Appendix ‘C’ – Stage 1 Archaeological Assessment

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ORIGINAL REPORT

Stage 1 Archaeological Assessment

Three Grand River Crossings
Former Geographic Township of Brantford, Brant County,
Now City of Brantford, Ontario

Submitted to:

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19128292-3000-R01

July 27, 2021

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PIF #: P457-0093-2020

Distribution List

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Executive Summary

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.

Golder Associates Ltd. (Golder) was retained by GM BluePlan Engineering Limited (GM BluePlan) to conduct a Stage 1 Archaeological Assessment for the Three Grand River Crossings Environmental Assessment (EA). The three crossings include the Lorne Bridge, Brant's Crossing Bridge, and TH&B Crossing Bridge in Brantford, Ontario. The Study Area for the Stage 1 assessment encompasses approximately 15.3 hectares (ha) of public lands surrounding the three crossings on both sides of the Grand River (Map 1). It is located in the former geographic Township of Brantford, Brant County, now City of Brantford, Ontario. The Stage 1 Archaeological Assessment was undertaken to meet the requirements of the *Environmental Assessment Act,* R.S.O 1990, c.E.18 (Government of Ontario 1990a).

The Study Area is important to both Indigenous and Euro-Canadian inhabitants of this area of Ontario as it is in close proximity to the original location of Brant's Ford, the place where Six Nations Chief Joseph Brant (Thayendanegea) had a ford across the Grand River. The Town of Brantford derives its name from "Brant's Ford," which was given to it by the several hundred Euro-Canadian settlers who lived at the townsite along what is now Colborne Street on the east side of the Grand River (Brantford Expositor 1927). As Brantford expanded in the 19th century, some of the earliest bridges across the Grand River were built in the Study Area in the vicinity of the Lorne Bridge, and the western mouth of the Brantford Canal. Which was an important transportation route in southern Ontario until the arrival of the railroads. The Brantford Canal was located in the Study Area near the eastern end of the Brant's Crossing Bridge. The Study Area remained relevant with the continued development of Brantford; the original Lorne Bridge, as well as the Brant's Crossing Bridge, and the TH&B Bridge are all products of the late 19th century.

The Study Area was initially determined to have archaeological potential, however, background research revealed that the Grand River had a vastly different course during the 19th century and early 20th century (see Section 1.2.7), which would have seen a large portion of the western side of the Study Area underwater at that time (see Map 3 to Map 12, as well as Map 17). Furthermore, the Stage 1 property inspection revealed that large portions of the Study Area have been subject to disturbance from the construction of the dike system, roads, sidewalks, former railways and canals, and city park infrastructure (Map 18). As such, it is concluded that these portions of the Study Area require no further archaeological assessment as all archaeological potential has either been removed by previous disturbance or did not exist due to permanently wet conditions until the late 19th century.

Other portions of the Study Area on both the eastern and western sides of the Grand River retain archaeological potential, and as such, should be subject to Stage 2 Archaeological Assessment prior to development activities. These areas are identified on Map 18 and include a small portion of Lorne Park and five portions of the Grand River floodplain.

Given the combined results of the background study and property inspection, the following recommendations are provided:

A Stage 2 Archaeological Assessment that meets requirements set out in the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) should be conducted by a licenced archaeologist in all

portions of the Study Area that retain archaeological potential and are anticipated to be impacted by proposed development impacts (Map 18). The Stage 2 assessment should be conducted by a licensed archaeologist following the test pit survey method at 5 m intervals as per the Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists*. Test pits should be excavated by hand and be at least 30 cm in diameter and extend at least 5 cm into natural subsoil. All soil should be screened through 6 mm hardware cloth to facilitate the recovery of cultural materials, and each test pit should be examined for stratigraphy, cultural features, and fill.

Given the identified historical significance of the Grand River Watershed, and the recognition of this waterway as a Canadian Heritage River System, a marine archaeological assessment should also be completed prior to any proposed impact to the marine landscape which includes property up to the high water mark along the shoreline. The marine archaeological assessment should be completed by an archaeologist licensed in the Province of Ontario under a Marine Permit issued by the Ministry of Heritage, Sport, Tourism and Culture Industries.

The Ontario Ministry of Heritage, Sport, Tourism and Culture Industries is asked to review the results and recommendations presented herein, accept this report into the Provincial Register of archaeological reports and issue a standard letter of compliance with the Ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licencing.

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1.0 PROJECT CONTEXT

1.1 Development Context

Golder Associates Ltd. (Golder) was retained by GM BluePlan Engineering Limited (GM BluePlan) to conduct a Stage 1 Archaeological Assessment for the Three Grand River Crossings Environmental Assessment (EA). The three crossings include the Lorne Bridge, Brant's Crossing Bridge, and TH&B Crossing Bridge in Brantford, Ontario. The Study Area for the Stage 1 assessment encompasses approximately 15.3 hectares (ha) of public lands surrounding the three crossings on both sides of the Grand River (Map 1). It is located in the former geographic Township of Brantford, Brant County, now City of Brantford, Ontario. The Stage 1 Archaeological Assessment was undertaken to meet the requirements of the *Environmental Assessment Act,* R.S.O 1990, c.E.18 (Government of Ontario 1990a).

The Stage 1 assessment was conducted under professional archaeological license P457, issued to Lafe Meicenheimer of Golder by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) (PIF # P457-0093-2020). As the Study Area is entirely public property, permission to enter the Study Area to conduct all required archaeological field activities was not necessary.

1.2 Historical Context

Table 1 provides a general outline of the pre- and post-contact culture history for Brant County, drawn from Ellis and Ferris (1990), while Map 2 displays the pre-contact Indigenous culture history of Brant County.

Table 1: Cultural Chronology for Brant County.

Period		Time Range (circa)	Characteristics
Paleo	Early	9000 - 8400 BC	Gainey, Barnes, and Crowfield traditions; small bands; mobile hunters and gatherers; utilization of seasonal resources and large territories; fluted projectiles
	Late	8400 - 8000 BC	Holcombe, Hi-Lo, and Lanceolate biface traditions; continuing mobility; campsite/way-station sites; smaller territories are utilized; non-fluted projectiles
Archaic	Early	8000 - 6000 BC	Side-notched, Corner-notched (Nettling, Thebes), and Bifurcate Base traditions; growing diversity of stone tool types; heavy woodworking tools appear (e.g., ground stone axes and chisels)
	Middle	6000 - 2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton side- and corner-notched traditions; reliance on local resources; populations increasing; more ritual activities; fully ground and polished tools; net-sinkers common; earliest copper tools

Period		Time Range (circa)	Characteristics
	Late	2000 - 950 BC	Narrow Point (Lamoka), Broad Point (Genesee), and Small Point (Crawford Knoll) traditions; less mobility; use of fish-weirs; true cemeteries appear; stone pipes emerge; long-distance trade (marine shells and galena)
Woodland	Early	950 - 400 BC	Meadowood tradition; crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; bands of up to 35 people
	Middle	400 BC - AD 500	Saugeen tradition; stamped ceramics appear; Saugeen projectile points; cobble spall scrapers; seasonal settlements and resource utilization; post holes, hearths, middens, cemeteries, and rectangular structures identified
	Transitional	AD 550 - 900	Princess Point tradition; cord roughening, impressed lines and punctate designs on pottery; adoption of maize horticulture at the western end of Lake Ontario; oval houses and 'incipient' longhouses; first palisades; villages with 75 people
	Late (Ontario Iroquois Tradition	AD 900 - 1300	Early - Glen Meyer tradition; settled village-life based on agriculture; small villages (0.4 ha) with 75–200 people and 4–5 longhouses; semi-permanent settlements
		AD 1300 - 1400	Middle - Uren and Middleport traditions; classic longhouses emerge; larger villages (1.2 ha) with up to 600 people; more permanent settlements (30 years)
		AD 1400 - 1600	Late - Larger villages (1.7 ha); Examples up to 5 ha with 2,500 people; extensive croplands; also, hamlets, cabins, camps and cemeteries; potential tribal units; fur trade begins ca. 1580; European trade goods appear

1.2.1 Paleo Period

The first human occupation of southwestern Ontario, known as the Paleo Period, begins just after the end of the Wisconsin Glacial Period. During this time there was a complex series of ice retreats and advances that played a large role in shaping the local topography. Southwestern Ontario was finally ice free by about 12,500 years ago, but the first evidence of human settlement dates to about 11,000 years ago when this area was inhabited by Indigenous groups that had been living south of the Great Lakes.

Our current understanding of Early Paleo settlement patterns suggests that small bands consisting of up to 25 to 35 individuals followed a pattern of seasonal mobility extending over large territories (Ellis and Deller 1990:54).

Sites from this time are exceedingly rare, in part because population densities are thought to have been very low, with all of southwestern Ontario being occupied by perhaps only 100 to 200 people (Ellis and Deller 1990:54).

Many Early Paleo sites are located in elevated locations on well-drained loamy soils, and many have been found on former beach ridges associated with post-glacial Lake Algonquin that had previously occupied the Lake Huron/Georgian Bay basin. Given their placement in elevated locations, which were likely conducive to the interception of migratory mammals such as caribou, it has been suggested that these sites may represent communal hunting camps. Although most Early Paleo sites are relatively small, there are a few large sites, such as one located close to Parkhill, Ontario, which covered as much as 6 ha (Ellis and Deller 1990:51). However, it appears that these larger sites were formed when the same general locations were occupied for short periods of time over the course of many years.

There are also smaller Early Paleo camps scattered throughout the interior of southwestern Ontario, usually situated adjacent to wetlands. Research suggests that population densities were very low during the Early Paleo Period, with all of southwestern Ontario being occupied by perhaps only 100 to 200 people (Ellis and Deller 1990).

The Late Paleo Period (8400 - 8000 BC) has been less well researched than the Early Paleo, and as a result it is poorly understood. By this time, the environment of southwestern Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo Period had either moved further north or became extinct.

During the Late Paleo Period people continued to cover large territories as they moved about in response to seasonal resource fluctuations. On a province-wide basis Late Paleo projectile points are far more common than Early Paleo materials, suggesting a relative increase in population.

The end of the Paleo Period was heralded by numerous technological and cultural innovations that appeared throughout the Archaic Period. These innovations may be best explained in relation to the dynamic nature of the post-glacial environment and region-wide population increases.

1.2.2 Archaic Period

During the Early Archaic Period (8000-6000 BC), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis, Kenyon and Spence 1990:68-69). Notable technological changes during this period include the appearance of side- and corner-notched projectile points not found during the previous Paleo times, and the introduction of ground stone tools such as celts and axes, which suggest woodworking was increasing in importance. In addition to the introduction of new tools, there may have been some reduction in the degree of seasonal movement of groups, although it is still suspected that population densities were quite low, and band territories large.

During the Middle Archaic Period (6000-2500 BC) the trend towards more diverse toolkits continued, as the presence of net-sinkers and fish weirs suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured. Bannerstones are carefully crafted ground stone devices that may have served as a counterbalance for "atlatls" 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, it appears that lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized more regularly.

The apparent reduction in territory size may be linked to gradual region-wide population growth which led to the infilling of the landscape and a reorganization of subsistence practices as more people became more reliant on resources from smaller areas. It may also have been the impetus for the development of long-distance trading as shown by the increased presence of exotic materials and items during the later part of the Middle Archaic Period. For example, tools manufactured from natural sources of copper found in areas northwest of Lake Superior were being widely traded across the northeast (Ellis, Kenyon and Spence 1990:66).

During the Late Archaic (2500-950 BC) 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 expanded. It is during the Late Archaic that the first true cemeteries appear. 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 such as the Thames River.

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. 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". Birdstones are small, bird-like effigies usually manufactured from green banded slate. While the function of these artifacts is presently poorly understood, they are especially common in the London area.

1.2.3 Woodland Period

The Early Woodland Period (950-400 BC) 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, and friable. 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, Pihl and Murphy 1990:137). These vessels were not easily portable, and individual pots must not have sustained 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. 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 which 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. 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 on sites in the London area.

In terms of settlement and subsistence patterns, the Middle Woodland (400 BC-AD 900) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish became an even more important part of their diet. This is especially true in the nearby London area, where some Middle Woodland sites have produced literally thousands of bones from spring spawning species such as walleye and sucker. In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often garishly 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. While the valley floors of floodplains had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was repeatedly occupied over several hundred years. Because this is the case, rich deposits of artifacts often accumulated.

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 provides a prelude to the developments that follow during the Late Woodland Period.

In the portion of southwestern Ontario east of London, the Late Woodland Period began with 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 AD 600. However, it did not become a dietary staple until at least three to four hundred years later.

The first agricultural villages in southwestern Ontario date to the 10th century AD. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. Categorized as "Early Ontario Iroquoian" (AD 900-1300), many archaeologists believe that it is possible to trace a direct line from the Iroquoian groups which inhabited southwestern Ontario at the time of first European contact, to these early villagers.

Village sites dating between AD 900 and 1300, 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 m in length (Dodd et al 1990:349; Williamson 1990:304-305). It is also quite 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. 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.

The Middle Ontario Iroquoian Period (AD 1300-1400) 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 ha 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 m, while houses of up to 45 m 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 AD 1300. 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 defense (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). More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by AD 1300. During the Early Ontario Iroquoian Period villages were haphazardly planned at best, with houses oriented in various directions. During the Middle Ontario Iroquoian Period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses.

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

Initially at least, the Late Ontario Iroquoian Period (AD 1400-1650) continues many of the trends which have been documented for the proceeding century. For instance, between AD 1400 and 1450, house lengths continued to grow, reaching an average length of 62 m. One longhouse excavated on a site southwest of Kitchener stretched an incredible 123 m (Lennox and Fitzgerald 1990:444-445). After AD 1450, house lengths begin to decrease, with houses dating between AD 1500-1580 averaging only 30 m in length.

Why house lengths decrease after AD 1450 is poorly understood, although it is believed that the even shorter houses witnessed on historical 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 continued 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 just north of Toronto has been shown to have expanded on no fewer than five occasions. 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.

After AD 1525, communities of pre-contact Indigenous peoples of the Late Ontario Iroquoian Period who had formerly lived throughout southwestern Ontario as far west as the Chatham area moved further east to the Hamilton area. During the late 1600s and early 1700s, the French explorers and missionaries reported a large population of Iroquoian peoples clustered around the western end of Lake Ontario. They called these people the "Neutral", because they were not involved in the ongoing wars between the Huron and the League Iroquois located in upper New York State.

It has been satisfactorily demonstrated that the Late Ontario Iroquoian communities which were located in southwestern Ontario as far west as the Chatham area were ancestral to at least some of the Neutral Nation groups (Lennox and Fitzgerald 1990; Smith 1990:283). For this reason, the Late Ontario Iroquoian groups which occupied southwestern Ontario prior to the arrival of the French are often identified as "Prehistorical Neutral". They occupied a large area extending along the Grand River and throughout the Niagara Peninsula as far east as Fort Erie and Niagara Falls (Lennox and Fitzgerald 1990).

1.2.4 Post-Contact Indigenous Period

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking peoples, such as the Huron and closely related Petun, 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).

The nature of their settlement size, population distribution, and material culture shifted as European settlers encroached upon their territory. However, 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 Iroquoian systems of ideology and thought” (Ferris 2009:114). First Nation peoples of Southern Ontario have left behind archaeologically significant resources throughout Southern Ontario which show continuity with past peoples, even if they have not been recorded in historical Euro-Canadian documentation.

Portions of southwestern Ontario were also occupied by Algonkian-speaking groups both before and after European contact. Generally, the pre-contact Indigenous presence in much of southern Ontario reflects occupation by northern Iroquoian speakers. During and following the Iroquois Wars of the mid-17th century and the dispersal of the Iroquoian-speaking Huron-Petun and Neutral, a considerable reduction in the extent of territory occupied by Algonkian speakers occurred in southern Ontario. Beginning about 1690, northern Algonkian speakers from northern Ontario began to move southwards and southern Iroquoian speakers began to push southern Algonkian-speakers further west (Ferris 2009; Schmalz 1991).

1.2.5 Historical Euro-Canadian Period

The Brant County area first enters the Euro-Canadian historical record as part of the Haldimand Tract, described as:

> *"...a parcel or tract of land given to the Six Nations Indians, by Governor Haldimand October 25th, 1784 ... and conveyed by Grant the 14th of January, 1793. ...This Grant was composed of the following Townships: Dunn, Sherbrooke, Moulton, Canborough, North and South Cayuga, Oneida and Seneca in Haldimand County; Tusc[aro]ra, Onondaga, Brantford and South Dumfries in Brant County; North Dumfries, Waterloo and Woolwich in Waterloo County; Pilkington and Nichol in Wellington County; and is described as a parcel or tract of land six miles on each side of the Ouse or Grand River from its mouth toward its source, to be bounded by the tract of land deeded December the 7th, 1792 by the Mississa[u]ga Chiefs and people to the Crown. This part was set aside as a suitable retreat for the Six Nation Indians who had shewn attachment and Fidelity to the British Government during the troublous times 1759 to 1783 and was granted to the Chiefs, Warriors, Women and People of the Six nations and their heirs forever."*
>
> Morris 1943: 19-21

Following this land grant, Joseph Brant (Thayendanegea), Six Nations Iroquois chief and ally to the British during the American War of Independence (1775-1783), proceeded to sell some of the Haldimand Tract land grant to Euro-Canadian settlers.

Following the Toronto Purchase of 1787, today's southern Ontario was divided into four political districts - Lunenburg, Mechlenburg, Nassau, and Hesse - within the old 'Province of Quebec'. These became part of the Province of Upper Canada in 1791, and were renamed the Eastern, Midland, Home, and Western Districts, respectively. The Study Area was within the former Western District, which originally included all lands between an arbitrary line running north from Long Point on Lake Erie to Georgian Bay, and the Canada/US border. Each district was further subdivided into counties and townships; the Study Area was originally part of Wentworth County, which later formed part of Brant County, and Brantford Township.

1.2.6 Brantford Township and the City of Brantford

The historical Township of Brantford was originally located in the west-central portion of Wentworth County, which later fell within the centre of Brant County, being bounded to the northwest by South Dumfries Township, to the northeast by Ancaster Township, to the southeast by Onondaga and Tuscarora Townships, to the southwest by Oakland Township, and to the west by Burford Township. Although the township lands were formally owned by the Six Nations until the 1830s, the area had been slowly settled by individuals of European descent from as early as 1788. United Empire Loyalists fleeing the United States after the American Revolution were the first settlers to arrive in the area (Page & Smith 1875; Reville 1920). These individuals initially settled along the fertile banks of Fairchild's Creek running through the eastern half of the Township, and along the eastern banks of the Grand River extending through the middle of the Township. By 1810, it is reported that three families were residing in the Township. Thirty years later, the population had grown to 5,199 and the Township was considered well cultivated and fully settled at this time, with six sawmills and six grist mills operating in the area (Smith 1846). Development continued rapidly in the years that followed, with the population rising to 6,000 in 1846. The arrival of the Great Western Railway in 1854 and the Grand Trunk Railway in 1856 appear to have brought further growth to the Township with populations reaching a peak of nearly 7,000 in the 1860s (Smith 1846; Sutherland 1869). This

number quickly decreased to 4,000 in 1875 (Page & Smith 1875), which corresponds with a general shift away from agricultural production at this time.

Throughout the 19th century, several communities developed in Brantford Township, including the Town of Brantford, and the villages of Cainsville, Mount Vernon, Burtch, Newport, and Rosebank.

The Town of Brantford, though not incorporated as such until 1847, was given its name by the several hundred Euro-Canadian settlers who lived at the townsite along what is now Colborne Street on the east side of the Grand River (Brantford Expositor 1927). Brantford takes its name from Six Nations Chief Joseph Brant (Thayendanegea) having a ford across the Grand River at the location of the town, known as “Brant’s Ford.” The townsite was purchased from the Chiefs of the Six Nations in April of 1830 (Brantford Expositor 1927). Officially surveyed by Lewis Burwell in 1830, the Town of Brantford was considered a place of significant business and prosperity throughout the 19th century. In 1840, the Grand River Navigation Company was chartered to build a canal in Brantford, adding to the canal system along the Grand River between Dunnville and Brantford and accelerating grown in Brantford (City of Brantford n.d.). By 1846, the Town boasted a population of roughly 2,000 individuals, eight churches, a weekly newspaper, a post office, and numerous professional individuals, factories, stores, and schools (Smith 1846), and in 1847, the Town of Brantford was incorporated (Warner, Beers, and Co. 1883). The arrival of the Grand Trunk Railway in 1854 brought about the end of the canal era, but boosted growth in Brantford nonetheless. By 1875, the population had grown to nearly 10,000, prompting the incorporation of the City of Brantford in 1876 (Page & Smith 1875). The City continued to grow, annexing substantial surrounding areas in 1954 and the remaining lands within Brantford Township between 1980 and 1990, forming a single-tier municipality independent from the surrounding County of Brant. In 2016, the population of the City of Brantford numbered 97,496 (Statistics Canada 2016).

1.2.6.1 Brantford Rail History

Prior to the introduction of rail, interurban transit of goods and passengers was by stagecoach and by boat. In Branford, access to the Great Lakes via the Grand River led to the 1832 incorporation of the Grand River Navigation Company (GRNC). The GRNC gave area producers access to domestic and American markets, with 48-hour round trips to Buffalo, and beyond via the Welland Canal. In the early days, access up the River did not reach downtown, so the company undertook to build the Brantford Canal, opened in 1848, with a locking system allowing navigation to the center of town. By 1850, there were over 100 steam ships operating on the Grand River, which led to the growth of Brantford area mills and manufacturers. As important as it was, the GRNC was not financially successful, as the expense of building and maintaining the locks and the long journeys to market were constant strains on the enterprise (City of Brantford 1998).

Early development of the railroad in Ontario, and southwestern Ontario especially, was driven by the realization of faster trade routes between American states through the relatively flat and direct route across the province. As a result, American investment in Ontario railroads became common in the latter half of the 19th century. In 1851, Brantford missed out on its first major opportunity to capitalize on the growth of rail, refusing to offer a bonus to the Great Western Railway (GWR) to run its Niagara Falls-Detroit River line through Brantford, and the company instead ran its line eight miles to the north. Attempting to correct this misstep, the leading citizens funded their own railway in 1854, the Brantford, Buffalo and Goderich Railway, providing a direct route to Buffalo via Fort Erie, and connecting to the GWR and Grand Trunk Railroad (GTR) lines at Paris. In addition to the Buffalo line east, the proponents planned to expand the Paris line west to Goderich, providing connected towns with access to Lake Huron (Smith 2000). This objective was achieved in 1858 with the help of British investors and under the new name Buffalo & Lake Huron (B&LH) (Cooper 2020).

The importance of the railroad is evidenced by the swift decline of the GRNC. Having just finished its canal in 1848, the company was unable to realize profits for its shareholders and went into receivership, with the town acquiring its assets in 1861 (Warner Beers and Co. 1883). In 1870, the GTR leased the B&LH in perpetuity, causing concerns among Brantford's citizens and industry about a GTR monopoly increasing shipping rates (Smith 2000). Furthermore, Brantford had no direct route to Hamilton and Toronto, instead having to first make the connection to the GTR and GWR lines at Paris. As a partial solution, in 1871, the Town paid GWR $76,000 to construct an eight-mile branch line to its station at Harrisburg, which opened in November of that same year (Wilkes 1927).

Following this success, the leading citizens of Brantford continued to pursue additional rail connections to improve the Town's access and reduce rates. In 1874, leading citizens renewed a dormant company, renamed the Brantford, Norfolk, and Port Burwell (BN&PB) under the leadership of Brantford resident George H. Wilkes. The aim was to establish a connection to Lake Erie and access to Pennsylvania coal, which was used in train boilers and factories. While the company struggled financially, it was able to complete the track to Tillsonburg by April of 1876. The GWR became concerned when the Canada Southern Railway (CSR) initially leased the line, and persuaded the BN&PB to break its lease by agreeing to improve the bridge across the Grand River, connecting the BN&PB to GWR's Colborne Street Station (Smith 2000). The GWR leased the line in perpetuity in 1877, and operated the Tillsonburg line, but the line was never extended south to Port Burwell.

Unfortunately for Brantford, the GWR was amalgamated into the GTR in 1882, renewing the concerns about monopoly, poor service, and high rates (Smith 2000). Again, Brantford's citizens, led by George Wilkes, incorporated a new railroad to correct the perceived issues. The Brantford, Waterloo, and Lake Erie (BW&LE) was incorporated in 1885 with the aim of connecting to the CSR at Waterford, giving access to the Michigan Central Railroad (MCR) lines, and bringing rail competition back to the Town. Despite financial challenges, the determined citizens funded the line, which completed its connection to Waterford in February 1890. Financial challenges and neighbourhood routing issues meant that the line had to terminate at a station at the curve of Colborne Street in west Brantford. The local directors sold the line to a Chicago investor, J.N. Young, on conditions that, for a bonus of $75,000 he would bridge the Grand River and carry the line on to Hamilton (Reville 1920).

Like Brantford, Hamilton residents sought to break the GTR monopoly with an independent connection to Buffalo and to the MCR. Leading citizens incorporated the Toronto, Hamilton and Buffalo (TH&B) to achieve this aim; however, faced with financial challenges, they were forced to link up with the MCR at Waterford via Brantford. In 1892, the BW&LE amalgamated with the TH&B under the TH&B name. Young appears to have continued his work with the BW&LE until the end of 1893, when the whole of the TH&B was acquired by a group of New York investors (Maus 1941) The TH&B completed the line from Hamilton to Brantford, with service commencing in May 1895. This connection gave Hamilton access to the MCR at Waterford, and Brantford direct access to Toronto over the Canadian Pacific Railway (CPR) lines from Hamilton to Toronto (Industrial Recorder 1901). Though it remained an independently operated railroad, the TH&B came under the control of the New York Central and CPR in the mid-1890s (Maus 1941).

At the start of the 20th century, Brantford was served by rail facilities surpassing those of most similar-sized towns (IR 1901). Despite efforts to minimize its control, the GTR transported two-thirds of the freight traffic in Brantford, with a freight value third among all Canadian cities served by the company (Industrial Recorder 1901). In 1902, the opportunity arose for the Town to correct its 1851 error of passing up the chance to be on the GWR mainline. With the GTR upgrading and updating all its routes, Brantford secured a revision to the mainline route with a bonus of $57,000 to bring the line south of existing route, through the Town (Smith 2000). The GTR accepted,

and the renewed mainline opened to passenger service in September 1905. This mainline continued in operation after Canadian National Railway (CNR) succeeded as owner in 1923, and under Via Rail from 1986 to the present.

Traffic on the smaller BN&PB (GTR, and later CNR) and TH&B (later CPR) lines declined significantly beginning in the 1920s, which led to reductions in passenger service on the lines. The CNR terminated passenger service on its Tillsonburg line (formerly BN&PB) in 1948 and the TH&B ended its Waterford service in 1954, with the last train called at the Brantford station on October 2 of that year. Freight service continued on these lines in a limited capacity to Hamilton until around 1986, Tillsonburg until around 1987, and Burford until around 2001.

1.2.7 Study Area Specific Context

The Study Area surrounds the Lorne Bridge, the Brant's Crossing Bridge, and the TH&B Bridge on both sides of the Grand River.

The site of Brant's Ford across the Grand River, from which the City of Brantford takes its name (see Section 1.2.6 above), is known to have been in the area. There are two memorials established by the Brant Historical Society (BHS) and the Brant Chapter, Imperial Order Daughters of the Empire (IODE) within the Study Area in Lorne Park northwest of the Lorne Bridge commemorating the site of Brant's Ford. Both memorials were erected in 1932, though neither stands in the correct location of Brant's Ford (Image 1 and Image 2; BHS 2000). Both markers were originally set up approximately 400 m south of their current locations around what is today Fordview Court at the intersection of Gilkison Street near the TH&B Bridge (Reville 1920). This is thought to be the original location of Brant's Ford, specifically between 90 and 94 Gilkison Street, which is today Fordview Court, outside the Study Area (Image 3). Historical Mapping indicates that the course of the Grand River was different in the 19th century, with the river today flowing approximately 120 m east of its former course (Reville 1920; see below and Map 3 to Map 12). Neglect of the original monuments led to them being severely overgrown and inaccessible. As a result, the Tourism Promotion Committee of the Board of Trade elected to move both memorials to their present locations in Lorne Park in 1950 (BHS 2000). A new information plaque has been erected in Lorne Park in the same spot as the earlier monuments (Image 4) (BMA 2015).

As discussed above, the townsite for Brantford was purchased from the Six Nations in 1830, though this was all located on the eastern side of the Grand River. A patent plan of the Village of Brantford from 1834 based on Burwell's 1830 survey indicates that the tracts of land encompassing the Study Area on the west side of the Grand River were still owned by John Brant, son of Chief Joseph Brant (Thayendanegea), and J. Wood Esquire (Map 3). John Brant owned the northern portion, while Wood owned the southern portion. However, a patent plan of the Township of Brant with no date, as well as a map produced by Lewis Burwell in 1836, indicate that Jacob Brant, another son of Chief Joseph Brant (Thayendanegea), was the owner of the southern tract (Map 4 and Map 5). A later patent plan of Brantford Township from 1839 indicates that ownership of the western tracts has changed, with William J. Kerr owning the northern tract and William Gilkison owning the southern tract (Map 6). This map indicates that west Brantford on the western side of the Grand River had now been laid out as well but does not provide details of the Town itself.

Marcus Smith's *Map of the Town of Brantford* from 1852 shows significant development within the Town of Brantford on both sides of the Grand River and provides more detail of the Study Area than previous maps (Map 7). Along the eastern side of the river within the Study Area, a steep bank is indicated north of what is today the Lorne Bridge, while south of the bridge is the entrance to the Brantford Canal. The only one of the current bridges depicted in the Study Area is what is today the Lorne Bridge, which in 1852 would have been the wooden covered

toll bridge that washed out in 1854 (see below). Continuing along the eastern bank within the Study Area, there are no owners listed for the lots north of the millrace, and Ebenezer Roy is listed as owning all lots in the peninsula south of the millrace (Map 7). Along the western side of the Grand River within the Study Area, the land south of Colborne Street (Oxford Street on the map) is owned by the Gilkisons, with the exception of a small plot of land adjacent to the southeastern side of Colborne Street on a small island in the river shared by the Grand River Navigation Company and a factory whose name is illegible. There is an estate depicted on the Gilkison property at the end of Richardson Street. North of Colborne Street is owned by James Kerr, though no structures are depicted (Map 7).

Tremaine's Map of the County of Brant, published in 1858, does not provide any details about the Study Area, other than indicating that William Gilkison still owned his large tract of land on the western side of the Grand River (Map 8).

Two maps from 1869 also offer few additional details pertaining to the development within the Study Area (Map 9A and B). Neither map shows property owners nor buildings, though Robinson's *Map of the Town of Brantford* does show the Brantford, Norfolk, and Port Burwell Railway (BN&PBR) and its bridge, which was originally built in 1874 (see below; Map 9B).

The map of the Town of Brantford from the 1875 *Illustrated Historical Atlas of Brant County* again does not show any additional information, as it does not indicate landowners or buildings within the Study Area (Map 10). The *Bird's Eye View of Brantford* drawn by H. Brosius in 1875 provides a unique perspective of the Study Area looking up what is now Colborne Street (Map 11). This drawing shows the eastern bank of the Grand River along much of the Study Area as a steep bluff demarcating the flood plain of the river. The rest of the Study Area is low-lying, just a few metres above the level of the river. The bridge at what is now the Lorne Bridge is indicated as having two lanes, as well as walking paths on both sides, while the BN&PBR bridge is indicated as a three-span truss bridge. Both transportation routes are raised up several metres over the ground level across the island by earthen embankments, and have minor bridges crossing the small channel of the Grand River paralleling Gilkison Street. There are several buildings adjacent to the southeastern side of Colborne Street (Oxford Street) on the island, which are labeled as "F. Ott's Sheepskin Factory," as well as two unlabeled structures on the northwestern side (Map 11).

The 1879 map of the City of Brantford produced by the Burland Desbarats Lithograph Company does not offer additional development details for the Study Area, though the map does indicate that the portion of the Study Area immediately northwest of the Lorne Bridge on the eastern bank of the Grand River is a bluff (Map 12). The 1892 bird's eye view *City of Brantford, Canada, with Views of Principal Business Buildings* produced by the Toronto Lithography Company indicates some significant changes within the Study Area (Map 13). Firstly, the Toronto, Hamilton and Buffalo Railway (TH&B) now crosses the Grand River in the same spot it stands today. The TH&B, like the BN&PBR bridge to the north, is depicted as a three-span truss bridge. Similarly, the Lorne Bridge is now depicted as a single-span truss bridge spanning the river in the same place it crosses today. Perhaps the most interesting thing depicted on this bird's eye view is the fact that the small channel of the Grand River which flowed parallel to Gilkison Street is now shown as filled in, save for a small portion of it forming a small pond off the west bank of the river between the BN&PBR and TH&B bridges (Map 13). This is the first glimpse of the landscape of the Grand River within the Study Area that is there today. The landscape of the Study Area is further discussed below.

Further developments in the 20th century have affected the Study Area, including the Lake Erie and Northern Railway (LE&N) and the construction of the City's dike system. The LE&N was an electric railway that ran from

Galt to Port Dover through Brant and Norfolk Counties. Through Brantford, the line crossed the Grand River running north-south and ran across the TH&B line at the head of its bridge on the east side of the river. The LE&N then continued following the eastern riverbank, crossing the BN&PBR at the head of its bridge (Brant's Crossing Bridge) and Colborne Street below the Lorne Bridge (Map 14). This railway carried passengers until 1955 and freight until 1989 (Trainweb 2009). The majority of the track has been removed and the line converted into recreational path, though there is one small section still in place at the head of the Brant's Crossing Bridge and concrete bridge piers, which are in the Study Area (Image 5 and Image 6).

The Study Area was historically subject to flooding from the Grand River, and now contains portions of the City of Brantford's dike system on both sides of the river. The dikes were built in 1974 and rise approximately 10 m above the riverbanks (Image 7 and Image 8; GRCA 2009).

1.2.7.1 The Landscape

The landscape of the Study Area has been shaped by the natural force of the Grand River in addition to the development of the City of Brantford since the 19th century. As alluded to above, based on historical mapping, the course of the Grand River appears to have changed dramatically in this area during the 19th century. According to 19th century maps, the river flowed as it does now into the northern end of the Study Area, curving south and sweeping back east out the southern end of the Study Area around a small horseshoe bend through what is now the Veteran's Memorial Parkway and Market Street South interchange (Map 3 to Map 12). As well, there was a fairly large island located in the river beneath what is now the Lorne Bridge, with a smaller channel of the river flowing where Colborne Street and the BN&PBR crossed paths in the southeastern corner of the Study Area. This channel flowed parallel to Gilkison Street approximately 50 m northeast of the street from what is today Sherwood Drive to Fordview Court (Map 3 to Map 12). Finally, one end of the Grand River Navigation Company's Brantford Canal was located in the northeastern corner of the Study Area, flowing approximately 4.2 km east before rejoining the Grand River. According to historical mapping, the course of the river appears to have stayed this way until the late 19th century (Map 3 to Map 13), when the Toronto Lithographing Company's bird's eye view of Brantford shows that the small channel of the Grand River located beneath where the Lorne Bridge and BN&PBR met had been filled in, creating a peninsula from the island beneath the Lorne Bridge (Map 13). The small horseshoe bend at the southern end of the Study Area appears on mapping until 1916, when the course of the river changed to flow straighter south out of the Study Area as it does today (Map 15). The entrance to the Brantford Canal within the Study Area remained in existence until the mid-20th century. Following the foreclosure and subsequent ownership by the Town of Brantford of the Brantford Canal lands in 1859 and 1861, Alfred Watts convinced the Town to deed him the canal lands in 1875 for the purpose of a small hydro-electric plant to power his manufacturing operations. Watts' plant first generated power in 1885, and he formed the Brantford Electric Light Company in 1890. The power plant on the Brantford Canal operated until 1911, when Brantford was linked to the Dominion Power system to meet the higher demands of the city (City of Brantford n.d.). The portion of the Brantford Canal within the Study Area appears on Maps until 1968 (Map 16).

Given the course and landscape of the Grand River on these historical maps, portions of the Study Area, including a large portion of the southwestern portion of the Study Area within Fordview Park, a part of the southeastern portion of the Study Area, a part of the northwestern portion of the Study Area, and a small part of the northeastern portion of the Study Area, appear to have been underwater until the late 19th century (Map 17).

As mentioned above, the Study Area was historically subject to flooding from the Grand River, and now contains portions of the City of Brantford's dike system on both sides of the river. The dikes were built in 1974 and rise approximately 10 m above the riverbanks (GRCA 2009).

1.2.7.2 The Bridges

From the early days of Euro-Canadian settlers until 1812, the Grand River was crossed at Brant's Ford by a ferry. In 1812, a wooden bridge was built just south of the Lorne Bridge, which promptly collapsed. Many iterations followed but were swept away in the spring with the high waters of the winter thaw (Brantford Expositor 1927). At some point prior to 1841, a wooden covered bridge was built at Colborne Street where the Lorne Bridge now stands. This was a toll bridge, which caused the locals to raise money for a "free" bridge, which they built slightly downstream from the toll bridge. In 1854, the toll bridge collapsed, leaving the "free" bridge to handle traffic across the river. Shortly after the demise of the toll bridge, the "free" bridge also collapsed, leading to the construction of a small foot bridge alongside the ferry service in 1856 (Warner, Beers, and Co. 1883). In 1857, to better address the crossing needs of Brantford's growing population, an iron bridge was built where the Lorne Bridge now stands, though this bridge was also swept away in a flood on September 14, 1878 (Warner, Beers, and Co. 1883).

1.2.7.2.1 Lorne Bridge

As discussed above, the site of the Lorne Bridge at the base of Colborne Street has been the site of many of the earliest bridges crossing the Grand River, being one of the narrowest spots on the Grand River in Brantford. These early bridges were all destroyed by flooding or could not meet the demands of Brantford's population, including the iron bridge that was destroyed in 1878. Following the destruction of the iron bridge, the mayor and city council erected a temporary bridge at the site and set out to provide a permanent replacement. A new Whipple truss bridge made from wrought iron with limestone and cement piers was completed 1879. This bridge was named the Lorne Bridge after John Campbell, the Marquis of Lorne, who was Governor General of Canada at the time and attended the bridge opening (Warner, Beers, and Co. 1883, HistoricBridges.com 2012). The current bridge is a concrete arch bridge (Image 9), which was completed in 1924 to replace the Whipple truss bridge (HistoricBridges.com 2012).

1.2.7.2.2 Brant's Crossing Bridge

What is now known as the Brant's Crossing Bridge was originally part of the Brantford, Norfolk, and Port Burwell Railway (BN&PBR). The BN&PBR was chartered in 1869 as the Norfolk Railway Company by Port Dover and Port Ryerse. The company sat idle until funds became available in 1874, when authorization was given to construct a rail line from Port Burwell to Brantford via Tillsonburg, and the name was changed to the Brantford, Norfolk, and Port Burwell Railway (Hughes 2003). The railway was amalgamated into the Grand Trunk Railway in 1893, who rebuilt and updated the bridge in 1912-13, including a fourth span on the western side. The Grand Trunk Railway was then amalgamated into Canadian National Railway in 1923 (Canadian Railway and Marine World, November 1912). The rail line was ultimately abandoned and the bridge, now known as the Brant's Crossing Bridge, was used as a pedestrian bridge until damaged in a flood in 2018 (Image 10).

1.2.7.2.3 TH&B Crossing Bridge

The Toronto, Hamilton and Buffalo Railway (TH&B) was chartered in Hamilton, Ontario in 1884 out of fear that the Grand Trunk Railway (GTR) could charge high freight fees, as they effectively had a monopoly on rail transport through Hamilton (Smith 1988). The new railway was to run from Toronto to Fort Erie via Hamilton, although the southern terminus was changed to Welland when the charter was amended and extended in 1890. Following the extension of their charter, the TH&B Railway sought to work with the Brantford, Waterloo, & Lake Erie Railway (BW&LE), which was chartered by Brantford to compete with the GTR monopoly in the town in 1885 (Smith 1988). Working with the BW&LE would allow the TH&B Railway access to the western United States. The Brantford-Hamilton line was completed in 1895 and connected to Welland in 1895. That same year, the Canadian Pacific Railway (CPR) and New York Central Railroad (NYCR) bought the TH&B Railway and used it as leverage

against the GTR to gain running rights on the GTR's trunk line from Hamilton to Toronto in 1896. The TH&B Railway was merged into the CPR in 1987, and the line running from Waterford to Hamilton, including Brantford, was abandoned (Smith 1988).

The TH&B Crossing Bridge was likely the site of the so-called "free bridge" discussed above. The actual TH&B Crossing Bridge was built in 1893, though shortly after its construction it was found to be too low for flood waters of the Grand River (Canadian Engineering News 1893). Changes to the bridge, including raising the bridge 3.5 feet, an additional span on its west approach, and a new concrete abutment on its east approach were completed between 1901 and 1902 (Railway and Shipping World 1902). The bridge underwent further changes throughout the 20th century responding to the changing course of the Grand River and was purchased by the City of Brantford, refurbished, and converted to a pedestrian bridge between 2006 and 2008 (Lefler 2013) (Image 11).

1.3 Archaeological Context

1.3.1 The Natural Environment

The Study Area is situated within the Norfolk Sand Plan physiographic region, which is a large area of fine-textured, alluvial sands laid down as part of the delta of the glacial Grand River (Chapman and Putnam 1984).

> *"The sands and silts of this region were deposited as a delta in glacial Lakes Whittlesy and Warren. A great discharge of meltwater from the Grand River area entered the lakes between the ice front and the moraines to the northwest, building the delta from west to east as the glacier withdrew."*
>
> Chapman and Putnam, 1984:154

The localized topography of the Study Area is comprised of the Grand River floodplain at approximately 190 m above sea level, and lands above the floodplain at approximately 200 m above sea level. Lands at both elevations are fairly level.

Soils within the Study Area are not mapped, as the entirety of the City of Brantford has been classified as "Urban Land" (Acton 1989). Bedrock deposits in the vicinity date from the Upper Silurian Period and consist of the Salina Formation (Hewitt 1972).

The Study Area lies within the Mixedwood Plains ecozone of Ontario (The Canadian Atlas Online 2014). Although largely altered by recent human activity, this ecozone once supported a wide variety of deciduous trees, such as various species of ash, birch, chestnut, hickory, oak, and walnut, as well as a variety of birds and small-to-large land mammals, such as raccoon, red fox, whitetailed deer, and black bear.

The Study Area is located in the Grand River Watershed, which is the largest watershed in southern Ontario, encompassing 6,800 km^2 around the Grand River (GRCA 2018). The closest potable water source is the Grand River, which flows through the Study Area.

At the time of this assessment, the Study Area consisted of urban environment, including the city dikes, roads, sidewalks, and city parks, including Lorne Park and Fordview Park (Image 7 to Image 15), as well as natural riverside environment consisting of sandy flats of deciduous forest or scrublands (Image 16). The remainder of the Study Area consists of the Grand River (Image 16).

1.3.2 Previous Archaeological Work

A search of the *Ontario Archaeological Sites Database* (OASD) indicated that there are two archaeological sites located within a 1 km radius of the Study Area, both of which are within 300 m of the Study Area (MHSTCI 2020).

On of these sites, AgHa-181, is listed as having both a pre-contact Indigenous Woodland Period and Euro-Canadian affinities, while the other site, AgHb-676, is listed as having a Euro-Canadian affinity. Data concerning these sites is presented in Table 2.

Table 2: Archaeological Sites within 1 km

Borden Number	Site Name	Site Type	Affinity
AgHa-181*	Laurier YMCA	Hillside Midden; Other: South Colborne Occupation	Pre-Contact Indigenous, Woodland; Euro-Canadian
AgHb-676*	Wellington Block East	Residential, Midden	Euro-Canadian

*Site located within 300 m of the Study Area.

The Laurier YMCA Site (AgHa-181) was subject to Stage 1-2, Stage 3 archaeological assessment, and Stage 4 archaeological mitigation between 2014 and 2016. The site consisted of multiple pockets of preserved archaeological materials between Colborne Street and Water Street approximately 250 m east of the Study Area. In total, over 500,000 artifacts were recovered from all assessments of the site (MHSTCI 2019a).

The Wellington Block East Site (AgHb-676) was subject to Stage 1-2, Stage 3 archaeological assessments, and Stage 4 archaeological mitigation in 2018. The site is located along Wellington Street in Brantford, approximately 280 m north of the Study Area. The assessments resulted in the recovery of over 60,000 Euro-Canadian artifacts (MHSTCI 2019b).

1.3.3 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present within a property. In accordance with the MHSTCI'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 an area, the MHSTCI stipulates the following:

- No areas within 300 m 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 m 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.

Based on the criteria outlined above, the Study Area has been determined to have archaeological potential for both pre-contact Indigenous and historical Euro-Canadian resources. This is based on the fact that the Study Area was an important river crossing for Indigenous peoples and the first Euro-Canadian settlers in the area, and has been part of the City of Brantford since its inception in the early 19th century. As well, the Grand River has been designated as a a Canadian Heritage River System because of its cultural heritage and outstanding recreational opportunities (CHRS 2017). As well, the *City of Brantford's Waterfront Master Plan* indicates that portions of the Study Area have archaeological potential (City of Brantford 2010).

1.3.4 Features Indicating the Removal of Archaeological Potential

As stated in Section 1.3.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), archaeological potential can be determined to be removed either entirely or in part when background research and property inspection confirm extensive and deep land alterations that have severely damaged the integrity of any archaeological resources that may be present. Types of disturbance that remove archaeological potential may include: quarrying; major landscaping involving grading below topsoil; building footprints; and sewage and infrastructure development.

As discussed in Section 1.3.1 above, portions of the Study Area have been impacted by construction activities relating to city infrastructure, including roads, sidewalks, dikes, and city parks. These areas were surveyed and documented accordingly to confirm the presence and extent of disturbance (see Section 2.1 below).

2.0 FIELD METHODS

2.1 Stage 1 Property Inspection

As part of this Stage 1 Archaeological Assessment, a property inspection was conducted on April 24, 2020, under archaeological consulting license P457, issued to Lafe Meicenheimer by the MTCS (PIF# P457-0093-2020). The inspection was undertaken to gain first-hand knowledge of the Study Area, to determine if there were any areas of disturbance that would affect archaeological potential, and to determine what survey strategies would be appropriate for a Stage 2 assessment, should it be required.

The entire Study Area and its periphery were systematically inspected to confirm if features of archaeological potential were present and if there were any areas of deep and extensive disturbance, which would have removed archaeological potential. As stated in Section 1.4.2 of the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), a property may only be exempt from Stage 2 assessment once deep and extensive ground disturbance has been confirmed through a property inspection.

The weather on the day of the inspection was overcast and 9°C, permitting good visibility of land features and contributing to no reduction in the chance of observing features of archaeological potential. Field notes and photographs of the property were taken during the inspection. The photograph locations and directions can be seen on Map 18.

3.0 RECORD OF FINDS

The Stage 1 property inspection was conducted employing the methods described in Section 2.0. Map 18 illustrates the areas inspected, while Image 1 to Image 16 show the field conditions.

Table 3 provides an inventory of the documentary record generated in the field.

Table 3: Inventory of Documentary Record.

Document Type	Current Location of Document	Additional Comments
Field Notes	Golder Office in London	One page from original field book. Hard copy stored in project folder and digitally in project file.
Hand Drawn Maps	Golder Office in London	Two maps stored in project folder and digitally in project file
Maps provided by Client	Golder Office in London	One map in total stored in project folder and stored digitally in project file.
Digital Photographs	Golder Office in London	125 digital photos stored digitally in project file.

Areas of perceived disturbance were inspected and documented as outlined in Section 2.1 above. Large portions of the Study Area were found to be disturbed by the construction of roads, sidewalks, former railways and canals, city park infrastructure, and the dike system (Image 5 to Image 15; Map 18).

4.0 ANALYSIS AND CONCLUSIONS

The Study Area was initially determined to have archaeological potential, as determined by the criteria in Section 1.3.3. Background research revealed that the Grand River had a vastly different course through the Study Area during the 19th century (see Section 1.2.7), which would have seen a large portion of the western side of the Study Area underwater at that time (see Map 3 to Map 12, as well as Map 17). Furthermore, the Stage 1 property inspection revealed that large portions of the Study Area have been subject to disturbance from the construction of the dike system, roads, sidewalks, former railways and canals, and city park infrastructure (Image 5 to Image 15; Map 18). As such, it is concluded that these portions of the Study Area require no further archaeological assessment as all archaeological potential has either been removed by previous disturbance or did not exist due to permanently wet conditions until the late 19th century.

Other portions of the Study Area on both the eastern and western sides of the Grand River retain archaeological potential, and as such, should be subject to Stage 2 Archaeological Assessment prior to development activities. These areas are identified on Map 18 and include a small portion of Lorne Park (Image 17), and five portions of the Grand River floodplain (Image 18).

5.0 RECOMENDATIONS

Given the combined results of the background study and property inspection, the following recommendations are provided:

A Stage 2 Archaeological Assessment that meets requirements set out in the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) should be conducted by a licenced archaeologist in all portions of the Study Area that retain archaeological potential and are anticipated to be impacted by proposed development impacts (Map 18). The Stage 2 assessment should be conducted by a licensed archaeologist using the test pit survey method at 5 m intervals as per the Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists*. Test pits should be dug by hand and be at least 30 cm in diameter and excavated 5 cm into subsoil. All soil should be screened through 6 mm hardware cloth to facilitate the recovery of cultural materials, and each test pit should be examined for stratigraphy, cultural features, and fill.

Given the identified historical significance of the Grand River Watershed, and the recognition of this waterway as a Canadian Heritage River System, a marine archaeological assessment should also be completed prior to any proposed impact to the marine landscape which includes property up to the high-water mark along the shoreline. The marine archaeological assessment should be completed by an archaeologist licensed in the Province of Ontario under a Marine Permit issued by the Ministry of Heritage, Sport, Tourism and Culture Industries.

The Ontario Ministry of Heritage, Sport, Tourism and Culture Industries is asked to review the results and recommendations presented herein, accept this report into the Provincial Register of archaeological reports and issue a standard letter of compliance with the Ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licencing.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism and Cultural Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act* (Government of Ontario 1990b). The report is prepared 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 Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the Ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.

It is an offence under Section 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alterations to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological reports referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990b).

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* (Government of Ontario 1990b).

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 (Government of Ontario 2002). It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

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8.0 IMAGES

Image 1: Brant's Ford Memorial; facing northeast, April 24, 2020.

Image 2: Imperial Order Daughters of the Empire Brant's Ford Memorial; facing northeast. April 24, 2020.

Image 3: Actual Location of Brant's Ford between 90 and 94 Gilkison Street (Fordview Court); facing northeast, April 24, 2020.

Image 4: New Brant's Ford informational plaque; facing northeast, April 24, 2020.

Image 5: A representative example of the former Lake Erie and Northern Railway converted to a recreational path within the Study Area, featuring a small section of extant rail; facing northwest, April 24, 2020.

Image 6: Concrete bridge pier of the former Lake Erie and Northern Railway within the Study Area; facing east, April 24, 2020.

Image 7: A representative example of the City of Brantford's dike system; facing southeast, April 24, 2020.

Image 8: A representative example of the City of Brantford's dike system; facing west, April 24, 2020.

Image 9: The Lorne Bridge; facing south, April 24, 2020.

Image 10: The Brant's Crossing Bridge; facing east, April 24, 2020.

Image 11: The TH&B Crossing Bridge; facing southeast, April 24, 2020.

Image 12: A representative example of roads and sidewalks within the Study Area; facing southwest, April 24, 2020.

Image 13: The former Lake Erie and Northern Railway converted to a recreational path within the Study Area; facing southeast, April 24, 2020.

Image 14: Lorne Park; facing southwest, April 24, 2020.

Image 15: Fordview Park; facing northwest, April 24, 2020.

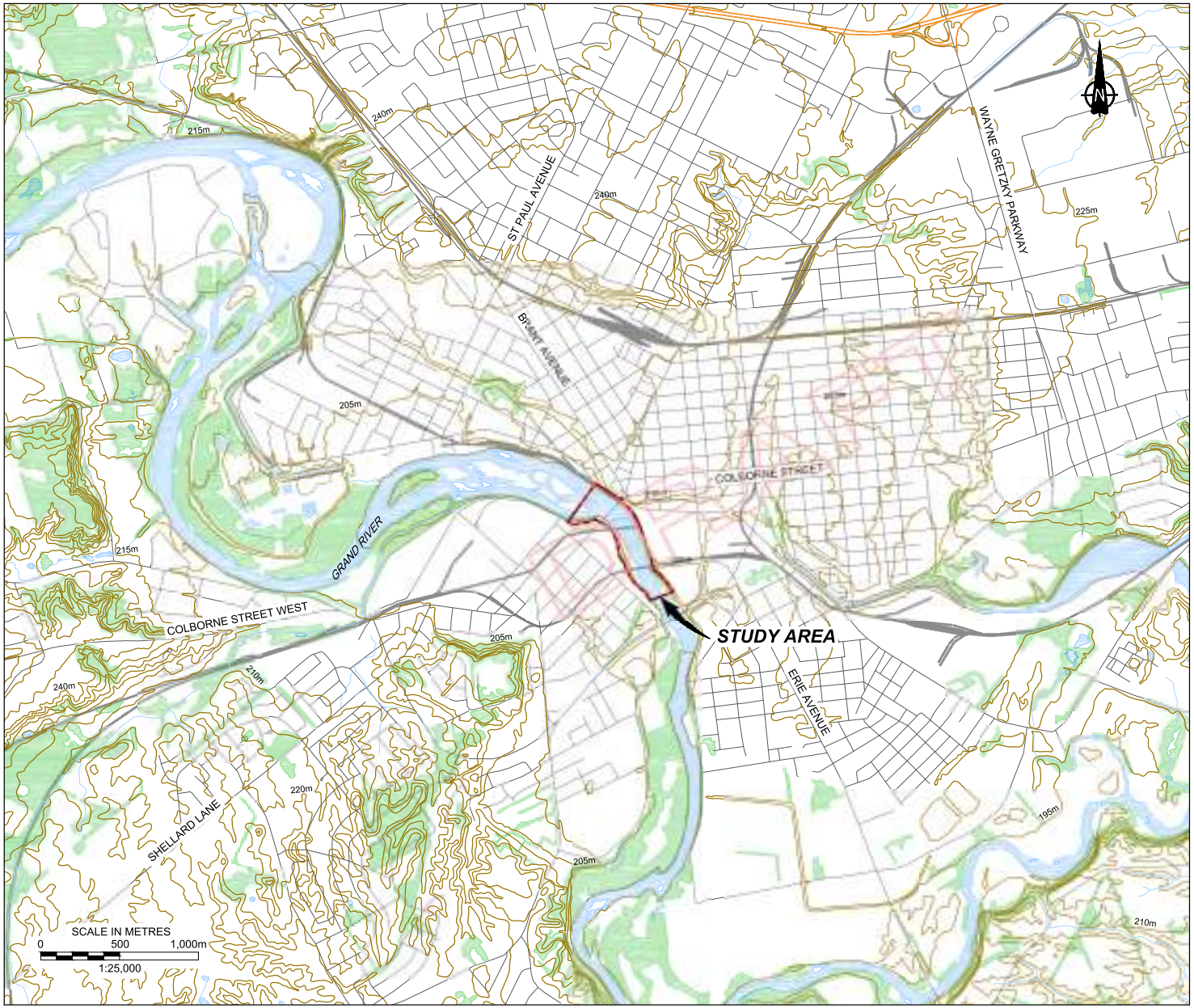
Image 16: A representative example of the natural environment of the Grand River and its floodplain; facing northwest, April 24, 2020.

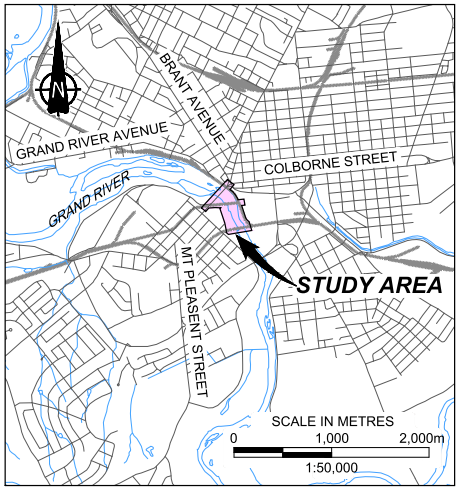
Image 17: A representative example of an area of the Grand River floodplain identified as having archaeological potential; facing north, April 24, 2020.

Image 18: A representative example of an area of the Grand River floodplain identified as having archaeological potential; facing north, April 24, 2020.

9.0 MAPS

All maps follow on the succeeding pages.





REGIONAL MAP

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

LOCATION OF STUDY AREA

GOLDER

PROJECT No.		19128292	FILE No.19128292-3000-R01001
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CADD	AMS	Mar. 1/21	
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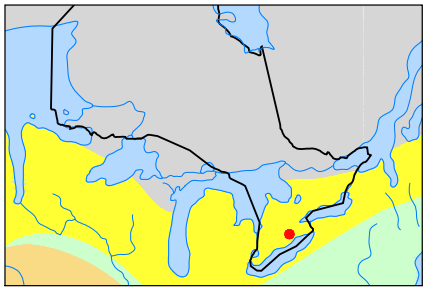

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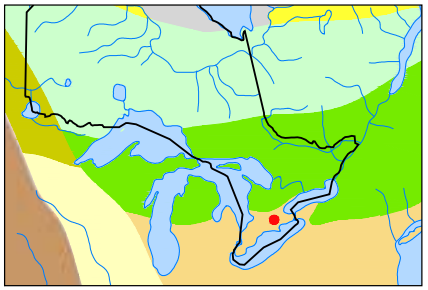

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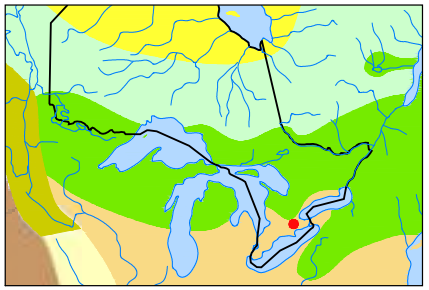

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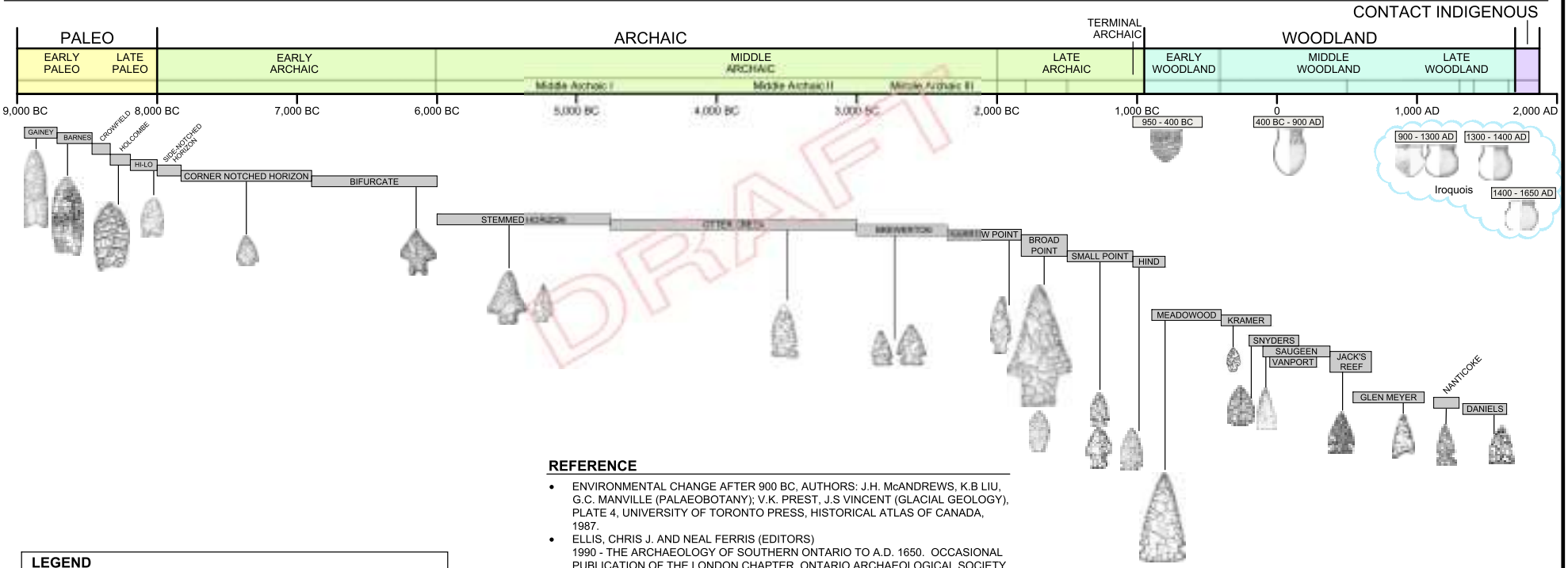

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LEGEND

- PROJECT AREA

VEGETATION COVERAGE:

- Tundra
- Boreal Forest
- Great Lakes-St. Lawrence Forest
- Decidous Forest
- Decidous Woodlands
- Grassland
- Litchen Woodland
- Parkland

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

PRE-CONTACT CULTURE HISTORY OF BRANT COUNTY

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01002
			SCALE AS SHOWN REV.
CADD	ZJB	May 8/20	
CHECK			MAP 2

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

BURWELL, LEWIS
1834, PLAN OF THE VILLAGE OF BRANTFORD. BRANTFORD.

NOTES

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ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1834 PATENT PLAN OF THE VILLAGE OF BRANTFORD

GOLDER

PROJECT No.	19128292	FILE No. 19128292-3000-R01003
		SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21
CHECK	LCR	

MAP 3

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

SURVEYOR GENERAL'S OFFICE,
N. D. OFFICE PLAN, BRANTFORD.

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF AN EARLY PATENT PLAN OF BRANTFORD

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
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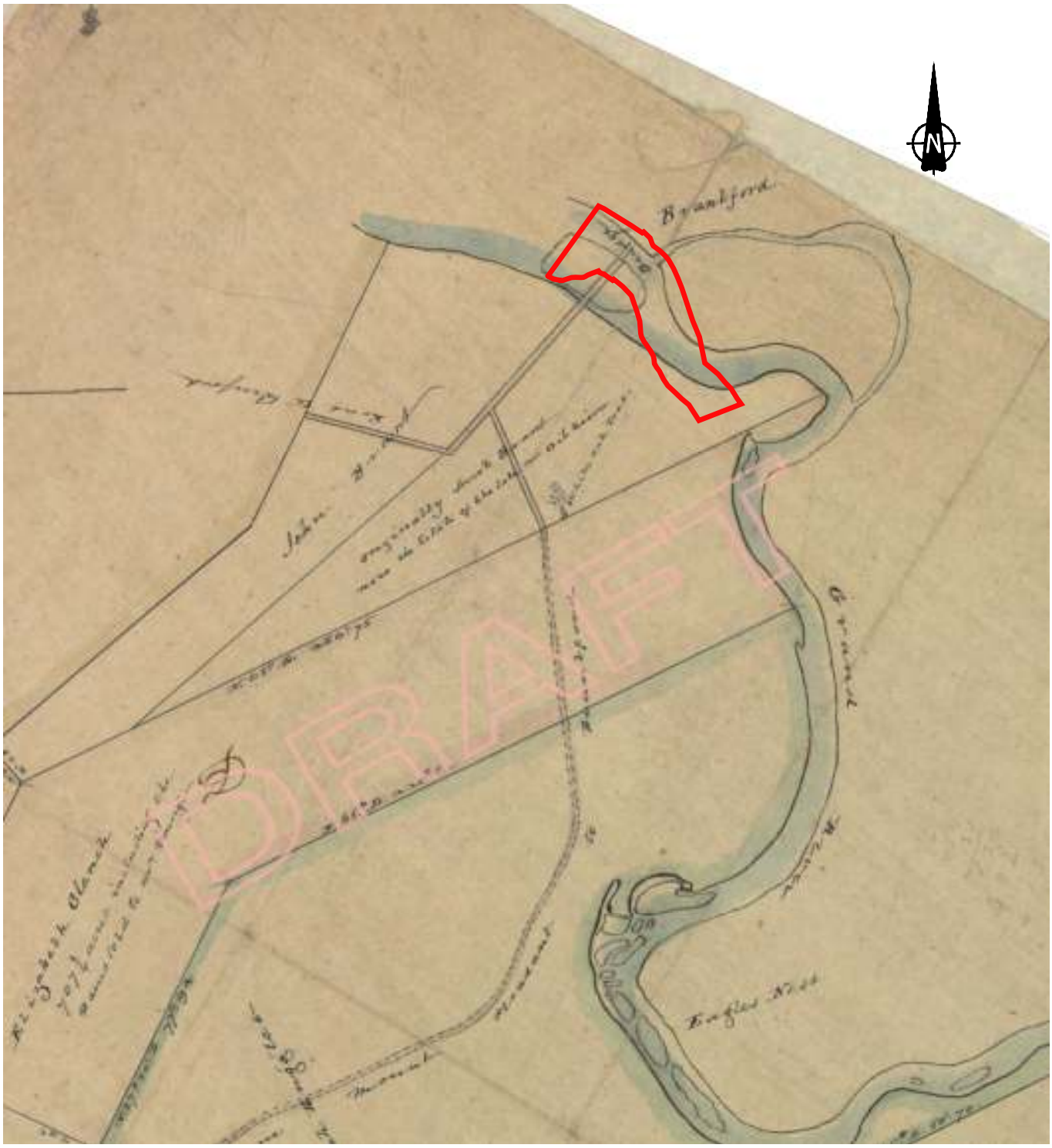
CADD	AMS/ZJB	Mar. 1/21	MAP 4
CHECK	LCM		



LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

BURWELL, LEWIS
1836, PLAN SHOWING THE RELATIVE SITUATION OF THE ORIGINAL CLAIMS OF THE KERR, CHURCH, PHELPS, STEWART, RUGGLES, AND THE LEFFERTY FACILITIES AND A PART OF THE MOUNT PLEASANT TRACT. BRANTFORD.

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF BURWELL'S 1836 PLAN

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
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CADD	AMS/ZJB	Mar. 1/21	**MAP 5**
CHECK	LCP		

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

BURWELL, LEWIS
1839, BRANTFORD TOWNSHIP PATENT PLAN.
BRANTFORD.

NOTES

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ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1839 BRANTFORD TOWNSHIP PATENT PLAN

GOLDER

PROJECT No.		19128292
CADD	AMS/ZJB	Mar. 1/21
CHECK	LGR	

FILE No. 19128292-3000-R01003
SCALE N.T.S. REV.

MAP 6

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

SMITH, MARCUS
1852, MAP OF THE TOWN OF BRANTFORD, COUNTY OF BRANT. C.L. HELLIWELL, HAMILTON.

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ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF SMITH'S 1852 MAP OF THE TOWN OF BRANTFORD

GOLDER

PROJECT No.	19128292	FILE No. 19128292-3000-R01003	
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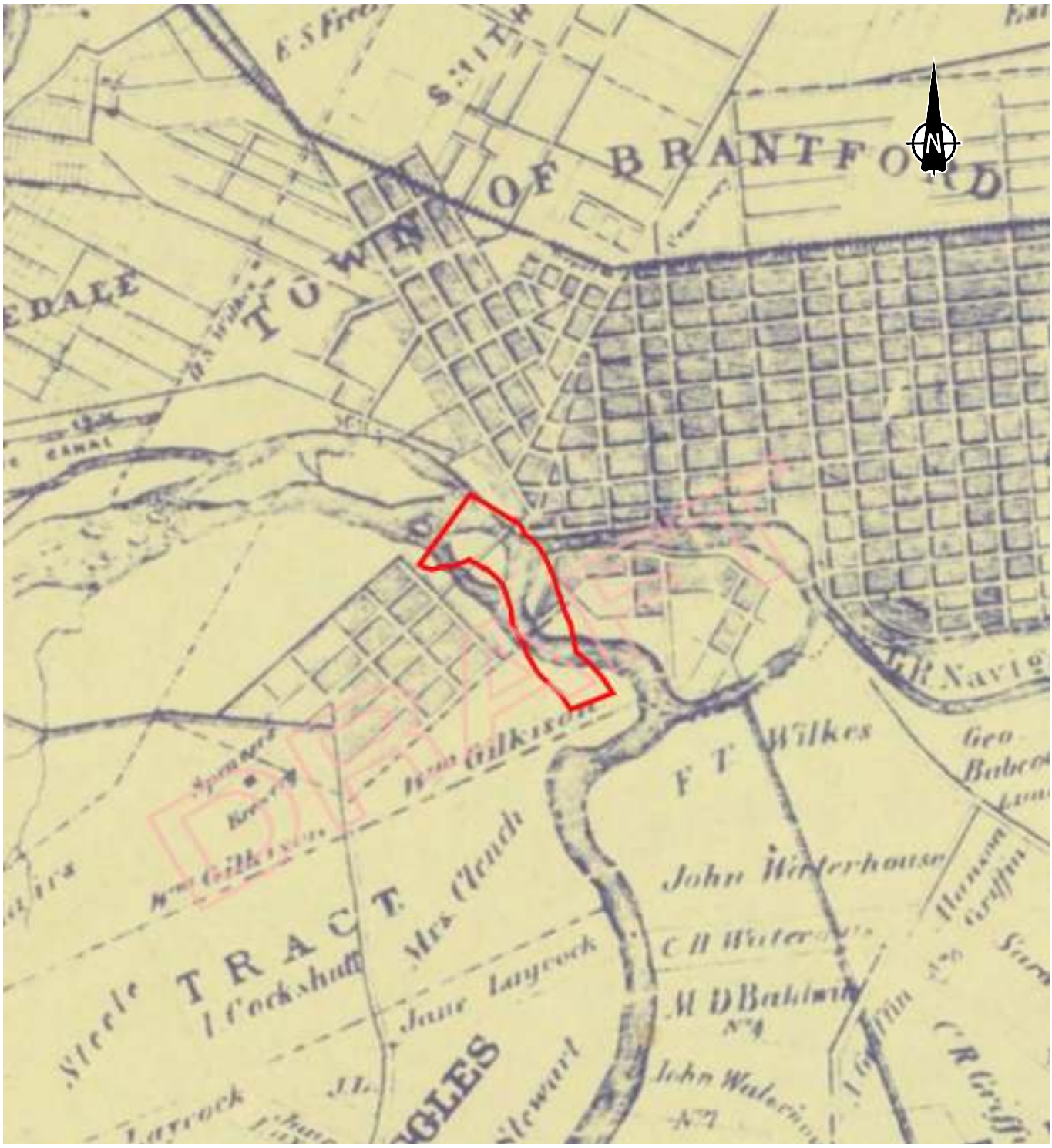

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

TREMAINE, GEORGE C.
1858, TREMAINE'S MAP OF THE COUNTY OF BRANT, CANADA WEST. D & J MCLELLAN, NEW YORK.

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF TREMAINE'S 1858 MAP OF THE COUNTY OF BRANT

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
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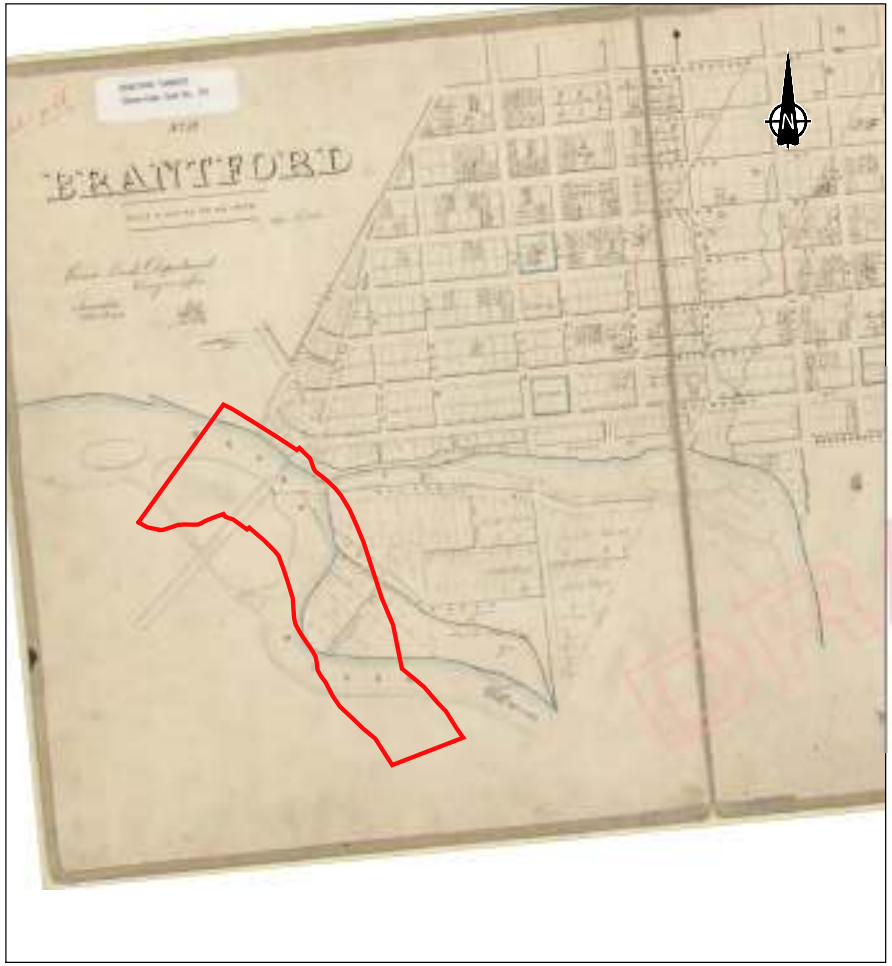
CADD	AMS/ZJB	Mar. 1/21	MAP 8
CHECK	LCR		

1869A



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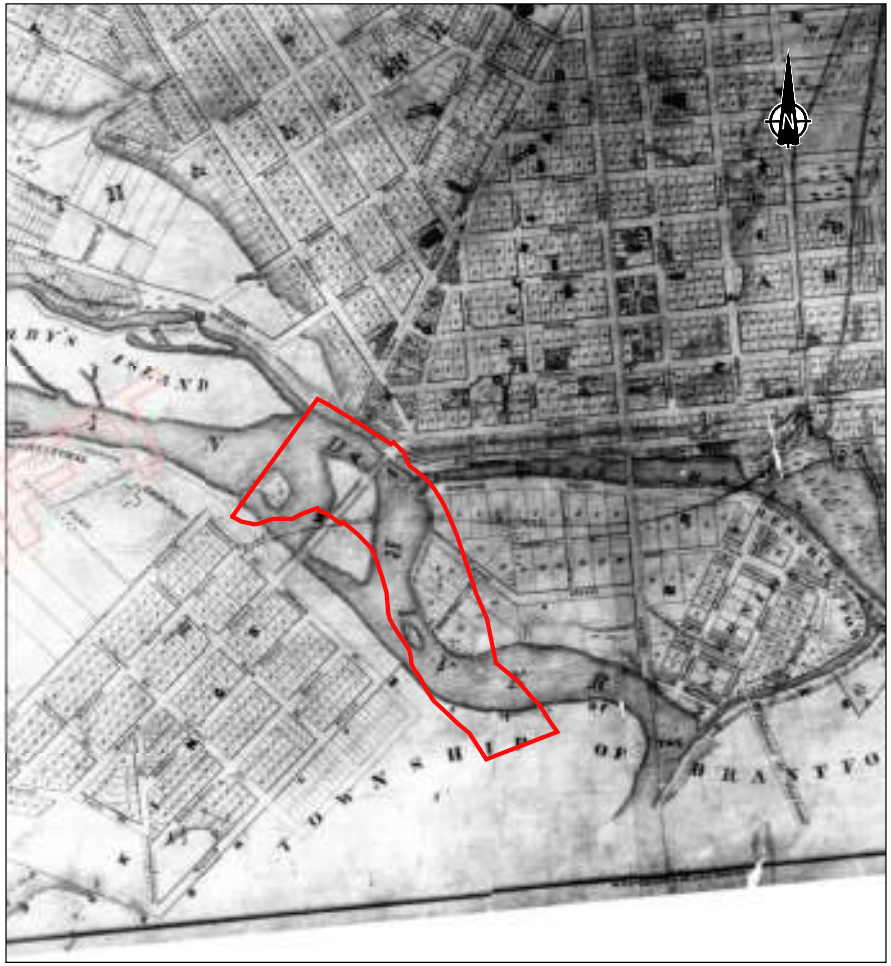


LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

CROWN LAND DEPARTMENT
1869, NO. 79, BRANTFORD. SURVEYOR'S OFFICE, TORONTO.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF TWO MAPS OF BRANTFORD FROM 1869

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
			SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21	MAP 9
CHECK			

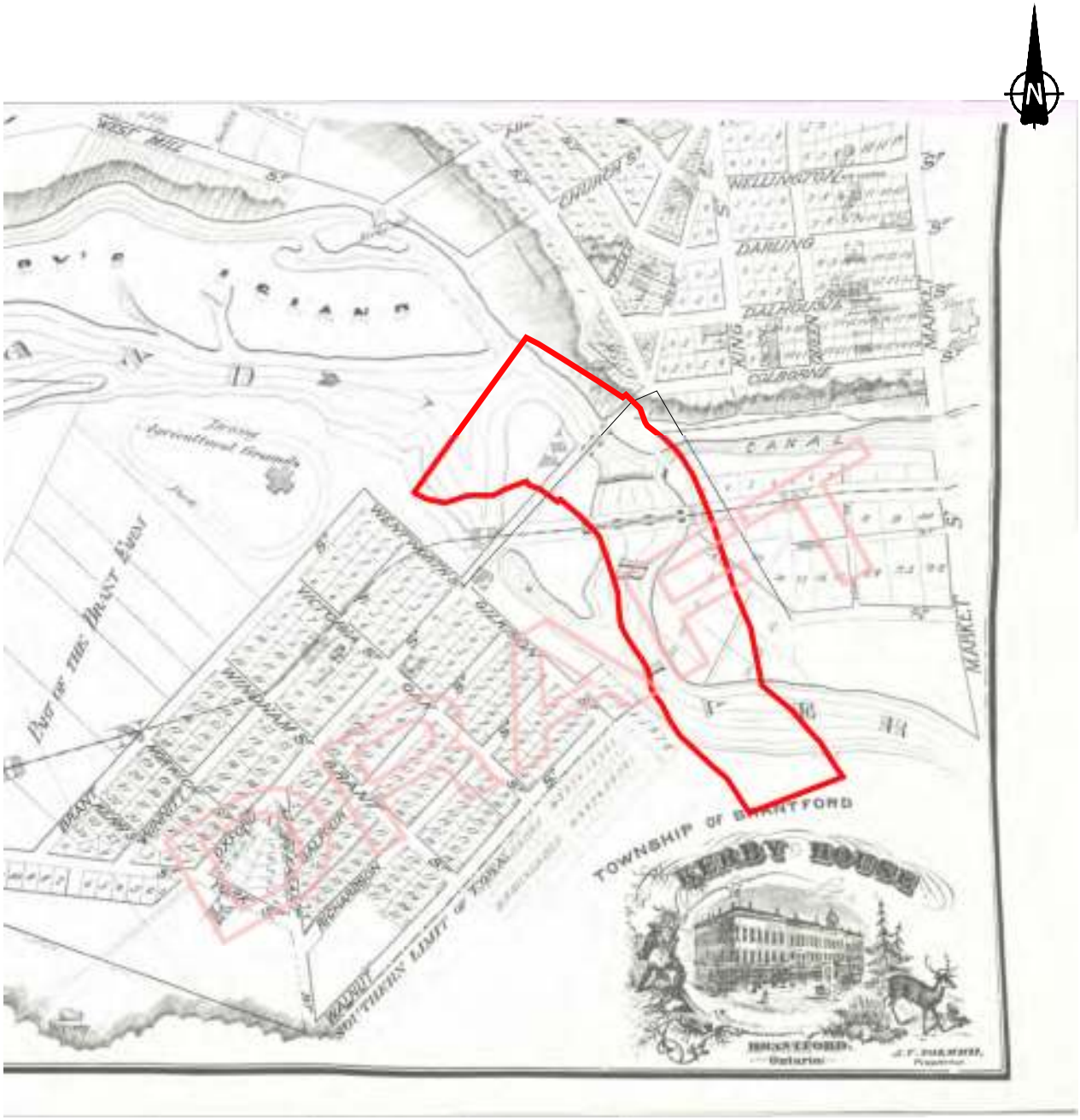
Client: GM Blueplan Engineering Limited

Original Format is Tabloid 279mm x 432mm

0 25mm

Mar 01, 2021 – 3:51pm

Drawing file: 19128292-3000-R01003.dwg



LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

PAGE & SMITH
1875, ILLUSTRATED HISTORICAL ATLAS OF THE COUNTY OF BRANT. PAGE & SMITH, TORONTO.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

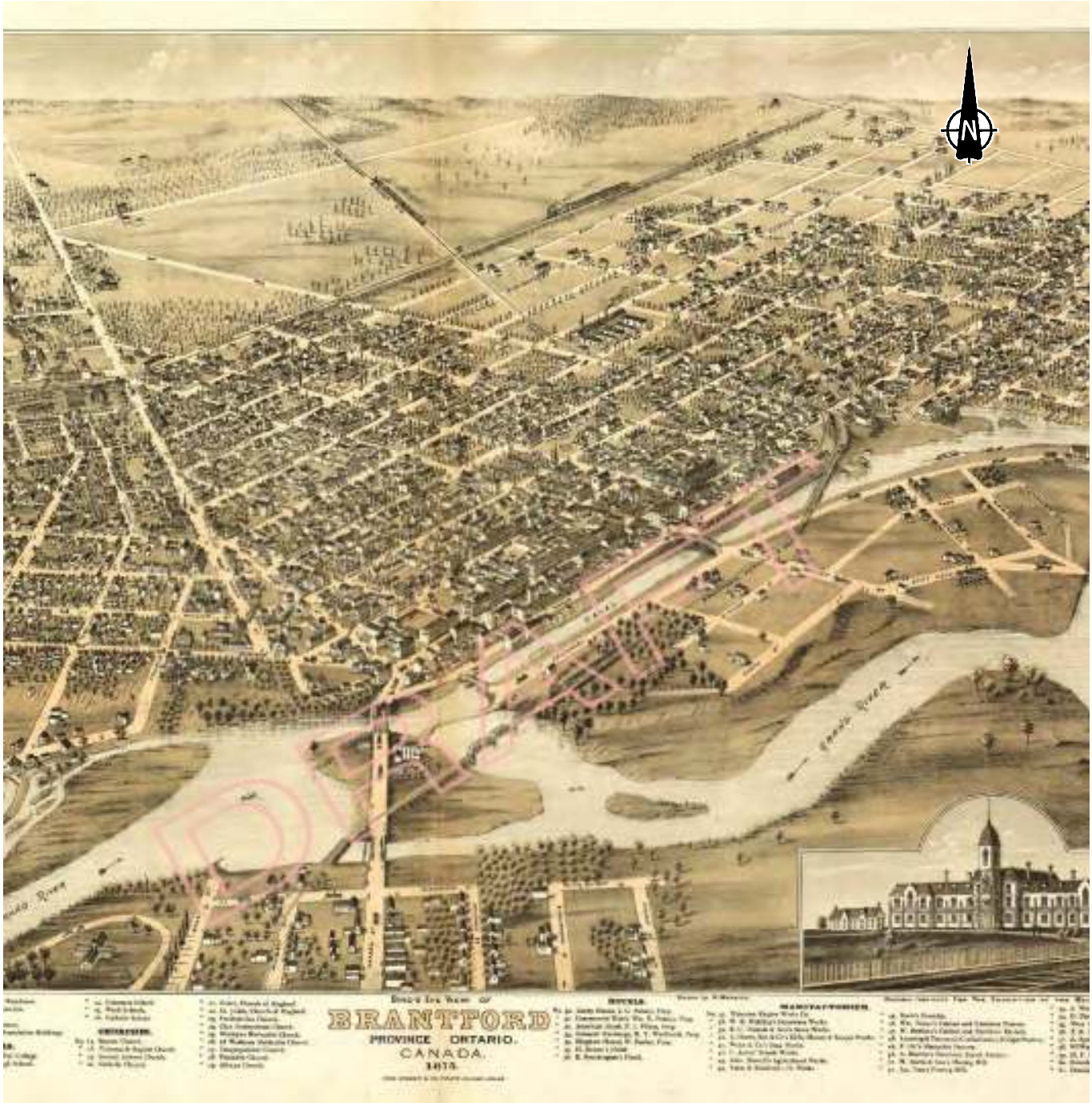
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1875 HISTORICAL ATLAS OF BRANT COUNTY

GOLDER

PROJECT No.	19128292	FILE No. 19128292-3000-R01003	
		SCALE N.T.S.	REV.
CADD	AMS/ZJB	Mar. 1/21	MAP 10
CHECK	LCM		



REFERENCE

BROSIUS, H.
1875, BIRD'S EYE VIEW OF BRANTFORD, PROVINCE OF ONTARIO, CANADA, 1875. CHAS. SHOBER & CO., CHICAGO LITHOGRAPH CO., CHICAGO.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

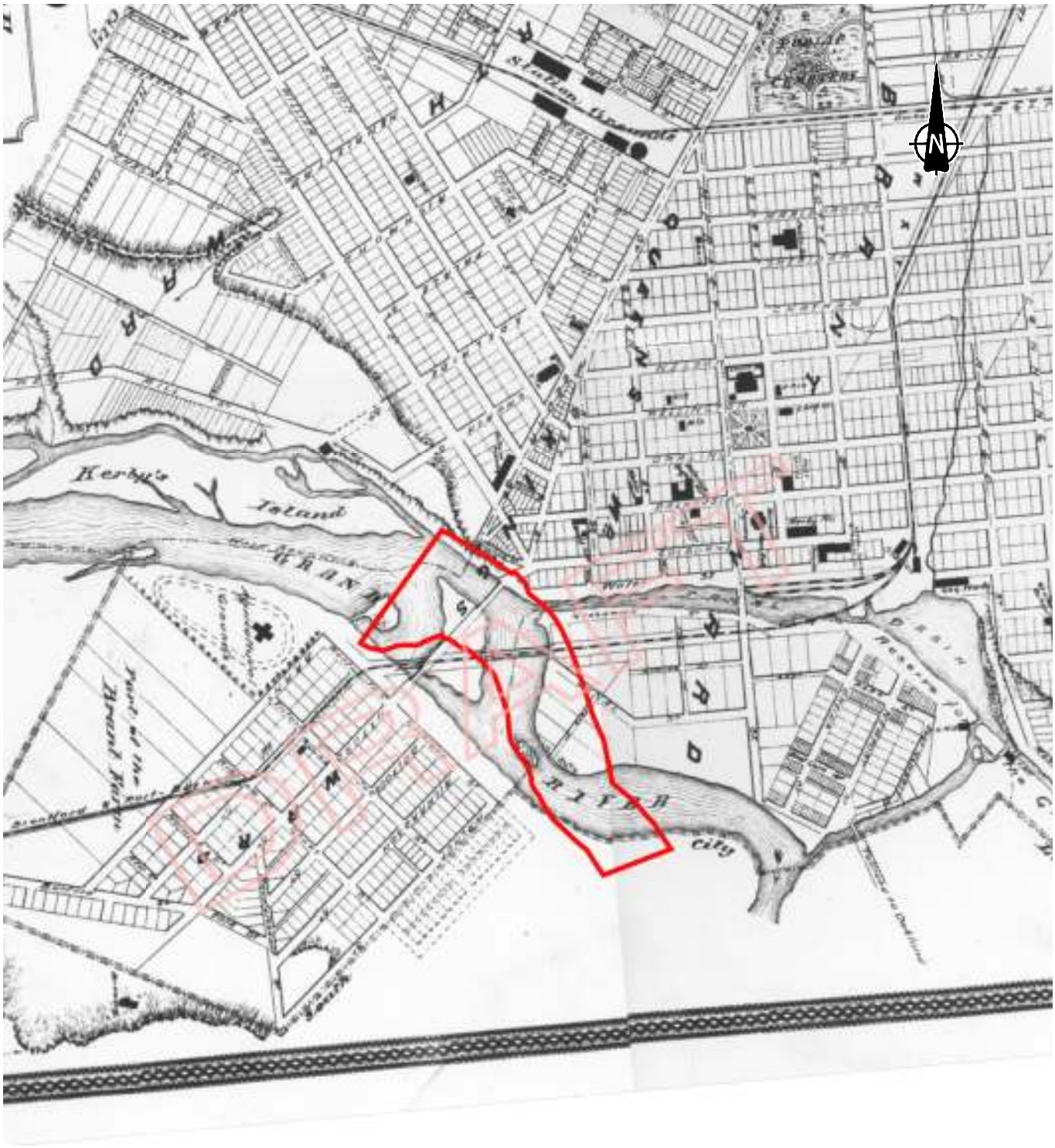
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1875 BIRD'S EYE VIEW OF BRANTFORD

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
			SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21	**MAP 11**
CHECK	LCP		



LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

BURLAND DESBARATS LITHOGRAPH COMPANY
1879, CITY OF BRANTFORD. BURLAND DESBARATS
LITHOGRAPH COMPANY, MONTREAL.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

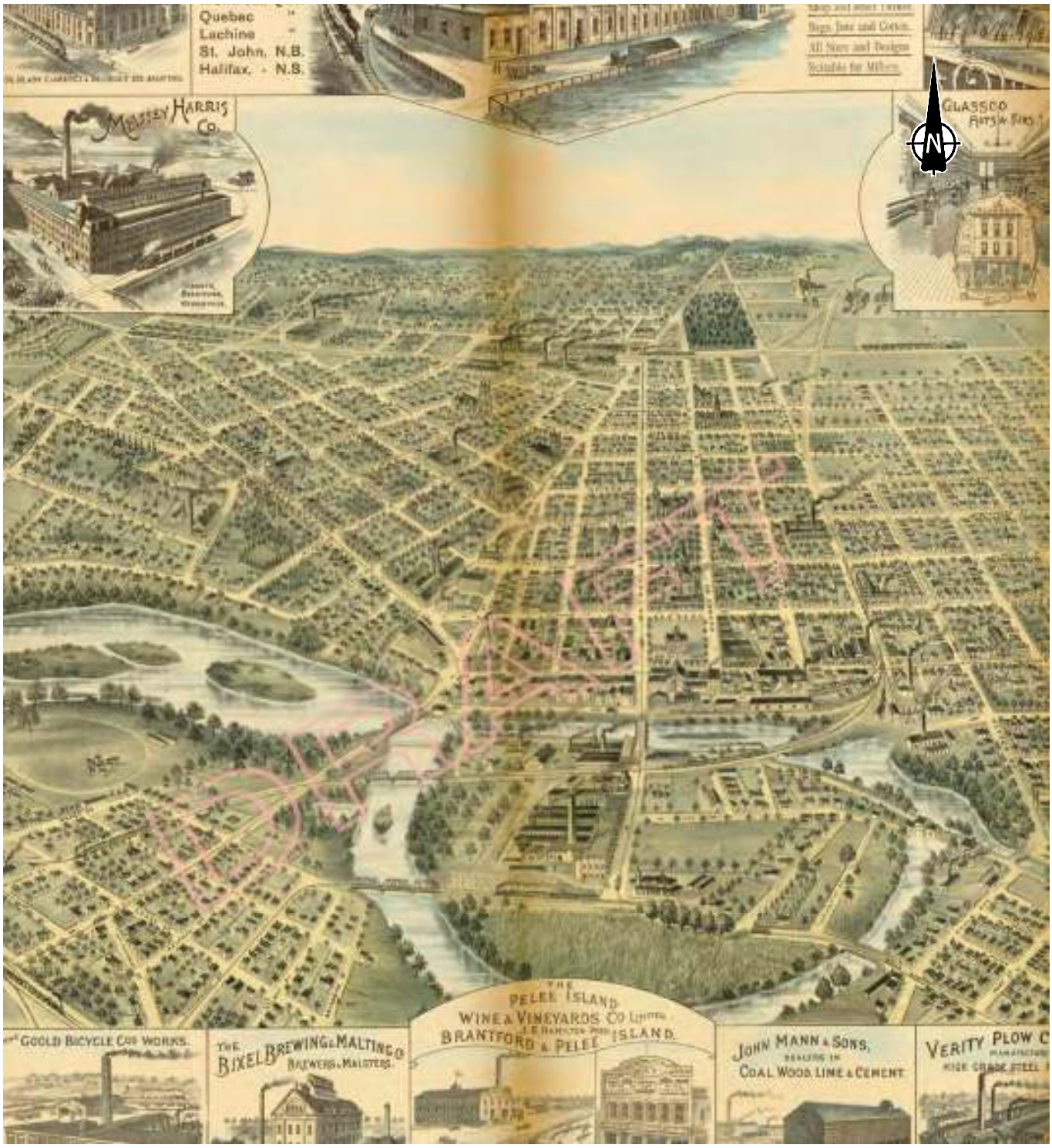
A PORTION OF THE 1879 MAP OF THE CITY OF BRANTFORD

GOLDER

PROJECT No.		19128292
CADD	AMS/ZJB	Mar. 1/21
CHECK	LCP	

FILE No. 19128292-3000-R01003
SCALE N.T.S. REV.

MAP 12



REFERENCE

TORONTO LITHOGRAPHING COMPANY
1892, CITY OF BRANTFORD, CANADA, WITH VIEWS OF PRINCIPAL BUSINESS BUILDINGS. TORONTO LITHOGRAPHY COMPANY, TORONTO.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

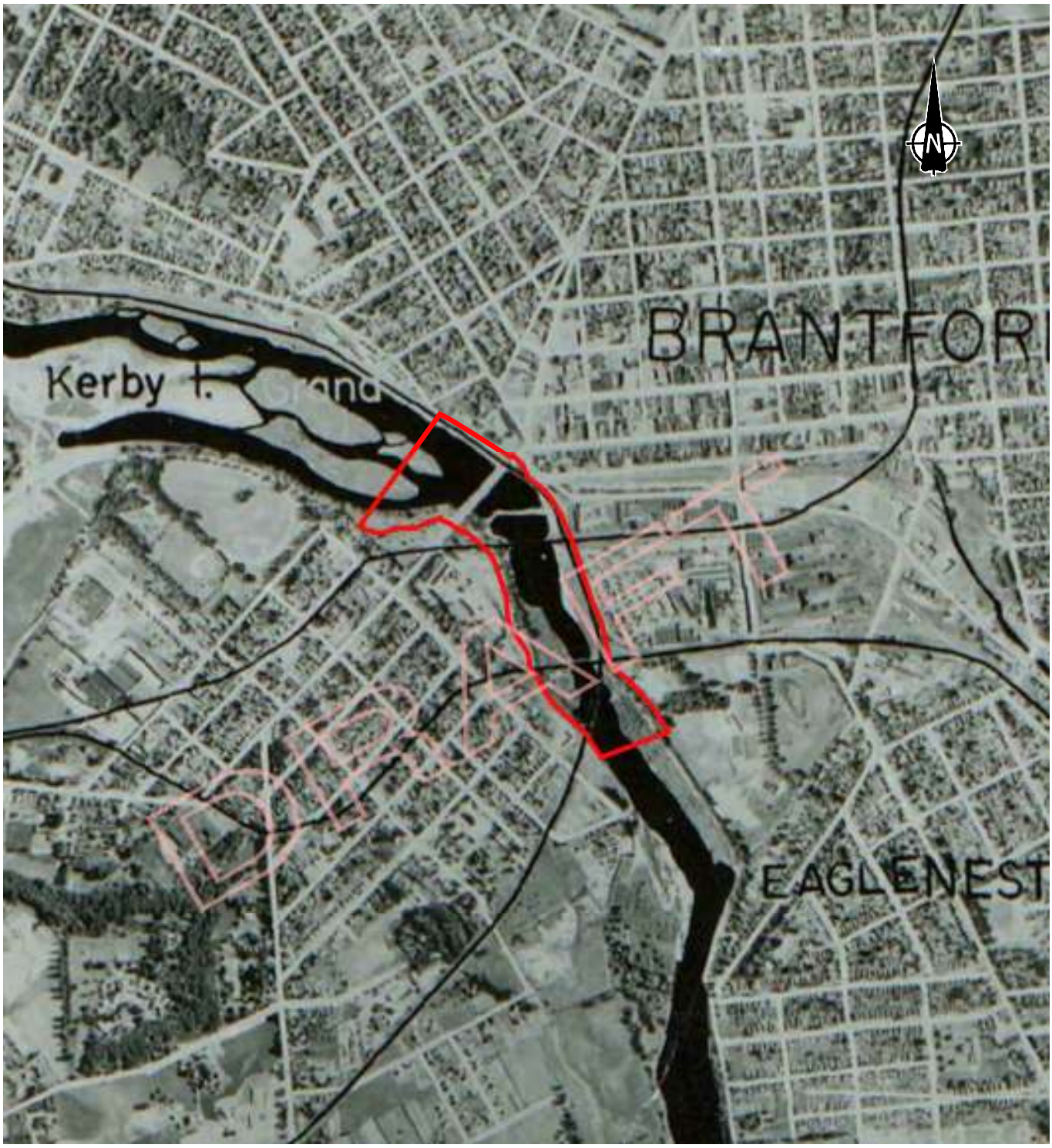
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1892 CITY OF BRANTFORD, CANADA, WITH VIEWS OF PRINCIPAL BUSINESS BUILDINGS

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
			SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21	MAP 13
CHECK	LCM		



LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

HTTPS://MDL.LIBRARY.UTORONTO.CA/COLLECTIONS/AIR-PHOTOS/1954-AIR-PHOTOS-SOUTHERN-ONTARIO/INDEX

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

AERIAL IMAGERY OF THE STUDY AREA FROM 1954

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
			SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21	**MAP 14**
CHECK	LCM		

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

DEPARTMENT OF MILITIA AND DEFENCE
1916, BRANTFORD SHEET NO. 55. DEPARTMENT OF MILITIA AND DEFENCE, OTTAWA.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

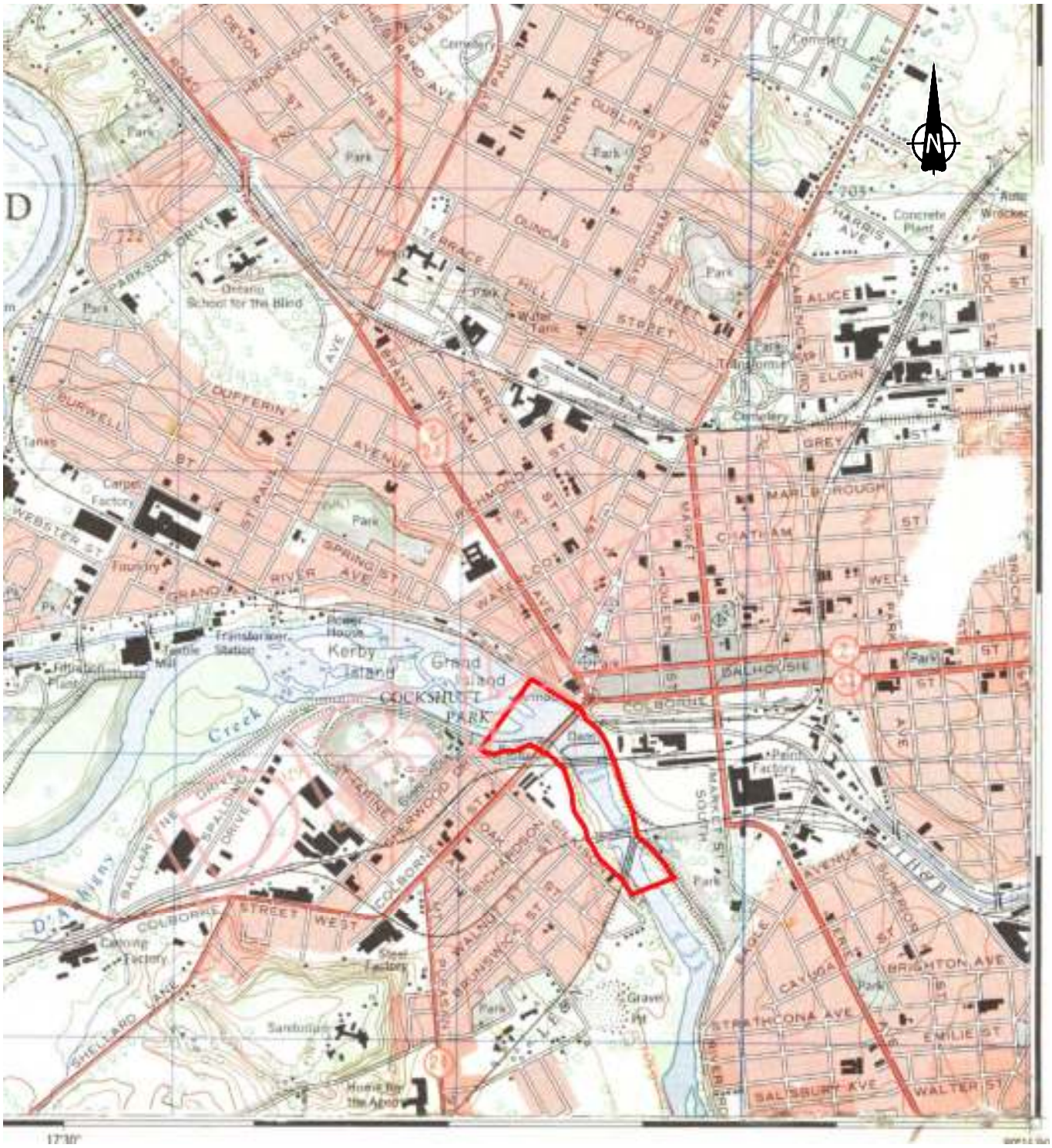
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1916 TOPOGRAPHIC MAP

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01003
			SCALE N.T.S. REV.
CADD	AMS/ZJB	Mar. 1/21	**MAP 15**
CHECK	LCA		



LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

DEPARTMENT OF ENERGY, MINES AND RESOURCES 1968, BRANTFORD WEST, BRANT COUNTY ONTARIO (040P01F). SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA

NOTES

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ALL LOCATIONS ARE APPROXIMATE ONLY.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1968 TOPOGRAPHIC MAP

GOLDER

PROJECT No.	19128292	FILE No. 19128292-3000-R01003	
		SCALE N.T.S.	REV.
CADD	AMS/ZJB	Mar. 1/21	
CHECK			

MAP 16

LEGEND

APPROXIMATE LOCATION OF STUDY AREA

REFERENCE

DRAWING BASED ON THE GRAND RIVER CONSERVATION AUTHORITY 2006 ORTHOGRAPHIC IMAGERY; AND
1875 ILLUSTRATED HISTORICAL ATLAS OF THE COUNTY OF BRANT. PAGE & SMITH, TORONTO

NOTES

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

ALL LOCATIONS ARE APPROXIMATE.

PROJECT

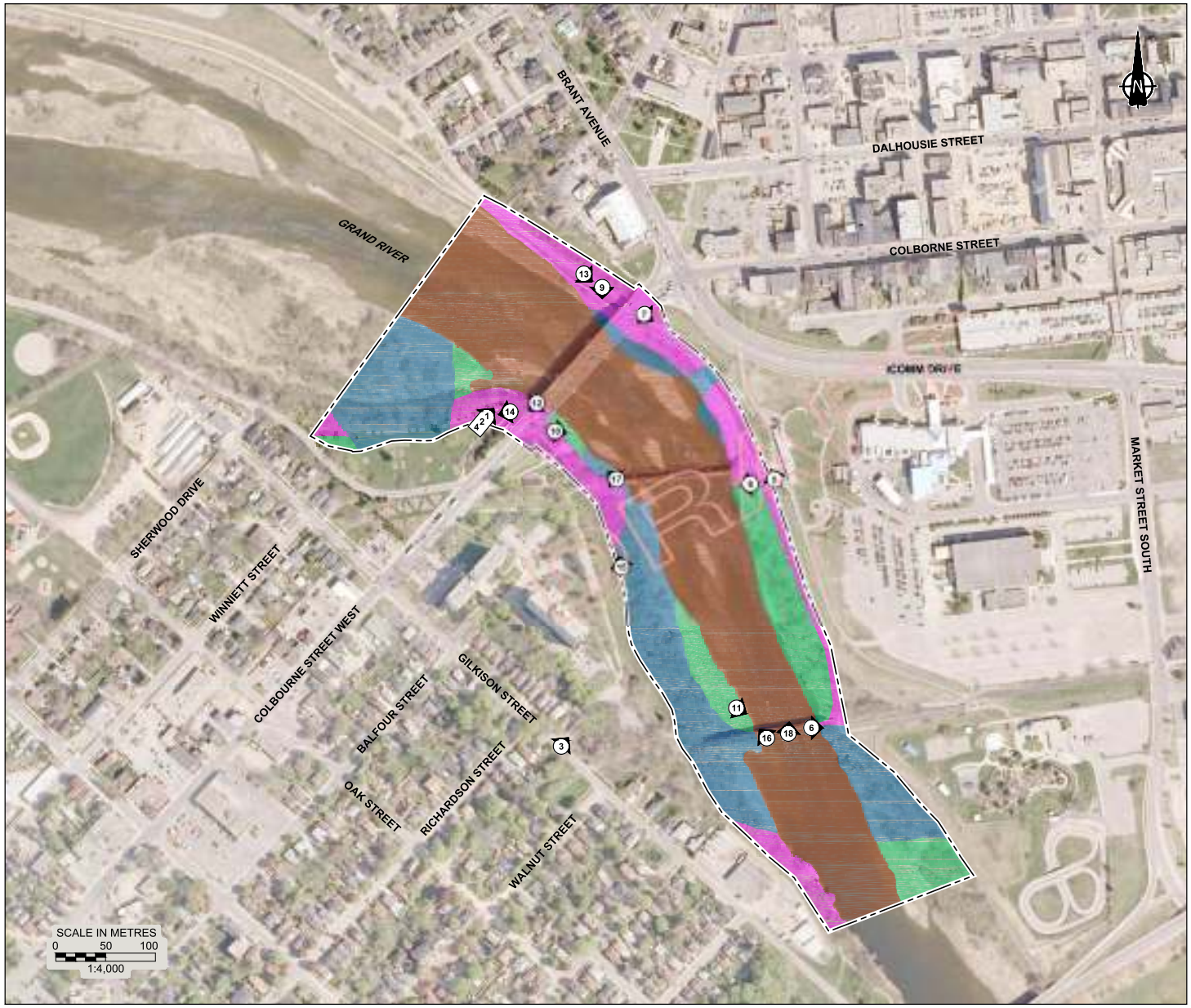
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

A PORTION OF THE 1875 HISTORICAL ATLAS OF BRANT COUNTY OVERLAID ON CURRENT AERIAL IMAGERY

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01017
			SCALE AS SHOWN REV.
CADD	AMS/DCH	Mar. 1/21	
CHECK			**MAP 17**



LEGEND

- APPROXIMATE LOCATION OF STUDY AREA
- PHOTOGRAPH LOCATION, VIEWING DIRECTION, AND PLATE NUMBER
- PREVIOUSLY DISTURBED; NO FURTHER ASSESSMENT REQUIRED
- MARINE ARCHAEOLOGY ASSESSMENT RECOMMENDED PRIOR TO DEVELOPMENT IMPACTS
- 19TH CENTURY GRAND RIVER COURSE; PERMANENTLY WET; NO FURTHER ASSESSMENT REQUIRED
- STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED PRIOR TO DEVELOPMENT IMPACTS

REFERENCE

DRAWING BASED ON THE GRAND RIVER CONSERVATION AUTHORITY 2006 ORTHOGRAPHIC IMAGERY.

NOTES

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

ALL LOCATIONS ARE APPROXIMATE.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
THREE GRAND RIVER CROSSINGS EA
BRANTFORD, ONTARIO

TITLE

STAGE 1 RESULTS

GOLDER

PROJECT No.		19128292	FILE No. 19128292-3000-R01018
			SCALE AS SHOWN REV.
CADD	AMS	Mar. 2/21	
CHECK			**MAP 18**

10.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

Golder has prepared this report in a manner consistent with the level of care and skill ordinary exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by the Client. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the Ministry of Heritage, Sport, Tourism and Culture Industries' *Standards and Guidelines for Consultants Archaeologists* (Government of Ontario 2011).

11.0 CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

Golder Associates Ltd.

Lafe Meicenheimer, M.A.
Staff Archaeologist

Michael Teal, M.A.
Associate, Senior Archaeologist

LCM/MT/ly

https://golderassociates.sharepoint.com/sites/113598/project files/6 deliverables/archaeology/19128292-3000-r01-rev0-gmbp 3 grand river crossings st. 1.docx

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