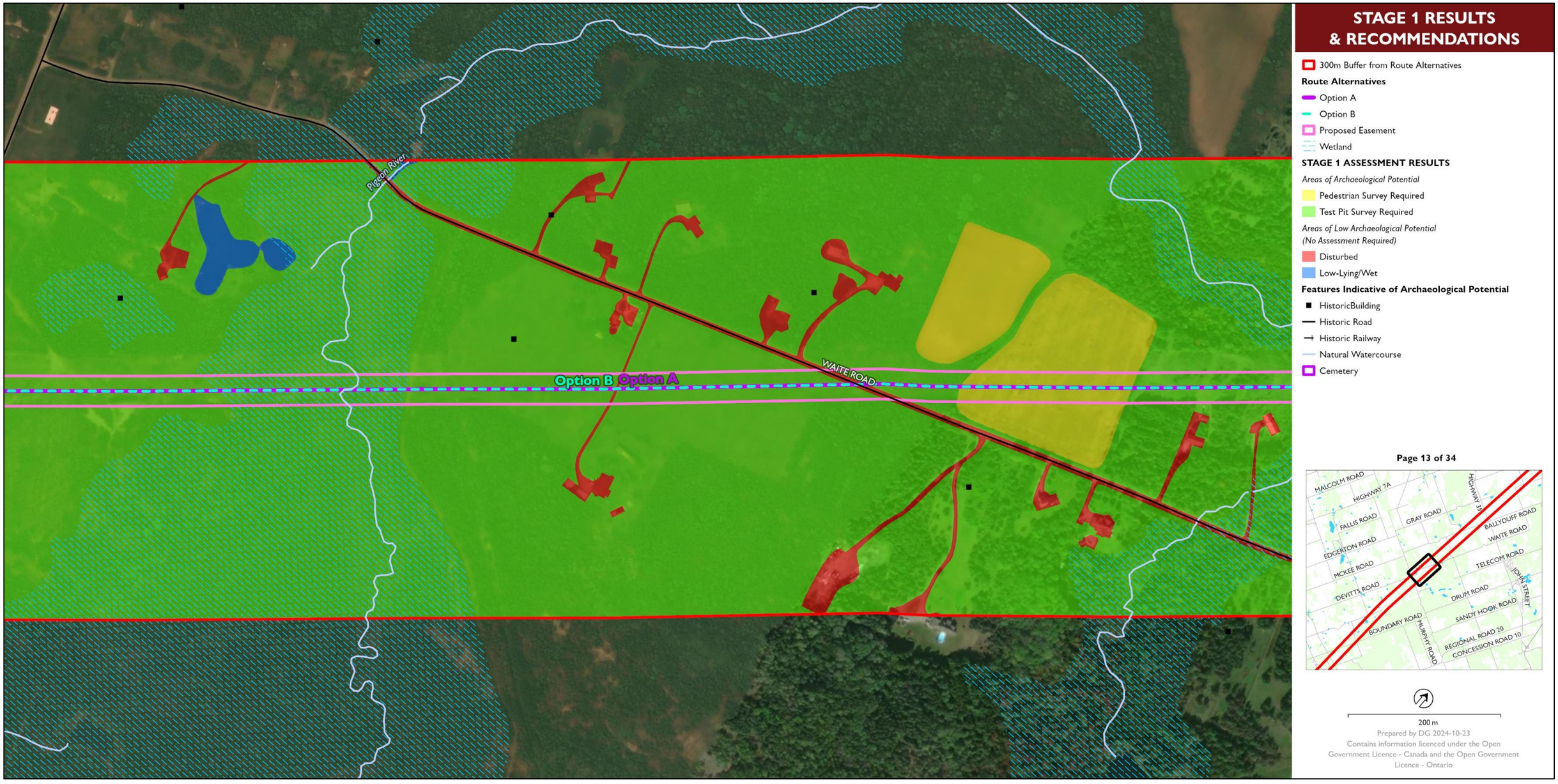
Map 42: Map of Archaeological Potential and Recommendations (Section 10 of 34)



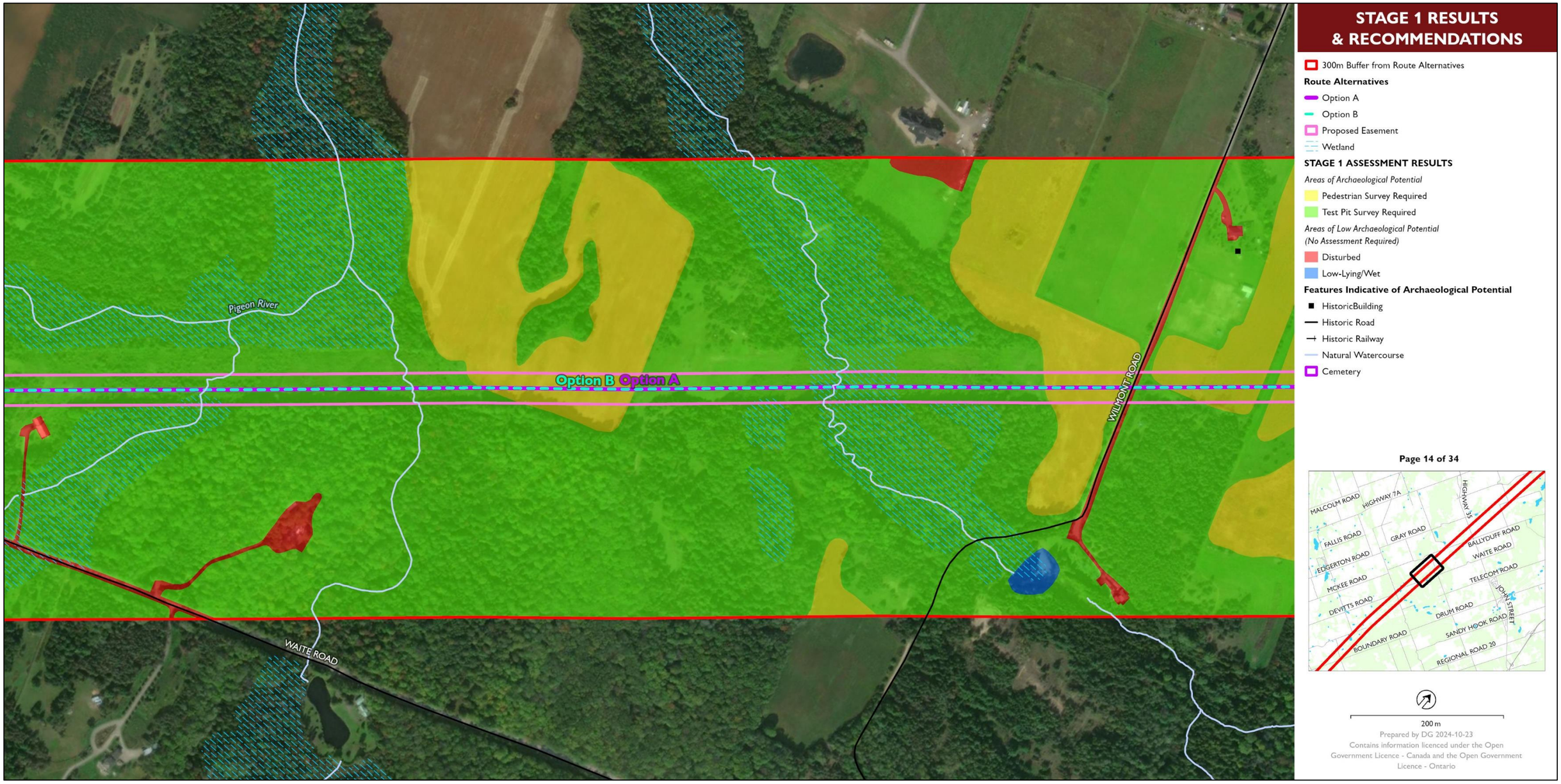
Map 43: Map of Archaeological Potential and Recommendations (Section 11 of 34)



Map 44: Map of Archaeological Potential and Recommendations (Section 12 of 34)



Map 45: Map of Archaeological Potential and Recommendations (Section 13 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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Map 46: Map of Archaeological Potential and Recommendations (Section 14 of 34)

STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Area in Proximity to Archaeological Site
- Previously Assessed
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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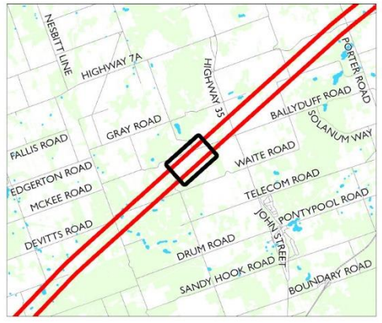
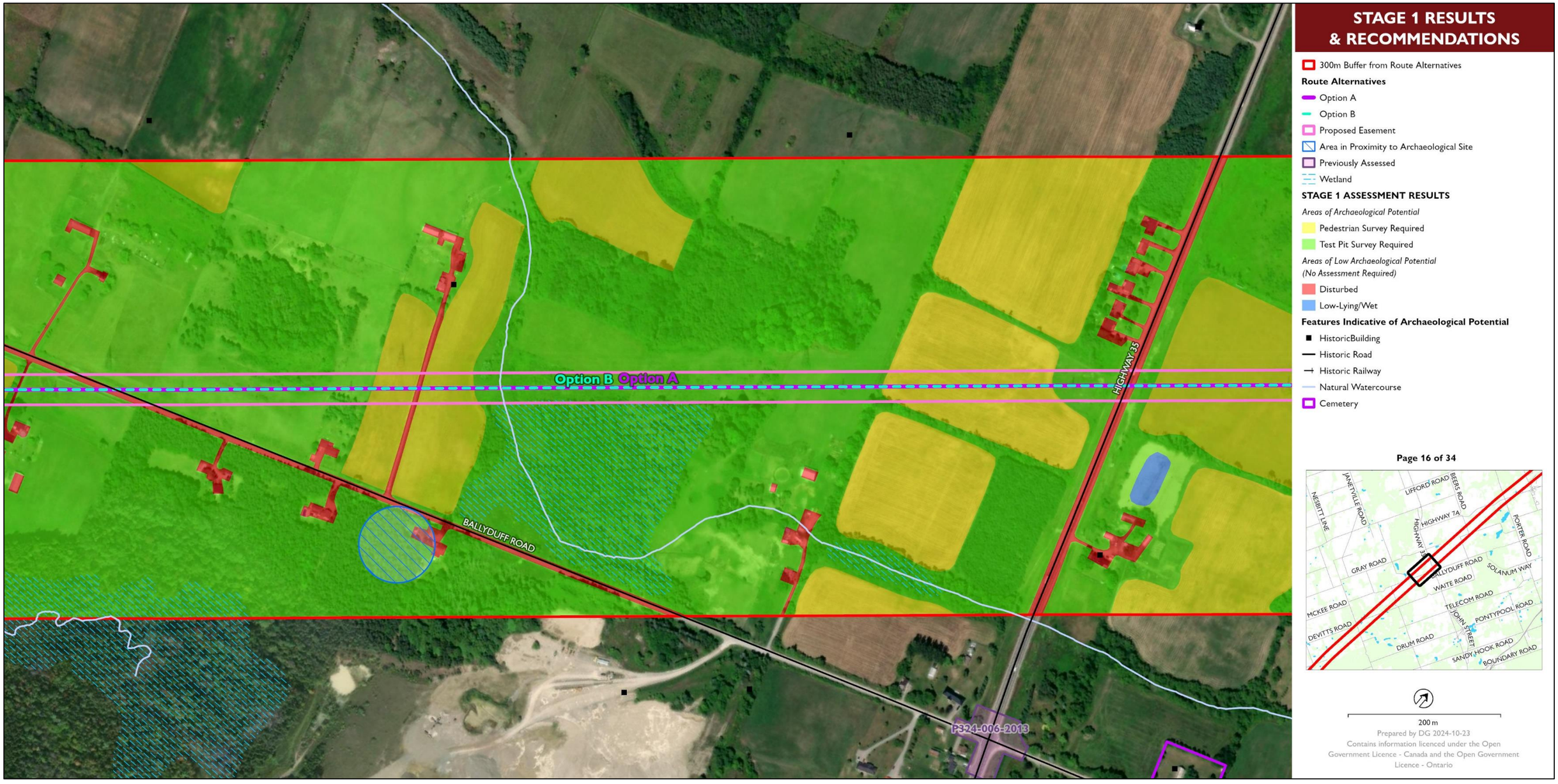


200 m

Prepared by DG 2024-10-23

Map 47: Map of Archaeological Potential and Recommendations (Section 15 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

- 300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Area in Proximity to Archaeological Site
- Previously Assessed
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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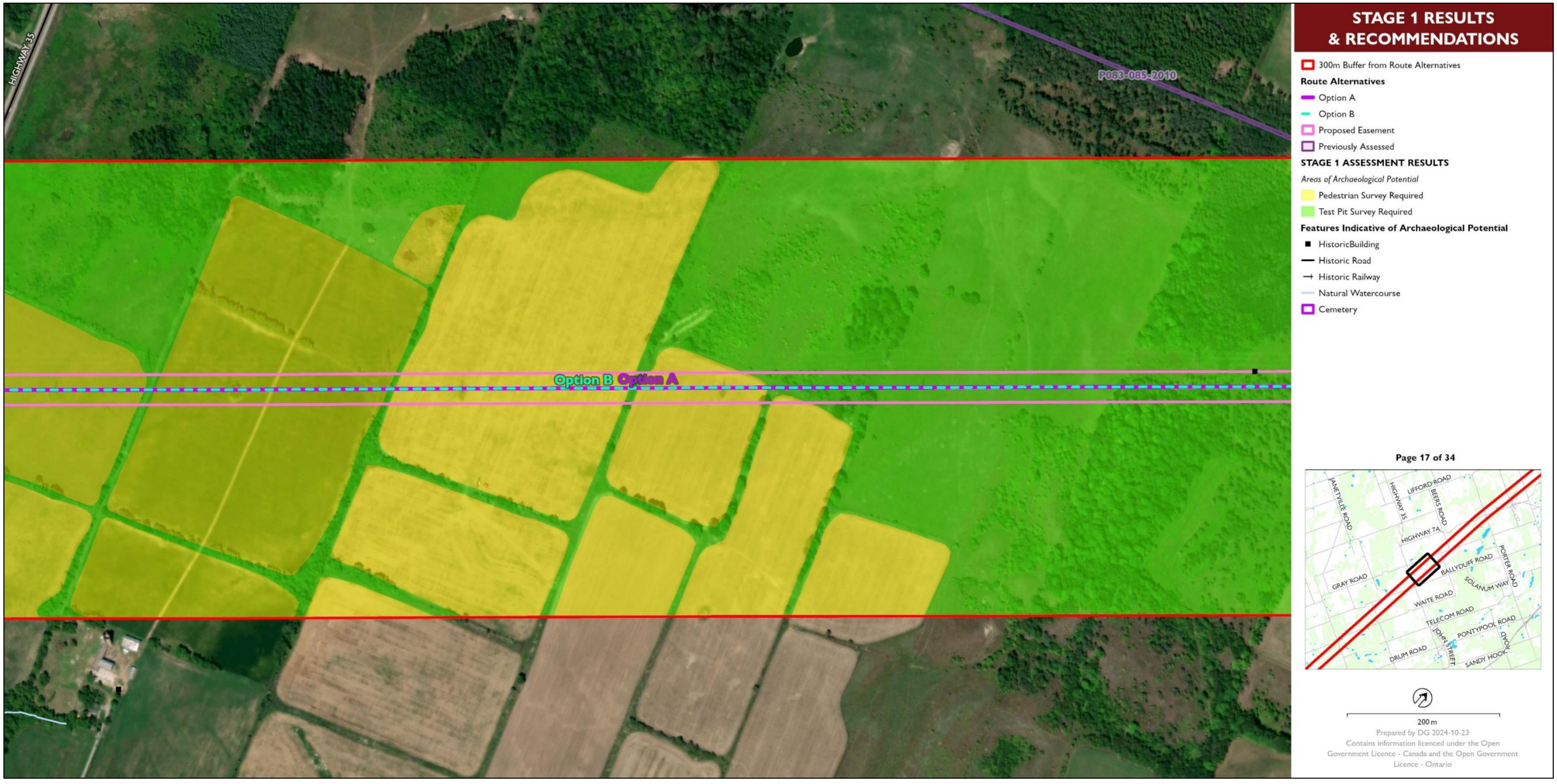
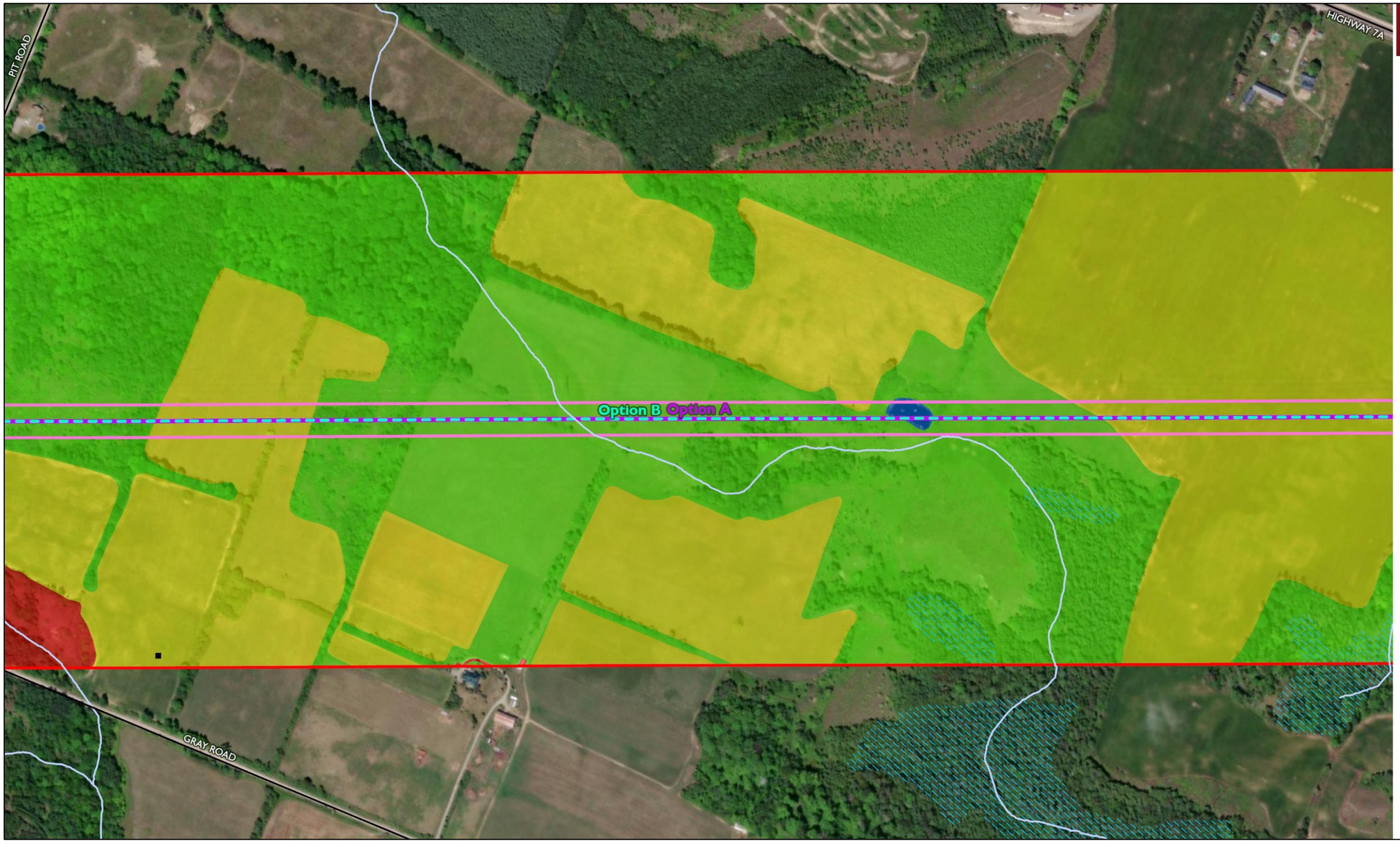
Map 48: Map of Archaeological Potential and Recommendations (Section 16 of 34)



Map 49: Map of Archaeological Potential and Recommendations (Section 17 of 34)

Map 50: Map of Archaeological Potential and Recommendations (Section 18 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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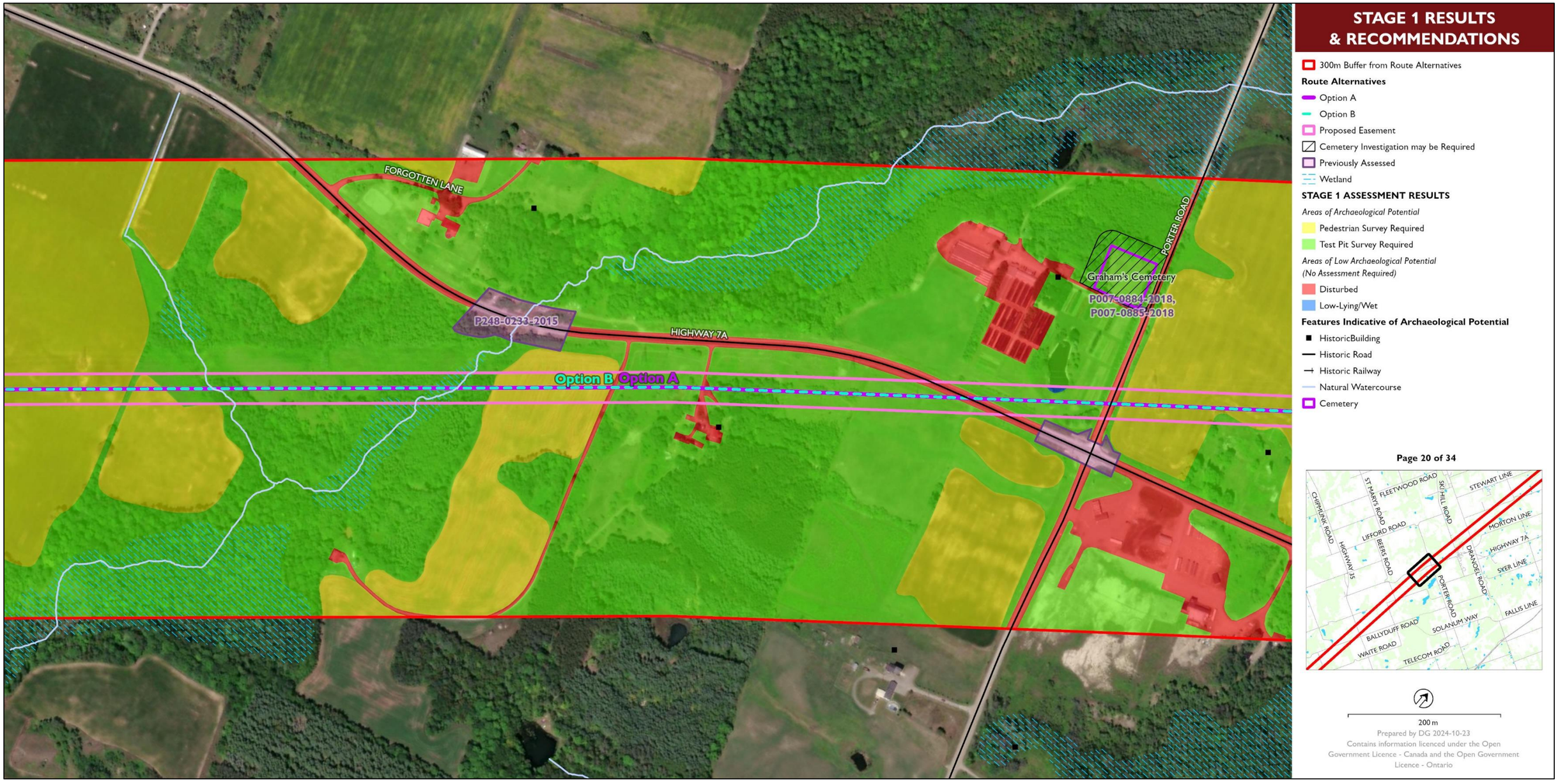
Map 51: Map of Archaeological Potential and Recommendations (Section 19 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Cemetery Investigation may be Required
- Previously Assessed
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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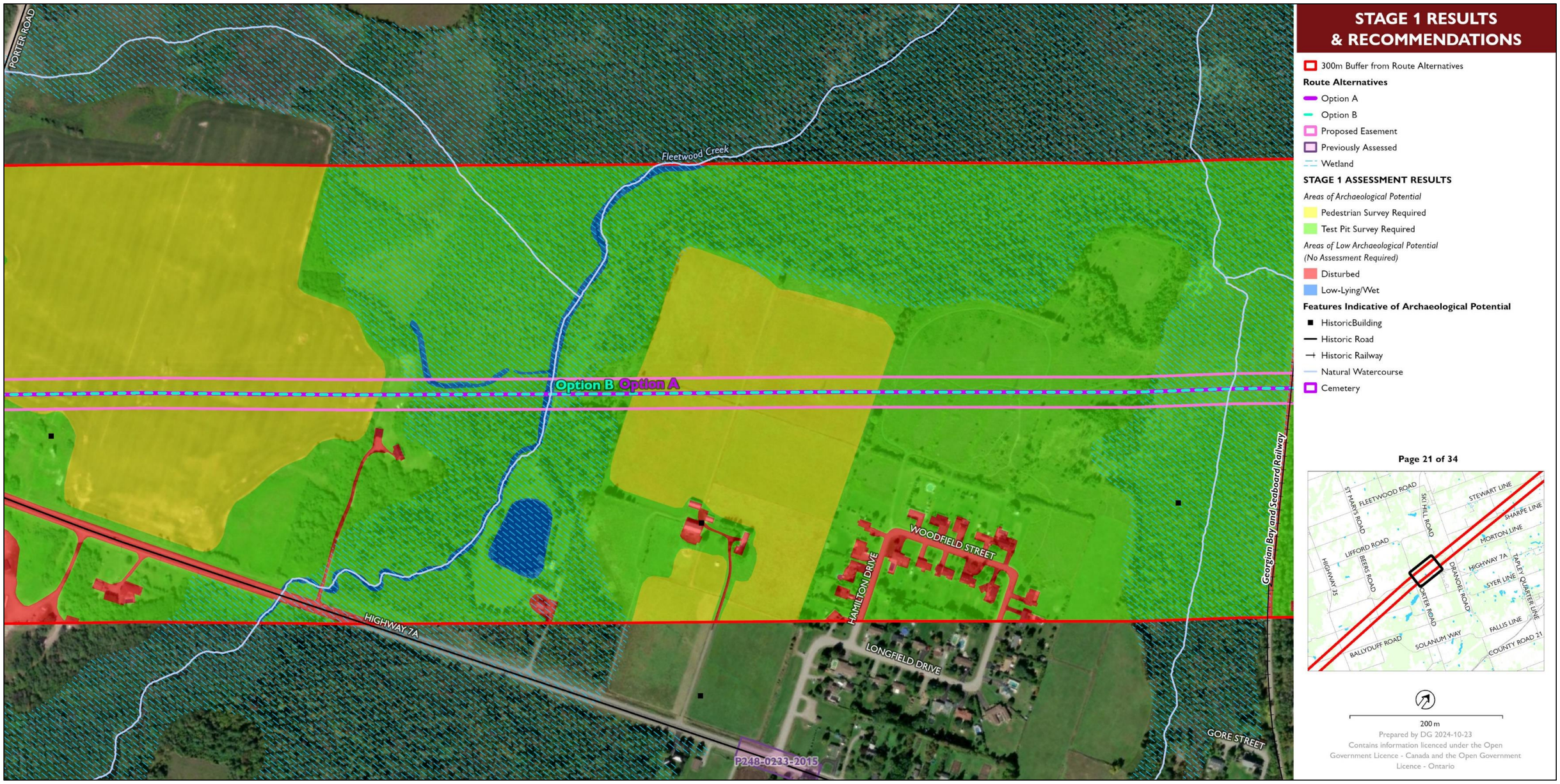
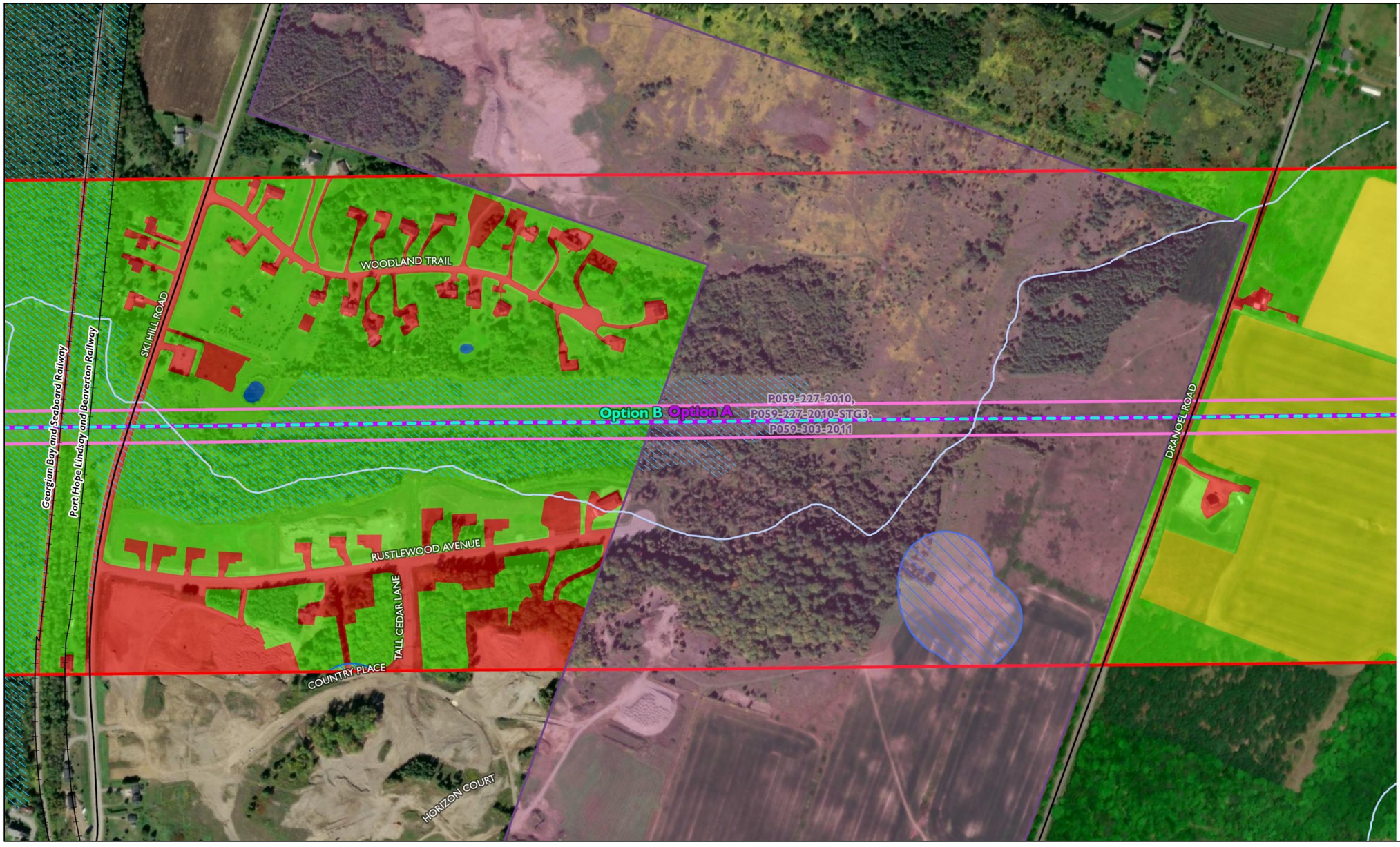
Map 52: Map of Archaeological Potential and Recommendations (Section 20 of 34)



Map 53: Map of Archaeological Potential and Recommendations (Section 21 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

- 300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Area in Proximity to Archaeological Site
- Previously Assessed
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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Map 54: Map of Archaeological Potential and Recommendations (Section 22 of 34)

Map 55: Map of Archaeological Potential and Recommendations (Section 23 of 34)

STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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Map 56: Map of Archaeological Potential and Recommendations (Section 24 of 34)

STAGE 1 RESULTS & RECOMMENDATIONS

- 300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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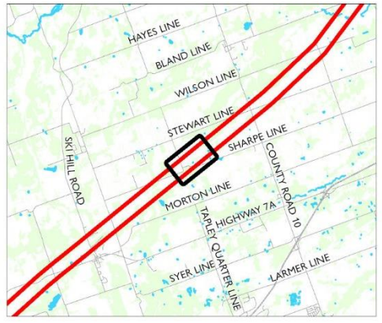
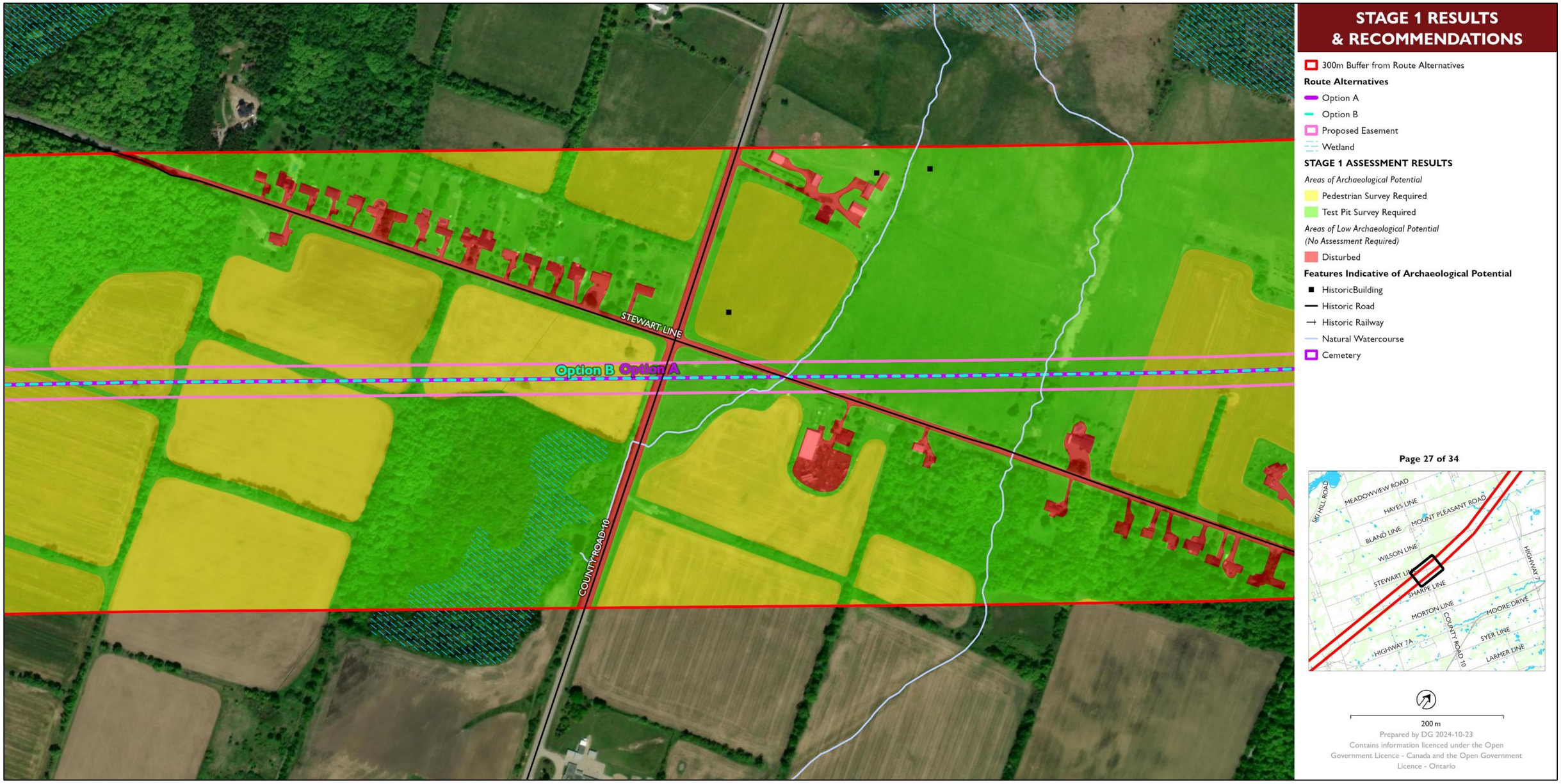


200 m

Prepared by DG 2024-10-23

Map 57: Map of Archaeological Potential and Recommendations (Section 25 of 34)

Map 58: Map of Archaeological Potential and Recommendations (Section 26 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

Option A
Option B
Proposed Easement
Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

Pedestrian Survey Required
Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

Disturbed

Features Indicative of Archaeological Potential

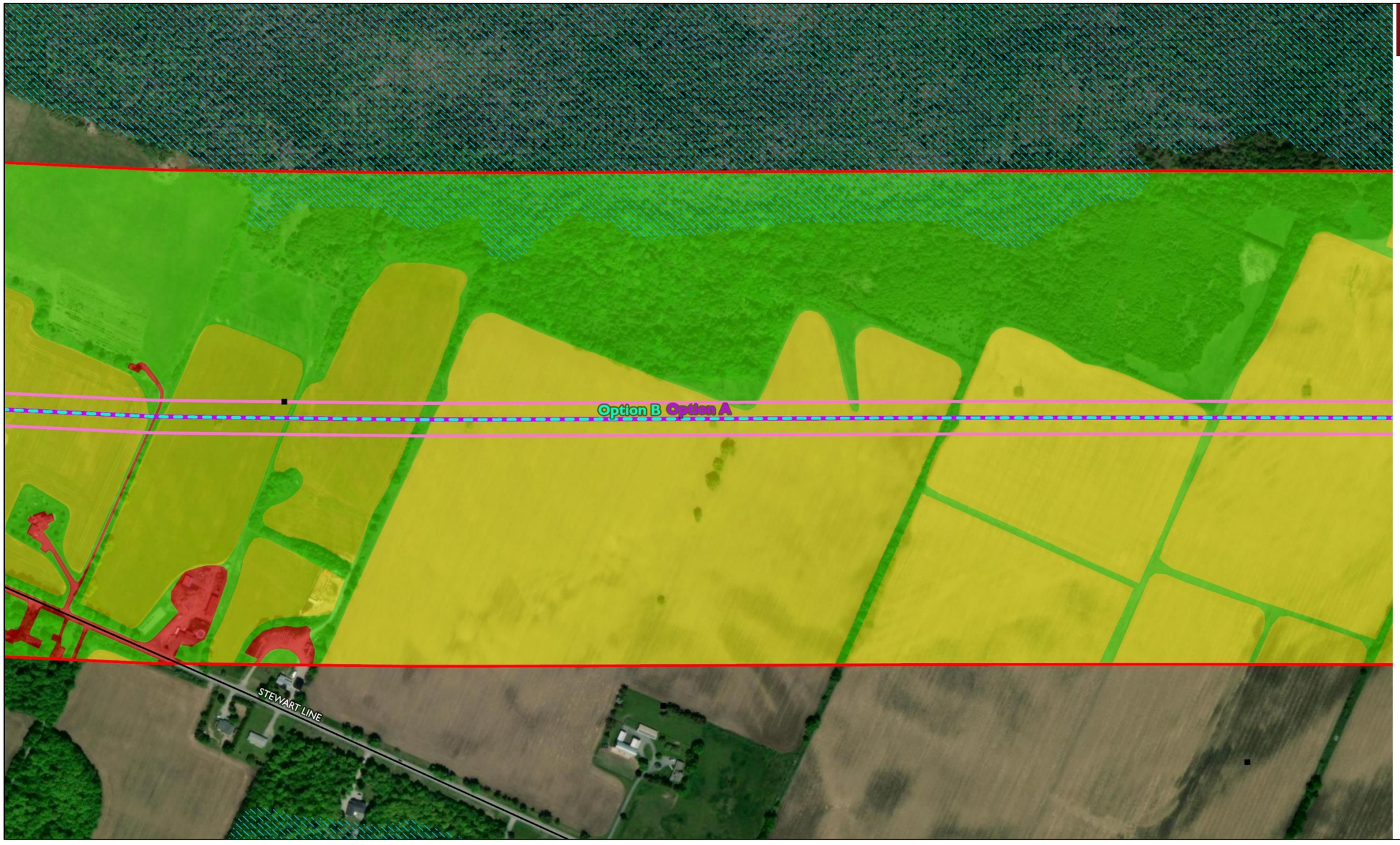
HistoricBuilding
Historic Road
Historic Railway
Natural Watercourse
Cemetery

Page 27 of 34

200 m

Prepared by DG 2024-10-23

Map 59: Map of Archaeological Potential and Recommendations (Section 27 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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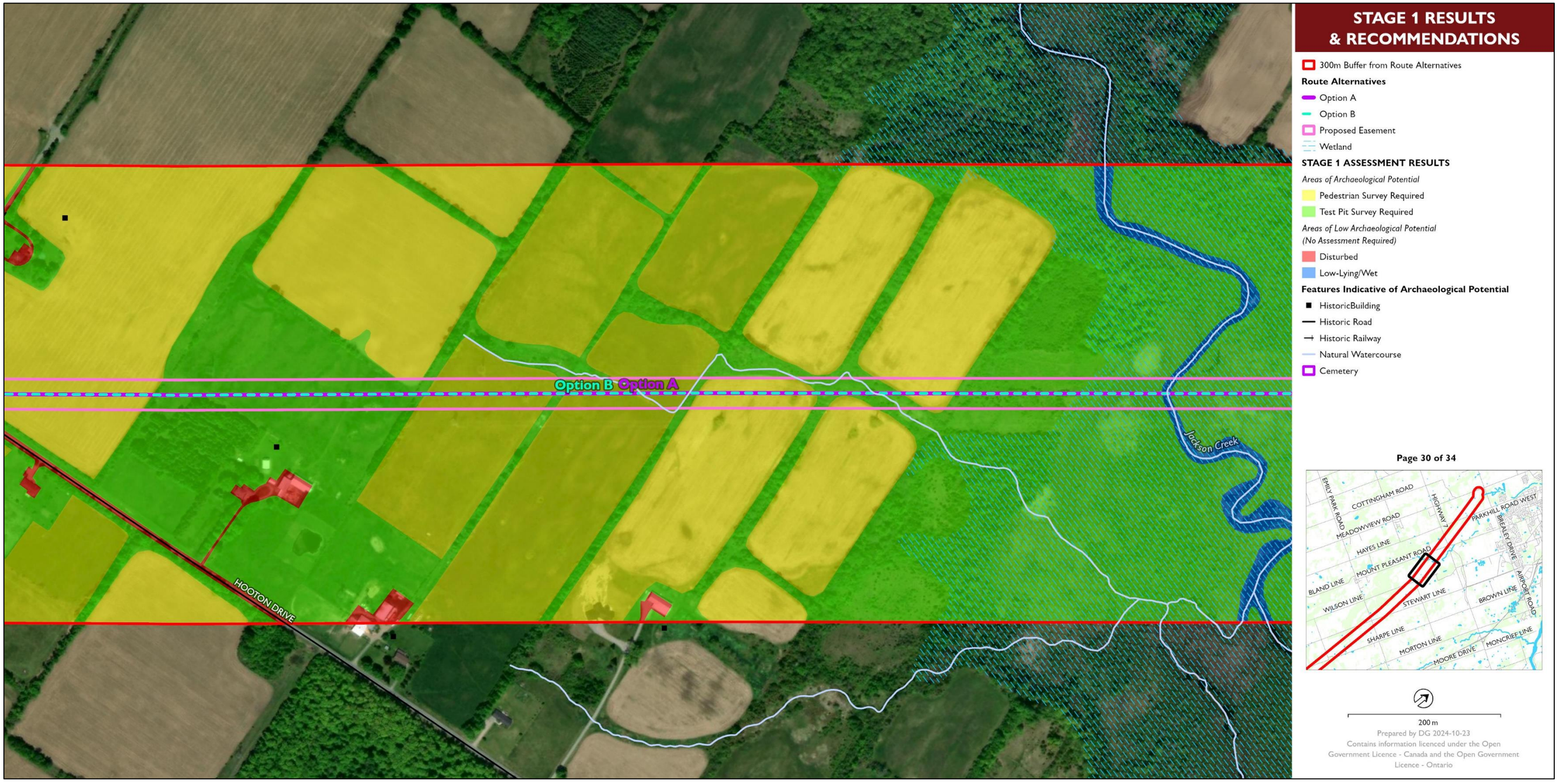
200 m

Prepared by DG 2024-10-23

Map 60: Map of Archaeological Potential and Recommendations (Section 28 of 34)

Map 61: Map of Archaeological Potential and Recommendations (Section 29 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

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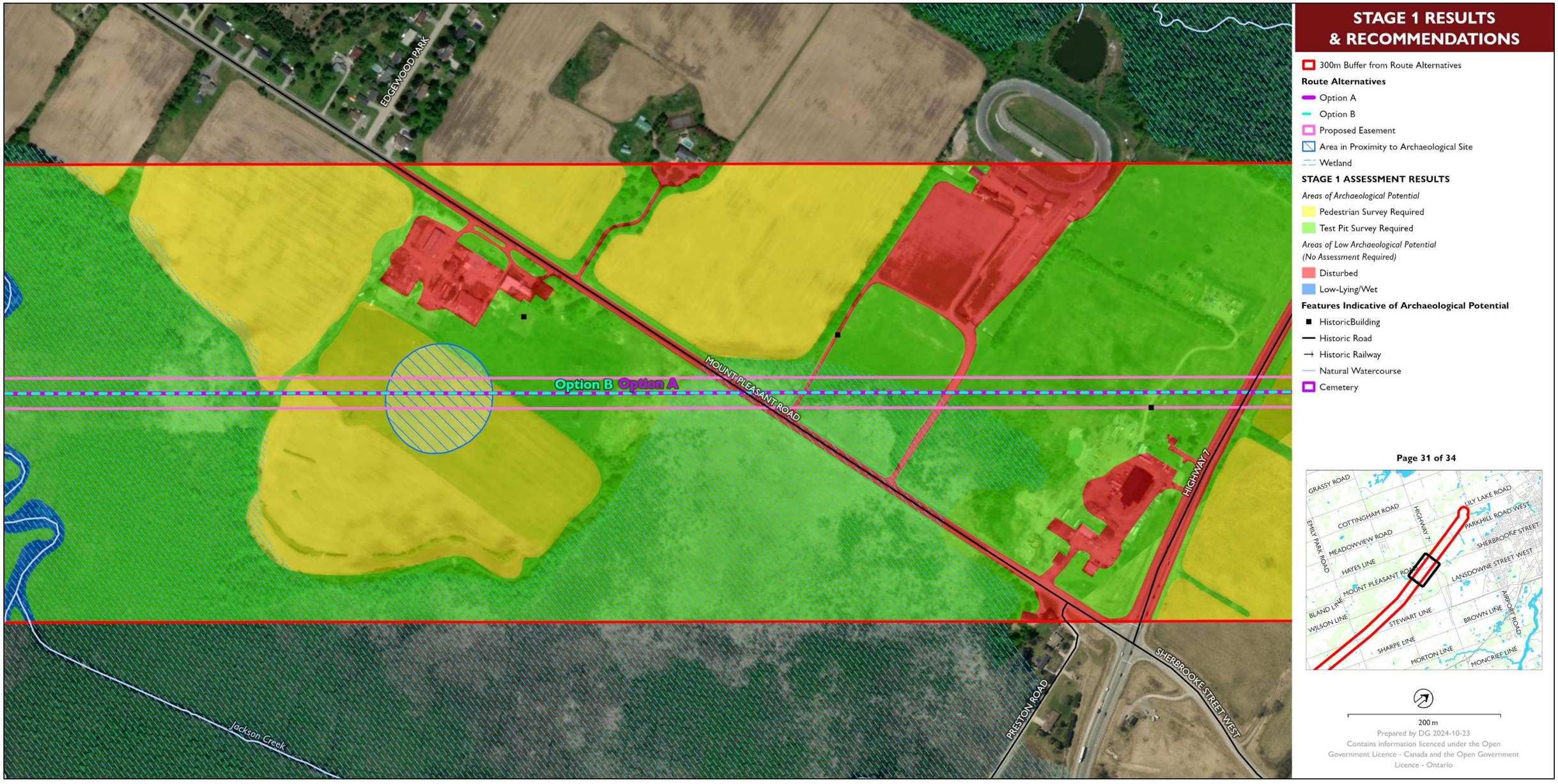
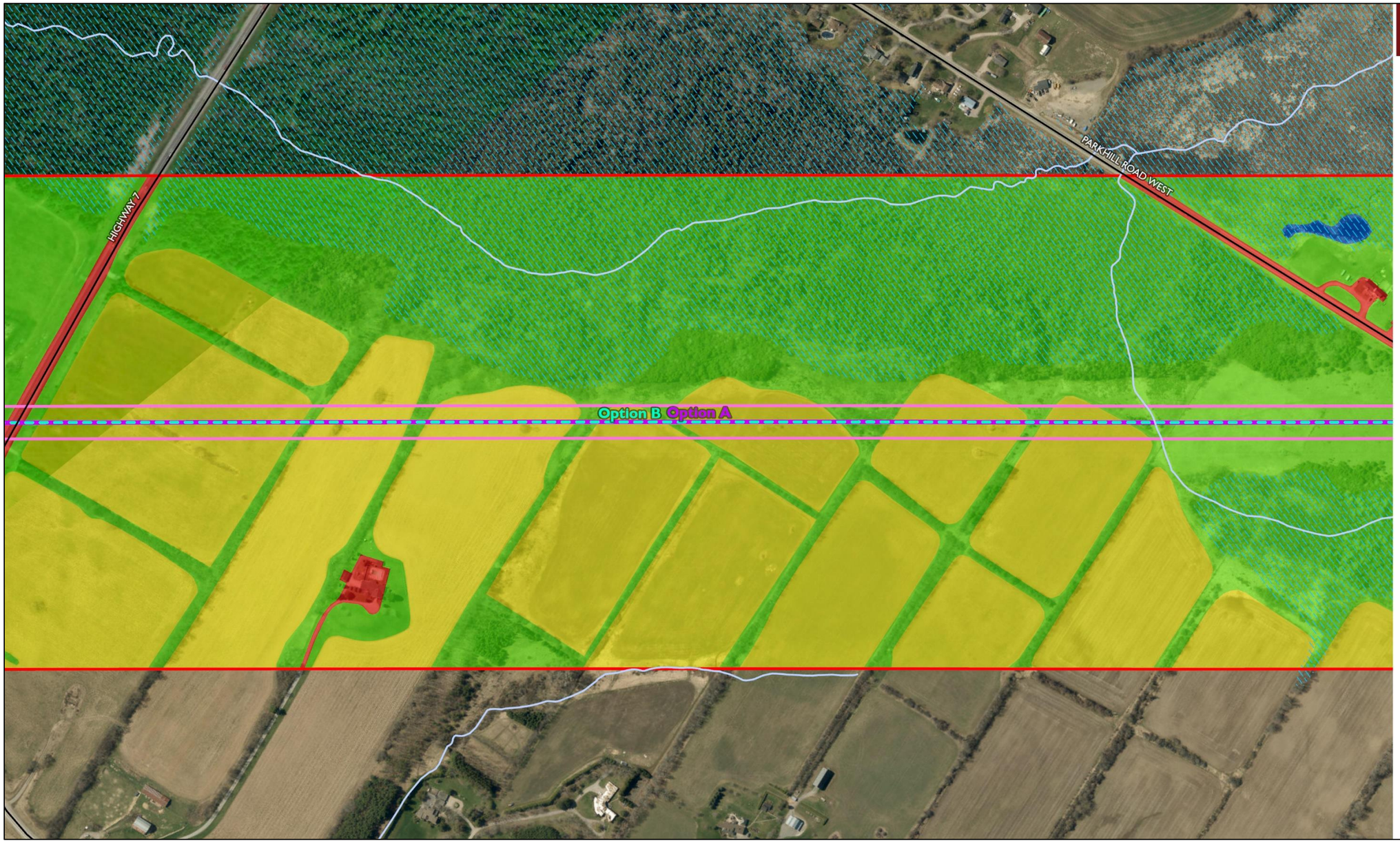
Map 62: Map of Archaeological Potential and Recommendations (Section 30 of 34)



Map 63: Map of Archaeological Potential and Recommendations (Section 31 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

- 300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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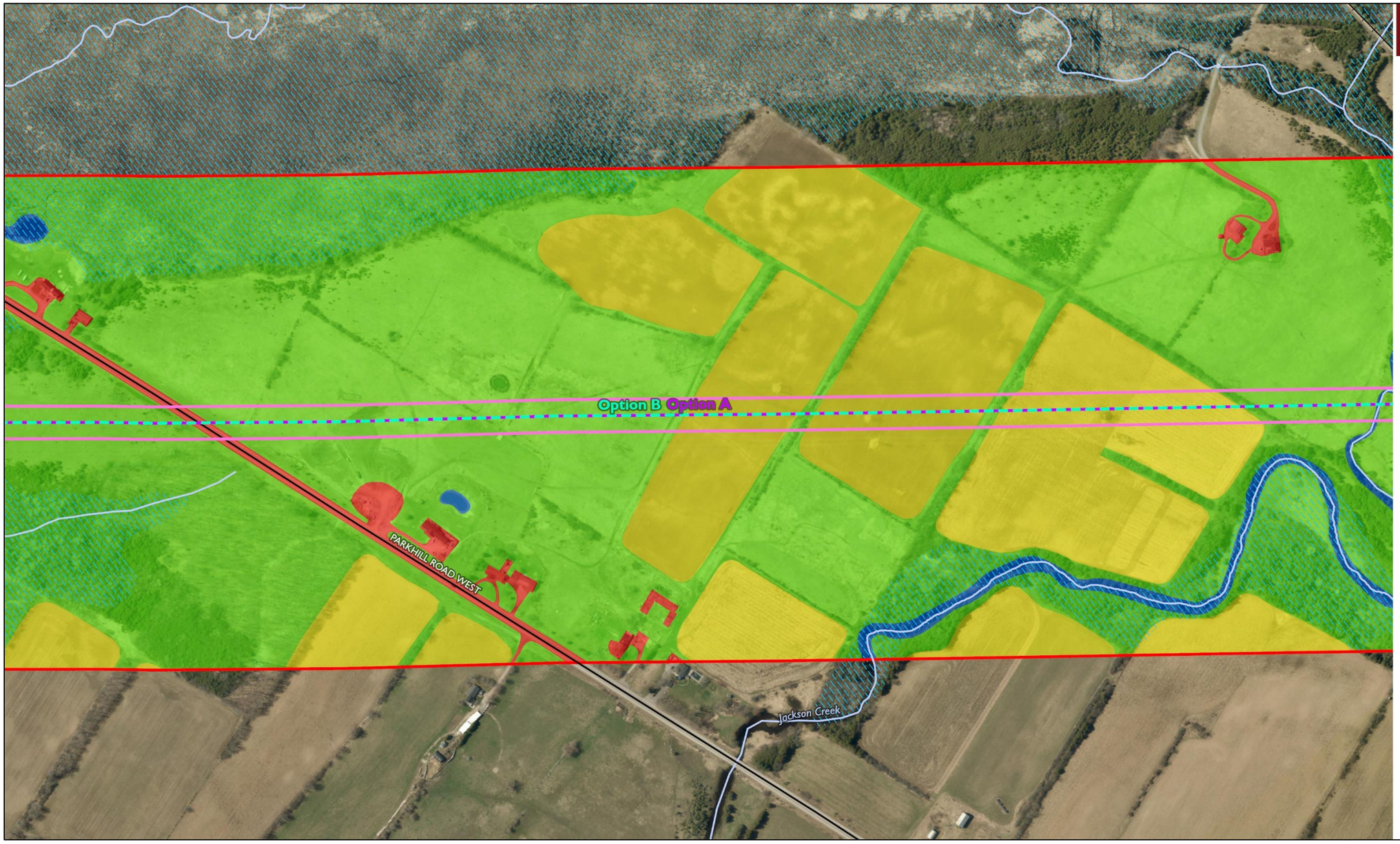
200 m

Prepared by DG 2024-10-23

Map 64: Map of Archaeological Potential and Recommendations (Section 32 of 34)



STAGE 1 RESULTS & RECOMMENDATIONS

300m Buffer from Route Alternatives

Route Alternatives

- Option A
- Option B
- Proposed Easement
- Wetland

STAGE 1 ASSESSMENT RESULTS

Areas of Archaeological Potential

- Pedestrian Survey Required
- Test Pit Survey Required

Areas of Low Archaeological Potential (No Assessment Required)

- Disturbed
- Low-Lying/Wet

Features Indicative of Archaeological Potential

- HistoricBuilding
- Historic Road
- Historic Railway
- Natural Watercourse
- Cemetery

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200 m

Prepared by DG 2024-10-30

Map 65: Map of Archaeological Potential and Recommendations (Section 33 of 34)

Map 66: Map of Archaeological Potential and Recommendations (Section 34 of 34)