APPENDIX D

Stage 1 Archaeological Assessment

ORIGINAL REPORT

February 25, 2015

STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Municipal Class Environmental Assessment Study for Sidney Street Corridor Improvements (Bell Boulevard to Tracey Street), City of Belleville, Ontario

Submitted to:
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Executive Summary

A Stage 1 archaeological assessment was conducted on behalf of the City of Belleville, by Golder Associates Ltd. (Golder), in support of a Municipal Class Environmental Assessment for proposed Sidney Street corridor improvements (Bell Boulevard to Tracey Street), City of Belleville, Ontario. The study area is approximately 4.13 hectares in size and is located on part of Lot 38, Concession 2, Geographic Township of Sidney, and part of Lot 1, Concession 2, Geographic Township of Thurlow, now City of Belleville, Ontario.

The objective of the Stage 1 archaeological assessment was to compile available information about the known and potential archaeological resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with Ministry of Tourism, Culture and Sport (MTCS) guidelines (MTCS 2011).

The Stage 1 background study found the study area to exhibit potential for the recovery of pre- and post-contact Aboriginal and historical Euro-Canadian artifacts. The Stage 1 site inspection identified the property to consist exclusively of areas of previous disturbance due to the construction and maintenance of Sidney Street and its associated side streets through this area. Areas of previous disturbance are considered to not retain archaeological potential; **no further archaeological assessment is recommended for this study area (Map 3).**

The MTCS is asked to review the results and recommendations presented herein and accept this report into the Provincial Register of archaeological reports.

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

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1.0 PROJECT CONTEXT

1.1 Development Context

A Stage 1 archaeological assessment was conducted on behalf of the City of Belleville, by Golder, in support of a Municipal Class Environmental Assessment for Sidney Street corridor improvements (Bell Boulevard to Tracey Street), City of Belleville, Ontario. The study area is approximately 4.13 hectares in size and is located on part of Lot 38, Concession 2, Geographic Township of Sidney, and part of Lot 1, Concession 2, Geographic Township of Thurlow, now City of Belleville, Ontario (Map 1). The Stage 1 archaeological assessment was conducted early in the environmental assessment process and no detailed design was available at the time of reporting.

The objective of the Stage 1 archaeological assessment was to compile available information about the known and potential archaeological resources within the study area and to determine if a field survey (Stage 2) is required, as well as the recommended Stage 2 strategy. In compliance with the provincial standards and guidelines set out in the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), the objectives of the Stage 1 archaeological assessment are as follows:

- To provide information about the study area's geography, history, previous archaeological fieldwork and current land conditions;
- To evaluate in detail the study area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property; and
- To recommend appropriate strategies for Stage 2 survey.

To meet these objectives Golder archaeologists employed the following research strategies:

- A review of relevant archaeological, historic and environmental literature pertaining to the study area;
- A review of the land use history, including pertinent historic maps;
- An examination of the Ontario Archaeological Sites Database (OASD) to determine the presence of known archaeological sites in and around the project area;
- An inquiry with the MTCS to determine previous archaeological assessments conducted in close proximity to the study area; and
- A property inspection.

1.2 Historical Context

The study area is located on part of Lot 38, Concession 2, Geographic Township of Sidney, and part of Lot 1, Concession 2, Geographic Township of Thurlow, now City of Belleville, Hastings County, Ontario.

1.2.1 Post-contact Aboriginal Occupation of Southern Ontario

The post-contact Aboriginal occupation of Southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking peoples by the New York State Iroquois and the subsequent arrival of Algonkian-speaking groups from northern Ontario at the end of the 17th century and beginning of the 18th century (Schmalz 1991).

Following the introduction of European's to North America, the nature of First Nations settlement size, population distribution, and material culture shifted as settlers began to colonize the land. Despite this shift in First Nations life ways, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris 2009:114). As a result, First Nation peoples of southern Ontario have left behind archaeologically significant resources throughout southern Ontario, which show continuity with past peoples, even if this connection has not been recorded in historical Euro-Canadian documentation.

As with other counties along the St. Lawrence River, significant European settlement began in the late eighteenth century with the arrival of United Empire Loyalists, after the American Revolutionary War. The need for land on which to settle the Loyalists led the British government into hasty negotiations with the Mississauga who were military allies of the British and were assumed, erroneously, to be the only Native peoples inhabiting eastern Ontario. Captain William Redford Crawford, who enjoyed the trust of the Mississauga chiefs in the Bay of Quinte area, negotiated on behalf of the British government. In the "Crawford Purchase", the Mississauga were coaxed into giving up their title to most of eastern Ontario (Lockwood 1996: 24). The study area is within an area that was a part of the Crawford Purchase. It is likely the Crawford Purchase included three different agreements made between the Mississaugas and Captain Crawford at Carleton Island on October 9, 1783 (Morris 1943:8).

1.2.2 Hastings County

Champlain is recognized as the first European visitor to the area when he traversed the Trent River system from Lake Couchiching with the intent of leading an attack on a rural Iroquois village south of Lake Ontario in 1615. A group of allied Hurons accompanied Champlain's party and provided guidance and knowledge of the local areas (Boyce 1967). Over the succeeding years, a number of European travelers passed through the region and interacted with the Aboriginal population settled in the area.

Following the American Revolution, a number of United Empire Loyalists, including a group of Fort Hunter Mohawks, arrived in the area of the modern village of Deseronto. This influx of settlers arrived on May 22, 1784 (Boyce 1967) and found a number of Aboriginal campsites established in the area. The Mohawks who had been displaced from their homeland in New York were granted land around the Bay of Quinte (Belden 1878) and the various disbanded companies arriving from the Revolutionary War were settled in the vicinity of Lake Ontario (Boyce 1967).

Administrative boundaries were established as more settlers arrived in the area, with Hastings County being inaugurated and separated into a number of townships. Hastings County, in addition to three of its early townships, were named in honour of the family of Francis Rawdon-Hastings, a distinguished military leader in

the American Revolution. In 1784, the first five townships along the Bay of Quinte were surveyed and divided into lots and concession roads.

Settlers, the majority of whom were United Empire Loyalists, were granted property within Hastings County on the condition they cleared the land and created fields for agricultural production. The additional incentive for clearing the property was that it provided the lumber required to build houses and outbuildings by the settling families (Boyce 1967). Initially, the majority of settlement in Hastings County was primarily confined to the shores of the Bay of Quinte and the Trent and Moira River systems. With the lack of roads and associated infrastructure, these waterways provided the ability to travel by water in the summer, and “ice roads” during the winter months. Mills were also built along the Moira and Trent Rivers, which were successful at exploiting the flowing currents and harnessing the production of power required for the emerging commercial enterprises.

In 1821 three new townships were created in the northern portion of Hastings County. The addition of Elzevir, Madoc and Marmora townships reflected the northern expansion of settlement primarily due to the expanding forestry business and the development of the mining industry in the area, including the Marmora iron works (Boyce 1967).

By 1830, the population of Hastings County reached 5,819, with Sidney, Thurlow and Tyendinaga representing the townships with the largest populations. The richness of the land for agricultural production, in addition to the development of the mining and lumber industries, helped facilitate the population growth in the County. By 1836, the port at Belleville had become one of the busiest shipping areas in Upper Canada with a yearly average of 10,000 barrels of flour, 40,000 bushels of wheat, 1,500 barrels of potash, 1,000,000 staves and 2,000,000 feet of timber being exported from the County. The population continued to grow expanding to 12,100 residents living in 650 houses, 38,500 acres of cultivation, with 1,300 oxen and 3,700 cattle representing the rural agricultural economy, 11 grist mills and 28 saw mills for commercial production, and 28 merchant shops providing a variety of goods and services to the public in 1839 (Boyce 1967).

Immigration, primarily from Ireland and the British Isles, was the main type of population growth. By 1860, Hastings County had significantly increased to 45,000 residents living in 6,600 dwellings. The agricultural sector had risen to 38,500 cultivated acres with 5,600 oxen and 12,500 cattle. The general commercial development was represented by 24 grist mills, 59 saw mills and 57 merchant shops. To account for this growth, northern expansion within Hastings County was accelerated by the Canadian Government with the addition of twelve new townships to the County including McClure, Herschel, Faraday, Wollaston, Wicklow, Monteagle, Dungannon, Limerick, Bangor, Carlow, Mayo and Cashel (Boyce 1967).

The discovery of gold around Deloro in 1866 precipitated an influx of people to the area and highlighted the necessity for improved terrestrial transportation routes to facilitate the movement of people and goods through the County. While the first train passed through Hastings County in 1856 along the Grand Trunk Railway, it was not until the latter half of the 1860s that new roads, such as Hastings Road, Tudor Road and Peterson Road expanded the ability and convenience to travel through the northern portion of the County. By 1887 a number of railway lines traversed Hastings County facilitating easier mobilization and exportation of goods (lumber, iron ore, etc…) to various locales, including the seaports on the Bay of Quinte (Boyce 1967).

Unfortunately, the growth proved unsustainable and by the end of the 19th century the population was declining. The lumber industry was diminishing due to the exhaustion of a non-renewable resource, frequent uncontrollable fires, mining around Madoc and Marmora and the potential gold rush in the area never experienced the

production required for sustainability. Agriculture continued to be the dominant industry in the County with wheat farming and animal husbandry representing the main agricultural activities. Cheese production became another exportable commodity in the early 20th century (Boyce 1967).

1.2.3 Sidney Township

There is some contention regarding how Sidney Township actually received its name. One theory is that it was named in honour of Thomas Townsend, Viscount Sidney (1732-1800), who was British Secretary of State at the time the Untied Empire Loyalists arrived at the Bay of Quinte (Chalmers *et al*. 1985; Boyce 1967). Another belief is that the township's name was derived from Lord Stanley, who at the time of the Revolutionary War was the secretary for the Colonial Department (Canniff 1869).

The first few concessions in the southern portion of the township were surveyed in 1787 (Boyce 1967; Canniff 1869). This initial survey established the boundaries of the concessions and created individual lot properties for prospective settlers. The first influx of settlers generally favoured locating along the rivers as there were no established roads and the easiest transportation routes were along water courses. The Bay of Quinte could be utilized as an east-west access route, while the Trent River provided the easiest gateway north-south.

While there may have been some early squatters on the land (Canniff 1869), the first official colonists settled in Sidney following the 1787 township survey. One of these early newcomers was Captain Myers and his family, who initially built a log house and grist mill on a small stream, possibly in the location of what is now CFB Trenton. When the stream proved inadequate, Myers and his family relocated closer to the Trent River where he sought a mill site. While it is not known exactly where his first foray was established on the Trent, he was later granted land on both sides of the river in Concession 3. Later, possibly due to issues with government officials, Myers left Sidney for Thurlow Township and established his homestead there, while still retaining his property (3,800 acres), livestock and brickworks in Sidney (Boyce et al. 1990).

The first township merchant was most likely William Bell, who established a store to sell in 1789 (Canniff 1869). He is also responsible for bringing the first apple tree to the area in 1791 (Boyce 1967).

At the beginning of the 19th century, transportation through the township was still difficult, with the roads being little more than pathways. One of the first roads was an east-west route created along the northern shores of the Bay of Quinte. This road followed the most convenient path and likely followed an old Native trail. This road became one of the most important routes for the transport of people and goods through this part of Sidney Township and later became Highway 2 (Boyce et al. 1990).

The major industry for the early township settlers was agriculture and the local farmers had a reputation for producing good wheat. The lumber industry was also an important economic stimulant and employer for the local population, especially in the more northern areas of the township (Boyce 1967).

Assessment records provide additional information regarding the settlement and economic infrastructure in Sidney Township. In 1821, Sidney had the highest population of any township in Hastings County with 1,353 residents (Boyce et al. 1990) living in 61 framed buildings, 10 squared timber homes and four brick or stone dwellings. Livestock consisted of 196 horses, 157 oxen, 589 cattle and 246 horned cows, with over 7,000 acres of land being worked (Boyce 1967).

The fertile soils for agriculture, accessibility to the Trent River, exploitation of lumber resources and the local population's propensity for animal husbandry provided the incentive for growth through the middle of the 19th century. By 1850, Sidney reported 10 saw mills and two grist mills, with agricultural production reaching 58,000 bushels of wheat, 27,000 bushels of oats, 24,000 pounds of maple sugar, 17,000 pounds of wool and 15,000 pounds of cheese (Boyce 1967).

The ability to transport agricultural production to markets outside of the township was facilitated by improved roads. In 1856, the Grand Trunk Railway had been established along the north edge of the First Concession providing additional opportunities to expedite the movements of people and goods through the area.

The population in Sidney Township reached a peak of 5,264 in 1871 (Boyce et al. 1990). Due to a number of economic factors, including a dwindling timber resource, the population of Sidney Township declined through the rest of the 19th century, and by 1901 was down to 4,438 residents (Boyce et al. 1990).

1.2.4 Lot 38, Concession 2, Geographic Township of Sidney

The study area is located partly on the northeastern edge of Lot 38, Concession 2, Geographic Township of Sidney, Hastings County. The 1878 map of the Township of Sidney in the *Illustrated Historical Atlas of the Counties of Hastings and Prince Edward* (Map 2) shows that in 1878 the eastern third of Lot 38 was owned by Samuel Kyle. One structure is noted on this part of Lot 38 at this time, though considerable south of the limits of the study area. An 1869 map of Hasting County was also reviewed; however this map did not display lot owner names.

1.2.5 Thurlow Township

Thurlow Township was named to honour Edward A. Thurlow, first Baron of Thurlow (1731-1806), who was a British statesman that strongly supported George III's policy during the American Revolution (Boyce 1967).

In anticipation of the influx of settlers to the area following the American Revolution, the southern portion, perhaps only the first two southern concessions of Thurlow Township, was surveyed by Louis Kotte in 1787 (Boyce 1967; Canniff 1869). This survey established the concession and lot boundaries required for property ownership, with Kotte indicating that Lot 4 in the first concession be reserved for a Mississauga burial ground. Although it is not known if this property was ever utilized for this purpose, this area later became the location of the settlement of Myer's Creek, which eventually grew into the modern City of Belleville (Boyce 1967).

Early settlers to Thurlow Township generally clustered around rivers and waterways as these could be utilized as early transportation routes both in the summer and in the winter when frozen. The Bay of Quinte, along the southern limit of the township, and the north-south oriented Moira River, provided the two most prominent water routes in the early days of the township.

Before Kotte finished his survey of the southern portion of the township prospective settlers had begun to arrive. One of the first was Captain Myers who built a hut and stayed for about a year before relocating to Sidney Township. Myers is generally regarded as the first "squatter" in the township, and who Myer's Creek was first named after (Canniff 1869).

Other early pioneers were Captain George Singleton and Lieutenant Israel Ferguson, who founded a trading post near the mouth of the Moira River, and established a relationship with the local Mohawk population who they purchased furs from (Boyce 1967). Singleton and Ferguson were accompanied by the servant Johnson and their three wives, in addition to Singleton's infant child. Unfortunately though, by September 1779 Singleton and Johnson had died from a "malignant fever". Within three months of their deaths, Ferguson also perished, leaving behind the three widows and an infant child. Due to these circumstances, the three widows are suggested to have left Thurlow Township to settle elsewhere, while Ferguson became the first internment in "Taylor Burying Ground", located in Myer's Creek (Canniff 1869).

Later in 1779, a group of about fifty settlers arrived in the township, many of whom relocated from Prince Edward County. This group traveled up the Moira River and established the settlement of Foxboro (Boyce 1967; Canniff 1869).

The settlement distribution in Thurow Township revolved around transportation routes, which provided access to previously unsettled properties. While the early settlers primarily relied on waterways and old trails, a road system was developed, which provided access to new resources and properties for settlement. Myers Creek located at the mouth of the Moira River continued to expand, while other settlements, such as Hayden's Corners (Cannifton) in the western portion of Concession 3, developed as new settlers came to the township.

By 1824, the population of Thurlow Township had grown to 1,762, which surpassed Sidney Township as the highest population of any township in Hastings County. The social and commercial infrastructure also continued to develop throughout Thurlow and by 1837 there were 14 schoolhouses, 6 grist mills and 14 saw mills, not including the many already established in the developing urban center of Belleville (formerly Myers Creek). The increasing number of mills was reflective of the expanding timber industry in the northern portion of the township, which primarily relied on beach, maple, basswood, elm, oak and pine. Agricultural production also provided economic stability for many of the residents, with wheat, rye, corn, peas, barley, oats and potashes representing the main crops, supplemented by additional produce such as apples, pears, plums, currants and other berries (Boyce 1967).

The settlement closest to the study area was Hayden's Corners, which by the 1850s had become the largest community in the Moira Watershed outside of Belleville. The town boasted several stores and craftsmen, as well as a tannery, an ashery and a woolen factory that was able to produce about a hundred yards of tweed a day (Boyce 1967). Similar to the economic downturn experienced in Sidney Township, the reduction of the timber industry in the 1870s caused a recession in Cannifton and most surrounding communities, with the majority of mills closing due to lack of production. The township population had peaked at slightly over 5,000 around 1872, but by 1900 had fallen to about 4,000 (Boyce 1967).

1.2.6 Lot 1, Concession 2, Geographic Township of Thurlow

The study area is located partly on the northwestern edge of Lot 1, Concession 2, Geographic Township of Thurlow, Hastings County. The 1878 map of the Township of Thurlow in the *Illustrated Historical Atlas of the Counties of Hastings and Prince Edward* (Map 2) shows that in 1878 Lot 1 was subdivided into many smaller lots, and was designated "Lemoine Lands". Several structures are noted on these lots, one in close proximity to the study corridor. This structure would have been at the intersection of Sidney Street and Maple Drive, though no 19th century house currently exists in this spot. Very little historical information is available, though it would

seem the Lemoine family was a prominent family in Hastings County and beyond through the 19th century. Lemoine Point Conservation Area is located west of Kingston, and was named after Captain William Lemoine, a retired British Army Officer who settled in the Kingston area. Lemoine Street today runs (north-south) parallel to Sidney Street, to the east. An 1869 map of Hasting County was also reviewed; however this map did not display lot owner names.

1.3 Archaeological Context

1.3.1 The Natural Environment

The study area is located within the Napanee Plain physiographic region. The Napanee Plain is described as:

> *A flat-to-undulating plain of limestone from which the glacier stripped most of the overburden…While the soil is only a few inches deep over much of the region, deeper glacial till occurs in the stream valleys and toward the north where this region borders on the Dummer Moraines.*
>
> Chapman and Putnam, 1984:186

The study area consists of predominately flat topography. The closest potable water source would have been a small tributary of Potter Creek, bisected by two of the cross streets within the study area (Map 1). The Moira River, which would have served as a transportation route during pre-contact Aboriginal times, is located 1.7 kilometres east of the study area. The north shore of The Bay of Quinte is located approximately 3.5 kilometres south of the study area. The soil of the study area consists of Solmesville clay loam; this type of soil generally exhibits imperfect natural drainage (Gillespie *et al.* 1962). These soils would have been acceptable for pre-contact Aboriginal agricultural practices.

1.3.2 Pre-contact Aboriginal History

1.3.2.1 Paleo-Indian Period (11,000 – 10,000 B.P.)

The Paleo Period in Ontario was broadly characterized by small populations of hunter gatherers who exploited large areas directly procuring raw materials for the production of tools from distances in excess of 150 kilometres.

Early Paleo-Indian (11,000 – 10,400 B.P.)

Early Paleo populations were characterized by the production of projectile points with channel flakes or flutes often manufactured from Collingwood or Onondaga chert. Late Paleo Period projectile points transitioned to smaller unfluted projectiles along with lanceolate parallel flaked stemmed and non-stemmed Plano points.

Late Paleo-Indian (10,400 – 10,000 B.P.)

Late Paleo points have been reported throughout the St. Lawrence River Valley. A portion of a Plano point was recovered along the Cataraqui/Rideau system at Allen's Point in Kingston (Kennett and Earl 2000) and late Paleo materials have been reported from the Napanee and Prince Edward County area (Roberts 1985). Investigation of the western Rice Lake Basin by Lawrence Jackson resulted in the identification of six small late Paleo occupations (Jackson *et. al*. 2000). Paleo materials have also been reported along the Trent Severn River system.

Jackson *et a*l. (2000) suggest that there may be many more Paleo sites submerged along the north shore of Lake Ontario as lake levels were as much as 100 meters below present water lines by 11,700 B.P. The sites identified in the Rice Lake area represent "small task groups" most likely nuclear families utilizing interior resources congregating in larger numbers along lake edges, that are now submerged, where more abundant resources (e.g., Caribou) were intensively utilized.

1.3.2.2 Archaic Period (10,000. – 2,900 B.P.)

Emerging with the evolving landscape from the Late Paleo Period (10,400 – 10,000 B.P.) where populations of hunter gatherers that were focused on more localized resources with steadily increasing populations broadly referred to as the Archaic Period. Adaptations to more temperate environments that consisted of a transition from jack and red pine forests, that characterized the Late Paleo Period, to forests dominated by white pine with some associated deciduous trees, included the introduction of ground stone tools such as adzes and gouges utilized for working wood (Ellis and Deller 1990:65).

Early Archaic (10,000 – 8,000 B.P.)

The lanceolate blades of the Late Paleo Period gave way to the production of corner and side notched points, some of which featured serrated edges by Early Archaic (10,000 – 8,000 B.P.) populations.

Early Archaic sites are not common in southern Ontario, suggesting that populations remain sparsely distributed in the region. Existing data indicates that Early Archaic populations were concentrated along the north shore of Lake Erie and around the western edge of Lake Ontario. A single Hi-Lo Late Paleo/Early Archaic site was documented by Arthur Roberts (1985) along the north shore of Lake Ontario.

Middle Archaic (8,000 – 4,500 B.P.)

The Middle Archaic Period (8,000-4,500 B.P.) is characterized by continued trend to more diverse toolkits. The presence of netsinkers suggests that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured (Ellis *et al*. 1990:65). Bannerstones are carefully crafted ground stone devices that served as a counterbalance for "atl-atls" or spear-throwers. Another characteristic of the Middle Archaic is an increased reliance on local, often poor quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high quality chert at least once during their seasonal round. However, during the Middle Archaic, groups inhabited smaller territories that often did not encompass a source

of high quality raw material. In these instances lower quality materials, which had been deposited by the glaciers in the local till and river gravels, were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth that led to the infilling of the landscape (Ellis *et al.* 1990:67). This process resulted in a reorganization of Native subsistence practices, as more people had to be supported from the resources of a smaller area. This is evidenced in south eastern and central Ontario by the larger number of identified Middle Archaic sites. Although still sparse in comparison to the density of sites noted in southwestern Ontario, in particular along the north shore of Lake Erie, Middle Archaic sites have been identified in the various watersheds that drain into Lake Ontario.

During the latter part of Middle Archaic, technological innovations such as fish weirs have been documented as well as stone tools designed for the preparation of wild plant foods. It is also during the latter part of the Middle Archaic Period that long distance trade routes began to develop, spanning the northeastern part of the continent. In particular, native copper tools manufactured from a source located northwest of Lake Superior were being widely traded (Ellis *et al*. 1990:66). By 5,500 B.P. the local environment had stabilized in a near modern form (Ellis *et al*. 1990:69).

Late Archaic (4,500 – 2,900 B.P.)

During the Late Archaic the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had definitely expanded. It is during the Late Archaic that the first true cemeteries appear (Ellis *et al*. 1990:66). Before this time individuals were interred close to the location where they died. During the Late Archaic, if an individual died while his or her group happened to be at some distance from their group cemetery, the bones would be kept until they could be placed in the cemetery. Consequently, it is not unusual to find disarticulated skeletons, or even skeletons lacking minor elements such as fingers, toes or ribs, in Late Archaic burial pits.

The appearance of cemeteries during the Late Archaic has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses (Ellis *et al.* 1990:66-67, 106, 117).

“Old Copper Culture” Late Archaic burials have been identified in Prescott, Kingston and Prince Edward County. These sites included the use of red ochre along with the inclusion of grave goods, including copper artifacts. While population densities in southwestern and south-central Ontario increased during the Late Archaic, there is insufficient evidence to suggest that there were appreciable growth of populations in eastern Ontario.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic that distinct local styles of projectile points appear. Also during the Late Archaic the trade networks, which had been established during the Middle Archaic, continued to flourish. Native copper from northern Ontario and marine shell artifacts from as far away as the mid-Atlantic coast are frequently encountered as grave goods (Ellis *et al*. 1990:117; Ellis *et al*. 2009:824-825). Other artifacts, such as polished stone pipes and banded slate gorgets, also appear on Late Archaic sites. One of the more

unusual and interesting of the Late Archaic artifacts is the "birdstone" (Ellis *et al.* 1990:111). Birdstones are small, bird-like effigies usually manufactured from green banded slate.

1.3.2.3 Woodland Period (2,900 – 400 B.P.)

Early Woodland Period (2,900-2,200 B.P.)

The Early Woodland Period is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were very crudely constructed, thick walled, friable and decorated by rough cord marked impressions. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil (Spence *et al*. 1990:137). These vessels were not easily portable, and individual pots must not have enjoyed a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads (Spence *et al.* 1990:129).

Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks that were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland Period (Spence *et al.* 1990:129). During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from the American Midwest begin to appear in southern Ontario (Spence *et al*. 1990:138).

Middle Woodland (2,200 – 1,100 B.P.)

Middle Woodland settlement and subsistence patterns, provided a major point of departure from those that characterized the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet (Spence et al 1990:151). Some Middle Woodland sites have produced literally thousands of bones from spring spawning species such as walleye and sucker. Nuts such as acorns were also being collected and consumed (Spence *et al*. 1990:134). In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear on the valley floor of major rivers. Middle Woodland sites are significantly different in that the same location was seasonally

occupied for as long as several hundred years. Because this is the case, rich deposits of artifacts often accumulated. Belle Island in Kingston near the mouth of the Cataraqui River is such a site.

Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provided a prelude to the developments that followed during the Late Woodland Period.

Regional variations have been identified for Middle Woodland Period populations in southern Ontario. These are distinguished largely by variations in ceramic decorative styles. Three contemporaneous groups in Ontario consisted of the Point Peninsula that extended through eastern into south-central Ontario, the Saugeen occupying areas of southwestern Ontario in the Georgian Bay area and the Colture in the vicinity of Lake Erie in southwestern Ontario.

Associated with the Middle Woodland Period in eastern Ontario was the practice of interring the deceased in burial mounds documented in the Rice Lake and Lower Trent River and reported in Prince Edward County reflecting continued influences from mid-continental North America (e.g., Ohio, Indiana and Illinois). The proliferation of sites indicates a perceptible increase in population and the internments have led some archaeologists to suggest social stratification.

The extensive trade networks that prevailed through the Late Archaic and Early Woodland continue through much of the Middle Woodland Period. Middle Woodland populations continued to utilize local chert sources augmented by Onondaga chert secured from the Niagara Escarpment area.

Transitional (1,600 – 1,100 B.P.)

The later Middle Woodland or transitional period is marked by an increased concentration of settlement in particular along flood plains (e.g., Grand and Moira Rivers). The Princess Point Tradition of southwestern Ontario and the Sandbanks Tradition of south-central and eastern Ontario mark the introduction of cultigens (domestic crops) into southern Ontario. Settlements became more permanent with the emergence of small villages such as the early occupation of the Upper Gap site near Napanee. The trade networks that characterized much of the Late Archaic through to Middle Woodland populations largely disappeared during this time.

Late Woodland Period (1,100 – 400 B.P.)

The Late Woodland Period was marked by a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185; Smith 1990; Williamson 1990:312). Corn may have been introduced into southwestern Ontario from the American Midwest as early as 1,600 B.P. (Fox 1990:174; Williamson 1990:312). However, it did not become a dietary staple until at least three to four hundred years later.

The first agricultural villages in southern Ontario date to the 10th century A.D. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. The Miller and Upper Gap sites are examples of early Iroquoian sites in southeastern and south-central Ontario.

Village sites dating between 1,100 and 700 B.P. share many attributes with the historically reported Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 metres in length (Dodd et al 1990:349; Williamson 1990:304-305). It is also common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building. The Jesuits reported that the Huron moved their villages once every 10-15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce (Pearce 2010). It seems likely that Early Ontario Iroquoians occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Ontario Iroquoian economy. However, it had not reached the level of importance it would in the Middle and Late Ontario Iroquoian Periods. There is ample evidence to suggest that more traditional resources continued to be exploited, and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection and fishing activities have all been identified (Williamson 1990:317). While beans are known to have been cultivated later in the Late Woodland Period, they have yet to be identified on Early Ontario Iroquoian sites (Williamson 1990:291).

The Middle Ontario Iroquoian Period (700-600 B.P.) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 hectares in extent during the Early Ontario Iroquoian Period, now consistently range between one and two hectares.

House lengths also change dramatically, more than doubling to an average of 30 metres, while houses of up to 45 metres have been documented. This radical increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population (Dodd et al 1990:323, 350, 357; Smith 1990). However, this does not account for the sudden shift in longhouse lengths around 700 B.P. Other possible explanations involve changes in economic and socio-political organization (Dodd et al 1990:357). One suggestion is that during the Middle Ontario Iroquoian Period small villages were amalgamating to form larger communities for mutual defence (Dodd et al 1990:357). If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures. This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Ontario Iroquoian villages which had no palisades present (Dodd et al 1990:358). More research is required to evaluate these competing interpretations.

It has been suggested that this change in village organization may indicate the initial development of the clans that were a characteristic of the historically known Iroquoian peoples (Dodd et al 1990:358).

Initially at least, the Late Ontario Iroquoian Period (600-350 B.P.) continues many of the trends which have been documented for the proceeding century. For instance, between 1400 and 1450 A.D. house lengths continue to grow, reaching an average length of 62 metres.

One longhouse excavated on a site southwest of Kitchener stretched incredible 123 metres (Lennox and Fitzgerald 1990:444-445). After 1450 A.D., house lengths begin to decrease, with houses dating between 1500-1580 A.D. averaging only 30 metres in length. Why house lengths decrease after 550 B.P. is not well understood, although it is believed that the even shorter houses on historic period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox (Lennox and Fitzgerald 1990:405, 410).

Village size also continues to expand throughout the Late Ontario Iroquoian Period, with many of the larger villages showing signs of periodic expansions. The Late Middle Ontario Iroquoian Period and the first century of the Late Ontario Iroquoian Period was a time of village amalgamation. One large village situated in London expanded one-fifth of its size (Anderson 2009) and one village north of Toronto expanded on no fewer than five occasions (Ramsden 1990:374-375). These large villages were often heavily defended with numerous rows of wooden palisades, suggesting that defence may have been one of the rationales for smaller groups banding together. More detailed investigations of Late Iroquoian sites in south-central Ontario have resulted in the documentation of coalescence of communities through the Late Woodland Period (Birch 2012).

1.3.2.4 Post-Contact (400 – 200 B.P.)

By the time of the arrival of the first European populations in the region, most of the Iroquoian populations had vacated the area amalgamating and moving away (northwest) from the St. Lawrence River and Lake Ontario. Following the dispersal of the Huron-Wendat populations in the mid-17th century by Five Nations Iroquois, a series of villages were established along the north shore of Lake Ontario that were subsequently dispersed by pressure by the Mississauga who occupied the region until the end of the American Revolution, which witnessed the first significant settlement of southern Ontario by Euro-Canadian populations displaced by the conflict in the Thirteen Colonies. This period also marked the re-establishment of Iroquoian communities at Ackasawsanee (Cornwall), Tyendinaga (Deseronto) and Six Nations along the Grand River.

Table 1 presents an overview of the pre-contact Aboriginal culture history of southern Ontario.

Table 1: Overview of Pre-Contact Aboriginal Culture History of Southern Ontario

Period	Characteristics	Time	Comments
Early Paleo	Fluted Points	9,000 to 8,400 B.C.	spruce parkland/caribou hunters
Late Paleo	Hi-Lo Points	8,400 to 8,000 B.C.	smaller but more numerous sites
Early Archaic	Kirk, Nettling and Bifurcate Base Points	8,000 to 6,000 B.C.	slow population growth
Middle Archaic I	Stanley/Neville, Stemmed Points	6,000 to 4,000 B.C.	environment similar to present
Middle Archaic II	Thebes, Otter Creek Points	4,000 to 3,000 B.C.	

Middle Archaic III	Brewerton Side and Corner Notched Points	3,000 to 2,000 B.C.	
Late Archaic	Narrow Point (Lamoka, Normanskill)	2,000 to 1,800 B.C.	increasing site size
	Broad Point (Genesee, Adder Orchard)	1,800 to 1,500 B.C.	large chipped lithic tools
	Small Point (Crawford Knoll, Innes, Ace-of-Spades)	1,500 to 1,100 B.C.	introduction of bow hunting
Terminal Archaic	Hind Points	1,100 to 950 B.C.	emergence of true cemeteries
Early Woodland	Meadowood Points	950 to 400 B.C.	introduction of pottery
Middle Woodland	Dentate/Psuedo-Scallop Pottery	400 B.C. to A.D. 500	increased sedentism
	Princess Point	A.D. 550 to 900	introduction of corn
Late Woodland	Early Ontario Iroquoian	A.D. 900 to 1300	emergence of agricultural villages
	Middle Ontario Iroquoian	A.D. 1,300 to 1,400	long longhouses (100m +)
	Late Ontario Iroquoian	A.D.1,400 to 1,650	tribal warfare and displacement
Contact Aboriginal	Various Algonkian Groups	A.D. 1,700 to 1,875	early written records and treaties
Historic	French/Euro-Canadian	A.D. 1,749 to present	European settlement

1.3.3 Previously Identified Archaeological Sites

An inventory of archaeological resources was compiled through the review of registered archaeological site records kept by the MTCS. In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres east to west and approximately 18.5 kilometres north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The area under review is within Borden Block *BbGi.*

An examination of the OASD has shown that no archaeological sites are registered within a one kilometre radius of the study area, and no archaeological assessments have been conducted within 50 metres of the study area (MTCS 2014).

Information concerning specific site locations is protected by provincial policy, and is not fully subject to the *Freedom of Information Act*. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MTCS will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

2.0 SITE INSPECTION METHODS

The study area was assessed using a combined approach of reviewing aerial photography, historical mapping, and field notes and photographs taken of the study area during a site visit by Sarah News, B.A. (R485) on July 9, 2014. The weather during the site visit was partly cloudy and warm. Visibility and lighting conditions were excellent.

The study area is an existing road corridor in a commercial and residential portion of the City of Belleville. The study area consists exclusively of areas of previous disturbance associated with the construction and maintenance of Sidney Street, and its cross streets Bell Boulevard, Tracey Park Drive, Tracey Street and Maple Drive. Areas of disturbance include the roadways, sidewalks, boulevards and driveways. A stone foundation is located in a fallow area, approximately 50 metres east of the study area (Image 6). Close inspection of this foundation was not conducted, as it was outside the limits of the study area and covered with poison ivy.

Map 3 illustrates the site inspection results. Images 1 to 10 provide representative photographs of the study area conditions. Map 3 provides a photographic key for these images.

3.0 ANALYSIS AND CONCLUSIONS

3.1 Assessing Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. In accordance with the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* the following are features or characteristics that indicate archaeological potential:

- Previously identified archaeological sites;
- Water sources:
  - 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 gravel, sand, or 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);
  - Accessible or inaccessible shoreline (e.g., high bluffs, swamps or marsh fields by the edge of a lake; sandbars stretching into marsh);
- Elevated topography (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;
  - Scarce raw minerals (e.g., quartz, copper, ochre or outcrops of chert);
  - Early Euro-Canadian industry (fur trade, mining, logging);
- Areas of Euro-Canadian settlement; and
- Early historical transportation routes.

In recommending a Stage 2 property survey based on determining archaeological potential for a study area, MTCS stipulates the following:

- No areas within 300 metres of a previously identified site; water sources; areas of early Euro-Canadian Settlement; or locations identified through local knowledge or informants can be recommended for exemption from further assessment;
- No areas within 100 metres of early transportation routes can be recommended for exemption from further assessment; and

- No areas within the property containing an elevated topography; pockets of well-drained sandy soil; distinctive land formations; or resource areas can be recommended for exemption from further assessment.

3.2 Archaeological Integrity

A negative indicator of archaeological potential is extensive land disturbance. This includes widespread earth movement activities that would have eradicated or relocated any cultural material to such a degree that the information potential and cultural heritage value or interest has been lost.

Section 1.3.2 of the MTCS' 2011 Standards and Guidelines for Consultant Archaeologists states 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.*
>
> MTCS 2011:18

The types of disturbance referred to above includes, but is not restricted to quarrying, sewage and infrastructure development, building footprints and major landscaping involving grading below topsoil.

3.3 Potential for Pre- and Post-contact Archaeological Resources

Following the criteria outlined above in Section 3.1 to determine pre- and post-contact Aboriginal archaeological potential, a number of factors can be identified. The study area would have been within 300 metres of a potable water source, and within two kilometres of a major water transportation route. Although no archaeological sites have been identified within one kilometre of the study area, a review of the pre-contact history of the larger region showed extensive use of the area by pre-contact peoples (Section 1.3.2). Additionally, the area soils would have been suitable for pre-contact Aboriginal agricultural practices.

When the above noted archaeological potential criteria were applied to the study area, the study area is considered to exhibit potential for the recovery of pre- and post-contact archaeological resources. While areas of previous disturbance eradicate the potential for the recovery of archaeological resources (Section 3.2), areas of no or low levels of previous disturbance retain their archaeological potential. All portions of the study area were found to be previously disturbed, and thus do not retain archaeological potential (Map 3).

3.4 Potential for Historical Euro-Canadian Archaeological Resources

Following the criteria outlined above in Section 3.1 to determine historic Euro-Canadian archaeological potential, a number of factors can be identified. The study area is located in close proximity to the historic City of Belleville and is also located along the historical road grid.

When the above noted archaeological potential criteria were applied to the study area, the study area is considered to exhibit potential for the recovery of historical Euro-Canadian archaeological resources. While areas of previous disturbance eradicate the potential for the recovery of archaeological resources (Section 3.2),

areas of no or low levels of previous disturbance retain their archaeological potential. All portions of the study area were found to be previously disturbed, and thus do not retain archaeological potential (Map 3).

4.0 RECOMMENDATIONS

Based on the results of the Stage 1 archaeological assessment of the study area located on part of Lot 38, Concession 2, Geographic Township of Sidney, and part of Lot 1, Concession 2, Geographic Township of Thurlow, now City of Belleville, Ontario, the following recommendations are made:

- No further archaeological assessment is recommended for the study area (Map 3); and
- Should there be any changes once the detailed design is available, this may constitute further archaeological assessment.

The MTCS is asked to review the results and recommendations presented herein and accept this report into the Provincial Register of archaeological reports.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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

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

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

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

As per MTCS *Standards and Guidelines* (MTCS 2011, Section 7.5.9 Standard 2):

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.

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7.0 IMAGES

Image 1: Area of previous disturbance, graded area adjacent to Sidney Street, facing north

Image 2: Area of previous disturbance, graded area adjacent to Sidney Street, facing south

Image 3: Area of previous disturbance, graded area adjacent to Sidney Street, facing north

Image 4: Area of previous disturbance, graded area adjacent to Sidney Street at Bell Boulevard, facing north

Image 5: Graded slope to the left of sidewalk adjacent to Sidney Street, facing south

Image 6: Stone foundation outside of study area, facing east

Image 7: Area of previous disturbance, graded area, sidewalk, boulevard adjacent to Sidney Street, facing south

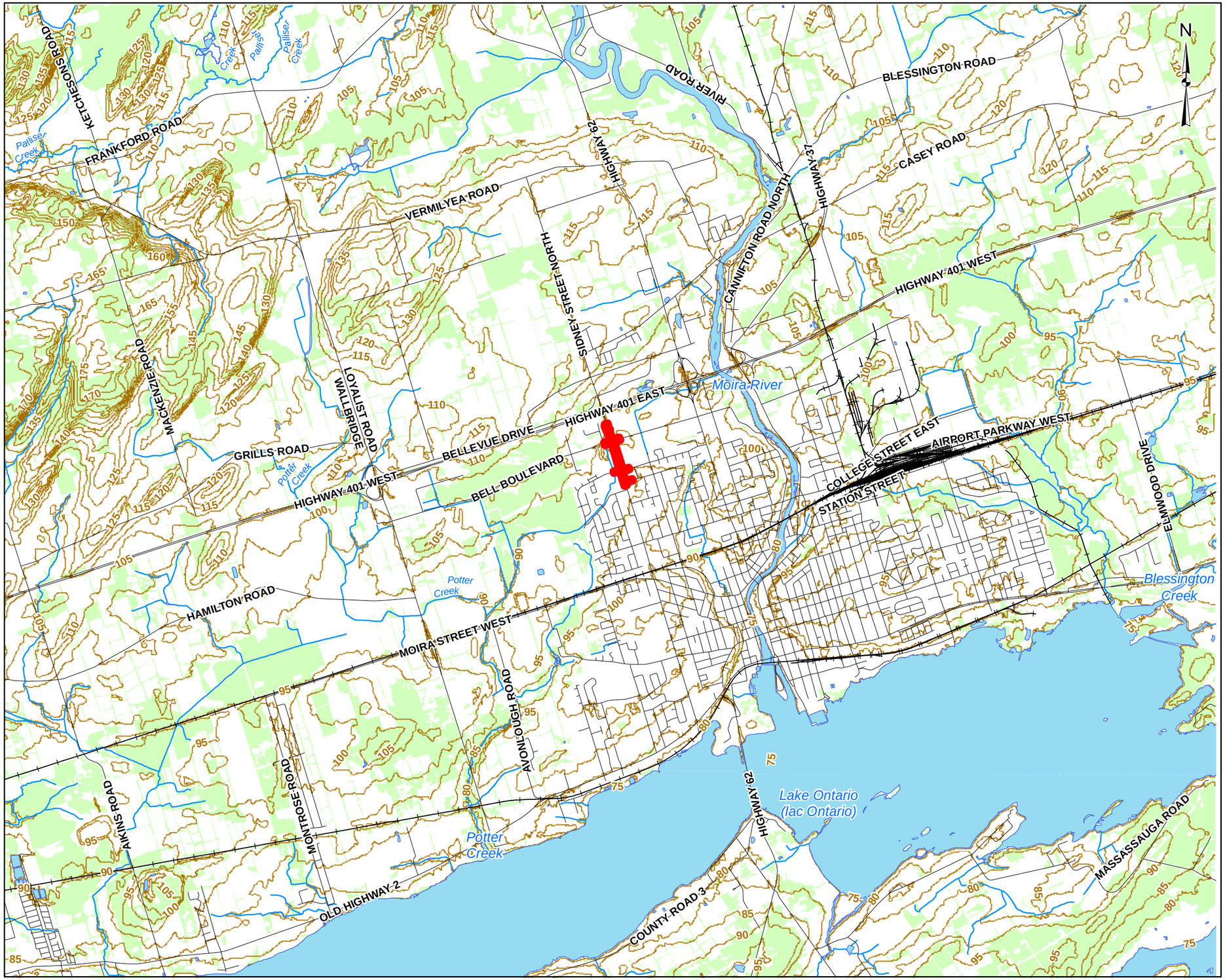
Image 8: Area of previous disturbance adjacent to Sidney Street, facing northwest

Image 9: Area of previous disturbance adjacent to Sidney Street, facing west

Image 10: Area of previous disturbance adjacent to Sidney Street, facing south

8.0 MAPS

All maps will follow on succeeding pages.



LEGEND

- Road
- Railway
- Elevation
- Watercourse
- Waterbody
- Wetland
- Woodarea
- Study Area

DRAFT

REFERENCE

Base Data - MNR LIO, obtained 2009
Produced by Golder Associates Ltd under licence from
Ontario Ministry of Natural Resources, © Queens Printer 2012
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18N

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PROJECT
SIDNEY STREET CORRIDOR IMPROVEMENTS
(BELL BOULEVARD TO TRACEY STREET)
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

TITLE
LOCATION OF STUDY AREA

Golder Associates
Mississauga, Ontario

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GIS	PR	15 Aug. 2014		
CHECK	JD	15 Aug. 2014		
REVIEW	CP	19 Aug. 2014		

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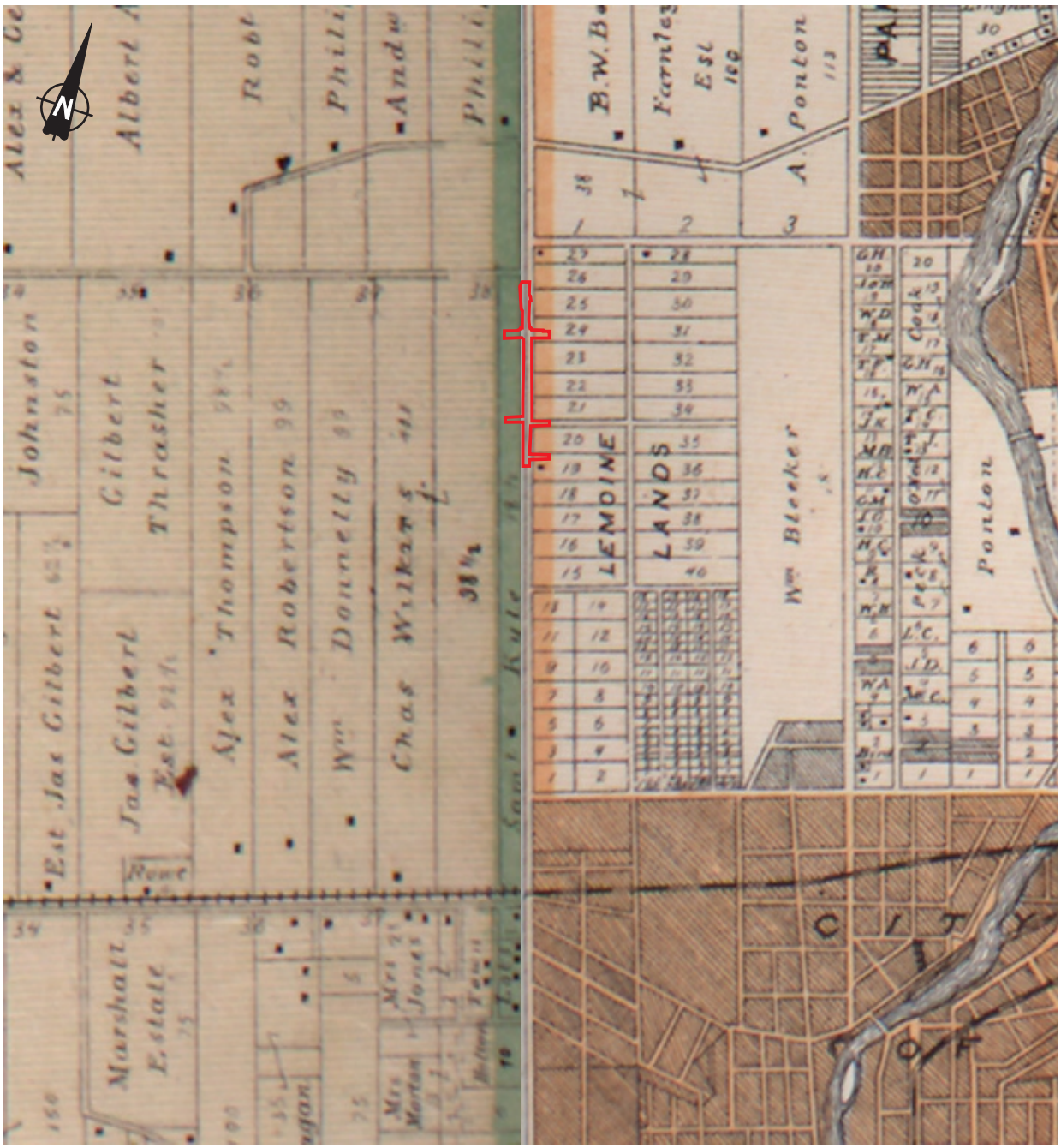

LEGEND

-Study Area

REFERENCE

DRAWING BASED ON
Belden, H. and Co.
1878 *Illustrated Historical Atlas of the Countries of Hastings and Prince Edward Ontario*.

NOTES

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT **Sidney Street Corridor Improvements (Bell Boulevard to Tracey Street) Municpal Class Environmental Assessment**

TITLE

Portions of the 1878 Maps of the Township of Sidney and Township of Thurlow

Golder Associates

PROJECT No.		1403140	FILE No.	1403140-4000-R01002
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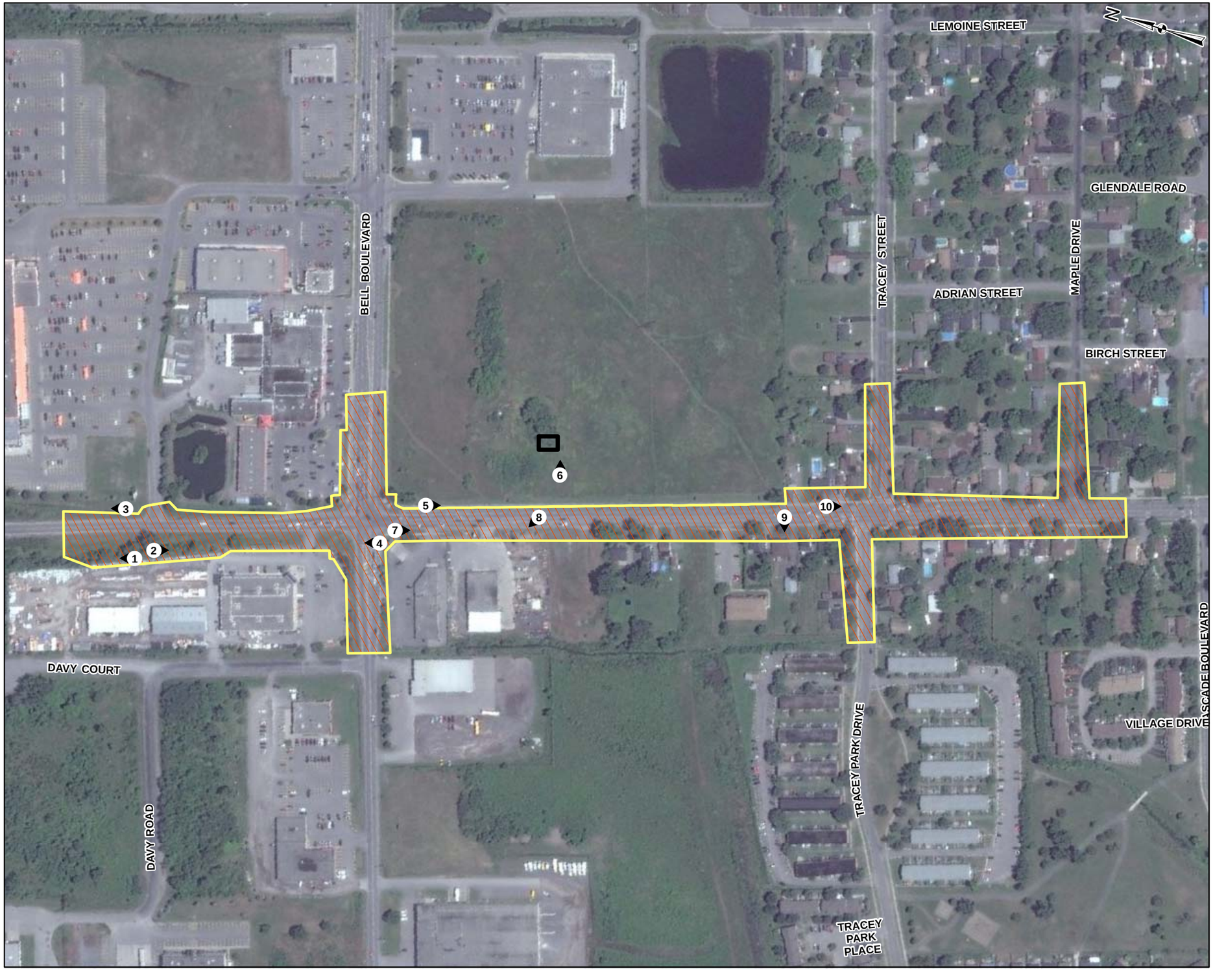

LEGEND

- Approximate Limits of Study Area
- Area of Previous Disturbance - No Further Assessment Recommended
- Approximate Location of Stone Foundation

REFERENCE

Base Data - MNR LIO, obtained 2009
Produced by Golder Associates Ltd under licence from
Ontario Ministry of Natural Resources, © Queens Printer 2012
Imagery - ESRI World Imagery WMS, DigitalGlobe, 0.5m, 7/30/2011
Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 18N

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PROJECT
SIDNEY STREET CORRIDOR IMPROVEMENTS
(BELL BOULEVARD TO TRACEY STREET)
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

TITLE
STAGE 1 SITE INSPECTION RESULTS

Golder Associates
Mississauga, Ontario

PROJECT NO. 14-03140			SCALE AS SHOWN	REV. 0.0
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CHECK	JD	2015-02-05		
REVIEW	CP	2015-02-05		

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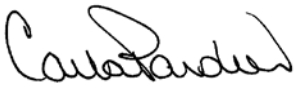

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