



Stage 1 & 2 Archaeological Assessment

2224 Cedar Creek Road
Part of Lots 25 & 26, Concession 11
Township of North Dumfries
Regional Municipality of Waterloo
Historic Township of Dumfries North
Historic County of Waterloo

October 28, 2020

Prepared for: The Proponent

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EXECUTIVE SUMMARY

Irvin Heritage Inc. was contracted by the proponent to conduct a Stage 1 and 2 Archaeological Assessment in support of a development application for a Study Area which is approximately 61.24 Ha in size.

The Stage 1 Archaeological Assessment indicated that the Study Area retained archaeological potential. As such, a Stage 2 Archaeological Assessment consisting of both a 5 m Visual Survey and 5 m Test Pit Survey was conducted. The Stage 2 identified 11 Indigenous Isolated Findspots and 1 Euro-Canadian Site (Brown's Cabin AiHc-509) dating to around 1819-1853. A CSP was conducted for the site and a recommendation for both Stage 3 excavation and Stage 4 Mitigation of Development impacts is required.

Given the results and conclusions of the completed Stage 1 & 2 assessment, the following recommendations are made:

- Only a portion of the overall property has been subject to a Stage 2 Archaeological Assessment, this constitutes the Study Area for the proposed severances (Map 14). Further Archaeological Concerns exist for the balance of the legal property as no Stage 2 Archaeological Assessments have been undertaken upon such lands (Map 10).
- Isolated Finds # 1 - #11 have been sufficiently documented in the Stage 2 archaeological assessment, they retain no further Cultural Heritage Value or Interest and no further archaeological excavation is required.
- The Brown's Cabin Site (AiHc-509) retains Cultural Heritage Value or Interest, as such Stage 3 assessment is recommended.

The following archaeological methodology are recommended for Stage 3 excavation:

- A 5 m grid installed with tape and transit is to be established over the CSP concentration of artifacts of interest as noted in this report
- As a Stage 4 Mitigation is required, units may be excavated on a 10 m interval
- 40% Infill units of the grid total must be excavated
- All test units are to be 1 m x 1 m, and excavated by hand into the first 5 cm of subsoil
- All excavated soils are to be screened through 6 mm wire mesh
- All excavation units are to be backfilled

Stage 1 & 2 Archaeological Assessment

- If features are uncovered, they will be documented, covered with geo-textile cloth and backfilled
- All units will be excavated either by stratigraphy or systematic excavation, with all artifacts retained and recorded via their provenience
- Notwithstanding the above recommendations, the provided Advice On Compliance With Legislation shall take precedent over any recommendations of this report should deeply buried archaeological resources or human remains be found during any future earthworks within the Study Area.

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1. ASSESSMENT CONTEXT

1.1. Development Context

Irvin Heritage Inc. was retained by the proponent to conduct a Stage 1 and 2 Archaeological Assessment of their property (the Study Area) located at the municipal addresses of 2224 Cedar Creek Road, North Dumfries, Part of Lots 25 & 26, Concession 11, Township of North Dumfries, Regional Municipality of Waterloo, Historic Township of Dumfries North in the Historic County of Waterloo (Map 1).

The requirement for a Stage 1 Archaeological Assessment was triggered by the Approval Authority in response to a Development Application under the Planning Act. The assessment reported on herein was undertaken after direction by the Approval Authority and before formal application submission. The Approval Authority, the Region of Waterloo advised the proponent that only a portion of the Study Area retains archaeological potential as the majority of the property is of low potential owing to its previous use as an aggregate extraction area (see Supplemental Documentation as submitted in PastPort).

The Stage 1 Archaeological Assessment reported on herein was undertaken for the *entirety* of the legal 61.24 Ha property. The Stage 2 Archaeological Assessment reported on herein was undertaken for a *portion* (9.36 Ha) of the legal property as contracted by the proponent. Permission, without limitation, was provided by the proponent to survey, assess, and document the archaeological potential and resources, if present, of the Study Area.

1.2. Environmental Setting

The Study Area is rectangular, approximately 61.24 Ha in size, and is predominantly a former aggregate extraction pit, a woodlot exists with the northern and western portions of the property; a small derelict farmstead and extant workshop are present in the southern limit (Maps 2 & 3).

Cedar Creek is located 32 m to the west of the Study Area at its closest point.

The vast majority of the Study Area is situated within the Horseshoe Moraines (5) physiographic region of Southern Ontario with a small part of the Northern extent of the Study Area situated

within the Guelph Drumlin Field (11). The Study Area features the Physiographic Landforms of the Till Moraines (2) and the Spillways (3).

2. HISTORICAL CONTEXT

2.1. General History

The Study Area is situated within the lands of Simcoe Patent Treaty 4, otherwise known as the Crown Grant to the Six Nations or the Haldimand Tract. In 1793, the lands around the Grand River by six miles on each side were granted to the Six Nations following their loyalty to the British Crown during the American War of Independence. It was further revised to incorporate straight boundaries rather than following the wind of the river exactly. It incorporates over 2700 square km (Government of Canada 2020) (Johnson 1964). The Study Area is also within the lands covered by the Between the Lakes Purchase, or Treaty 3, which was signed on December 7 1792. This treaty was signed by representatives of the Crown and certain Mississauga peoples; the treaty covers approximately 3 million acres (MIA 2020).

The land that would become North Dumfries changed hands a number of times between its first recorded owner, Colonel Joseph Brant or Thayendanegea of Six Nations and William Dickson who established North Dumfries in 1816. Dickson named the area after his hometown of Dumfries, Scotland and subsequently sent Absalom Shade to establish the town. Shade did so where the Grand River and Mill creek intersect and established the first Grist Mill and residences. North Dumfries was settled by predominately Scottish immigrants who came to farm (Young 1880). Industry in the area was dependant on the ability to ship goods via the Grand River and thus, milling and manufacturing became the main drive of the economy (Encyclopedia Britannica 2020). The construction of the Credit Valley Railway only served to further connect the North Dumfries area with surrounding economies in 1879 (Breithaupt 1917).

2.2. Study Area History

A review of historical resources resulted in the following data relevant to the Study Area:

Map 4: 1861 Historic Atlas of the County of Waterloo (Tremaine 1861)

The Study Area is situated within part of Lots 25 & 26, Concession 11. The land containing the Study Area is listed as under the ownership of John Brown, Solomon Gehman, and James Wilson. There is a structure located within the Study Area on the lands of John Brown.

Map 5: 1881 Map of North Dumfries Township (Parsell & Co. 1878)

The Study Area is situated within part of Lots 25 & 26, Concession 11. The Study Area appears to show no evidence of aggregate extraction

Map 6: 1954 Aerial Image (University of Toronto 2020)

There is no evidence of active aggregate extraction at this time. The now derelict farmstead is shown as occupied with potentially numerous structures present.

Map 7: 20th Century Morphology (Region of Waterloo 2020)

In 2003 there is extensive disturbance throughout the majority of the property with grading and filling clearly occurring; an artificial waterbody now appears in the northern limit of the Study Area. A large berm exists just to the north of the farmstead. By 2006 this waterbody has considerably been reduced in size, with further impacts to the property occurring.

Map 8: 20th Century Morphology (Region of Waterloo 2020)

In 2010 and 2014 there is clearly further evidence of extensive and deep disturbance throughout the majority of the property.

The following should be noted in regard to the review of historic maps:

- Study Area placement within historic maps is only approximate
- Many historic maps were subscriber based, meaning only individuals who paid a fee would have their property details mapped

3. ARCHAEOLOGICAL CONTEXT

The Study Area is situated within an overall historic landscape that would have been appropriate for both resource procurement and habitation by both Indigenous and Euro-Canadian peoples.

3.1. Registered Archaeological Sites

A search of the Ontario Sites Database conducted on Oct 2, 2020, using a Study Area centroid of 17T E 604356 N 4921590 indicated that there are 16 registered archaeological sites within a 1 km radius of the Study Area. None of the registered archaeological sites are within the Study Area nor are any within a 50 m buffer.

TABLE 1: SITES WITHIN 1 KM

Borden #	Site Name	Time Period	Affinity	Site Type
AiHc-438	None Provided	None Provided	<i>None Provided</i>	<i>None Provided</i>
AiHc-437	None Provided	Woodland, Early	<i>Aboriginal</i>	<i>Unknown</i>
AiHc-222	Brown	Post-Contact	<i>Euro-Canadian</i>	<i>homestead</i>
AiHc-176	CBM 2	Archaic, Early, Paleo-Indian, Late	<i>Aboriginal</i>	<i>findspot</i>
AiHc-175	CBM1	Archaic, Late	<i>Aboriginal</i>	<i>findspot</i>
AiHc-11	Hussey	None Provided	<i>None Provided</i>	<i>None Provided</i>
AhHc-49	Boida	Post-Contact	<i>Euro-Canadian</i>	<i>homestead, mill</i>
AhHc-18	Hidden Valley	Archaic	<i>Aboriginal</i>	<i>None Provided</i>
AhHc-144	None Provided	Archaic, Late	<i>Aboriginal</i>	<i>findspot</i>
AhHc-143	None Provided	Pre-Contact	<i>Aboriginal</i>	<i>scatter</i>
AhHc-142	None Provided	Archaic, Early	<i>Aboriginal</i>	<i>findspot</i>
AhHc-122	CBM 3	Woodland, Middle	<i>Aboriginal</i>	<i>findspot</i>
AhHc-120	Bedrock 4	Pre-Contact	<i>Aboriginal</i>	<i>Othercamp/campsite</i>
AhHc-119	Bedrock 3	Woodland, Early	<i>Aboriginal</i>	<i>findspot</i>
AhHc-117	Bedrock 1	Woodland, Middle	<i>Aboriginal</i>	<i>findspot</i>
AhHc-111	Kennette	Archaic, Late	<i>Aboriginal</i>	<i>findspot</i>

3.2. Related and/or Adjacent Archaeological Assessments

No readily identifiable archaeological assessments have been conducted within or directly adjacent to the Study Area.

3.3. Cemeteries & Burials

As per a cursory search conducted on Oct 2, 2020, there are no known or registered cemeteries or burials within or adjacent to the Study Area.

3.4. Archaeological Management Plan

The Region of Waterloo has an Archaeological Master Plan from 1989 (Region of Waterloo 1989). However this document is currently under review for updating per a 2015 regional memo.

3.5. Heritage Conservation District

The Study Area is not situated within an existing or proposed Heritage Conservation District.

3.6. Heritage Properties

The Study Area contains no registered or listed heritage properties.

3.7. Historic Plaques

There are no historic plaques within a 100 m radius of the Study Area (Ontario Heritage Trust 2020).

4. STAGE 1 ANALYSIS & CONCLUSIONS

It is clear that the Study Area retains archaeological potential owing to the environmental setting of the Study Area in relation historic transportation routes and proximity of registered archaeological sites.

As such, the Study Area retains archaeological potential and should be subject to a Stage 2 Archaeological Assessment (Map 9).

5. STAGE 1 RECOMMENDATIONS

Given the analysis and conclusion of the completed Stage 1 assessment, the following recommendations are made:

- Lands which can be subject to agricultural ploughing must be prepared via ploughing to ensure a minimum 80% of soil visibility. Prepared lands must be allowed to weather under a significant rainfall event, or several lighter rains. A visual survey must be undertaken along 5 m survey intervals.

Stage 1 & 2 Archaeological Assessment

- Lands which are not viable to plough must be subject to a test pit survey with the following conditions:
 - ▶ All test pits are to be excavated by hand at 5 m intervals along 5 m transects
 - ▶ Test pits must be excavated to within 1 m of all extant and/or ruined structures when present
 - ▶ All test pits must be 30 cm in diameter and be excavated into the first 5 cm of subsoil
 - ▶ All excavated soils must be screened through 6 mm wire mesh to facilitate artifact recovery
 - ▶ All artifacts recovered must be retained via their associated test pit
 - ▶ All test pits are to be backfilled unless instructed otherwise by the landowner

6. STAGE 2 FIELD METHODOLOGY

Prior to the initiation of fieldwork, the Field Director reviewed the existing Stage 1 archaeological analysis and recommendations; all field staff were then briefed on the archaeological potential of the Study Area. Fieldwork was conducted in 2020 (see Table 2). The weather consisted of light cloud cover or sunny conditions, but at all times the assessment was conducted under appropriate weather conditions.

TABLE 2: DATES & DIRECTORS OF ASSESSMENT

Date	Weather	Field Director(s)	Assistant Field Director(s)
Oct 14 2020	21°C, light cloud cover	T. Irvin (P379)	-

The assessment began with a visual review of the Study Area conditions.

The Study Area subject to archaeological survey was found to consist of a derelict farmstead within a treed area fronting Cedar Creek Road. This area was subject to a 5 m Test Pit Survey (Images 1 & 2). There was extensive disturbance localized in areas indicated as previously having structures. This disturbance consisted of an intermix of topsoil, subsoil, fieldstone and concrete (Image 3). Test pitting was conducted to within 1 m and within this area where possible. An exposed fieldstone foundation was found and was subject to Test Pitting within 1 m of the exterior and within the interior. The Test Pitting of the interior was conducted to subsoil with the only finds being modern spiral framing nails (these were not retained) (Image 4). Further disturbance was noted in the area of a former barn with an associated silo (Image 5). The topsoil consisted of a mixture of sand and gravel atop a light yellow/orange subsoil.

No archaeological resources were identified during the Test Pit Survey.

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The agricultural fields present were well ploughed and weathered and suitable for archaeological survey (Images 6-9). The fields were subject to a 5 m transect Visual Survey. The visual survey resulted in the identification of various Indigenous findspots and one Euro-Canadian site. When an artifact was encountered in the field, either pre or post-contact, a 1 m intensified survey transects for a buffer of no less than 20 m around each findspot was completed (Map 12). Test pitting was completed on the field edges adjacent to the areas of artifacts productivity in the field and these areas were found to be Low Lying & West (Images 14 & 15)

The identified Euro-Canadian site was subject to a complete CSP with all artifacts flagged and retained via their provenience using an EMLID Reach RS+ GPS system accurate to .20 cm (Map 13) (Images 10 - 12) .

The archaeological methodology employed during the Stage 2 Test Pit survey consisted of:

- All test pits were excavated by shovel at 5 m intervals on 5 m transects (unless noted above)
- Test pits were excavated to within 1 m of all structures, both extant and in ruin, when present
- All test pits were 30 cm in diameter and were excavated into the first 5 cm of subsoil
- All excavated soils which were of an undisturbed context were screened through 6 mm wire mesh
- All test pits were backfilled

The archaeological survey of the property resulted in the discovery of no archaeological resources.

The archaeological survey of the property resulted in the discovery of one archaeological site and 11 Isolated Findspots (Table 3) (Maps 11 & 12).

TABLE 3: ARCHAEOLOGICAL RESOURCES IDENTIFIED DURING STAGE 2 SURVEY

Name	Type	Borden#	Affinity	Survey Method
IF#1	Isolated Findspot	-	Indigenous	Visual Survey
IF#2	Isolated Findspot	-	Indigenous	Visual Survey
IF#3	Isolated Findspot	-	Indigenous	Visual Survey
IF#4	Isolated Findspot	-	Indigenous	Visual Survey
IF#5	Isolated Findspot	-	Indigenous	Visual Survey
IF#6	Isolated Findspot	-	Indigenous	Visual Survey
IF#7	Isolated Findspot	-	Indigenous	Visual Survey

Name	Type	Borden#	Affinity	Survey Method
IF#8	Isolated Findspot	-	Indigenous	Visual Survey
IF#9	Isolated Findspot	-	Indigenous	Visual Survey
IF#10	Isolated Findspot	-	Indigenous	Visual Survey
IF#11	Isolated Findspot	-	Indigenous	Visual Survey
Brown's Cabin Site	Archaeological Site	-	Euro-Canadian	Visual Survey - CSP Completed

7. STAGE 2 RECORD OF FINDS

The completed archaeological assessment resulted in the identification of twelve archaeological resources, the collection of numerous artifacts and the creation of documentary records (Table 5).

1. Isolated Find #1:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

2. AiHc-510 Isolated Find #2:

This Isolated Find consisted of a single Bois Blanc Saugeen Projectile point (Map 12). The point measured maximum length of 62 mm, maximum width of 29.82 mm and maximum thickness of 10.17 mm.

3. Isolated Find #3:

This Isolated Find consisted of a single Onondaga Flake Fragment (Map 12).

4. Isolated Find #4:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

5. Isolated Find #5:

This Isolated Find consisted of a single Onondaga Projectile Point fragment (Map 12).

6. Isolated Find #6:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

7. Isolated Find #7:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

8. Isolated Find #8:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

9. Isolated Find #9:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12).

10. Isolated Find #10:

This Isolated Find consisted of a single Onondaga Secondary Flake Fragment (Map 12).

11. Isolated Find#11:

This Isolated Find consisted of a single Bois Blanc tool, potentially a Knife or Scraper (Map 11).

Brown's Cabin Site AiHc-509:

This site yielded a total of 83 artifacts from 56 individual findspots (Map 9, Figure 1).

TABLE 4: BROWN'S CABIN AIHC-509 PRODUCTIVITY

Group	Productivity	% of Assemblage
Kitchen	62	281.82%
Architectural	4	18.18%
Activities	7	31.82%
Personal	6	27.27%
Organic	3	13.64%
Indigenous	1	4.55%

TABLE 5: BROWN'S CABIN AIHC-509 CSP ASSEMBLAGE

Artifact Group - Class - Material - Item	Qty
Kitchen	62
Tableware	51
Ceramic - Pearlware	23
Pearlware Transfer Blue	5

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Artifact Group - Class - Material - Item	Qty
Pearlware - Scalloped Rim Neoclassical	1
Pearlware Embossed Rim Edgeware	1
Pearlware Hand Painted Cobalt Blue	4
Pearlware Plain	8
Creamware Plain	1
WW Hand Painted Early Palette+Blue	1
Pearlware Mocha	2
Ceramic - Whiteware	25
WW Transfer Red	2
WW Plain	7
WW Non-Impressed Edgeware	2
WW Hand Painted Late Palette	3
WW Transfer Blue	7
WW Early Blue Hand Painted	2
WW Transfer Black	1
WW Transfer Clobbered	1
Glass	1
Glass Bottle - Mineral Finish	1
Basalt - Stoneware	1
Basaltware	1
Kaolin Clay	1
Pipe Stem	1
Utilitarian	9
Earthenware Red	9
Coarse Red Earthenware Lead Glaze	9
Bottle	2
Glass	2
Glass Bottle Body Fragment	2
Organic	3
Faunal - Mammal	3

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Artifact Group - Class - Material - Item	Qty
Bone	3
Bone - Mammal	3
Activities	7
Household	5
Earthenware Red	5
Flowerpot	5
Bottle	1
Glass	1
Glass Bottle Body Fragment	1
Hardware	1
Metal	1
Metal Unidentified	1
Personal	6
Attire & Jewelry	1
Ceramic - Porcelain	1
Button - Prosser	1
Smoking	5
Kaolin Clay	5
Pipe Bowl	3
Pipe Stem	1
Pipe Bowl - Crown and Wreath	1
Architectural	4
Nails/Fasteners	3
Metal	3
Nail - Corroded &/or Fragmentary	1
Nail - Machine Cut	2
Glass Pane	1
Glass	1
Glass Pane = or < 1.6 mm	1
Indigenous	1

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Artifact Group - Class - Material - Item	Qty
Indigenous Projectile Point	1
Chert - Bois Blanc	1
Projectile Point - Kramer	1

This site consisted almost exclusively of artifacts related to the Kitchen Group, of both Pearlware and Whiteware were almost equally represented; a single piece of Creamware was also identified. Within the site area was a single Indigenous Projectile Point, a Kramer Point. The recovered Kramer point measured maximum length of 95.92, maximum width of 26.02 and maximum thickness of 17.23 mm.

Using the date diagnostic artifacts the Brown's Cabin Site would date to 1819-1853.

The completed archaeological assessment resulted in the creation of various documentary records (Table 3).

TABLE 6: INVENTORY OF STAGE 2 HOLDINGS

Record Type or Item	Details	# of Boxes
Field Notes: P379-0332-2020	Digital Files	-
Photos: P379-0332-2020	Digital Files	-
Artifacts: P379-0332-2020	6 x 6 x 4 inch	1

12. STAGE 2 ANALYSIS & CONCLUSIONS

The portion of the Study Area subject to the severance application were subject to a Stage 2 Archaeological Assessment. The following archaeological resources were identified.

1. Isolated Find #1:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

2. AiHc-510 Isolated Find #2:

This Isolated Find consisted of a single Bois Blanc Saugeen Projectile point (Map 12). The point measured maximum length of 62 mm, maximum width of 29.82 mm and maximum thickness of 10.17 mm. This point dates to the Early to Middle Woodland period. This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

3. Isolated Find #3:

This Isolated Find consisted of a single Onondaga Flake Fragment (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

4. Isolated Find #4:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

5. Isolated Find #5:

This Isolated Find consisted of a single Onondaga Projectile Point fragment (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

6. Isolated Find #6:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

7. Isolated Find #7:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no

further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

8. Isolated Find #8:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

9. Isolated Find #9:

This Isolated Find consisted of a single Onondaga Secondary Flake (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

10. Isolated Find #10:

This Isolated Find consisted of a single Onondaga Secondary Flake Fragment (Map 12). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

11. Isolated Find#11:

This Isolated Find consisted of a single Bois Blanc tool, potentially a Knife or Scraper (Map 11). This artifact is considered an Isolated Find and retains no further Cultural Heritage Value or Interest and no further archaeological investigation is required per Section 2.2 Standard 1a of the Standards and Guidelines for Consultant Archaeologists.

Brown's Cabin Site AiHc-509:

This site dates to the early to middle 19th century (1819 - 1853) and may represent the initial occupation of the property by 19th century settlers. The lack of architectural debris suggests the site may represent the placement of a log cabin, or potentially represent a midden area associated with an early site occupation. The site retains further Cultural Heritage Value or Interest and as the site predominantly predates 1870, both Stage 3 Excavation and Stage 4 Mitigation of Development Impacts will be required.

It should be noted that all of the Indigenous findspots found during the assessment were on a distinctly higher elevation, which is noted on the aerial mapping in Map 12. Owing to the location of Cedar Creek, it is reasonable to assume that this higher elevation formed the edge of a waterbody or marshland, with the Indigenous peoples focusing on the elevated area, which is clearly a former shoreline. This would explain the clustering of Isolated Finds in this area, and the lack of Indigenous finds anywhere else. Given this landscape, it is reasonable to assume that the Kramer Point recovered from the Brown's Cabin Site is a curio collected by the early settlers while clearing the land. If additional artifacts are found during further mitigation of the site, then this theory must be revisited.

TABLE 7: SUMMARY OF STAGE 2 ASSESSMENT METHODOLOGIES & FINDINGS

Assessment Method	Findings	Ha	% of Study Area
Archaeological Potential: 5 m Visual Survey	11 x IF, 1x Site	6.03	9.8%
Archaeological Potential: 5 m Test Pit Survey	No Resources	1.94	3.2%
Low Potential: Disturbed via grading/berm	No Resources	0.42	0.7%
Low Potential: Low Potential per Region of Waterloo	No Resources	43.51	71.0%
Low Potential: Disturbed via previous structures	No Resources	0.21	0.3%
Low Potential: Low Lying & Wet	No Resources	0.76	1.2%
Unassessed: Stage 2 Archaeological Survey Required	Unassessed	8.37	13.7%
Total		61.24	100

12. STAGE 2 RECOMMENDATIONS

Given the results and conclusions of the completed Stage 1 & 2 assessment, the following recommendations are made:

- Only a portion of the overall property has been subject to a Stage 2 Archaeological Assessment, this constitutes the Study Area for the proposed severances (Map 14). Further Archaeological Concerns exist for the balance of the legal property as no Stage 2 Archaeological Assessments have been undertaken upon such lands (Map 10).

- Isolated Finds # 1 - #11 have been sufficiently documented in the Stage 2 archaeological assessment, they retain no further Cultural Heritage Value or Interest and no further archaeological excavation is required.
- The Brown's Cabin Site (AiHc-509) retains Cultural Heritage Value or Interest, as such Stage 3 assessment is recommended.

The following archaeological methodology are recommended for Stage 3 excavation:

- A 5 m grid installed with tape and transit is to be established over the CSP concentration of artifacts of interest as noted in this report
 - As a Stage 4 Mitigation is required, units may be excavated on a 10 m interval
 - 40% Infill units of the grid total must be excavated
 - All test units are to be 1 m x 1 m, and excavated by hand into the first 5 cm of subsoil
 - All excavated soils are to be screened through 6 mm wire mesh
 - All excavation units are to be backfilled
 - If features are uncovered, they will be documented, covered with geo-textile cloth and backfilled
 - All units will be excavated either by stratigraphy or systematic excavation, with all artifacts retained and recorded via their provenience
- Notwithstanding the above recommendations, the provided Advice On Compliance With Legislation shall take precedent over any recommendations of this report should deeply buried archaeological resources or human remains be found during any future earthworks within the Study Area.

13. ADVICE ON COMPLIANCE WITH LEGISLATION

The Standards and Guidelines for Consultant Archaeologists requires that the following standard statements be provided within all archaeological reports for the benefit of the proponent and approval authority in the land use planning and development process (MTC 2011:126):

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the MTCS, 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 Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.

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

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

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 Service.

14. IMAGES



Image 1: Archaeologists conducting 5 m Transect Test Pit Survey.

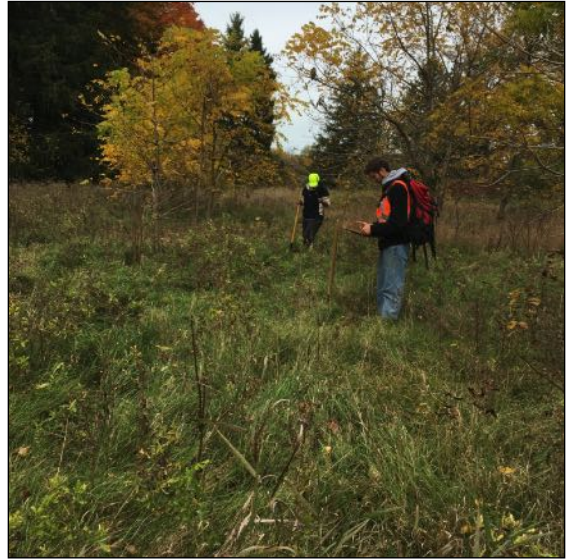


Image 2: Archaeologists conducting 5 m Transect Test Pit Survey.



Image 3: Fieldstone and concrete rubble of former structures.



Image 4: Test Pit placed within an open foundation. Test Pit excavated to subsoil.



Image 5: Extensive grading and disturbance from former farmstead.



Image 6: Visual survey conditions.



Image 7: Artificial berm present within northern agricultural field.



Image 8: Visual survey conditions.



Image 9: Visual survey ground visibility.



Image 10: Ground visibility during CSP of Brown's Cabin Site AiHc-509.



Image 11: CSP conditions for Brown's Cabin Site AiHc-509.



Image 12: CSP conditions for Brown's Cabin Site AiHc-509.



Image 13: Graded and disturbed lands in the foreground; agricultural field and berm in the background.

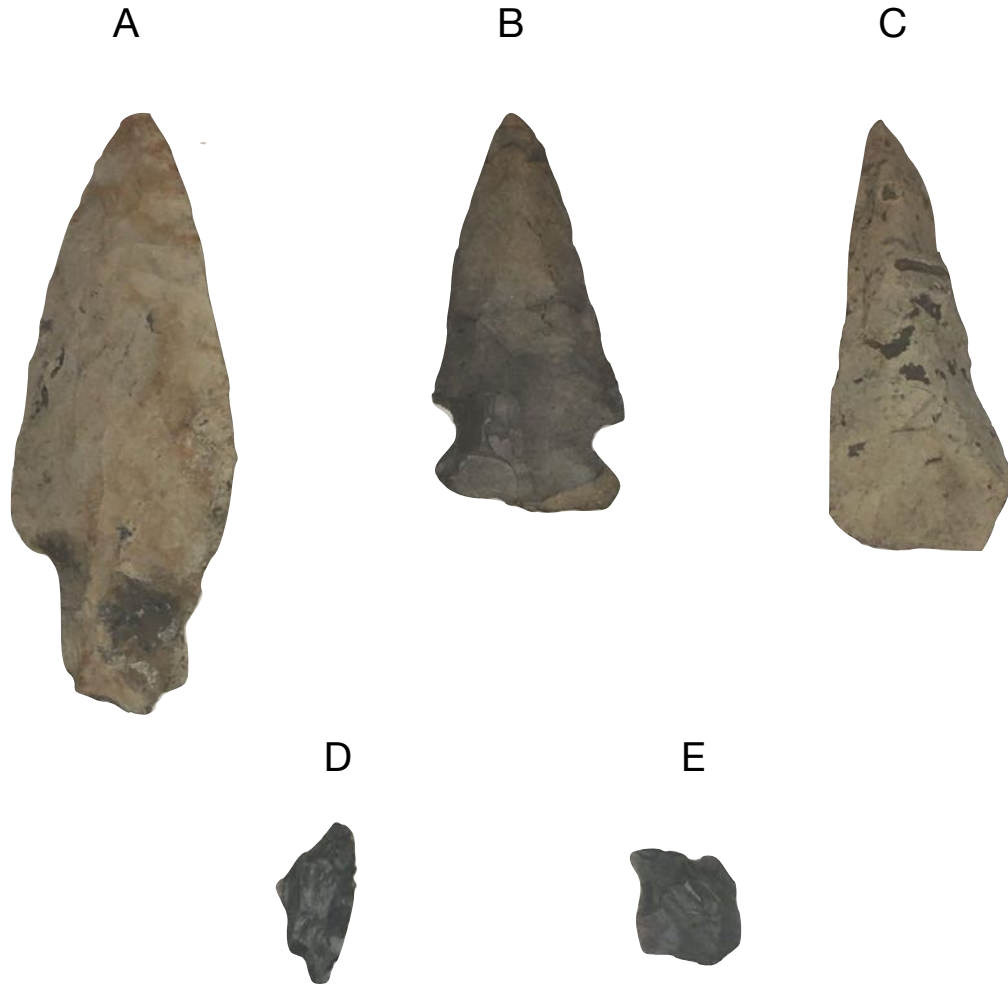


Image 14: Low Lying & Wet conditions.

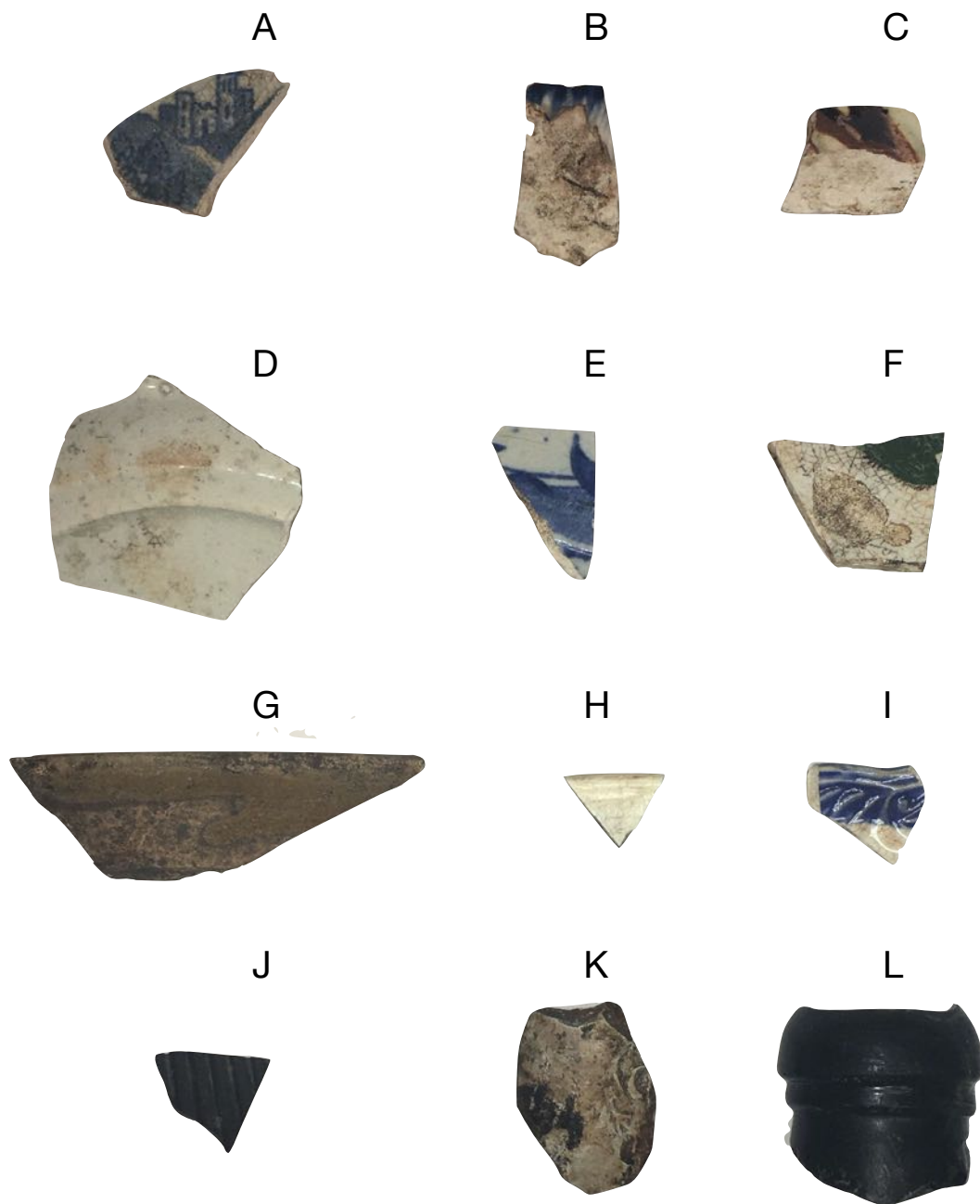


Image 15: Low Lying & Wet conditions.

15. FIGURES



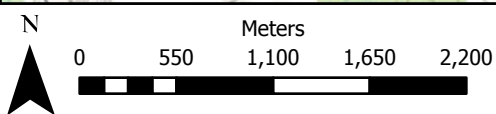
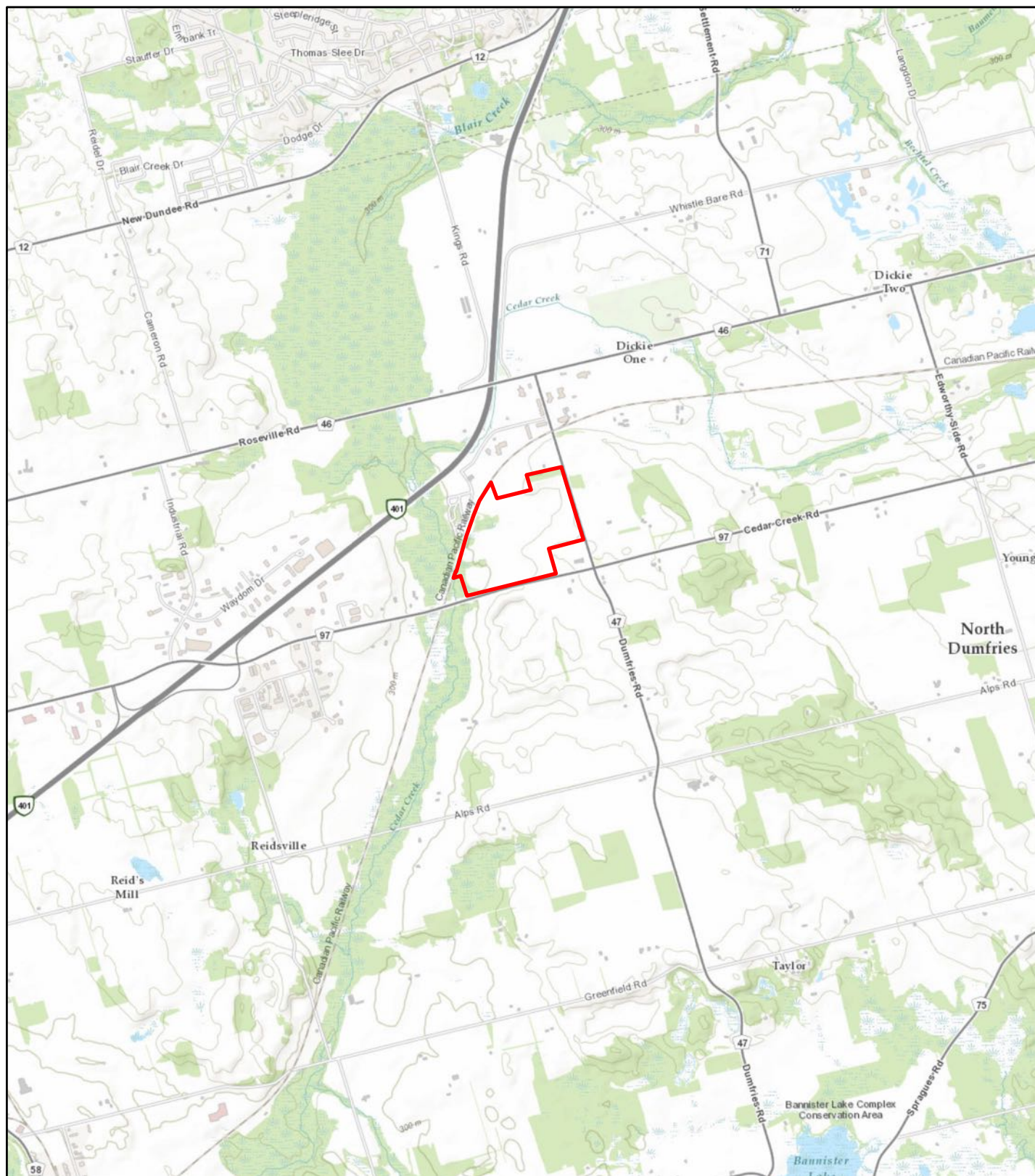
- A:** Kramer Projectile Point (AiHc-509.CSP0.51)
B: Saugeen Projectile Point (IFP379-322-01)
C: Knife/Scraper (P379-322.CSP0.89)
D: Projectile Point Fragment (P379-322.CSP0.84)
E: Onondaga Secondary Flake (P379-322.CSP0.84)



- A:** Pearlware Transfer Blue (AiHc-509.CSP0.01)
- B:** Pearlware Scall. Rim Neoclassical (AiHc-509.CSP0.02)
- C:** Pearlware Mocha (AiHc-509.CSP0.46)
- D:** Pearlware Plain (AiHc-509.CSP0.66)
- E:** Pearlware Hand Painted Blue (AiHc-509.CSP0.67)
- F:** WW Transfer Clobbered (AiHc-509.CSP0.65)

- G:** Red Earthenware Lead Glaze (AiHc-509.CSP0.21)
- H:** Creamware Plain (AiHc-509.CSP0.16)
- I:** Pearlware Embossed Blue (AiHc-509.CSP0.05)
- J:** Basaltware (AiHc-509.CSP0.39)
- K:** Pipe Bowl Fragment (AiHc-509.CSP0.29)
- L:** Bottle Mineral Finish (AiHc-509.CSP0.17)

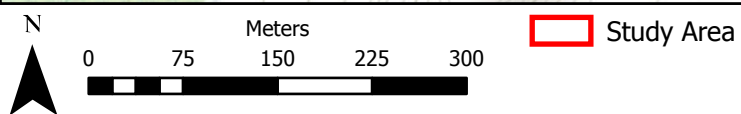
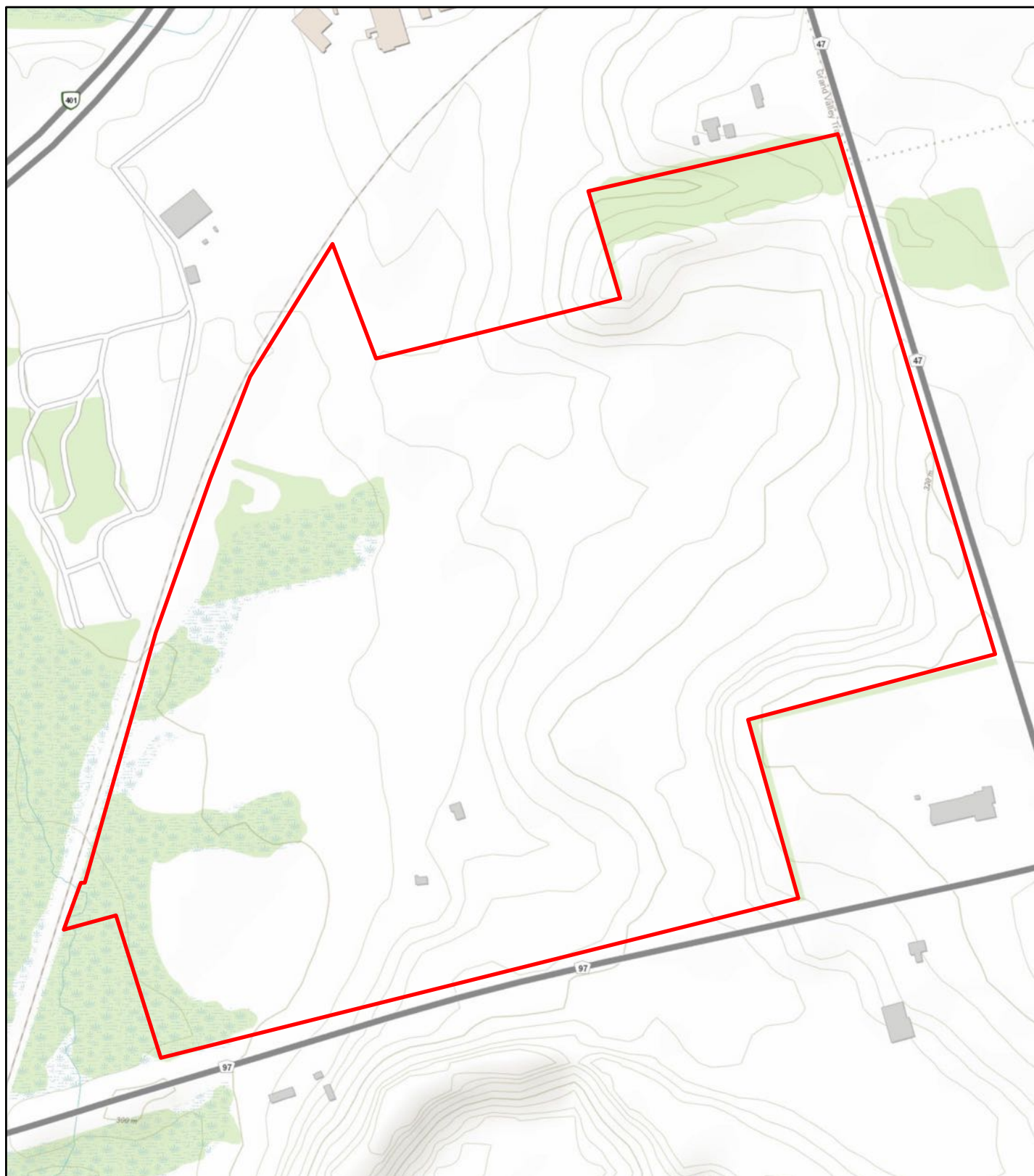
16. MAPS



Study Area

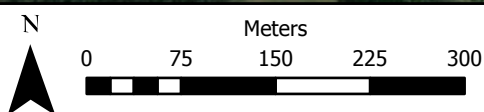
Source: ESRI, ARCGIS PRO


Map 1: Study Area Location



Source: Region of Waterloo GIS 2020

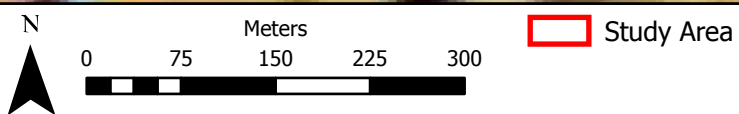
Map 2: Study Area Topographic Detail



 Study Area

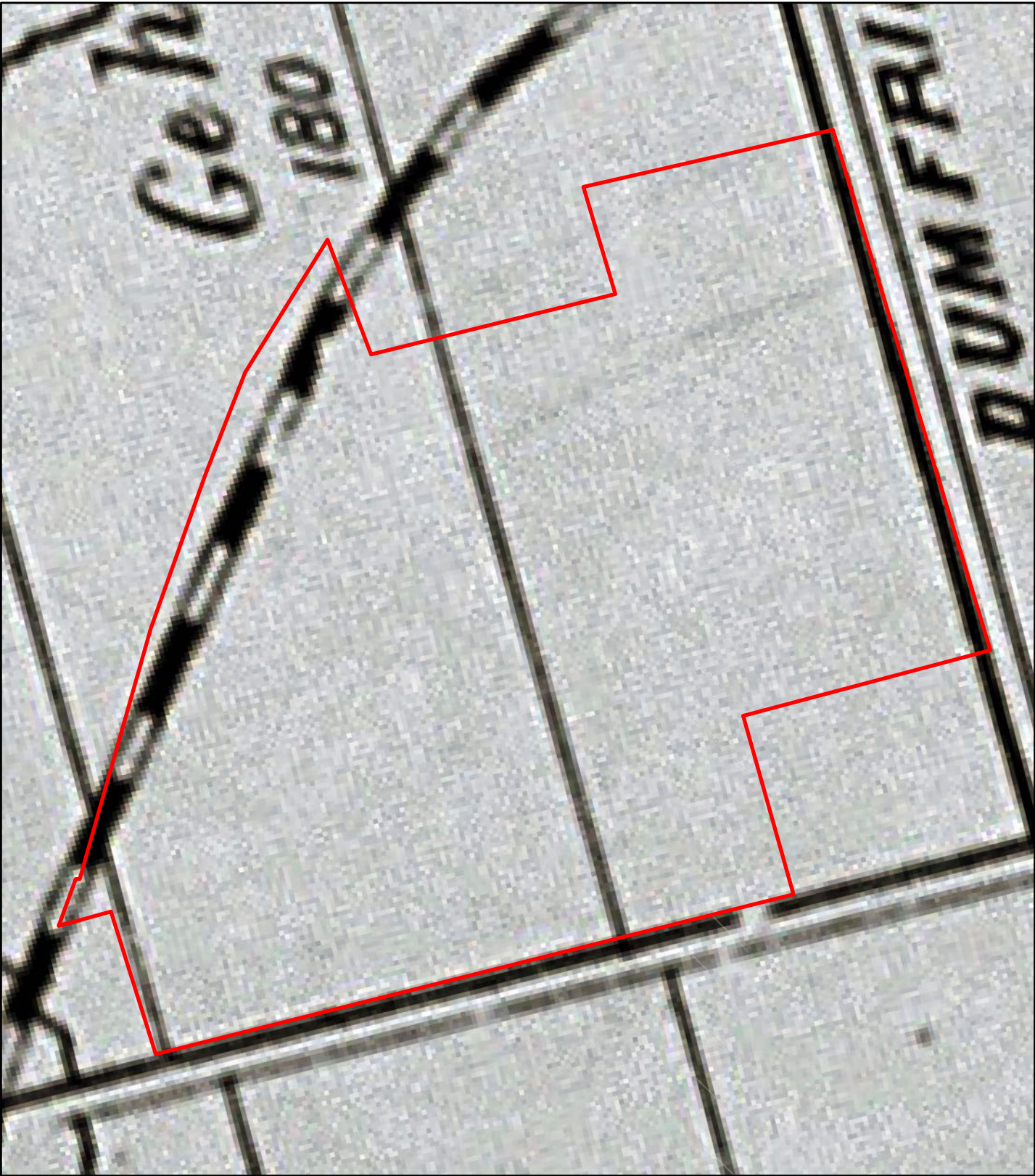
Source: Region of Waterloo GIS 2020

Map 3: Study Area Environmental Detail



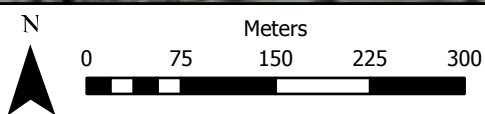
Source: Tremaine 1861

Map 4: Study Area atop 1861 Historic Atlas Map



Source: Parsell 1881

Map 5: Study Area atop 1881 Historic Atlas Map



 Study Area

Source: University of Toronto 2020

Map 6: Study Area in 1954



Above: 2003 Aerial of the Study Area



Above: 2006 Aerial of the Study Area



 Study Area

Source: Region of Waterloo GIS 2020



Above: 2010 Aerial of the Study

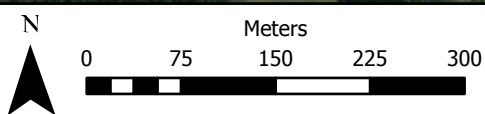
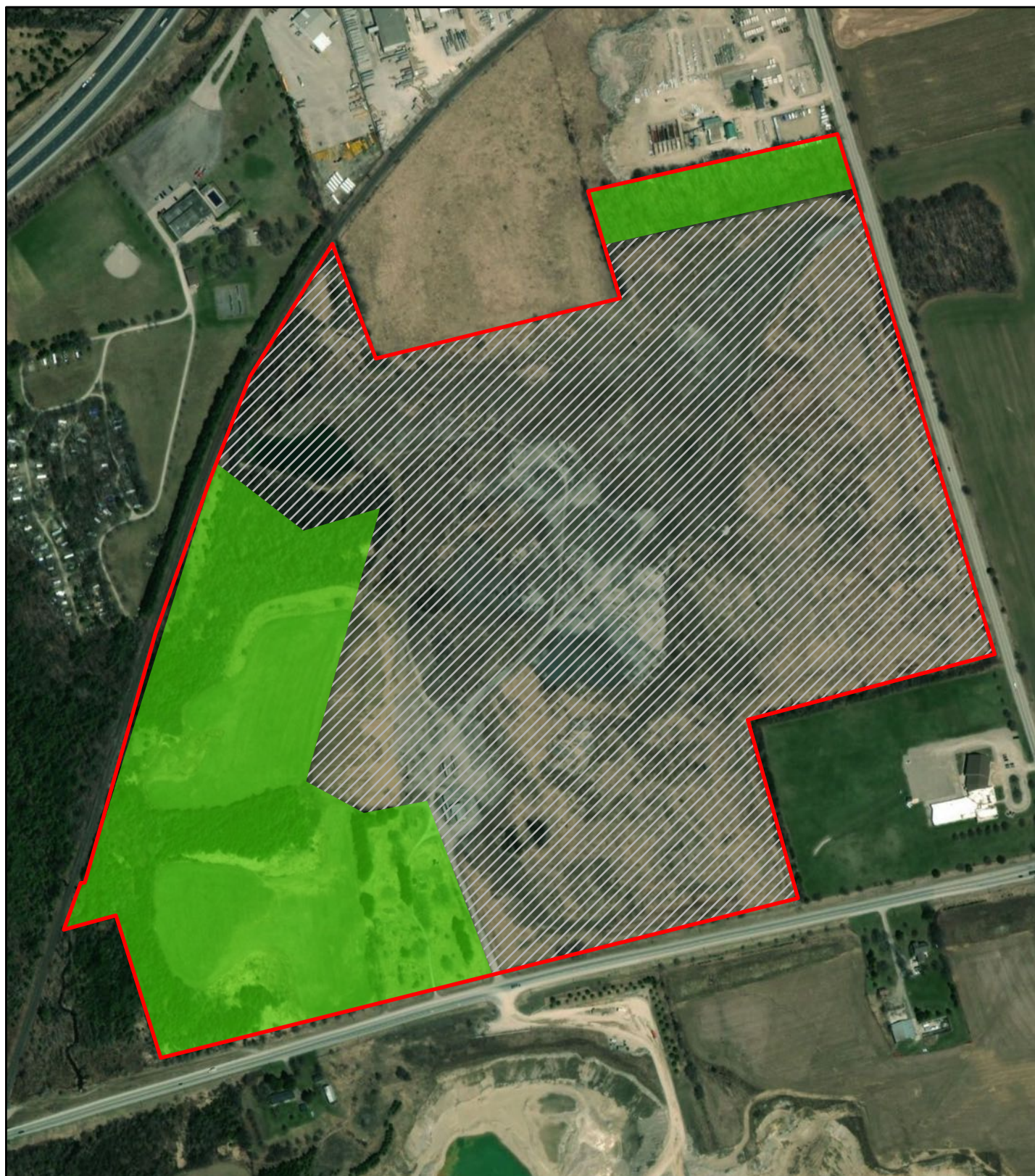


Above: 2014 Aerial of the Study Area



 Study Area

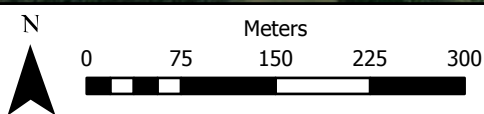
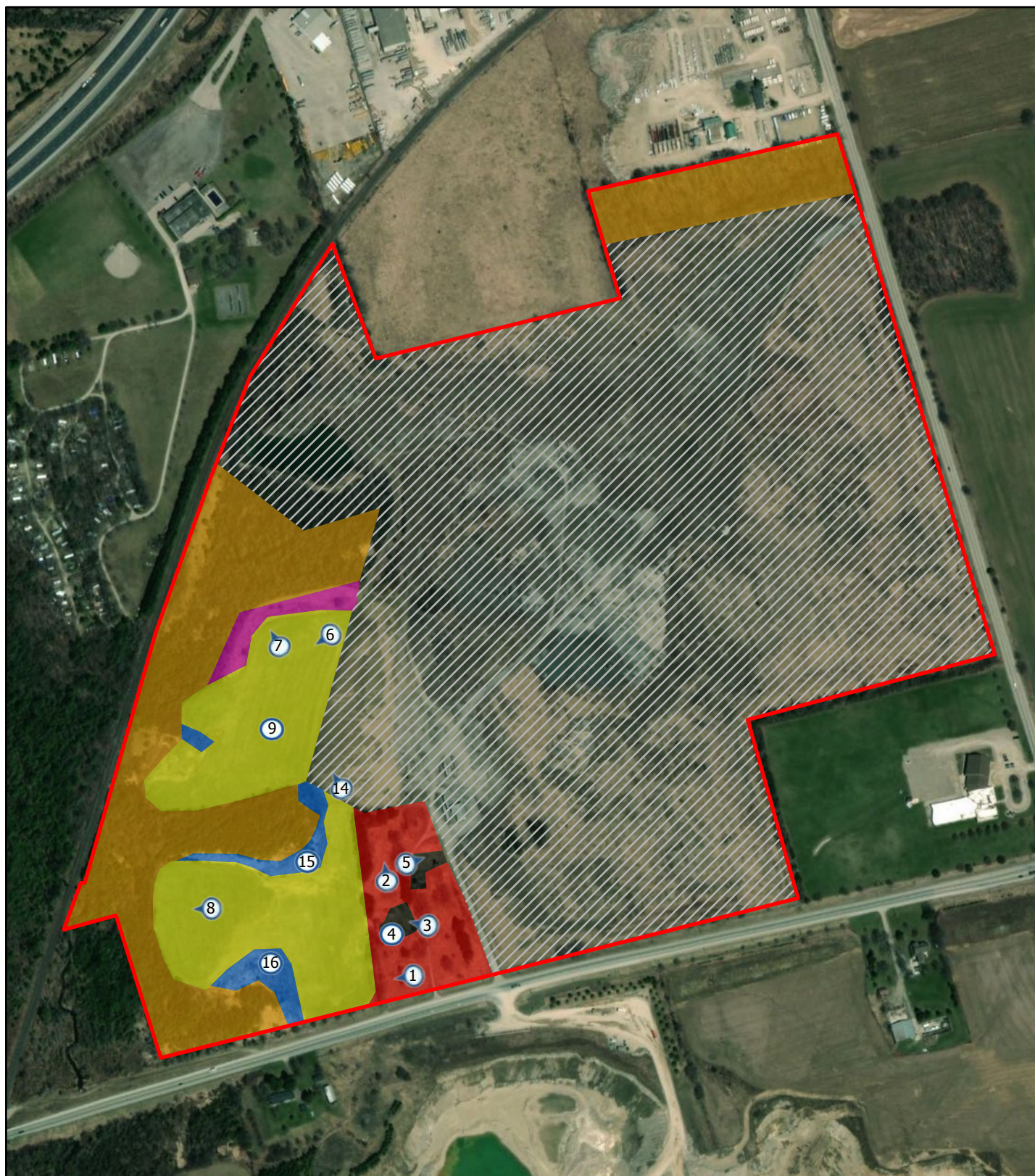
Source: Region of Waterloo GIS 2020



 Study Area
 Archaeological Potential: 5 Transect Visual or Test Pit Survey Required

Source: ESRI, ARCGIS PRO

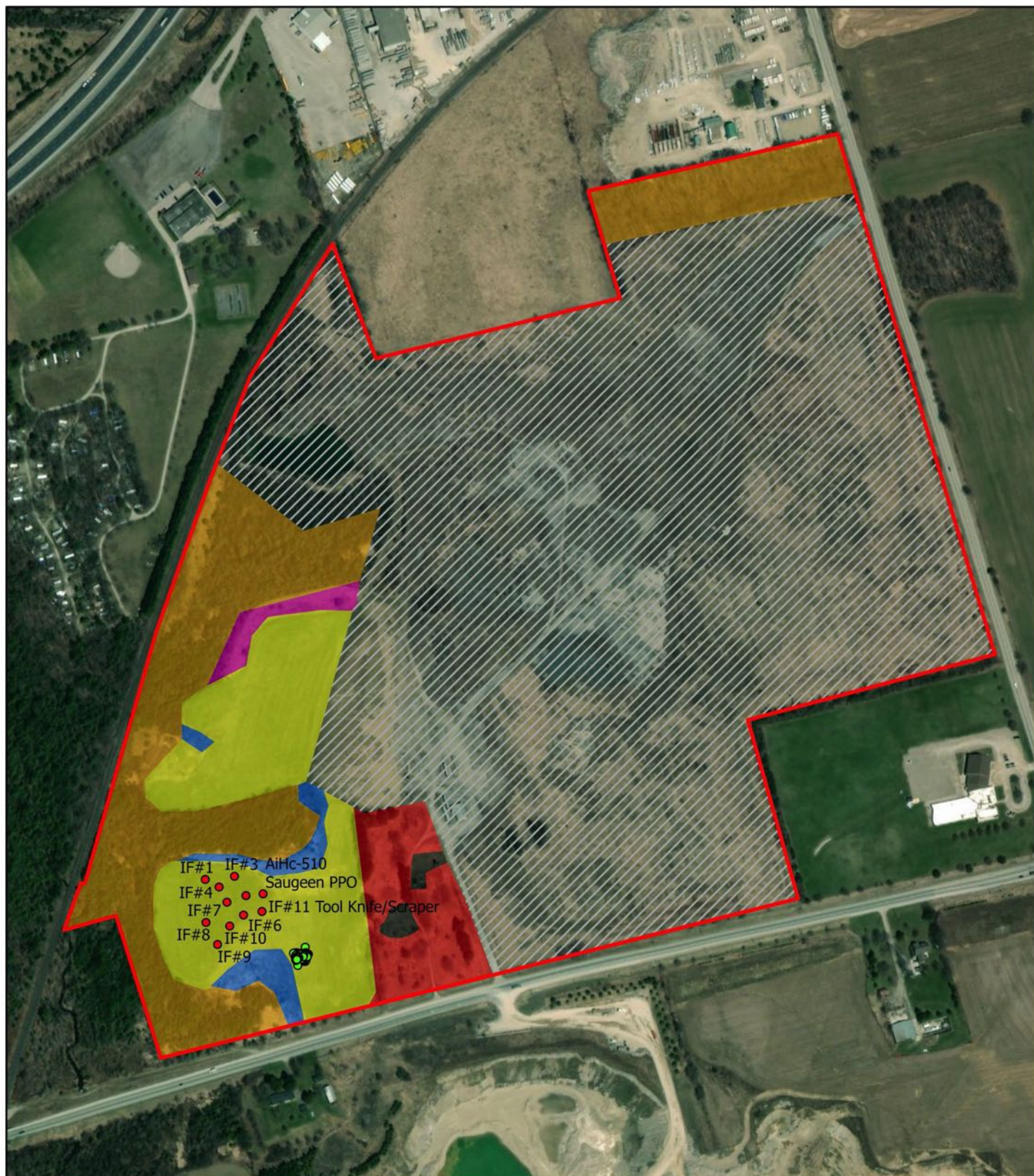
Map 9: Stage 1 Results & Recommendations



Source: ESRI, ARCGIS PRO

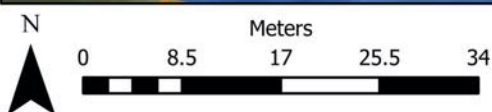
- Study Area ○ Photo # & Direction
- 5m Test Pit Survey Conducted: No Archaeological Resources
- 5m Visual Survey Conducted: Resources Identified
- Low Potential: Demolished Farmstead Judgmental 5m Test Pit Survey
- Low Potential: Former Aggregate Pit No Potential per Region of Waterloo
- Low Potential: Low Lying & Wet 10m Judgmental Test Pit Survey
- Low Potential: Disturbance via Deep Excavation & Grading
- Archaeological Concerns Outstanding: Stage 2 Archaeological Survey Required

Map 10: Stage 2 Results of Assessment - Methodologies



Source: ESRI, ARCGIS PRO

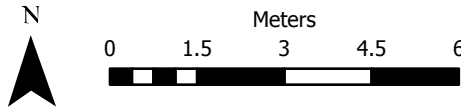
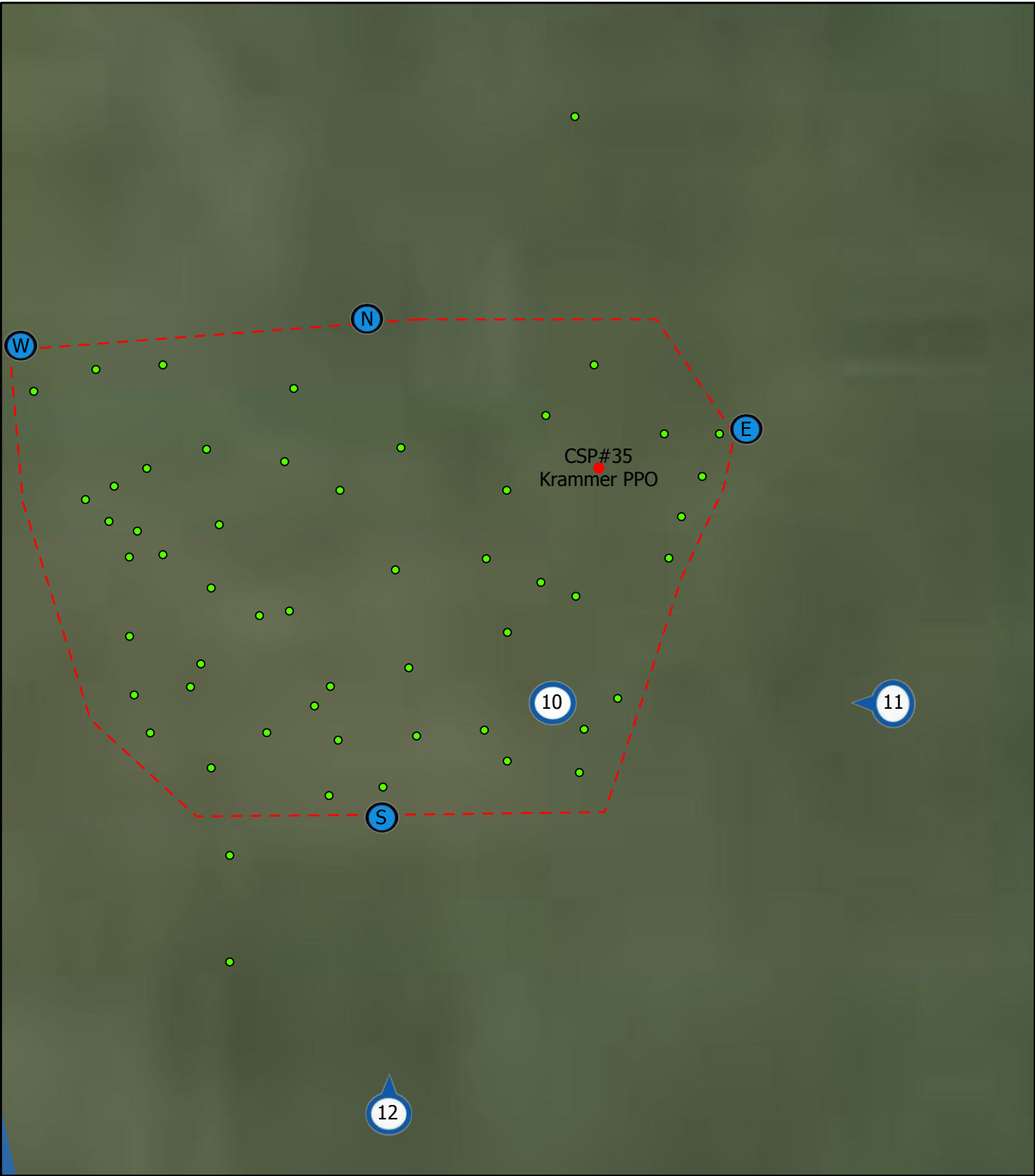
Map 11: Stage 2 Results of Assessment: Archaeological Resources



Source: ESRI, ARCGIS PRO

- Study Area
- Euro-Canadian Site Artifact CSP: Brown's Cabin AiHc-509
- Indigenous Isolated Findspot
- Archaeological Concerns Outstanding: Stage 2 Archaeological Survey Required
- Low Potential: Low Lying & Wet 10m Judgmental Test Pit Survey

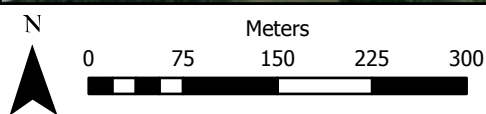
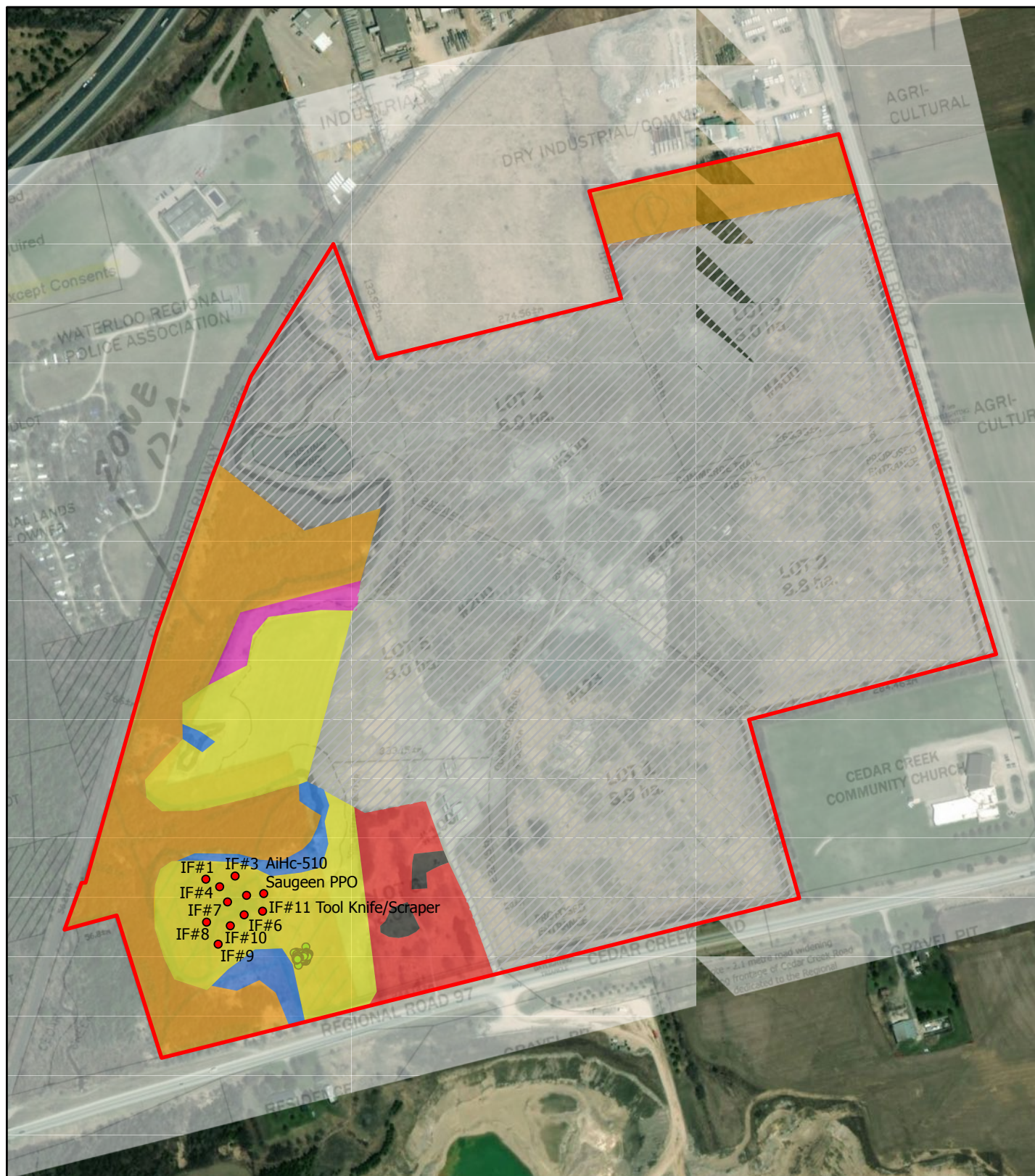
Map 12: Isolated Findspots Detail



- Study Area
- Euro-Canadian Site Artifact CSP: Brown's Cabin AiHc-509
- Photo # & Direction

Source: ESRI, ARCGIS PRO

Map 13: Brown's Cabin AiHc-509 CSP Detail



Source: ESRI, ARCGIS PRO

- Study Area
- ⊗ Photo # & Direction
- Archaeological Concerns Outstanding: Stage 2 Archaeological Survey Required
- Low Potential: Demolished Farmstead Judgmental 5m Test Pit Survey
- Euro-Canadian Site Artifact CSP: Brown's Cabin AiHc-509
- Indigenous Isolated Findspot
- Low Potential: Former Aggregate Pit No Potential per Region of Waterloo
- 5m Test Pit Survey Conducted: No Archaeological Resources
- Low Potential: Disturbance via Deep Excavation & Grading
- 5m Visual Survey Conducted: Resources Identified

Map 14: Stage 2 Results of Assessment with Plan Overlay

17. REFERENCES

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