

**The 2011 Stage 2 Archaeological Assessment of the
Proposed Alliston Reinforcement Project,
Town of New Tecumseh,
Town of Bradford West Gwillimbury,
Town of Innisfil and Township of Essa
Simcoe County,
Ontario**

Submitted to

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- **Joseph Carnevale**, MES Planning; Dillon Consulting Limited; and
- **Jim Sherratt**, Archaeological Review Officer, Culture Programs Unit, Ontario Ministry of Tourism and Culture.

Executive Summary

Dillon Consulting Limited (Dillon) has been retained by Enbridge Gas Distribution Inc. (EGDI) to prepare an Environmental and Socio-Economic Assessment Report for a project involving approximately 9,000 metres of buried natural gas pipelines east of Alliston, Ontario. The construction project proposed by EGDI is named the Alliston Reinforcement Project. It is required to meet increasing demand for natural gas service for Alliston, Ontario.

As part of the overall assessment, Dillon contracted D.R. Poulton & Associates Inc. to carry out an archaeological assessment of the proposed undertaking. The initial archaeological assessment consisted of a Stage 1 background study. It considered data for two alternative alignments, designated Alternative Route 1 and Alternative Route 2. Of these, Dillon determined that Alternative Route 1 is the Preferred Route for the proposed pipeline.

One objective of the Stage 1 assessment was to obtain information on the presence or absence of past investigations and previously documented sites within the study area and in proximity to the preferred and alternative pipeline routes. A second objective was to determine the relative potential of the study area and the two proposed pipeline routes to contain as-yet undiscovered archaeological resources that could represent potential constraints for the proposed pipeline.

The results of the Stage 1 background study are documented in a report of May 10, 2011 by D.R. Poulton & Associates Inc. (2011). As detailed in Stage 1 report, the background study determined that no past archaeological investigations had been carried out within the lands that will be subject to impact from the proposed pipeline reinforcement. However, it also determined that the proposed alignment is located in an area that has a moderate to high potential for as-yet undiscovered archaeological remains. The Stage 1 study recommended that a Stage 2 archaeological survey of the preferred alignment be carried out in order to confirm the presence or absence of archaeological remains that could represent potential constraints to the proposed pipeline construction. The survey was conducted in the summer of 2011. This report details the rationale, methods and results of the Stage 2 survey.

As it evolved, consultation with Dillon Consulting Limited determined that the construction easement for the proposed pipeline will be located within the gravel shoulder of the existing road and the Highway 89 rights-of-way and/or under the adjacent road bed (c.f. page 14). The roads and the highway will be used for the working easement. The Stage 2 survey included a visual examination and photo-documentation of the corridor as well as judgemental test pitting of segments of the shoulder that appeared to have some potential for extant archaeological remains (c.f. page 16). The results confirmed that the entire corridor has been disturbed by past road and highway grading and by underground utilities construction (c.f. page 16). No archaeological remains were discovered during the course of the survey (c.f. pages 16, 18).

Standard 3 of Section 7.8.4 of the standards and guidelines states the following with respect to the recommendations that are to be presented in Stage 2 survey reports: *"If the Stage 2 did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required"* (Ministry of Tourism and Culture 2011: 13). As that was the case for the present assessment, it is the finding of this assessment that recommended that there are no outstanding archaeological planning concerns for the proposed

pipeline (c.f. 19). It is further recommended that no further archaeological assessment should be required in advance of the construction of the proposed Alliston Reinforcement Pipeline (c.f. page 20).

Under the *Ontario Heritage Act* (1990a), it is a requirement of archaeological consulting licences that consultants prepare and submit assessment reports to the Ontario Ministry of Tourism and Culture. Archaeological Review Officers of the Ministry then review each report to ensure that the assessment and the report satisfy consulting licence requirements under the Act and other pertinent legislation, and that they conform to current archaeological standards and guidelines. If the report and the assessment do so conform, the pertinent Archaeological Review Officer then issues a letter confirming that and accepting the report into the Ontario Provincial Register of Archaeological Reports.

Further to the above, and as stated on page 20 of this report, it is recommended that the Ministry of Tourism and Culture issue a letter accepting the present report into the Ontario Provincial Register of Archaeological Reports. It is also recommended that the letter include a statement of concurrence with the findings of this report. Finally, it is requested that a copy of the letter be forwarded to Joseph Carnevale, Dillon Consulting Limited. His e-mail address is JCarnevale@dillon.ca.

1.0 PROJECT CONTEXT

The 1993 technical guidelines for archaeological assessment formulated by the Ontario Ministry of Culture, Tourism and Recreation (MCTR 1993) (now the Ministry of Tourism and Culture) define four sequential stages in an archaeological assessment. The same applies to the standards and guidelines formulated by the Ministry of Tourism and Culture (2011), which came into effect on January 1, 2011. Stage 1 consists of background research to identify any past archaeological investigations or known sites. The background study also identifies the potential for as-yet undiscovered sites. Stage 2 consists of a field survey to confirm the presence or absence of archaeological sites. Stage 3 consists of a more detailed assessment of any sites that are of demonstrable or potential significance as heritage resources and planning concerns. Finally, Stage 4 consists of the mitigation of significant sites by preservation and avoidance or by the implementation of salvage excavations.

Section 7.2.3 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 115) states the following standard with respect to the reporting requirements for archaeological assessments: *"The final report must be filed in the form and manner as specified by the ministry in Section 7.5."* Section 7.5.1 of the standards and guidelines (Ministry of Tourism and Culture (2011: 121) further states the following standard with respect to the reporting requirements for archaeological assessments: *"All project reports must contain the sections listed in the first column of Table 7.1."* The present report conforms in all respects to the reporting requirements of the 2011 standards and guidelines.

Section 7.5.5 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 124) requires that the Project Context section of each report includes the context for the archaeological investigations and that it cover three main areas: development context; historical context; and archaeological context. They are covered in the three subsections of this section of the report that are presented below.

1.1 Development Context

The information contained in this section of the report is being presented to satisfy the standards that are set out in Section 7.5.6.1, 7.5.6.2 and 7.5.6.3 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 124-125).

Dillon Consulting Limited (Dillon) has been retained by Enbridge Gas Distribution Inc. (EGDI) to prepare an Environmental and Socio-Economic Assessment Report for a project involving approximately 9,000 metres of buried natural gas pipelines east of Alliston, Ontario. The construction project proposed by EGDI is named the Alliston Reinforcement Project. It is required to meet increasing demand for natural gas service for Alliston, Ontario. As part of the overall assessment, Dillon contracted D.R. Poulton & Associates Inc. to carry out an archaeological assessment of the proposed undertaking. The assessment was conducted prior to the submission for leave to construct.

The standard concerning permission for access that is specified in the standards and guidelines is as follows: “*Provide statements that the landowner or landowner’s representative (e.g. planner, engineer, lawyer) gave permission for the licensee to access the property to conduct all required archaeological fieldwork activities, including the recovery of artifacts, and state any limits placed on access (e.g. time limits, refusal of access to portions of property)*” (Ministry of Tourism and Culture 2011, Section 7.5.6.3, pages 125). In the present case, the Province of Ontario and the municipality of Cookstown granted leave to Enbridge Gas Distribution Inc. and Dillon Consulting Limited to conduct the environmental assessment of the proposed pipeline within the Highway 89 right-of-way and within the municipal road rights-of-way, respectively. As an agent of both EDG and Dillon, this granted D.R. Poulton & Associates Inc. permission to conduct the visual examination and Stage 2 survey within the pertinent highway and road rights-of-way and to recover artifacts from within them, if any were found during the course of the Stage 2 survey.

The Ontario Ministry of Tourism and Culture designated the Stage 2 assessment of the Alliston Reinforcement Pipeline as PIF #P316-135-2011. The assessment was conducted under Archaeological Consulting Licence #P316, issued by the Province of Ontario to Sherri Pearce of D.R. Poulton & Associates Inc. It was carried out in accordance with the *Guidelines for the Location, Construction and Operation of Hydrocarbon Facilities in Ontario* (Ontario Energy Board 2011), and with the provisions of the *Ontario Heritage Act* (Government of Ontario RSO 1990a), the *Environmental Assessment Act* (Government of Ontario 1990b), and the technical standards and guidelines for archaeological assessment formulated by the Ontario Ministry of Tourism and Culture (2011).

Further to the above, the assessment was conducted in accordance with the 2005 Provincial Policy Statement 2.6.2, which has provisions for the conservation of archaeological resources, a definition of the same, and provisions for archaeological assessments. Finally, it was conducted in accordance with the Ontario Ministry of Culture’s 2006 Heritage Tool Kit, most particularly with respect to Infosheet #3 and Infosheet #6; they detail provisions for the conservation of archaeological resources and provisions for heritage impact statements, respectively.

The records pertaining to this project are currently housed in the corporate offices of D.R. Poulton & Associates Inc. If the opportunity permits, however, the project archive will be transferred to a suitable long term repository. Potential repositories include local or other museums and the storage facilities maintained by the Toronto office of the Ontario Ministry of Tourism and Culture.

1.2 Historical Context

As stated previously, Dillon Consulting Limited retained D.R. Poulton & Associates Inc. to carry out an archaeological assessment of the proposed Alliston Reinforcement Project. The initial step in the archaeological assessment consisted of a background study. It was carried out in the spring of 2011 and considered data for two alternative alignments, designated Alternative Route 1 and Alternative Route 2; of these, the first is the Preferred Route.

One objective of the Stage 1 assessment was to obtain information on the presence or absence of past investigations and previously documented sites within the study area that surrounded the alternative pipeline routes. A second was to determine the relative potential of the study area and

the two alternative pipeline routes to contain as-yet undiscovered archaeological resources that could represent potential constraints for the proposed pipeline.

The results of the Stage 1 background study are documented in a report of May 10, 2011 by D.R. Poulton & Associates Inc. (2011). The authors of the report are Dana Poulton, Nancy VanSas and Sherri Pearce. The Stage 1 study was carried out under licence P316, issued to Sherri Pearce of D.R. Poulton & Associates Inc. The Ontario Ministry of Tourism and Culture designated the Stage 1 study PIF #316-104-2011. This information is presented herein to satisfy standard 7.5.7.2 of the Ministry's 2011 standards and guidelines (Ministry of Tourism and Culture 2011, page 125).

The Stage 1 background study consisted of a desk top study. It did not include an optional property inspection as defined in the Ministry's 2011 standards and guidelines (Ministry of Tourism and Culture 2011: Section 1.2, page 11). The results of the Stage 1 background study determined that a visual inspection and Stage 2 survey of the preferred route were warranted. They were conducted in the summer of 2011 and are the subject of the present report.

Following the current standards and guidelines, a required standard for the Historical Context section of a report is that it must include a statement concerning the rationale for the fieldwork strategy (Ministry of Tourism and Culture 2011: Section 7.5.7.2, page 125). In the present case, the alignment for the proposed pipeline is located within existing road and highway rights-of-way and is non-arable. In consequence, the field-based assessment was conducted by a visual examination and by judgemental shovel test pitting. The purpose was to confirm the presence or absence of archaeological remains and, if archaeological remains were determined to be present, to determine if they showed heritage value as defined in Table 3.2 of the standards and guidelines (Ministry of Tourism and Culture 2011: 60-61).

Further to the above, Section 7.5.7.1 of the current standards and guidelines requires that the Historical Context section of all reports must include a description of past and present land use of the area within which a proposed development is located as well as any other relevant historical information that was gathered during the course of the background research study (Ministry of Tourism and Culture 2011: 125). In the present case, this information was already presented in the report on the Stage 1 background study of the proposed pipeline (D.R. Poulton & Associates Inc. 2011: 7-11). However, as Standard 7.5.7.1 requires that it be included in all reports, the data on the history of land use that was presented in the Stage 1 background research report is reiterated below.

In the interest of context, brief summaries are included on the major environmental changes through time, and on the characteristics of settlement and subsistence patterns for the relevant time periods and cultures represented in the history of the area. For reference purposes, a cultural chronology of the region is presented in Table 1.

The Paleo-Indian Period (9500-7900 B.C.)

The first known human occupation of the province took place ca. 9500 B.C., following the retreat of the Wisconsin glacier. During this period, the environment in southern Ontario was

characterized by a cool climate. The vegetation, in transition from spruce to pine dominated forests, would have resembled the modern sub-arctic.

Table 1 Cultural Chronology of South-Central Ontario

PERIOD	GROUP	TIME RANGE	COMMENT
PALEO-INDIAN			
	Fluted Point Hi-Lo	9500 - 8500 B.C. 8300 - 7900 B.C.	Big game hunters; small nomadic groups
ARCHAIC			
Early	Nettling	7700-6900 B.C.	Nomadic hunters and gatherers.
	Bifurcate Base	6800 - 6000 B.C.	
Middle	Laurentian	3500 - 2500 B.C.	Transition to territorial settlements.
Late	Lamoka	2500 - 1800 B.C.	Polished/ground stone tools
	Broad Point	1800 - 1400 B.C.	
	Crawford Knoll	1500 – 500 B.C.	
	Glacial Kame	ca. 1000 B.C.	Burial ceremonialism
WOODLAND			
Early	Meadowood Red Ochre	1000 - 400 B.C. 1000 – 500 B.C.	Introduction of pottery
Middle	Point Peninsula Princess Point	300 B.C. - 500 A.D. 500 – 800 A.D.	Long distance trade networks. Incipient horticulture
Late	Pickering	800 – 1280 A.D.	Transition to village life and agriculture
	Uren	1280 - 1330 A.D.	Large village sites
	Middleport	1330 - 1400 A.D.	Widespread stylistic horizon
	Huron-Petun	1400 - 1651 A.D.	Tribal differentiation and warfare
HISTORIC			
Early	Odawa, Ojibwa, Mississauga, Six Nations	1700 - 1875 A.D.	Social displacement
Late	Euro-Canadian	1800 A.D. – present	European settlement

The initial occupation of southern Ontario by Paleo-Indian peoples took place toward the end of a period of high water levels in the Great Lakes, including Lake Algonquin in the Lake Huron Basin, early Lake Erie to the south and Lake Iroquois in the Lake Ontario Basin to the east. Based on radiocarbon dates, Lake Iroquois averages 12,000 years old. It drained south through

the Mohawk and Hudson valleys to the Atlantic Ocean. Water levels in Lake Iroquois were higher than in the present Lake Ontario and the relic Lake Iroquois shoreline is a prominent feature along the north shore of Lake Ontario. Within the City of Toronto, is it the height of land north of Davenport Road upon which Castle Loma is situated. Over time, the retreat of glaciers and isostatic rebound led to the opening of the North Bay outlet ca. 8500-8000 B.C., draining Lake Algonquin and the other Great Lakes eastward. The resulting low water levels created Lake Stanley in the Lake Huron Basin, Lake Hough in the Georgian Bay Basin, what were in effect a series of large ponds in the Lake Erie Basin and lower than current water levels in the Lake Ontario Basin.

Paleo-Indian sites in the Great Lakes region are presumed to relate to a focal adaptation based primarily upon the communal hunting of seasonally migrating herds of woodland caribou. In general, favourite Paleo-Indian site locations include areas adjacent to glacial spillways and kettle lakes, often near present-day swamps on loam soils proximal to muck soils representing the margins of relic pro-glacial or post-glacial lakes. The most diagnostic Paleo-Indian artifacts consist of various types of Early Paleo-Indian fluted projectile points (ca. 9500 - 8500 B.C.) and of projectile points of the Late Paleo-Indian Hi-Lo type (ca. 8300 - 7900 B.C.) and Holcombe type (ca. 8400 B.C.).

The Archaic Period (7900-500 B.C.)

Archaeologists divide the Archaic period into three sequential sub-periods: the Early Archaic (ca. 7900 – 6000 B.C.), the Middle Archaic (ca. 6000 – 2500 B.C.) and the Late Archaic (ca. 2500 – 900 B.C.).

The Archaic period was characterized by gradually warming temperatures and by the northward migration of modern flora and fauna that were established throughout their current range by around 4000 B.C. Water levels continued to rise throughout this period, but in the earlier millennia vast areas in the Lake Erie and Lake Huron basins were dry and habitable. Indeed, research suggests that these lake plains would have represented the richest environment for prehistoric hunters and gatherers in the entire Lower Great Lakes region, and that they probably contained a wealth of early camp sites and other archaeological resources that were later flooded.

In general, settlement and subsistence patterns of the Archaic period are characterized by small camps and scattered finds related to a seasonal round of hunting, fishing and the gathering of wild plant foods. A significant development in settlement at the very end of the Late Archaic was the use of communal cemeteries by peoples of the Glacial Kame Culture. These cemeteries are rare; they date to ca. 1000 B.C. and typically feature rich mortuary ceremonialism.

The Woodland Period (1000 B.C. – 1651 A.D.)

The Woodland Period, which follows the Archaic in the Lower Great Lakes region, spans a series of important changes in culture and adaptation. This period is most commonly divided into three sub-periods: Early, Middle and Late.

Early Woodland (ca. 900 - 400 B.C.)

The Woodland Period is marked by the introduction into Ontario of pottery, the earliest of which dates to the Early Woodland sub-period. Beyond that, there appear to have been no substantial changes in the hunting, fishing and gathering settlement and subsistence patterns following the Late Archaic. This period in southern Ontario is represented by the Meadowood Complex.

Mortuary ceremonialism is characteristic of this period, as expressed by the inclusion of elaborate grave goods in burials, and it represents the florescence of a pattern recorded for the slightly earlier Glacial Kame Culture of the Terminal Archaic. The evidence for the Early Woodland period suggests that it represents an increased social or territorial identity with a particular resource area such as a drainage system.

Middle Woodland (ca. 400 B.C - A.D. 800)

This sub-period reflects, at least initially, a continuation of the settlement and subsistence patterns and mortuary ceremonialism previously described. As represented by the Point Peninsula Complex (300 B.C. - A.D. 500), large fishing stations located at major rapids to exploit spring-spawning fish are particularly in evidence. By about A.D. 500, Middle Woodland populations centred on large drainages with extensive flood plains began experimenting with incipient corn agriculture. By A.D. 700 corn had begun to assume a significant role in settlement and subsistence, and major habitation sites were shifting away from larger rivers onto higher ground adjacent to minor tributaries.

Late Woodland (ca. 800-1651 A.D.)

The Late Woodland sub-period spans one of the most dynamic series of changes in the 11,000 year history of Ontario. This sub-period covers the immediate origins and subsequent development of the various Iroquoian-speaking historic tribal confederacies in south-central and southwestern Ontario, the Huron-Petun and the Neutral, down to the time of the first direct contact with Europeans in the early 17th century.

Although the Late Woodland subsumes many changes in settlement and subsistence patterns, it is broadly characterized by an increasing sedentarism. This was both necessitated and made possible by an increasing reliance on the cultivation of corn, beans and squash. In consequence, Late Woodland sites tend to be at once larger and more densely distributed than those of earlier time periods.

As formulated by J.V. Wright (1966), the full sequence of the Ontario Iroquoian Tradition involves three main stages, termed Early, Middle, and Late Ontario Iroquoian. In south-central Ontario, the Early Iroquoian stage dates from ca. 800 to 1280 A.D. The succeeding Middle Iroquoian stage subsumes the Uren sub-stage (ca. 1280-1330 A.D.) and the Middleport sub-stage (ca. 1330-1400 A.D.). The Late Iroquoian stage subsumes the pre-contact, proto-historic and historic Huron (or Huron-Petun) (ca. 1400-1550, 1550-1600, and 1600-1651 A.D., respectively).

The Huron-Petun evolved in a series of communities oriented to stream courses that flowed into the north shore of Lake Ontario. These populations collectively form what is sometimes termed the so-called Southern Division Huron. One of more groups from this general population colonized Simcoe County in the 14th century, forming what is sometimes termed the so-called Northern Division Huron. In the 16th century, a gradual shift of the various Iroquoian populations northward from the shore of Lake Ontario culminated in the settlement of the Petun around Blue Mountain and the merging of the Southern Division Huron with the Northern Division Huron in the area between Lake Simcoe and Georgian Bay. Around 1600 A.D. there was a corresponding westward shift, with the Huron population abandoning Victoria County and settling in Simcoe County.

The Huron, Petun and Neutral all met the same fate in the mid 17th century: first devastated by a series of plagues accidentally introduced by the Europeans; and finally dispersed and driven from their homelands by raids from the Iroquois of New York State in 1649-1651 A.D.

Although the Late Woodland subsumes many changes in settlement and subsistence patterns, it is broadly characterized by an increasing sedentarism. This was both necessitated and made possible by an increasing reliance on the cultivation of corn, beans and squash. In consequence, Late Woodland sites tend to be at once larger and more densely distributed than those of earlier time periods.

Just as the introduction of ceramics marks the beginning of the Woodland Period, so the Late Woodland is marked by the appearance of semi-permanent villages. These Iroquoian villages were often surrounded by a defensive palisade and were occupied year-round for some 12-20 years. They moved when the local supply of firewood had been exhausted and the soils in the surrounding agricultural fields were no longer fertile. Villages may cover from one to several hectares in size and included numerous dwellings known as longhouses. In addition to villages, smaller, more temporary habitations such as agricultural cabin sites and fishing and hunting camps may occur. The typical burial pattern consists of individual graves within a village and a cemetery outside the village. Upon abandonment, the people of one or more villages often exhumed the remains for reburial nearby in a large communal burial pit or ossuary, an occasion which was accompanied by a ceremony known in the 17th century as the "*Feast of the Dead*".

The Historic Period (A.D. 1651 to 1900)

The history of the First Nations peoples during the second half of the 17th century and the succeeding 18th century was one of wide-scale cultural displacement. The displacement of the Iroquoians from southern Ontario in 1649-51 and the Algonquian-speaking peoples from adjacent Michigan and Ohio resulted in a re-organization of the cultural landscape of southwestern Ontario towards the end of the 17th century. It was during this period that the Ojibwa established themselves in the region. The available natural resources also made the area attractive for hunting, fishing and foraging for plant foods. Maple sugar was also an important product during this period.

France formally ceded New France to the British Crown in 1763. That year King George III issued a royal proclamation recognizing the title of the Great Lakes Indians to their lands. The loss of the Thirteen Colonies in the American Revolution in 1782 provided the British Crown

with an impetus to expand settlement into what became Upper Canada in 1791. To that end, the Crown negotiated a series of treaties with the resident First Nations peoples. Euro-Canadian pioneer settlement of the study area for the Alliston Reinforcement Project began late in the first quarter of the 19th century.

The study area for the Alliston Reinforcement Project is located at the nexus of four geographic townships: Tecumseh to the southwest; Essa to the northwest; Innisfil to the northeast; and West Gwillimbury to the southwest. The start point of the proposed pipeline route is Enbridge's Cookstown Gate Station, which is located in the northwest corner of West Gwillimbury Geographic Township; this also applies to the segment of the two routes that extends north from the Cookstown Gate Station to Highway 89.

The short segment of the route that extends west to King Street (County Road 27) is in West Gwillimbury Township. Beyond that, the preferred route falls entirely within Tecumseh Township.

Tecumseh Township was named after the great warrior Chief Tecumseh, who died on October 5, 1813 in the Battle of the Thames, during the War of 1812. The township was surveyed in 1820 by George Lount. He also surveyed West Gwillimbury and Innisfil townships and served as the first Simcoe County Registrar of Lands, from 1826 to 1872.

As detailed by A.F. Hunter (1948: 32-40), the first Euro-Canadian settlers in Tecumseh Township were emigrants from Ireland; they settled in the southeast part of the township in the early 1820s. In the early days of the settlement cash was in short supply and tea was often used as a currency. The population of Tecumseh Township was 546 in 1829. Over time it grew to 1410 by 1836, to 2491 by 1842 and to 3612 by 1850.

The Innisfil Township corner of the future site of Cookstown in the northern part of Tecumseh Township was first settled in 1826 by John Perry, and the early settlement was initially named for him as Perry's Corners (Scott 1993: 51). Thomas Cooke, who homesteaded on Lot 24, Concession 14, settled there in 1833, and the settlement was renamed Cookstown in 1847, when a post office was established there. The southeast corner of the adjacent Essa Township, which includes the northwest corner of Cookstown, was settled in 1826, the same year that John Perry arrived. Another early settler in the area was Lieutenant-Colonel R. T. Banting, who settled in Essa Township in 1845 (Hunter 1948: 84). He held public office for much of the rest of his life, including serving as Superintendent of Schools (1858-1871) and Township Clerk of Essa; he died in 1902. One of his direct descendents was Sir Frederick Banting, the co-discoverer of insulin; he grew up on the Banting family farm on Highway 89, on the east edge of Alliston.

Although the genesis of Cookstown dates to the mid 1820s, the Euro-Canadian settlement of the northern part of Tecumseh Township and of the adjacent portions of Essa Township to the north and of Innisfil and West Gwillimbury to the east proceeded slowly in the early years. The main reason was the proximity of a large wetland to the east of Cookstown, the so-called "*Big Swamp*". It restricted communications to the east, including access to the major early settlement roads and to Newmarket, where the closest grist mills were located. In the early years of the settlement of the northern part of Tecumseh Township farmers had to carry their grain on their backs through the Big Swamp to Newmarket as it wasn't possible for draught animals to make the journey until the government built a corduroy road (H. Belden & Co. 1881: 17).

The reprint of the 1881 Historic Atlas of Simcoe County includes Hogg's map of the County of Simcoe; it was originally compiled and published by John Hogg of Collingwood Ontario in 1871. The Hogg map depicts three communities within or adjacent to the present study area. From west to east, they were Cookstown, Clover Hill and Carline. Clover Hill was located at the intersection of Highway 89 and 9th Line; it is now a ghost town. By the time that the Historic Atlas of Simcoe County was published in 1881 Carline had been renamed Nicolston; it is located at the intersection of Highway 89 and 5th Line, at the point where the highway crosses the Nottawasaga River. Cookstown is located at the intersection of Highway 89 and County Road 27, at the nexus of Tecumseh, Essa, Innisfil and West Gwillimbury geographic townships. The same three communities are also depicted in the composite of the 1881 Historic Atlas maps.

Cookstown was and is by far the largest community in the study area; it falls within the eastern end of the study area. By 1881, the population of Cookstown had grown to approximately 600. According to the Historical Atlas, the village was flourishing, with a two-room schoolhouse, a dozen shops, three churches, three hotels, various mills (including saw, grist and planing mills) and a small number of other industries including a cheese factory (H. Belden & Co. 1881: 17). Cookstown also had a local newspaper, the Advocate. In addition, local chapters of the Orangemen, the Odd Fellows and the International Order of Good Templars were located in Cookstown and vicinity. The Orangemen, also known as the Orange Lodge and the Orange Order, is a Protestant fraternal order that was established in Ireland in 1796; it was named in honour of the Dutch-born Protestant King William of Orange. The Goodfellows was another fraternal society; it dates from was first established in the 18th century to protect and care for its members and the community prior to the creation of welfare states, trade unions and national health care. The Good Templars was a fraternal temperance organization; it was founded in the mid 19th century.

Since the last quarter of the 19th century, the east end of the study area has been transected by a railway line. It was constructed as the Hamilton & North-Western Railway. The first train on this line was run from Clarksville (now Beeton) to Hamilton on October 3, 1877 and by December 31 of that year the railway had been extended as far north as Barrie. The aforementioned R. T. Banting, Clerk of Simcoe County, was a strong proponent of this railway (Hunter 1948, Part I: 187). It was amalgamated with the Grand Trunk Railway in 1888. The branch that transects the east end of the study area connected Cookstown with Barrie to the north and with Beeton, Hamilton and other communities to the south. A separate branch of the railway passed through Alliston to the west. Both branches now form part of the Canadian National Railway.

A.F. Hunter, in his 1909 History of Simcoe County, published the names of pioneers who had settled the various townships of Simcoe County prior to 1837. The names of the settlers whose properties fell within the area of the Alliston Reinforcement Project are outlined in Table 2. The names presented included all of those whose lands fell within a 2 kilometre radius surrounding the location of the two alternative pipeline routes. As indicated in Table 2, Hunter documented 26 individual landowners as having settled in the study area prior to 1837.

Hogg's 1871 map depicts the individual property owners in Simcoe County as of that date. Table 3 lists the owners within the study area that are depicted on Hogg's 1871 map. In all, Hogg's map lists 115 landowners and tenants for the present study area. Based on this map, the study area was well populated by 1871.

Table 2 Euro-Canadian Pioneers in the Study Area Prior to 1837

Concession	Lot	Half	Settler	Concession	Lot	Half	Settler	
Tecumseh Township				Essa Township				
14	12	S	William Hodgkinson	6	2		John Arnett	
	16		Hugh Dinwoody			W	Robert Kinlor	
		N	John Graham	8	1	John McClain		
		S	Thomas Duff		2	W	Henry Rooney	
	17		Thomas McCann	9	1		Thomas Duff	
	18		James Spears		2		William Coleman	
	18	S	John Armstrong				Andrew Coleman	
	20		John Beatty				Hugh Morrow	
	20		John Ross	10	1		George Dinwoody	
	23		Thomas Cook	Innisfil Township				
	23	N	William Long	1	1		John Perry Sr.	
15	21		John Gardiner				George Perry	
West Gwillimbury Township						3		Robert Picken
14	1		James Kidd			4		John Sutherland

Summary data on the landownership for the study area as depicted on the 1881 Historic Atlas township maps are presented in Table 4. The data also include the individuals' occupations, place of birth, date of birth and date of arrival to Simcoe County; these data are based on the Biographical Directory Simcoe Subscribers. It should be noted that the township maps in the 1881 Historic Atlas only illustrate the locations of the homes of subscribers. In consequence, they are potentially misleading as a visual indication of the extent of rural settlement in the third quarter of the 19th century.

The 1881 Historic Atlas township maps depict a small number of non-residential buildings within or in proximity to the study area for the Alliston Reinforcement Project. One is a store in the north half of Lot 18, Concession 15 Tecumseh Township; it was located on the south side of Highway 89, within the community of Clover Hill, and belonged to T.M. Banting. He is identified as a general merchant and Postmaster of Clover Hill who was born in Ireland in 1838 and settled in Simcoe County with his parents in 1849.

The only other non-residential buildings within or adjacent to the study area that are depicted in the 1881 Historic Atlas maps were in Essa Township, on the north side of Highway 89. Good Templars Lodge No. 449 was located in Lot 1, Concession 5, just east of Nicolston, between 5th Line and 6th Line. In addition, an Orange Lodge was located in Lot 1, Concession 9, just east of Clover Hill, between 9th Line and 10th Line. Finally, the hamlet of Nicolston included a store and post office. They were housed in the residence of John Nicol, for whom the hamlet was named.

Table 3 Landowners Depicted on Hogg's 1871 Map of Simcoe County

Concession	Lot	Half	Owner	Half	Owner
Innisfil Township					
1	1	N	G. Fisher	S	J. James
	2	N		S	W. Ross
	3	NW	J. Willoughby	S	W. Watson
		NE	R. Picken		
	4	N	J. Sutherland	S	J. Sutherland
	5	N	J. Rainey	S	R. Marling
Essa Township					
3	1	W	G. Fletcher	E	J. Nicol
	2	W	Thompson	E	Thompson
4	1	W	John Dunay	E	John Dunay
	2	W	Sam Rogers	E	Sam Rogers
5	1	W	J. Wood	E	W. Cunningham
	2	W	T. Nicol	E	W. Erwin
6	1	W	J & G Duff	E	J. McClain
	2	W	J. White (tenant)	E	W. Dixon (tenant)
7	1	W	James Griffith	E	James Griffith
	2	W	Richard McKee	E	Richard McKee
8	1	W	J. Sherman (tenant)	E	J. McClain
	2	W	J & S Martin	E	William McClain
9	1	W	J. Duff	E	T. Duff
	2	W	William McClain		
10	1	W	G & J Dinwoody	E	B & R.T. Banting
	2	W	J. Ross	E	J. Stewart
11	1	W	J. Cooke	E	J. Cooke
	2	W	D. Donnell	E	D. Donnell
Tecumseh Township					
14	5	N	W. McFadden	S	D. Scott
	6	N	T. Heyden	SW	W. McFadden
				SE	W. Patton
	7	N	W. Drennan	S	W. Cain
	8	N	J. Gilroy	S	J. Hamer
	9	N	C. Kinler	S	R. Scott (tenant)
	11			S	J. Whatley
	12	N	T. Fisher	S	T. Fisher
	13	W	T. Allen	E	J. Walker
	14	N	R. Allison	S	J. Stewart
	15	N	J. Walker	S	Sabery Estate
	16	N	W.J. Graham	SW	W. Robinson
				SE	J. Campbell
	17	N	S. Gilroy	S	W. Campbell
	18	NW	J. Stephen	S	J. Armstrong
		NE	G. Dinwoody		
	19	N	M. Campbell	S	R & J Armstrong
	20	N	J. Ross	S	J. Beatty
	21	N	M. Goodwin	S	J. Patterson
	22	N	Willoughby Estate	S	Willoughby Estate
	23	N	Patterson	S	J. Kidd
	24	N	Cook	S	G. Jebb
West Gwillimbury					
14	1	N	illegible	S	C. Jebb
	2	N	J. Kidd	S	James Kidd

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Concession	Lot	Half	Owner	Half	Owner
14	3	N	J & R. Ross	S	James Kidd
	4	N	G. Fisher	S	McGuinness?
	5	N	B & R Banting	S	Canada Company
Tecumseh Township (continued)					
15	5		H. Parson		
	6		G. Dinwoody		
	7		T. Bleckley		
	8		Mrs. Hardy		
	9		J. Nicols		
	12		S. McClain		
	13		J. McClain		
	14-17		George Dinwoody		
	18		J. McClain		
	19-20		Matt Goodwin		
	21		J. Dinwoody		
	22		R & B Banting		
	23-24		(Illegible)		
West Gwillimbury Township (continued)					
15	1		C. Cooke		
	2		W. Ross		
	3		W. Watson		
	4		R. Taylor		
	5		W. Ross		
	6		Ferguson		

Table 4 Landowners Depicted on the 1881 Historic Atlas Township Maps

Concession	Lot	House Location	Owner	Occupation	Place of Birth	Born	Arrived in Simcoe
Tecumseh Township							
14	6	W ½	David Scott	Farmer	Ireland	1830	1864
	8	N ½	Mrs. William Drennan	Owner	Canada	1829	1841
	23	N ½	Samuel Patterson	Farmer	Ireland	1804	1825
	24	SE	George A. Jebb	Farmer	Canada	1837	1870
15	18	N ½	T.M. Banting	Post Master & Merchant	Ireland	1838	1849
West Gwillimbury							
14	2	N ½	John Kidd	Farmer	Simcoe County	1848	1848
Essa Township							
3	1	SW	George Fletcher	Proprietor Saw & Grist Mill	Canada	1833	
4	1	S ½	George Upton	Wool Manufacturer	USA	1842	1867
	2	W ½	Sand Rodgers	Farmer	Canada	1829	1834
5	1	W ½	John Nicol	Merchant & Post Master	Scotland	1820	1853
7	1	E ½	James Griffith	Farmer	York County	1847	1863
9	1	SW	John Duff	Farmer	Toronto	1825	1825
		SE	George Duff	Farmer	Simcoe County	1840	1840
10	1	W ½	James Dinwoody	Farmer	Simcoe County	1825	1825
			George Dinwoody	Retired Farmer	Ireland	1800	1825
		E ½	R.T. Banting	Farmer	Ireland	1820	1845

1.3 Archaeological Context

This section of the report consists of several distinct elements as defined in Section 7.5.8 of the standards and guidelines (Ministry of Tourism and Culture 2011: 125-126). They are described below.

Known Archaeological Sites

Standard 7.5.8.1 of the Ontario Ministry of Tourism and Culture (2011: 125) requires that reports include summary data on known sites within a minimum distance of 1 km from a proposed development. In the present case, the Stage 1 background study by D.R. Poulton & Associates Inc. (2011) confirmed the presence of five archaeological sites within the two-kilometre study radius of the proposed pipeline. Two of them have been registered.

One of the registered sites is the Scott site (BaGw-22). It is a Euro-Canadian homestead and is located on the south edge of the study area, about 500 metres north of the hamlet of Randall. The Scott site was discovered during the course of a 1995 archaeological assessment of an Official Plan Amendment that took in part of Lots 10 and 11 of Concession 14, New Tecumseh Township. The assessment recovered 78 artifacts from the site.

The other registered site in the vicinity of the study area for the Alliston Reinforcement Project is the Dermott site (BaGw-2). It is located approximately 750 metres west of the west end of the study area, south of the hamlet of Nicolston, on the west side of the Nottawasaga River. This site was discovered in a 1974 survey of the relic Lake Algonquin shoreline. The collection from the Dermott site consisted of approximately 180-190 artifacts. The site is an Iroquoian component of the Late Woodland period. The collection includes 10 rim sherds, 110 body sherds and four projectile points.

The aforementioned 1974 survey of this area also resulted in the discovery of four unregistered sites in the present study area. One, designated Site #28, consisted of what were described as two unworked chert flakes. The second, designated Site #28a, consisted of the basal fragment of a corner-notched projectile point, the basal fragment of a stemmed projectile point, one worked chert flake and four unworked chert flakes. The third site, designated Site #29, consisted of two unworked chert flakes. The fourth site, designated Site #30, consisted of a fragmentary side-notched projectile point, a side scraper, a fragment of a bifacially worked artifact and four unworked chert flakes.

Condition of the Study Corridor

The 1:50,000-scale topographic map illustrated as Figure 1 of this report shows the location of the preferred pipeline route that was defined by Dillon Consulting Limited for purposes of the Stage 2 archaeological assessment. A detail of the preferred route is also illustrated Figure 2 of the report. The aerial photograph presented as Figure 3 of the report archaeological potential of the corridor as well as the location of the judgmental test pitting that was carried out as part of the Stage 2 survey. Finally, Figure 4 shows the locations of the photographic plates that were taken along the preferred pipeline route.

As illustrated in the Figure 2, the starting point for the pipeline is Enbridge's Cookstown Gate Station; it is located at 4174 15th Line, on the east edge of the community of Cookstown. The proposed pipeline continues west along 15th Line, also referred to as Victoria Street East and West, along the south side of the road up to Dufferin Street; the distance of this portion of the pipeline is 1.5 kilometres. At the intersection of Dufferin Street and Victoria Street West, the pipeline will continue north to Highway 89 along the west side of the road for a distance of 250 metres. The remainder of the pipeline will continue west along the south side of Highway 89 for a distance of eight kilometres, ending at Sideroad 10. The tie-in point is located on the southwest corner of the intersection of Sideroad 10 and Highway 89. Consultation with Dillon Consulting Limited determined that the construction easement for the proposed pipeline will be located within the gravel shoulder of the existing road and Highway 89 rights-of-way and/or under the adjacent road bed. The existing roads and the highway will be used for the working easement.

The most significant stream course in the vicinity of the study area is the Nottawasaga River; it is located about 400 metres west of the west end of the pipeline route. Ignoring a channelized stream course that flows along the south side of Highway 89 near the west end of the study area, the proposed pipeline route involves five stream crossings. The most significant stream crossed by the route is Cookstown Creek; the pipeline route will cross it just west of Cookstown. Apart from that, the stream crossings involved are minor tributaries of the Nottawasaga River and of Innisfil Creek.

1:50,000-scale topographic maps depict contours at 10-metre intervals. The west end of the proposed pipeline route falls between 220 and 230 metres above sea level; the east end is at or about the 230 metre interval. The highest elevation transected by the pipeline route is 280 metres above sea level. It is located 200-300 metres west of 10th Line.

The relic shoreline of post-glacial Lake Algonquin is at an elevation of approximately 228-230 metres (740 or 750 feet) above sea level (Storck 1979: 88). It follows the height of land located east of the west end of the proposed pipeline. All but the western 1.5 kilometres or so of the pipeline route is located above the relic Lake Algonquin shoreline. As such, most of the length of the route would have been habitable throughout the 11,000-year human occupation of southern Ontario, from the Paleo-Indian period onward. The proposed route crosses over the relic shoreline at a point on Highway 89, a few hundred metres west of the intersection with County Road 56.

The west end of the pipeline route falls within a sand plain that formed part of the floor of post-glacial Lake Algonquin. The latter is the Nottawasaga Basin of the Simcoe Lowlands physiographic region (Chapman and Putnam 1984: 178-181). All but the west end of the pipeline alignment falls within a drumlinized till plain; it forms part of the Peterborough Drumlin Field (Chapman and Putnam 1984: 169-171). A single drumlin is situated just south of Highway 89, between 15th Sideroad and 20th Sideroad.

Dates of Archaeological Fieldwork

Section 7.5.8.3 of the standards and guidelines (Ministry of Tourism and Culture 2011: 125) requires that the Archaeological Context section of assessment reports include the dates of the

fieldwork. In the present case, the Stage 2 fieldwork that is documented in this report was conducted on July 14, 2011. Details on the fieldwork are presented in Section 2.0 of the report (page 16).

Previous Archaeological Fieldwork

The information that is presented in this section of the report is being included to satisfy Sections 7.5.8.4 and 7.5.8.5 of the standards and guidelines (Ministry of Tourism and Culture 2011: 126).

The Ministry of Tourism and Culture does not maintain a database of properties that have had past archaeological investigations. Therefore, the presence of past archaeological investigations in a given area will only be identified by an archaeological assessment under one of two circumstances. One is if the person conducting the assessment has personal knowledge of the past archaeological investigations. The other is if the past investigations resulted in the registration of one or more archaeological sites that will be captured by the archaeological sites data request to the Ontario Ministry of Tourism and Culture.

The check of the Archaeological Sites Database of the Ministry of Tourism and Culture confirmed that two past archaeological investigations had been carried out within a two kilometre radius surrounding the study area defined by Dillon for purposes of the Environmental and Socio-Economic Assessment Study. Data on the investigations are presented below.

One of the past investigations consisted of a 1995 assessment by Archaeological Research Associates (1995). It involved an Official Plan Amendment that took in part of Lots 10 and 11 of Concession 14, New Tecumseh Township. The survey resulted in the discovery of a single site; it was registered.

The other past study was a 1974 Royal Ontario Museum survey of the Alliston area. It focussed on a search along the relic Lake Algonquin shoreline for sites of the Paleo-Indian period, ca. 9500-8000 B.C. (Storck 1979). The 1974 survey resulted in the discovery of five sites in the present study area, one of which was registered.

Unusual Features

Section 7.5.8.6 of the standards and guidelines (Ministry of Tourism and Culture 2011: 126) requires that the Archaeological Context section of assessment reports include data on any unusual physical features that may affect fieldwork strategy decisions or the identification of artifacts or cultural features (e.g. heavy and wet soils, dense root mats, boulders, rubble).

In the present case, the prevailing physical feature for the preferred alignment of the Alliston Reinforcement Project is that the entire alignment follows existing road rights-of-way and that all of the segments will be located within the existing road beds and/or the adjacent gravel shoulders. This level of disturbance and these conditions reduced the potential for extant archaeological remains and precluded a systematic five-metre interval shovel test pit survey. However, they cannot be characterized as "*unusual physical features*" for a proposed natural gas pipeline in that most proposed pipelines follow existing road rights-of-way.

2.0 FIELD METHODS

The Stage 2 archaeological survey involved both a visual inspection and a judgemental test pit survey of the preferred pipeline route. This methodology follows that which is outlined in Standard 2.1.8. of the 2011 Standards and Guidelines (Ministry of Tourism and Culture 2011: 38).

The visual inspection and the Stage 2 survey were conducted on July 14, 2011. They were carried out by a crew of three under the direction of Sherri Pearce of D.R. Poulton. The weather that day was sunny and hot; the lighting conditions were excellent.

The visual inspection and the survey began at the Cookstown Gate Station on Victoria Street East and West (15th Line) travelling west along the proposed route to Dufferin Street, at which point the survey continued north along the west side of Dufferin Street to Highway 89. The crew then continued the survey along the south side of Highway 89 westward to the end point of the proposed pipeline at the intersection with Sideroad 10. Figure 3 shows the pipeline alignment and the extent of the archaeological survey coverage.

Judgemental test pitting of the corridor was carried out in areas along the route to confirm the extent of previous disturbance and the possible presence of segments that retained a potential for extant archaeological remains and warranted systematic five-metre interval survey. An attempt was made to follow the standard procedure for a Stage 2 test pit survey, which involves the excavation of 30 centimetre diameter test pits by shovel to five centimetres below subsoil with all soils being screened through six millimetre mesh in order to maximize the potential for artifact recoveries. However, that did not prove possible as all areas tested were determined to have been disturbed by past road grading and/or buried utilities construction and all test pits contained nothing but gravel. As such, the results of the visual examination judgemental test pit survey confirmed that the survey corridor had been disturbed to the extent that it did not retain a potential for extant archaeological remains and did not warrant systematic survey.

The series of 12 photographic plates show the conditions along the preferred route for the proposed pipeline. Figure 4 is a key plan for the photographic plates. Plate 1 is a view northeast on 15th Line, or Victoria Street East, looking at the existing Cookstown Gate Station; this is the start point for the proposed pipeline. Plate 2 is a view west of the south side of Victoria Street East across from the Cookstown Gate Station. Plate 3 is a close-up of a test pit dug on the south side of Victoria Street East near the location of where Plate 2 was taken. Plate 4 is a view west of the south side of Victoria Street East, west of Cook Street. Plate 4 shows that this portion of the pipeline falls within a residential area that includes manicured lawns, sidewalks, and curbs. Plate 5 was taken at the intersection of Victoria Street West and Dufferin Street; it is a view east of the south side of Victoria Street West. A catchment basin is visible in this view.

Plate 6 is view looking north along the west side of Dufferin Street. It shows the landscaped and graded ditch with an existing hydro pole. The next plate, Plate 7, was taken at the intersection of Dufferin Street and Highway 89 looking west along the south side of Highway 89; this plate depicts the landscaped conditions of the road right-of-way, showing a sidewalk and curb. One can also see several hydro poles running along this side of Highway 89 in this plate.

Plate 8 was taken at the intersection of Sideroad 20 and Highway 89; it is a view west of the south side of the highway showing the road grade. Plate 9 is a view east taken at the base of the hill that lies between County Road 56 and Sideroad 15; it was taken east of Wesson Road. This break-in-slope marks the point where Highway 89 crosses the relic Lake Algonquin shoreline. As in Plate 8, Plate 9 shows the graded road. Plate 10 is a close-up of a test pit excavated just west of Wesson Road showing the gravel fill.

Finally, Plates 11 and 12 were taken at the location of the tie-in point at the intersection of Highway 89 and Sideroad 10. Plate 11 is a view north to the tie-in point. Visible in this plate is the excessive grading and disturbance to the road allowance and right-of-way; the ditch has been completely dug out with all topsoil having been removed. West of the excavated ditch is a manicured lawn that forms part of a private residence lot. Plate 12 is a view west of the south side of Highway 89 looking toward the tie-in point at Sideroad 10 and Highway 89.

3.0 RECORD OF FINDS

Section 7.8.2 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 137-138), which concerns the Record of Finds section of the document, requires that Stage 2 assessment reports provide specific types of information on all archaeological discoveries. It also states that the archaeological assessment report should not include documentation on non-archaeological cultural heritage features (e.g. built heritage and cultural heritage landscapes).

In the present case, the survey of the proposed pipeline did not result in the discovery of any archaeological remains. In consequence, the requirements of Section 7.8.2 of the standards and guidelines do not apply to this report.

The standard that is set out in Section 7.8.2.1.2 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 138) further requires that archaeological assessment reports include an inventory of the documentary record that was generated by the fieldwork. The documentary record that has been generated by the fieldwork discussed in this report includes hand-written notations on printouts of digital aerial photographs of the proposed pipeline route. It also includes field notes. Finally, it includes digital photographs of the fieldwork. This information is included in the report to satisfy the standard that is set out in Section 7.8.2.1.2 of the standards and guidelines.

4.0 ANALYSIS AND CONCLUSIONS

The standard that is specified in Section 7.8.3.1 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 138) requires that the Analysis and Conclusions section of reports on Stage 2 fieldwork addresses the following statement: "*Summarize all findings from the Stage 2 survey, or state that no archaeological sites were identified.*" The information that is presented below is intended to satisfy the standard that is specified in Section 7.8.3.1 of the 2011 standards and guidelines.

As stated in Section 3.0 of this report, the survey that was carried out on July 14, 2011 covered the full length of the corridor that will be subject to potential impact from the proposed construction of the Alliston Reinforcement Pipeline. No archaeological remains whatsoever were discovered during the Stage 2 survey.

Further to the above, the standard that is articulated in Section 7.8.3.2b of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 139) requires that this section of the report include a comparison against the criteria in Stage 2 *Property Assessment* to determine whether further assessment is required. Those elements of the standard are addressed below.

The standard that is specified in Section 7.8.1.2a of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 137) requires that this section of the Stage 2 report provide detailed and explicit descriptions of how each standard was addressed for property survey generally. The standard that is articulated in Section 2.1.1 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 28) requires that the entire property be included in the survey. The present survey covered 100% of the lands that will be subject to impact from the proposed Alliston Reinforcement Pipeline. Accordingly, the survey satisfies this standard.

The standard that is articulated in Section 2.1.3 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 29) requires that the property be surveyed when weather and lighting conditions permit good visibility of land features. The weather and lighting conditions that pertained during the July 14, 2011 survey that is described in this report satisfied this standard. The standard that is articulated in Section 2.1.5 of the standards and guidelines formulated by the Ministry of Tourism and Culture (2011: 29) requires that assessment reports map all field activities (e.g. extent and location of field methods, survey intervals) in reference to fixed landmarks, survey stakes and development markers. The standard also requires that mapping must be accurate to a five metre scale or to the best scale available. The mapping in this report satisfies this standard.

As detailed in Section 1.3, the Stage 1 background study determined that two archaeological sites had been registered within a two kilometre radius of the lands that will be subject to impact from the proposed pipeline, but that the closest site is approximately 750 metres west of the proposed pipeline. As stated above, the subsequent Stage 2 survey of the subject lands did not result in the discovery of any archaeological sites. In conclusion, there are no outstanding archaeological planning concerns for the proposed Alliston Reinforcement Pipeline.

5.0 RECOMMENDATIONS

As detailed in Stage 1 report, the background study determined that no past archaeological investigations had been carried out within the lands that will be subject to impact from the proposed pipeline reinforcement. However, it also determined that the proposed alignment is located in an area that has a moderate to high potential for as-yet undiscovered archaeological remains. The Stage 2 archaeological survey was carried out in order to confirm the presence or absence of archaeological remains that could represent potential constraints to the proposed pipeline construction.

As it evolved, consultation with Dillon Consulting determined that the construction easement for the proposed pipeline will be located within the gravel shoulder of the existing road and Highway 89 rights-of-way and/or under the adjacent road bed. The roads and the highway will be used for the working easement. The Stage 2 survey included a visual examination and photo-documentation of the corridor as well as judgemental test pitting of segments of the shoulder which appeared to have some potential for extant archaeological remains. The results confirmed that the entire corridor has been disturbed by past road and underground utilities construction. No archaeological remains were discovered during the course of the survey.

Standard 3 of Section 7.8.4 of the standards and guidelines states the following with respect to the recommendations that are to be presented in Stage 2 survey reports: *"If the Stage 2 did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required"* (Ministry of Tourism and Culture 2011: 13). As that was the case for the present assessment, it is recommended that no further archaeological assessment should be required in advance of the construction of the proposed Alliston Reinforcement Pipeline.

Under the *Ontario Heritage Act* (1990a), it is a requirement of archaeological consulting licences that consultants prepare and submit assessment reports to the Ontario Ministry of Tourism and Culture. Archaeological Review Officers of the Ministry then review each report to ensure that the assessment and the report satisfy consulting licence requirements under the Act and other pertinent legislation, and that they conform to current archaeological standards and guidelines. If the report and the assessment do so conform, the pertinent Archaeological Review Officer then issues a letter confirming that and accepting the report into the Ontario Provincial Register of Archaeological Reports.

Further to the above, it is the finding of the Stage 2 archaeological assessment that there are no potential archaeological constraints to the proposed construction of the Alliston Reinforcement Pipeline. It is recommended that the Ministry of Tourism and Culture issue a letter accepting the present report into the Ontario Provincial Register of Archaeological Reports. It is also recommended that the letter include a statement of concurrence with the findings of this report. Finally, it is requested that a copy of the letter be forwarded to Joseph Carnevale, Dillon Consulting Limited. His e-mail address is JCarnevale@dillon.ca.

The above concludes the general and site-specific recommendations of this report. Nevertheless, it should be emphasized that no archaeological survey can be considered to totally negate the potential for deeply buried cultural remains, including human burials. In recognition of that fact, the 1993 archaeological assessment technical guidelines formulated by the Province of Ontario require that all reports on archaeological assessments include recommendations to address the possibility that deeply buried remains may be encountered during construction (MCTR 1993:12).

Further to the above, it is recommended that archaeological staff of the Ontario Ministry of Tourism and Culture be notified immediately if any deeply buried archaeological remains should be discovered during the proposed construction of the Alliston Reinforcement Pipeline. The pertinent contact person at the Ministry is Jim Sherratt. He is the Archaeological Review Officer of the Culture Programs Unit of the Ministry who is responsible for the East Region, within which Simcoe County and the proposed Alliston Reinforcement Pipeline are situated. His telephone number is 416 314-7132 and his e-mail address is Jim.Sherratt@ontario.ca.

In the event that human remains should be encountered during earthmoving related to the proposed construction of the Alliston Reinforcement Pipeline, it is similarly recommended that the proponent immediately contact the aforementioned Jim Sherratt as well as the police, the coroner and Michael D'Mello. Mr. D'Mello is the Registrar of the Cemeteries Regulation Unit of the Ontario Ministry of Consumer Services. His telephone number is 416 326-8404 and his e-mail address is Michael.D'Mello@ontario.ca.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

The standards and guidelines formulated by the Ministry of Tourism and Culture (2011) that came into effect on January 1, 2011 have requirements that archaeological assessment reports must include statements that concern compliance with pertinent legislation. Those statements were draughted by the Ministry's legal department. Furthermore, it is understood that in order for reports to conform to the current standards and guidelines the pertinent statements regarding compliance legislation must not only be cited but must also be quoted verbatim.

The pertinent standards in the current standards and guidelines are as follows:

1. Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements.
 - 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. 1990a, 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 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 complete 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 consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
 - d. The *Cemeteries Act*, R.S.O. 1990c 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.

2. Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following statement: *“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.”*

The above standards are quoted verbatim from Section 7.5.9 of the standards and guidelines (Ministry of Tourism and Culture 2011: 126-127). All of them apply to the present report.

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FIGURES

(Source: Canadian Department of Natural Resources and Soft Map Technologies Inc. 1994-2001)

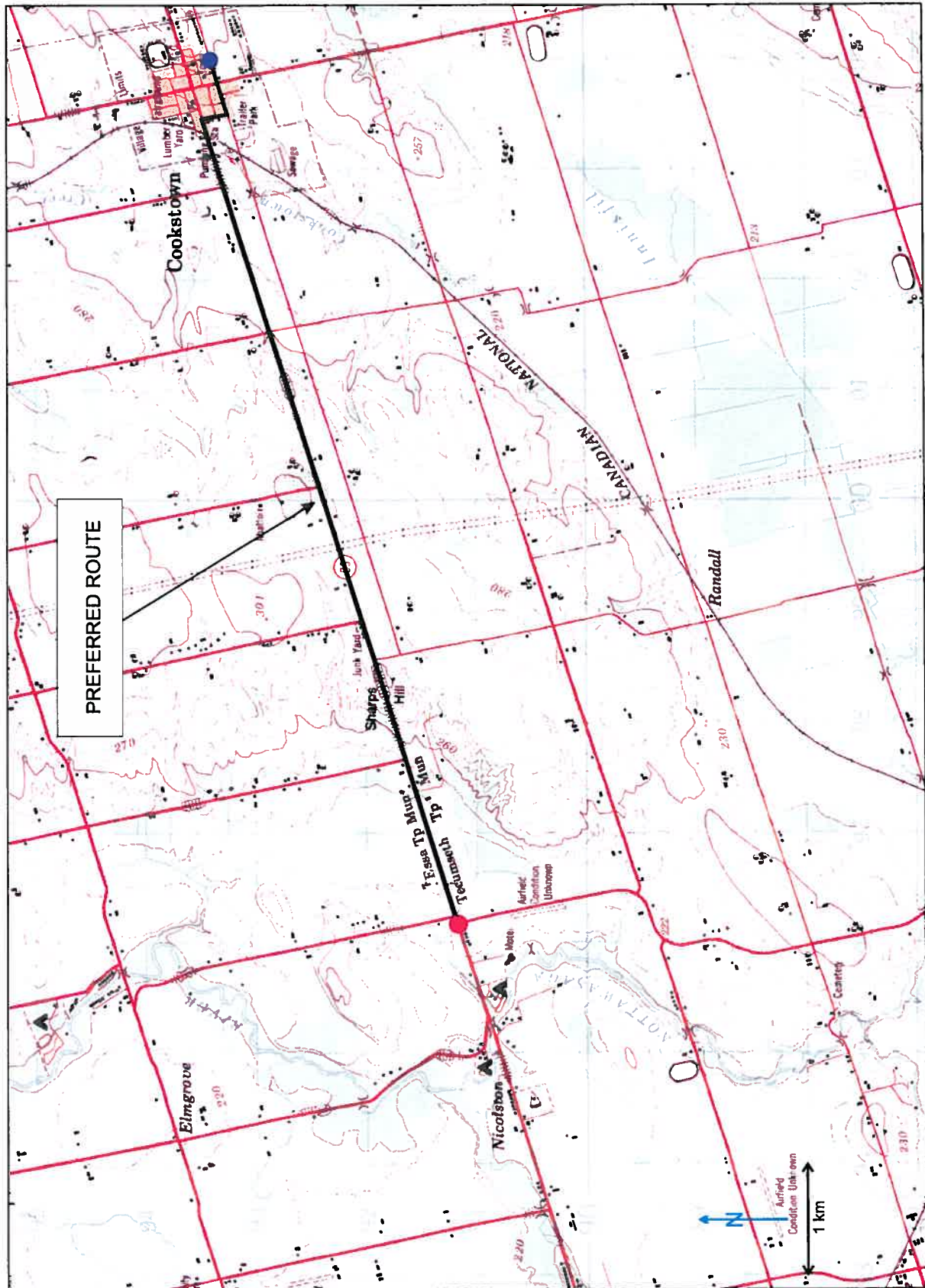


Figure 1 Location of the Preferred Route

The 2011 Stage 2 Archaeological Assessment of the Proposed Alliston Reinforcement Project,
 Simcoe County, Ontario

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Figure 2 Detail of Preferred Route

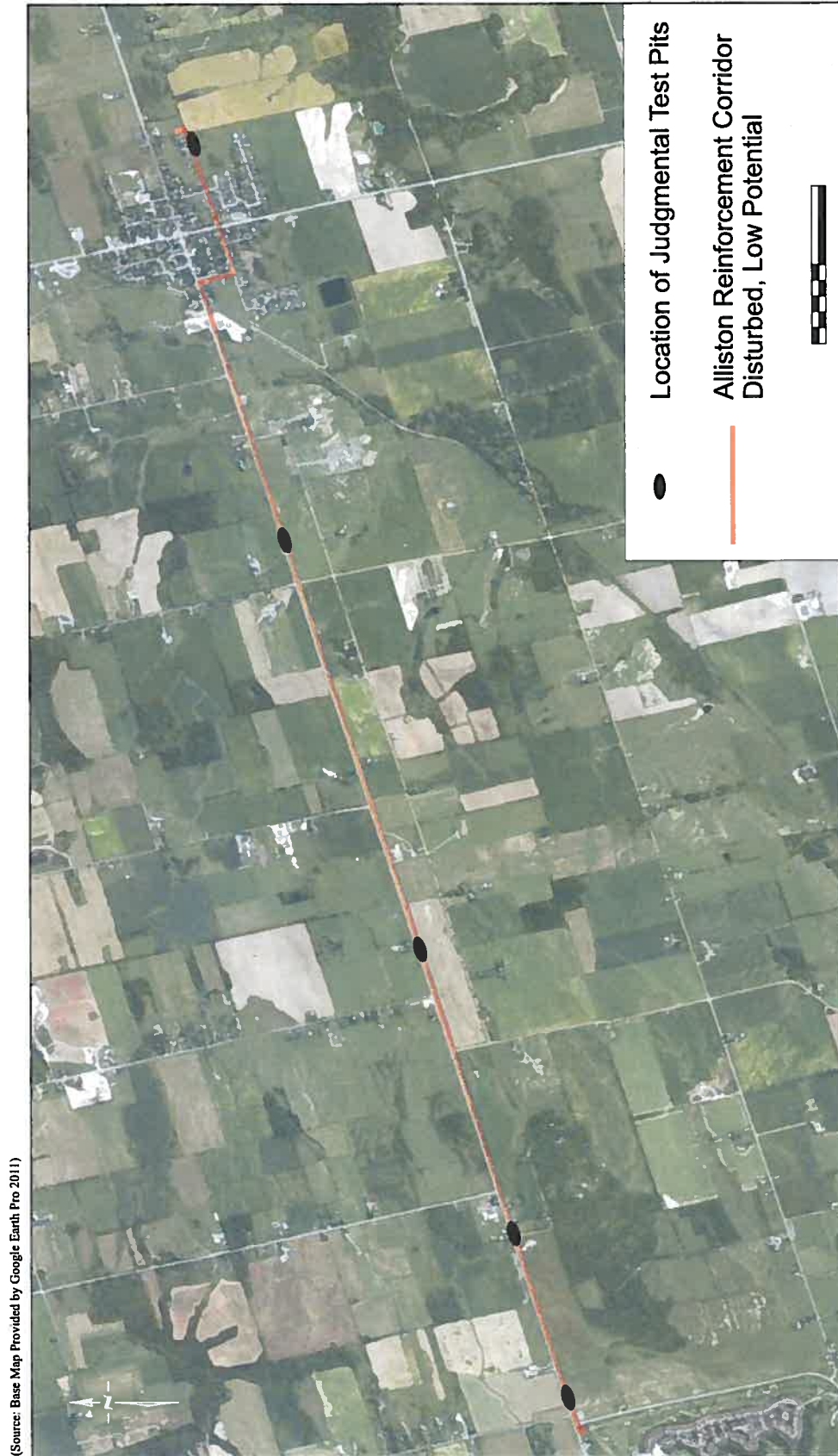


Figure 3 Archaeological Potential and Location of Judgmental Test Pits



Figure 4 Key Plan of Photographic Plates

PLATES



Plate 1 Cookstown Gate Station, View Northeast



Plate 2 Victoria Street East, View West of the South Side



Plate 3 Close-up of Test Pit in Progress on the South Side of Victoria Street East



Plate 4 Victoria Street East, View West of the South Side



Plate 5 Victoria Street East, View East of South Side



Plate 6 Dufferin Street, View North of West Side



Plate 7 Highway 89 at Dufferin Street, View West of South Side



Plate 8 Highway 89, View West of South Side



Plate 9 Highway 89, View East of South Side



Plate 10 Close-up of Gravel Fill in Test Pit



Plate 11 Intersection of 10 Side Road and Highway 89, View North of Southwest Corner



Plate 12 Highway 89, View West