Stage 1 and 2 Archaeological Assessment of 13030 Lundy's Lane, Part of Lot 89, Geographic Township of Thorold, County of Welland, Now in the City of Thorold, Regional Municipality of Niagara

Revised Report

Prepared for:

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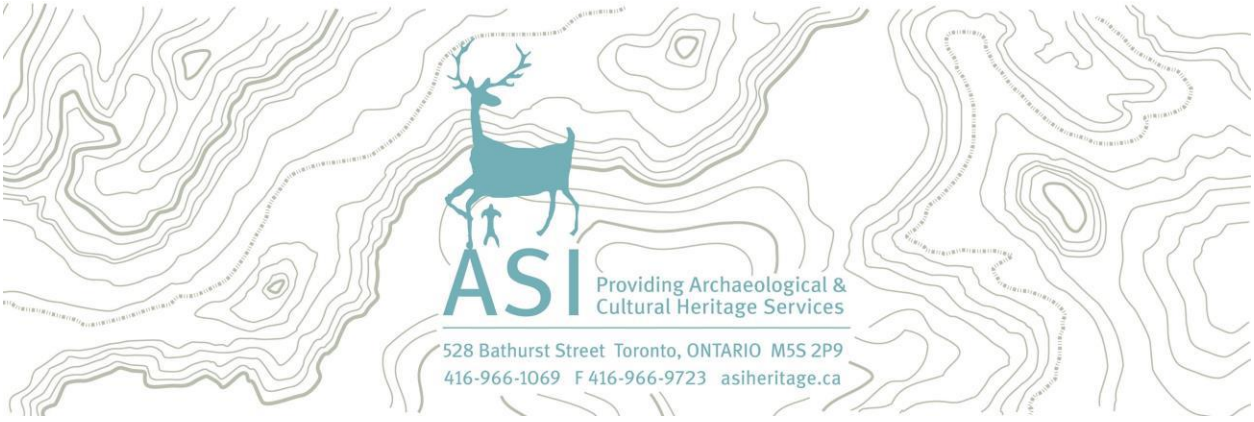

Executive Summary

Archaeological Services Inc. was contracted by RUDANCO Hospitality Corporation to undertake a Stage 1 and 2 Archaeological Assessment of 13030 Lundy's Lane, Part of Lot 89, in the Geographic Township of Thorold, County of Welland, now in the City of Thorold, Regional Municipality of Niagara. The study area is approximately 24 hectares. The study area comprises the property limits of 13030 Lundy's Lane and a Hydro One Right-Of-Way.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the property, along with nineteenth- and twentieth-century settlement trends. This research indicated there was potential for encountering both Indigenous and Euro-Canadian archaeological resources on the study area.

The Stage 2 field assessment was conducted on October 14, 18, 19 and November 15-16, 2021, by means of a test pit survey and pedestrian survey conducted at five-metre intervals in areas deemed to have archaeological potential. This assessment resulted in the identification of two non-diagnostic Indigenous lithic sites (AgGt-292 and AgGt-293) and four non-diagnostic Indigenous findspots.

Sites AgGt-292 and AgGt-293 represent Indigenous locations with cultural heritage value or interest. Therefore, it is recommended that site AgGt-292, located within the proposed development area, be subject to a comprehensive Stage 3 Site-Specific Assessment in order to more fully identify the character, extent, and significance of the archaeological deposit, in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists.*

It is also recommended that a Stage 3 Site-Specific Assessment take place on the portions of the 20-metre buffer surrounding site AgGt-293 that extend into the proposed development area be conducted in order to confirm if the site extends beyond the Hydro One Right-of-Way, in accordance with Ministry of Heritage, Sport, Tourism, and Culture Industries' 2011 *Standards and Guidelines for*

Consultant Archaeologists. Further, in the event of any proposed development within the Hydro One Right-Of-Way, site AgGt-293, located outside of the proposed development area, be subject to a comprehensive Stage 3 Site-Specific Assessment in order to more fully identify the character, extent, and significance of the archaeological deposit, in accordance with the Ministry of Heritage, Sport, Tourism and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists.*

The four remaining Indigenous findspots do not meet the criteria for cultural heritage value or interest required for Stage 3 Site-Specific Assessment and no further archaeological assessment of these locations is required.

Project Personnel

- **Senior Project Manager:** Jennifer Ley, Honours, Bachelor of Arts (R376), Lead Archaeologist, Manager, Planning Assessment Division
- **Project Managers**: Robb Bhardwaj, Master of Arts, (P449), Associate Archaeologist, Project Manager, Planning Assessment Division
- **Project Director**: Robb Bhardwaj
- **Project Administrator**: Lauren Vince, Honours, Bachelor of Arts (R1235), Archaeologist, Project Administrator, Planning Assessment Division
- **Field Director**: Sean Heafner, Bachelor of Arts (R1253), Archaeologist, Field Director, Planning Assessment Division
- **Field Archaeologists:** Brian Abfal, Master of Arts; Valerie Andrew, Bachelor of Science; Gareth Neilson; Paul Roschman, Bachelor of Science; Anthony Saracino; Jessica Thomas, Honours Bachelor of Arts
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- **Report Reviewers**: Robb Bhardwaj; Jennifer Ley; Sara Cherubin, Master of Arts (P223), Senior Archaeologist, Manager, Indigenous Sites, Mitigation Division

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1.0 Project Context

Archaeological Services Inc. was contracted by RUDANCO Hospitality Corporation to undertake a Stage 1 and 2 Archaeological Assessment of 13030 Lundy's Lane, Part of Lot 89, in the Geographic Township of Thorold, County of Welland, now in the City of Thorold, Regional Municipality of Niagara (Figure 1). The study area is approximately 24 hectares. The study area comprises the property limits of 13030 Lundy's Lane and a Hydro One Right-Of-Way (Figure 2).

1.1 Development Context

This assessment was conducted under the senior project management of Jennifer Ley (R376), and the project management and project direction of Robb Bhardwaj (P449) under Ministry of Heritage, Sport, Tourism and Culture Industries (hereafter "the Ministry") Project Information Form P449-0558-2021. All activities carried out during this assessment were completed in support of a Zoning By-law Amendment, Official Plan Amendment, and a Draft Plan of Subdivision, as required by the City of Thorold and the *Planning Act* (Ministry of Municipal Affairs and Housing, 1990). All work was completed in accordance with the *Ontario Heritage Act* (Ministry of Citizenship and Culture [now the Ministry],1990) and the *Standards and Guidelines for Consultant Archaeologists* (hereafter "the Standards") (Ministry of Tourism and Culture [now the Ministry], 2011).

Permission to access the study area and to carry out all activities necessary for the completion of the assessment was granted by the proponent on August 28, 2021. Buried utility locates were obtained prior to fieldwork.

1.2 Historical Context

The purpose of this section is to describe the past and present land use and settlement history, and any other relevant historical information gathered through the Stage 1 background research. First, a summary is presented of the current understanding of the Indigenous land use of the study area. This is followed by a review of historical Euro-Canadian settlement trends.

Historically, the study area was located in Lot 89, in the Geographic Township of Thorold, County of Welland. Currently, the study area comprises a former motel,

manicured lawns, and an active agricultural field at the northwest corner of Lundy's Lane and Thorold Townline Road in the City of Thorold.

1.2.1 Pre-Contact Settlement

Southern Ontario has a cultural history that began approximately 13,000 years ago and continues to the present. Table 1 provides a general summary of the pre-contact Indigenous settlement of the study area and surrounding area.

Table 1: Pre-contact Indigenous Temporal Culture Periods in Southern Ontario.

Period	Description
Paleo 13,000 Before Present- 9,000 Before Present	• First human occupation of Ontario • Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • Language Unknown • Small occupations • Non-stratified populations
Archaic 9,000 Before Present – 3,000 Before Present	• Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • Small occupations • Non-stratified populations • Mortuary ceremonialism • Extensive trade networks for raw materials and finished objects
Early Woodland 3,000 Before Present – 2,400 Before Present	• Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • General trend in spring/summer congregation and fall/winter dispersal • Small and large occupations • First evidence of community identity • Mortuary ceremonialism • Extensive trade networks for raw materials and finished objects

Period	Description
Middle Woodland 2,400 BP – 1,300 Before Present, Transitional Woodland 1,300 Before Present – 1,000 Before Present	• Astronomers/ Artists/ Hunters/ Gatherers/ Foragers • A general trend in spring/summer congregation and fall/winter dispersal into large and small settlements • Kin-based political system • Increasingly elaborate mortuary ceremonialism • Incipient agriculture in some regions • Longer term settlement occupation and reuse
Late Woodland (Early) *Anno Domini* 900 – *Anno Domini* 1300	• Foraging with locally defined dependence on agriculture • Villages, specific and special purpose sites • Socio-political system strongly kinship based
Late Woodland (Middle) *Anno Domini* 1300 – *Anno Domini* 1400	• Major shift to agricultural dependency • Villages, specific and special purpose sites • Development of socio-political complexity
Late Woodland (Late) *Anno Domini* 1400 – *Anno Domini* 1650	• Complex agricultural society • Villages, specific and special purpose sites • Politically allied regional populations

1.2.2 Post-Contact Settlement

Niagara Purchase – Treaty 381

The study area is within Treaty 381, better known as the Niagara Purchase, signed on May 9, 1781 between the Crown and certain Anishinaabe peoples for the tract of land which had not been agreed upon in the 1764 Niagara Peace Treaty on the west side of 'the Straits' that lead from Lake Erie to Lake Ontario at Niagara Falls (Crown-Indigenous Relations and Northern Affairs, 2016). The Treaty was signed during the American Revolution and was one of the first land acquisitions in what would become Upper Canada (Ministry of Indigenous Affairs, 2020).

Geographic Township of Thorold

The Township of Thorold, known as Township 9, was bound to the north by the Township of Grantham, to the south by the Welland River, to the west by the Township of Pelham, and to the east by the Township of Stamford.

The first settlers are believed to have taken up land in Thorold around 1787-88, when the first township survey was undertaken in part by Augustus Jones. Jones also compiled the 'Plans of the Townships of this Settlement' in the late autumn of 1791, which included a 'List of reduced Provincial Troops' settled in the area, as well as reports on features 'towards the public utility' such as water falls, minerals and/or quarries, and the quality of the timber, etc. (Fraser, 1906:346, 388-389, 426-427).

Thorold acquired its name in 1792, likely in honor of Sir John Thorold (1734-1815), a representative for Lincolnshire in the House of Commons. Settlement in Thorold advanced at a pace that was roughly equal to that seen in the other nearby townships in the county. Most of the early settlement and land allotment was made to Loyalists and disbanded soldiers from Butler's Rangers. Several of the farms within the township suffered damage to fences and crops, and from plunder, during the Battle of Beaver Dams in June 1813. By 1846, the township was referred to as one of the 'best settled townships in the Niagara District, containing a great number of excellent, well cleared farms' (Gardiner, 1899:276-277; Armstrong, 1985:147; Rayburn, 1997:342-343; Smith, 1846).

The Welland Canal was completed in 1829 and traversed the township from north to south and brought prosperity to such communities as Port Robinson and Allanburg. The idea of a canal to by-pass the natural physical obstacle of Niagara Falls had been proposed by DeLaMothe, engineer to the French king, as early as 1710, but the plans were never carried out. This was undoubtedly due to the fact that once Fort Niagara had been constructed, in 1725, the French relied upon an overland portage on the east side of the river, called 'The Carrying Place', to transport goods up and down the Niagara Escarpment. Following the British capture of Fort Niagara, the easterly Niagara portage remained in use from 1759 until the 'Devil's Hole Massacre' in 1763, after which the trans-shipment of goods shifted to the west side of the Niagara River. There, goods were carried up the

escarpment from Queenston along what eventually became known as the Portage Road, through the present-day City of Niagara Falls to Chippawa.

William Hamilton Merritt first projected the idea of a canal as early as 1818. Merritt, a merchant and miller in St. Catharines, simply wanted to dig a ditch or feeder canal from the Welland River (or Chippawa Creek) to power his mills. Two other important early mill owners in the region, John DeCew and George Keefer, supported Merritt's plan. As work progressed on an Erie Canal from to New York during the early 1820s, it became apparent that Upper Canadian trade and commerce might suffer if the shipping of goods was diverted to the Atlantic ports and markets instead of this new canal. A charter was granted in 1824 by the Upper Canadian government which authorized the establishment of the Welland Canal Company as a private enterprise. The subscribers were principally men from the Niagara District (Grantham, Niagara, Louth, Thorold and Grimsby), although names appear on this list from other localities such as Chatham, Yarmouth, Flamboro' West, Stoney Creek and Oxford (Mackenzie, 1836).

Construction on the Second Welland Canal, a deeper channel with larger locks built out of masonry (limestone) blocks, occurred between 1842 and 1845. This Canal closely followed the route of the First Welland Canal. The original entrance harbour and Lock 1 of the old Canal remained operational until 1847. After that time, large sections of the First Canal remained as an open waterway utilized by mills and factories as a ready source of hydraulic power.

After the formation of the Regional Municipality of Niagara in 1970, the Township of Thorold became the City of Thorold (Gaylor, 2015).

1.2.3 Review of Map Sources

A review of nineteenth- and early twentieth-century mapping was completed to determine if these sources depict any nineteenth-century Euro-Canadian settlement features that may represent potential historical archaeological sites within or adjacent to the study area. Historic map sources are used to reconstruct/predict the location of former features within the modern landscape by cross-referencing points between the various sources and then georeferencing

them in order to provide the most accurate determination of the location of any property from historic mapping sources. The results can be imprecise (or even contradictory) because sources of error, such as the vagaries of map production, differences in scale or resolution, and distortions caused by the reproduction of the sources, introduce error into the process. The impacts of this error are dependent on the size of the feature in question, the constancy of reference points on mapping, the distances between them, and the consistency with which both are depicted on historic mapping.

In addition, not all settlement features were depicted systematically in the compilation of these historical map sources, given that they were financed by subscription, and subscribers were given preference with regards to the level of detail provided. Thus, not every feature of interest from the perspective of archaeological resource management would have been within the scope of these sources.

On the 1862 *Tremaine Map of the Counties of Lincoln and Welland* (Tremaine, 1862), the study area is located within Lot 89, which has been subdivided into two parcels (Figure 3). The majority of the study area is within the larger parcel owned by A. Upper, while the balance is within the smaller parcel, owned by William Upper. A single structure is depicted in the southern portion of the study area, within the smaller parcel owned by William Upper. The study area fronts the historically important concession road of Lundy's Lane (Highway 20) to the south, and Thorold Townline Road, to the east. Beaverdams Creek is depicted east of the study area.

On the 1876 *Illustrated Historical Atlas of the Counties of Lincoln and Welland* (Page, 1876), as previously depicted, the study area remains within a subdivided lot, however the parcel division has now altered, with the larger parcel now at the south of the lot, and the smaller parcel at the north (Figure 4). The study area is entirely located with the southern parcel, now owned by Joseph Upper. A homestead directly fronting Lundy's Lane is depicted within the study area. The surrounding road network remains the same and Beaverdams Creek is still illustrated to the east of the study area.

Early topographic mapping was also reviewed for the presence of potential historical features. Land features such as waterways, wetlands, woodlots, and elevation are clearly illustrated on this series of mapping, along with roads and structure locations. On the 1906 *Niagara Topographic Map* (Department of Militia and Defence, 1906) (Figure 5), the study area is located within an area depicted as open agricultural land. The study area remains bound by Lundy's Lane to the south, Thorold Townline to the east, and open space to the north and west. While there are no structures depicted within the study area, a brick homestead is depicted immediately adjacent to the southwest corner of the study area. Beaverdams Creek is depicted approximately 210 metres to the east of the study area. Contour lines within the study area indicate an elevation of 625 feet (191 metres) above sea level.

1.2.4 Review of Aerial Imagery

In order to further understand the previous land use on the study area, twentieth-century aerial imagery and twenty-first-century satellite imagery was reviewed (Figures 6-8).

In 1934 (*Niagara Air Photo Index, 1934 Series*, 1934) (Figure 6), the study area is located within an agricultural landscape. There is a farmstead located in the southwest portion of the study area, which corresponds with a structure illustrated on the previous 1876 map (Figure 4). Most of the study area consists of agricultural fields, with a small portion in the southwest corner containing part of an orchard. A pathway is shown leading from the farmstead through the centre of the study area heading north.

In 1948 (*Niagara Air Photo Index, 1948 Series*, 1948) (Figure 6), the study area is relatively unchanged from 1934, consists of a farmstead, orchard, and agricultural fields. The central pathway now meets a U-shaped driveway, located around the main building to the south, fronting Lundy's Lane.

By 1954 (*Niagara Air Photo Index, 1954 Series*, 1954) (Figure 7), the majority of the study area remains unchanged from 1948 and still consists of an orchard and agricultural fields, however, there has been significant alteration to the farmstead

complex. The southern portion of the farm complex has been developed into a motel and only the farm outbuildings to the rear remain.

By 1965 (*Niagara Air Photo Index, 1965 Series*, 1965) (Figure 7), the former farm complex is further transitioning into a motel with an addition on the east side. The remainder of the study area still consists of agricultural fields.

In the 1995 aerial imagery (*Niagara Air Photo Index, 1995 Series*, 1995) (Figure 8), the majority of the study area remains as an agricultural field. The orchard is no longer present within the southwest corner of the study area, with most of the trees now cleared and turned into a manicured lawn. The former farm complex has now been completely removed and the motel building has expanded again. An asphalt parking lot and what appear to be two baseball fields are located to the rear of the building.

In the 2017 aerial imagery (*Niagara Air Photo Index, 2017 Series*, 2017) (Figure 8), the paved asphalt parking lot has been expanded to the north and rear of the motel. Both baseball diamonds have been removed, replaced by a graded outdoor storage area with a shipping container. A large rectangular area to the east of the motel fronting Thorold Townline Road has also been graded.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the study area, its environment characteristics (including drainage, soils, surficial geology, topography, etc.), and current land use and field conditions.

1.3.1 Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for the study area, three sources of information were consulted: the site record forms for registered sites housed at the Ministry, published and unpublished documentary sources, and the files of Archaeological Services Inc.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database, which is maintained by the Ministry. This database

contains archaeological sites registered within the Borden system. The Borden system was first proposed by Dr. Charles E. Borden and is based on a block of latitude and longitude. Each Borden block measures approximately 13 kilometres east-west by 18.5 kilometres north-south and is referenced by a four-letter designator. Sites within a block are numbered sequentially as they are found. The study area is located in the AgGt Borden block.

No archaeological sites have been registered within the study area or within the immediate vicinity; however, 16 sites have been registered within a one kilometre radius (the Ministry, 2021). The closest of these is the B. Williams site, AgGt-132, which is a Euro-Canadian homestead located approximately 374 metres east of the study area. A detailed summary of nearby sites is available in Appendix A.

1.3.2 Previous Assessments

During the course of the background research, three previous archaeological assessment are known to have been completed within 50 metres of the study area.

In 2005, AMICK Consultants Limited conducted a Stage 1-3 Archaeological Assessment of the Proposed Draft Plan of Subdivision, Part of Lots 68-70 and 90-92, Town of Thorold, Regional Municipality of Niagara under Ministry license P057-077 (AMICK Consultants Limited, 2006). The study area, located immediately to the west of the current study area, consisted of a 161.87-hectare property. During the assessment, four Indigenous sites, four Euro-Canadian sites, and five Indigenous findspots were documented. Upon completion of the Stage 1-2 assessment, four sites, Glen Gordon 1 (AgGt-139), Glen Gordon 2 (AgGt-140), Glen Gordon 3 (AgGt-141), and Glen Gordon 4 (AgGt-142) were recommended for Stage 3 Archaeological Assessment (AMICK Consultants Limited, 2006); the nearest of these sites is Glen Gordon 4 (AgGt-142), located approximately 425 metres from the current study area. The remaining findspots and sites were deemed to not have cultural heritage value or interest and no further work was recommended.

The Stage 3 Archaeological Assessment of sites Glen Gordon 1 (AgGt-139), Glen Gordon 2 (AgGt-140), Glen Gordon 3 (AgGt-141), and Glen Gordon 4 (AgGt-142)

were conducted by AMICK Consultants Limited in 2006 under Ministry license P058-077 (AMICK Consultants Limited, 2006). Each site was subject to a controlled surface pick-up and test unit excavation. Only one of the four sites, Glen Gordon 1 (AgGt-139), was recommended for further work, while the remaining three sites did not met the criteria for Stage 4 mitigation and no further archaeological assessment was recommended for those three sites (AMICK Consultants Limited, 2006).

In 2008, Archaeological Services Inc. conducted a Stage 1 Archaeological Assessment of Walker Aggregates' Proposed South Niagara Quarry, Part of Lots 102, 119, 120, 136 and 137, Former Township of Stamford, now in the City of Niagara Falls (Archaeological Services Inc., 2008: Project Information Form P049-341-2008). The study area encompassed approximately 109 hectares and is approximately 15 metres to the east of the study area, on the east side of Thorold Townline Road. The report concluded that the study area had potential for Indigenous and Euro-Canadian archaeological resources and recommended that a Stage 2 assessment be completed on all undisturbed lands.

In 2017, AMICK Consultants Limited conducted the Stage 4 mitigation of the Glen Gordon 1 site, AgGt-139, under Ministry Project Information Form P058-1544-2017 (AMICK Consultants Limited, 2018). The Stage 4 excavation was conducted over a 30 metre by 25 metre area. During the Stage 4 excavation of the Glen Gordon 1 site, both Euro-Canadian and Indigenous artifacts were encountered. The Glen Gordon 1 site was then reclassified as a multi-component site. The report recommended that the site still held cultural heritage value or interest and therefore further work is necessary to fully document the site (AMICK Consultants Limited, 2018).

1.3.3 Physiography

The study area is located on a till moraine within the Haldimand Clay Plain physiographic region. The Haldimand Clay Plain (Chapman & Putnam, 1984:156–159) is among the largest of the 53 defined physiographic regions in southern Ontario, comprising approximately 3,500 square kilometres (MacDonald, 1980:3). Generally, this region is flat and poorly drained, although it includes several distinctive landforms including dunes, cobble, clay, and sand beaches, limestone

pavements, and back-shore wetland basins. Within this part of the Niagara peninsula, a number of environmental sub-regions have been described, including the Niagara Slough Clay Plain, the Fort Erie Clay Plain, the Calcareous Rock Plain (Onondaga Escarpment), the Buried Moraines, the Lake Erie Coast, and the Niagara River Valley (MacDonald, 1980). The distribution and nature of these sub-regions, and the specific environmental features they contain, have influenced land use in the region throughout history and pre-history.

The study area is within the Twelve Mile Creek and Beaverdams Watersheds, which partially covers Thorold, Niagara Falls and St. Catharines (Niagara Peninsula Conservation Authority, 2012). The nearest body of water is Beaverdams Creek, approximately 210 metres to the east of the study area.

1.3.4 Review of Indigenous Archaeological Potential

The Standards, Section 1.3.1 stipulates that lands within 300 metres of primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), as well as ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.) are characteristics that indicate archaeological potential. Geographic characteristics also indicate archaeological potential and include distinct topographic features and soils.

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modelling of site location. Beaverdams Creek is approximately 210 metres to the east of the study area.

Other geographic characteristics that can indicate pre-contact archaeological potential include elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky

ground, and distinctive land formations that might have been special or spiritual places for indigenous populations, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use by indigenous peoples, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including food or medicinal plants (migratory routes, spawning areas, prairie), and scarce raw materials (quartz, copper, ochre, or outcrops of chert) are also considered characteristics that indicate pre-contact archaeological potential. The Standards also defines buffers of 300 metres around registered archaeological sites. There are no registered indigenous archaeological sites within 300 metres of the study area.

Given the proximity to Beaverdams Creek and the presence of multiple registered Indigenous sites in the general vicinity, the study area is considered to have the potential for the identification of Indigenous archaeological materials, depending on the degree of subsequent land alteration.

1.3.5 Review of Historical Archaeological Potential

The Standards, Section 1.3.1 stipulates that areas of early Euro-Canadian settlement, including places of early military or pioneer settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries, are considered to have archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historical landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model, since these occupations were subject to similar environmental constraints. An added factor,

however, is the development of the network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early historical transportation route are also considered to have potential for the presence of Euro-Canadian archaeological sites. The study area fronts the historically important concession roads of Lundy's Lane and Thorold Townline Road.

Based upon the proximity to two concession roads and the presence of a structure depicted on the historical mapping, there is the potential for the presence of Euro-Canadian resources within the study area, depending on the degree of more recent land disturbances.

1.3.6 Existing Conditions

The study area is approximately 24 hectares and is located within a mixed agricultural and commercial area in the City of Thorold (Figure 9). It is bounded by Lundy's Lane (Highway 20) to the south, Thorold Townline Road to the east, and a large agricultural field to the west and north; a Hydro One Right-Of-Way crosses through the north portion of the study area. The study area consists of an agricultural field and a former motel with paved parking and driveways, manicured lawns, an asphalt tennis court, in-ground swimming pool, and multiple sheds. The entire motel complex is now vacant.

2.0 Field Methods

The Stage 2 field assessment was conducted on October 14, 18, 19 and November 15-16, 2021, in order to inventory, identify, and describe any archaeological resources extant within the study area prior to development. All fieldwork was conducted under the field direction of Sean Heafner (R1253) and was carried out in accordance with the Standards. The weather conditions were appropriate for the completion of fieldwork, permitting good visibility of the land features.

Representative photos documenting the field conditions during the Stage 2 fieldwork are presented in Section 8.0 of this report, and photo locations and field observations have been compiled on project mapping (Images 1-15; Figure 10).

Field observations and photographs were recorded with a Trimble Catalyst Global Navigation Satellite System unit using World Geodetic System 1984.

2.1 Areas of No Potential

The assessment was initiated by conducting a visual review to identify areas of no archaeological potential. During this review, approximately 8% of the study area was identified as having no potential for the presence of archaeological resources (Figure 10). These areas consisted of the former motel (Images 1-3), extensive asphalt driveways and parking lots (Image 4), an asphalt tennis court (Image 5), an in-ground swimming pool (Image 6), and storage sheds (Images 7-8). In accordance with the Standards, Section 2.1, Standard 2b, these areas retain no archaeological potential.

2.2 Test Pit Survey

Approximately 21% of the study area consists of the lawn surrounding the former motel complex. In accordance with the Standards, Section 2.1.2, areas with closed surface visibility were assessed by means of a test pit survey initiated at intervals of five metres. Test pits were hand excavated at least five centimetres into the subsoil and all soil was screened through six-millimetre mesh to facilitate artifact recovery (Images 9-10). Test pits were examined for stratigraphy, cultural features, and evidence of fill. All test pits were at least 30 centimetres in diameter and excavated within one metre of all structures and/or disturbances when possible. Upon completion, all test pits were backfilled.

Intact test pit profiles were observed within a scrubby and overgrown area to the west of the manicured lawn. This area also contained two mounds of gravel and various construction debris and was generally lower than the adjacent lawn with some standing water. Intact test pit profiles consisted of approximately 20 centimetres of a dark grey brown (10YR 3/1) clay loam intact A-horizon over dark yellowish brown (10YR 4/6) clay subsoil (Image 11).

Disturbed test pit profiles were observed within the southeast portion of the study area surrounding the motel complex. Typical disturbed test pits throughout this portion comprised approximately 15-20 centimetres of reddish brown (5YR

4/3) clay-loam fill, over dark yellowish brown (10YR 4/6) clay subsoil (Images 12-13). Many test pits located throughout this area included gravel, modern refuse and construction materials within the fill layer.

2.2 Pedestrian Survey

Approximately 71% of the study area consisted of a ploughed agricultural field (Images 14-16) that was assessed by means of a pedestrian survey at five metre intervals. In accordance with Section 2.1.1 of the Standards, the field was ploughed and allowed to weather appropriately prior to survey, and ploughing was deep enough to provide total topsoil exposure but did not extend beyond the depth of previous ploughing. Visibility conditions were excellent at over 80% and the ploughzone soils consisted of clay loam.

2.2.1 Intensified Pedestrian Survey

In accordance with the Standards, Section 2.1.1, Standard 7, when archaeological material was encountered, an intensified survey at one-metre transects was conducted at a radius of 20-metres around all surface artifacts to determine whether they were isolated finds or part of a larger scatter (Image 17; Supplementary Documentation Figure 1). All artifacts from individual findspots and smaller scatters were collected, while representative samples of artifacts, including all diagnostic artifacts, were collected from larger scatters.

3.0 Record of Finds

During the course of the Stage 2 assessment, two non-diagnostic Indigenous sites and four non-diagnostic Indigenous findspots were identified within the study area. The two non-diagnostic Indigenous sites have been registered in the Ontario Archaeological Sites Database as sites AgGt-292 and AgGt-293. The four Indigenous findspots did not meet the requirements for registry as defined by the Standards.

Location information for the archaeological material documented during this assessment was recorded with a Trimble Catalyst Global Navigation Satellite

System unit using World Geodetic System 1984. The locations of all finds were recorded and mapped (see Supplementary Documentation Figure 1).

3.1 Inventory of Documentary and Material Records

Written field notes, annotated field maps, Global Positioning System logs and other archaeological data related to the study area are located at Archaeological Services Inc.

The documentation and materials related to this project will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Heritage, Sport, Tourism, and Culture Industries, and any other legitimate interest groups.

Table 2 provides an inventory and location of the documentary and material record for the project in accordance with Sections 6.7 and 7.8.2.3 of the Standards.

Table 2: Inventory of Documentary and Material Record

Material	Location	Comments
Written Field Notes, Annotated Field Maps, Global Positioning System Logs, etc.	Archaeological Services Inc., Fairview Business Park, 2321 Fairview St Unit 200, Burlington, Ontario, LZR 2E3	Hard copy notes stored in Archaeological Services Inc. project folder 21PL-245; Global Positioning System and digital information stored on Archaeological Services Inc. network servers.
Field Photography (Digital)	Same as above.	Stored on Archaeological Services Inc. network servers.

Material	Location	Comments
Research, Analysis and Reporting Materials (Various Formats)	Same as above.	Digital files stored on Archaeological Services Inc. network servers.
Artifacts	Same as above.	All artifacts collected stored by class and provenience. Artifacts stored in 12.7 centimetres x 20.32 centimetres plastic bags and further separated into 5.08 centimetres x 7.62 centimetres plastic bags. All material housed in a standard banker's box (width 30 centimetres, depth 38 centimetres, height 25 centimetres). Artifact assemblage stored in one box labeled: 21PL-245 13030 Lundy's Lane, Thorold, Stage 1-2.

3.2 Indigenous Locations

A pre-contact Indigenous site is distinguished from a findspot by either the quantity of material encountered (three or more artifacts) or by the presence of a diagnostic artifact, e.g., a projectile point. Whenever artifacts were encountered, a unique field designation (P-number) was assigned.

3.2.1 Site AgGt-292 (P2)

Site AgGt-292 was encountered in the north portion of the agricultural field, approximately 33 metres southeast of Site AgGt-293 and 50 metres southeast of findspot P6 (see Supplementary Documentation Figure 1). Site AgGt-292 is approximately 50 metres by 50 metres in size. A representative sample of 17 lithics were retained out of 144 observed. The recovered artifact assemblage from AgGt-292 consisted of a biface fragment (Image 18), a primary thinning flake, five secondary knapping flakes, nine flake fragments and a piece of shatter (Table 3). The primary thinning flake was Zalenski chert (Image 19), sourced from Ohio, and

the remaining artifacts were all Onondaga chert. The biface fragment is 52.89 millimetres long, 35.84 millimetres wide, and 13.41 millimetres in thickness and has a semi-refined convex base with an oblique fracture exhibiting some large flake removals.

Table 3: Site AgGt-292 Lithic Catalogue

Catalogue Number	Quantity	Type	Provenience	Material
P2-L1	1	Biface Fragment	Ploughzone	Onondaga chert
P2-L2	1	Primary Thinning Flake	Ploughzone	Zaleski chert
P2-L3	1	Secondary Knapping Flake	Ploughzone	Onondaga chert
P2-L4	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L5	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L6	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L7	1	Shatter	Ploughzone	Onondaga chert
P2-L8	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L9	1	Secondary Knapping Flake	Ploughzone	Onondaga chert
P2-L10	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L11	1	Secondary Knapping Flake	Ploughzone	Onondaga chert
P2-L12	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L13	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L14	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L15	1	Secondary Knapping Flake	Ploughzone	Onondaga chert
P2-L16	1	Flake Fragment	Ploughzone	Onondaga chert
P2-L17	1	Secondary Knapping	Ploughzone	Onondaga chert

Catalogue Number	Quantity	Type	Provenience	Material
		Flake		

3.2.2 Site AgGt-293 (P3)

Site AgGt-293 was encountered in the north portion of the agricultural field within the Hydro One Right-Of-Way, 33 metres northwest of Site AgGt-292 and 40 metres northeast of findspot P6 (see Supplementary Documentation Figure 1). AgGt-293 is approximately 20 metres by 20 metres in size. The recovered artifact assemblage from AgGt-293 consists of 10 lithics, including a biface fragment, one piece of shatter, two secondary knapping flakes and six flake fragments, all of Onondaga chert (Table 4). The biface fragment is 42.8 millimetres long, 21.92 millimetres wide, and 15.2 millimetres in thickness and is semi-refined, narrow, extended, and almost cylindrical with a traverse fracture (Image 20).

Table 4: Site AgGt-293 Lithic Catalogue

Catalogue Number	Quantity	Type	Provenience	Material
P3-L1	1	Biface Fragment	Ploughzone	Onondaga chert
P3-L2	1	Secondary Knapping Flake	Ploughzone	Onondaga chert
P3-L3	1	Flake Fragment	Ploughzone	Onondaga chert
P3-L4	1	Flake Fragment	Ploughzone	Onondaga chert
P3-L5	1	Shatter	Ploughzone	Onondaga chert
P3-L6	1	Flake Fragment	Ploughzone	Onondaga chert
P3-L7	1	Flake Fragment	Ploughzone	Onondaga chert
P3-L8	1	Flake Fragment	Ploughzone	Onondaga chert
P3-L9	1	Secondary Knapping Flake	Ploughzone	Onondaga chert

Catalogue Number	Quantity	Type	Provenience	Material
P3-L10	1	Flake Fragment	Ploughzone	Onondaga chert

3.2.3 Findspot P1

Findspot P1 was encountered in the south portion the agricultural field (see Supplementary Documentation Figure 1). Findspot P1 consists of a biface fragment made from Onondaga chert (Image 21).

3.2.4 Findspot P4

Findspot P4 was encountered in the north portion of the agricultural field, approximately 70 metres from Site AgGt-293 and 63 metres from Findspot P5 (see Supplementary Documentation Figure 1). Findspot P4 consists of a non-diagnostic projectile point fragment with bilateral notching made from Onondaga chert (Image 22).

3.2.5 Findspot P5

Findspot P5 was encountered in the north portion of the agricultural field, approximately 115 metres from Site AgGt-293 and 63 metres from Findspot P4 (see Supplementary Documentation Figure 1). Findspot P5 consists of two lithic flakes, a secondary knapping flake and a secondary retouch flake, both of Onondaga chert (Image 23).

3.2.6 Findspot P6

Findspot P6 was encountered in the north portion of the agricultural field within the Hydro One Right-Of-Way, approximately 42 metres from Site AgGt-293, 51 metres from Site AgGt-292 and 83 metres from Findspot P4 (see Supplementary Documentation Figure 1). Findspot P6 consists of a secondary retouch flake and a flake fragment, both of Onondaga chert (Image 24).

4.0 Analysis and Conclusions

Archaeological Services Inc. was contracted by RUDANCO Hospitality Corporation to undertake a Stage 1 and 2 Archaeological Assessment of 13030 Lundy's Lane, Part of Lot 89, Geographic Township of Thorold, County of Welland, now in the City of Thorold, Regional Municipality of Niagara. The study area is approximately 24 hectares. The study area comprises the property limits of 13030 Lundy's Lane and a Hydro One Right-Of-Way.

The Stage 1 background research entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the property, along with nineteenth- and twentieth-century settlement trends. This research indicated there was potential for encountering both Indigenous and Euro-Canadian archaeological resources on the study area depending on the degree of subsequent soil alteration.

The Stage 2 assessment was conducted on October 14, 18, 19 and November 15-16, 2021, by means of a combined test pit and pedestrian survey in all areas deemed to have archaeological potential.

Due to the location of the study area in relation to the Beaverdams Creek, evidence of pre-contact Indigenous activity was possible. The presence of four dispersed, non-diagnostic lithic findspots (P1, P4, P5 and P6) is evidence of past travel through this area for hunting, resource procurement, or loss events on route to other destinations. These findspots, all of which were encountered during the pedestrian survey of the ploughed field, represent ephemeral activity and/or casual losses. The dispersed nature of these findspots does not reflect loci of prolonged activity or occupation, and none of these findspots meet the criteria for cultural heritage value or interest outlined in the Standards, Section 2.2, Standard 1, for requiring Stage 3 Site-Specific Assessment.

Both non-diagnostic Indigenous lithic scatters, AgGt-292 and AgGt-293, were documented within the study area during the pedestrian survey. Both Indigenous sites likely represent campsites where tool sharpening activities took place. In accordance with the Standards, Section 2.2, Standard 1, AgGt-292 and AgGt-293

both meet the criteria for cultural heritage value or interest required for Stage 3 Site-Specific Assessment.

Despite the potential for the presence of Euro-Canadian archaeological resources, no evidence of the nineteenth century homesteads, as depicted on 1862 (Tremaine, 1862) and 1876 (Page, 1876) historical mapping, was found during the assessment. Both maps depicted a structure within the southern portion of the property, however this area had been thoroughly disturbed from extensive grading and soil alterations associated with the construction of the motel complex (Figures 6-8).

5.0 Recommendations

In light of these results, the following recommendation is made:

1. Given the isolated and non-diagnostic nature of Indigenous Findspots P1, P4, and P5, located within the proposed development area, and P6, located within the Hydro One Right-Of-Way, these locations do not exhibit cultural heritage value or interest and may be considered free of any further archaeological concern.

2. Non-diagnostic Indigenous site AgGt-292, located within the proposed development area, is considered to be an archaeological resource of cultural heritage value or interest. As such, it is recommended that site AgGt-292 be subject to a comprehensive Stage 3 Site-Specific Assessment in order to more fully identify the character, extent and significance of the archaeological deposits, in accordance with Ministry of Heritage, Sport, Tourism, and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists*.

    a) The Stage 3 assessment should commence with the creation of a recording grid on a fixed datum, the position of which has been recorded using a Global Positioning System device. As the site was documented during pedestrian survey within a ploughed context, a controlled surface collection must first be conducted at each location to precisely define the nature and extent of the site. This work will require the site area be re-ploughed and allowed to weather for a

least one substantial rainfall prior to commencing the work. The precise location of each artifact should be recorded, and a surface distribution map produced for each site.

b) A series of one-metre-square test units must then be excavated across the site area at five-metre intervals within an established grid in order to determine the nature and extent of the cultural deposits. An additional 20% of the total number of units excavated on the grids will be strategically excavated around units of high artifact counts or in other significant areas of the site. The test units must be excavated five centimetres into the sterile subsoil and the soil fills screened through six-millimetre wire mesh to facilitate artifact recovery. The sterile subsoil must be troweled, and all soil profiles examined for undisturbed cultural deposits.

c) The results of the Stage 3 assessments will be used to evaluate the significance of each site and to develop a series of recommendations concerning any further mitigative options that may be necessary.

3. Non-diagnostic Indigenous site AgGt-293, located within the Hydro One Right-of-Way which is not a part of the proposed development area, is considered to be an archaeological resource of cultural heritage value or interest. As the 20-metre protective buffer of site AgGt-293 extends into the proposed development area, a Stage 3 Site-Specific Assessment is recommended on those portions of the 20-metre buffer in order to confirm the presence or absence of the archaeological site beyond the Hydro One Right-of-Way, in accordance with Ministry of Heritage, Sport, Tourism, and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists*. It is also recommended that in the event of any proposed future development within the Hydro One Right-of-Way, site AgGt-293 be subject to a comprehensive Stage 3 Site-Specific Assessment in order to more fully identify the character, extent and significance of the archaeological deposits, in accordance with Ministry of Heritage, Sport, Tourism, and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists*.

a) The Stage 3 assessment should commence with the creation of a recording grid on a fixed datum, the position of which has been

recorded using a Global Positioning System device. As the site was documented during pedestrian survey within a ploughed context, a controlled surface collection must first be conducted at each location to precisely define the nature and extent of the site. This work will require the site area be re-ploughed and allowed to weather for a least one substantial rainfall prior to commencing the work. The precise location of each artifact should be recorded, and a surface distribution map produced for each site.

b) A series of one-metre-square test units must then be excavated across the site area at five-metre intervals within an established grid in order to determine the nature and extent of the cultural deposits. An additional 20% of the total number of units excavated on the grids will be strategically excavated around units of high artifact counts or in other significant areas of the site. The test units must be excavated five centimetres into the sterile subsoil and the soil fills screened through six-millimetre wire mesh to facilitate artifact recovery. The sterile subsoil must be troweled, and all soil profiles examined for undisturbed cultural deposits.

c) The results of the Stage 3 assessments will be used to evaluate the significance of each site and to develop a series of recommendations concerning any further mitigative options that may be necessary.

NOTWITHSTANDING the results and recommendations presented in this study, Archaeological Services Inc. notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Heritage, Sport, Tourism and Culture Industries should be immediately notified.

The above recommendations are subject to Ministry approval and it is an offence to alter any archaeological site without Ministry of Heritage, Sport, Tourism and Culture Industries concurrence. No grading or other activities that may result in

the destruction or disturbance of any archaeological sites are permitted until notice of Ministry approval has been received.

6.0 Advice on Compliance with Legislation

Archaeological Services Inc. advises compliance with the following legislation:

- This report is submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, Registered Statute of Ontario, 2005, Chapter 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection 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 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 field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.

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

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

- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.

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8.0 Images

Image 1: Former motel complex with an asphalt parking area facing northwest.

Image 2: Former motel complex with an asphalt parking area facing northeast.

Image 3: Former nightclub in the east wing of the former motel complex.

Image 4: View of extant asphalt driveway and parking lot.

Image 5: View of extant asphalt tennis court.

Image 6: View of in-ground swimming pool.

Image 7: View of metal shed within study area.

Image 8: View of small sheds/structures surrounded by manicured lawn..

Image 9: View of crew test pitting within manicured lawn.

Image 10: View of crew test pitting within manicured lawn.

Image 11: View of typical intact test pit profile within study area.

Image 12: View of disturbed test pit profile within study area.

Image 13: View of disturbed test pit profile north of motel complex.

Image 14: View of agricultural field within the study area.

Image 15: View of agricultural field within the study area.

Image 16: View of crew conducting pedestrian survey at five metre intervals.

Image 17: View of intensification of AgGt-292 at one metre intervals.

Image 18: Biface fragment from site AgGt-292 (Catalogue Number: P2-L1)

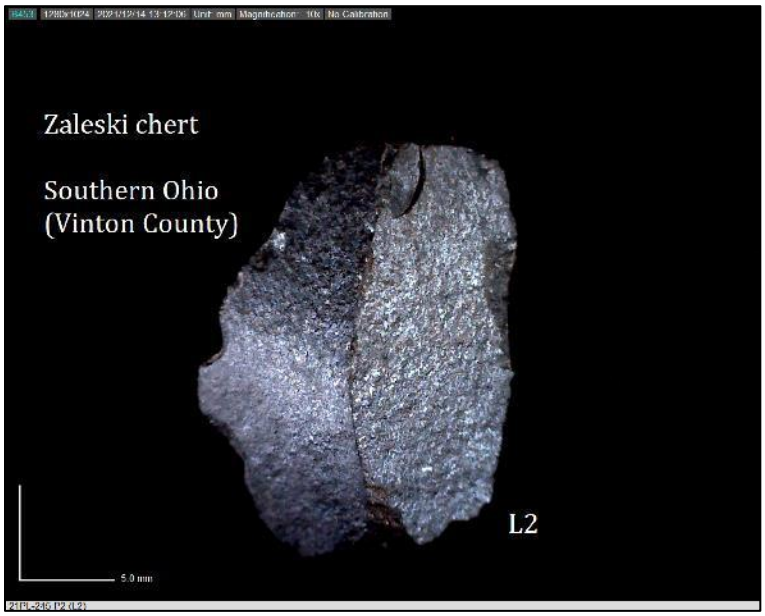

Image 19: Primary thinning flake from site AgGt-292 (Catalogue Number: P2-L2)

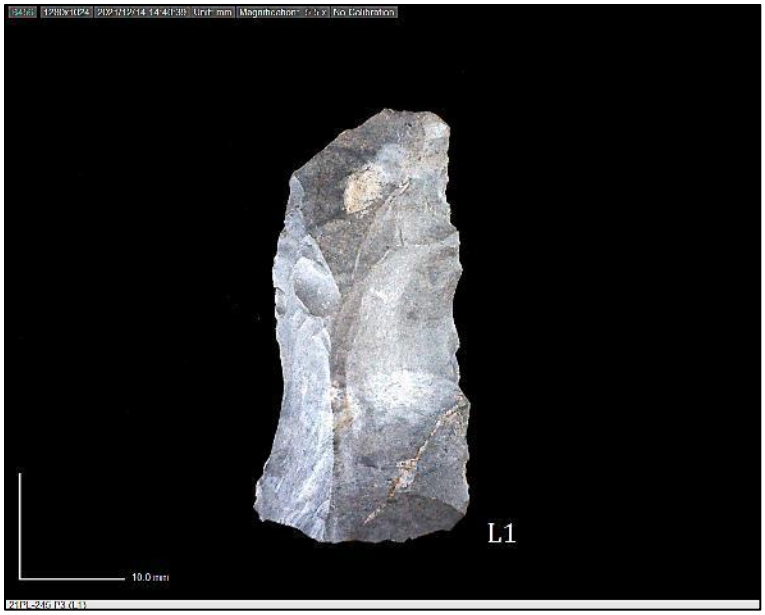

Image 20: Biface fragment from site AgGt-293 (Catalogue Number: P3-L1)

Image 21: Biface fragment from Findspot P1.

Image 22: Projectile point fragment from Findspot P4.

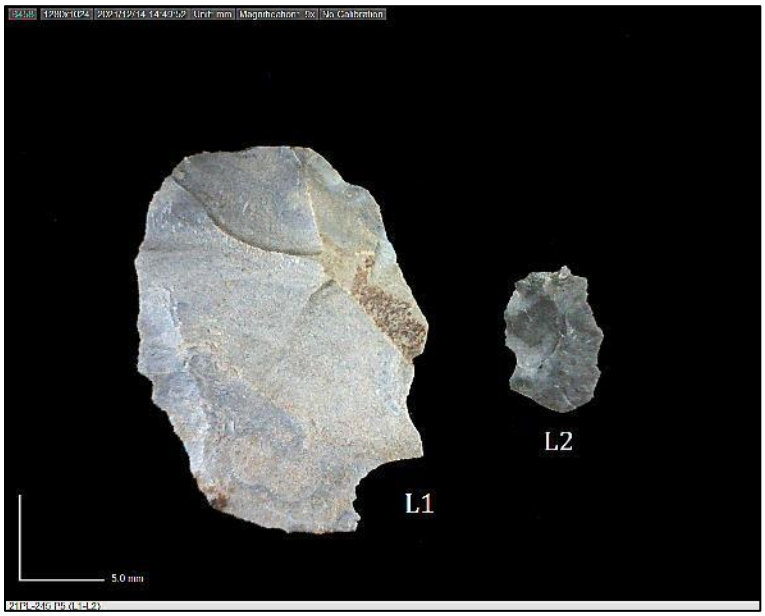

Image 23: Lithics from Findspot P5. Left: Secondary knapping flake and Right: Secondary retouch flake.

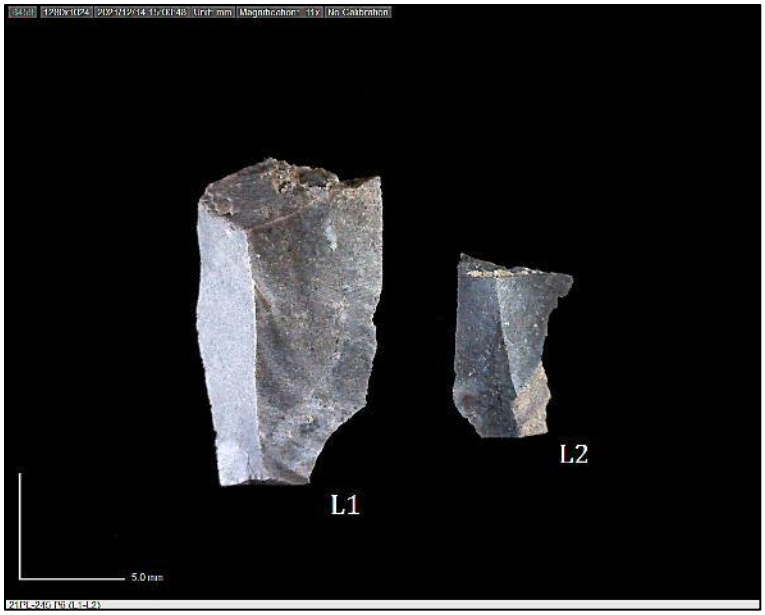

Image 24: Lithics from Findspot P6. Left: Secondary retouch flake and Right: Flake fragment.

9.0 Maps

See following pages for detailed assessment mapping and figures.

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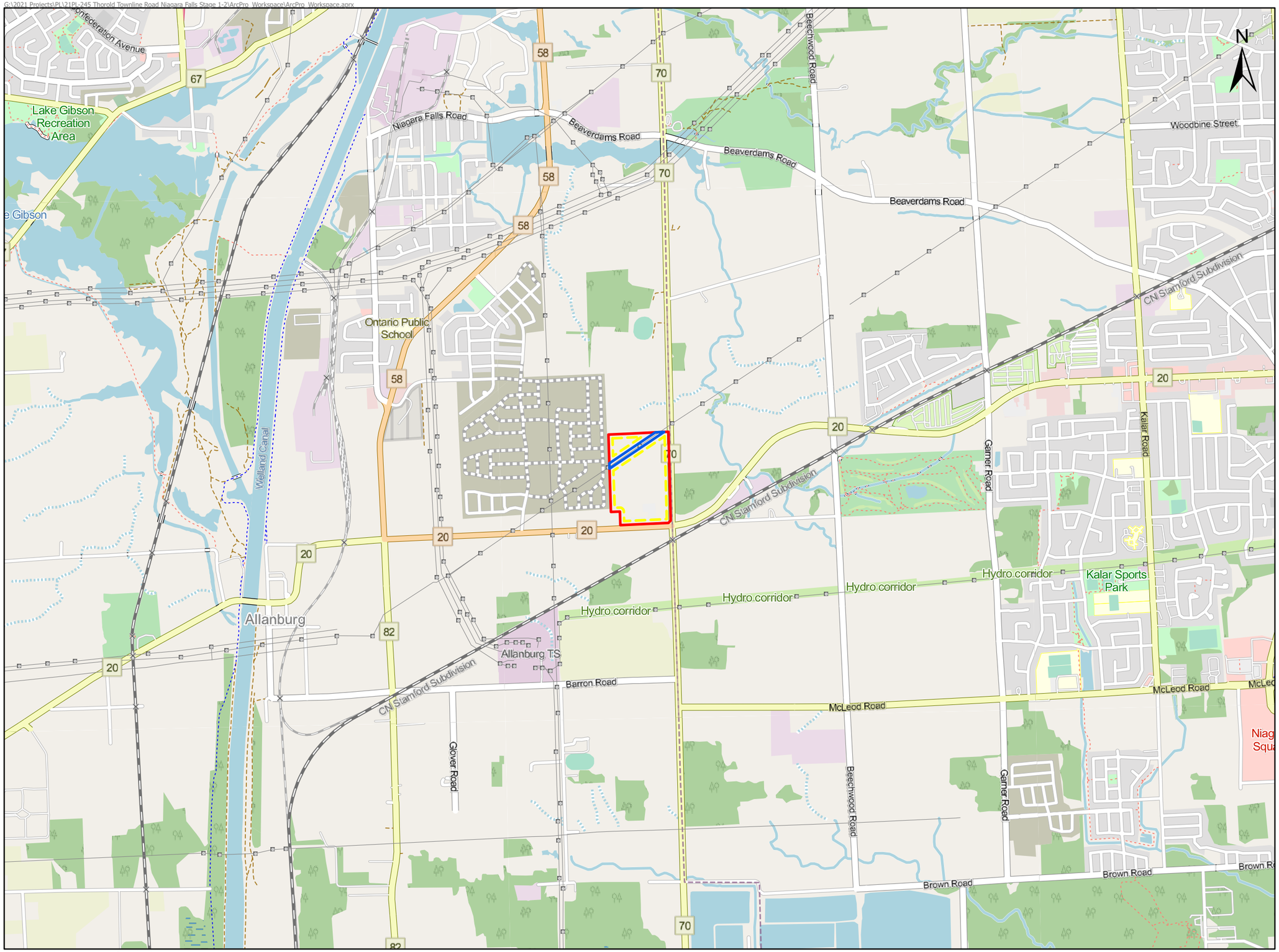

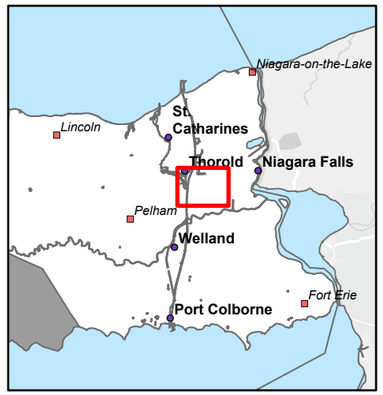

STUDY AREA

HYDRO ONE RIGHT-OF-WAY

13030 LUNDY'S LANE PROPERTY LIMITS

Sources:Map data © OpenStreetMap contributors, Microsoft, Esri Community Maps contributors, Map layer by Esri, Province of Ontario, Esri Canada,

Projection: NAD 1983 UTM Zone 17N
Scale: 1:25,000

0 1
Kilometres

ASI Project No: 21PL-245
Date: 3/10/2022 2:04 PM

Drawn By: pbikoulis
File: 21PL245_Fig1

Providing Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
T 416-966-1069 F 416-966-9723 asiheritage.ca

Figure 1: Location of Study Area

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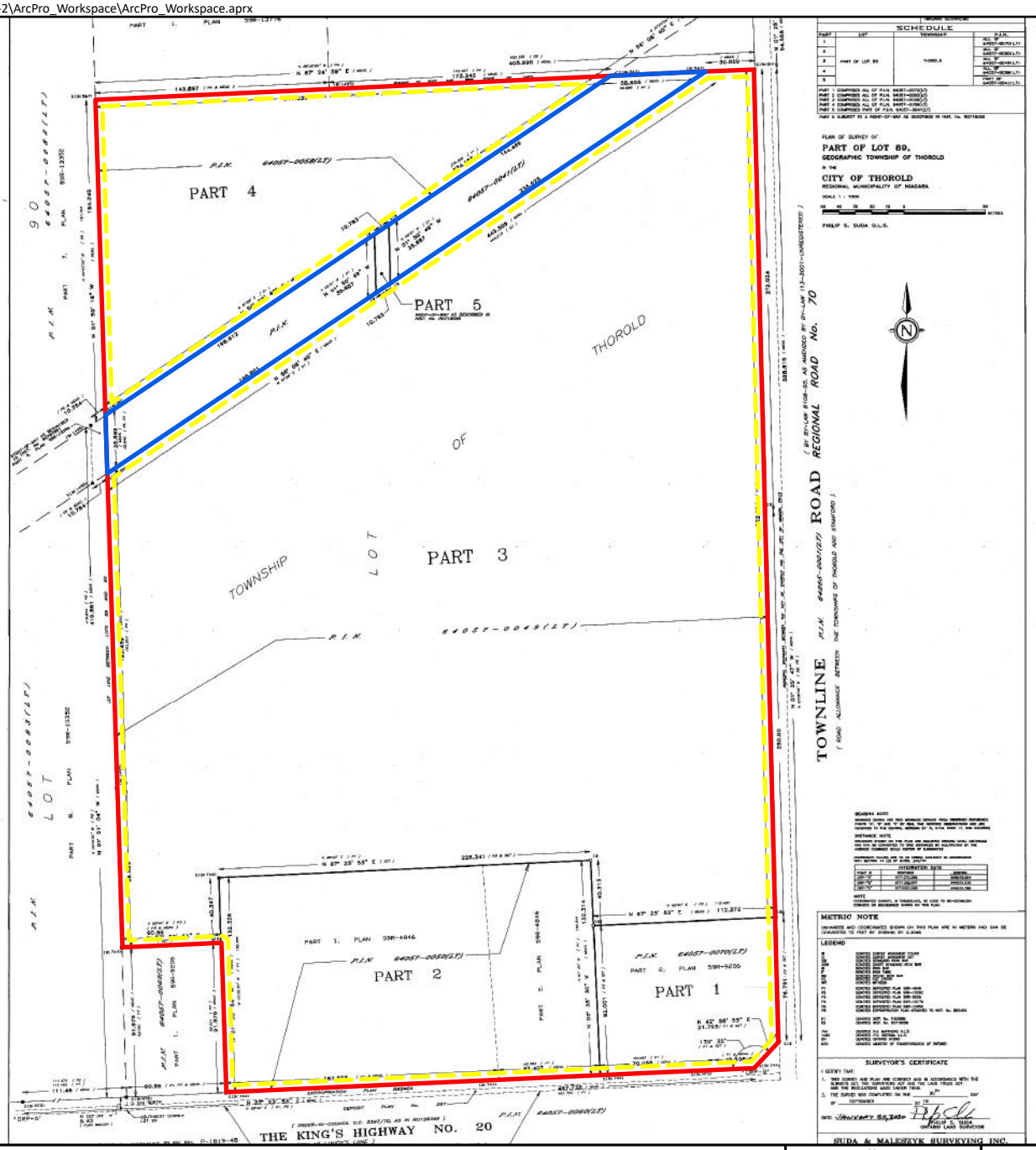

STUDY AREA

HYDRO ONE RIGHT-OF-WAY

13030 LUNDY'S LANE PROPERTY LIMITS

Source: https://terra.library.brocku.ca

0 50

Metres

Projection: NAD 1983 UTM Zone 17N

Scale: 1:3,907

ASI Project No.: 21PL-245

Date: 3/10/2022

Drawn By: pbikoulis

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Figure 2: Study Area on Survey Map

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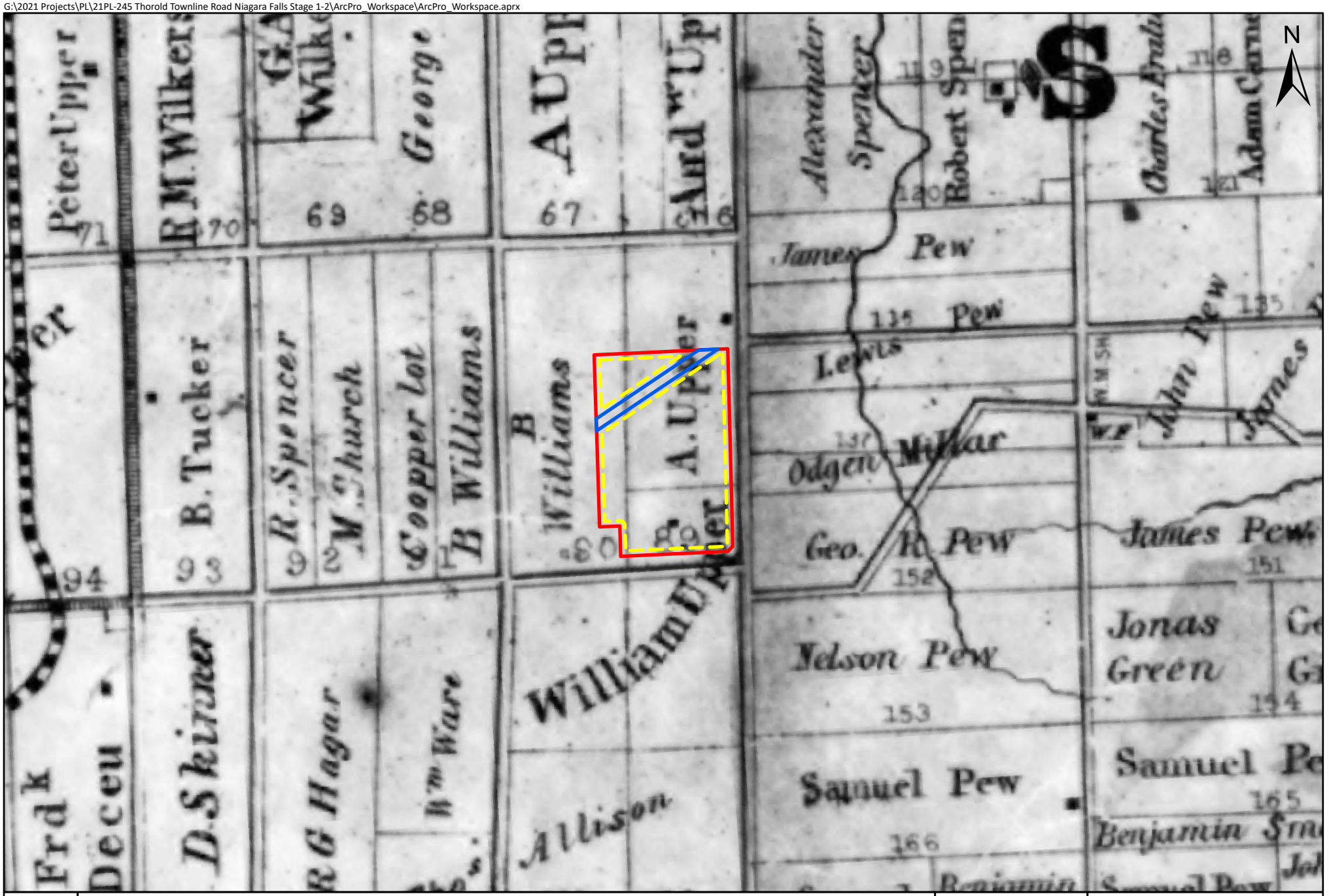

Figure 3: Study Area located on 1862 Tremaine Map of the Counties of Lincoln and Welland

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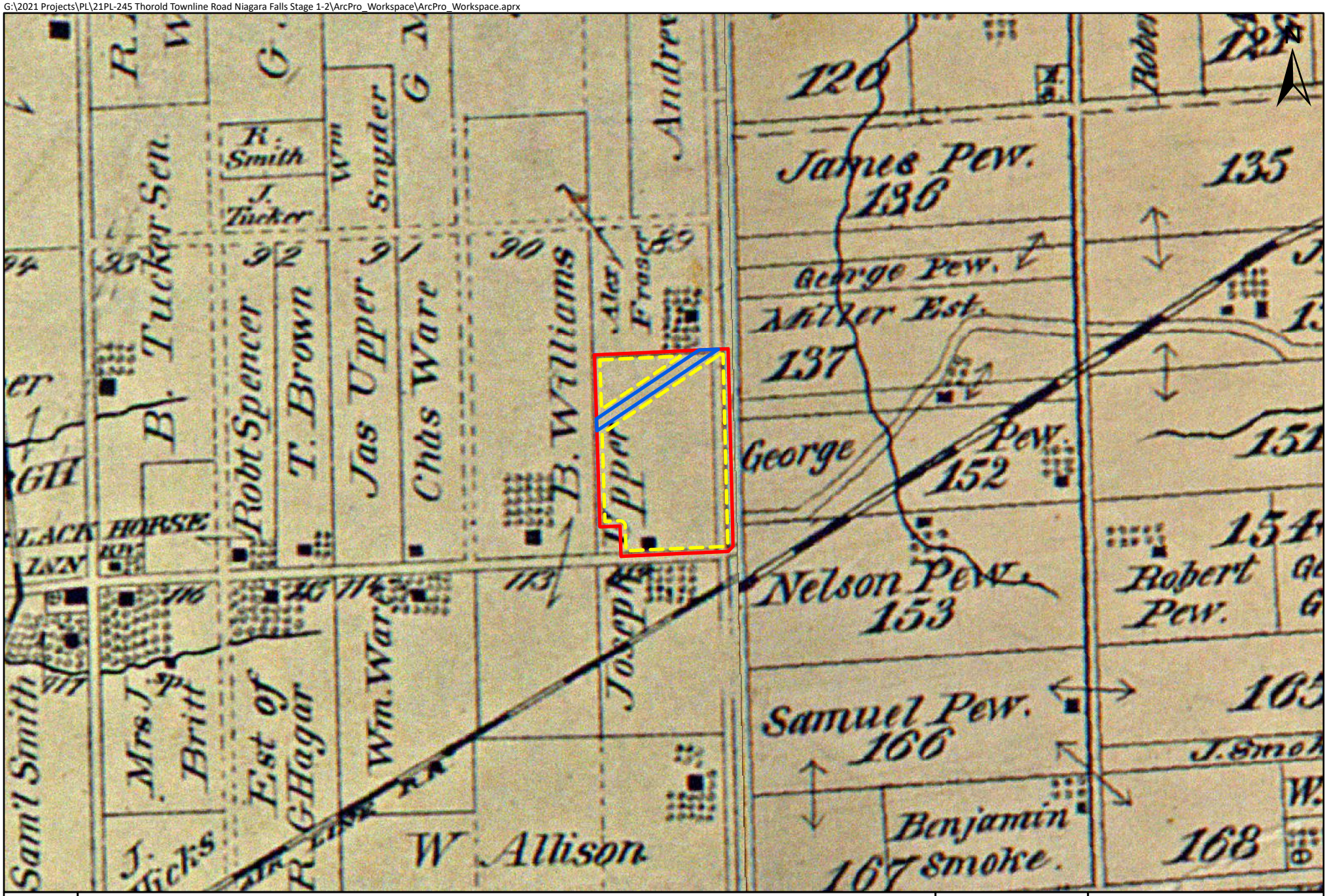

Figure 4: Study Area located on 1876 Illustrated Historical Atlas of the Counties of Lincoln and Welland

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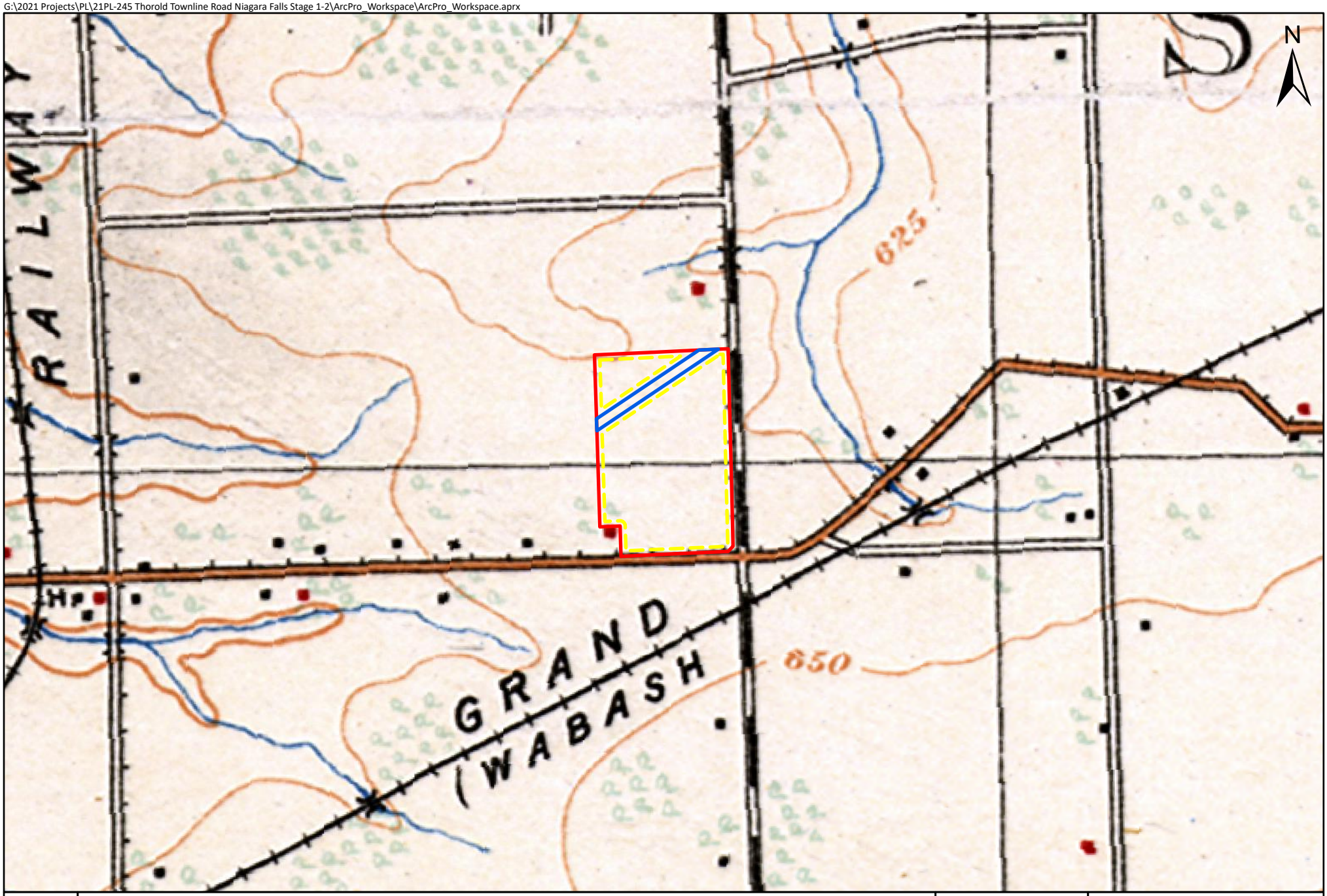

ASI

STUDY AREA

HYDRO ONE RIGHT-OF-WAY

13030 LUNDY'S LANE PROPERTY LIMITS

Department of Militia and Defence
1906 (Niagara Sheet)

0 500
Metres

Projection: NAD 1983 UTM Zone 17N
Scale: 1:15,000

ASI Project No.: 21PL-245
Date: 3/10/2022

Drawn By: pbikoulis
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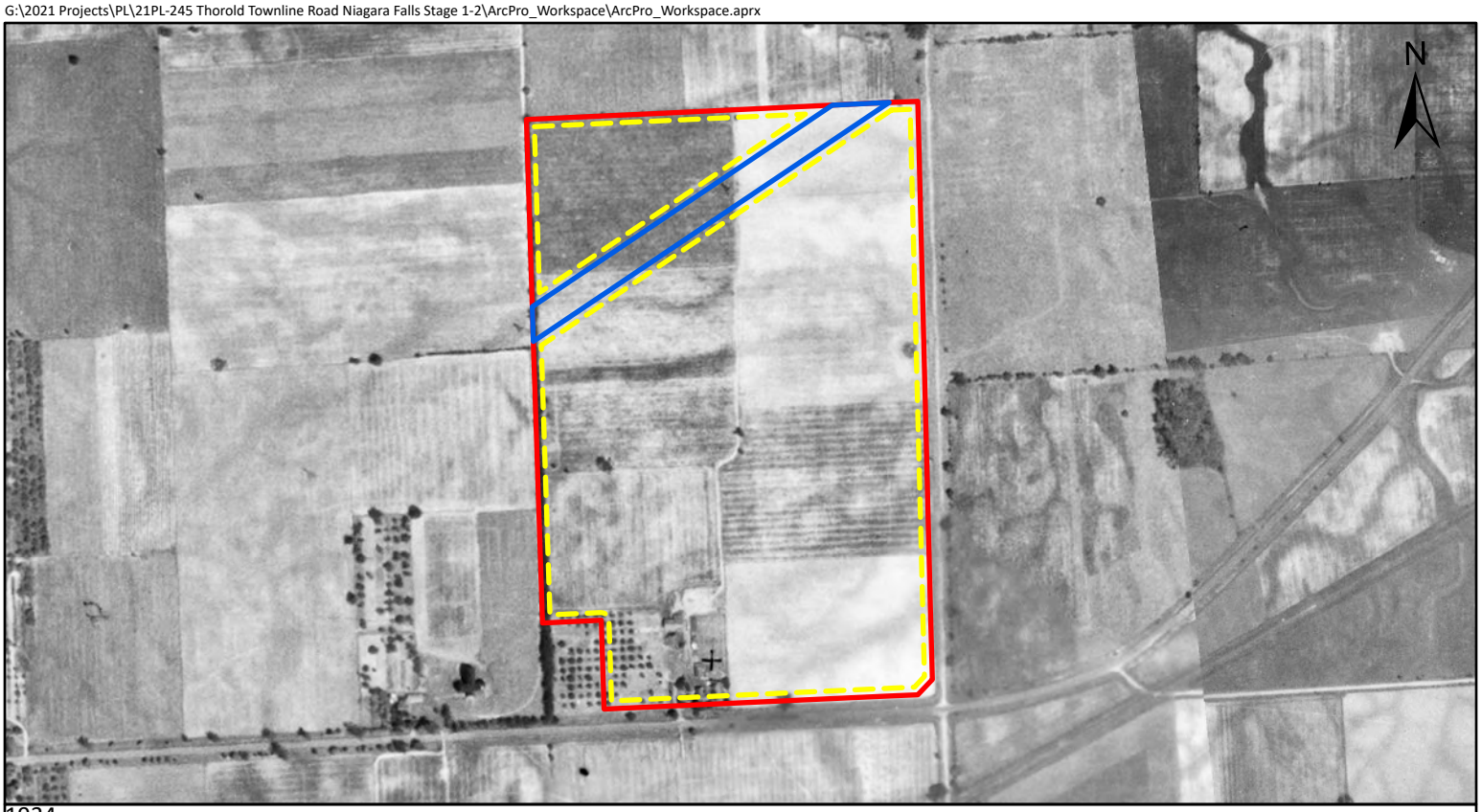
Figure 5: Study Area located on the DMD 1906 Topographic Sheet - Niagara

G:\2021 Projects\PL\21PL-245 Thorold Townline Road Niagara Falls Stage 1-2\ArcPro_Workspace\ArcPro_Workspace.aprx



1934

1948

ASI

STUDY AREA
HYDRO ONE RIGHT-OF-WAY
13030 LUNDY'S LANE PROPERTY LIMITS

0 200
Metres

Projection: NAD 1983 MTM 10
Scale: 1:7,500
Page Size: 8.5 x 11

ASI Project No.: 21PL-245
Date: 3/10/2022

Drawn By: pbikoulis
File: Fig6_new

Figure 6: Study Area Located on 1934 and 1948 Aerial Imagery of Niagara

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1954

1965

STUDY AREA
HYDRO ONE RIGHT-OF-WAY
13030 LUNDY'S LANE PROPERTY LIMITS

0 200
Metres

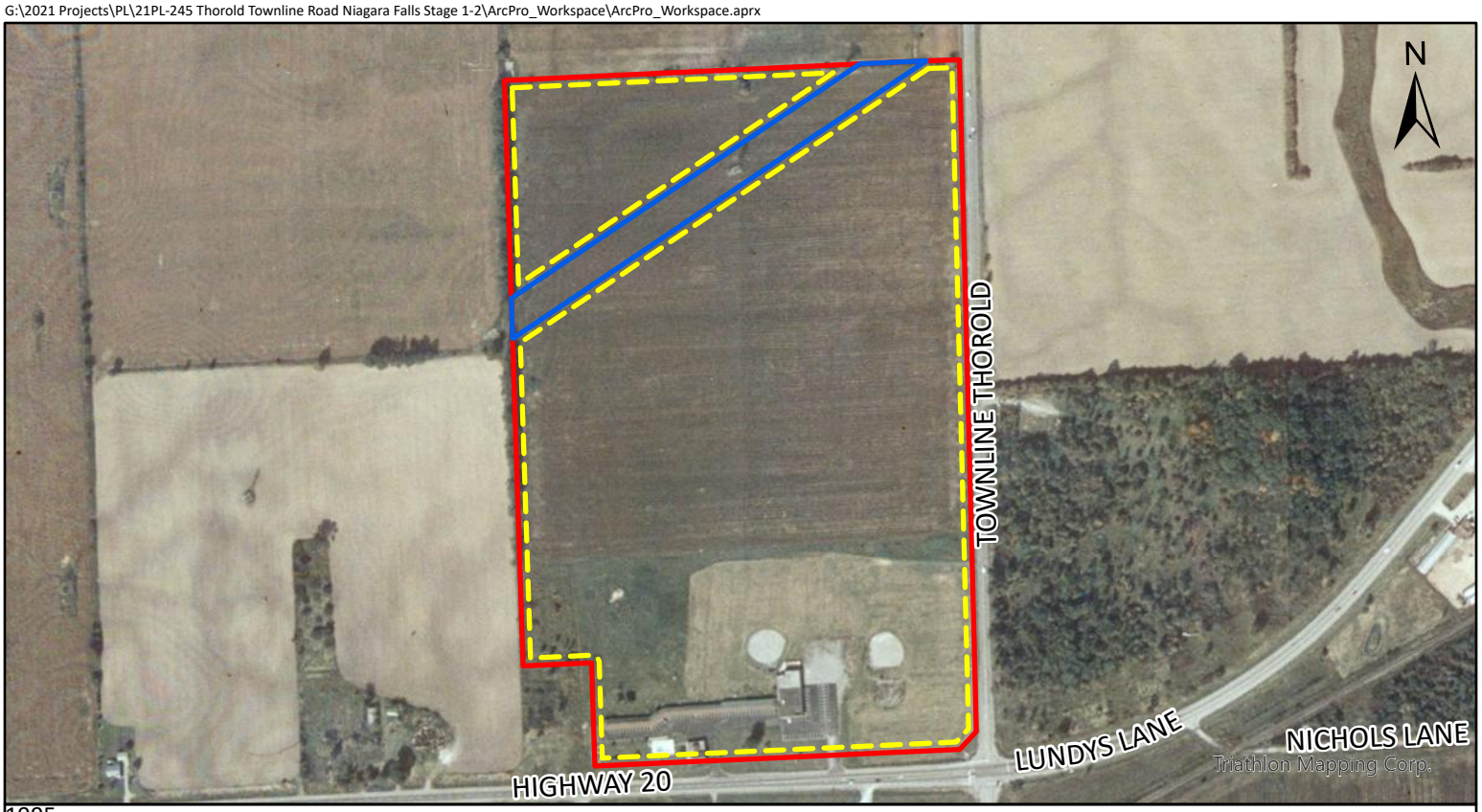
Projection: NAD 1983 MTM 10
Scale: 1:7,500
Page Size: 8.5 x 11

ASI Project No.:
Date: 3/10/2022

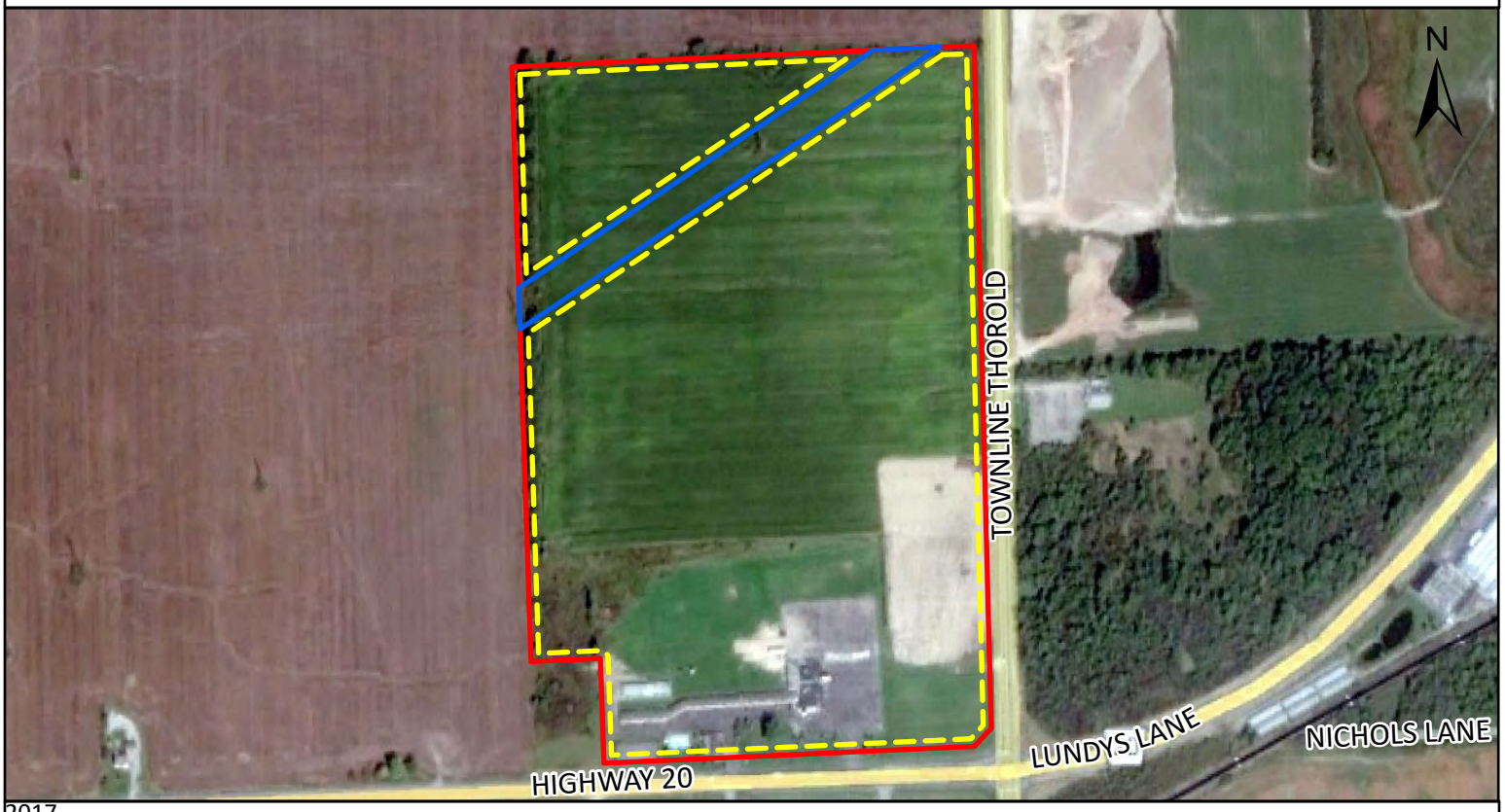
Drawn By: pbikoulis
File: Fig7_new

Figure 7: Study Area located on 1954 and 1965 Aerial Imagery of Niagara

G:\2021 Projects\PL\21PL-245 Thorold Townline Road Niagara Falls Stage 1-2\ArcPro_Workspace\ArcPro_Workspace.aprx



1995



2017

ASI

STUDY AREA
HYDRO ONE RIGHT-OF-WAY
13030 LUNDY'S LANE PROPERTY LIMITS

0 160
Metres

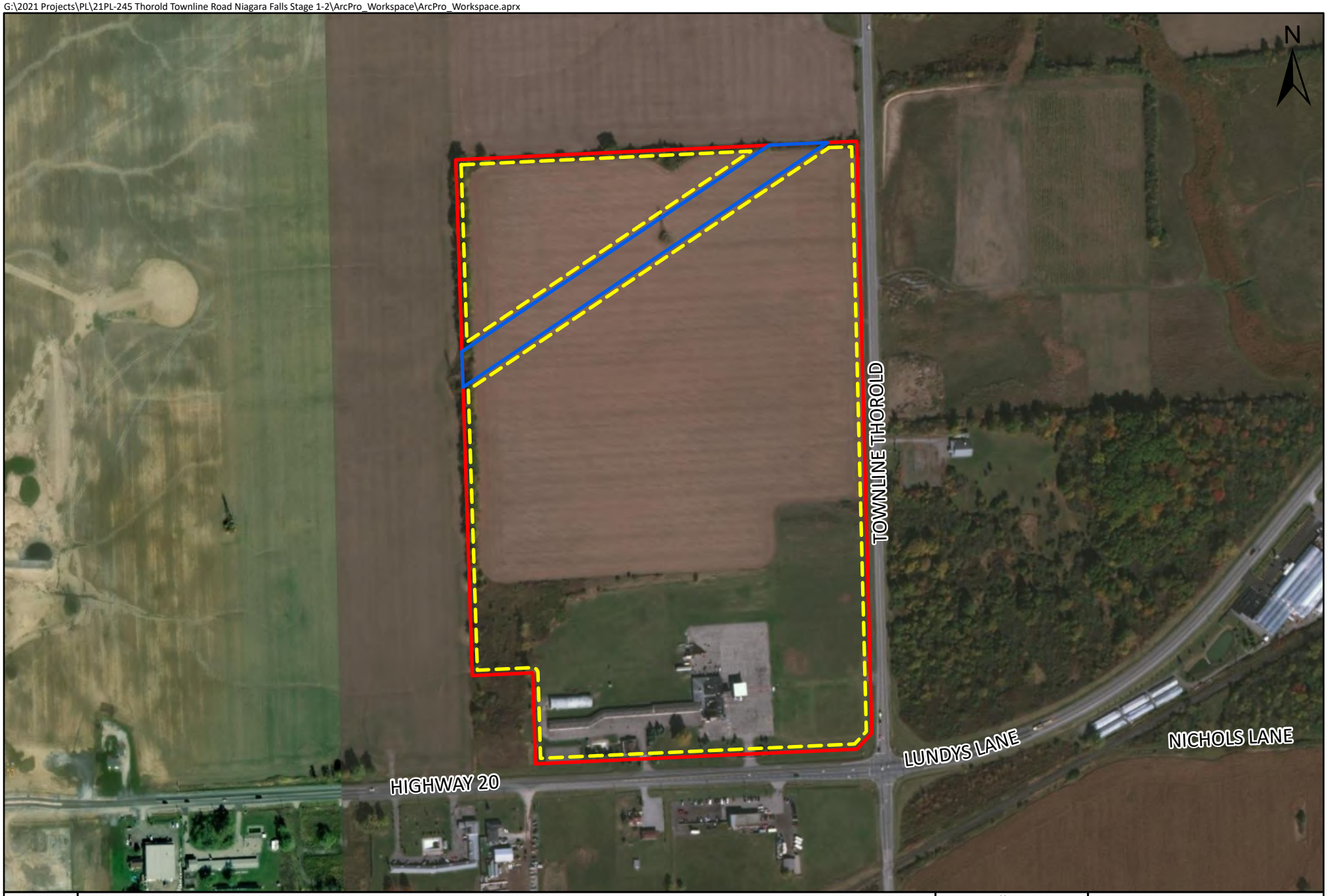
Projection: NAD 1983 UTM Zone 17N
Scale: 1:6,450

ASI Project No.: 21PL-245
Date: 3/10/2022

Drawn By: pbikoulis
File: Fig8_new

Figure 8: Study Area located on 1995 and 2017 Aerial Imagery

G:\2021 Projects\PL\21PL-245 Thorold Townline Road Niagara Falls Stage 1-2\ArcPro_Workspace\ArcPro_Workspace.aprx



ASI

STUDY AREA
HYDRO ONE RIGHT-OF-WAY
13030 LUNDY'S LANE PROPERTY LIMITS

Source: https://terra.library.brocku.ca

0 100
Metres

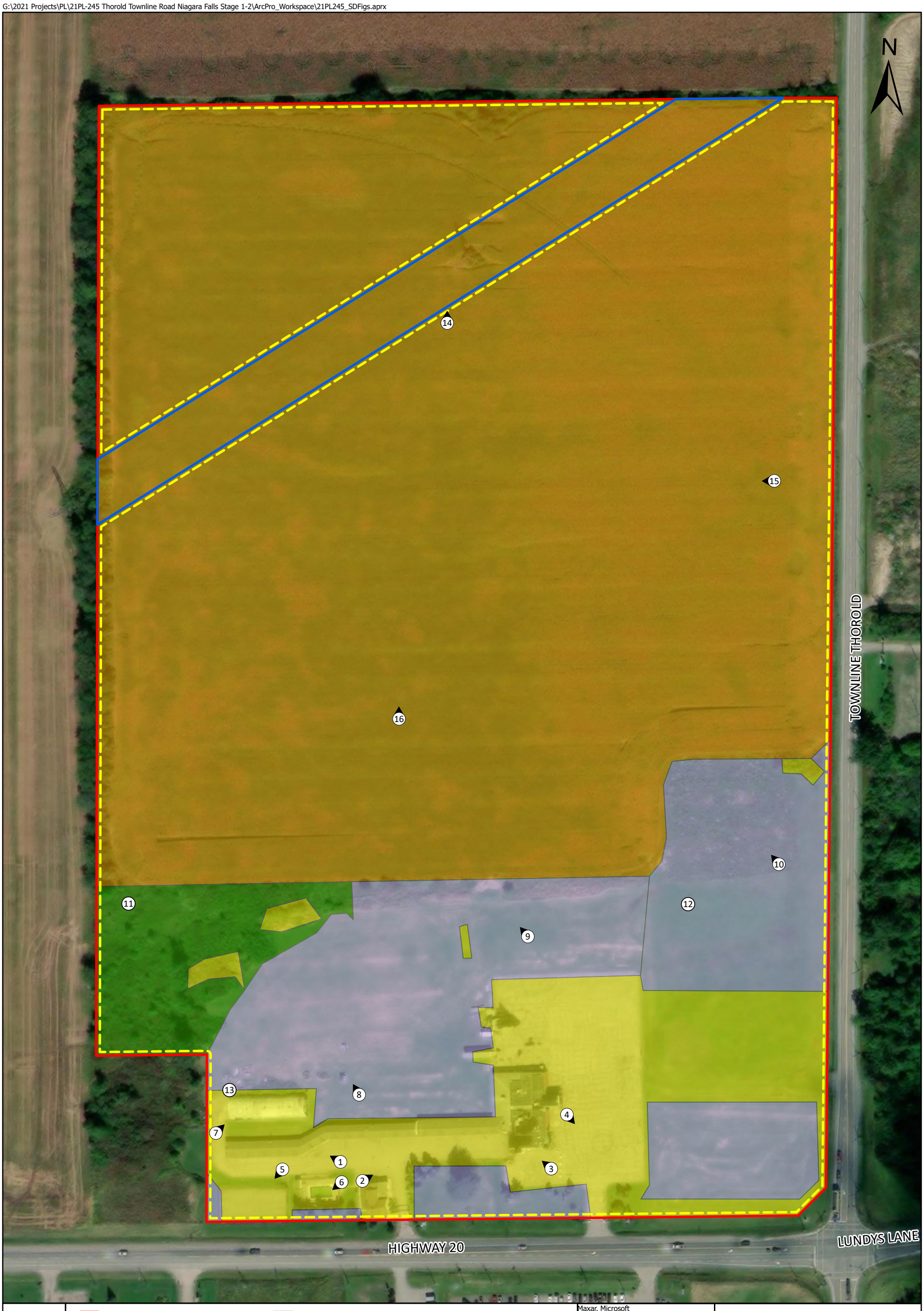
Projection: NAD 1983 UTM Zone 17N
Scale: 1:5,000

ASI Project No.: 21PL-245
Date: 3/4/2022

Drawn By: pbikoulis
File: 21PL245_Fig8

Figure 9: Existing Conditions of Study Area

G:\2021 Projects\PL\21PL-245 Thorold Townline Road Niagara Falls Stage 1-2\ArcPro_Workspace\21PL245_SDFigs.aprx



ASI

- STUDY AREA
- DIRECTIONAL
- TEST PIT
- HYDRO ONE RIGHT-OF-WAY
- 13030 LUNDY'S LANE PROPERTY LIMITS
- DISTURBED – NO ARCHAEOLOGICAL POTENTIAL
- PEDESTRIAN SURVEY – 5 METRE INTERVALS
- INTACT TEST PIT PROFILES - SURVEYED AT 5 METRE INTERVALS
- DISTURBED TEST PIT PROFILES - SURVEYED AT 5 METRE INTERVALS

Maxar, Microsoft

Projection: NAD 1983 UTM Zone 17N
Scale: 1:1,894
Page Size: 11 x 17

0 50
Metres

ASI Project No.: 21PL-425
Date: 3/23/2022 11:33 AM

Drawn By: pbikoulis
File: 21PL425_Fig10

Figure 10: Stage 2 Archaeological Assessment Results

10.0 Appendix A

A total of 16 archaeological sites registered in the Ontario Archaeological Sites Database are located within a one-kilometre radius of the Study area (accessed from Past Portal on October 5, 2021).

Borden Number	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AgGt-72	Blackhorse Valve	Indigenous	Findspot	London Museum of Archaeology, 1992
AgGt-130	T Brown	Euro-Canadian	Homestead	AMICK Consultants Limited, 2005
AgGt-131	Robert Spencer	Euro-Canadian	Homestead	AMICK Consultants Limited, 2005
AgGt-132	B. Williams	Euro-Canadian	Homestead	AMICK Consultants Limited, 2005
AgGt-134	N/A	Indigenous	Findspot	AMICK Consultants Limited, 2005
AgGt-135	N/A	Indigenous	Findspot	AMICK Consultants Limited, 2005
AgGt-136	N/A	Indigenous	Findspot	AMICK Consultants Limited, 2005

Borden Number	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AgGt-139	Glen Gordon 1	Late Woodland; Euro-Canadian	Lithic Scatter; Debris Scatter	AMICK Consultants Limited, 2005, 2018
AgGt-140	Glen Gordon 2	Indigenous	Lithic Scatter	AMICK Consultants Limited, 2005
AgGt-141	Glen Gordon 3	Indigenous	Lithic Scatter	AMICK Consultants Limited, 2005
AgGt-142	Glen Gordon 4	Indigenous	Lithic Scatter	AMICK Consultants Limited, 2005
AgGt-175	Walker II	Indigenous	Lithic Scatter	Archaeological Assessments Limited, 2011, 2012
AgGt-177	Walker VI	Indigenous	Lithic Scatter	Archaeological Assessments Limited, 2011, 2012

Borden Number	Site Name	Temporal/Cultural Affiliation	Site Type	Researcher
AgGt-183	Walker VII	Early Archaic/ Kirk-Nettling	Onondaga Chert Point	Archaeological Assessments Limited, 2012
AgGt-184	Walker VIII	Indigenous	Lithic Scatter	Archaeological Assessments Limited, 2012
AgGt-261	Joy	Late Woodland	Findspot	A.M. Archaeological Associates, 2019