APPENDIX G

Stage 1 Archaeological Assessment Report

WELLINGTON COUNTY

STAGE 1 ARCHAEOLOGICAL ASSESSMENT

WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENT ASSESSMENT

MAY 27, 2022

ORIGINAL

PIF P1106-0015-2022
CRAIG RAMSOOMAIR – P1106

STAGE 1 ARCHAEOLOGICAL ASSESSMENT

WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENT ASSESSMENT

WELLINGTON COUNTY

PART OF LOTS 36, 37, CONCESSION 1, LOT 35, CONCESSION 2, AND LOT 34, CONCESSION 3, GEOGRAPHIC TOWNSHIP OF GARAFRAXA, NOW TOWNSHIP OF WELLINGTON NORTH, WELLINGTON COUNTY

ORIGINAL REPORT
ORIGINAL

PROJECT NO.: 17M-01271-02
DATE: MAY 27, 2022

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May 27, 2022

Original

Stage 1 Archaeological Assessment

Wellington Road 109 Bridges Municipal Class Environmental Assessment

Part of Lots 36, 37, Concession 1 (B109132 and C109123)
Lot 35, Concession 2 (B109133)
Lot 34, Concession 3 (B109134)
Geographic Township of Garafraxa
Now Township of Wellington North
Wellington County

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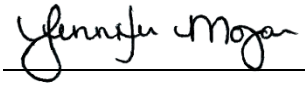

Jennifer Morgan, PhD
Ontario Archaeology Lead

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EXECUTIVE SUMMARY

WSP Canada Inc. (WSP) was retained by the Wellington County to conduct a Stage 1 archaeological assessment as part of the Schedule C Municipal Class Environmental Assessment (Class EA) for four bridges on Wellington Road 109 between Highway 6 and Sideroad 7. From west to east, these bridges are B109132, C109123, B109133, and B109134. Historically, the study areas are situated within part of Lots 36 and 37, Concession 1, Lot 35, Concession 2, and Lot 34, Concession 3, Geographic Township of Garafraxa, Now Township of Wellington North, Wellington County (Map 1 and Map 2).

The four bridges on Wellington Road 109 span the Conestogo River and were constructed between 1930 and 1934 by the Department of Highways Ontario, now the Ministry of Transportation, Ontario. The bridges have since reached an advanced stage of deterioration and are now in need of rehabilitation or replacement (Wellington County, 2022).

This archaeological assessment was triggered by the requirements of the *Environmental Assessment Act* to ensure that the County is compliant with the *Ontario Heritage Act, 1990*. The assessment was carried out in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists*.

The Stage 1 archaeological assessment of the study area includes a review of previous archaeological research, historic maps, land registry documents, and local histories. A property inspection was conducted from public lands on December 2nd, 2021 to better understand the current conditions of the study area.

Archaeological recommendations have been made based on the background historic research, property inspection, and indicators of archaeological potential as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists* and are as follows:

- Based on the results of the Stage 1 archaeological assessment, the study areas have been determined to be subject to deep and intensive disturbance. Areas of visually confirmed disturbance include the roadway, bridge berms, roadway ditches, underground infrastructure, and cut slopes. These areas no longer retain archaeological potential and a **Stage 2 archaeological assessment is not required.**

- If there are to be in-water impacts within the Conestogo River, a marine archaeological assessment will be required to ascertain the presence or absence of marine archaeological resources. If marine archaeological resources are present, the assessment will evaluate the significance of these resources and outline measures to mitigate the impact(s) of development.

It should be noted that areas determined to no longer retain archaeological potential should not be subject to ground disturbing activities until the recommendations stated herein have been accepted by the Ontario Ministry of Heritage, Sport, Tourism and Cultural Industries, and the report has been entered into the Public Register of Archaeological Reports.

PROJECT PERSONNEL

WSP

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1 PROJECT CONTEXT

1.1 OBJECTIVES

The objectives of a Stage 1 Archaeological Assessment are as follows:

- Provide information regarding the property's geography, history, previous archaeological fieldwork, and current land conditions;
- Conduct a detailed evaluation of the property's archaeological potential; and,
- Recommend appropriate strategies for Stage 2 survey when required.

A property inspection allows the archaeologist to gain first-hand knowledge of the geography, topography, and current conditions of the property that allows for a more confident determination of archaeological potential.

1.2 DEVELOPMENT CONTEXT

WSP Canada Inc. (WSP) was retained by the Wellington County to conduct a Stage 1 archaeological assessment as part of the Schedule C Municipal Class Environmental Assessment (Class EA) for four bridges on Wellington Road 109 between Highway 6 and Sideroad 7. From west to east, these bridges are B109132, C109123, B109133, and B109134. Historically, the study areas are situated within part of Lots 36 and 37, Concession 1, Lot 35, Concession 2, and Lot 34, Concession 3, Geographic Township of Garafraxa, Now Township of Wellington North, Wellington County (Map 1 and Map 2).

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1.3 HISTORICAL CONTEXT

The following sections provide a general review of the pre-contact and post-contact periods of southern Ontario as well as the history of the study area, specifically, to provide a generalized historical framework for the archaeological assessment.

1.3.1 PRE-CONTACT PERIOD

The pre-contact period in Ontario has been reconstructed, primarily, from the archaeological record and interpretations made by archaeologists through an examination of material culture and site settlement patterns. Technological and temporal divisions of the pre-contact period have been defined by archaeologists based on changes to natural, cultural, and political environments that are observable in the archaeological record. It is pertinent to state that although these divisions provide a generalized framework for understanding the broader events of the pre-contact period, they are not an accurate reflection of the fluidity and intricacies of cultural practices that spanned thousands of years. The following presents a sequence of Indigenous land-use from the earliest human occupation following deglaciation to the more recent past based on the following periods as defined by archaeologists:

- The Paleo Period
- The Archaic Period
- The Woodland Period
- The Post-Contact Period

PALEO PERIOD

Paleo period populations were the first to occupy what is now southern Ontario, moving into the region following the retreat of the Laurentide Ice Sheet approximately 11,000 years before present (BP). The first Paleo period populations to occupy southern Ontario are referred to by archaeologists as Early Paleo (Ellis & Deller, 1990).

Early Paleo period groups are identified by their distinctive projectile point morphological types, exhibiting long grooves, or 'flutes', that likely functioned as a hafting mechanism (method of attaching the point to a wooden shaft). These Early Paleo group projectile point types include Gainey (ca. 10,900 BP), Barnes (ca. 10,700), and Crowfield (ca. 10,500) (Ellis & Deller, 1990). By approximately 10,400 BP, Paleo projectile points transitioned to various unfluted varieties, such as Holcombe (ca. 10,300 BP), Hi Lo (ca. 10,100 BP), and Unstemmed and Stemmed Lanceolate (ca. 10,400 to 9,500 BP). These tool types were used by Late Paleo period groups (Ellis & Deller, 1990). Both Early and Late Paleo period populations were highly mobile, participating in the hunting of large game animals. Paleo period sites often functioned as small campsites where stone tool production and maintenance occurred (Ellis & Deller, 1990).

ARCHAIC PERIOD

By approximately 8,000 BP, climatic warming supported the growth of deciduous forests in southern Ontario. These forests introduced new flora and faunal resources, which resulted in subsistence shifts and a number of cultural adaptations. This change is reflected in the archaeological record by new tool-kits that are reflective of a shift in subsistence strategies and has been categorized as the Archaic period.

The Archaic period in southern Ontario is sub-divided into the Early Archaic (ca. 10,000 to 8,000 BP), Middle Archaic (ca. 8,000 to 4,500 BP), and the Late Archaic (ca. 4,500 to 2,800 BP) periods. Generally, in North America, the Archaic period represents a transition from big game hunting to broader, more generalized subsistence strategies based on local resource availability. This period is characterized by the following traits:

- An increase in stone tool variation and reliance on local stone sources,
- The emergence of notched and stemmed projectile point types,
- A reduction in extensively flaked tools,

- The use of native copper,
- The use of bone tools for hooks, gorges, and harpoons,
- An increase in extensive trade networks, and
- The production of ground stone tools and an increase in larger, less portable tools

The Archaic period is also marked by population growth with archaeological evidence suggesting that, by the end of the Middle Archaic period (ca. 4,500 BP), populations had steadily increased in size (Ellis, et al., 1990).

Over the course of the Archaic period, populations began to rely on more localized hunting and gathering territories and were shifting to more seasonal encampments. From the spring into the fall, settlements were focused in lakeshore/riverine locations where a variety of different resources could be exploited. Settlement in the late fall and winter months moved to interior sites where the focus shifted to deer hunting and the foraging of wild plants (Ellis et al., 1990, p. 114). The steady increase in population size and the adoption of a more localized seasonal subsistence strategy led to the transition into the Woodland period.

EARLY AND MIDDLE WOODLAND PERIODS

The beginning of the Woodland period is defined by the emergence of ceramic technology. Similar to the Archaic period, the Woodland period is separated into three timeframes: the Early Woodland (ca. 2,800 to 2,000 BP), the Middle Woodland (ca. 2,000 to 1,200 BP), and the Late Woodland (ca. 1,200 to 350 BP) (Spence et al., 1990; Fox, 1990).

The Early Woodland period is represented in southern Ontario by two cultural complexes: the Meadowood Complex (ca. 2,900 to 2,500 BP), and the Middlesex Complex (ca. 2,500 to 2,000 BP). During this period, the life ways of Early Woodland populations differed little from that of the Late Archaic with hunting and gathering representing the primary subsistence strategies. The pottery of this period is characterized by its relatively crude construction and lack of decoration. These early ceramics exhibit cord impressions, which are likely the result of the techniques used during manufacture rather than decoration (Spence et al., 1990).

The Middle Woodland period has been differentiated from the Early Woodland period by changes in lithic tool forms (e.g. projectile points, expedient tools), and the increased decorative elaboration of ceramic vessels (Spence et al., 1990). Additionally, archaeological evidence suggests the rudimentary use of maize (corn) horticulture by the end of the Middle Woodland Period (Warrick, 2000).

In southern Ontario, the Middle Woodland has been divided into three different complexes based on regional cultural traditions: the Point Peninsula Complex, the Couture Complex, and the Saugeen Complex. These groups are differentiated by sets of characteristics that are unique to regions within the province, specifically regarding ceramic decorations.

The Point Peninsula Complex extends from south-central and eastern Ontario into southern Quebec. The northernmost borders of the complex can be found along the Mattawa and French Rivers. Ceramics are coil constructed with conical bases, outflaring rims, and flat, rounded, or pointed lips. The interior surfaces of vessels are often channelled with a comb-like implement, creating horizontal striations throughout. The exterior is smoothed, or brushed, and decoration generally includes pseudo-scallop stamps or dentate impressions. Occasionally, ceramics will have been treated with a red ochre wash (Spence et al, 1990).

The Saugeen Complex is found generally in south-central Ontario and along the eastern shores of Lake Huron. The Saugeen Complex ceramics are similar in style to Point Peninsula Complex; however, the vessels tended to be cruder than their Point Peninsula counterparts. They were characterized by coil construction with thick walls, wide

necks, and poorly defined shoulders. Usually, the majority of the vessel was decorated with pseudo-scallop stamps or dentate impressions, with the latter occurring more frequently at later dates (Spence et al., 1990).

LATE WOODLAND PERIOD

There is debate as to whether a transitional phase between the Middle and Late Woodland periods is present in southern Ontario, but it is generally agreed that the Late Woodland period begins around 1,100 BP. The Late Woodland period in southern Ontario can be divided into three cultural sub-phases: The early, middle, and late Late Woodland periods. The early Late Woodland is characterized by the Glen Meyer and Pickering cultures and the middle Late Woodland is characterized by the Uren and Middleport cultures. These groups are ancestral to the Iroquoian-speaking Neutral-Erie (Neutral), the Huron-Wendat (Huron), and Petun Nations that inhabited southern Ontario during the late Late Woodland period (Smith, 1990, p. 285).

The Pickering and Glen Meyer cultures co-existed within southern Ontario during the early Late Woodland period (ca. 1250-700 BP). Pickering territory is understood to encompass the area north of Lake Ontario to Georgian Bay and Lake Nipissing (Williamson, 1990). Glen Meyer is centred around Oxford and Norfolk counties, but also includes the southeastern Huron basin and the western extent is demarcated by the Ekfrid Clay Plain southwest of London, Ontario (Noble, 1975). Villages of either tradition were generally smaller in size (~1 ha) and composed of smaller oval structures, which were later replaced by larger structures later in the Late Woodland period. Archaeological evidence suggested a mixed economy where hunting and gathering played an important role, but small-scale horticulture was present, indicating a gradual shift from hunting-gathering to a horticultural economy (Williamson, 1990).

The first half of the middle Late Woodland period is represented by the Uren culture (700-650 BP) and the second half by the Middleport (650-600 BP). Uren and Middleport sites of the middle Late Woodland share a similar distribution pattern across much of southwestern and south-central Ontario. (Dodd et al., 1990). Significant changes in material culture and settlement-subsistence patterns are noted during this short time. Iroquois Linear, Ontario Horizontal, and Ontario Oblique pottery types are the most well-represented ceramic assemblages of the middle Late Woodland period (Dodd et al., 1990). At Middleport sites, material culture changes included an increase in the manufacture and use of clay pipes as well as bone tools and adornments (Dodd et al., 1990; Ferris & Spence, 1995).

During this period, evidence in the archaeological record of small year-round villages, secondary ossuary burials, and what are thought to be semi-subterranean sweat lodges suggest a marked increase in sedentism in southern Ontario during the Uren and Middleport cultures (Ferris & Spence, 1995). The increasing permanency of settlements was a result of the development of small-scale cultivation and a subsequent increased reliance on staple crops such as maize, beans, and squash (Dodd et al., 1990; Warrick, 2000; Ferris & Spence, 1995).

Archaeological evidence from the middle Late Woodland sites also documents increases in population size, community organization and village fissioning, and the expansion of trade networks. The development of trade networks with northern Algonquian peoples has also been inferred from findings at Middleport sites along the northern parts of southwestern and south-central Ontario. These changes resulted in the more organized and complex social structures observed in the late Late Woodland period.

During the late Late Woodland period, village size significantly increased as did the complexity of community and political systems. The settlement patterns of the period can be categorized into three types: large village sites, smaller hamlets or cabin sites, and special resource extraction sites. The larger villages and smaller hamlets are typically on small creeks with sandy soils suitable for agriculture. Both larger village and small hamlet sites were both typically surrounded by palisades and activities were focused on subsistence (Lennox & Fitzgerald, 1990, p. 441). Larger longhouses oriented differently than others in the village have been associated with primary familial groups, while longhouses that were located outside of palisade walls may have been for visiting groups for the

purposes of trade or social gatherings (Ramsden, 1990). The cabin sites were occupied on a more seasonal basis and typically only had one or two longhouses. By this time, large-scale agriculture had taken hold, making year-round villages even more practical with the improved ability to store large crop yields over winter.

These villages in southern Ontario were occupied by the ancestors of the historic seventeenth century peoples that Champlain called the Neutral in 1615 as they did not participate in the conflict between the Huron and the Haudenosaunee (Lennox & Fitzgerald, 1990, p. 405). They were known as the "Attawandaron" by the Huron-Wendat, their neighbours to the north, "the people of a slightly different language." Distribution of ancestral Neutral sites reached from just past the Niagara River in the east to the Detroit River in the west, Lake Erie in the south, while London and Milton represent the northern boundary. Despite the wide distribution, Neutral concentrations were primarily centered on three riverine/lacustrine areas in the fifteenth century: the Niagara Peninsula; the Grand River and the rivers to the northeast (Spencer, Bronte and Sixteen Mile Creeks); and the Thames River and the shoreline of Lake Erie (Lennox & Fitzgerald, 1990, p. 405). By the late sixteenth and early seventeenth century, the settlement patterns of the Neutral had retracted to the eastern areas with concentrations largely centered on the Niagara Peninsula. Their eastern limit was the Buffalo River while their western limit was the Grand River. Populations also continued in the area of the Spencer, Bronte and Sixteen Mile Creeks in what is now the Milton and Oakville area (Lennox & Fitzgerald, 1990, p. 411).

In terms of material culture, projectile point types of the Neutral are typically long, narrow isosceles triangles with side notching, though there is generally great variation and not all are side notched. Forms included Middleport Triangular, Middleport Notched, Nanticoke Triangular and Nanticoke Notched in the fifteenth and sixteenth centuries with Daniels Triangular, and Hamilton Serrated in the seventeenth (Lennox & Fitzgerald, 1990, p. 419-421). Ceramics evolved from the slightly elongated globular form of the Middleport sub phase to a more globular to squat-globular form frequently with castellations in the fifteenth century. Common decorations during this time included Ontario Horizonal and Pound Necked incised, stamped or trailed motifs which became simpler over time.

Early contact with European settlers at the end of the Late Woodland period resulted in extensive changes to the traditional lifestyles of most populations inhabiting Ontario including settlement size, population distribution, and material culture. The introduction of European-borne diseases significantly increased mortality rates, resulting in a drastic drop in population size and the northward retreat of the Michi Saagig to the north shores of Lake Huron (Warrick, 2000).

1.3.2 POST-CONTACT PERIOD

European presence in southern Ontario began as early as 1615 with French explorer Etienne Brulé, who travelled with the Huron along the major portage route known as the Toronto Carrying Place Trail. This route connected Lake Ontario with Lake Simcoe to the north by way of the Humber River and the Holland Marsh. In September of 1615, Brulé camped on the shores of Humber Bay with the Huron (Mika & Mika, 1977, p. 694; Steckley, 1987; Ramsden, 1990). In 1615-1616, Samuel de Champlain also travelled with the Huron northward to Georgian Bay.

Neutral Territory was situated between the Huron-Wendat territory to the north, and the Haudenosaunee to the south. Their placement between these two conflicting groups resulted in their dispersal as a distinct nation. This disbandment was largely a product of intensification of the fur trade, resource scarcity, and European rivalries that translated to their trade partners (Lennox & Fitzgerald, 1990). The large-scale population dispersals gave way for the Haudenosaunee to occupy the territory along the north shore of Lake Ontario where they settled along inland-running trade routes.

Due to increased military pressure from the French and the return of Anishinaabeg Nations (Mississauga, Ojibwa, Odawa, and Potawatomi), the Haudenosaunee later abandoned their villages along Lake Ontario. By the 1680s, the

Anishinaabeg had returned and re-occupied the land along Lake Ontario, as well as northward beyond the Haliburton Highlands. The Anishnabeg later participated in a significant number of treaty agreements with the British Crown establishing the foundation of Euro-Canadian settlement in southern Ontario (Ferris & Spence, 1995).

Wellington County Road 109 represents the approximate boundary of two Indigenous land treaties. The Nottawasaga Purchase (Treaty No. 18) to the north and the Ajetance Treaty (Treaty No. 19) to the south. The Nottawasaga Purchase was signed in 1818 between the Chippewas of Lake Simcoe and Lake Huron and William Claus, the Deputy Superintendent of the Indian Department. It involved 1,592,000 acres that covers a wide area from Wellington County Road 109 north to Georgian Bay and includes the communities of Wasaga, Bradford, and Collingwood (Ministry of Indigenous Affairs, n.d.). It is part of the traditional territory of the Chippewas of Saugeen, and the Chippewas of Nawash, known collectively as the Saugeen Ojibway Nation (Saugeen Ojibway Nation, 2021). The Ajetance Treaty was negotiated between Chief Ajetance of the Mississaugas of the Credit First Nation and William Claus later in 1818. The treaty covered a total of 648,000 acres and included the cities of Milton and Brampton (Duric, 2017). It should be noted that the waters within the Conestogo River are currently subject to a land claim, submitted to the Federal and Provincial Governments in 2016, which asserts that the Mississaugas of the Credit First Nation have unextinguished title to all water, beds of water, and floodplains within their traditional territory and treaty lands as outlined in the *Aboriginal Title to Waters Statement of Claim* (Joan Holmes & Associates Inc, 2015).

WELLINGTON COUNTY

The study areas for this project are located within Wellington County, which was named after the First Duke of Wellington, Arthur Wellesley. The District of Wellington was set apart as a separate District and contained the counties of Wellington, Waterloo, Grey, and parts of Dufferin County in 1838 before the United Counties of Waterloo, Wellington, and Grey were formed in 1849 (Wellington County, 2020). In 1854, Wellington separated from Waterloo and became an individual entity consisting of the Townships of Amaranth, Arthur, Eramosa, Erin, Garafraxa, Guelph, Maryborough, Nichol, Peel, Pilkington, and Puslinch. The following municipalities joined the County soon after: Arthur (1857), Luther (1857), Minto (1857), Elora (1858), Fergus (1858), Orangeville (1858), Mount Forest (1866), Garafraxa separated into East and West (1869), Arthur Village (1872), Harriston (1873), Clifford Village (1874), Drayton (1875), Palmerston (1875), and Erin Village (1881) (Wellington County, 2020).

Colonial settlement in Wellington County went from east to west and generally coincided with the completion of surveys and subsequent allocation of land by the crown. Among the earliest communities was the Pierpoint Settlement, a community of black loyalists who had received land grants from the Crown for their service in the American Revolution (Ontario Genealogical Society, 2020). In Erin, Eramosa, and Garafraxa the population was mainly loyalists moving from the Halton and Oakville regions (Wellington County, 2020). The southwest areas were populated by immigrants arriving directly from England and Wales, whereas towns such as Guelph and Fergus were largely populated by Scottish immigrants (Ontario Genealogical Society, 2020). Other early settlements included La Guayrans, the Paisley Block, Salem, Bon Accord, and the Queen's Bush (Ontario Genealogical Society, 2020). Many of the initial settlers eventually relocated to other parts of Ontario.

Living conditions rapidly improved as natural resources were abundant and resulted in settlers quickly establishing homes and farms. Growth was further boosted by Wellington, Grey, and Bruce Railway in 1870 and the establishment of important centers of education such as the Ontario Agricultural College in 1874 (Mika & Mika, 1983). By the early 1900s, there were five schools associated with the college (Historical Atlas Publishing Co., 1906).

GARAFRAXA TOWNSHIP

Garafraxa Township was originally surveyed by Samuel Ryckman in 1821 and the first Euro-Canadian settlers in this area began to arrive in 1826. Consisting mostly of Irish and Scottish families, they likely came by way of the Grand River and its tributaries (Mika & Mika, 1977).

The main impetus for settlement in the area came with the construction of the Garafraxa Colonization Road in the late 1830s. Surveyed by Charles Rankin in 1837, it was constructed from the present-day town of Fergus to the mouth to Sydenham River in Owen Sound. It was the predecessor to the present-day Highway 6. By 1850, Garafraxa Township was largely settled with early communities including Marsville and Reading (Mika & Mika, 1977).

When the Township was originally established, it was part of Waterloo County and was under the combined jurisdiction with the townships of Amaranth and Melancthon. It became part of Wellington County in 1840 and in 1869, it was split into West and East Garafraxa. The final shift came in 1879, when East Garafraxa became part of Dufferin County (Mika & Mika, 1977).

VILLAGE OF ARTHUR

The historic village of Arthur was established to the west of one of the study areas (B109132). Also named after the first Duke of Wellington, Arthur was first unofficially surveyed by a Mr. Silverthorn in 1841. An official survey was later conducted in 1846 by D. B. Papineau. The earliest settlers in Arthur were primarily English and Irish. The village grew over the next few decades and saw the construction of a public school in 1850, a Catholic Church and Presbyterian Church in 1857, and a Church of St. John the Evangelist in 1876. By the turn of the century, Arthur had flour, woolen, planning, shingle, and flax mills along with three schools, and two banks (Mika & Mika, 1977).

1.3.3 STUDY AREA SPECIFIC HISTORY

To better understand the historic land use of the study area, the 1861 Leslie & Wheelock's *Map of the County of Wellington, Canada West* and the 1877 Walker & Miles *Illustrated Historical Atlas of the Counties of Waterloo and Wellington, Ontario* were reviewed. The property information on the historic maps is provided in Table 1.

Table 1: Historical Land Use Summary by Lot and Concession

Bridge	Township	Concession	Lot	1861 Leslie & Wheelock Map		1877 Walker & Miles Map	
				Occupants	Features	Occupants	Features
B109132 C109123	Garafraxa	1	37	Mrs Farret	No features illustrated	L. Farret	Sugar or Grist Mill
C109123			36	Non Res	No features illustrated	S. Farell	No features illustrated
B109133		2	35	Robert Barker	No features illustrated	Robert Barker	Homestead
B109134		3	34	Non Res	No features illustrated	J. Carlow	Homestead
B109132	Luther	1	1	William Mitchell	No features illustrated	S Guard	No features illustrated
C109123			2	George Palmer	No features illustrated	S Benn	No features illustrated
						C Haley	No features illustrated
B109133			3	Duncan Sanders	No features illustrated	Mrs Saunders	No features illustrated

B109134			5	James Isles	No features illustrated	James Isles	No features illustrated
				Robert Barker	No features illustrated	H Scarrow	No features illustrated

By 1861, present-day Wellington Road 109 had been constructed between Garafraxa and Arthur Township with the community of Arthur located immediately to the west (Map 3). All of the lands have been granted but several are listed as "Non-Res" which indicated that the owner of the lot was not occupying the property. By 1878, all owners are listed and several homesteads are illustrated fronted onto Wellington Road 109 (Map 4).

To gain an understanding of the more recent land use of the study area, aerial imagery from 1954, made available by the University of Toronto, was also consulted (University of Toronto, n.d.). The surrounding landscape at this time was predominantly rural and comprised primarily of agricultural fields. Wellington Road 109 was in its current location with the present-day iteration of the bridges spanning the Conestogo River (Map 5).

1.4 ARCHAEOLOGICAL CONTEXT

1.4.1 CURRENT CONDITIONS

The study areas consist of four bridges and surrounding land on Wellington Road 109. The bridges span the Conestogo River and typically include the roadway, the bridges, the supporting bridge berms, and the Conestogo River. The immediate areas are comprised of bush lot while the broader landscape is largely agricultural with some areas of woodlot.

1.4.2 PHYSIOGRAPHY AND ECOLOGY

The study area is located within a northeast projection of the Stratford Till Plain physiographic region of southern Ontario (Chapman & Putnam, 1984, p. 133). Once covered by the Huron Ice Lobe, the region can be largely characterized as an area of ground moraine which is interrupted in several areas by terminal moraines. These terminal moraines are mostly concentrated in the southern region while only one or two moraines interrupt the northern areas. The glacial till is comprised of fairly uniform brown, calcareous silty clay with few stone deposits and ranges from 1,500 to 900 feet above sea level with the highest points around the Conestogo and Nith Rivers. This westward facing slope means the area is often buffeted by high precipitation from Lake Huron which subsequently leads to drought-free summers as well as excessively wet springs. The issue of heavy precipitation is often compounded by poor drainage of the soils. Once proper drainage has been established, the high supply of lime, good natural fertility, and easy opportunities for cultivation has led to the Till Plains being one of the most agriculturally productive areas of the province (Chapman & Putnam, 1984, p. 134). The soil of the four study areas consists of Huron loam, a clay loam till and grey-brown podzolic with good drainage (Hoffman et al, 1963).

The study areas lies within the Mixedwood Plains Ecozone, within the Lake Simcoe-Rideau Ecoregion (Ecoregion 6E) (Crins et al., 2009). The climate of the Lake Simcoe-Rideau Ecoregion is mild and moist, with a mean annual temperature range of 4.9 to 7.8 degrees Celsius (Crins et al., 2009). Typical mammals of the area include the white-tailed deer, the northern raccoon, the striped skunk, and the woodchuck. Wetland habitats are used by many species of water birds and shorebirds, including wood duck, great blue heron, and Wilson's snipe. Birds common in open uplands include the field sparrow, grasshopper sparrow, and the eastern meadowlark while forests often contain species such as hairy woodpeckers, wood thrush, scarlet tanager, and the rose-breasted grosbeak. Typical reptiles include the bullfrog, northern leopard frog, spring peeper, red-spotted newt, snapping turtle, eastern garter snake and

the common water snake. Fish species in the area include the white sucker, smallmouth bass, walleye, northern pike, yellow perch, rainbow darter emerald shiner and pearl dace (Crins et al., 2009).

The Lake Simcoe-Rideau Ecoregion falls within the Great Lakes-St. Lawrence Forest Region. The vegetation of this forest region is relatively diverse. Hardwood forests are dominated by Sugar Maple, American Beech, White Ash, and Eastern Hemlock. Numerous other species are found where substrates are well developed on upland sites. Lowlands, including rich floodplain forests, contain Green Ash, Silver Maple, Red Maple, Eastern White Cedar, Yellow Birch, Balsam Fir, and Black Ash. Peatlands occur along the northern edge and in the eastern portion of the ecoregion, and these contain fens, and rarely bogs, with Black Spruce and Tamarack. Some of the best examples of North American alvar vegetation are located in this ecoregion (Rowe, 1972). The climate along with the diverse flora and fauna of Ecoregion 6E provided abundant natural resources for Indigenous and early Euro-Canadian populations.

Proximity to natural sources of water is an important indicator or archaeological potential. The four study areas span the Conestogo River, which was named after a River in Pennsylvania by Mennonite settlers in the nineteenth century (Mercer, 2018). Traversing through Waterloo Region and Wellington County, it is one of the four main tributaries of the Grand River. In 1994, the Grand River and its watershed, which includes the major tributaries (the Nith, Conestogo, Speed, and Eramosa rivers), was designated as a National Heritage River for its cultural heritage and recreational values. It was and still is, a key transportation route and resource base for both Indigenous and Euro-Canadian populations. The extensive archaeological record of the Grand River indicates its importance for food resources, transportation, and potable water for Indigenous and Euro-Canadian populations (Grand River Conservation Authority, 2020).

1.4.3 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

A search of the *Ontario Public Register of Archaeological Reports* indicates that no archaeological assessments have been conducted on or within 50 m of the study areas.

1.4.4 REGISTERED ARCHAEOLOGICAL SITES

A search of the *Ontario Archaeological Sites Database* indicates that there are no registered archaeological sites within 1 km of the four study areas (MHSTCI, 2022).

1.4.5 LISTED AND DESIGNATED HERITAGE PROPERTIES

According to the Township of Wellington North Heritage Register, there are no listed or designated heritage properties within 300 m of the four study areas (Township of Wellington North, n.d.). The Grand River and its major tributaries – the Conestogo, Eramosa, Nith and Speed rivers – were designated as a Canadian Heritage River in 1994 (Grand River Conservation Authority, 2020).

1.4.6 MARINE ARCHAEOLOGICAL POTENTIAL

The *Criteria for Evaluating Marine Archaeological Potential* (MHSTCI, 2016) were reviewed to determine if a marine archaeological assessment was required for the section of the Conestogo River within the study area. Areas recognized for their cultural heritage value are considered to have marine archaeological potential. The Grand River and its major tributaries – the Conestogo, Eramosa, Nith and Speed rivers – were designated as a Canadian Heritage

River in 1994. Therefore, the study area is considered to hold marine archaeological potential (Grand River Conservation Authority, 2020).

2 FIELD METHODS

2.1 PROPERTY INSPECTION

A property inspection was completed on December 2, 2021 under overcast skies and light precipitation with lighting adequate for documenting features of archaeological potential. The temperature was 6 ºC and at no point did field conditions inhibit the identification of features of archaeological potential. The entirety of each study area and their surroundings were systematically inspected and subject to photo-documentation.

Approximately 84% of the B109132 study area, 90% of the C109123 study area, 92% of the B109133 study area, and 85% of the B109134 study area were visually confirmed to have been previously disturbed as part of the Wellington County Road 109 construction and right-of-way. The areas of visually confirmed disturbance include the roadway, bridge berms, roadway ditches, underground infrastructure, and cut slopes (Images 1-24). The remaining parts of the study areas fall within the Conestogo River and are permanently wet.

All encountered field conditions were photo-documented and the results of the property inspection and referenced image locations are provided on Map 6.

2.2 INVENTORY OF DOCUMENTATION RECORDS

The following represents all the documentation taken in the field relating to this project and is being retained by WSP:

- 1 page of field notes
- 168 digital photographs in JPEG format

3 ANALYSIS AND CONCLUSIONS

The criteria for determining the level of archaeological potential are primarily focused on physiographic variables that include distance and nature of the nearest source/body of water, distinguishing features in the landscape (e.g. ridges, knolls, eskers, wetlands), the agricultural viability of soils, resource availability, and other features which would have made the area desirable for settlement and occupation. A more comprehensive list of features indicative of archaeological potential, as outlined in the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI, 2011), can be found in Appendix B.

Given that the study areas are located along a significant waterway, and the results of the Stage 1 background study indicate that the area was well settled, the study areas have potential for the presence of archaeological resources. The Conestogo River is a Canadian Heritage River with a long history of human occupation. Although the area has high potential for archaeological sites to be present, the property inspection determined that all four bridges and their immediate surroundings have been subject to extensive deep disturbance that would have compromised the integrity of any archaeological resources that may have once been present. The deep disturbance is evident by the presence of the Wellington Road 109 roadway, bridges, berms, and underground utilities.

4 RECOMMENDATIONS

Archaeological recommendations have been made based on the background historic research, property inspection, and indicators of archaeological potential as outlined in the 2011 *Standards and Guidelines for Consultant Archaeologists* and are as follows:

- Based on the results of the Stage 1 archaeological assessment, the study areas have been determined to be subject to deep and intensive disturbance. Areas of visually confirmed disturbance include the roadway, bridge berms, roadway ditches, underground infrastructure, and cut slopes. These areas no longer retain archaeological potential and a **Stage 2 archaeological assessment is not required.**

- If there are to be in-water impacts within the Conestogo River, a marine archaeological assessment will be required to ascertain the presence or absence of marine archaeological resources. If marine archaeological resources are present, the assessment will evaluate the significance of these resources and outline measures to mitigate the impact(s) of development.

It should be noted that areas determined to no longer retain archaeological potential should not be subject to ground disturbing activities until the recommendations stated herein have been accepted by the Ontario Ministry of Heritage, Sport, Tourism and Cultural Industries, and the report has been entered into the Public Register of Archaeological Reports.

5 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism, and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the Standards and Guidelines for Consultant Archaeologists (2011) 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 study area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism, and Culture Industries, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

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

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

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

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7 IMAGES

7.1 B109132

Image 1: Typical Roadway conditions. Photo facing Southwest.

Image 2: Berm disturbance on southeast of Bridge 1. Photo facing Northeast.

Image 3: Berm and underground culvert disturbance on southwest of Bridge 1. Photo facing Southwest

Image 4: Berm disturbance on southeast of Bridge 1. Photo facing Northeast.

Image 5: Ditching and culvert disturbance on southwest side of Bridge 1. Photo facing Southeast.

Image 6: Ditching on northeast side of Bridge 1. Photo facing Northeast.

Image 7: Ditching and driveway berm on northeast side of Bridge 1. Photo facing Northeast.

Image 8: Typical indicators of underground utilities and infrastructure. Photo facing Northeast.

Image 9: Typical indicators of underground utilities. Photo facing Northeast

Image 10: Typical indicators of underground utilities and berm of northwest side of Bridge 1. Photo facing Southwest.

7.2 C109123

Image 11: Berm, ditching, and cut slope disturbance on northwest side of Bridge 2. Photo facing Southwest

Image 12: Berm and ditching disturbance on northeast side of Bridge 2. Photo facing Northeast

Image 13: Berm and ditching disturbance on southwest side of Bridge 2. Photo facing Southwest

Image 14: Berm and ditching disturbance on southeast side of Bridge 2. Photo facing Northeast

Image 15: Berm disturbance on southeast side of Bridge 2. Photo facing Northeast

Image 16: Typical indicators of underground utilities and ditching of southwest side of Bridge 2. Photo facing Southwest.

7.3 B109133

Image 17: Typical roadway conditions. Photo facing Northeast.

Image 18: Berm and ditching disturbance on northwest side of Bridge 3. Photo facing Southwest

Image 19: Berm and ditching disturbance on southwest side of Bridge 3. Photo facing West

Image 20: Berm, culvert, and ditching disturbance on southwest side of Bridge 3. Photo facing Southwest

Image 21: Berm disturbance on southeast side of Bridge 3. Photo facing Northeast

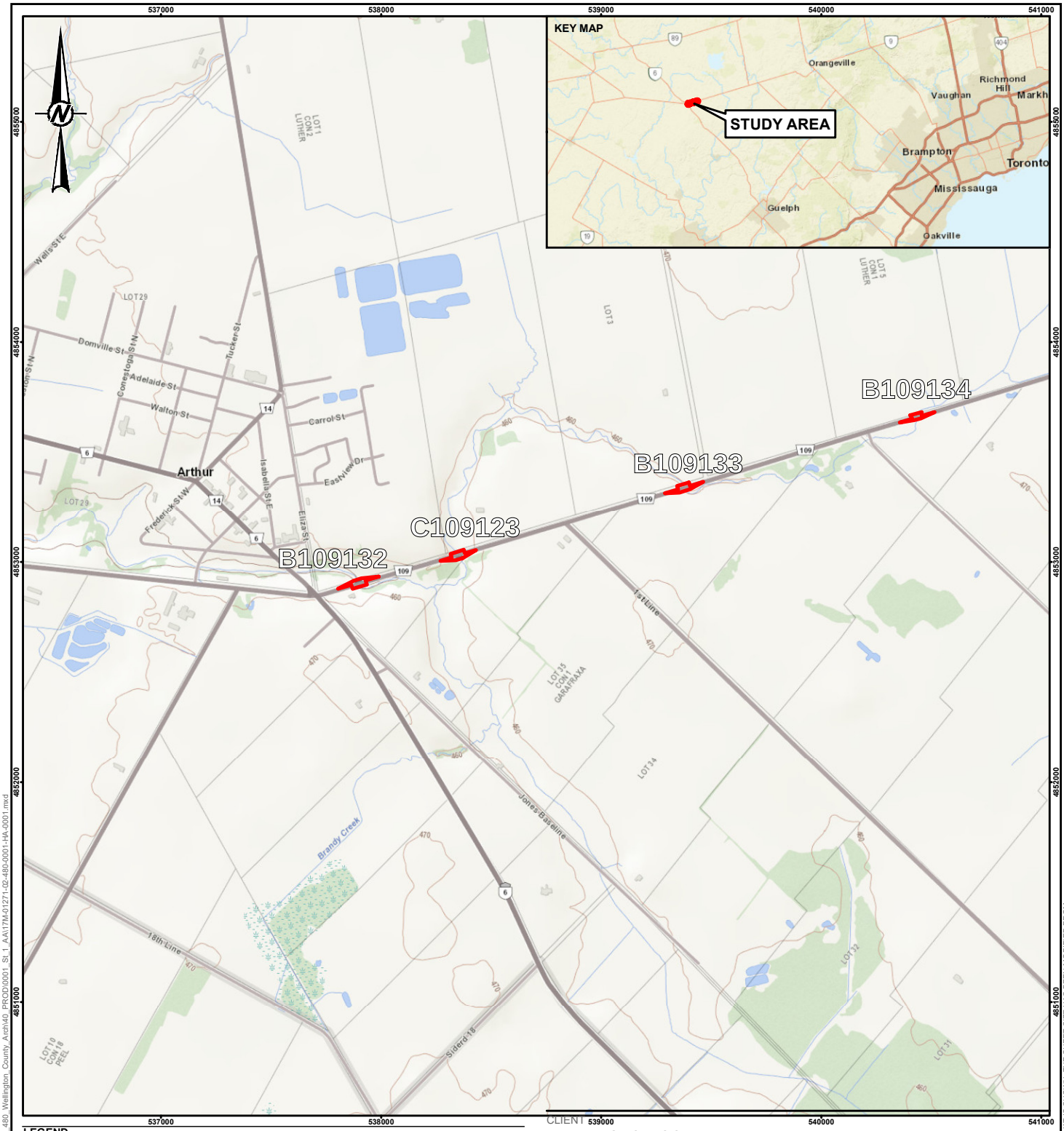
7.4 B109134

Image 22: Berm and ditching disturbance on northwest and northeast side of Bridge 4. Photo facing Northeast

Image 23: Berm disturbance on southwest side of Bridge 4. Photo facing Northeast

Image 24: Berm disturbance on southeast side of Bridge 4. Photo facing Northeast

8 MAPS



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NOTE(S)

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2. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 17 VERTICAL DATUM: CGVD28

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

TITLE
PROJECT AREA

CONSULTANT
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INSET MAP 1

INSET MAP 2

INSET MAP 3

INSET MAP 4

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B109133

C109123

B109132

WELLINGTON ROAD 109

CARROL STREET

BELLEFIELD CRESCENT

EASTVIEW DRIVE

SCHMIDT DRIVE

ELIZA STREET

PATRICK STREET

HIGHWAY 6

2ND LINE

1ST LINE

JONES BASELINE

Brandy Creek

LUTHER LOT 1 CON 1

LUTHER LOT 2 CON 1

LUTHER LOT 3 CON 1

LUTHER LOT 5 CON 1

LUTHER LOT 6 CON 1

GARAFRAXA LOT 37 CON 1

GARAFRAXA LOT 38 CON 1

GARAFRAXA LOT 34 CON 3

GARAFRAXA LOT 33 CON 3

GARAFRAXA LOT 35 CON 2

GARAFRAXA LOT 34 CON 2

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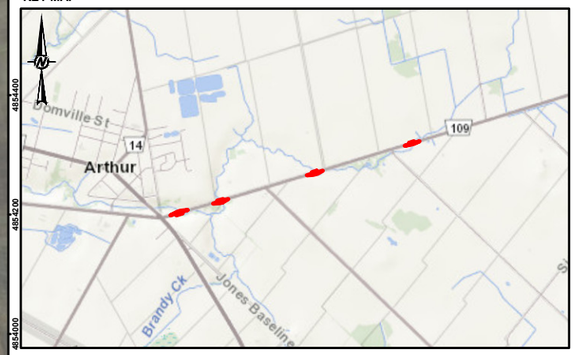

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- STUDY AREA
- ROADWAY
- TOPOGRAPHIC CONTOUR, METRES
- WATERCOURSE
- WATERBODY
- TOWNSHIP, LOT AND CONCESSION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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CLIENT

WELLINGTON COUNTY

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE

STUDY AREA IN DETAIL

CONSULTANT

wsp

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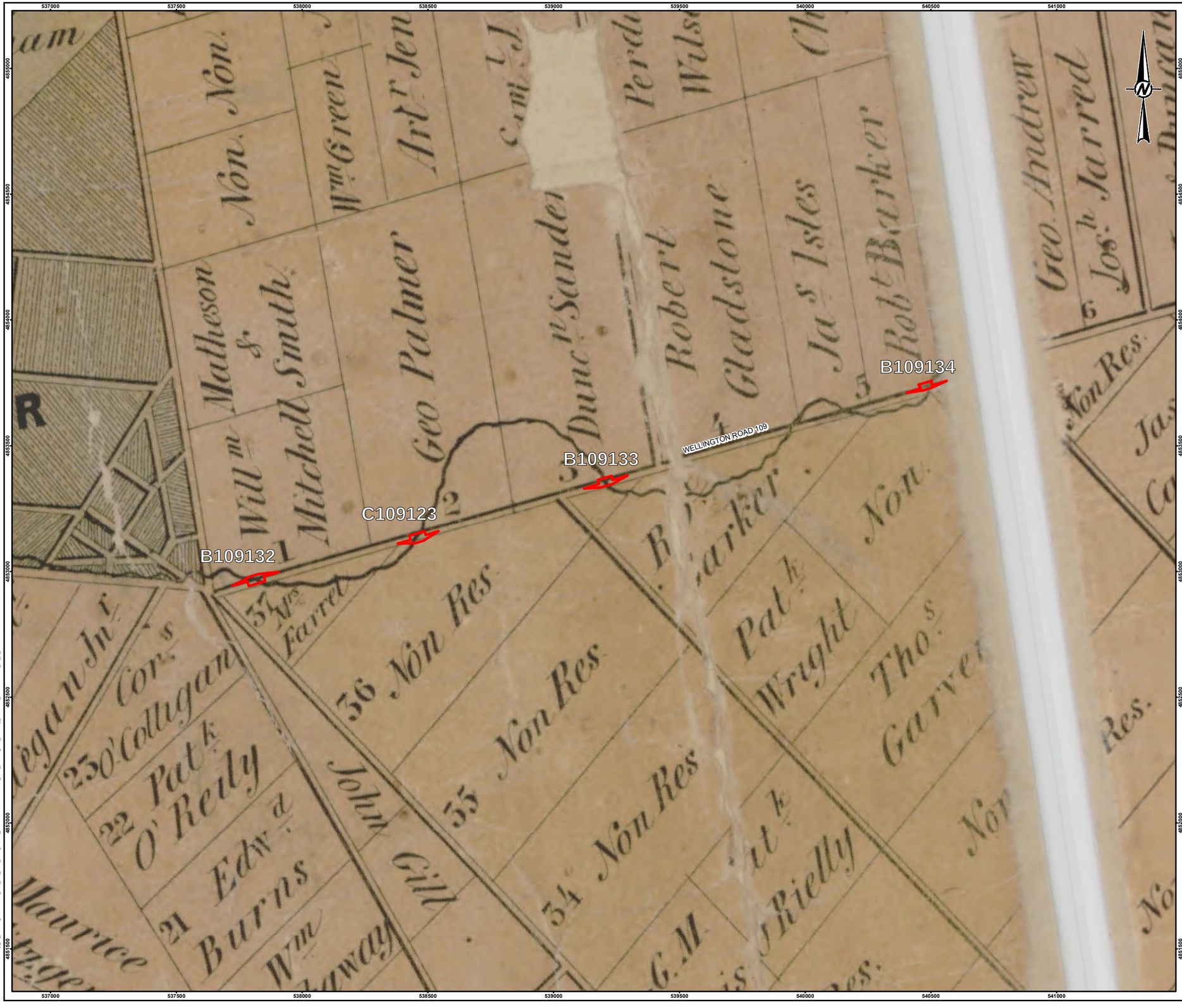

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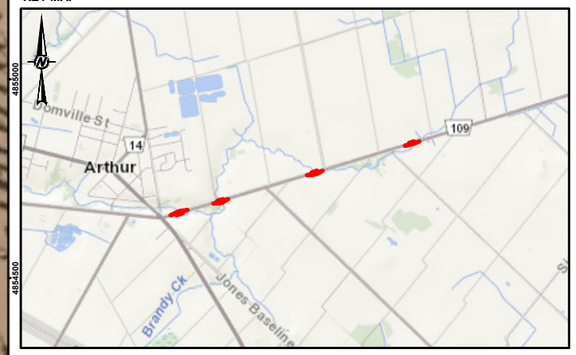

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STUDY AREA

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REFERENCE(S)

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CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
HISTORICAL MAPPING (1861)

CONSULTANT
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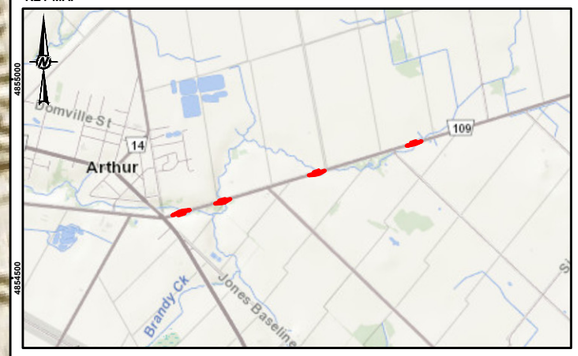

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CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
HISTORICAL MAPPING (1877)

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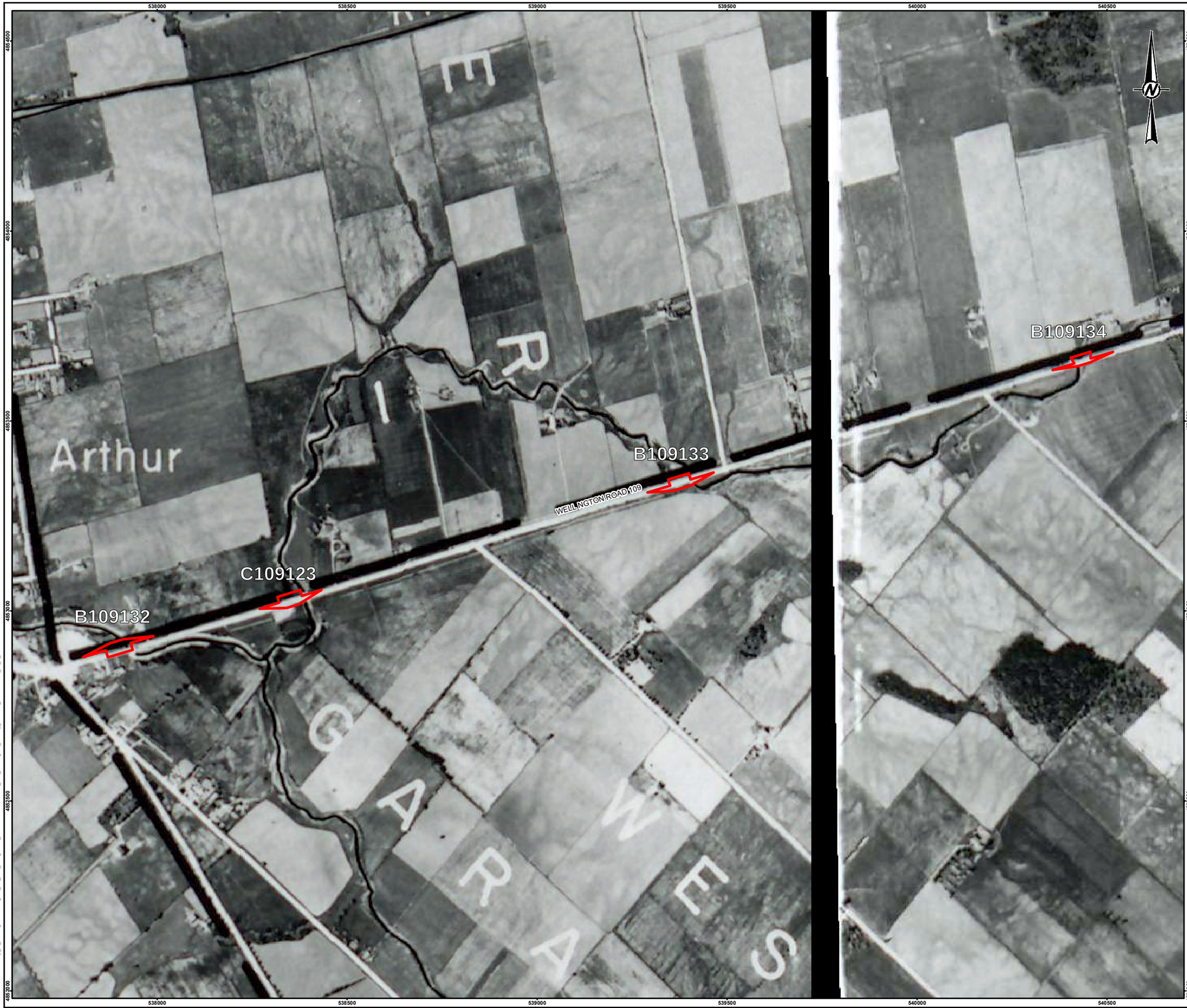

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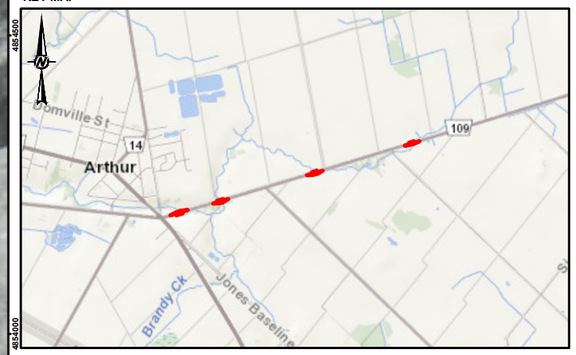

SCALE 1:65,000

LEGEND

STUDY AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. UNIVERSITY OF TORONTO 1954 AIR PHOTOS OF SOUTHERN ONTARIO (N.D.)
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83,
COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

DRAFT

0 100 200 400
1:10,000 METRES

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
AERIAL IMAGERY (1954)

CONSULTANT
wsp

YYYY-MM-DD	2022-02-24
DESIGNED	AM
PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT No.	CONTROL	REV.	MAP
17M-01271-02, 480	0001	A	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
25mm
0

Path: S:\Clients\County_of_Wellington\Wellington_Rd_109_Bridges\99_PROJ\17M-01271-02_480_Wellington_County_Arch\40_PROD\0001_SI_1_AA\17M-01271-02-480-0001-HA-0005.mxd

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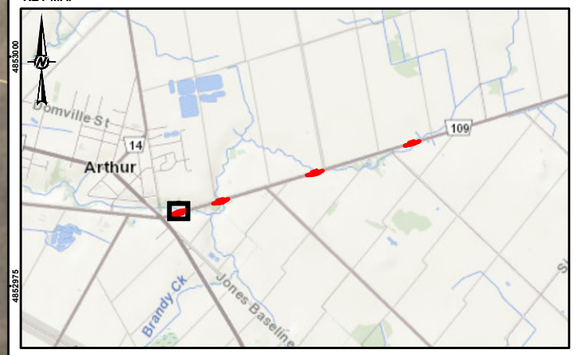

SCALE 1:65,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA (B109132)
- DISTURBED – NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED
- MARINE ARCHAEOLOGICAL ASSESSMENT REQUIRED
- ROADWAY
- TOPOGRAPHIC CONTOUR, METRES
- WATERCOURSE
- WATERBODY
- TOWNSHIP, LOT AND CONCESSION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2022
2. SERVICE LAYER CREDITS: © 2022 MICROSOFT CORPORATION © 2022 MAXAR ©CNES (2022) DISTRIBUTION AIRBUS DS
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

DRAFT

0 5 10 20
1:650 METRES

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
RECOMMENDATIONS

CONSULTANT
wsp

YYYY-MM-DD	2022-03-04
DESIGNED	AM
PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT No.	CONTROL	REV.	MAP
17M-01271-02, 480	0001	A	**6A**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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538275 538300 538325 538350 538375 538400 538425 538450

4853100 4853075 4853050 4853025 4853000 4852975 4852950

LUTHER LOT 1 CON 1

LUTHER LOT 2 CON 1

GARAFRAXA LOT 39 CON 1

GARAFRAXA LOT 38 CON 1

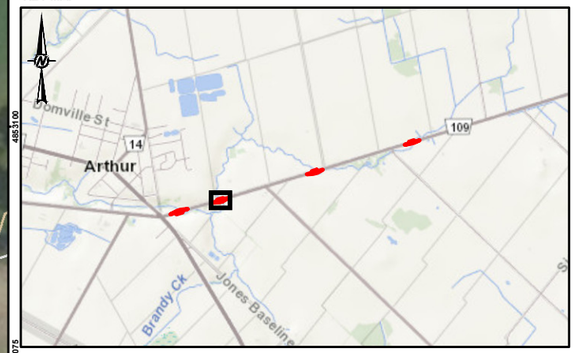
WELLINGTON ROAD 109

494 492 490 488 486 484 482 480 478 476 474 472 470 468 466 464 462 460 458 456

11 12 13 14 15 16

bing

KEY MAP



SCALE 1:65,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA (C109123)
- DISTURBED – NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED
- MARINE ARCHAEOLOGICAL ASSESSMENT REQUIRED
- ROADWAY
- TOPOGRAPHIC CONTOUR, METRES
- WATERCOURSE
- WATERBODY
- TOWNSHIP, LOT AND CONCESSION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2022
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3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

DRAFT

0 5 10 20

1:650 METRES

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
RECOMMENDATIONS

CONSULTANT
wsp

YYYY-MM-DD	2022-03-04
DESIGNED	AM
PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT No.	CONTROL	REV.	MAP
17M-01271-02, 480	0001	A	**6B**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 0 25mm

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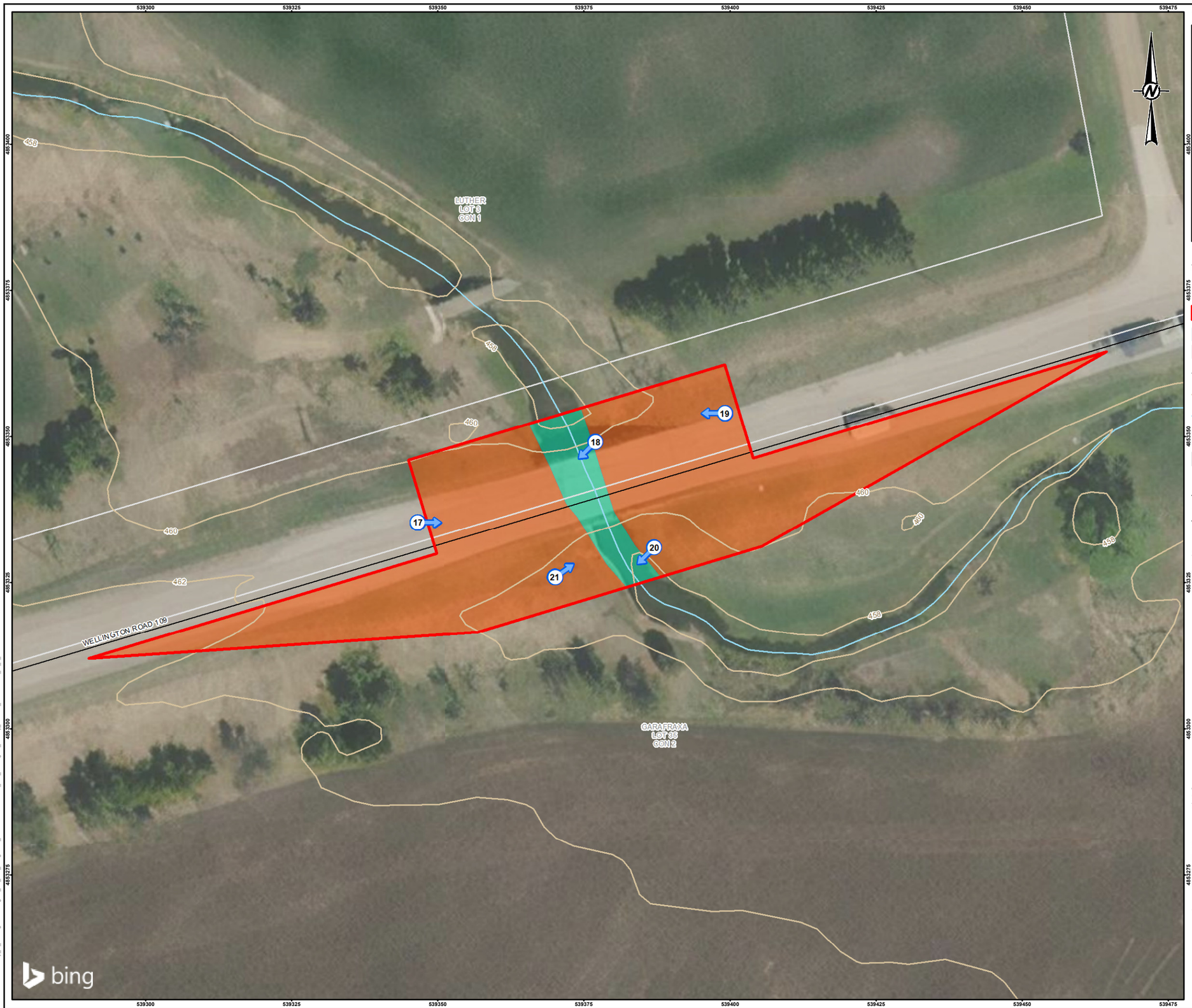

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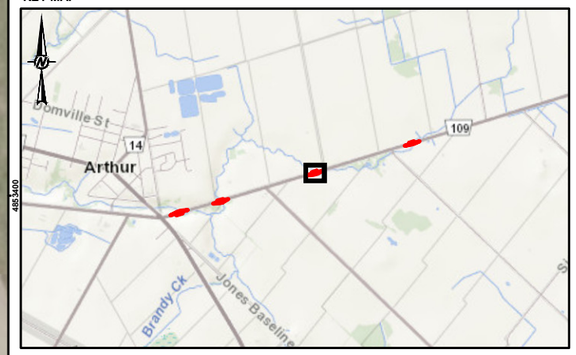

SCALE 1:65,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA (B109133)
- DISTURBED – NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED
- MARINE ARCHAEOLOGICAL ASSESSMENT REQUIRED
- ROADWAY
- TOPOGRAPHIC CONTOUR, METRES
- WATERCOURSE
- WATERBODY
- TOWNSHIP, LOT AND CONCESSION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2022
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3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

DRAFT

0 5 10 20
1:650 METRES

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
RECOMMENDATIONS

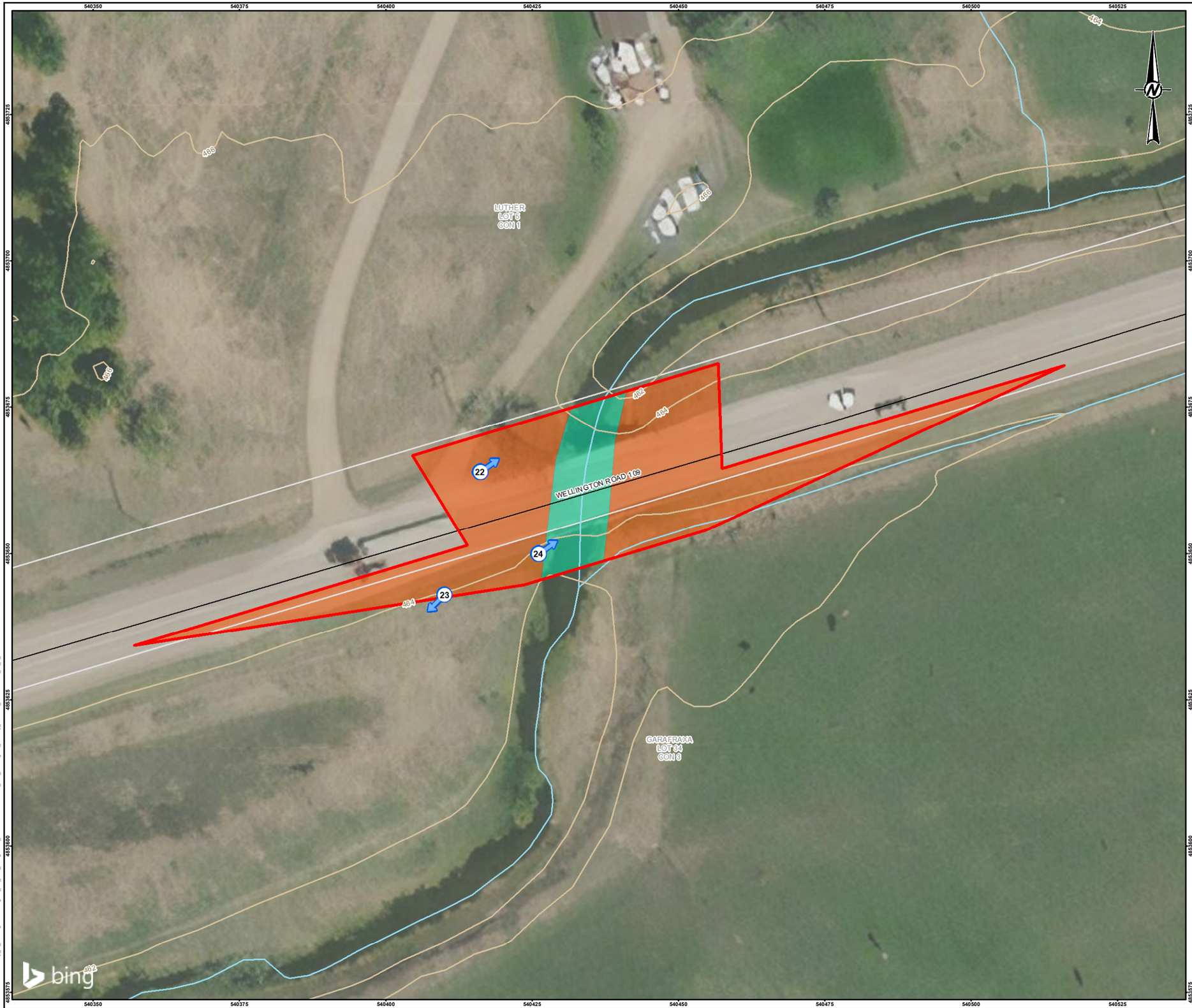
CONSULTANT
wsp

YYYY-MM-DD	2022-03-04
DESIGNED	AM
PREPARED	BR
REVIEWED	----
APPROVED	----

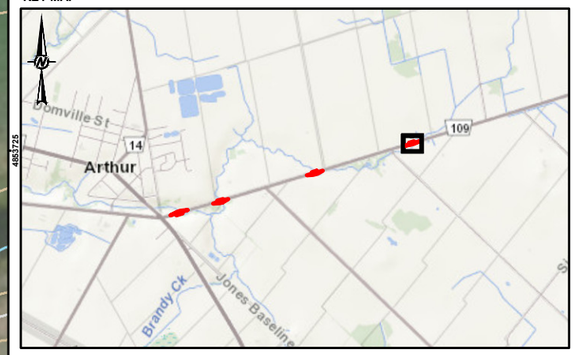
PROJECT No.	CONTROL	REV.	MAP
17M-01271-02, 480	0001	A	**6C**

Path: S:\Clients\County_of_Wellington\Wellington_Rd_109_Bridges\99_PROJ\17M-01271-02_480_Wellington_County_Arch\40_PROD\0001_St_1_AA\17M-01271-02-480-0001-HA-0006.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm



KEY MAP



SCALE 1:65,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA (B109134)
- DISTURBED – NO FURTHER ARCHAEOLOGICAL ASSESSMENT REQUIRED
- MARINE ARCHAEOLOGICAL ASSESSMENT REQUIRED
- ROADWAY
- TOPOGRAPHIC CONTOUR, METRES
- WATERCOURSE
- WATERBODY
- TOWNSHIP, LOT AND CONCESSION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2022
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3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

DRAFT

0 5 10 20
1:650 METRES

CLIENT
WELLINGTON COUNTY

PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT: WELLINGTON ROAD 109 BRIDGES MUNICIPAL CLASS ENVIRONMENTAL

TITLE
RECOMMENDATIONS

CONSULTANT
wsp

YYYY-MM-DD	2022-03-04
DESIGNED	AM
PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT No.	CONTROL	REV.	MAP
17M-01271-02, 480	0001	A	**6D**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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APPENDIX

A FEATURES OF ARCHAEOLOGICAL POTENTIAL

APPENDIX

FEATURES INDICATING ARCHAEOLOGICAL POTENTIAL

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, relic river or stream channels, shorelines of drained lakes or marshes, cobble beaches).
- Accessible or inaccessible shoreline (e.g. high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh).
- Elevated topography (e.g. eskers, drumlins, large knolls, plateaux).
- Pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground.
- Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases.
- Resource areas, including:
  - Food or medicinal plants (e.g. migratory routes, spawning areas, prairie).
  - Scarce raw materials (e.g. quartz, copper, ochre, or outcrops of chert).
  - Early Euro-Canadian industry (e.g. fur trade, logging, prospecting, mining).
- Areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g. pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries.
- Early historical transportation routes (e.g. trails, passes, roads, railways, portage routes).
- Property listed on a municipal register or designated under the Ontario Heritage Act or that is federal, provincial or municipal historic landmark or site.
- Property that local histories or informants have identified with possible archaeological sites, historic events, activities, or occupations

SOURCE

Section 1.3. Ministry of Heritage, Sport, Tourism, and Culture Industries. (2011). *Standards and Guidelines for Consultant Archaeologists.* Toronto, Ontario: Queen's Printer for Ontario.