

**BRAMALEA ROAD CORRIDOR IMPROVEMENTS, MUNICIPAL CLASS  
ENVIRONMENTAL ASSESSMENT STUDY**

Appendix D Stage 1 Archaeological Assessment

**Appendix D Stage 1 Archaeological  
Assessment**





## **Stage 1 Archaeological Assessment: Bramalea Road Improvements**

Parts of Lots 1 to 5, Concessions 4  
and 5 East of Centre Road,  
Geographic Township of Chinguacousy  
and Parts of Lots 13 to 15,  
Concessions 4 and 5 East of Centre  
Road, Geographic Township of  
Toronto, now the City of Brampton,  
Peel Region, Ontario

November 27, 2019

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Project Number: 165010590



**ORIGINAL REPORT**

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## Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by the City of Brampton (the City) to complete a Stage 1 archaeological assessment for the Bramalea Road Improvements from Queen Street East to South City Limit Municipal Class Environmental Assessment (EA) (the Project). In 2015, the City completed a Transportation Master Plan Update that recommended the widening of Bramalea Road from four to six lanes by 2021. The purpose of the Project is to evaluate traffic capacity, travel demand management measures, safety issues, natural environment impacts, land use implications, and transit and active transportation considerations. The study area extends along Bramalea Road for approximately 4.6 kilometres between Queen Street East and Drew Road, within the City of Brampton, Ontario.

The Stage 1 archaeological assessment was conducted under Project Information Form P400-0162-2018 issued to Thanos Webb, MA, by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). This archaeological assessment was conducted in accordance with the *Environmental Assessment Act* (Government of Ontario 1990c).

The Stage 1 archaeological assessment property inspection took place on December 15, 2018. The results of the Stage 1 archaeological assessment determined that much of the study area retains low to no archaeological potential as it includes extensive land disturbance related to urban residential, commercial and industrial development. However, the remaining portion of the study area retains potential for the identification and documentation of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **a Stage 2 archaeological assessment is recommended for those portions of the Project's anticipated study area which impact an area of archaeological potential.**

The Stage 2 archaeological assessment will be completed by test pit survey. The test pit survey will be completed as outlined in Section 2.1.2 and 2.1.8 of the MHSTCI'S 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Each test pit will be approximately 30 centimetres in diameter, excavated to at least five centimetres in to subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, or evidence of fill. If the archaeological field team judges any lands to be low and wet, steeply sloped, or disturbed during the course of the Stage 2 field work, those areas will not require survey, but will be photographically documented instead in accordance with Section 2.1 of the MHSTCI'S 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The MHSTCI is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. Additional archaeological assessment is still required for portions of the study area and so these portions recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a) and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.



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



## Personnel

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## Acknowledgements

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## 1.0 PROJECT CONTEXT

### 1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by the City of Brampton (the City) to prepare a Stage 1 archaeological assessment report as part of the Bramalea Road Improvements from Queen Street East to South City Limit Municipal Class Environmental Assessment (EA) (the Project). In 2015, the City completed a Transportation Master Plan Update that recommended the widening of Bramalea Road from four to six lanes by 2021. The purpose of the Project is to evaluate traffic capacity, travel demand management measures, safety issues, natural environment impacts, land use implications, and transit and active transportation considerations. The study area extends along Bramalea Road for approximately 4.6 kilometres between Queen Street East and Drew Road, within the City of Brampton, Ontario (Figure 1).

#### 1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Section 1, the objectives of the Stage 1 Archaeological Assessment / Background Study are as follows:

- To provide information about the study area's geography, history, previous archaeological fieldwork, and current land conditions.
- To evaluate, the study area's archaeological potential which will support recommendations for Stage 2 archaeological assessment for the property.
- To recommend appropriate strategies for further archaeological assessment, if necessary.
- To meet these objectives, Stantec 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 (ASDB) to determine the presence of known archaeological sites in and around the Project area.

Access to the study area was from existing public lands and rights-of-way (ROW) with the knowledge of the City of Brampton.

### 1.2 HISTORICAL CONTEXT

#### 1.2.1 Post-contact Indigenous Resources

"Contact" is typically used as a chronological benchmark when discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. Post-contact in Southern Ontario shows evidence for the dispersal of Iroquoian- speaking communities by the New York State Iroquois. Algonkian speaking groups from northern Ontario would come to settle in southern Ontario at



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the end of the 17<sup>th</sup> century and the beginning of the 18<sup>th</sup> century (Konrad 1981; Schmalz 1991). At the time of European arrival in the 1600s the Credit River valley was already occupied by both Algonkian and Iroquoian people. One of the first Indigenous groups French traders encountered in the Credit River area was the Algonkian Mississaugas, although for the most part all Iroquoian groups were displaced from the area by 1700.

European encroachment on Indigenous land gave rise to a shift in social and cultural aspects such as settlement size, population distributions and material culture. Despite this shift, “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...systems of ideology and thought” (Ferris 2009:114). Moreover, Indigenous peoples have left behind significant archaeological resources throughout southern Ontario which shows relationships with ancient people, even were not documented in Euro-Canadian records. Exploration of Ontario began in the early 1600s. Not long after the development of treaties and land purchases were negotiated and established between Indigenous groups inhabiting the land and the colonial government. Treaties and land purchases would provide the opportunity of land settlement European newcomers.

The study area comprised lies within the boundary of Treaty 13A and Treaty 19 of Upper Canada. Treaty 13A was considered to be:

*Conveyed by the Principal Chiefs of the Mississa[auga] Nation to William Claus, Esquire, Deputy Superintendent General and Deputy Inspector General of Indians and their Affairs, for One Thousand Pounds on behalf of His Majesty, King George the Third on the 2nd Day of August, 1805, and described as follows:*

*Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north twenty-two degrees west, six miles; thence south 38 degrees west, twenty-six miles more or less, until it intersects a line on the course north 45 degrees west, produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half; then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the water's edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of beginning.*

*Reserving to Ourselves and Mississa[auga] Nation the sole right of the Fisheries in the Twelve Mile Creek, the Sixteen Mile Creek, the Etobicoke River, together with the flats or low grounds on said creeks and river which we have heretofore, cultivated and where we have our camps and also the sole right of the Fishery in the River Credit with one mile on each side of said river.*

*This treaty comprises the fronts of the townships of Toronto, Trafalgar, and Nelson, except the 3,450 acres granted to Chief Brant in 1797.*

(Morris 1943:22)

Treaty Number 19 was:



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*... a provisional agreement made by the Honourable William Claus, Deputy-Superintendent-General of Indian Affairs on behalf of His Majesty, and the Principal Men of the Mississau[u]ga Nation of Indians, inhabiting the River Credit, Twelve and Sixteen Mile Creek on the north shore of Lake Ontario, within the Home District, whereas the said Indians were to receive 522 pounds and ten shillings, yearly for the said tract, described as follows "A tract of land in the Home District called the Mississau[ga] Tract, bounded southerly by the purchase made in 1806; on the east by the Townships of Etobicoke, Vaughan and King; on the south west by the Indian Purchase, extending from the outlet of Burlington Bay, north forty-five degrees west, fifty miles; and from thence north seventy-four degrees east or thereabouts, to the north west angle of the Township of King".*

(Morris 1943:24)

While it is difficult to exactly delineate treaty boundaries today, Figure 2 provides an approximate outline of these treaty boundaries (Treaty 13A is labelled as "M" and Treaty 19 is labelled as "P").

### 1.2.2 Euro-Canadian Archaeological Resources

The study area spans two historical townships, the Geographic Township of Chinguacousy (Figure 3-1) and the Geographic Township of Toronto (Figure 3-2), both located in the former County of Peel.

#### 1.2.2.1 Peel County

Peel County, named after the former British Prime Minister Sir Robert Peel, is an historic county in the Province of Ontario, located west of Toronto, roughly comprising the same area of today's Regional Municipality of Peel (Walker & Miles 1877). Formed out of what was originally part of the Home District, Peel County was established in 1851 as a part of the United Counties of York, Peel and Ontario. Peel, however, soon gained its independence as a separate County in 1867, after much deliberation by inhabitants and council members, and having built the necessary administrative buildings (courthouse with a council chamber and a jail) in its newly selected County Seat of Brampton (Peel Art Gallery, Museum and Archives, n.d.). The County, comprised of 302,874 acres of land fronting Lake Ontario, was divided into five Townships: Toronto, Chinguacousy, Caledon, Albion and Toronto Gore.

A series of treaty purchases opened up the land for further settlement until the last remaining tract of land reserved for the Mississauga's was surrendered in 1820 (Peel Art Gallery Museum n.d.). Settlement of the area began slowly in the early 1800s, with large numbers of Irish immigrants arriving in 1819. A steady increase of settlement was aided by the construction of the Grand Trunk Railway (GTR) and Great Western Railway, among other railways, through the area beginning in the 1850s (Heritage Mississauga 2009; Peel Art Gallery Museum n.d.).

#### 1.2.2.2 Township of Chinguacousy

The Township of Chinguacousy was surveyed in 1819 by land surveyor Richard Bristol (Laing *et al.* 2014). The township was surveyed using the double-front survey system, with concessions running north-south. The system utilized 200 acre lots that were broken into 100-acre parcels, each fronting a



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concession road. Between every five lots an allowance was surveyed for a side road. Concessions were numbered east and west of Hurontario Street, which runs through the centre of the township (Peel Art Gallery Museum n.d.). Hurontario Street was surveyed in 1818 and received its name from the points located at the ends of the route: Lake Huron and Lake Ontario (Heritage Mississauga 2009). The route increased accessibility to the township and provided a connection to Dundas Street to the south.

Settlements in the township initially developed along Hurontario Street and waterways that provided the water power for mills. The study area, located within the Etobicoke Creek watershed, was initially a sought-after location for milling activities, but given the lack of reliable stream flow, as well as periodic flooding, mills did not thrive on the creek. As a result, the closest settlements to the study area developed at road intersections, including the settlements of Woodhill, Grahamsville, and Brampton.

In 1834, William Buffy built the first tavern in the settlement of Brampton, followed by Judge Scott who built the first store, as well as a potashery, distillery, and mill. In 1834, John Elliott laid out the settlement into village lots with the name of Brampton (Walker & Miles 1877). The population in 1837 was 18 (Loverseed 1987).

The township grew steadily as settlers were attracted to farmland close to the growing markets of the Town of York (now the City of Toronto). In 1841, the population of the Township of Chinguacousy reached 3,721 (Walker & Miles 1877). By 1846, the township included 74,977 acres of land, with 26,266 under cultivation. The present Bramalea Road (formerly Fourth Line) was opened as a roadway by the mid-19<sup>th</sup> century, as it is shown open on the 1859 County of Peel map (Tremaine 1859).

Growth and increased accessibility to settlement came to the township with the opening of the GTR and a station in Brampton in 1856. Brampton had been incorporated as a village three years prior and had a central location within the township which contributed to its growth and importance as a major settlement area. That same year, Hurontario Street had been planked from Port Credit through Brampton to Edmonton (now Snelgrove). Through the railway line, farmers could distribute their agricultural goods to a larger market and access to the City of Toronto increased (Loverseed 1987). This economic boom in Brampton brought entrepreneurs and industries to the village in the 1850s and 1860s.

Brampton was officially incorporated as town in 1873, with John Haggert as the first mayor (City of Brampton 2018). The Credit Valley Railway was constructed from 1877 to 1879 and connected Toronto and Orangeville with a station in Brampton (Heritage Mississauga 2009). The line furthered development in Brampton but took people and business away from smaller communities in the Township of Chinguacousy and, as a result, the population became concentrated in the developing urban centre of Brampton. The population of the township remained stable in the late 19<sup>th</sup> century, slightly decreasing from a population of 6,397 in 1861 to 6,129 in 1871 (Walker & Miles 1877).

### 1.2.2.3 Township of Toronto

The survey of the Township of Toronto was completed in two separate parts. The first survey, known as the old survey, was undertaken in 1806 by Deputy Provincial Surveyor Samuel Street Wilmot (Association of Ontario Land Surveyors 2013). The survey of the northern portion of the township where the study area is located, known as the new survey, was completed by Timothy Street and Richard Bristol in 1819. The



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township was surveyed with six concessions east and west of Hurontario Street, originally known as Street Road after the surveyor (Hicks 2004). It was laid out using the double-front system which produced a rectangular pattern of ten 100-acre lots roughly square in shape and surrounded by road allowances.

Settlement in the Township of Toronto developed primarily at road intersections and along the waterways which acted as a source of power for mills. The first settlements in the township were Sydenham (later named Dixie) and Harrisville (later named Cooksville), both located along Dundas Street in the old survey. The War of 1812 increased traffic along the roads which influenced road improvements and the demand for goods in the township (Corporation of the County of Peel 1967).

Following the new survey in 1819, north-south roads soon developed to connect the two surveys. The main settlement roads to the new survey included Hurontario Street (Centre Road), Mono Road, and the Gore Road. With its close proximity to the Town of York, and easy accessibility from Lake Ontario, settlers flocked to the township in the early 19<sup>th</sup> century. One of the large groups to arrive that influenced the development of the study area was 150 Irish families that immigrated from New York in 1819. United Empire Loyalists John and James Beatty and Joseph Carter petitioned the government of Upper Canada in 1818 for land in the township. The grant was approved with 5,000 acres in the Township of Toronto set aside for 150 families (Hicks 2004). By 1821, the population of the township was 803, with 2,924 acres of cleared land (Walker & Miles 1877).

With the spread of positive reports by settlers, a large surge of immigrants arrived in the 1830s. In 1834, the population of the township was over 4,000 and by 1836 most of the land within the township had been taken up by settlers (Corporation of the County of Peel 1967). In 1851, following the *Municipal Corporations Act* (Baldwin Act), the Township of Toronto was incorporated, with Joseph Wright as the first reeve (Corporation of the County of Peel 1967). At this time, the township had a population of 7,539, with 36,179 acres under cultivation out of a total 60,634 acres (Corporation of the County of Peel 1967).

The closest settlements to the study area were Fraser's Corners located to the west and Grahamsville to the east. In the late 19<sup>th</sup> century, Fraser's Corners was a small village with a population of about 80 people in 1874 (Lynch 1874). Grahamsville was only a little larger, with a population of about 100 (Lynch 1874: 100). Agriculture remained the primary industry in the township in the late 19<sup>th</sup> century. By 1884, the County of Peel had the largest percentage of cleared land, 78.2%, of any county in Ontario (Corporation of the County of Peel 1967).

In the early 20<sup>th</sup> century, the study area continued to be part of a rural area in the township, being surrounded by primarily agricultural lands. Within the Township of Toronto, development occurred in the Villages of Streetsville, Meadowvale, Malton, Cooksville, Dixie, and Port Credit through the influence of the railway lines. In 1901, the population of the township was 4,690, with 57,043 acres under cultivation out of a total 63,928 acres (Corporation of the County of Peel 1967).

### 1.2.3 Recent Reports

One previous archaeological assessment report had been completed within the current study area by Archeoworks Inc. (2012) that contains background information relevant to this report. It is further discussed in Section 1.3.3.



## 1.3 ARCHAEOLOGICAL CONTEXT

### 1.3.1 The Natural Environment

The study area is located in the Peel Plain physiographic region of southern Ontario (Chapman and Putnam 1984: 113). The region is a tract of level to undulating clay soils, stretching across the Regional Municipalities of York, Peel, and Halton. The general elevation of the region is 150 to 225 metres above sea level. The underlying geological material is a till containing large amounts of shale and limestone. The water supply in the region has historically been a constraint to settlement due to the density of the till and the lack of thick beds of sand to serve as aquifers, combined with the high degree of evaporated water from the deforested clay surface (Chapman and Putnam 1984: 174-175). The closest source of potable water is Spring Creek which runs approximately 250 metres south of the southeastern limits of the study area and is part of the Etobicoke Creek watershed. The main soil within the study area is the imperfectly drained Peel Clay, with a deposit of poorly drained Malton Clay located within the central portion of the study area at the intersection of Bramalea Road and Steeles Avenue East. While not ideal, the study area could have been used for Indigenous agricultural practices on the Peel Clay soils as they have been used for modern agricultural practices as well (Hoffman and Richards 1955:55-57).

### 1.3.2 Pre-contact Indigenous Resources

It has been demonstrated that Indigenous people began occupying southern Ontario as the Laurentide glacier receded, as early as 11,000 B.C. (Ferris 2013:13). Much of what is understood about the lifeways of these Indigenous peoples is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous culture prior to the period of contact with European peoples has been distinguished into cultural periods based on observed changes in material culture. These cultural periods are largely based in observed changes in formal lithic tools, and separated into the Early Paleo-Indian, Late Paleo-Indian, Early Archaic, Middle Archaic, and Late Archaic periods. Following the advent of ceramic technology in the Indigenous archaeological record, cultural periods are separated into the Early Woodland, Middle Woodland, and Late Woodland periods, based primarily on observed changes in formal ceramic decoration. It should be noted that these cultural periods do not necessarily represent specific cultural identities but are a useful paradigm for understanding changes in Indigenous culture through time. The current understanding of Indigenous archaeological culture is summarized in Table 1 (Ellis and Ferris 1990).

**Table 1: Cultural Chronology for the Regional Municipality of Peel**

Cultural Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	11,000 - 9,500 B.C.	spruce parkland / caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	9,500 - 8,000 B.C.	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8,000 - 6,000 B.C.	slow population growth
Middle Archaic	Brewerton-like points	6,000 - 2,500 B.C.	environment similar to present
Late Archaic	Lamoka (narrow points)	2,000 - 1,800 B.C.	increasing site size
	Broad Points	1,800 - 1,500 B.C.	large chipped lithic tools



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Cultural Period	Characteristics	Time Period	Comments
	Small Points	1,500 - 1,100 B.C.	introduction of bow hunting
Terminal Archaic	Hind Points	1,100 - 950 B.C.	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 B.C.	introduction of pottery
Middle Woodland	Dentate / Pseudo-Scallop Pottery	400 B.C. - A.D. 500	increased sedentism
	Princess Point	A.D. 550 - 900	introduction of corn
Late Woodland	Early Ontario Iroquoian	A.D. 900 - 1300	emergence of agricultural villages
	Middle Ontario Iroquoian	A.D. 1300 - 1400	long longhouses (100 m +)
	Late Ontario Iroquoian	A.D. 1400 - 1650	tribal warfare and displacement
Contact Indigenous	Various Algonkian Groups	A.D. 1700 - 1875	early written records and treaties
Late Historic	Euro-Canadian	A.D. 1796 - present	European settlement

Between 11,000 and 8,000 B.C., Indigenous populations were sustained by hunting, fishing, and foraging and lived a relatively mobile existence across an extensive geographic territory. Despite these wide territories, social ties were maintained between groups. One method of maintaining social ties was gift exchange, evident through exotic lithic material documented on many sites (Ellis 2013:35-40).

By approximately 8,000 B.C., evidence exists and becomes more common for the production of groundstone tools such as axes, chisels, and adzes. These tools themselves are believed to be indicative specifically of woodworking. This evidence can be extended to indicate an increase in craft production and arguably craft specialization. This latter statement is also supported by evidence, dating to approximately 7,000 B.C. of ornately carved stone objects which would be laborious to produce and have explicit aesthetic qualities (Ellis 2013:41). This is indirectly indicative of changes in social organization which permitted individuals to devote time and effort to craft specialization. Since 8,000 B.C., the Great Lakes basin experienced a low-water phase, with shorelines significantly below modern lake levels (Stewart 2013: Figure1.1.C). It is presumed that the majority of human settlements would have been focused along these former shorelines. At approximately 6,500 B.C., the climate had warmed considerably since the recession of the glaciers and the environment had grown more similar to the present day. Evidence exists at this time for an increase in population and the contraction of group territories. By approximately 4,500 B.C., evidence exists from southern Ontario for the utilization of native copper (naturally occurring pure copper metal) (Ellis 2013:42). The known origin of this material along the north shore of Lake Superior indicates the existence of extensive exchange networks across the Great Lakes basin.

At approximately 3,500 B.C., the isostatic rebound of the North American plate following the melt of the Laurentide glacier had reached a point which significantly affected the watershed of the Great Lakes basin. Prior to this, the Upper Great Lakes had drained down the Ottawa Valley via the French-Mattawa river valleys. Following this shift in the watershed, the drainage course of the Great Lakes basin had changed to its present course. This also prompted a significant increase in water-level to approximately modern levels (with a brief high-water period); this change in water levels is believed to have occurred catastrophically (Stewart 2013:28-30). This change in geography coincides with the earliest evidence for



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cemeteries (Ellis 2013:46). By 2,500 B.C., the earliest evidence exists for the construction of fishing weirs (Ellis *et al.* 1990: Figure 4.1). Construction of these weirs would have required a large amount of communal labour and are indicative of the continued development of social organization and communal identity. The large-scale procurement of food at a single location also has significant implications for permanence of settlement within the landscape. This period is also marked by further population increase and by 1,500 B.C. evidence exists for substantial permanent structures (Ellis 2013:45-46).

By approximately 950 B.C., the earliest evidence exists for populations using ceramics. Populations are understood to have continued to seasonally exploit natural resources. This advent of the ceramic technology correlated, however, with the intensive exploitation of seed foods such as goosefoot and knotweed as well as mast such as nuts. The use of ceramics implies changes in the social organization of food storage as well as in the cooking of food and changes in diet. Fish also continued to be an important facet of the economy at this time. Evidence continues to exist for the expansion of social organization (including hierarchy), group identity, ceremonialism (particularly in burial), interregional exchange throughout the Great Lakes basin and beyond, and craft production (Williamson 2013:48-54).

By approximately A.D. 550, evidence emerges for the introduction of maize into southern Ontario. This crop would have initially only supplemented Indigenous peoples' diet and economy (Birch and Williamson 2013:13-14). Maize-based agriculture gradually became more important to societies and by approximately A.D. 900 permanent communities emerge which are primarily focused on agriculture and the storage of crops, with satellite locations oriented toward the procurement of other resources such as hunting, fishing and foraging. By approximately A.D. 1250, evidence exists for the common cultivation of historic Indigenous cultigens, including maize, beans, squash, sunflower, and tobacco. The communities living within the region of the study area are believed to have spoken a form of Iroquoian language and possessed many cultural traits similar to the historic Indigenous Nations (Williamson 2013:55).

### 1.3.3 Known Archaeological Sites and Surveys

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MHSTCI. The study area is located within Borden blocks AkGv, AkGw and AIGw.

In order that an inventory of archaeological resources could be compiled, the registered archaeological site records kept by the MHSTCI were consulted. In Ontario, information concerning archaeological sites is stored in the ASDB maintained by the MHSTCI. Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of*



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*Privacy Act* (Government of Ontario 1990b). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI 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.

An examination of the ASDB (Government of Ontario 2018a) has shown that 101 archaeological sites are registered within a one kilometre radius of the study area (Table 2). Most of the sites, 68 in total, are pre-contact Indigenous isolated lithic finds and campsites, but there is evidence for temporally diagnostic Archaic and Woodland sites. There are also 33 Euro-Canadian sites.

**Table 2: Registered Archaeological Sites within One Kilometre of Study Area**

Borden #	Site Name	Cultural Affiliation	Site Type
AkGv-75	Familiaris	Late Paleo-Indian	Campsite
AkGv-76	Inner	Pre-contact Indigenous	Lithic scatter
AkGv-79	Sunshine	Paleo-Indian	Campsite
AkGv-100	N/A	Pre-contact Indigenous	Findspot
AkGv-118	Tegis	Pre-contact Indigenous	Campsite
AkGv-121	ROW	Pre-contact Indigenous	Unknown
AkGv-125	William Watson	Euro-Canadian	Homestead
AkGv-174	CCA-20-1	Pre-contact Indigenous; Euro-Canadian	Findspot; Homestead
AkGv-194	Townley	Euro-Canadian	Homestead
AkGv-196	N/A	Euro-Canadian	Unknown
AkGv-197	N/A	Euro-Canadian	Unknown
AkGv-198	N/A	Euro-Canadian	Unknown
AkGv-204	N/A	Pre-contact Indigenous	Unknown
AkGv-205	Claireville 2	Middle Archaic	Campsite
AkGv-206	Claireville 44	Pre-contact Indigenous	Campsite
AkGv-207	Claireville 4	Euro-Canadian	Unknown
AkGv-208	Claireville 1	Pre-contact Indigenous	Unknown
AkGv-209	Claireville 3	Pre-contact Indigenous	Unknown
AkGv-210	Claireville 5	Euro-Canadian	Unknown
AkGv-211	Claireville 6	Euro-Canadian	Unknown
AkGv-212	Claireville 7	Euro-Canadian	Unknown
AkGv-213	Claireville 8	Pre-contact Indigenous	Unknown
AkGv-214	Claireville 9	Pre-contact Indigenous	Unknown
AkGv-215	Claireville 10	Euro-Canadian	Unknown
AkGv-216	Claireville 11	Euro-Canadian	Unknown
AkGv-217	Claireville 12	Pre-contact Indigenous	Unknown
AkGv-218	Claireville 13	Euro-Canadian	Unknown



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<b>Borden #</b>	<b>Site Name</b>	<b>Cultural Affiliation</b>	<b>Site Type</b>
AkGv-219	Claireville 14	Pre-contact Indigenous	Unknown
AkGv-220	Claireville 15	Euro-Canadian	Unknown
AkGv-221	Claireville 16	Pre-contact Indigenous	Unknown
AkGv-222	Claireville 17	Euro-Canadian	Unknown
AkGv-223	Claireville 18	Pre-contact Indigenous	Unknown
AkGv-224	Claireville 19	Pre-contact Indigenous	Unknown
AkGv-225	Claireville 20	Pre-contact Indigenous	Unknown
AkGv-226	Claireville 21	Pre-contact Indigenous	Unknown
AkGv-227	Claireville 22	Pre-contact Indigenous	Unknown
AkGv-228	Claireville 23	Early Archaic	Unknown
AkGv-229	Claireville 24	Paleo-Indian	Unknown
AkGv-230	Claireville 25	Euro-Canadian	Unknown
AkGv-231	Claireville 26	Pre-contact Indigenous	Unknown
AkGv-232	Claireville 27	Pre-contact Indigenous	Unknown
AkGv-233	Claireville 28	Pre-contact Indigenous	Unknown
AkGv-234	Claireville 29	Pre-contact Indigenous	Unknown
AkGv-235	Claireville 30	Euro-Canadian	Unknown
AkGv-236	Claireville 31	Pre-contact Indigenous	Unknown
AkGv-237	Claireville 32	Pre-contact Indigenous	Unknown
AkGv-238	Claireville 34	Pre-contact Indigenous	Unknown
AkGv-239	Claireville 35	Pre-contact Indigenous	Unknown
AkGv-240	Claireville 57	Pre-contact Indigenous	Unknown
AkGv-241	Claireville 37	Early Woodland	Unknown
AkGv-242	Claireville 38	Pre-contact Indigenous	Unknown
AkGv-243	Claireville 39	Pre-contact Indigenous	Unknown
AkGv-244	Claireville 40	Pre-contact Indigenous	Unknown
AkGv-245	Claireville 41	Pre-contact Indigenous	Unknown
AkGv-246	Claireville 42	Euro-Canadian	Unknown
AkGv-247	Claireville 43	Middle Woodland	Campsite
AkGv-248	Claireville 45	Pre-contact Indigenous	Campsite
AkGv-249	Claireville 46	Pre-contact Indigenous	Unknown
AkGv-250	Claireville 47	Woodland	Campsite
AkGv-251	Claireville 48	Euro-Canadian	Unknown
AkGv-252	Claireville 49	Pre-contact Indigenous	Unknown
AkGv-253	Claireville 50	Euro-Canadian	Unknown
AkGv-254	Claireville 51	Pre-contact Indigenous	Unknown
AkGv-255	Claireville 52	Euro-Canadian	Unknown
AkGv-256	Claireville 53	Euro-Canadian	Unknown



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<b>Borden #</b>	<b>Site Name</b>	<b>Cultural Affiliation</b>	<b>Site Type</b>
AkGv-257	Claireville 54	Pre-contact Indigenous	Unknown
AkGv-258	Claireville 55	Pre-contact Indigenous	Unknown
AkGv-259	Claireville 56	Pre-contact Indigenous	Unknown
AkGv-270	N/A	Early Woodland	Campsite
AkGv-271	N/a	Early Woodland	Campsite
AkGv-280	Claireville 58	Pre-contact Indigenous	Campsite
AkGv-281	Claireville 59	Pre-contact Indigenous	Findspot
AkGv-282	Bramalea PIFFC III	Pre-contact Indigenous	Campsite
AkGv-349	P3	Pre-contact Indigenous	Scatter
AkGv-350	P4	Early Archaic	Scatter
AkGw-1	Roberts	Pre-contact Indigenous	Unknown
AkGw-4	Grahamsville	Euro-Canadian	House
AkGw-6	Davis	Euro-Canadian	Homestead
AkGw-7	Leonard Thompson	Euro-Canadian	Homestead
AkGw-8	N/A	Late Archaic	Unknown
AkGw-9	Bramalea Park	Late Archaic; Euro-Canadian	Campsite; Midden
AkGw-18	Flicka	Euro-Canadian	Homestead
AkGw-19	Connery	Pre-contact Indigenous	Findspot
AkGw-48	Airport Road	Euro-Canadian	Homestead
AkGw-72	N/A	Middle Archaic	Hunting Site
AkGw-73	N/A	Middle Woodland	Findspot
AkGw-74	N/A	Pre-contact Indigenous	Findspot
AkGw-78	Beanfield	Early to Middle Archaic	Campsite
AkGw-79	Sniper	Middle to Late Woodland	Campsite
AkGw-83	Zydeco	Early Woodland	Campsite
AkGw-84	N/A	Late Archaic	Findspot
AkGw-85	Dixie 1	Euro-Canadian	Homestead
AkGw-86	Dixie 2	Euro-Canadian	Homestead
AkGw-251	Brampton Sports Park I	Pre-contact Indigenous	Unknown
AkGw-255	N/A	Middle Woodland	Findspot
AkGw-263	N/A	Middle Woodland	Findspot
AkGw-302	Mount Charles	Euro-Canadian	Blacksmith store; Residential
AkGw-423	N/A	Euro-Canadian	Agricultural
AkGw-476	Soper Site	Euro-Canadian	Homestead
AkGw-477	Moore Site	Euro-Canadian	Homestead
AkGw-506	Livingston	Euro-Canadian	Homestead
AlGw-79	N/A	Pre-contact Indigenous	Unknown



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Following a query of the Ontario Public Register of Archaeological Reports, one previous archaeological assessment was identified within 50 metres of the study area (Government of Ontario 2018b). In 2012, the East Brampton Watermains Municipal Class Environmental Assessment Project (AECOM 2014) studied the portion of Bramalea Road between Queen Street East and Orenda Road as part of a larger study area. The Stage 1 archaeological assessment conducted by Archeoworks Inc. determined that although the current road was disturbed by modern construction, generally the surrounding area retained archaeological potential, subject to in-field assessment of disturbance during future Stage 2 archaeological assessment (Archeoworks Inc. 2012). However, only the section between Queen Street East and Balmoral Drive was to be a part of the Alternative 1 Route for the proposed watermains and the Stage 1 archaeological assessment along this route was not documented as extensively as in this current report. Stage 2 archaeological assessment was conducted for the East Brampton Watermains once the Municipal Class Environmental Assessment was complete, but no archaeological work was conducted along Bramalea Road (Archeoworks Inc. 2015; Archeoworks Inc. 2017).

### 1.3.4 Existing Conditions

The study area is located on parts of Lots 1 to 5, Concessions 4 and 5 East of Centre Road, Geographic Township of Chinguacousy and part of Lots 13 to 15, Concessions 4 and 5 East of Centre Road, Geographic Township of Toronto, now the City of Brampton, Peel Region, Ontario. The study area is located along an approximately 4.5 kilometre stretch of Bramalea Road between Queen Street East and the south limits of the City of Brampton. The majority of the study area consists of a 4-lane municipal road and 36 metre wide right-of-way (ROW) in a mix of residential, commercial, and industrial urban settings.



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Field Methods  
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### 2.0 FIELD METHODS

Initial background research compiled the available information concerning any known and/or potential archaeological resources within the study area. A property inspection was conducted under archaeological consulting licence P400 issued to Thanos Webb, MA, of Stantec by the MHSTCI. The property inspection was completed on December 15, 2018 under PIF P400-0162-2018 in accordance with Section 1.2 of the MHSTCI'S 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The property inspection involved documenting the study area to identify the presence or absence of any features of archaeological potential. During the property inspection the weather was overcast and mild, and visibility of land features was excellent. At no time were field, lighting, or weather conditions detrimental to the identification of features of archaeological potential.

The photography from the property inspection conducted on December 15, 2018 is presented in Section 7.1 and confirms that the requirements for a Stage 1 property inspection were met, as per Section 1.2 and Section 7.7.2 Standard 1 of the MHSTCI'S 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011).

Photos 1 to 24, 26, 28, and 30 to 60 illustrate areas of low to no archaeological potential due to previous urban development activities, roads and their disturbed ROWs, and utilities construction. Approximately 91.8% of the study area has low or no archaeological potential. Photos 25A, 25B, 27, 29, 61, and 62 illustrate the various areas of archaeological potential remaining within the study area, including manicured grassy areas and overgrown fields. Approximately 8.2% of the study area retains archaeological potential.



## STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS

Analysis and Conclusions

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### 3.0 ANALYSIS AND CONCLUSIONS

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by the MHSTCI (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to previously identified archaeological sites; distance to various types of water sources; soil texture and drainage; glacial geomorphology; elevated topography; and the general topographic variability of the area. However, it is worth noting that extensive land disturbance can eradicate archaeological potential (Government of Ontario 2011).

Potable water is the single most important resource for any extended human occupation or settlement and since water sources in southern Ontario have remained relatively stable over time, proximity to drinkable water is regarded as a useful index for the evaluation of archaeological site potential. In fact, distance to water is one of the most commonly used variables for predictive modeling of archaeological site location in Ontario. Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. As discussed above, distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect sites locations and types to varying degrees. The MHSTCI categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks;
- Secondary water sources: intermittent streams and creeks, springs, marshes and swamps;
- Past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

The closest source of potable water is Spring Creek which runs approximately 250 metres south of the southeastern limits of the study area.

An examination of the ASDB has shown that total of 63 pre-contact Indigenous registered archaeological sites are located within one kilometre of the study area.

Based on these considerations, along with the background research presented in Sections 1.2.1 and 1.3.2, the study area is judged to retain pre-contact and post-contact Indigenous archaeological potential.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements, early transportation routes, and properties



## STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS

### Analysis and Conclusions

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listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990a) or property that local histories or informants have identified with possible historical events. Various historical records for Peel County confirm that the study area and its environs were occupied by European settlers since the beginning of the 19<sup>th</sup> century. Considering the above, and taking into consideration the urban setting, the study area is judged to retain Euro-Canadian archaeological potential.

In addition, previous archaeological reporting for another project had found archaeological potential beyond the modern roadways along the northern portion of the proposed Bramalea Road improvement study area (Archeoworks Inc. 2012). However, the previous Archeoworks Inc. Stage 1 archaeological assessment had not assessed Bramalea Road in detail during its property inspection (Archeoworks Inc. 2012).

Stantec's Stage 1 property inspection considered the full length of the current study area. The property inspection has determined that extensive land disturbance within the Bramalea Road ROW has eradicated archaeological potential for much of the study area (Figure 4). For example, the numerous roadways, railway and Highway 407 transecting the Bramalea Road have clearly been disturbed by previous construction for these roads and associated infrastructure such as ditches or sidewalks (Photos 1 to 24, 26, 28, 30 to 60). Thus, these areas retain no further archaeological potential.

The property inspection has also determined that small areas of archaeological potential remain within the study area. These areas are noted on Figure 4 and include manicured grassy areas and overgrown fields that could not be determined as previously disturbed based upon visual inspection (Photos 25A, 25B, 27, 29, 60, and 61).

In summary, while the study area does retain archaeological potential for pre-contact Indigenous, post-contact Indigenous, and Euro-Canadian archaeological resources based on background research, the Stage 1 property inspection has determined that much of the study area, approximately 91.8%, has been subject to extensive land disturbance which has removed archaeological potential. As noted above, the remaining 8.2% of the study area retains potential for the identification and documentation of archaeological resources.



## STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS

Recommendations

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### 4.0 RECOMMENDATIONS

Stantec was retained by the City to complete a Stage 1 archaeological assessment for the Bramalea Road Improvements from Queen Street East to South City Limit Municipal Class EA. The study area extends along Bramalea Road for approximately 4.6 kilometres between Queen Street East and Drew Road, within the City of Brampton, Ontario.

The Stage 1 archaeological assessment for the Project resulted in the determination that portions of the study area retain low to no archaeological potential due to modern disturbances (e.g., municipal road ROWs, drainage, buried utilities and infrastructure, etc.). Thus, these portions of the study area do not retain potential for the identification or recovery of archaeological resources. In accordance with Section 1.3.2 and Section 7.7.4 of the MHSTCI'S 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), a Stage 2 archaeological assessment is not required for those portions of the Project's anticipated study area which impacts an area of low to no archaeological potential (Figure 4).

The remaining portion of the study area retains potential for the identification and documentation of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI'S 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **a Stage 2 archaeological assessment is recommended for those portions of the Project's anticipated study area which impact an area of archaeological potential** (Figure 4).

The Stage 2 archaeological assessment will be completed by test pit survey. The test pit survey will be completed as outlined in Section 2.1.2 and 2.1.8 of the MHSTCI'S 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI standards require that each test pit be approximately 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, or evidence of fill.

If the archaeological field team judges any lands to be low and wet, steeply sloped, or disturbed during the course of the Stage 2 field work, those areas will not require survey, but will be photographically documented instead in accordance with Section 2.1 of the MHSTCI'S 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The MHSTCI is asked to review the results presented and to accept this report into the Ontario Public Register of Archaeological Reports. Additional archaeological assessment is still required for portions of the study area and so these portions recommended for further archaeological fieldwork remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a) and may not be altered, or have artifacts removed, except by a person holding an archaeological licence.



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Advice on Compliance with Legislation

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### 5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. O.18 (Government of Ontario 1990a). The report is reviewed to make sure 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 Heritage, Sport, Tourism and Culture Industries, 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* (Government of Ontario 1990a) 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 Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990a).

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* (Government of Ontario 1990a). 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* (Government of Ontario 1990a).

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c. 33 (Government of Ontario 2002) requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Government and Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* (Government of Ontario 1990a) and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.



## STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS

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Images  
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## 7.0 IMAGES

### 7.1 PHOTOGRAPHS

**Photo 1: Bramalea Road Southeast of Queen Street East, facing southeast**



**Photo 2: Entrance to Fallingdale Park Northeast of Bramalea Road, facing east**



**Photo 3: Bramalea Road Near Kensington Road, facing southeast**



**Photo 4: Bramalea Road Near Kensington Road, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

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**Photo 5: Bramalea Road Southeast of Kensington Road, facing southeast**



**Photo 6: Bramalea Road Southeast of Gates of Bramalea development, facing southeast**



**Photo 7: Bramalea Road Near Knightsbridge Road, facing southeast**



**Photo 8: Bramalea Road Southeast of Knightsbridge Road, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

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**Photo 9: Bramalea Road Northwest of Clark Boulevard, facing northwest**



**Photo 10: Bramalea Road Northwest of Clark Boulevard, facing northwest**



**Photo 11: Bramalea Road Near Clark Boulevard, facing southeast**



**Photo 12: Bramalea Road Near Clark Boulevard, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

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**Photo 13: Bramalea Road Southeast of Clark Boulevard, facing southeast**



**Photo 14: Bramalea Road Southeast of Clark Boulevard, facing southeast**



**Photo 15: Bramalea Road Southeast of Clark Boulevard, facing northwest**



**Photo 16: Bramalea Road Northwest of Balmoral Drive, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 17: Bramalea Road Northwest of Balmoral Drive, facing northwest**



**Photo 18: Bramalea Road Northwest of Balmoral Drive, facing northwest**



**Photo 19: Bramalea Road Northwest of Balmoral Drive, facing northwest**



**Photo 20: Bramalea Road at Balmoral Drive, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 21: Bramalea Road Southeast of Clark Boulevard, facing southeast**



**Photo 22: Bramalea Road Northwest of Algonquin Boulevard, facing southeast**



**Photo 23: Bramalea Road Southeast of Algonquin Boulevard, facing southeast**



**Photo 24: Bramalea Road at Algonquin Boulevard, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 25A: Bramalea Road at Algonquin Boulevard, area retaining archaeological potential, frame right, facing northwest**



**Photo 25B: Bramalea Road at Algonquin Boulevard, area retaining archaeological potential, frame left, facing southeast**



**Photo 26: Bramalea Road Southeast of Algonquin Boulevard, facing northwest**



**Photo 27: Bramalea Road Southeast of Algonquin Boulevard, area retaining archaeological potential, frame right, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 28: Bramalea Road at Alexandria Gate, facing southeast**



**Photo 29: Bramalea Road Near Alexandria Gate, area retaining archaeological potential, frame right, facing northwest**



**Photo 30: Bramalea Road Southeast of Alexandria Gate, facing southeast**



**Photo 31: Bramalea Road Northwest of Avondale Boulevard, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 32: Bramalea Road Northwest of Avondale Boulevard, facing southeast**



**Photo 33: Bramalea Road Northwest of Avondale Boulevard, facing northwest**



**Photo 34: Bramalea Road Northwest of Avondale Boulevard, facing southeast**



**Photo 35: Bramalea Road Southeast of Dearbourne Boulevard, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 36: Bramalea Road Northwest of East Drive, facing southeast**



**Photo 37: Bramalea Road Near East Drive, facing northwest**



**Photo 38: Bramalea Road Southeast of East Drive, facing southeast**



**Photo 39: Bramalea Road Southeast of East Drive, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 40: Bramalea Near Orenda Road, facing NW**



**Photo 41: Bramalea Rd. Near Orenda Road, facing SE**



**Photo 42: Bramalea Road Near Orenda Road, facing southeast**



**Photo 43: Bramalea Road Northwest of Steeles Avenue East, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

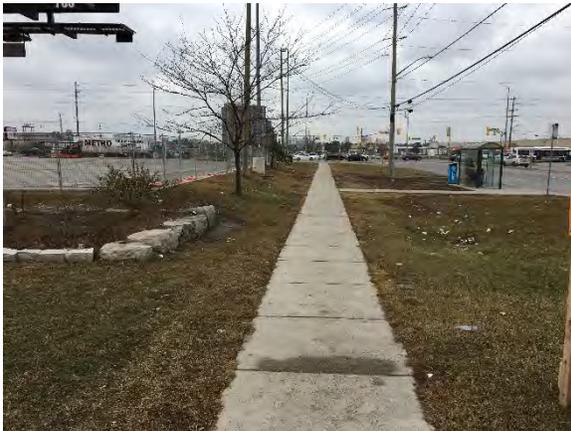
**Photo 44: Bramalea Road Northwest of Steeles Avenue East, facing southeast**



**Photo 45: Bramalea Road At Steeles Avenue East, facing southeast**



**Photo 46: Bramalea Road Southeast of Steeles Avenue East, facing northwest**



**Photo 47: Bramalea Road Southeast of Steeles Avenue East, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 48: Bramalea Road Southeast of Steeles Avenue East, facing southeast**



**Photo 49: Bramalea Road Northwest of CN Railway, facing northwest**



**Photo 50: Bramalea Road Northwest of CN Railway, facing northwest**



**Photo 51: Bramalea Road Northwest of CN Railway, facing southeast**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 52: Bramalea Road Northwest of Highway 407, facing northwest**



**Photo 53: Bramalea Road Southeast of Highway 407, facing southeast**



**Photo 54: Bramalea Road Southeast of Highway 407, facing southeast**



**Photo 55: Bramalea Road Southeast of Highway 407, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images  
November 27, 2019

**Photo 56: Bramalea Road Northwest of Highway 407, facing northwest**



**Photo 57: Bramalea Road Southeast of Highway 407, facing northwest**



**Photo 58: Bramalea Road Southeast of Highway 407, facing southeast**



**Photo 59: Bramalea Road Southeast of Highway 407, facing northwest**



**STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS**

Images

November 27, 2019

**Photo 60: Bramalea Road Southeast of Highway 407, facing southeast**



**Photo 61: Bramalea Road Near Southeast Limits of Study Area, area retaining archaeological potential, frame right, facing northwest**



**Photo 62: Bramalea Road Near Southeast Limits of Study Area, area retaining archaeological potential, frame left, facing southeast**



## STAGE 1 ARCHAEOLOGICAL ASSESSMENT: BRAMALEA ROAD IMPROVEMENTS

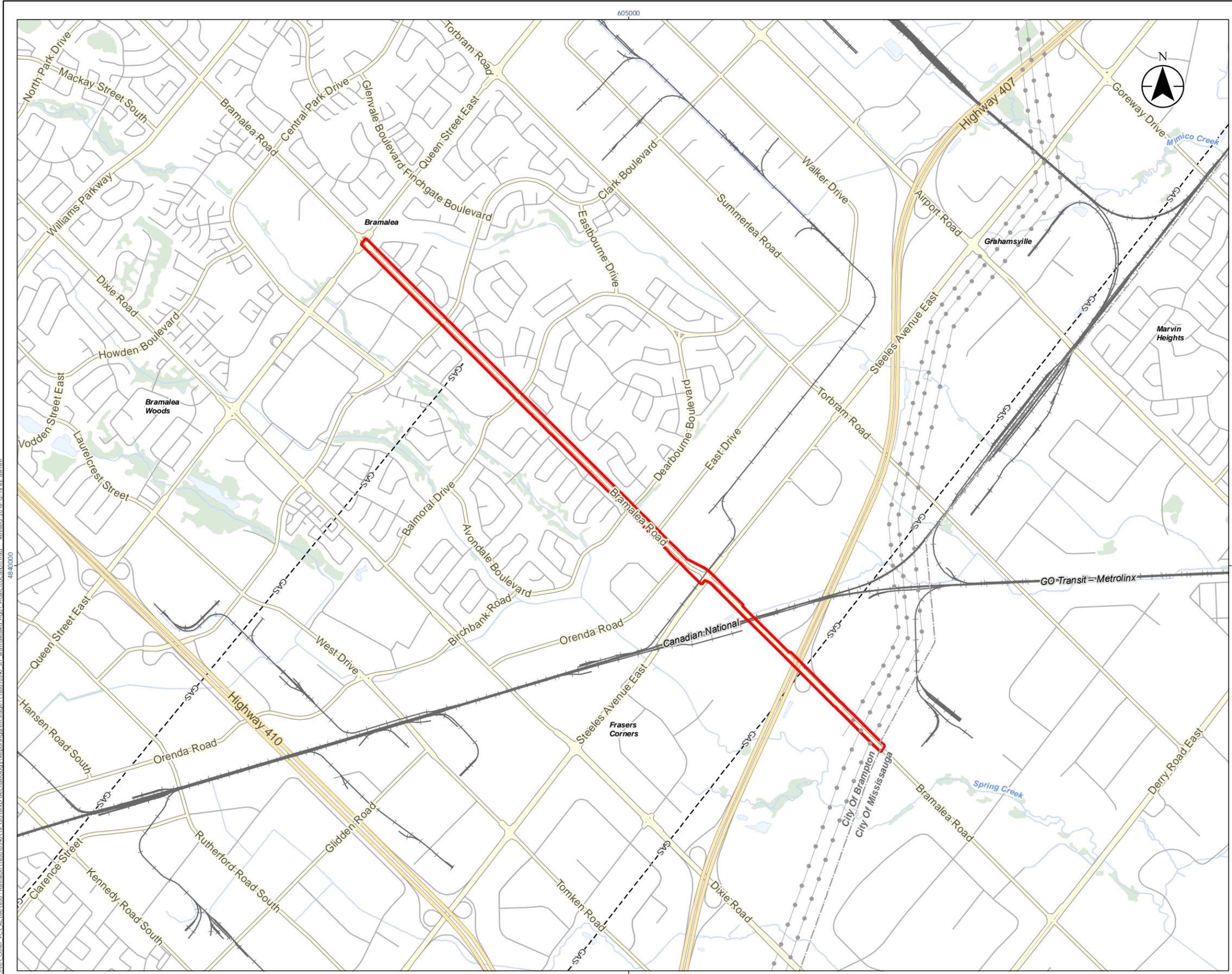
Maps

November 27, 2019

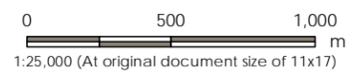
### 8.0 MAPS

All maps will follow on succeeding pages.





- Legend**
- Study Area
  - GAS- Gas Pipeline
  - Highway
  - Major Road
  - Minor Road
  - Hydro Line
  - Railway
  - Watercourse
  - Municipal Boundary, Lower
  - Waterbody
  - Wooded Area



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 17N
  2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.

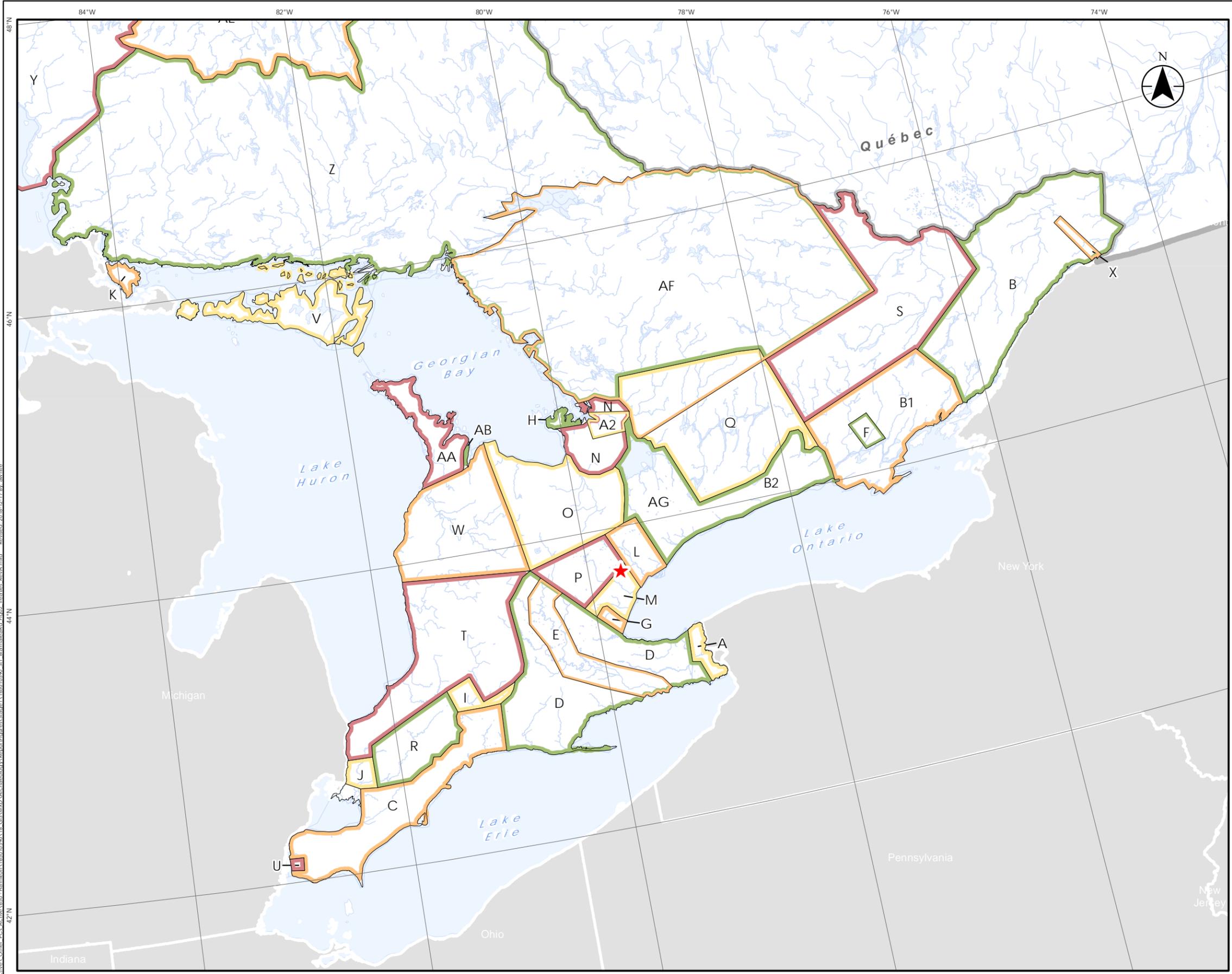


Project Location: City of Brampton  
 Prepared by AMW on 2018-12-18  
 Technical Review by ABC on yyyy-mm-dd  
 Independent Review by ABC on yyyy-mm-dd

Client/Project: CITY OF BRAMPTON  
 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Figure No.: 1  
 Title: Location of Study Area

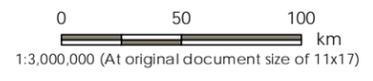
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 Revised: 2018-12-18 By: aw/ht  
 4840000  
 605000



**Legend**

- ★ Project Location
- Waterbody

- A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
- AA Treaty No. 72, October 30th, 1854 (Chippewa)
- AB Treaty No. 82, February 9th, 1857 (Chippewa)
- AE Treaty No. 9, James Bay 1905, 1906 (Ojibway and Cree)
- AF Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
- AG Williams Treaty, October 31st, 1923 (Chippewa)
- A2 John Collins' Purchase, 1785 (Chippewa)
- B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
- B1 Crawford's Purchase, October 9th, 1783 (Mississauga)
- B2 Crawford's Purchase, 1783, 1787, 1788 (Mississauga)
- C Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
- D Treaty No. 3, December 2nd, 1792 (Mississauga)
- E Haldimand Tract: from the Crown to the Mohawk, 1793
- F Tyendinaga: from the Crown to the Mohawk, 1793
- G Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
- H Treaty No. 5, May 22nd, 1798 (Chippewa)
- I Treaty No. 6, September 7th, 1796 (Chippewa)
- J Treaty No. 7, September 7th, 1796 (Chippewa)
- K Treaty No. 11, June 30th, 1798 (Chippewa)
- L Treaty No. 13, August 1st, 1805 (Mississauga)
- M Treaty No. 13A, August 2nd, 1805 (Mississauga)
- N Treaty No. 16, November 18th, 1815 (Chippewa)
- O Treaty No. 18, October 17th, 1818 (Chippewa)
- P Treaty No. 19, October 28th 1818 (Chippewa)
- Q Treaty No. 20, November 5th, 1818 (Chippewa)
- R Treaty No. 21, March 9th, 1819 (Chippewa)
- S Treaty No. 27, May 31st, 1819 (Mississauga)
- T Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
- U Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
- V Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
- W Treaty No. 45½, August 9th, 1836 (Saugeen)
- X Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
- Y Treaty No. 60, Robinson, Superior, September 7th, 1850 (Ojibwa)
- Z Treaty No. 61, Robinson, Huron, September 9th, 1850 (Ojibwa)



- Notes**
1. Coordinate System: NAD 1983 Statistics Canada Lambert
  2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.
  3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

Project Location	165010590 REVA
City of Brampton	Prepared by AMW on 2018-12-17
	Technical Review by ABC on yyyy-mm-dd
	Independent Review by ABC on yyyy-mm-dd

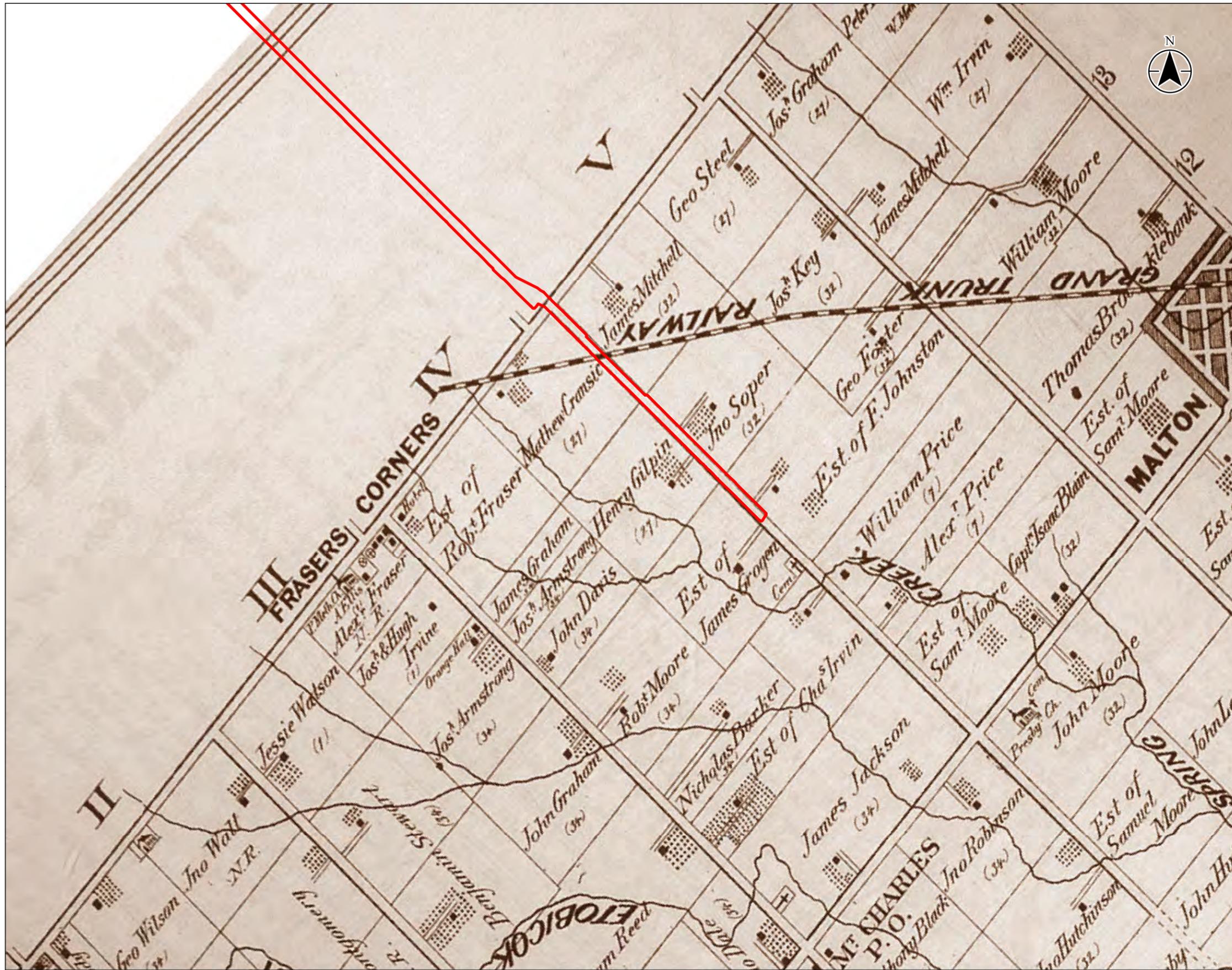
Client/Project  
**CITY OF BRAMPTON**  
**BRAMALEA ROAD IMPROVEMENTS**  
**STAGE 1 ARCHAEOLOGICAL ASSESSMENT**

Figure No.  
**2**

Title  
**Treaties and Purchases (Adapted from Morris 1943)**



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Legend  
Study Area  
(approximate)

Figure Not to Scale

Notes  
1. Walker and Miles, 1877. *Illustrated Historical Atlas of the County of Peel, Ont.*  
Toronto: Walker and Miles.

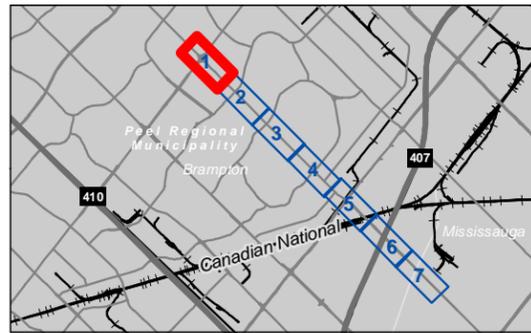
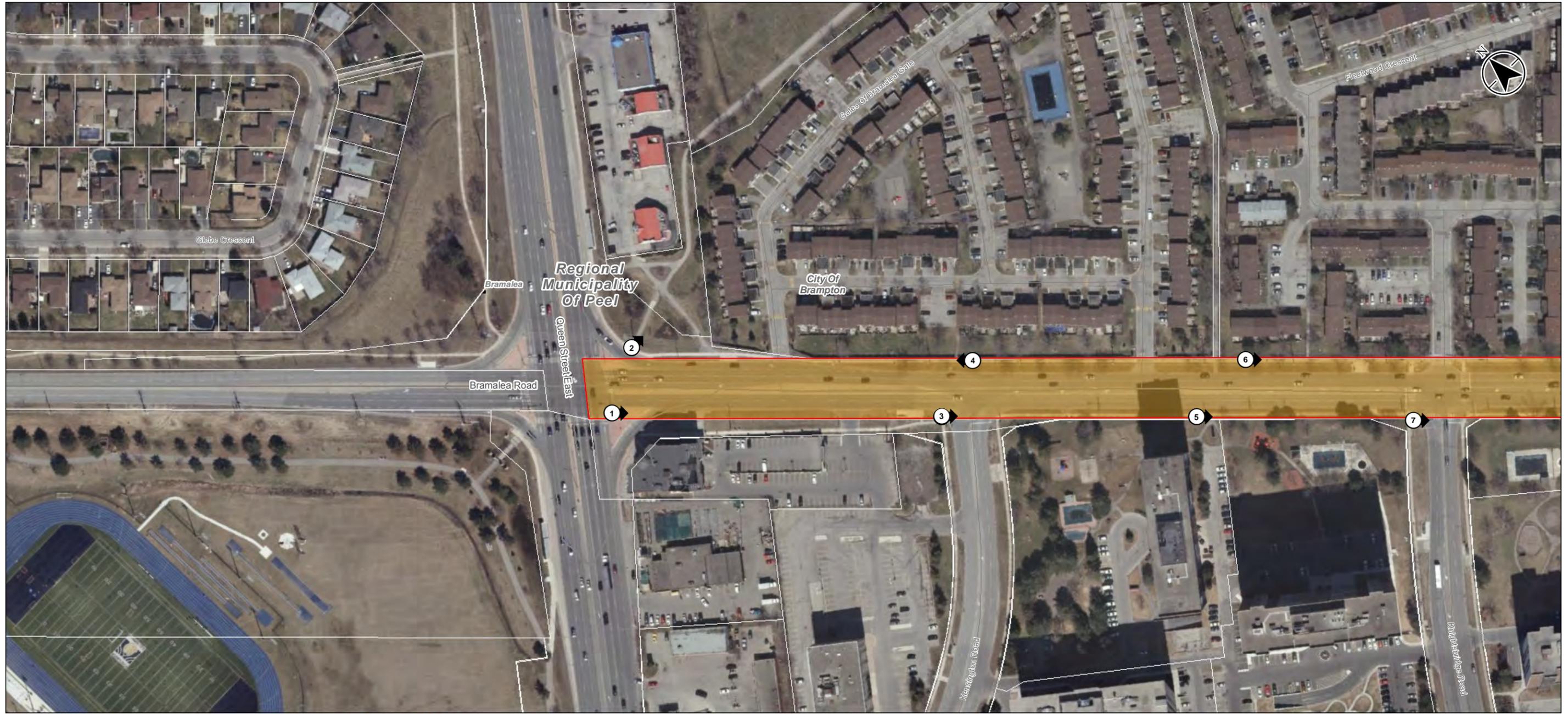


Project Location 165010590 REVA  
City of Brampton Prepared by AMW on 2018-12-18  
Technical Review by ABC on yyyy-mm-dd  
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Client/Project  
CITY OF BRAMPTON  
BRAMALEA ROAD IMPROVEMENTS  
STAGE 1 ARCHAEOLOGICAL ASSESMENT

Figure No.  
3-2

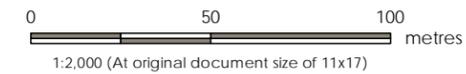
Title  
Portion of the 1877 Map of Toronto  
Township



- Legend**
- Study Area
  - Municipal Boundary, Lower
  - Major Road
  - Minor Road
  - Photo Location and Direction
- Archaeology Potential**
- Low to No Archaeological Potential - No Further Work Required

**Notes**

1. Coordinate System: NAD 1983 UTM Zone 17N
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3. Orthoimagery Service Layer Credits:



Project Location: City of Brampton  
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 Technical Review by AF on 2019-01-23

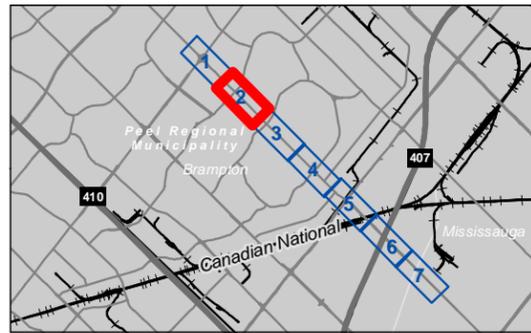
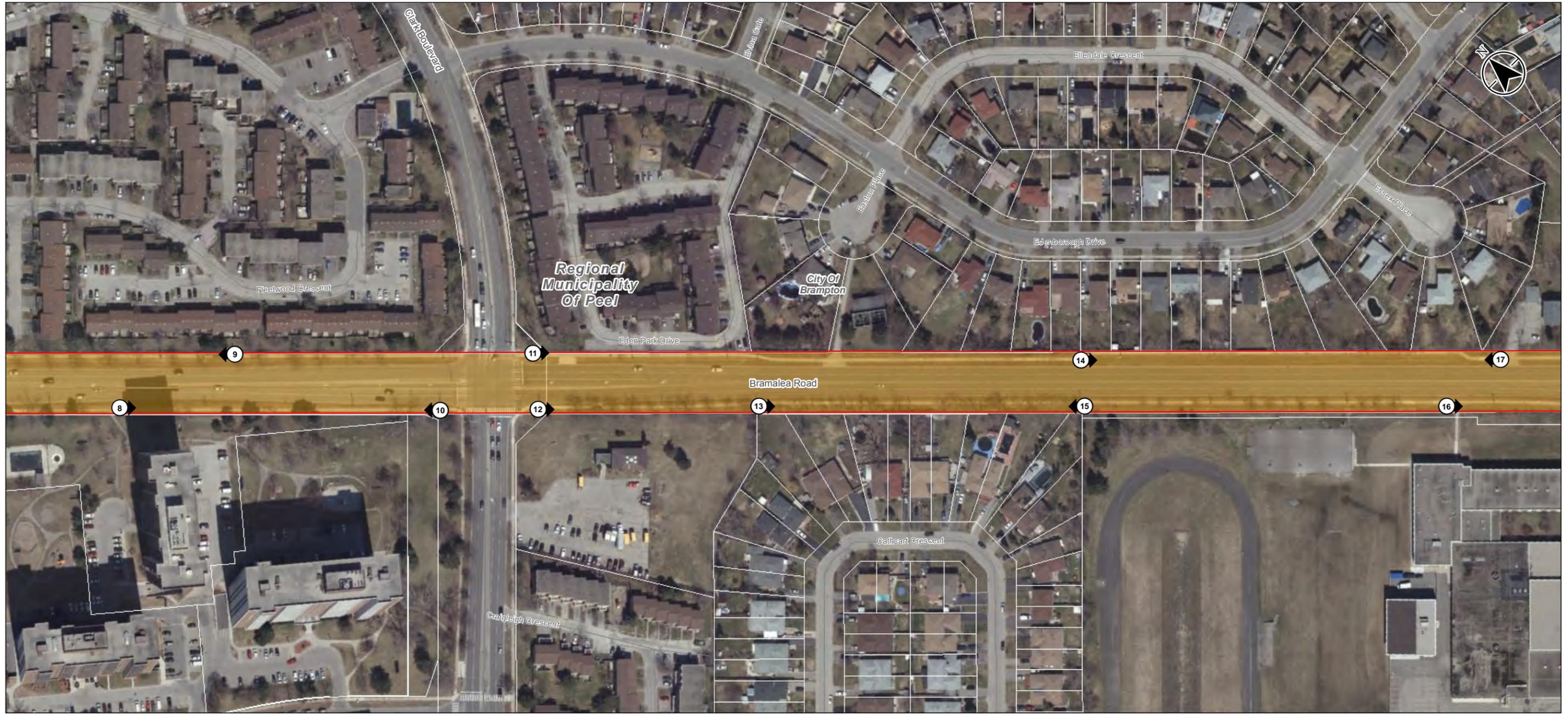
Client/Project: CITY OF BRAMPTON  
 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Figure No.: 4-1

Title: Archaeological Potential

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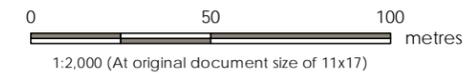
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- Legend**
- Study Area
  - Photo Location and Direction
  - Municipal Boundary, Lower
  - Major Road
  - Minor Road
- Archaeology Potential**
- Low to No Archaeological Potential - No Further Work Required

**Notes**

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Client/Project: CITY OF BRAMPTON  
 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESMENT

Figure No.

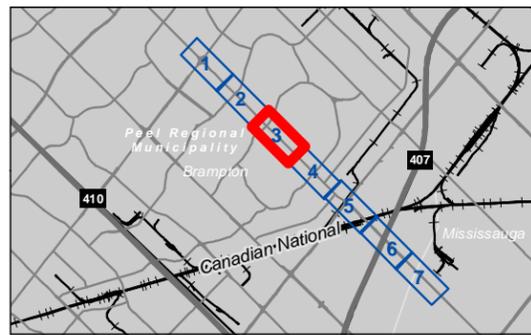
4-2

Title

Archaeological Potential

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**Legend**

- Study Area
  - Municipal Boundary, Lower
  - Photo Location and Direction
  - Major Road
  - Minor Road
- Archaeology Potential**
- Low to No Archaeological Potential – No Further Work Required
  - Area of Archaeological Potential – Stage 2 Archaeological Assessment Required

**Notes**

1. Coordinate System: NAD 1983 UTM Zone 17N
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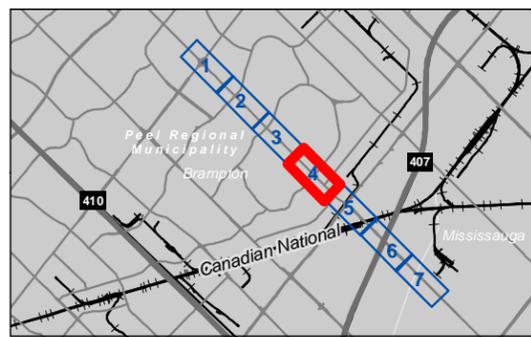
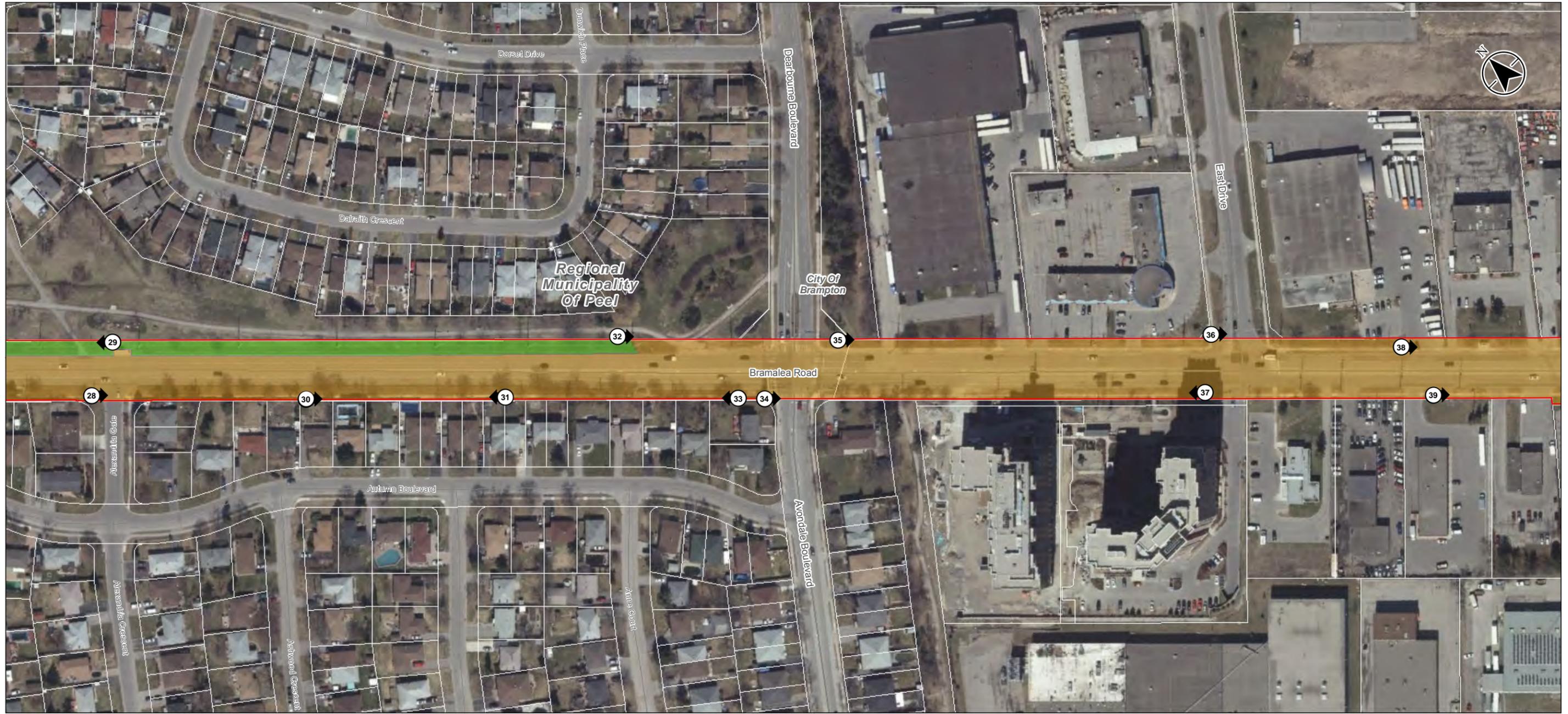


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Client/Project: CITY OF BRAMPTON  
 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Figure No.: 4-3

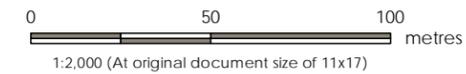
Title: Archaeological Potential



**Legend**

- Study Area
- Municipal Boundary, Lower
- Major Road
- Minor Road
- Photo Location and Direction
- Archaeology Potential**
- Low to No Archaeological Potential – No Further Work Required
- Area of Archaeological Potential – Stage 2 Archaeological Assessment Required

**Notes**  
 1. Coordinate System: NAD 1983 UTM Zone 17N  
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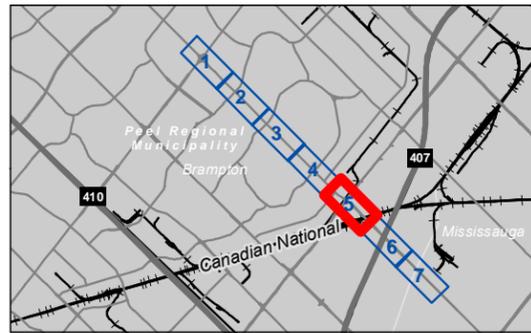
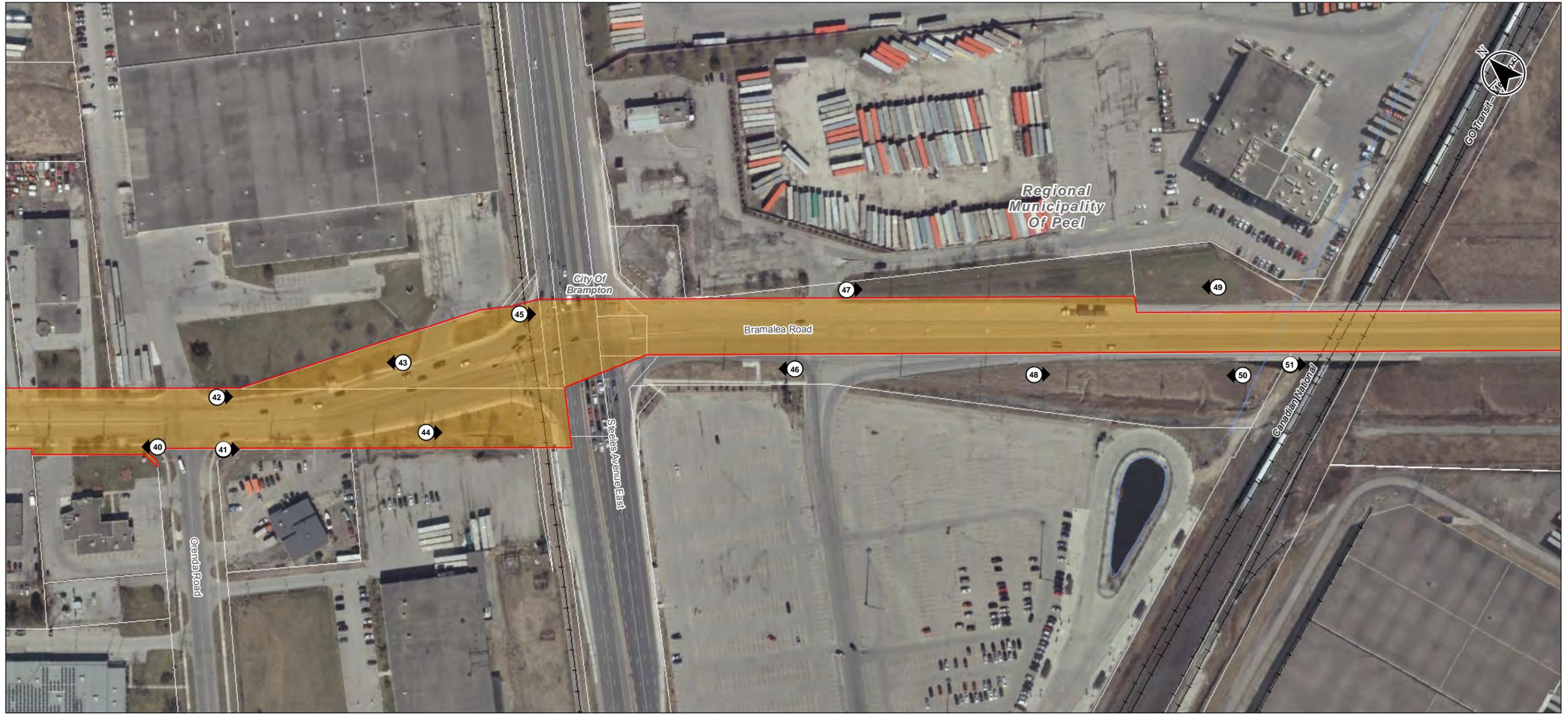


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 City of Brampton  
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 Technical Review by AF on 2019-01-23

Client/Project: CITY OF BRAMPTON  
 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESMENT

Figure No.: 4-4

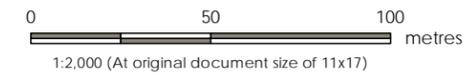
Title: Archaeological Potential



- Legend**
- Study Area
  - Photo Location and Direction
  - Municipal Boundary, Lower
  - Major Road
  - Railway
  - Watercourse (Permanent)
  - Waterbody
- Archaeology Potential**
- Low to No Archaeological Potential – No Further Work Required

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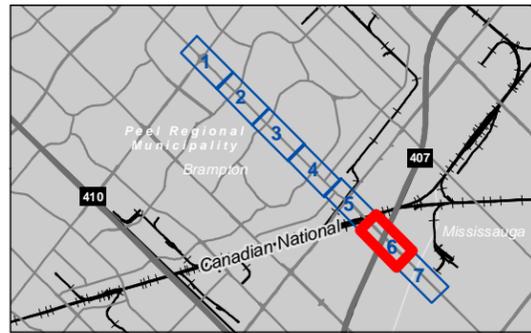
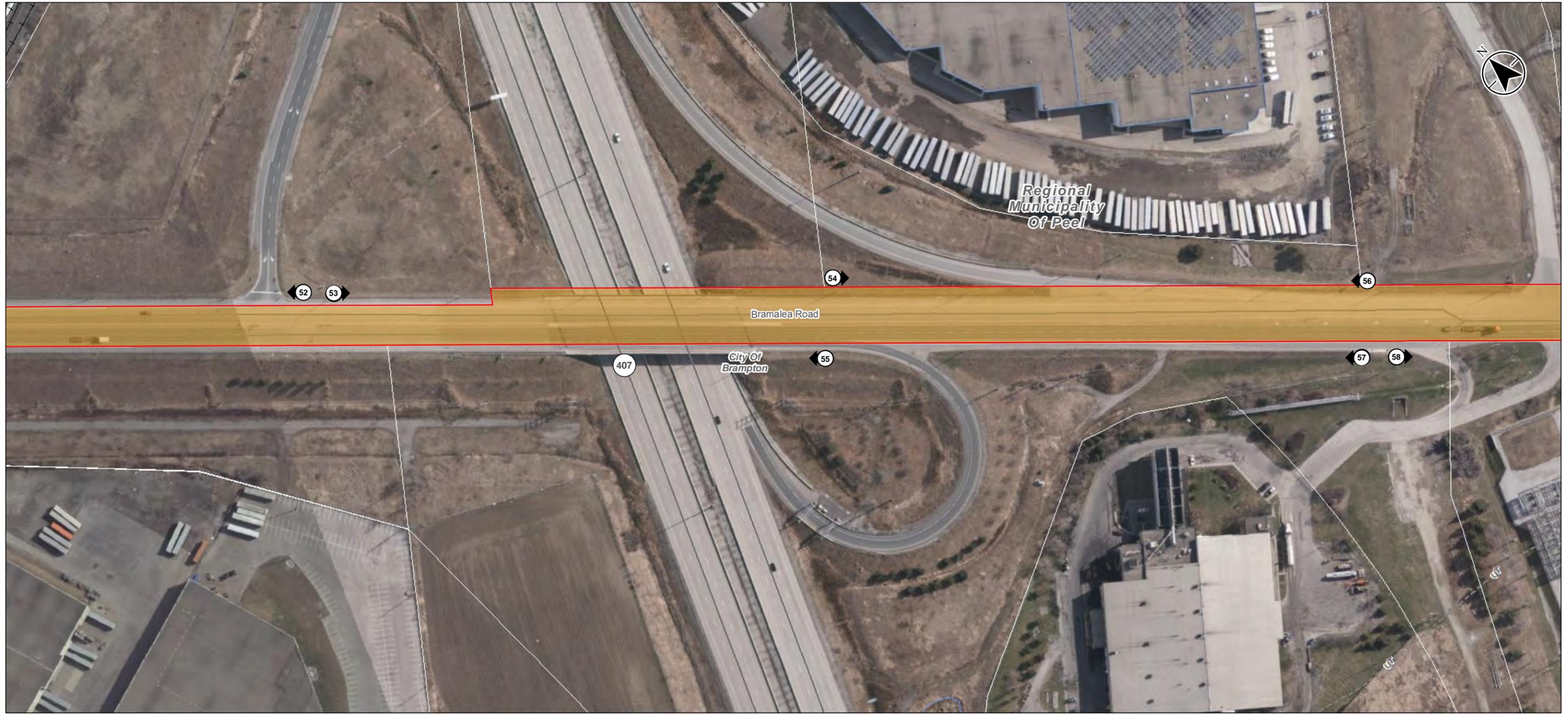
Project Location: City of Brampton  
 Prepared by AMW on 2019-03-18  
 Technical Review by AF on 2019-01-23

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 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Figure No.: 4-5  
 Title: Archaeological Potential

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**Legend**

- Study Area
- Photo Location and Direction
- Archaeology Potential**
- Low to No Archaeological Potential - No Further Work Required
- Municipal Boundary, Lower
- Highway
- Major Road
- + Railway
- Hydro Line
- Unknown Transmission Line
- Waterbody

**Notes**

1. Coordinate System: NAD 1983 UTM Zone 17N
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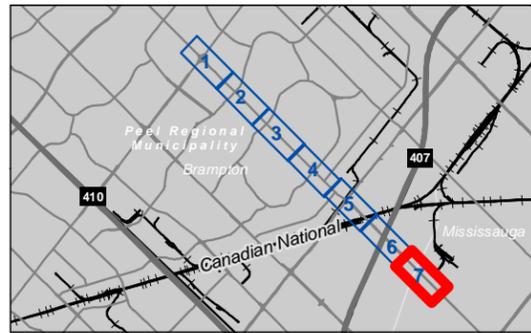
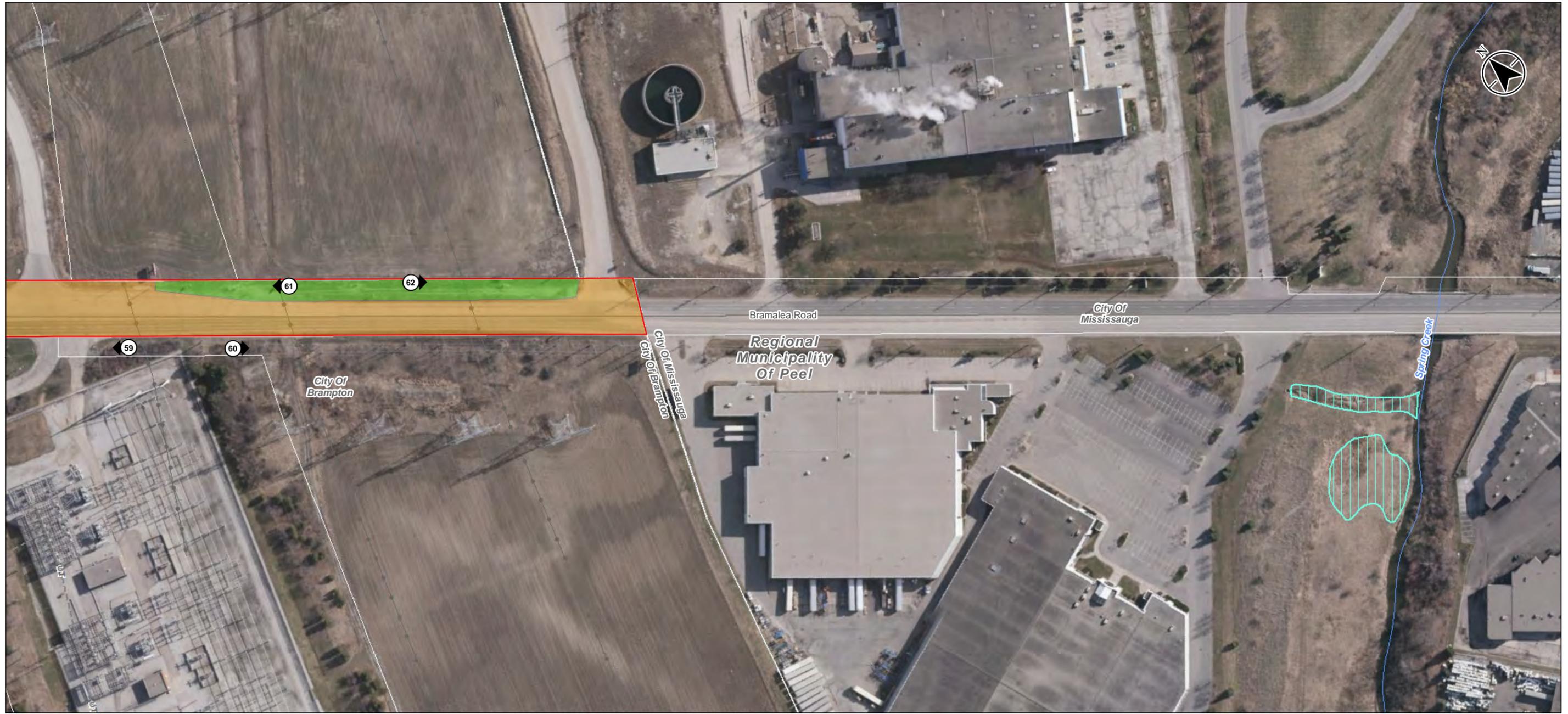


Project Location: City of Brampton  
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 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESMENT

Figure No.: 4-6

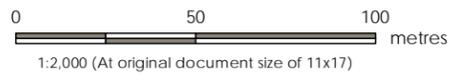
Title: Archaeological Potential



- Legend**
- Study Area
  - Photo Location and Direction
  - Archaeology Potential**
  - Low to No Archaeological Potential – No Further Work Required
  - Area of Archaeological Potential – Stage 2 Archaeological Assessment Required
  - Municipal Boundary, Lower
  - Major Road
  - Hydro Line
  - Unknown Transmission Line
  - Watercourse (Permanent)
  - Wetland, Not evaluated per OWES

**Notes**

1. Coordinate System: NAD 1983 UTM Zone 17N
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 BRAMALEA ROAD IMPROVEMENTS  
 STAGE 1 ARCHAEOLOGICAL ASSESMENT

Figure No.: 4-7  
 Title: Archaeological Potential

