1.0 PROJECT REPORT COVER PAGE

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PROJECT INFORMATION:

AMICK Project Number:	12069-P
MTC Project Number:	P058-912-2012
Investigation Type:	Stage 1-2 Archaeological Assessment
Project Name:	Central Grand Marais Drain EA
Project Location:	Dougall Avenue to West of Atkinson Street and West of Byng Road to Turner Road, Part of Lots 86, 87 & 96 Concession 2, Part Lots 80-86, Concession 3, Part of the Road Allowance between Lots 86, Concessions 2 & 3 and Part of the Road Allowance (Howard Avenue) between Lots 85 & 86, Concession 3 (Geographic Township of Sandwich, County of Essex), City of Windsor

APPROVAL AUTHORITY INFORMATION:

File Designation Number:	Municipal Class EA Project No. 12-006

REPORTING INFORMATION:

Site Record/Update Forms:	N/A
Date of Report Filing:	21 February 2013
Type of Report:	ORIGINAL

2.0 EXECUTIVE SUMMARY

This report describes the results of the 2012 Stage 1-2 Archaeological Assessment of the Central Grand Marais Drain (Project 12-006), Dougall Avenue to West of Atkinson Street and West of Byng Road to Turner Road, Part of Lots 86, 87 & 96 Concession 2, Part Lots 80-86, Concession 3, Part of the Road Allowance between Lots 86, Concessions 2 & 3 and Part of the Road Allowance (Howard Avenue) between Lots 85 & 86, Concession 3 (Geographic Township of Sandwich, County of Essex), City of Windsor, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a component study of a Municipal Class EA as part of the pre-submission process under the Ontario Environmental Assessment Act (RSO 1990b). All work was conducted in conformity with the Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 03 October 2012. The study area was subject to reconnaissance, photographic documentation and physical assessment on 07 October 2012 consisting of high-intensity test pit survey at an interval of ten metres between individual test pits in order to confirm disturbance. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario.

As a result of the physical assessment of the property, no archaeological resources were encountered. Consequently, it is recommended that the proposed undertaking be considered cleared of any further requirement for archaeological fieldwork. Any current or future condition of development respecting archaeological resources should be considered as addressed.

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4.0 PROJECT PERSONNEL

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5.0 PROJECT BACKGROUND

5.1 Development Context

This report describes the results of the 2012 Stage 1-2 Archaeological Assessment of the Central Grand Marais Drain (Project 12-006), Dougall Avenue to West of Atkinson Street and West of Byng Road to Turner Road, Part of Lots 86, 87 & 96 Concession 2, Part Lots 80-86, Concession 3, Part of the Road Allowance between Lots 86, Concessions 2 & 3 and Part of the Road Allowance (Howard Avenue) between Lots 85 & 86, Concession 3 (Geographic Township of Sandwich, County of Essex), City of Windsor, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a component study of a Municipal Class EA as part of the pre-submission process under the Ontario Environmental Assessment Act (RSO 1990b). All work was conducted in conformity with the Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

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5.2 Historical Context

As part of the present study, background research was conducted in order to determine the archaeological potential of the proposed project area.

"A Stage 1 background study provides the consulting archaeologist and Ministry report reviewer with information about the known and potential cultural heritage resources within a particular study area, prior to the start of the field assessment."

(OMCzCR 1993)

The evaluation of potential is further elaborated Section 1.3 of the Standards and Guidelines for Consultant Archaeologist (2011) prepared by the Ontario Ministry of Tourism and Culture:

" The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property's archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment."

(MTC 2011: 17)

Features or characteristics that indicate archaeological potential where found anywhere on the property include:

" - previously identified archaeological sites

- *water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.):*
    - *primary water sources (lakes, rivers, streams, creeks)*
    - *secondary water sources (intermittent streams and creeks, springs, marshes, swamps)*
    - *features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)*
    - *accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)*
- *elevated topography (e.g., eskers, drumlins, large knolls, plateaux)*
- *pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground*
- *distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.*
- *resource areas, including:*
    - *food or medicinal plants (e.g., migratory routes, spawning areas, prairie)*
    - *scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)*
    - *early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)*
- *areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.*
- *Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)*
- *property listed on a municipal register or designated under the Ontario Heritage Actor that is a federal, provincial or municipal historic landmark or site*

- *property that local histories or informants have identified with possible archaeological sties, historical events, activities, or occupations"*

(MTC 2011: 17-18)

The evaluation of potential does not indicate that sites are present within areas affected by proposed development. Evaluation of potential considers the possibility for as yet undocumented sites to be found in areas that have not been subject to systematic archaeological investigation in the past. Potential for archaeological resources is used to determine if physical assessment of a property or portions of a property is required.

> *"Archaeological resources not previously documented may also be present in the affected area. If the alternative areas being considered, or the preferred alternative selected, exhibit either high or medium potential for the discovery of archaeological remains an archaeological assessment will be required."*
>
> (MCC & MOE 1992: 6-7)

> *"The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property's archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment."*
>
> (MTC 2011: 17)

In addition, the collected data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the significance of any resources that might be encountered during the conduct of the present study. The requisite archaeological sites data was collected from the Programs and Services Branch, Culture Programs Unit, MTC and the corporate research library of AMICK Consultants Limited

5.2.1 Current Conditions

The study area consists of an open concrete drain running west to east in two discrete segments from Dougall Avenue to West of Atkinson Street being the western stretch, and West of Byng Road to Turner Road being the eastern stretch. The two segments under consideration within this study largely follow the former historic settlement road, known as Marais Road (see Figure 2), which was established adjacent to Turkey Creek. The Central Grand Marais Drain under consideration in this study is essentially the excavated and stone-lined channel of a section of this natural stream course. Residential zones bound the study area to the north of the western stretch east of Howard Avenue and also to the south of the eastern stretch (West of Byng Road to Turner Road). The north side of the eastern stretch is adjacent to vacant former residential land. The south side of the western stretch on the east side of Howard Avenue is bounded on the west by Howard Park and a Union Gas valve station and on the east by industrial development. The Grand Marais Drain turns south at Howard Park and enters an underground culvert passing under E.C. Row Expressway. It emerges from underground to the south of E. C. Row Expressway and west of Howard

Avenue briefly before entering a belowground culvert again to pass under the E. C. Row Eastbound Off-ramp to Howard Avenue. The drain then passes by a commercial retail plaza to the south and vacant land to the north before entering a culvert beneath multiple railway tracks. It then passes under South Cameron Boulevard. The drain emerges again with vacant land to the north and West Grand Boulevard to the south. On the north side beyond the vacant land, the drain is bounded by a commercial retail plaza immediately before Dougall Avenue. The Grand Marais Drain enters an underground culvert to pass beneath Dougall Avenue.

A map of the location of the study area is included within this report as Figure 1. A Plan of the study area is included as Figure 3 of this report.

5.2.2 General Historical Outline

Essex County was among the first areas of Ontario to be settled. The original settlers were primarily disbanded French soldiers or former fur traders. Permanent settlement began on what was to become the Canadian side of the Detroit River in 1747, at this time these lands were largely inhabited by native peoples, both the Huron and the Ottawa had villages in the area.

Sandwich was one of the original towns in Essex County and grew up across the river from the fort on the Detroit side. Although settlement had begun earlier the town of Sandwich was established in 1796 when the British gave up Detroit in accordance with the Jay Treaty. Many of the early settlers were Loyalists who chose to remain loyal to the crown and settled therefore on the Canadian side of the river. In 1845 an act to better define counties and townships in Ontario defined the Boundaries of the Township of Sandwich. (www.windsor-essex.info)

The City of Windsor is currently undertaking a master plan of archaeological resources as a tool to aid in the conservation of archaeological sites within the city. A planning report entitled, Archaeological Master Plan Study Report for the City of Windsor, was prepared by Culture Resource Management Group Limited, Fisher Archaeological Consulting, Historic Horizon Inc., and Dillon Consulting Limited (CRM Group 2005). This initial document offers planning guidance and explains general principles to follow in the conservation and management of archaeological resources pending the release of the final master plan. In particular, archaeological potential modeling is discussed with respect to determining areas within the City of Windsor that have archaeological potential.

The Archaeological Master Plan Study Report for the City of Windsor, uses several criteria to propose two different models for determining archaeological potential for Precontact Native Settlement and Historic Period Settlement. The Native model is based on environmental and geomorphological criteria while the Euro-Canadian model is based on known settlement locations drawn from historic mapping and other archival sources. The two models were used in combination to create an archaeological potential map for the city of Windsor, taking into account major landscape alterations for development, which were

omitted from the final archaeological potential map (CRM Group 2005).

The Native model for determining archaeological potential in the Windsor area relies on eight main criteria: Glacial Geomorphology; Quaternary Geology; Soils; Drainage; Topography; Proximity to Water; Drainage Order; and Native Trails. These criteria are discussed in detail in the Archaeological Master Plan Study Report for the City of Windsor.

The Euro-Canadian model for determining archaeological potential in the Windsor area relies on historic 18th and 19th century maps as well as the determination of archaeological site significance, following a general practice that Euro Canadian sites are archaeologically significant prior to the mid-19th century. These criteria are explained in detail in the Archaeological Master Plan Study Report for the City of Windsor.

Figure 2 illustrates the location of the study area and environs as of 1881. There are structures and historic transportation routes in the vicinity of the study area. Accordingly, it has been determined that there is potential for archaeological deposits related to early Euro-Canadian settlement within the study area.

5.2.2 Summary of Historical Context

The brief overview of documentary evidence readily available indicates that the study area is situated within an area that was close to the historic transportation routes and in an area well populated during the nineteenth century and as such has a high potential for sites relating to early Euro-Canadian settlement in the region. Background research indicates the property has high potential for significant archaeological resources of Native origins.

5.3 Archaeological Context

The Archaeological Sites Database administered by MTC indicates that there are no (0) previously registered archaeological sites within one (1) kilometre of the study area. However, it must be noted that this is based on the assumption of the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTC. In addition, it must also be noted that the lack of formerly documented sites does not indicate that there are no sites present as the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

Background research shows that one (1) previous study has taken place within 50m of the study area. For further information see:

AMICK Consultants Limited (2012) *Stage 1-2 Archaeological Assessment of Grand Marais Drain EA Dougall Avenue to West of Huron Church Road, Lots 43-46 Concession 2 and Lots 64-80 Concession 3, Class Environmental Assessment (Geographic Township of Sandwich, County of Essex), City of Windsor.* London, Ontario. Archaeological License Report on File with the Ministry of Tourism, Culture and Sport, Toronto, Ontario.

5.3.1 Registered First Nations Archaeological Sites

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTC. As a result it was determined that no (0) archaeological sites relating directly to First Nations habitation/activity had been formally documented within the immediate vicinity of the study area. However, the lack of formally documented archaeological sites does not mean that First Nations people did not use the area; it more likely reflects a lack of systematic archaeological research in the immediate vicinity.

The distance to water criteria used to establish potential for archaeological sites suggests potential for First Nations occupation and land use in the area in the past. This consideration establishes archaeological potential within the study area.

5.3.2 Registered Euro-Canadian Archaeological Sites

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTC. As a result it was determined that no (0) archaeological sites relating directly to Euro-Canadian habitation/activity had been formally documented within the immediate vicinity of the study area. However, the lack of formally documented archaeological sites does not mean that early Euro-Canadian occupants did not use the area; it more likely reflects a lack of systematic archaeological research in the immediate vicinity.

TABLE 1 Cultural Chronology for South-Central Ontario

Period		Group	Date Range	Traits
Palaeo-Indian		Fluted Point	9500-8500 B.C.	Big game hunters.
		Hi-Lo	8500-7500 B.C.	Small nomadic groups.
Archaic	Early		8000-6000 B.C	Hunter-gatherers.
	Middle	Laurentian	6000-200 B.C.	Territorial divisions arise.
	Late	Lamoka	2500-1700 B.C.	Ground stone tools appear.
		Broadpoint	1800-1400 B.C.	
		Crawford Knoll	1500-500 B.C.	
		Glacial Kame	c.a. 1000 B.C.	Elaborate burial practices.
Woodland	Early	Meadowood	1000-400 B.C.	Introduction of pottery.
		Red Ochre	1000-500 B.C.	
	Middle	Point Peninsula	400 B.C.-500 A.D.	Long distance trade.
		Princess Point	500-800 A.D.	Horticulture.
	Late	Pickering	800-1300 A.D.	Villages and agriculture.
		Uren	1300-1350 A.D.	Larger villages.
		Middleport	1300-1400 A.D.	
		Huron	1400-1650 A.D.	Warfare
Historic	Early	Odawa, Ojibwa	1700-1875 A.D.	Social displacement.
	Late	Euro-Canadian	1785 A.D.+	European settlement.

5.3.3 Location and Current Conditions

This report describes the results of the 2012 Stage 1-2 Archaeological Assessment of the Central Grand Marais Drain (Project 12-006), Dougall Avenue to West of Atkinson Street and West of Byng Road to Turner Road, Part of Lots 86, 87 & 96 Concession 2, Part Lots 80-86, Concession 3, Part of the Road Allowance between Lots 86, Concessions 2 & 3 and Part of the Road Allowance (Howard Avenue) between Lots 85 & 86, Concession 3 (Geographic Township of Sandwich, County of Essex), City of Windsor, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a component study of a Municipal Class EA as part of the pre-submission process. All work was conducted in conformity with the Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

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A map of the location of the study area is included within this report as Figure 1. A Plan of the study area is included as Figure 3 of this report.

5.3.4 Physiographic Region

The study area is within the St. Clair Clay Plains. The St. Clair clay plains cover 2, 270 square miles including the Counties of Essex, Kent and Lambton. The region has little relief varying between 575 and 700 feet above sea level in most areas. The counties of Lambton and Essex are till plains, which have been smoothed by deposits of lacustrine clay that has settled in depressions as a result of glacial lakes Whittlesey and Warren, which covered the whole area. A deep cover of overburden lies on the bedrock creating good conditions for vegetation (Chapman and Putnam 1984: 147-148).

5.3.5 Surface Water

Sources of potable water, access to waterborne transportation routes, and resources associated with watersheds are each considered, both individually and collectively to be the highest criteria for determination of the potential of any location to support extended human activity, land use, or occupation. Accordingly, proximity to water is regarded as the primary indicator of archaeological site potential. The Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

The whole project area is a concrete drain channel that follows the natural watercourse Turkey Creek.

According to the map produced for the Archaeological Master Plan Study Report for the City of Windsor the Grand Marais Drain runs through both areas of high and low potential. The archaeological potential is considered to be low for the western stretch of the study area to the south and west of Howard Park. The east stretch of the study area (west of Byng Road to Turner Road) is in a zone designated as having high archaeological potential (see Figure 4).

5.3.6 Summary

Background research indicates the vicinity of the study area has potential for archaeological resources of Native origins based on proximity to a source of potable water in the past. Background research also suggests potential for archaeological resources of Euro-Canadian origins.

According to the Archaeological Potential Map produced for the Archaeological Master Plan Study Report for the City of Windsor, portions of the study area are in zones of high archaeological potential (Fig. 3).

Archaeological potential does not indicate that there are necessarily sites present, but that environmental and historical factors suggest that there may be as yet undocumented archaeological sites within lands that have not been subject to systematic archaeological research in the past.

5.4 Current Conditions Context

Current characteristics encountered within an archaeological research study area determine if physical assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Physical Assessment should be conducted, if necessary. Conventional assessment methodologies include pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. For the purpose of determining where physical assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

5.4.1 Buildings and Structural Footprints

A building, in archaeological terms, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to physical assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed. Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (eg. a concrete garage pad), there is no practical means of assessing the area beneath the disturbed layer. However, if there were evidence to suggest that there are likely archaeological resources situated beneath the disturbance, alternative methodologies may be recommended to study such areas.

There are seven (7) box culverts within the study area, all within the western stretch (Dougall Avenue to west of Atkinson Street) serving as crossings for roads, footpaths, and railway lines. These enclosed channels of the Marais Drain are situated from East to West as follows: (1) a vehicle bridge at the North Service Road Ave; (2) a vehicle bridge beneath the Westbound Off-ramp to Howard Avenue from E. C. Row Expressway, E. C. Row Expressway, and Howard Avenue south of E. C. Row Expressway; (3) a vehicle bridge beneath the Eastbound Off-ramp from E. C. Row Expressway to Howard Avenue; (4) a vehicle bridge beneath multiple railway lines to the east of Grand Marias Road West; (5) a vehicle bridge beneath Grand Marias Road West; (6) a vehicle bridge beneath an entry lane to a commercial plaza parking lot on the north side of West Grand Boulevard; and (7) a vehicle bridge beneath Dougall Avenue. All the enclosed box culverts acting as bridges beneath roadways are late 20th century concrete structures spanning from one side of the project area to the other. Most of the vehicle bridges also support pedestrian walkways to either side of the road surface except for those segments beneath the E. C. Row Expressway and the Off-ramps to E. C. Row Expressway. These portions of the study area have no archaeological potential. There are no buildings within the project area.

5.4.2 Disturbance

Areas that have been subjected to extensive and deep land alteration that has severely damaged the integrity of archaeological resources are known as land disturbances. Examples of land disturbances are areas of "past quarrying, major landscaping, recent built and industrial uses, sewage and infrastructure development, etc." (MCL 2005: 15), as well as driveways made of either gravel or concrete, in-ground pools, and wells or cisterns. Utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. Areas containing below ground utilities are considered areas of disturbance, and are excluded from Stage 2 Physical Assessment. Disturbed areas are excluded from Stage 2 Physical Assessment due to no or low archaeological potential or because they are not assessable using conventional methodology.

The project study area was disturbed in its entirety.

Along the eastern stretch from west of Byng Road to Turner Road, the project area consisted of a stone lined drain channel, where the base material underlying the watercourse itself was not visible, but several meters up a steep slope and up to a meter beyond the break-in-slope at the top of the bank were rock lined with angular blast rock cobbles. On the north side of the drain the stone lined embankment and the top of the embankment, from one to 5 metres in width, was heavily overgrown with brush, small trees and weeds. Outside of this area, the area flattened out into a grass-covered area maintained as a lawn. On the south side of the drain, the brush growth was confined nearly to the top of the bank in most areas and an asphalt path ran parallel to the drain at a distance varying from 1 to 5 metres from the drain. This area was disturbed, and confirmed by test-pit survey done at 10m intervals.

The western stretch of the study area from Dougall Avenue to west of Atkinson Street can be considered in three segments. The first segment from the east edge of this stretch just west of Atkinson Street to the North Service Road is very similar in character to that described above for the eastern stretch of the study area. The second segment is a small area of open channel bounded by the E. C. Row Expressway to the north, Howard Avenue to the east and the Westbound Off-ramp from the E. C. Row Expressway to Howard Avenue to the South and West. Within this small segment the bottom of the channel, the steep slope rising from the bottom on the sides, and the break-n-slope at the top of the embankment are all composed of concrete. At the edge of the concrete at the top of the slope is a steel picket fence, planted trees and a manicured lawn to lend a park-like appearance to an otherwise completely artificial landscape. This bottom portion of the basin formed by the surrounding roadway embankments was subject to test pit survey. The steep and artificial slopes of the embankments were not assessed as they are both steep slopes and man-made earthworks of no archaeological potential. The third segment of the western stretch runs from the south side of the Eastbound Off-ramp from the E. C. Row Expressway to Howard Avenue to Dougall Avenue. This segment is very similar to that of the first segment of the western stretch and the eastern stretch of the study area. The area through which the drain passes between the Off-ramp and the driveway crossing at the commercial plaza east of Dougall

Avenue is much more overgrown than other areas and may be termed a woodlot area above the embankment for the purposes of assessment. However, although densely overgrown on recent history, this area too has been subject to extensive ground disturbance in the past. Between the driveway crossing and Dougall Avenue, there is considerable brush and weed growth along the slope of the embankment within the drain channel, but above the break-in-slope this area is maintained as a lawn. The entire accessible ground surface of the western stretch of the study area was disturbed, as confirmed by test-pit survey done at 10m intervals between individual test pits.

5.4.3 Low-Lying and Wet Areas

Landscape features that are covered by permanently wet areas, such as marshes, swamps, or bodies of water like streams or lakes, are known as low-lying and wet areas. Low-lying and wet areas are excluded from Stage 2 Physical Assessment due to inaccessibility.

The bottom of the drain was covered with of an unknown depth, which ran the length of the project area. It is not apparent from inspection of the drain what the bottom composition might be. In the areas of stone revetment it seems probable that the channel may have been improved through dredging but may the be silt bottom of Turkey Creek which has been prevented from erosion through the stone lining along the banks. In the areas of box culverts and underground culverts moving the waterway beneath extensive transportation networks it seems likely that the bottom would be of concrete to add strength to the entire structural system in these areas. In any event, the water-covered areas of the study corridor are considered to be areas that are permanently wet and cannot be assessed using conventional methodology. Outside of extenuating circumstances requiring specialized strategies and techniques, there is no requirement to assess such areas.

5.4.4 Steep Slope

Landscape which slopes at a greater than (>) 20 degree change in elevation, is known as steep slope. Areas of steep slope are considered uninhabitable, and are excluded from Stage 2 Physical Assessment.

Most of the project area contained slopes of greater than 20 degrees. The entire length of the drain contains side embankments that are steep slopes. From the surface of the water at the bottom of the drain to the break-in-slope at the top of the bank was consistently a steep slope far greater than 20 degrees and in open sections of the drain the embankment walls were lined with angular blast rock cobbles which also rendered the banks of the drain inaccessible to examination or testing.

5.4.5 Wooded Areas

Areas of the property that cannot be ploughed, such as natural forest or woodlot, are known as wooded areas. These wooded areas qualify for Stage 2 Physical Assessment, and are required to be assessed using test pit survey methodology.

The top of the banks of the drain from the Eastbound Off-ramp from the E. C. Row Expressway to Howard Avenue is an area largely composed of woodlot. This area is identified in the Archaeological Master Plan for the City of Windsor as an area of low-potential . However, there are indices of archaeological potential and considerable open areas that are not apparently disturbed without the benefit of field assessment. Consequently, it was determined to adopt a conservative and cautious approach and to assess this area as an area of archaeological potential based on the information in hand at the time of the Stage 2 physical assessment.

5.4.6 Ploughable Agricultural Lands

Areas of current or former agricultural lands, which have been ploughed in the past, are considered ploughable agricultural lands. Ploughing these lands regularly moves the soil around, which brings covered artifacts to the surface, easily identifiable during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall washing soil off any artifacts, the visibility of artifacts at the surface of recently worked field areas increases significantly. Pedestrian survey of ploughed agricultural lands is the preferred method of physical assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area contains no ploughable lands.

5.4.7 Lawn, Pasture, Meadow

Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be considered too small to warrant ploughing, (i.e. less than one hectare in area), such as yard areas surrounding existing structures, and land-locked open areas that are technically workable by a plough but inaccessible to agricultural machinery. These areas may also include open area within urban contexts that do not allow agricultural tillage within municipal or city limits or the use of urban roadways by agricultural machinery. These areas are required to be assessed using test pit survey methodology.

The study area contains extensive grass-covered areas along the margins of the drain which are maintained in a state analogous to lawn area. This is true of both sides of the drain immediately east of Dougall Avenue; both sides of the concrete lined drain area surrounded by the Eastbound Off-ramp from the E. C. Row Expressway to Howard Avenue, the E. C.

Row Expressway, and Howard Avenue; both sides of the drain from North Service Road to the west of Atkinson Street; and the area between Turner Road and west of Byng Road.

6.0 FIELD METHODS

This report confirms that the entirety of the study area was subject to visual inspection, and that the fieldwork was conducted according to the archaeological fieldwork standards and guidelines, including weather and lighting conditions. The property reconnaissance and assessment were completed in ideal conditions under cloudy skies on 04 October 2012. The temperature at the time of the reconnaissance and assessment was 17°C. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 5-8 of this report. Upon completion of the field reconnaissance of the study area, it was determined that select areas would require Stage 2 archaeological assessment consisting of test pit survey methodology.

6.1 Photo Reconnaissance

A detailed examination and photo documentation was carried out on the study area in order to document the existing conditions of the study area to facilitate Stage 2 assessment. All areas of the study area were visually inspected and photographed. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 5-8 of this report.

6.2 Test Pit Survey

In accordance with the Standards and Guidelines for Consultant Archaeologists, test pit survey is required to be undertaken for those portions of the study area where deep prior disturbance had not occurred prior to assessment or which were accessible to survey. Test pit survey is only used in areas that cannot be subject to ploughing or cultivation. This report confirms that the conduct of test pit survey within the study area conformed to the following standards:

> *1. Test pit survey only on terrain where ploughing is not possible or viable, as in the following examples:*
> *a. wooded areas*
> [The study area wooded areas were subject to test pit survey]
>
> *b. pasture with high rock content*
> [Not Applicable - The study area does not contain any pastures with high rock content]
>
> *c. abandoned farmland with heavy brush and weed growth*
> [Not Applicable - The study area does not contain any abandoned farmland with heavy brush and weed growth]

d. orchards and vineyards that cannot be strip-ploughed (planted in rows 5 m apart or less), gardens, parkland or lawns, any of which will remain in use for several years after the survey
[Not Applicable - The study area does not contain any of the above mentioned circumstances]

e. properties where existing landscaping or infrastructure would be damaged. The presence of such obstacles must be documented in sufficient detail to demonstrate that ploughing or cultivation is not viable.
[All areas where existing landscaping or infrastructure would be damaged were test pit at an interval of 5 metres between individual test pits]

f. narrow (10 m or less) linear survey corridors (e.g., water or gas pipelines, road widening). This includes situations where there are planned impacts 10 m or less beyond the previously impacted limits on both sides of an existing linear corridor (e.g., two linear survey corridors on either side of an existing roadway). Where at the time of fieldwork the lands within the linear corridor meet the standards as stated under the above section on pedestrian survey land preparation, pedestrian survey must be carried out. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.
[The narrow strips of accessible ground at the top of each bank were the only locations in the project area deemed to be assessable or requiring assessment. Test-pit survey began at 5m intervals and if the area was found to be disturbed, assessment continued at 10m intervals to confirm continued disturbance]

2. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.
[All test pits were spaced at an interval of 5m between individual test pits, until areas were deemed disturbed, when the interval was increased to 10m to confirm continued disturbance]

3. Space test pits at maximum intervals of 10 m (100 test pits per hectare) in areas more than 300 m from any feature of archaeological potential.
[Not Applicable – no part of the study area is 300 metres or more from features indicating archaeological potential]

4. Test pit to within 1 m of built structures (both intact and ruins), or until test pits show evidence of recent ground disturbance.
[Not applicable – all areas assessed showed evidence of recent disturbance]

5. Ensure that test pits are at least 30 cm in diameter.
[All test pits were at least 30 cm in diameter]

> *6. Excavate each test pit, by hand, into the first 5 cm of subsoil and examine the pit for stratigraphy, cultural features, or evidence of fill.*
> [All test pits were excavated by hand into the first 5 cm of subsoil and examined for stratigraphy, cultural features, or evidence of fill]
>
> *7. Screen soil through mesh no greater than 6 mm.*
> [All soil was screened through mesh no greater than 6 mm]
>
> *8. Collect all artifacts according to their associated test pit.*
> [Not Applicable - No archaeological resources were encountered]
>
> *9. Backfill all test pits unless instructed not to by the landowner.*
> [All test pits were backfilled]
>
> (MTC 2011: 31-32)

The entire project lands could not be ploughed due to existing landscaping and infrastructure as well as the presence of disturbance so these areas were subject to a test pit survey at an interval of 5 metres between individual test pits.

Approximately 25% of the study area consisted of lawn area which was test pit at an interval of 5 metres between individual test pits, until evidence disturbance was encountered and then test pit survey continued at a 10 metre interval until the extent of the disturbance was identified. Approximately 25% of the study area was not assessable due to the presence of existing disturbance. Approximately 25% of the study area consisted of steep slope requiring no assessment and the remaining 25% consisted of low-lying wet area requiring no assessment.

To our current knowledge no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTC. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

6.3 Field Work Weather Conditions

The conduct of the Stage 1-2 Archaeological Assessment of the study area was completed in accordance with the above noted standards on 04 October 2012. The temperature was around 17°C. The work was completed under sunny skies. Weather conditions were appropriate for the conduct of archaeological fieldwork.

7.0 RECORD OF FINDS

7.1 Archaeological Resources

No archaeological resources of any description were encountered anywhere within the study area.

7.2 Archaeological Fieldwork Documentation

The documentation produced during the field investigation conducted in support of this report includes: four sketch maps, one page of photo log, one page of field notes, and 46 digital photographs.

8.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on September 26, 2011. The study area was subject to reconnaissance, photographic documentation and physical assessment on September 30, 2011, consisting of high-intensity test pit survey at an interval of ten metres between individual test pits in order to confirm disturbance. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario.

Section 7.7.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 132) outlines the requirements of the Analysis and Conclusions component of a Stage 1 Background Study.

1) *"Identify and describe areas of archaeological potential within the project area.*
2) *Identify and describe areas that have been subject to extensive and deep land alterations. Describe the nature of alterations (e.g., development or other activity) that have severely damaged the integrity of archaeological resources and have removed archaeological potential."*

8.1 Characteristics Indicating Archaeological Potential

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate archaeological potential (MTC 2011: 17-18). Factors which indicate archaeological potential are features of the local landscape and environment which may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would

necessitate a Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics are listed below together with considerations derived from the conduct of this study.

1) *Previously Identified Archaeological Sites*
   No previously registered archaeological sites have been documented in the vicinity of the study area.

2) *Water Sources*
   Primary water sources are describes as including lakes, rivers streams and creeks. Close proximity to primary water sources (300 metres) indicates that people had access to readily available sources of potable water and routes of waterborne trade and communication should the study area have been used or occupied in the past.

   Grand Marais Drain follows the natural watercourse of Turkey Creek that extends beyond the limits of the project area.

3) *Features Indicating Past Water Sources*
   Features indicating past water resources are described as including glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches. Close proximity (300 metres) to features indicating past water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

   The historical atlas shows that Turkey Creek runs along the study area.

4) *Accessible or Inaccessible Shoreline*
   This form of landscape feature would include high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.

   There are no shorelines within 300 metres of the study area.

5) *Elevated Topography*
   Features of elevated topography, which indicate archaeological potential, include eskers, drumlins, large knolls, and plateaux.

   There are no identified features of elevated topography within the study area.

6) *Pockets of Well-drained Sandy Soil*
   Pockets of sandy soil are considered to be especially important near areas of heavy soil or rocky ground.

There is very little soil within the study area. Where it does exist, it is dark brown silty clay with gravel inclusions.

7) *Distinctive Land Formations*

These are landscape features that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.

There are no identified distinctive land formations within the study area.

8) *Resource Areas*

Resource areas that indicate archaeological potential include food or medicinal plants (e.g., migratory routes, spawning areas, and prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert) and resources of importance to early Euro-Canadian industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) *Areas of Early Euro-Canadian Settlement*

These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.

Permanent Settlement began in the area 1747 while the Town of Sandwich was established in 1796.

10) *Early Historical Transportation Routes*

This includes evidence of trails, passes, roads, railways, portage routes.

The historic atlas shows that the study area is located within an area that was close to historic transportation routes. Marais Road, shown in the historic atlas, runs the length of the study area.

11) *Heritage Property*

Property listed on a municipal register or designated under the *Ontario Heritage Act* or is a federal, provincial or municipal historic landmark or site.

There are no listed or designated heritage buildings or properties which form a part of the study area.

12) *Documented Historical or Archaeological Sites*

This includes property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

The historic atlas map shows three structures in close proximity to the study area along the western stretch. Two of these are residences on the north side of the study area and one is a toll gate at the intersection of Marais Road and Howard Avenue. The documented presence of these structures in the immediate vicinity of the study area indicates potential for archaeological resources related to Eur-Canadian settlement to be found in the study area.

8.2 Characteristics Indicating Removal of Archaeological Potential

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MTC 2011: 18-19). These characteristics are listed below together with considerations derived from the conduct of this study.
The introduction of Section 1.3.2 (MTC 2011: 18) notes that *"Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as 'disturbed' or 'disturbance', and may include:"*

1) *Quarrying*
   There is no evidence to suggest that quarrying operations were ever carried out within the study area.

2) *Major Landscaping Involving Grading Below Topsoil*
   Unless there is evidence to suggest the presence of buried archaeological deposits, such deeply disturbed areas are considered to have lost their archaeological potential. Properties that do not have a long history of Euro-Canadian occupation can have archaeological potential removed through extensive landscape alterations which penetrate below the topsoil layer. This is because most archaeological sites originate at grade with relatively shallow associated excavations into the soil. First Nations sites and early historic sites are vulnerable to extensive damage and complete removal due to landscape modification activities. In urban contexts where a lengthy history of occupation has occurred, properties may have deeply buried archaeological deposits covered over and sealed through redevelopment activities which do not include the deep excavation of the entire property for subsequent uses. Buildings are often erected directly over older foundations preserving archaeological deposits associated with the earlier occupation.

Almost the entire project area has been subject to landscaping and grading. The drain follows a natural watercourse, however the banks and probably bottom have been paved with either stone or concrete.

3) *Building Footprints*
Typically, the construction of buildings involves the deep excavation of foundations, footings and cellars which often obliterate archaeological deposits situated close to the surface.

There are a total of seven 20th century bridges or box culverts in the project area, crossing the drain from North to South. There is no archaeological potential in these areas of major below ground disturbance.

4) *Sewage and Infrastructure Development*
Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation, which can remove archaeological potential.

Numerous minor drains feed into the Grand Marais Drain along the length of the study area. In addition, due to the proximity of active roadways and a Union Gas valve station, it is likely that numerous underground service and installations exist within close proximity to the drain and within the study area.

"Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential."

(MTC 2011: 18)

"Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment."

(MTC 2011: 18)

Table 2 below summarizes the evaluation criteria of the Ministry of Tourism and Culture together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of proximity to a water source, proximity to a former water source, proximity to an area of early settlement, and the proximity to early historic settlement roads.

Table 2 Evaluation of Archaeological Potential

FEATURE OF ARCHAEOLOGICAL POTENTIAL		YES	NO	N/A	COMMENT
1	Known archaeological sites within 300m		**N**		If Yes, potential determined
PHYSICAL FEATURES					
2	Is there water on or near the property?	**Y**			If Yes, what kind of water?
2a	Primary water source within 300 m. (lakeshore, river, large creek, etc.)	**Y**			If Yes, potential determined
2b	Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)		**N**		If Yes, potential determined
2c	Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)	**Y**			If Yes, potential determined
2d	Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		**N**		If Yes, potential determined
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		**N**		If Yes, and Yes for any of 4-9, potential determined
4	Pockets of sandy soil in a clay or rocky area		**N**		If Yes and Yes for any of 3, 5-9, potential determined
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		**N**		If Yes and Yes for any of 3-4, 6-9, potential determined
HISTORIC/PREHISTORIC USE FEATURES					
6	Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		**N**		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7	Early Euro-Canadian settlement area within 300 m.	**Y**			if Yes, and Yes for any of 3-6, 8-9, potential determined
8	Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)	**Y**			If Yes, and Yes for any 3-7 or 9, potential determined
9	Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		**N**		If Yes and, Yes to any of 3-8, potential determined
APPLICATION-SPECIFIC INFORMATION					
10	Local knowledge (local heritage organizations, First Nations, etc.)		**N**		If Yes, potential determined
11	Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)	**Y**			If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**
If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**
If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

8.3 Stage 2 Analysis and Recommendations

Section 7.8.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 138-139) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Physical Assessment.

1. *Summarize all finding from the Stage 2 survey, or state that no archaeological sites were identified.*
2. *For each archaeological site, provide the following analysis and conclusions:*
   a. *A preliminary determination, to the degree possible, of the age and cultural affiliation of any archaeological sites identified.*
   b. *A comparison against the criteria in 2 Stage 2: Property Assessment to determine whether further assessment is required*
   c. *A preliminary determination regarding whether any archaeological sites identified in Stage 2 show evidence of a high level cultural heritage value or interest and will thus require Stage 4 mitigation.*

No archaeological sites or resources were found during the Stage 2 survey of the study area.

9.0 RECOMMENDATIONS

9.1 Stage 1 Recommendations

Under Section 7.7.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 133) the recommendations to be made as a result of a Stage 1 Background Study are described.

1) Make recommendations regarding the potential for the property, as follows:
a. if some or all of the property has archaeological potential, identify areas recommended for further assessment (Stage 2) and areas not recommended for further assessment. Any exemptions from further assessment must be consistent with the archaeological fieldwork standards and guidelines.
b. if no part of the property has archaeological potential, recommend that the property does not require further archaeological assessment.
2) Recommend appropriate Stage 2 assessment strategies.

The study area has been identified as an area of archaeological potential.

1) The study area consists mainly of disturbed land, where a stone-lined basin has been installed within the original channel of Turkey Creek. Much of the property is steep slope. There are seven 20th century bridges or culverts within the study area, which do not require Stage 2 assessment. A thin strip of grass or woodlot exists on either side of the drain at the top of the slope at the edge of the project area. These areas at

the top of the slopes were determined to have potential and Stage 2 assessment was therefore conducted using test-pit methodology in accordance with the Standards and Guidelines governing the use of this method. Test pits measured a minimum of 30 centimeters in diameter and were dug at least 5 centimeters into the subsoil beneath the topsoil layer. All excavated earth was screened through 6 mm wire mesh to ensure that any artifacts contained within the soil matrix are recovered. All test pits were back filled and restored as much as was reasonably possible to the level of the surrounding grade.

9.2 Stage 2 Recommendations

Under Section 7.8.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 139) the recommendations to be made as a result o f a Stage 2 Physical Assessment are described.

1) *For each archaeological site, provide a statement of the following:*
   a. *Borden number or other identifying number*
   b. *Whether or not it is of further cultural heritage value or interest*
   c. *Where it is of further cultural heritage value or interest, appropriate Stage 3 assessment strategies*
2) *Make recommendations only regarding archaeological matters. Recommendations regarding built heritage or cultural heritage landscapes should not be included.*
3) *If the Stage 2 survey did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required.*

As a result of the physical assessment of the property, no archaeological resources were encountered. Consequently, it is recommended that the proposed development be considered cleared of any further requirement for archaeological fieldwork. Any current or future condition of development respecting archaeological resources should be considered as addressed.

10. ADVICE ON COMPLIANCE WITH LEGISLATION

While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

a. *This report is submitted to the Minister of Tourism and Culture 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 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 Ministry of Tourism and Culture, 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.*
b. *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 Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.*
c. *Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.*
d. *The Cemeteries Act, R.S.O. 1990, c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.*
e. *Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.*

11. BIBLIOGRAPHY AND SOURCES

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12. Maps

Figure 1 Location of the Study Area (Google Maps 2011)

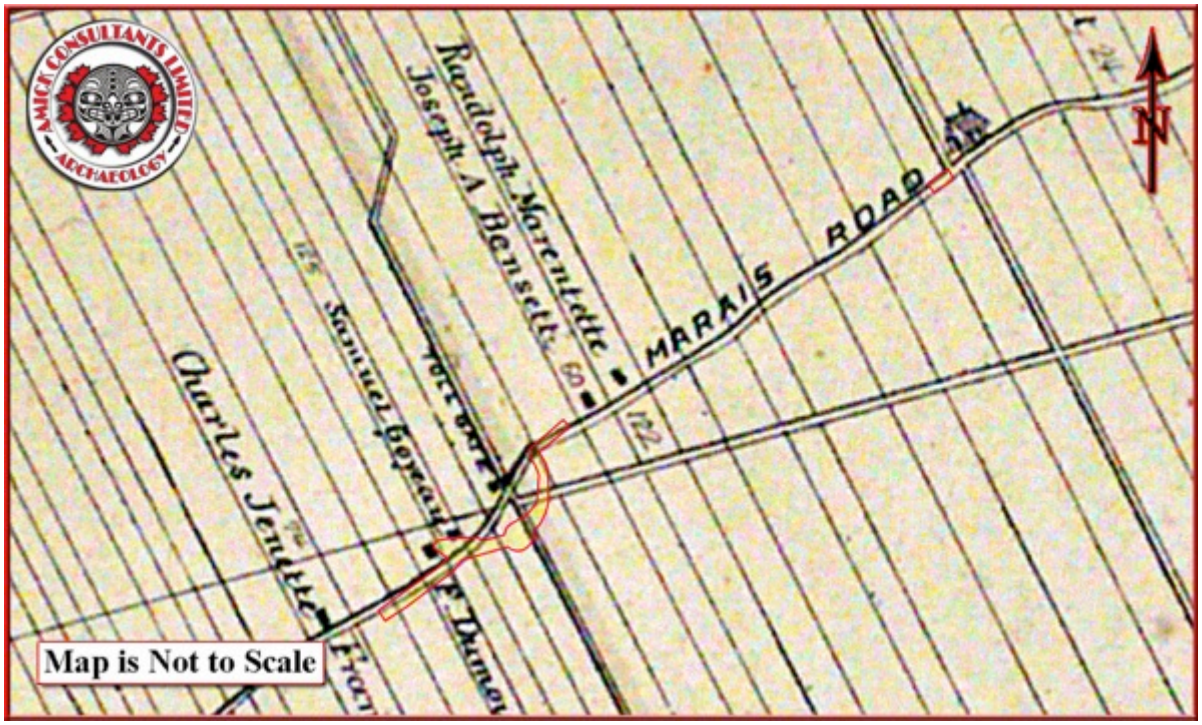

Figure 2 Segment of Historic Atlas Map for the Township of Sandwich (1881)
(H. Belden & Co. 1881)

Figure 3 Key Plan of Central Grand Marais Drain Improvements (Landmark Engineers Inc. 2012)

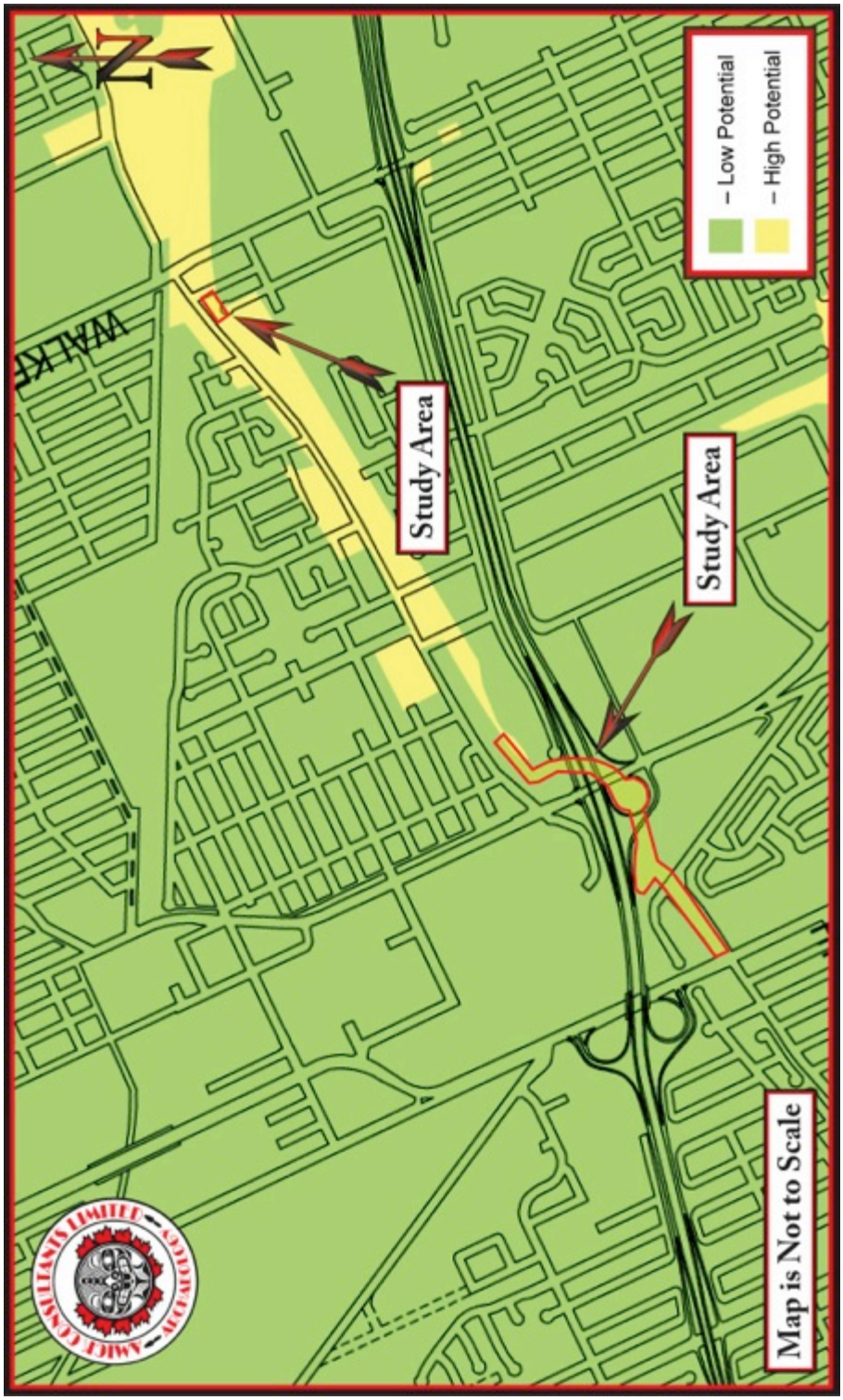

Figure 4 Segment of the Archaeological Potential Map from the Archaeological Master Plan Study Report for the City of Windsor

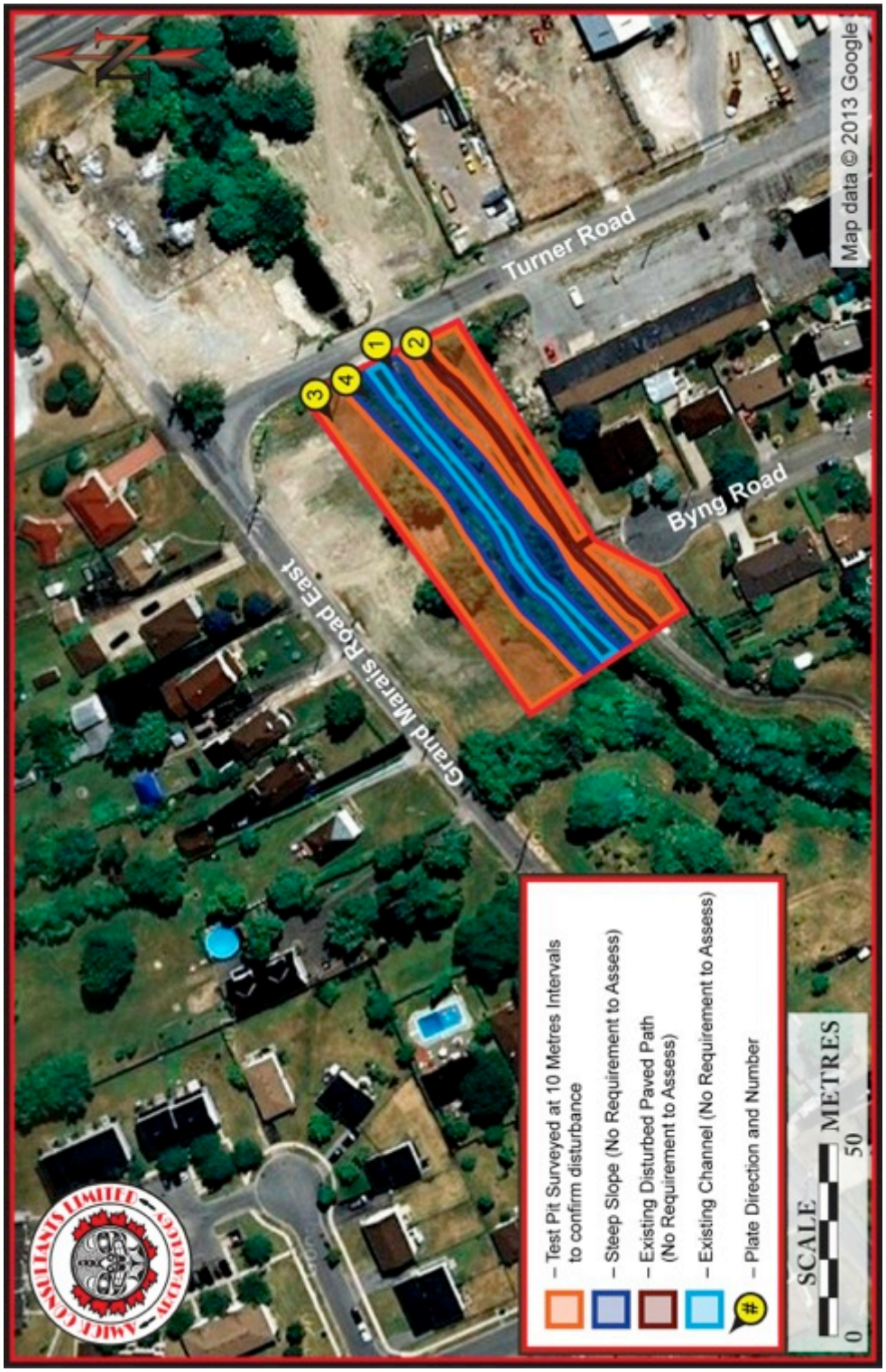

Figure 5 Segment of Study Area with Plate Locations

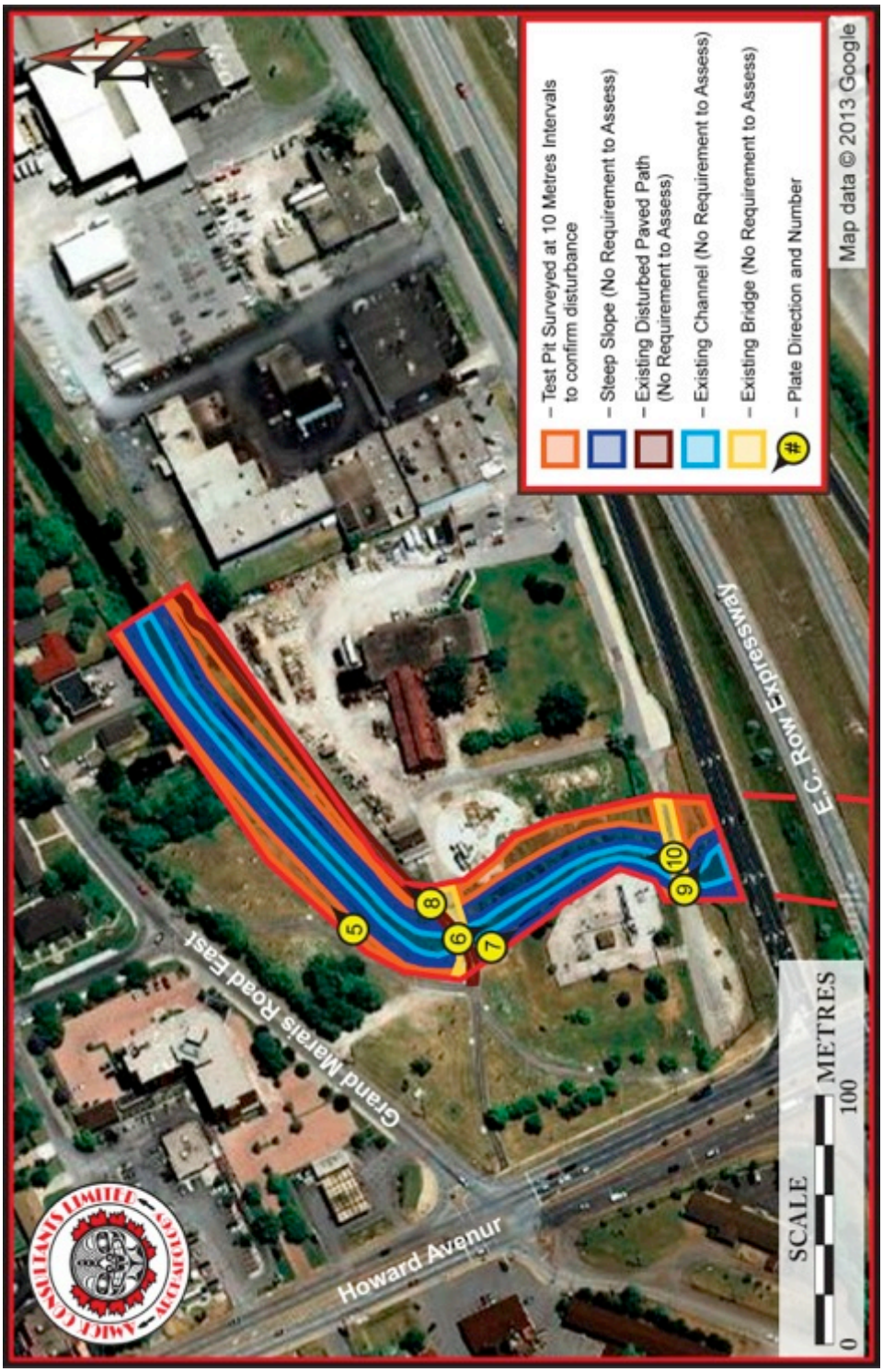

Figure 6 Segment of Study Area with Plate Locations

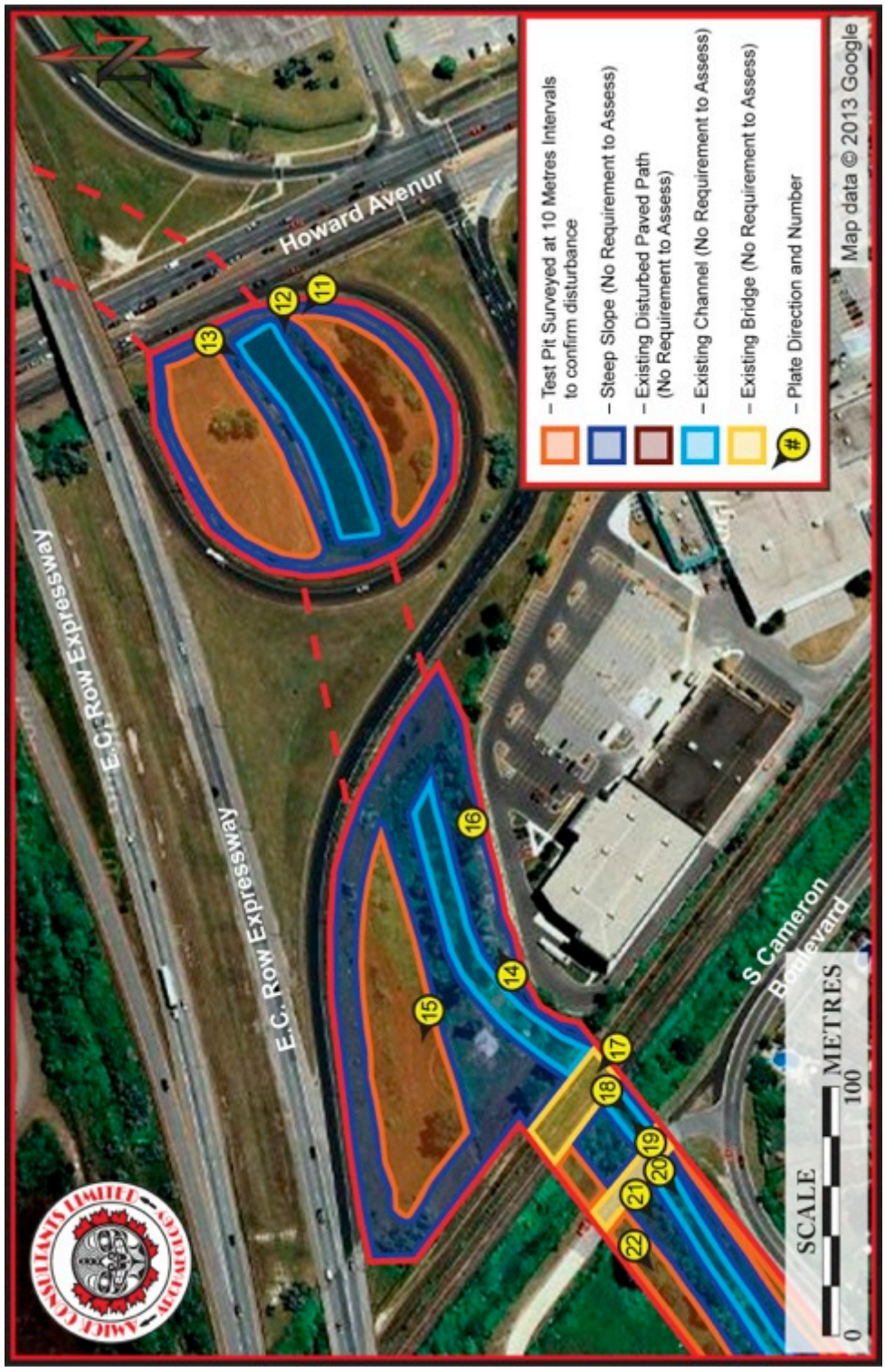

Figure 7 Segment of Study Area with Plate Locations

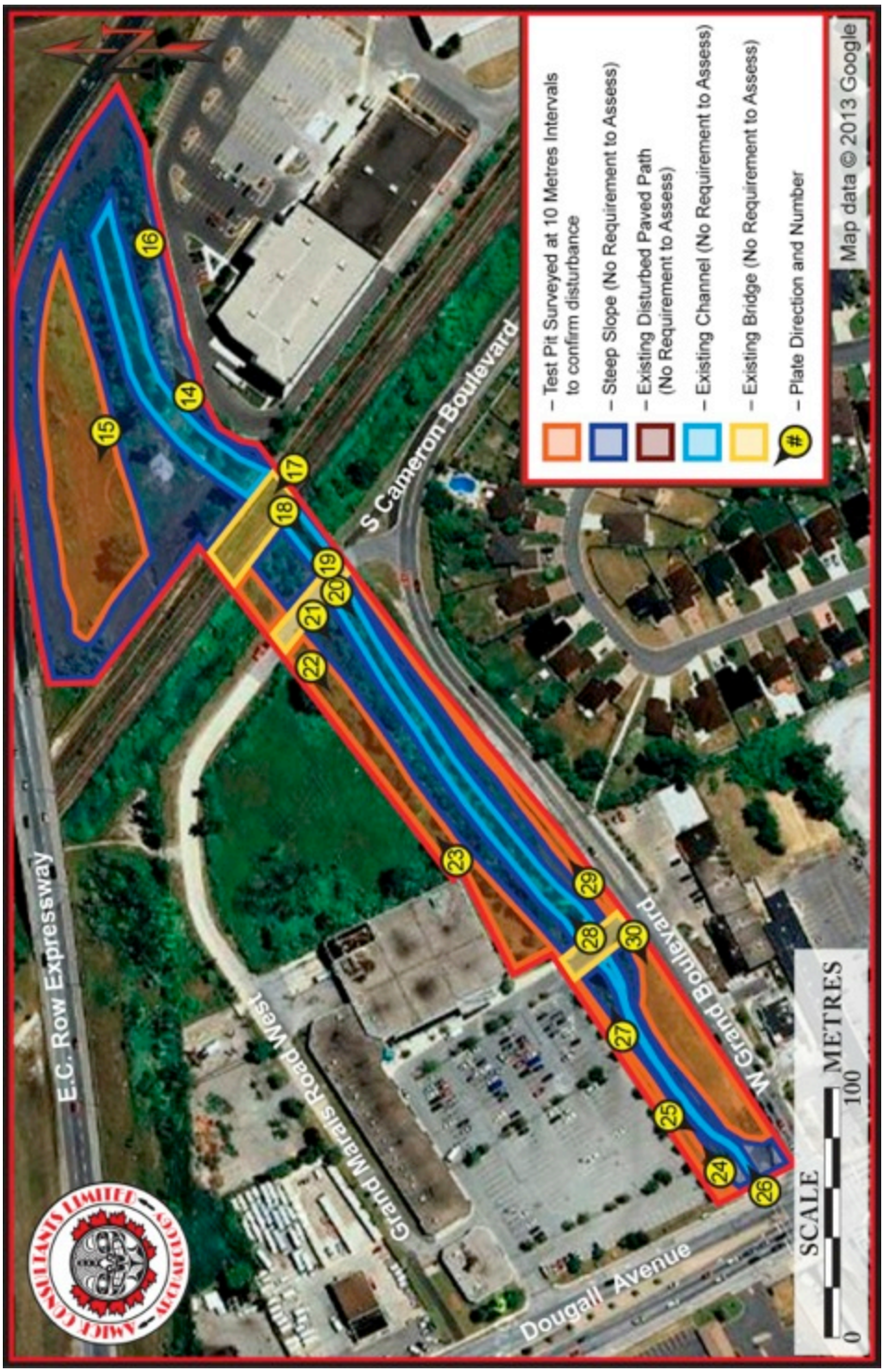

Figure 8 Segment of Study Area with Plate Locations

13. Images

Plate 1 Drain Embankment facing southwest

Plate 2 Trail and Grass Area of Test Pit Survey facing southwest

Plate 3 Grass Area of Test Pit Survey facing southwest

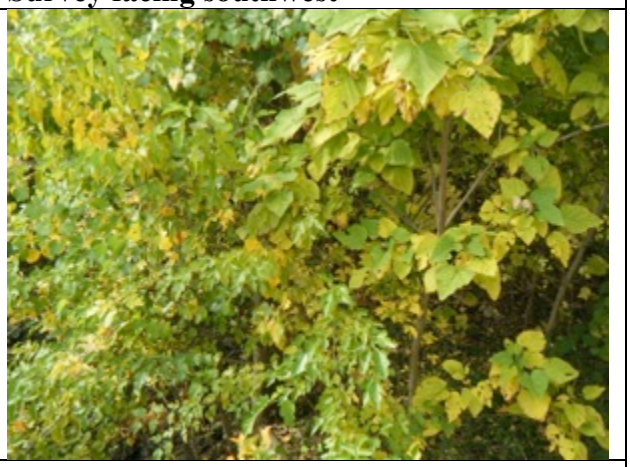

Plate 4 Tree Covered Area of Test Pit Survey facing southwest

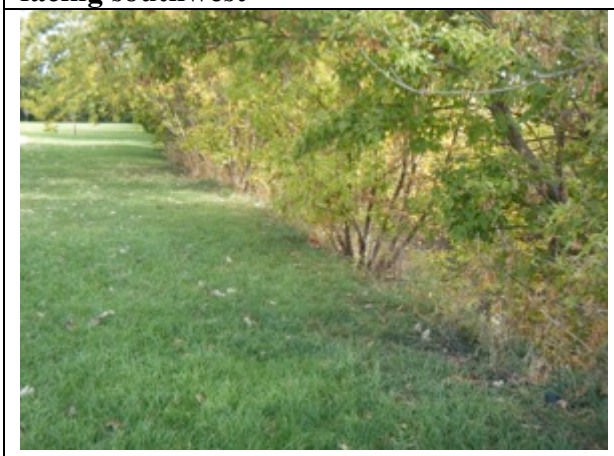

Plate 5 Grass Area of Test Pit Survey facing northeast

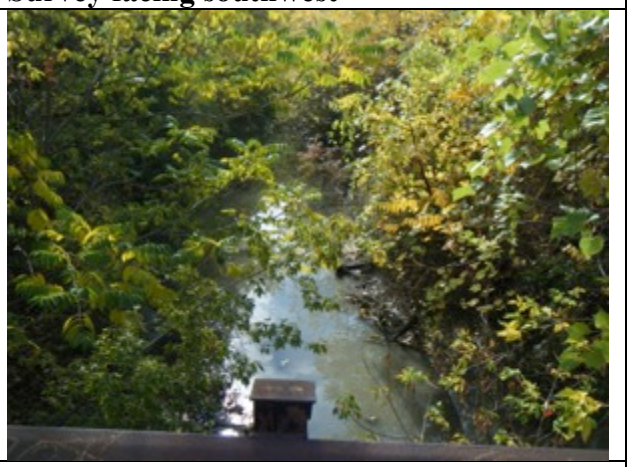

Plate 6 Drain Channel facing south

Plate 7 Drain Embankment facing south

Plate 8 Trail and Grass Area of Test Pit Survey facing northeast

Plate 9 Entry to Passage under E. C. Row Expressway facing southeast

Plate 10 Drain Channel facing north

Plate 11 Artificial Landscape South of E. C. Row Expressway facing northwest

Plate 12 Drain Channel facing west

Plate 13 Artificial Landscape South of E. C. Row Expressway facing southwest

Plate 14 Drain Embankment facing east

Plate 15 Grass Area of Test Pit Survey facing west

Plate 16 Drain Embankment facing east

Plate 17 Railway Corridor facing northwest

Plate 18 Drain Channel facing southwest

Plate 19 Drain Channel facing northeast

Plate 20 Drain Channel facing southwest

Plate 21 Drain Embankment facing southwest

Plate 22 Tree Covered Area of Test Pit Survey facing southwest

Plate 23 Tree Covered Area of Test Pit Survey facing northeast

Plate 24 Drain Embankment facing northeast

Plate 25 Drain Channel facing southwest

Plate 26 Drain Channel facing northeast

Plate 27 Plaza Parking Lot Bridge facing northeast

Plate 28 Drain Channel facing northeast

Plate 29 Grass Area of Test Pit Survey facing northeast

Plate 30 Grass Area of Test Pit Survey facing southwest