ARCHAEOLOGY | HERITAGE | OUTREACH | EDUCATION

Stage 1 and 2 Archaeological Assessments
Romney Wind Energy Centre
L-006356-WIN-001-060
2016 Season
Town of Lakeshore and Municipality of Chatham-Kent
Multiple Lots and Concessions
Geographic Townships of Tilbury West and Romney
Essex County and Former Kent County, Ontario

Prepared for
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Ministry of Tourism, Culture and Sport

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Original Report

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EXECUTIVE SUMMARY

Under a contract awarded in October 2016, Archaeological Research Associates Ltd. carried out a Stage 1 assessment and partial Stage 2 assessment of lands with the potential to be impacted by the proposed Romney Wind Energy Centre in the Town of Lakeshore, Essex County and Municipality of Chatham-Kent, Ontario. The assessments were completed as part of a Renewable Energy Approval application, in accordance with the requirements set out in Sections 21 and 22 of Ontario Regulation 359/09 under Part V.0.1 of the *Environmental Protection Act*. This report documents the background research and fieldwork involved in the assessments, and presents conclusions and recommendations pertaining to archaeological concerns within the assessed area.

Romney Energy Centre Limited Partnership, a partnership between EDF EN Canada Inc., the Aamjiwnaang First Nation and the Municipality of Chatham-Kent, is proposing to develop a Class 4 Wind Facility with a maximum nameplate capacity of 60 MW AC. A proposal was submitted to the Independent Electricity System Operator under the Large Renewable Procurement process, and a contract was awarded to generate electricity (Reference Number L-006356-WIN-001-060). The project will utilize both privately-owned leased lands and municipal road Rights-of-Way, and major components will include wind turbine generators, meteorological towers, access roads and crane pads, an electrical collector system and substation, an operation and maintenance building, and laydown and storage areas (including temporary staging areas). There will also be a small section (around 500 m) of 230 kV line to connect the substation to the existing transmission line. A total of 18 wind turbine locations are being permitted, but no more than 17 turbines will be constructed. All project components required during the construction, operation and decommissioning of the project will fall within the limits of the project location/Construction Disturbance Area (DNV GL 2016).

The Stage 1 assessment and partial Stage 2 assessment were conducted in November and December 2016 under Project Information Form #P007-0783-2016. The Stage 1 assessment encompassed the entirety of the proposed project location (29 parcel groups), whereas the Stage 2 assessment was only conducted on a portion of the project location (parts of 12 parcel groups). During the 2016 season, the majority of the identified areas of archaeological potential within the project location along the municipal Rights-of-Way were not subject to Stage 2 survey due to potential project redesign (i.e., the removal of those portions that have archaeological potential). In addition, one or more of the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap were not subject to Stage 2 survey due to inappropriate field conditions or, in the case of T5, a subsequent enlargement of the project location. All remaining fieldwork will be completed during the 2017 season and documented in a separate report (parts of 21 parcel groups). Legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners. At the time of assessment, the study area comprised a mixture of agricultural fields, grassed field edges and maintained lawns, as well as a variety of municipal roadways (e.g., Richardson Side Road, Concession Road 11, Wheatley Road, Zion Road, Concession Lines 3–6, Campbell Road and Talbot Trail) and their associated embankments and ditches.

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The partial Stage 2 assessment resulted in the identification of seven locations of Pre-Contact archaeological materials: Site 1, Site 2 (AaHo-8) and Sites 3–7. Sites 1–7 were found to be of no further cultural heritage value or interest.

Archaeological Research Associates Ltd. recommends that 1) Site 1, Site 2 (AaHo-8) and Sites 3–7 do not require further archaeological assessment, 2) the remainder of the area subject to Stage 2 assessment does not require further archaeological assessment, 3) the identified areas of archaeological potential within the project location along the municipal Rights-of-Way be subject to Stage 2 assessment and 4) the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap be subject to Stage 2 assessment. If any of the identified areas of archaeological potential are removed from the project design in the future, then the Stage 2 assessment of those lands would not be required as part of the subject application.

It is requested that this report be entered into the Ontario Public Register of Archaeological Reports, as provided for in Section 65.1 of the *Ontario Heritage Act*.

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GLOSSARY OF ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
CDA – Construction Disturbance Area
CHVI – Cultural Heritage Value or Interest
CSP – Controlled Surface Pickup
DPA – D.R. Poulton & Associates Inc.
IESO – Independent Electricity System Operator
LRP – Large Renewable Procurement
MTC – (Former) Ministry of Tourism and Culture
MTCS – Ministry of Tourism, Culture and Sport
O. Reg. – Ontario Regulation
PIF – Project Information Form
PIN – Property Index Number
PTP – Positive Test Pit
REA – Renewable Energy Approval
ROW – Right-of-Way
S&Gs – Standards and Guidelines for Consultant Archaeologists
SD – Supplementary Documentation

PERSONNEL

Project Director: P.J. Racher, M.A. (#P007)
Project Managers: V. Cafik (#R437), P. Epler (#R418), C.J. Gohm, M.A.
Indigenous Monitors: M. Blackbird (Walpole Island First Nation), S. Deleary (Chippewas of the Thames First Nation), S. Henry (Aamjiwnaang First Nation), W. Maness (Aamjiwnaang First Nation), N. Stonefish (Aamjiwnaang First Nation)
Stage 1 Field Director: S. Clarke (#R446)
Stage 2 Field Director: T. Taylor (#R1126)
Stage 2 Assistant Field Director: C. Ramsoomair (#R1106)
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1.0 PROJECT CONTEXT

1.1 Development Context

Under a contract awarded in October 2016, ARA carried out a Stage 1 assessment and partial Stage 2 assessment of lands with the potential to be impacted by the proposed Romney Wind Energy Centre in the Town of Lakeshore, Essex County and Municipality of Chatham-Kent, Ontario. The assessments were completed as part of a REA application, in accordance with the requirements set out in Sections 21 and 22 of O. Reg. 359/09 under Part V.0.1 of the *Environmental Protection Act*. This report documents the background research and fieldwork involved in the assessments, and presents conclusions and recommendations pertaining to archaeological concerns within the assessed area.

Romney Energy Centre Limited Partnership, a partnership between EDF EN Canada Inc., the Aamjiwnaang First Nation and the Municipality of Chatham-Kent, is proposing to develop a Class 4 Wind Facility with a maximum nameplate capacity of 60 MW AC. A proposal was submitted to the IESO under the LRP process, and a contract was awarded to generate electricity (Reference Number L-006356-WIN-001-060). The project will utilize both privately-owned leased lands and municipal road ROWs, and major components will include wind turbine generators, meteorological towers, access roads and crane pads, an electrical collector system and substation, an operation and maintenance building, and laydown and storage areas (including temporary staging areas). There will also be a small section (around 500 m) of 230 kV line to connect the substation to the existing transmission line. A total of 18 wind turbine locations are being permitted, but no more than 17 turbines will be constructed. All project components required during the construction, operation and decommissioning of the project will fall within the limits of the project location/Construction Disturbance Area (DNV GL 2016).

The subject study area consists of 29 irregularly-shaped parcel groups (comprising one or more PINs) with a total area of 222.87 ha located in the southeastern part of the Town of Lakeshore and the southwestern part of the Municipality of Chatham-Kent (see Map 1). These parcels are generally bounded by Morris Road in the north, Campbell Road in the east, Talbot Trail in the south and Wheatley Road in the west. The Stage 1 assessment encompassed the entirety of the proposed project location (29 parcel groups), whereas the Stage 2 assessment was only conducted on a portion of the project location (parts of 12 parcel groups). During the 2016 season, the majority of the identified areas of archaeological potential within the project location along the municipal ROWs were not subject to Stage 2 survey due to potential project redesign (i.e., the removal of those portions that have archaeological potential). In addition, one or more of the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap were not subject to Stage 2 survey due to inappropriate field conditions or, in the case of T5, a subsequent enlargement of the project location. All remaining fieldwork will be completed during the 2017 season and documented in a separate report (parts of 21 parcel groups). In legal terms, the study area falls on part of multiple lots and concessions in the Geographic Townships of Tilbury West and Romney (see Table 1). For the road allowances, the adjacent lots and concessions have been provided.

Table 1: Parcel Locations

Parcel Group	Lot(s)	Concession(s)	Geographic Township	County	Lower/Single Tier Municipality	Upper Tier Municipality
Substation	18	Middle Road North Side	Tilbury West	Essex	Town of Lakeshore	Essex
Grid Tap	19	Middle Road North Side	Tilbury West	Essex	Town of Lakeshore	Essex
Richardson Side Road	18–19	Middle Road North Side; Middle Road South Side; 7–10 (Allowance)	Tilbury West	Essex	Town of Lakeshore	Essex
Concession Road 11	15–20	10–11	Tilbury West	Essex	Town of Lakeshore	Essex
T17	15	11	Tilbury West	Essex	Town of Lakeshore	Essex
Wheatley Road	20	10–11	Tilbury West	Essex	Town of Lakeshore	Essex
	12–15	5–6	Romney	Kent	Municipality of Chatham-Kent	N/A
T1	16	6	Romney	Kent	Municipality of Chatham-Kent	N/A
T19 (Alternate 1)	17	7	Romney	Kent	Municipality of Chatham-Kent	N/A
Concession Line 6	13–14	5–6	Romney	Kent	Municipality of Chatham-Kent	N/A
T2	13–14	5	Romney	Kent	Municipality of Chatham-Kent	N/A
Zion Road	12–13	5	Romney	Kent	Municipality of Chatham-Kent	N/A
Concession Line 5	11–17	4–5	Romney	Kent	Municipality of Chatham-Kent	N/A
T3, T4	15–17	5	Romney	Kent	Municipality of Chatham-Kent	N/A
T5	11	4	Romney	Kent	Municipality of Chatham-Kent	N/A
T6/O&M	13-14	4	Romney	Kent	Municipality of Chatham-Kent	N/A
T7, T8	15–17	4	Romney	Kent	Municipality of Chatham-Kent	N/A
Concession Line 4	9–16	3–4	Romney	Kent	Municipality of Chatham-Kent	N/A
T9	9	3	Romney	Kent	Municipality of Chatham-Kent	N/A
T10	9–10	3	Romney	Kent	Municipality of Chatham-Kent	N/A
T11	16	3	Romney	Kent	Municipality of Chatham-Kent	N/A
Concession Line 3	10–19	2–3	Romney	Kent	Municipality of Chatham-Kent	N/A
Campbell Road	18–19; 202–203	2; Talbot Road West	Romney	Kent	Municipality of Chatham-Kent	N/A
T12	10	2	Romney	Kent	Municipality of Chatham-Kent	N/A
T13	11	2	Romney	Kent	Municipality of Chatham-Kent	N/A
T14	13–14	2	Romney	Kent	Municipality of Chatham-Kent	N/A
T15	16	2	Romney	Kent	Municipality of Chatham-Kent	N/A
T16	203	Talbot Road West	Romney	Kent	Municipality of Chatham-Kent	N/A
Talbot Trail	10–14	1	Romney	Kent	Municipality of Chatham-Kent	N/A
O&M	11	1	Romney	Kent	Municipality of Chatham-Kent	N/A

The Stage 1 assessment and partial Stage 2 assessment were conducted in November and December 2016 under PIF #P007-0783-2016. Legal permission to enter and conduct all necessary fieldwork activities within the assessed lands was granted by the property owners. In compliance with the objectives set out in Section 1.0 and Section 2.0 of the *S&Gs* (MTC 2011:13–41), these investigations were carried out in order to:

- Provide information concerning the geography, history and current land condition of the study area;
- Determine the presence of known archaeological sites in the study area;
- Evaluate in detail the archaeological potential of the study area;
- Empirically document all archaeological resources within the study area;
- Determine whether the study area contains archaeological resources requiring further assessment; and
- Recommend appropriate Stage 3 assessment strategies, if any archaeological resources requiring further assessment are identified.

The MTCS is asked to review the results and recommendations presented in this report and express their satisfaction with the fieldwork and reporting through a *Letter of Review and Entry into the Ontario Public Register of Archaeological Reports*.

1.2 Historical Context

After a century of archaeological work in southern Ontario, scholarly understanding of the historic usage of the area has become very well-developed. With occupation beginning in the Palaeo-Indian period approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Euro-Canadian histories. Section 1.2.1 provides an overview of the region's settlement history, and Section 1.2.2 summarizes the past and present land use of the study area. Two previous archaeological reports containing relevant background information (influencing the choice of fieldwork strategy or recommendations) were identified and consulted. These reports document 1) the Stage 1 assessment for the Gosfield Comber Wind Energy Project (later Comber Wind Limited Partnership Project) under CIF #P116-161-2006 (DPA 2007) and 2) the Stage 2 assessment for the Comber Wind Limited Partnership Project under PIF #P007-269-2010 (ARA 2011).

1.2.1 Settlement History

1.2.1.1 Pre-Contact

The Pre-Contact history of the region is lengthy and rich, and a variety of indigenous groups inhabited the landscape. Archaeologists generally divide this vibrant history into three main periods: Palaeo-Indian, Archaic and Woodland. Each of these periods comprises a range of discrete sub-periods characterized by identifiable trends in material culture and settlement patterns, which are used to interpret indigenous lifeways. The principal characteristics of these sub-periods are summarized in Table 2.

Table 2: Pre-Contact Settlement History
(Wright 1972; Ellis and Ferris 1990; Warrick 2000; Munson and Jamieson 2013)

Sub-Period	Timeframe	Characteristics
Early Palaeo-Indian	9000–8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers; Utilization of seasonal resources and large territories; Fluted projectiles
Late Palaeo-Indian	8400–7500 BC	Holcombe, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted projectiles
Early Archaic	7500–6000 BC	Side-notched, Corner-notched (Nettling, Thebes) and Bifurcate traditions; Growing diversity of stone tool types; Heavy woodworking tools appear (e.g., ground stone axes and chisels)
Middle Archaic	6000–2500 BC	Stemmed (Kirk, Stanly/Neville), Brewerton side- and corner-notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools
Late Archaic	2500–900 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions; Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-distance trade (marine shells and galena)
Early Woodland	900–400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people
Middle Woodland	400 BC–AD 600	Couture tradition; Bears some resemblance to contemporary cultures in Ohio and Michigan; Ceramics characterized by small coil-made vessels with coarse cording decoration; Utilized lakeshore environments during warmer months and spent fall and winter further inland at hunting and trapping grounds
Middle/Late Woodland Transition	AD 600–800/900	Western Basin Tradition (Riviere au Vase Phase); Developed out of Couture tradition; Thinner vessels due to replacement of coiling techniques with paddle and anvil methods; Population subsisted on seasonally-abundant resources; Possessed a fair degree of mobility
Late Woodland	AD 800/900–1200	Western Basin Tradition (Younge Phase); Continuous development of ceramic styles and trends; Diffuse subsistence strategies, utilizing all available resources in a region and supplemented by some agriculture; Seasonal pattern of warm season agglomerations and cold weather dispersed camp occupations
	AD 1200–1400	Western Basin Tradition (Springwells Phase); Decorative motifs continue but also dramatic appearance of new innovations in ceramic design; Significant regional interaction; Subsistence and settlement patterns shift; Warm weather villages emerge with longhouses and palisades (likely related to an increased emphasis on maize horticulture)
	AD 1400–1550/1600	Western Basin Tradition (Wolf Phase); Ceramics develop from elaborately decorated forms of the Springwells-Wolf transition; Appearance of Parker Festooned vessels; Subsistence and settlement patterns poorly understood due to a lack of excavated sites; Potentially linked to the establishment of a 'frontier zone' with the Pre-Contact Neutral to the east and the westward realignment of Western Basin peoples

1.2.1.2 Post-Contact

The arrival of the European explorers and traders at the beginning of the 17th century triggered widespread shifts in indigenous lifeways and set the stage for the ensuing Euro-Canadian settlement process. Documentation for this period is abundant, ranging from the first sketches of Upper Canada and the written accounts of early explorers to detailed township maps and lengthy histories. The Post-Contact period can be effectively discussed in terms of major historical events, and the principal characteristics associated with these events are summarized in Table 3.

Table 3: Post-Contact Settlement History

(Smith 1846; McEvoy & Co. 1866; Coyne 1895; Lauriston 1952; Lajeunesse 1960; Phelps and Cumming 1973; Ellis and Ferris 1990; Surtees 1994; AO 2015)

Historical Event	Timeframe	Characteristics
Early Contact	Early 17th century	Brûlé explores the area in 1610; Champlain visits in 1613 and 1615/1616; Iroquoian-speakers (Huron, Petun and Neutral) and Algonkian-speakers (Anishinabeg) encountered; *les gens de Feu* (the Fire Nation, likely referring to the Mascouten/Western Basin Tradition) documented in the southwest; European goods begin to replace traditional tools
Five Nations Invasion	Mid-17th century	Haudenosaunee (Five Nations) invade ca. 1650; Neutral, Huron and Petun Nations are defeated/removed; vast Haudenosaunee hunting territory established in the second half of the 17th century; Explorers continue to document the area
Anishnabeg Influx	Late 17th and early 18th century	Ojibway, Odawa and Potawatomi expand into Haudenosaunee lands in the late 17th century; Nanfan Treaty between Haudenosaunee and British in 1701; Anishnabeg occupy the area and trade directly with the French and English
Fur Trade Development	Early and mid-18th century	Growth and spread of the fur trade; Peace between the French and English with the Treaty of Utrecht in 1713; Ethnogenesis of the Métis; Hostilities between French and British lead to the Seven Years' War in 1754; French surrender in 1760
British Control	Mid-18th century	*Royal Proclamation* of 1763 recognizes the title of the First Nations to the land; Numerous treaties arranged by the Crown; First acquisition is the Seneca surrender of the west side of the Niagara River in August 1764
Loyalist Influx	Late 18th century	United Empire Loyalist influx after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; 'McKee Purchase' completed in 1790, encompassing lands bounded by Catfish Creek (Kettle Creek) in the east, the Thames River in the northeast, Lake St. Clair in the northwest, Lake Erie in the south and the Detroit River in the west; McNiff conducts the first survey along the front of the tract in 1790; *Constitutional Act* of 1791 creates Upper and Lower Canada
County Development	Late 18th and early 19th century	Essex and Kent Counties established in 1792; 'Chenail Ecarté Purchase' completed in 1796; Eastern portion of Essex transferred to Kent in 1798; M. Burwell completes survey of the Talbot Road in 1818; Sombra, Dawn, Zone (Euphemia) and Saint Clair (Sarnia and Moore) added to Kent in 1821; 'Long Woods Purchase' completed in 1822; Burwell completes survey of the 'Middle Road' in 1823; 'Huron Tract Purchase' completed in 1827; Bosanquet, Plympton, Warwick, Enniskillen and Brooke added to Kent in 1834; Essex and Kent rearranged after the abolition of the district system in 1849; Tilbury West added to Essex in 1851
Township Formation	Early 19th century	Tilbury West: Northern part surveyed by A. Iredell in 1799; First settlers comprised French along the lakeshore (e.g., P. Gardner and P. Truedell); Additional survey completed by M. Burwell in 1822/1823; Middle Road lots were largely unsettled until after 1840 (e.g., the Dodd and Nicholson families); Land between the lakeshore and Middle Road settled later (e.g., J. Allister and J. Whiteman)
		Romney: Township laid out prior to 1811; Divided into Western and Eastern Divisions, as well as a Gore; The smallest township in Kent; M. Burwell surveyed the Talbot Road through Romney in 1816; First documented settler is R. Coatsworth in 1817; The lakefront ('the Ridge') first settled by Irish, English, Maritimers and Americans in 1817; Additional survey completed by Burwell in 1823; Reminder of the township did not attract settlers for years
Township Development	Mid-19th and early 20th century	Tilbury West: The population reached 437 by 1844 (nearly two-thirds were French Canadian); 4,293 ha taken up by 1846, with 286 ha under cultivation; The Canada Company owned about 1,619 ha at that time; Traversed by the Great Western Railway (1854), Canada Southern Railway (1872) and Leamington, Comber & St. Clair Railway (1887); Population reached 1,190 by 1861; Communities at Comber, Stony Point and Henderson

Historical Event	Timeframe	Characteristics
		Romney: Population reached 257 by the mid-19th century; 3,077 ha taken up at that time, with 975 ha under cultivation; Population reached 472 by 1861, with 3,157 ha taken up and 1,081 ha under cultivation; Traversed by the Lake Erie & Detroit River Railway (1892); Communities at Wheatley and Romney

1.2.2 Past and Present Land Use

During Pre-Contact and Early Contact times, the vicinity of the study area would have comprised a mixture of coniferous trees, deciduous trees and open areas. It seems clear that the First Nations managed the landscape to some degree, but the extent of such management is unknown. During the early 19th century, Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural and settlement purposes. The vicinity of the study area was relatively well-settled for the remainder of the Euro-Canadian period. Historic communities in the vicinity of the project location included Wheatley (southwest of T12) and Romney (southeast of T16). The Trudell and Windfall post offices were also located in close proximity to the study area (west of Richardson Side Road and west of Wheatley Road, respectively).

In an attempt to reconstruct the historic land use of the study area, ARA examined four historical maps documenting past residents, structures (e.g., homes, businesses and public buildings) and features during the 19th century. Specifically, the following resources were consulted:

- H.F. Walling's *Map of Essex County, Ontario* (1877) at a scale of 45 chains to 1 inch (OHCMP 2017);
- J.W. Shackleton and E.J. McIntosh's *Map of the County of Kent in the Province of Ontario, Dominion of Canada* (1876) at a scale of 60 chains to 1 inch (OHCMP 2017);
- The *Map of Tilbury West* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Essex Supplement* (1881) at a scale of 80 chains to 1 inch (McGill University 2001); and
- The *Map of Romney Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Kent Supplement* (1880) at a scale of 80 chains to 1 inch (McGill University 2001).

The limits of the study area are shown on georeferenced versions of the consulted historical resources in Map 3–Map 6. These resources indicate that subject parcels and the surrounding lands were generally well-settled during the second half of the 19th century. A variety of agricultural properties are visible, and numerous Euro-Canadian landowners and/or features are documented in the vicinity of the study area (see Table 4). The absence of a listed landowner should not be taken as evidence that the parcel was unoccupied, however, as typically only subscribers were included in the publications.

Table 4: Occupational History and Past Land Uses

Parcel Group	1870s	1880s
Substation	Part of R.G. Dodd's property; Dodd farmhouse to northeast	No occupant listed
Grid Tap	Part of H. Richardson's property; Richardson farmhouse to south	No occupant listed
Richardson Side Road	Road allowance; Multiple adjacent farmhouses; Adjacent schoolhouse and post office (Trudell)	Road allowance; Adjacent schoolhouse and post office (Trudell)
Concession Road 11	Road allowance; Multiple adjacent farmhouses	Road allowance
T17	Part of J. Thompson's property	No occupant listed
Wheatley Road	Road allowance	Road allowance; Adjacent post office (Windfall)
T1	No occupant listed	No occupant listed
T19 (Alternate 1)	No occupant listed	No occupant listed
Concession Line 6	Road allowance	Road allowance
T2	Part of R. Mill and J. Thewes's properties	No occupant listed
Zion Road	Road allowance	Road allowance; Multiple adjacent farmhouses
Concession Line 5	Road allowance	Road allowance; One adjacent farmhouse and one adjacent schoolhouse
T3, T4	No occupant listed	No occupant listed
T5	Part of H. Mills' property; Mill farmhouse to northwest	Part of J.W. & H.F. Mills' property; Mills farmhouse to northwest
T6/O&M	Part of C.L. Gorton and J. Simpson's properties	No occupant listed
T7, T8	No occupant listed	No occupant listed
Concession Line 4	Road allowance	Road allowance; One adjacent farmhouse
T9	Part of T. Mosey's property; Traversed by East Two Creeks	Part of J. Wharram and William Simpson's properties; Wharram farmhouse to southeast and Simpson farmhouse to northwest
T10	Part of J.W. Hodgson and F. Overholt's properties	No occupant listed
T11	No occupant listed	No occupant listed
Concession Line 3	Road allowance; Traversed by Yellow Creek in centre	Road allowance; Multiple adjacent farmhouses; Traversed by Yellow Creek in centre
Campbell Road	Road allowance	Road allowance
T12	Part of Miss. E. Wickurre's property	Part of William Wickwive's property; Wickwive farmhouse to southeast
T13	Part of W.C. Louisbury's property	Part of W.C. Louisbury's property; Louisbury farmhouse to southeast
T14	Part of W. Lowe, J. Wright and J. Hetherington's properties; Church and schoolhouse adjacent to the study area	Part of J. Wright's property; Farmhouse and church within or immediately adjacent to the study area
T15	No occupant listed	No occupant listed
T16	Part of J. Robinson's property	No occupant listed
Talbot Trail	Road allowance; Traversed by Yellow Creek in the west	Road allowance; Multiple adjacent farmhouses; Traversed by Yellow Creek in the west
O&M	Part of M. & J. Hetherington's property	Part of W.G. Hunt's property; Hunt farmhouse to southwest

The current land use can be generally classified as a mixture of agricultural (fields), residential (homesteads) and infrastructural (roadways).

1.3 Archaeological Context

The Stage 1 assessment and partial Stage 2 assessment were conducted in November and December 2016 under PIF #P007-0783-2016. The specific dates of fieldwork as well as the field and environmental conditions are summarized in Appendix A. ARA utilized a Topcon HiPer SR GNSS receiver with RTK correction providing a precision of 1 cm (UTM17/NAD83) during the investigation. The limits of the study area were confirmed using project-specific GIS data translated into GPS points for reference in the field, in combination with georeferenced aerial imagery showing natural formations in relation to the project lands. The proponent had also arranged for the staking of several of the parcel groups (i.e., the turbine trees) in advance of fieldwork using GPS technology, and ARA confirmed the limits using the GIS data. In cases where the stakes did not precisely match the project-specific data (e.g., T13), whichever area was larger was assessed to ensure coverage.

The archaeological context of a given study area must be informed by the general condition of the property (Section 1.3.1), summaries of any previous archaeological work conducted within 50 m (Section 1.3.2) and whether there are any registered or known archaeological sites within 1 km (Section 1.3.3).

1.3.1 Condition of the Property

The study area lies within the deciduous forest, which is the southernmost forest region in Ontario and is dominated by agricultural and urban areas. This region generally has the greatest diversity of tree and vegetation species, while at the same time having the lowest proportion of forest. It has most of the tree and shrubs species found in the Great Lakes–St. Lawrence forest (e.g., white pine, red pine, hemlock, white cedar, yellow birch, sugar and red maples, basswood and red oak), and also contains black walnut, butternut, tulip, magnolia, black gum, many types of oaks, hickories, sassafras and red bud (MNRF 2015).

Physiographically, the study area lies within the St. Clair Clay Plains region, which consists of extensive clay plains in Essex, Kent and Lambton Counties. The Essex Clay Plain is located between the basins of Lake Erie and Lake St. Clair, and the surface is essentially a till plain. Although it is almost level, the plain has a faint relief; accordingly, it is better drained that the very flat area bordering Lake St. Clair. Surface drainage is nearly all northward to Lake St. Clair, but the gradient is extremely low and the drainage divide near Lake Erie is rather vague. Most of the plain has such imperfect drainage that dredged ditches and tile drains are required for crop growth and tillage (Chapman and Putnam 1984:147–151).

In terms of local watersheds, the subject lands fall entirely within the Southwest Lower Thames drainage basin, which is under the jurisdiction of the Lower Thames Valley Conservation Authority (LTVCA 2016). The study area is traversed by a wide variety of irrigation ditches and altered waterways, but original water sources appear to include East Two Creeks in the southwest (near T9), Yellow Creek in the southeast (near T13 and T14) and Big Creek in the northwest (Richardson Side Road). The study area is located 1 km west of Tilbury Creek (Grid Tap) and 1 km northwest of Lake Ontario (Talbot Trail).

The soils within the study area consist primarily of Brookston clay (Bc), although areas of Brookston sandy loam (Bs) occur in the extreme south. Brookston clay consists of poorly drained clay over mottled heavy clay, and these areas are characterized by occasional sand knolls. Brookston sandy loam, on the other hand, is a designation given to mixed areas where shallow sand knolls cover a large portion of the land. The soils in the low areas are similar to Brookston silt loam (Bsl) and Brookston clay loam (Bcl), whereas the soils amongst the sand knolls are similar to Berrien sandy loam (Bel). Brookston silt loam consists of poorly drained friable silt loam over mottled yellow and gray silt and clay, and Brookston clay loam is similar to Brookston clay but is lighter in texture. Berrien sandy loam consists of imperfectly drained sandy loam over clay (Ontario Agricultural College 1930; Richards et al. 1949).

At the time of assessment, the study area comprised a mixture of agricultural fields, grassed field edges and maintained lawns, as well as a variety of municipal roadways (e.g., Richardson Side Road, Concession Road 11, Wheatley Road, Zion Road, Concession Lines 3–6, Campbell Road and Talbot Trail) and their associated embankments and ditches. Field conditions were ideal during the investigation, with well-weathered soils in the ploughed lands during the pedestrian survey and high ground surface visibility throughout the investigation. No unusual physical features were encountered that affected fieldwork strategy decisions or the identification of artifacts or cultural features (e.g., dense root mats, boulders, rubble, etc.).

1.3.2 Previous Archaeological Work

The Ontario Archaeological Sites Database and the Ontario Public Register of Archaeological Reports were consulted to determine whether any archaeological assessments had been previously conducted within the limits of, or immediately adjacent to the study area. Specifically, reports documenting 1) assessments previously conducted within the project lands and 2) assessments that resulted in the discovery of archaeological sites that could extend onto the project lands were sought. As a result of this investigation, it was determined that there are two reports on record documenting previous fieldwork within a 50 m radius. In accordance with the requirements set out in Section 7.5.8 of the S&Gs (MTC 2011:125), the relevant assessments and their associated recommendations are summarized below.

In March 2007, D.R. Poulton & Associates Inc. carried out a Stage 1 assessment for the Gosfield Comber Wind Energy Project (later Comber Wind Limited Partnership Project) under CIF #P116-161-2006 (DPA 2007). The investigation considered an area of approximately 45,700 ha in the Geographic Townships of Gosfield, Mersea, Maidstone, Rochester and Tilbury West, and indicated that the study area had at least a moderate potential for archaeological sites. It was recommended that a Stage 2 survey be carried out in advance of construction (DPA 2007:18).

In November 2010, ARA conducted a Stage 2 assessment for the Comber Wind Limited Partnership Project (Comber East and Comber West) under PIF #P007-269-2010 (ARA 2011). The assessment encompassed 72 square parcels around the proposed turbine sites, one large parcel around the proposed switching station site, and multiple corridors encompassing numerous access roads, electrical transmission lines, turnaround areas and crane paths. No archaeological materials were discovered during the assessment, and it was recommended that the project be released from further archaeological concerns (ARA 2011:29). One of the assessed turbine sites, TC_6, is located

northeast of the intersection of Richardson Side Road and Concession Road 9 (east of the subject project's collection line along Richardson Side Road).

1.3.3 Registered or Known Archaeological Sites

The Ontario Archaeological Sites Database and the Ontario Public Register of Archaeological Reports were also consulted to determine whether any registered or known archaeological resources occur in the greater vicinity of the study area. As a result of this investigation, it was determined that there are no previously identified archaeological sites located within a 1 km radius. The lack of documented archaeological sites should not be taken as an indicator that this locality was unattractive or undesirable for human occupation. Instead, this absence of sites is likely related to a lack of local archaeological exploration.

2.0 STAGE 1 BACKGROUND STUDY

2.1 Background

The Stage 1 assessment involved background research to document the geography, history, previous archaeological fieldwork and current land condition of the study area. This desktop examination included research from both archival sources as well as current academic/archaeological publications. It also included the analysis of modern topographic maps, aerial photographs, satellite imagery, and historical maps/atlases of the most detailed scale available. The results of the research conducted for the background study are summarized below.

With occupation beginning approximately 11,000 years ago, the greater vicinity of the study area comprises a complex chronology of Pre-Contact and Post-Contact histories (see Section 1.2). Artifacts associated with Palaeo-Indian, Archaic, Woodland and Early Contact traditions are well-attested in Essex County and the Municipality of Chatham-Kent, and Euro-Canadian archaeological sites dating to pre-1900 and post-1900 contexts are likewise common. The lack of documented archaeological sites in the vicinity of the study area should not be taken as an indicator that the area was unattractive or undesirable for human occupation. Instead, this absence is more likely related to a lack of local archaeological exploration (see Section 1.3.3).

The natural environment of the study area would have been attractive to both Pre-Contact and Euro-Canadian populations as a result of proximity to Big Creek, East Two Creeks, Yellow Creek and their associated tributaries. With the assistance of artificial drainage, the soils would have been acceptable for agriculture, and the diverse local vegetation would also have encouraged settlement throughout Ontario's lengthy history. Euro-Canadian populations would have been particularly drawn to Richardson Side Road, Concession Roads 7–11, Wheatley Road, Zion Road, Concession Lines 2–6, Tilbury Road West, Romney Road, Mersea Roads 10–11, County Roads 8 and 46, Campbell Road and Talbot Trail, all of which were historically-surveyed thoroughfares, as well as the Lake Erie & Detroit River Railway.

In summary, the Stage 1 assessment included an up-to-date listing of sites from the MTCS's Ontario Archaeological Sites Database (within at least a 1 km radius), the consideration of previous local archaeological fieldwork (within at least a 50 m radius), the analysis of topographic and historic maps (at the most detailed scale available), and the study of aerial photographs/satellite imagery. In this manner, the standards for background research set out in Section 1.1 of the *S&Gs* (MTC 2011:14–15) were met.

2.2 Field Methods (Property Inspection)

In order to gain first-hand knowledge of the geography, topography and current condition of the study area, property inspections were conducted in advance the partial Stage 2 assessment. These results were supplemented by additional on-site documentation carried out over the course of the property survey. Environmental conditions were ideal during the inspections (see Appendix A). ARA therefore confirms that fieldwork was carried out under weather and lighting conditions that met the requirements set out in Section 1.2 Standard 2 of the *S&Gs* (MTC 2011:16).

The parcel groups comprising the municipal ROWs were subjected to random spot-checking in accordance with the requirements set out in Section 1.2 of the *S&Gs* (MTC 2011:15–17). The parcel groups that were visited during the Stage 2 survey were subject to a systematic visual inspection (at an interval of ≤ 5 m). The visually inspected areas were examined under ideal weather and lighting conditions with high ground surface visibility. The inspections confirmed that all surficial features of archaeological potential (e.g., water sources, historically-surveyed roadways, etc.) were present where they were previously identified, and did not result in the identification of any additional features of archaeological potential not visible on mapping (e.g., relic water channels, patches of well-drained soils, etc.).

A variety of areas significantly disturbed by past construction activities were documented over the course of the visual inspections, including roadway platforms/embankments, shoulders and deeply excavated drainage ditches. Natural areas of no archaeological potential included permanent wet lands in the vicinity of the water crossings. No other features (e.g., sloped lands, overgrown vegetation, heavier soils than expected, etc.) or significant built features (e.g., heritage structures, landscapes, plaques, monuments, cemeteries, etc.) that would affect assessment strategies were identified within the visually inspected areas.

2.3 Analysis and Conclusions

In addition to relevant historical sources and the results of past archaeological assessments, the archaeological potential of a property can be assessed using its soils, hydrology and landforms as considerations. Section 1.3.1 of the *S&Gs* (MTC 2011:17–18) recognizes the following features or characteristics as indicators of archaeological potential: previously identified sites, water sources (past and present), elevated topography, pockets of well-drained sandy soil, distinctive land formations, resource areas, areas of Euro-Canadian settlement, early transportation routes, listed or designated properties, historic landmarks or sites, and areas that local histories or informants have identified with possible sites, events, activities or occupations.

The Stage 1 assessment resulted in the identification of numerous features of archaeological potential in the vicinity of the study area. The closest and most relevant indicators of archaeological potential (i.e., those that would directly affect survey interval requirements) include multiple primary water sources (Big Creek, a tributary of Big Creek, East Two Creeks and Yellow Creek), multiple historic roadways (Richardson Side Road, Concession Roads 7–11, Wheatley Road, Zion Road, Concession Lines 2–6, Tilbury Road West, Romney Road, Mersea Roads 10–11, County Roads 8 and 46, Campbell Road and Talbot Trail), a historic railway (the Lake Erie & Detroit River Railway) and a variety of historic structure localities visible in J.W. Shackleton and E.J. McIntosh's *Map of the County of Kent in the Province of Ontario, Dominion of Canada* (1876), H.F. Walling's *Map of Essex County, Ontario* (1877), the *Map of Romney Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Kent Supplement* (1880) and the *Map of Tilbury West* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Essex Supplement* (1881). It should be noted that many of the water sources have been altered to facilitate the drainage of the area; accordingly, only those portions that appear to follow the historic course have been modelled as features of potential.

Although proximity to a feature of archaeological potential is a significant factor in the potential modelling process, current land conditions must also be considered. Section 1.3.2 of the *S&Gs* (MTC 2011:18) emphasizes that 1) quarrying, 2) major landscaping involving grading below topsoil, 3) building footprints and 4) sewage/infrastructure development can result in the removal of archeological potential, and Section 2.1 of the *S&Gs* (MTC 2011:28) states that 1) permanently wet areas, 2) exposed bedrock and 3) steep slopes (> 20°) can also be considered as having no archaeological potential.

ARA's visual inspections, coupled with the analysis of aerial photographs, satellite imagery, topographic mapping and digital environmental data, resulted in the identification of several areas of no archaeological potential within the assessed lands (see Image 1–Image 20). Specifically, deep land alterations have resulted in the removal of archaeological potential from the roadway platforms/embankments, shoulders and deeply excavated drainage ditches within the municipal ROWs. Similarly, a deeply excavated drainage ditch was also encountered along the rear portion of at least one parcel group (T13). These areas had all clearly been impacted by past earth-moving/construction activities, resulting in the disturbance of the original soils to a significant depth. Several permanently wet areas were also documented in the vicinity of the water crossings. The remainder of the assessed area either had potential for Pre-Contact and Euro-Canadian archaeological materials or required test pit survey to confirm the presence/extent of any subsurface disturbances. Background research did not identify any features indicating that the study area has potential for deeply buried archaeological materials.

The Stage 1 assessment determined that the assessed area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. A Stage 2 assessment was therefore required. The identified areas of archaeological potential that were not subject to Stage 2 assessment during the 2016 season and the documented areas of no archaeological potential are depicted in Map 7–Map 33.

3.0 STAGE 2 PROPERTY ASSESSMENT

3.1 Field Methods

The partial Stage 2 assessment involved the pedestrian survey of all identified areas of archaeological potential with suitable field conditions and visibility. During the 2016 season, the majority of the identified areas of archaeological potential within the project location along the municipal ROWs were not subject to Stage 2 survey due to potential project redesign (i.e., the removal of those portions that have archaeological potential). In addition, one or more of the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap were not subject to Stage 2 survey due to inappropriate field conditions or, in the case of T5, a subsequent enlargement of the project location (see Image 21–Image 24).

Environmental conditions were ideal during the investigation, permitting good visibility of land features and providing an increased chance of finding evidence of archaeological resources (see Appendix A). ARA therefore confirms that fieldwork was carried out under weather and lighting conditions that met the requirements set out in Section 2.1 Standard 3 of the *S&Gs* (MTC 2011:29). A breakdown of the specific fieldwork activities appears in Table 5.

Table 5: Fieldwork Activities

Parcel Group	Survey Method	Rationale	Image(s)
Substation	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and substation area	Image 25–Image 26
T17	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and turbine pad	Image 27–Image 28
T1	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and turbine pad	Image 29–Image 30
T3, T4	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access roads and turbine pads	Image 31–Image 34
T5	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access roads, turbine pad and met mast pad	Image 35–Image 38
T6/O&M	Pedestrian survey at an interval of ≤ 5 m	Cultivated field within northwestern access road	Image 39–Image 40
T7, T8	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access roads and turbine pads	Image 41–Image 42
T12	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and turbine pad	Image 43–Image 46
T13	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and turbine pad	Image 47–Image 48
T14	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access roads and turbine pad	Image 49–Image 52
T15	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within access road and turbine pad	Image 53–Image 54
T16	Pedestrian survey at an interval of ≤ 5 m	Cultivated fields within turbine pad and southern additional lands	Image 55–Image 58

The pedestrian survey method was utilized to complete the property assessment within the agricultural fields. Section 2.1.1 of the *S&Gs* (MTC 2011:30) provides clear requirements for the condition of such lands prior to the commencement of fieldwork: all fields must be recently

ploughed; all soils must be well-weathered; and at least 80% of the ploughed ground surface must be visible. These conditions were met during the pedestrian survey. Following the standard strategy for pedestrian survey outlined in Section 2.1.1 of the *S&Gs* (MTC 2011:30–31), ARA crewmembers traversed the fields along parallel transects established at an interval of ≤ 5 m, yielding at least 20 survey transects per hectare.

Seven locations of archaeological materials were encountered during the pedestrian survey: Sites 1–7 (see Image 59–Image 66). A combination intensified pedestrian survey and CSP was conducted at each location in accordance with Section 2.1.1, Section 3.2.1 and Section 7.9.1 of the *S&Gs* (MTC 2011:31, 48, 143). During this intensified survey, the survey transect interval was decreased to an interval of < 0.5 m (i.e., shoulder-to-shoulder) and a close inspection of the ground was conducted over a minimum of a 20 m radius around the initial find to determine if it comprised part of a larger scatter. When larger scatters were identified, the interval was continued within the field for 10–20 m beyond the edge of the scatter to confirm the site extent. All artifact stations were flagged and subsequently recorded with a GPS device, and all spatial relationships and areas of concentration were documented. Collection strategies were dependent on the CHVI of the site and the likelihood that further assessment would be needed. In all cases, the sites appeared to be of no further CHVI at the time of fieldwork. All of the artifacts were retained in order to fully document the deposits. Site relocation could be achieved using GIS data (if required).

The combined results of the Stage 1 assessment and partial Stage 2 assessment are presented in Map 7–Map 33. The project location/CDA is depicted as a layer in these maps, and the available development maps are included in the submission package. A breakdown of the survey methods appears in Table 6.

Table 6: Survey Methods

Category	Study Area
Property assessed by pedestrian survey at an interval of ≤ 5 m	34.56% (77.02 ha)
Property assessed by test pit survey at an interval of ≤ 5 m	0.00% (0.00 ha)
Property assessed by test pit survey at an interval of ≤ 10 m	0.00% (0.00 ha)
Property assessed by combination of visual inspection and test pit survey to confirm disturbance	0.00% (0.00 ha)
Property assessed with a modified survey interval due to a physical or cultural constraint	0.00% (0.00 ha)
Property not assessed because of permanently wet areas	<0.01% (0.05 ha)
Property not assessed because of exposed bedrock	0.00% (0.00 ha)
Property not assessed because of sloped areas	0.00% (0.00 ha)
Property not assessed because of disturbed areas	32.59% (72.63 ha)
Property not subject to Stage 2 assessment during the 2016 season	32.83% (73.17 ha)
Total	**100% (222.87 ha)**

As required by Section 2.1 Standard 4 of the *S&Gs* (MTC 2011:29), GPS coordinates were recorded for at least one local fixed reference landmark (e.g., a Land Surveyor benchmark, Hydro pole, standard iron bar, etc.). The GPS co-ordinates for the documented landmarks appear in Table 7, and the fixed reference landmark locations are shown in Map 8–Map 33.

Table 7: Fixed Reference Landmarks

Fixed Reference Landmark	Landmark Type	UTM Zone	Easting (m)	Northing (m)
FRL1	Utility Pole	17	381,589	4,662,814
FRL2	Utility Pole	17	381,539	4,662,767
FRL3	Utility Pole	17	380,649	4,663,812
FRL4	Utility Pole	17	380,709	4,663,865
FRL5	Utility Pole	17	376,593	4,670,739
FRL6	Utility Pole	17	376,492	4,670,747
FRL7	Utility Pole	17	382,505	4,664,484
FRL8	Utility Pole	17	382,480	4,664,514
FRL9	Utility Pole	17	379,304	4,678,089
FRL10	Utility Pole	17	379,300	4,678,032
FRL11	Utility Pole	17	380,147	4,670,771
FRL12	Utility Pole	17	380,086	4,670,717
FRL13	Utility Pole	17	381,519	4,668,266
FRL14	Utility Pole	17	381,569	4,668,309
FRL15	Utility Pole	17	386,460	4,665,491
FRL16	Utility Pole	17	386,401	4,665,469
FRL17	Utility Pole	17	383,173	4,666,039
FRL18	Utility Pole	17	383,125	4,665,998
FRL19	Utility Pole	17	381,432	4,664,536
FRL20	Utility Pole	17	381,374	4,664,486

All of the archaeological resources identified during the survey were recorded on georeferenced field maps with aerial imagery, described in field notes and documented with a GPS unit in accordance with Section 5.0 Standard 2 of the S&Gs (MTC 2011:93). In order to protect the location of the sites, all maps and data revealing detailed site location information have been restricted to the accompanying SD (see SD Map 1–SD Map 5; SD Table 1). Distinct Record of Finds and Analysis and Conclusions write-ups are presented in Section 3.2–Section 3.8.

During the laboratory processing of the retained artifacts and other archaeological materials, ARA's Material Culturalist carried out detailed documentation and analyses in order to provide 1) a record of the artifacts and other materials, 2) a basis for all recommendations and 3) enough basic information to help future researchers determine relevancy to their studies (MTC 2011:97). All of the artifacts were classified using ARA's devised typological system, which is an adaptation of the *Parks Canada Database Artifact Inventory Coding Guide* (Parks Canada 2002) and *Nomenclature 4.0 for Museum Cataloguing* (Bourcier et al. 2015). In this system, chert types are determined in accordance with the *Cherts of Southern Ontario* (Eley and von Bitter 1989), and lithics are classified using the definitions set out in the *Field Manual for Avocational Archaeologists in Ontario* (Adams et al. 1995) and *Archaeological Laboratory Methods: An Introduction* (Sutton and Arkush 2002). Euro-Canadian artifacts are divided into classes, materials, object types and object names using a variety of reference aids (e.g., Adams et al. 1995; Kenyon and Kenyon 2008; Miller 2000; Lindsey 2017).

The artifacts and other archaeological materials from the Stage 2 assessment are housed in polyethylene bags that are stored in Archive Box A409. This is a 30.5 x 25.4 x 38.1 cm light duty, double bottom corrugated cardboard box, and is labelled with its Archive Box designation. Box numbers are assigned in numerical order, and all associated information is entered into a

digital catalogue for accurate tracking. All collection information is kept on a secure server. Archive Boxes are stored on steel storage shelves at 1480 Sandhill Drive in Ancaster, Ontario.

3.2 Site 1

3.2.1 Record of Finds

Site 1 was identified during pedestrian survey along the access road portion of the T12 parcel group (see SD Map 3). The site consisted of an isolated Pre-Contact artifact on the surface.

The artifact was collected for laboratory analysis (no materials were left in the field). The retained artifact consisted of a retouch flake of Onondaga chert, which is fully documented in Appendix B, Record 1 (see Image 67). The artifact exhibited evidence of burning or heat alteration. The retouch flake was not diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 1. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.2.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 1 comprises an isolated fragment of Pre-Contact lithic debitage in a plough disturbed context. The artifact did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 1 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 1 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.3 Site 2 (AaHo-8)

3.3.1 Record of Finds

Site 2 was identified during pedestrian survey in the southeastern part of the turbine pad portion of the T13 parcel group (see SD Map 4). The site consisted of a 9 x 9 m (NE-SW) scatter of Pre-Contact archaeological materials, and a total of 4 artifacts were observed on the surface.

All of the artifacts were collected for laboratory analysis (no materials were left in the field). The retained artifacts included two secondary flakes of Onondaga chert and two retouch flakes of Onondaga chert, and the finds are fully documented in Appendix B, Records 2–5 (see Image 67).

One of the retouch flakes exhibited evidence of burning or heat alteration. None of the artifacts were diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 2. Two of the fragment of lithic debitage were identified in close proximity in the northeastern part of the scatter. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.3.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 2 comprises a small plough disturbed deposit of Pre-Contact artifacts. The artifacts did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 2 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 2 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.4 Site 3

3.4.1 Record of Finds

Site 3 was identified during pedestrian survey in the southwestern part of the turbine pad portion of the T13 parcel group (see SD Map 4). The site consisted of an isolated Pre-Contact artifact on the surface.

The artifact was collected for laboratory analysis (no materials were left in the field). The retained artifact consisted of a primary flake of Kettle Point chert, which is fully documented in Appendix B, Record 6 (see Image 67). The artifact did not exhibit evidence of burning or heat alteration. The primary flake was not diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 3. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.4.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 3 comprises an isolated fragment of Pre-Contact lithic debitage in a plough disturbed context. The artifact did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not

possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 3 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 3 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.5 Site 4

3.5.1 Record of Finds

Site 4 was identified during pedestrian survey in the southwestern part of the turbine pad portion of the T13 parcel group (see SD Map 4). The site consisted of an 18 x 1 m (NE-SW) scatter of Pre-Contact archaeological materials, and a total of 2 artifacts were observed on the surface.

All of the artifacts were collected for laboratory analysis (no materials were left in the field). The retained artifacts consisted of one secondary flake of Kettle Point chert and one secondary flake of Onondaga chert, and the finds are fully documented in Appendix B, Records 7–8 (see Image 67). The secondary flake of Onondaga chert exhibited evidence of burning or heat alteration. None of the artifacts were diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 4. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.5.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 4 comprises a small plough disturbed deposit of Pre-Contact artifacts. The artifacts did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 4 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 4 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.6 Site 5

3.6.1 Record of Finds

Site 5 was identified during pedestrian survey in the northwestern part of the turbine pad portion of the T13 parcel group (see SD Map 4). The site consisted of a 7 x 1 m (NW-SE) scatter of Pre-Contact archaeological materials, and a total of 2 artifacts were observed on the surface.

All of the artifacts were collected for laboratory analysis (no materials were left in the field). The retained artifacts consisted of one secondary flake of Onondaga chert and one retouch flake of Onondaga chert, and the finds are fully documented in Appendix B, Records 9–10 (see Image 67). None of the artifacts exhibited evidence of burning or heat alteration. None of the artifacts were diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 5. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.6.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 5 comprises a small plough disturbed deposit of Pre-Contact artifacts. The artifacts did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 5 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 5 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.7 Site 6

3.7.1 Record of Finds

Site 6 was identified during pedestrian survey in the southwestern part of the turbine pad portion of the T13 parcel group (see SD Map 4). The site consisted of a 2.5 x 1 m (NE-SW) scatter of Pre-Contact archaeological materials, and a total of 2 artifacts were observed on the surface.

All of the artifacts were collected for laboratory analysis (no materials were left in the field). The retained artifacts consisted of one secondary flake of Selkirk chert and one biface fragment of Onondaga chert, and the finds are fully documented in Appendix B, Records 11–12 (see Image 67).

No cultural features or structural elements of potential CHVI were identified at Site 6. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.7.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 6 comprises a small plough disturbed deposit of Pre-Contact artifacts. The artifacts did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 6 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 6 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

3.8 Site 7

3.8.1 Record of Finds

Site 7 was identified during pedestrian survey along the access road portion of the substation parcel group (see SD Map 5). The site consisted of an isolated Pre-Contact artifact on the surface.

The artifact was collected for laboratory analysis (no materials were left in the field). The retained artifact consisted of a retouch flake of Onondaga chert, which is fully documented in Appendix B, Record 13 (see Image 67). The artifact did not exhibit any evidence of burning or heat alteration. The secondary flake was not diagnostic.

No cultural features or structural elements of potential CHVI were identified at Site 7. No distinct artifact concentrations were discernable. The inventory of the documentary record for this site is included in the overall inventory presented in Appendix C. This inventory includes a quantitative summary of the field notes, photographs and mapping materials associated with the project.

3.8.2 Analysis and Conclusions

The results of the Stage 2 survey indicate that Site 7 comprises an isolated fragment of Pre-Contact lithic debitage in a plough disturbed context. The artifact did not possess any significant diagnostic value; accordingly, a specific determination of the age and cultural affiliation of the site is not possible. The function of the site is unclear. Stratigraphy suggests that the site has a relatively moderate level of integrity, as there was no evidence of significant disturbance since the deposition of the artifact save for ploughing.

When evaluated against the criteria set out in Section 2.2 of the *S&Gs* (MTC 2011:40–41), the available evidence indicates that Site 7 is of no further CHVI. Specifically, less than ten non-diagnostic artifacts were found within a 10 x 10 m pedestrian survey area. Site 7 does not warrant a Stage 3 site-specific assessment, and it is also clear that the site will not require a Stage 4 mitigation of development impacts.

4.0 RECOMMENDATIONS

The Stage 1 assessment encompassed the entirety of the proposed project location (29 parcel groups), whereas the Stage 2 assessment was only conducted on a portion of the project location (parts of 12 parcel groups). During the 2016 season, the majority of the identified areas of archaeological potential within the project location along the municipal ROWs were not subject to Stage 2 survey due to potential project redesign (i.e., the removal of those portions that have archaeological potential). In addition, one or more of the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap were not subject to Stage 2 survey due to inappropriate field conditions or, in the case of T5, a subsequent enlargement of the project location. All remaining fieldwork will be completed during the 2017 season and documented in a separate report (parts of 21 parcel groups).

The Stage 1 assessment determined that the study area comprised a mixture of areas of archaeological potential and areas of no archaeological potential. The partial Stage 2 assessment resulted in the identification of seven locations of Pre-Contact archaeological materials: Site 1, Site 2 (AaHo-8) and Sites 3–7. Sites 1–7 were found to be of no further CHVI.

ARA recommends that 1) Site 1, Site 2 (AaHo-8) and Sites 3–7 do not require further archaeological assessment, 2) the remainder of the area subject to Stage 2 assessment does not require further archaeological assessment, 3) the identified areas of archaeological potential within the project location along the municipal ROWs be subject to Stage 2 assessment and 4) the identified areas of archaeological potential within the project location at T2, T5, T6/O&M, T9, T10, T11, T14, T17, T19 (Alternate 1), the O&M and the Grid Tap be subject to Stage 2 assessment. The site recommendations are summarized in Table 8.

Table 8: Summary of Site Recommendations

Site	Description	Further CHVI?	Recommendation/Strategy
1	Pre-Contact isolated find	No	No further assessment required
2 (AaHo-8)	Pre-Contact scatter (9 x 9 m)	No	No further assessment required
3	Pre-Contact isolated find	No	No further assessment required
4	Pre-Contact scatter (18 x 1 m)	No	No further assessment required
5	Pre-Contact scatter (7 x 1 m)	No	No further assessment required
6	Pre-Contact scatter (2.5 x 1 m)	No	No further assessment required
7	Pre-Contact isolated find	No	No further assessment required

Regarding the identified areas of archaeological potential within the municipal ROWs and the remaining parcel groups, the Stage 2 assessment must be conducted in accordance with Section 2.1 of the *S&Gs* (MTC 2011:28–39). Given that the areas of archaeological potential consist of both agricultural and non-agricultural lands, it is recommended that both the pedestrian survey and test pit survey methods be utilized to complete the assessment. Specifically, the following assessment strategies should be utilized:

- For recently cultivated or actively cultivated lands, the assessment must be conducted using the pedestrian survey method at an interval of ≤ 5 m. All ground surfaces must be recently ploughed (typically within the month prior to assessment), weathered by one heavy rainfall or several light rains, and provide at least 80% visibility. If archaeological materials are encountered, the transect interval must be decreased to at least 1 m and a close inspection of the ground must be conducted over a minimum of a 20 m radius around the find. This interval must be continued until the full extent of the scatter has been defined.
- For lands where ploughing is not possible or viable (e.g., maintained lawns and grassed field edges), the assessment must be conducted using the test pit survey method. A test pit survey interval of ≤ 5 m will be required due to the proximity of the lands to the identified features of archaeological potential. Each test pit must be excavated into at least the first 5 cm of subsoil, and the resultant pits must be examined for stratigraphy, potential features and/or evidence of fill. The soil from each test pit must be screened through mesh with an aperture of no greater than 6 mm and examined for archaeological materials. If archaeological materials are encountered, all PTPs must be documented and intensification may be required.
- If the field conditions within the agricultural lands along the edges of the municipal ROWs are not adequate for pedestrian survey at the time of assessment, the test pit survey method can be utilized to complete the assessment of these narrow corridors as set out in Section 2.1.2 Standard 1f of the *S&Gs* (MTC 2011:32).

Due to the number of parcels involved in the assessments and the variety of recommendations, the results of the investigation are relatively complex. For clarity and quick reference, a summary of archaeological concerns by parcel is provided in Table 9.

Table 9: Archaeological Concerns by Parcel

Parcel ID	Archaeological Concerns
Substation	No Further Concerns
Grid Tap	Further Concerns
Richardson Side Road	Further Concerns
Concession Road 11	Further Concerns
T17	Further Concerns
Wheatley Road	Further Concerns
T1	No Further Concerns
T19 (Alternate 1)	Further Concerns
Concession Line 6	Further Concerns
T2	Further Concerns
Zion Road	Further Concerns
Concession Line 5	Further Concerns
T3, T4	No Further Concerns
T5	Further Concerns
T6/O&M	Further Concerns
T7, T8	No Further Concerns
Concession Line 4	Further Concerns
T9	Further Concerns
T10	Further Concerns
T11	Further Concerns
Concession Line 3	Further Concerns

Parcel ID	Archaeological Concerns
Campbell Road	Further Concerns
T12	No Further Concerns
T13	No Further Concerns
T14	Further Concerns
T15	No Further Concerns
T16	No Further Concerns
Talbot Trail	Further Concerns
O&M	Further Concerns

If any of the identified areas of archaeological potential are removed from the project design in the future, then the Stage 2 assessment of those lands would not be required as part of the subject application. It is requested that this report be entered into the Ontario Public Register of Archaeological Reports, as provided for in Section 65.1 of the *Ontario Heritage Act*.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Section 7.5.9 of the *S&Gs* requires that the following information be provided for the benefit of the proponent and approval authority in the land use planning and development process (MTC 2011:126–127):

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

6.0 IMAGES

Image 1: Richardson Side Road – Disturbed Lands
(November 8, 2016; Facing North)

Image 2: Richardson Side Road – Permanently Wet Lands
(November 8, 2016; Facing East)

Image 3: Richardson Side Road – Disturbed Lands
(November 8, 2016; Facing South)

Image 4: Richardson Side Road – Disturbed Lands
(November 8, 2016; Facing North)

Image 5: Concession 11 – Permanently Wet Lands
(November 8, 2016; Facing North)

Image 6: Concession 11 – Disturbed Lands
(November 8, 2016; Facing West)

Image 7: Wheatley Road – Disturbed Lands
(November 8, 2016; Facing Northeast)

Image 8: Wheatley Road – Disturbed Lands
(November 8, 2016; Facing South)

Image 9: Zion Road – Disturbed Lands
(November 8, 2016; Facing Southeast)

Image 10: Zion Road – Disturbed Lands
(November 8, 2016; Facing Southeast)

Image 11: Concession Line 5 – Disturbed Lands
(November 8, 2016; Facing Northeast)

Image 12: Concession Line 5 – Disturbed Lands
(November 8, 2016; Facing Southwest)

Image 13: Concession Line 4 – Disturbed Lands
(November 8, 2016; Facing Northeast)

Image 14: Concession Line 4 – Disturbed Lands
(November 8, 2016; Facing Northeast)

Image 15: Concession Line 3 – Disturbed Lands
(November 8, 2016; Facing Northeast)

Image 16: Concession Line 3 – Disturbed Lands
(November 8, 2016; Facing Southwest)

Image 17: Campbell Road – Disturbed Lands
(November 8, 2016; Facing Southeast)

Image 18: Campbell Road – Disturbed Lands
(November 7, 2016; Facing Northwest)

Image 19: Talbot Trail – Disturbed Lands
(November 7, 2016; Facing Northeast)

Image 20: Talbot Trail – Disturbed Lands
(November 7, 2016; Facing Northeast)

Image 21: T6/O&M – Field Conditions
(November 30, 2016; Facing Southeast)

Image 22: T9 – Field Conditions
(November 8, 2016; Facing Southeast)

Image 23: T14 – Field Conditions
(December 1, 2016; Facing Northeast)

Image 24: T17 – Field Conditions
(December 1, 2016; Facing South)

Image 25: Substation – Pedestrian Survey at an Interval of ≤ 5 m
(December 2, 2016; Facing West)

Image 26: Substation – Pedestrian Survey at an Interval of ≤ 5 m
(December 2, 2016; Facing East)

Image 27: T17 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing South)

Image 28: T17 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing North)

Image 29: T1 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northeast)

Image 30: T1 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northwest)

Image 31: T3, T4 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 32: T3, T4 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 33: T3, T4 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northeast)

Image 34: T3, T4 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 35: T5 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southeast)

Image 36: T5 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 37: T5 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northeast)

Image 38: T5 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Southwest)

Image 39: T6/O&M – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southwest)

Image 40: T6/O&M – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northeast)

Image 41: T7, T8 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southeast)

Image 42: T7, T8 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southeast)

Image 43: T12 – Pedestrian Survey at an Interval of ≤ 5 m
(November 28, 2016; Facing Northwest)

Image 44: T12 – Pedestrian Survey at an Interval of ≤ 5 m
(November 28, 2016; Facing Southwest)

Image 45: T12 – Pedestrian Survey at an Interval of ≤ 5 m
(November 28, 2016; Facing Southwest)

Image 46: T12 – Pedestrian Survey at an Interval of ≤ 5 m
(November 28, 2016; Facing Southeast)

Image 47: T13 – Pedestrian Survey at an Interval of ≤ 5 m
(November 29, 2016; Facing Southeast)

Image 48: T13 – Pedestrian Survey at an Interval of ≤ 5 m
(November 29, 2016; Facing Northwest)

Image 49: T14 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northeast)

Image 50: T14 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northeast)

Image 51: T14 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Northeast)

Image 52: T14 – Pedestrian Survey at an Interval of ≤ 5 m
(December 1, 2016; Facing Southeast)

Image 53: T15 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southeast)

Image 54: T15 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 55: T16 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Northwest)

Image 56: T16 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southwest)

Image 57: T16 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing South)

Image 58: T16 – Pedestrian Survey at an Interval of ≤ 5 m
(November 30, 2016; Facing Southwest)

Image 59: Site 1
(November 28, 2016; Facing Southeast)

Image 60: Site 2
(November 29, 2016; Facing Northeast)

Image 61: Site 3
(November 29, 2016; Facing East)

Image 62: Site 4
(November 29, 2016; Facing North)

Image 63: Site 5
(November 29, 2016; Facing North)

Image 64: Site 6
(November 29, 2016; Facing Northeast)

Image 65: Site 7
(December 2, 2016; Facing South)

Image 66: Site 7
(December 2, 2016; Facing East)

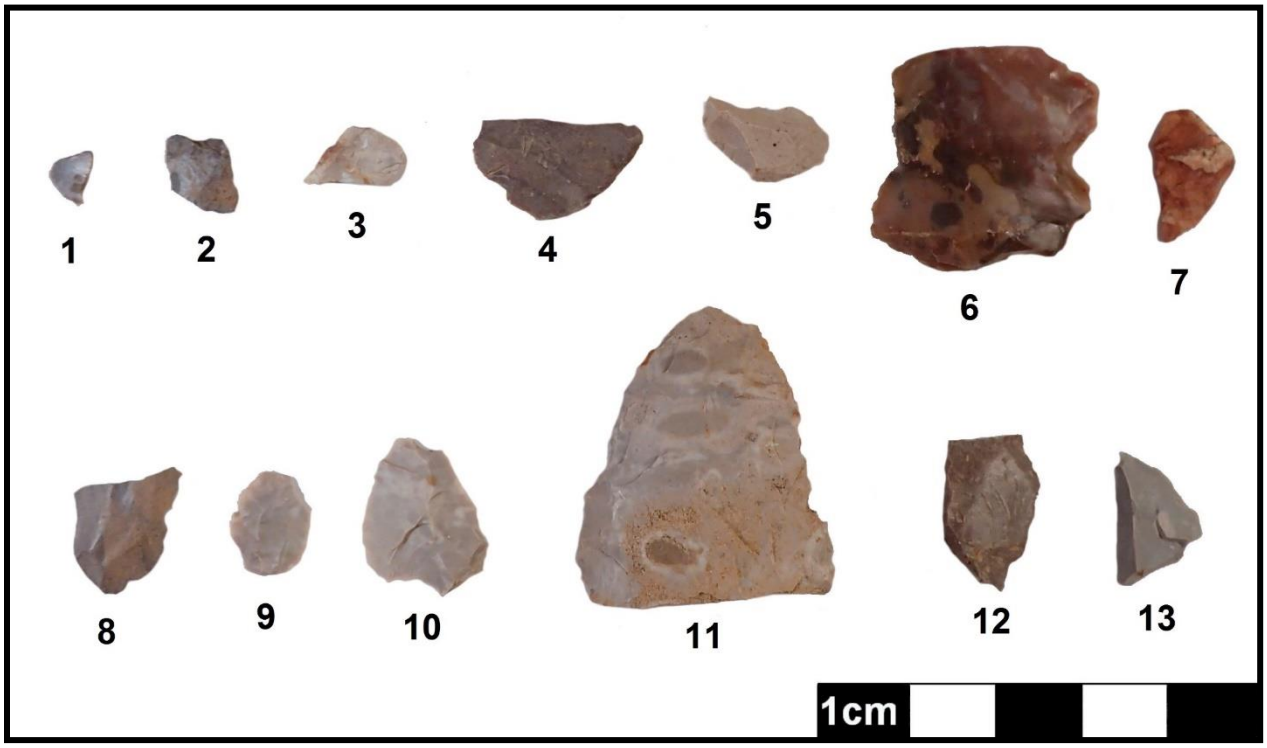
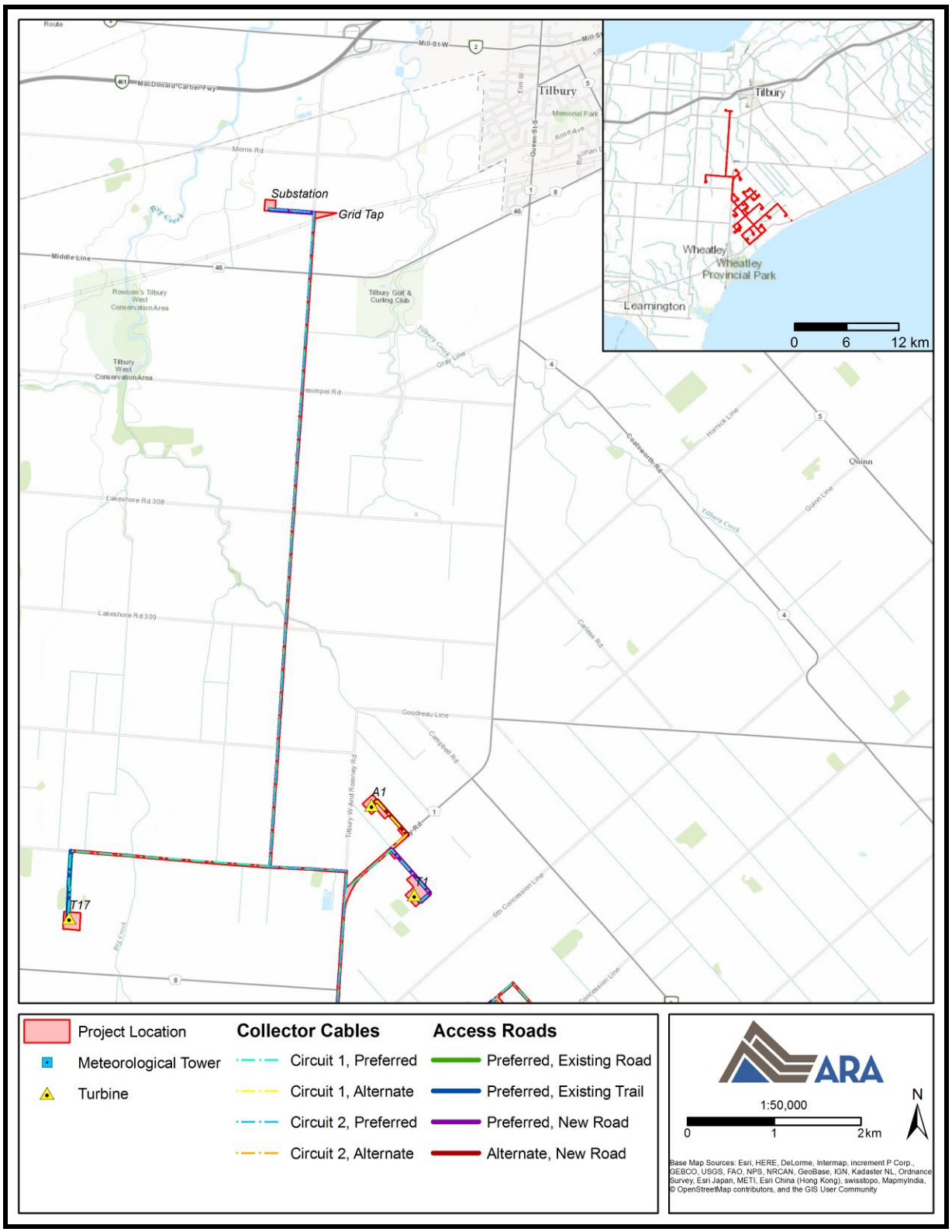
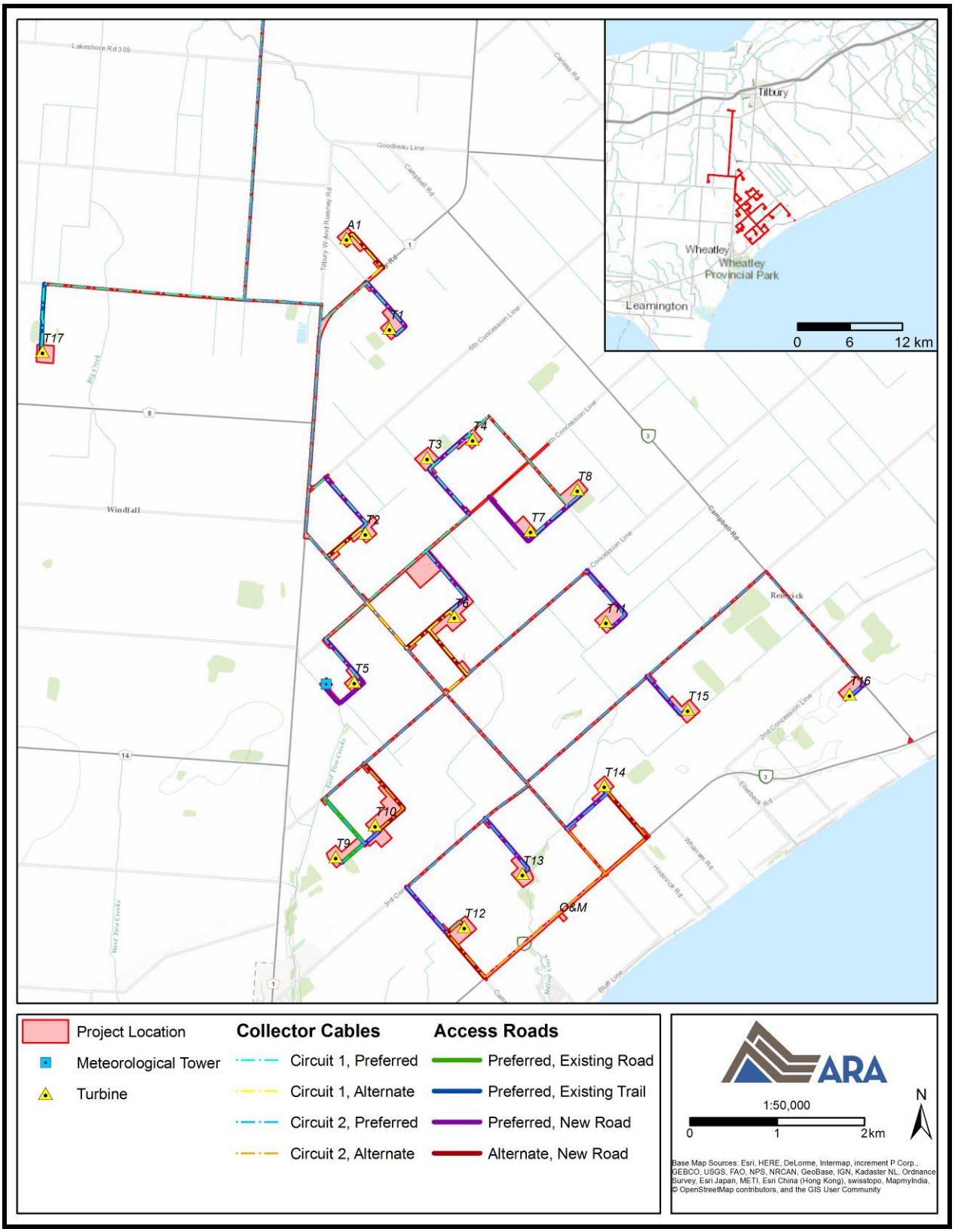


Image 67: Indigenous Artifacts
(1–3: Retouch Onondaga Chert Flakes, Sites 1–2; 4–5: Secondary Onondaga Chert Flakes, Site 2; 6: Primary Kettle Point Chert Flake, Site 3; 7: Secondary Kettle Point Chert Flake, Site 4; 8: Secondary Onondaga Chert Flake, Site 4; 9: Retouch Onondaga Chert Flake, Site 5; 10: Secondary Onondaga Chert Flake, Site 5; 11: Biface Onondaga Chert Fragment, Site 6; 12: Secondary Selkirk Chert Flake, Site 6; 13: Secondary Onondaga Chert Flake, Site 7)

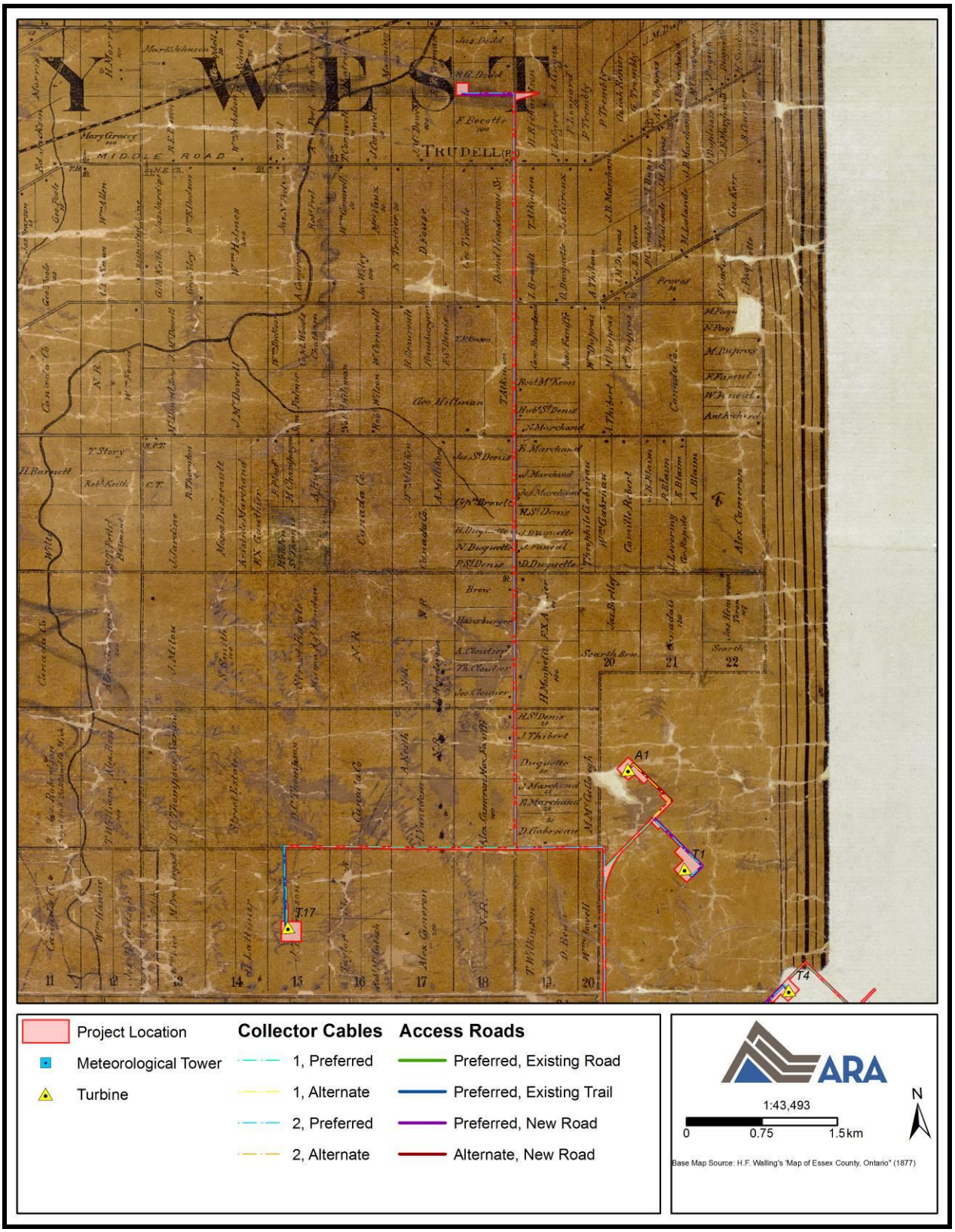
7.0 MAPS



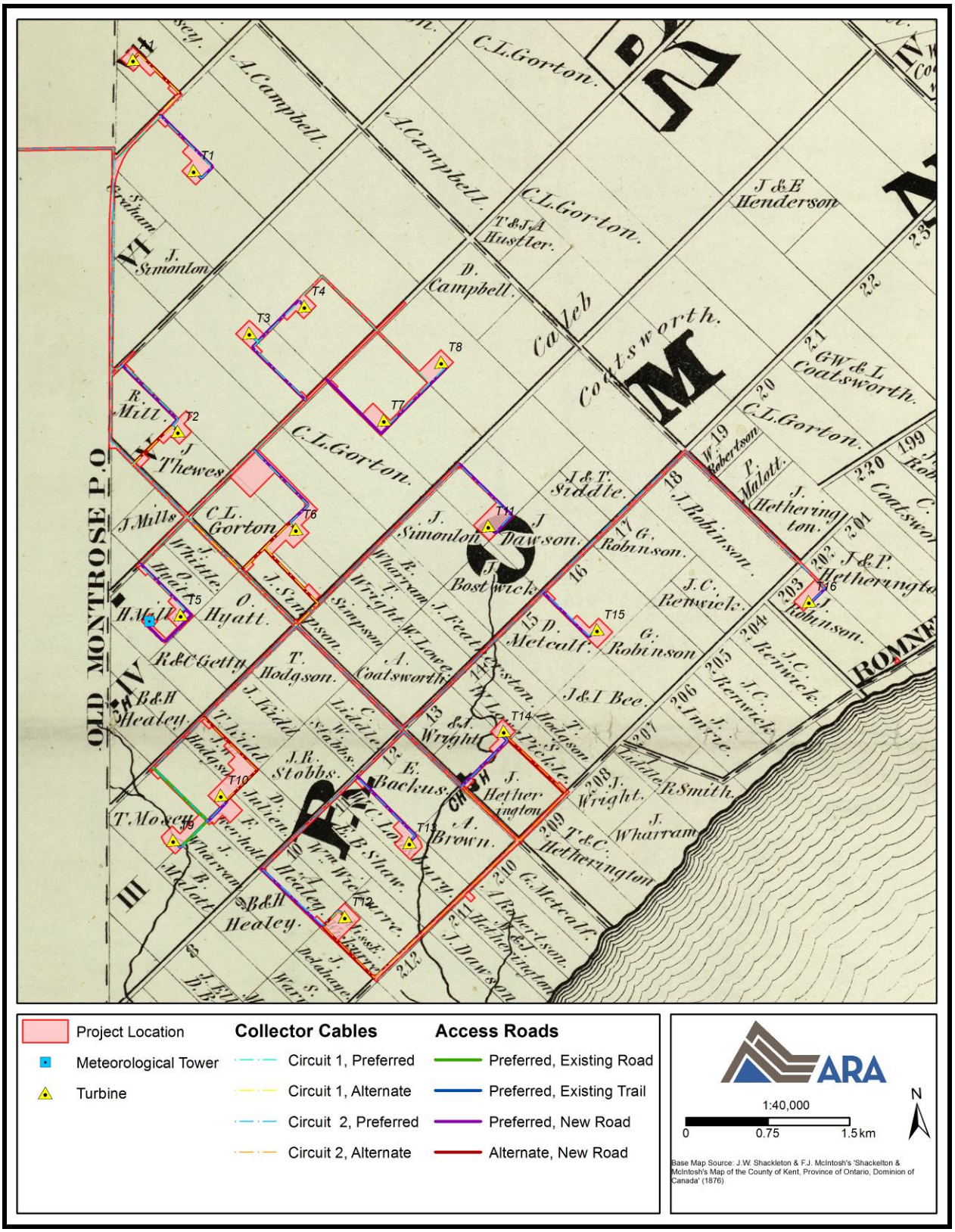
Map 1: Location of the Study Area (North)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



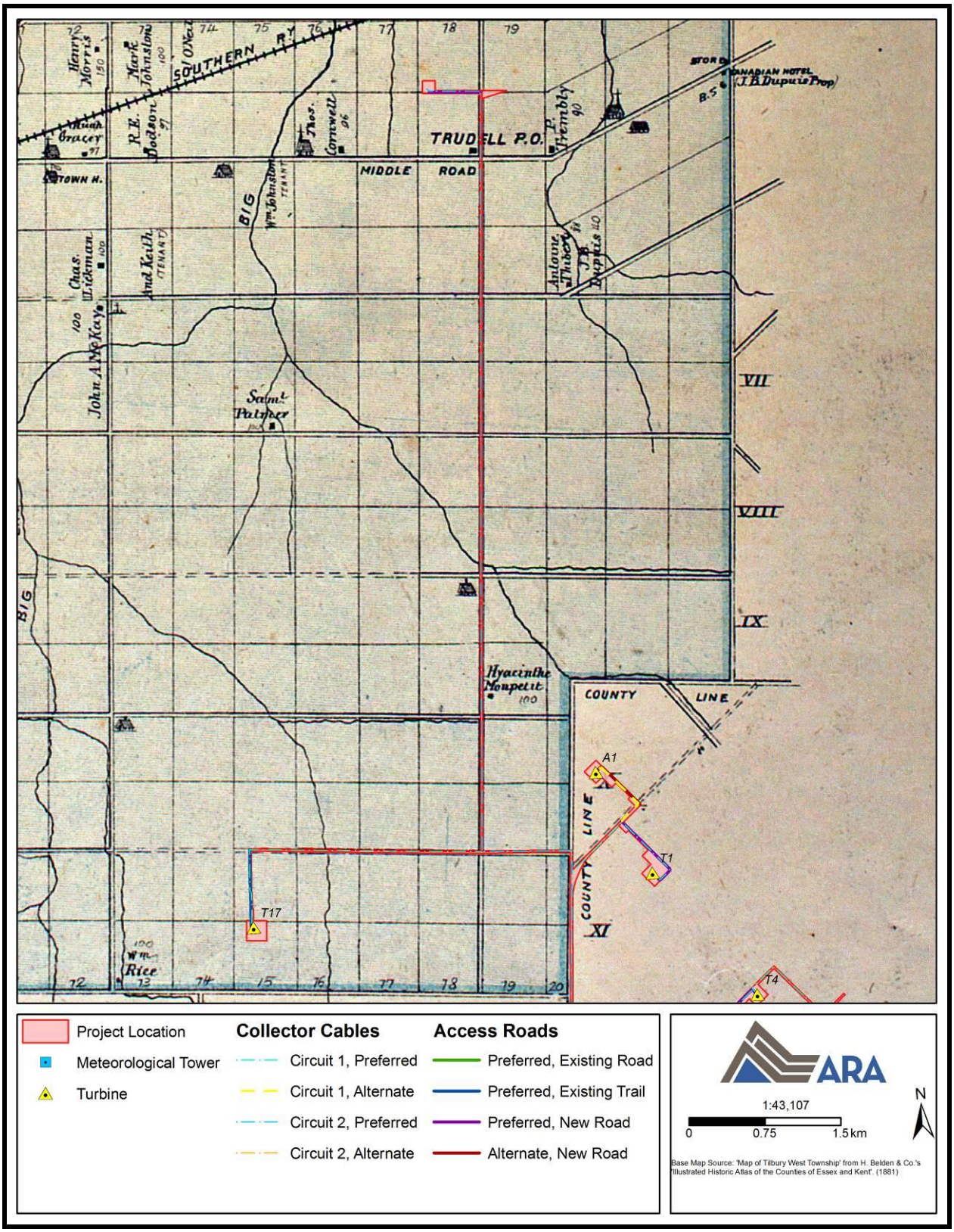
Map 2: Location of the Study Area (South)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



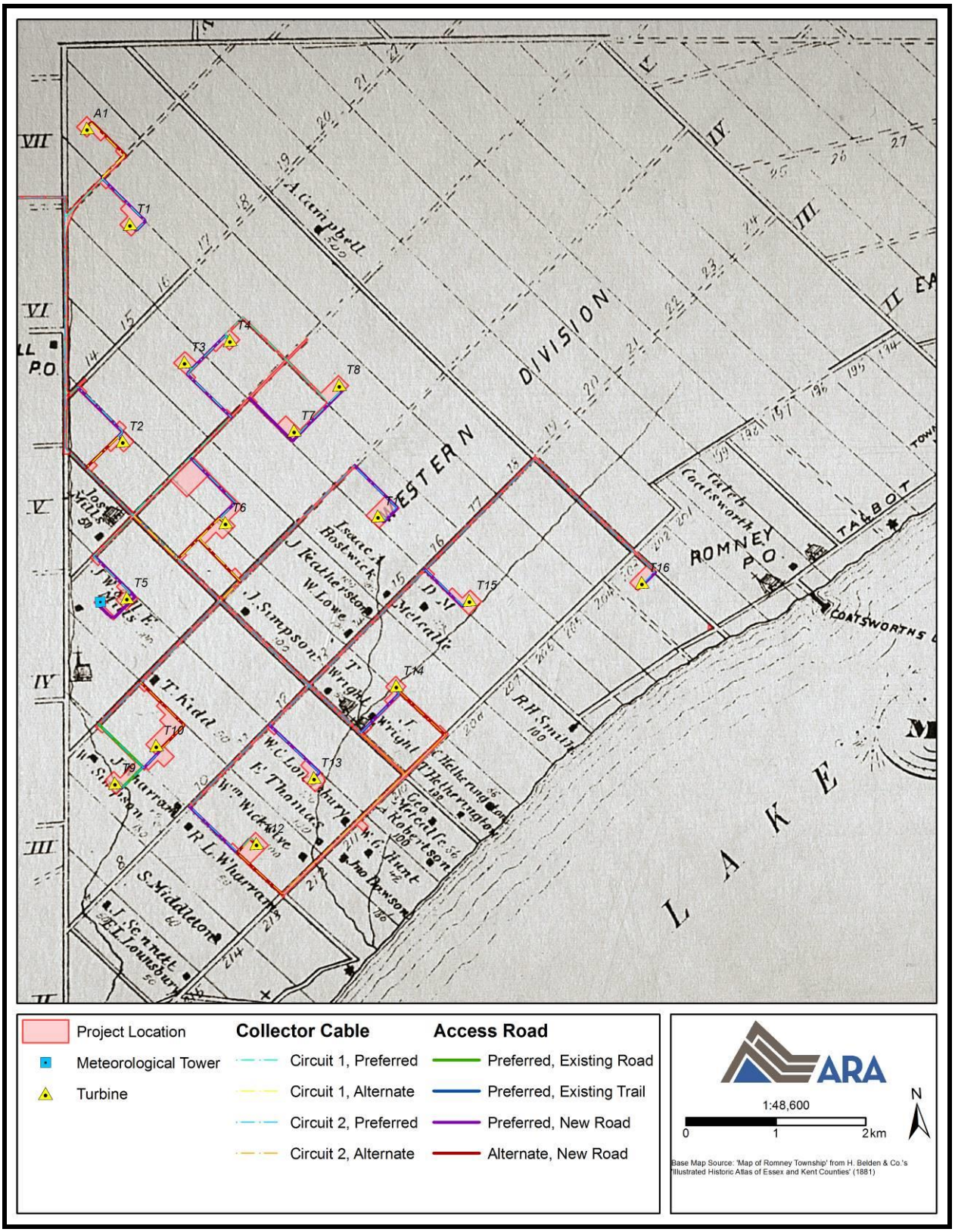
Map 3: Detail from H.F. Walling's *Map of Essex County, Ontario* (1877)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri; OHCMP 2017)



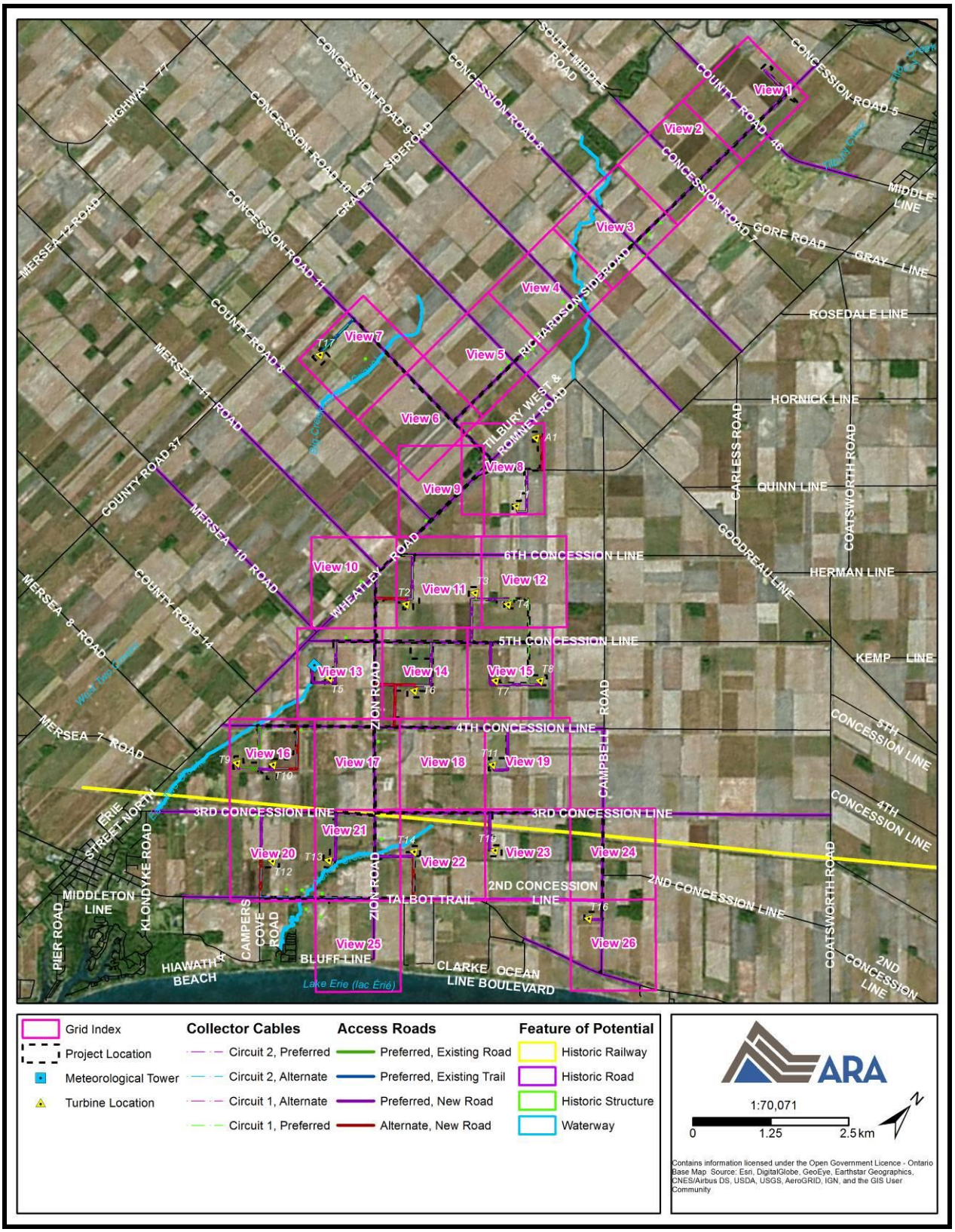
Map 4: Detail from J.W. Shackleton and E.J. McIntosh's *Map of the County of Kent in the Province of Ontario, Dominion of Canada* (1876)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri; OHCMP 2017)



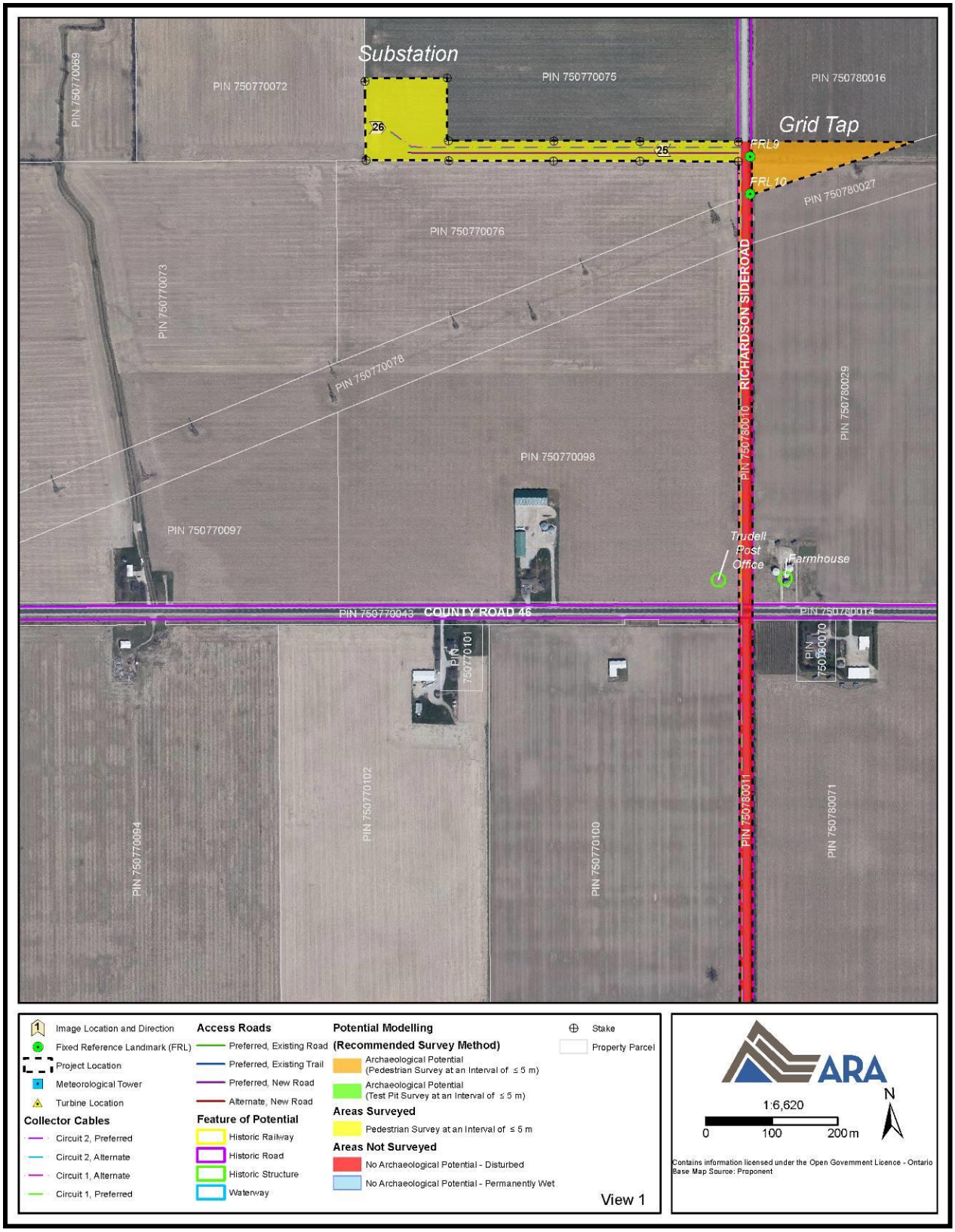
Map 5: Detail of the *Map of Tilbury West* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Essex Supplement* (1881)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri; McGill University 2001)



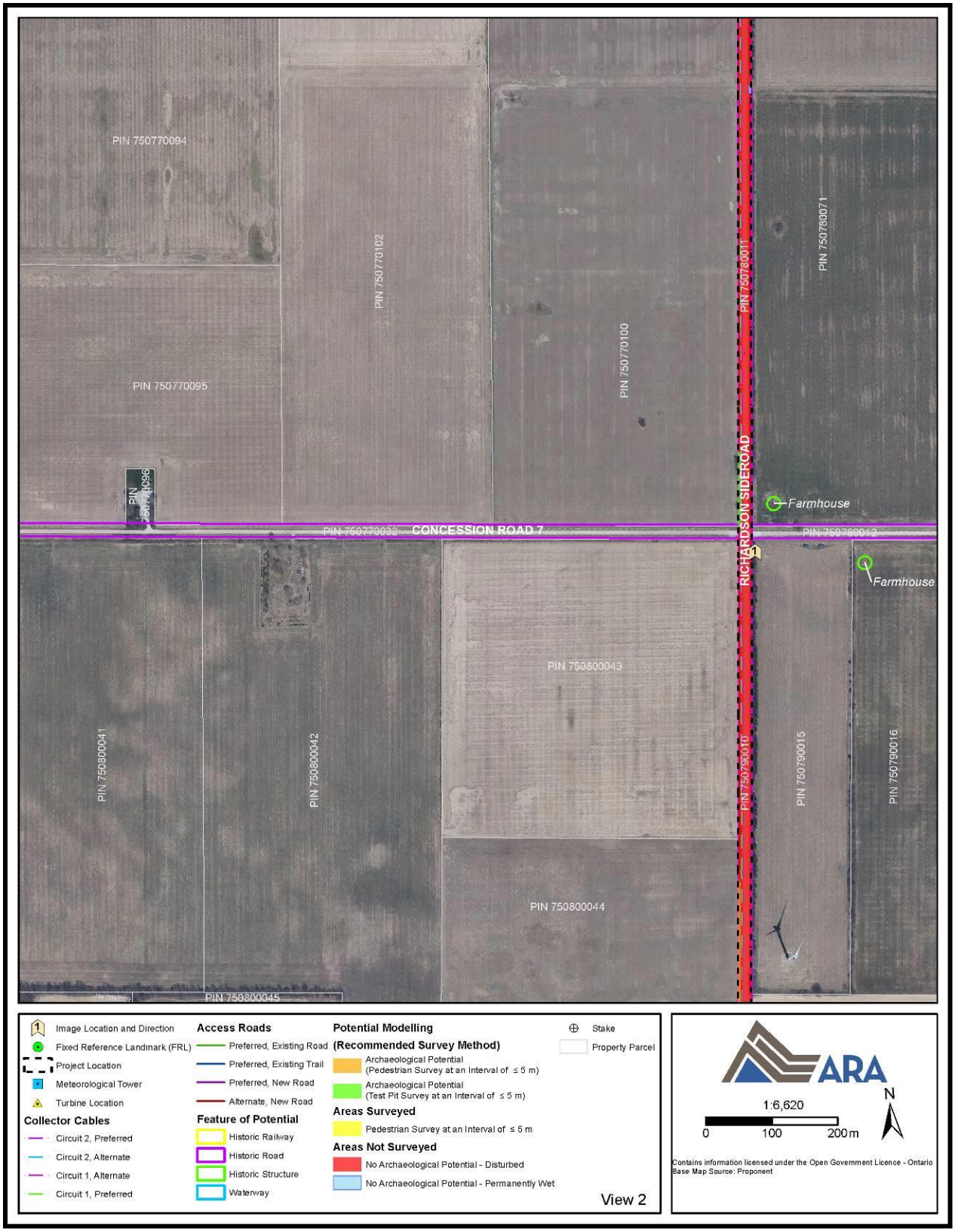
Map 6: Detail of the *Map of Romney Township* from H. Belden & Co.'s *Illustrated Atlas of the Dominion of Canada: Kent Supplement* (1880)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri; McGill University 2001)



Map 7: Overview of Field Methods and Features of Potential
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 8: Field Methods and Images (View 1)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 9: Field Methods and Images (View 2)
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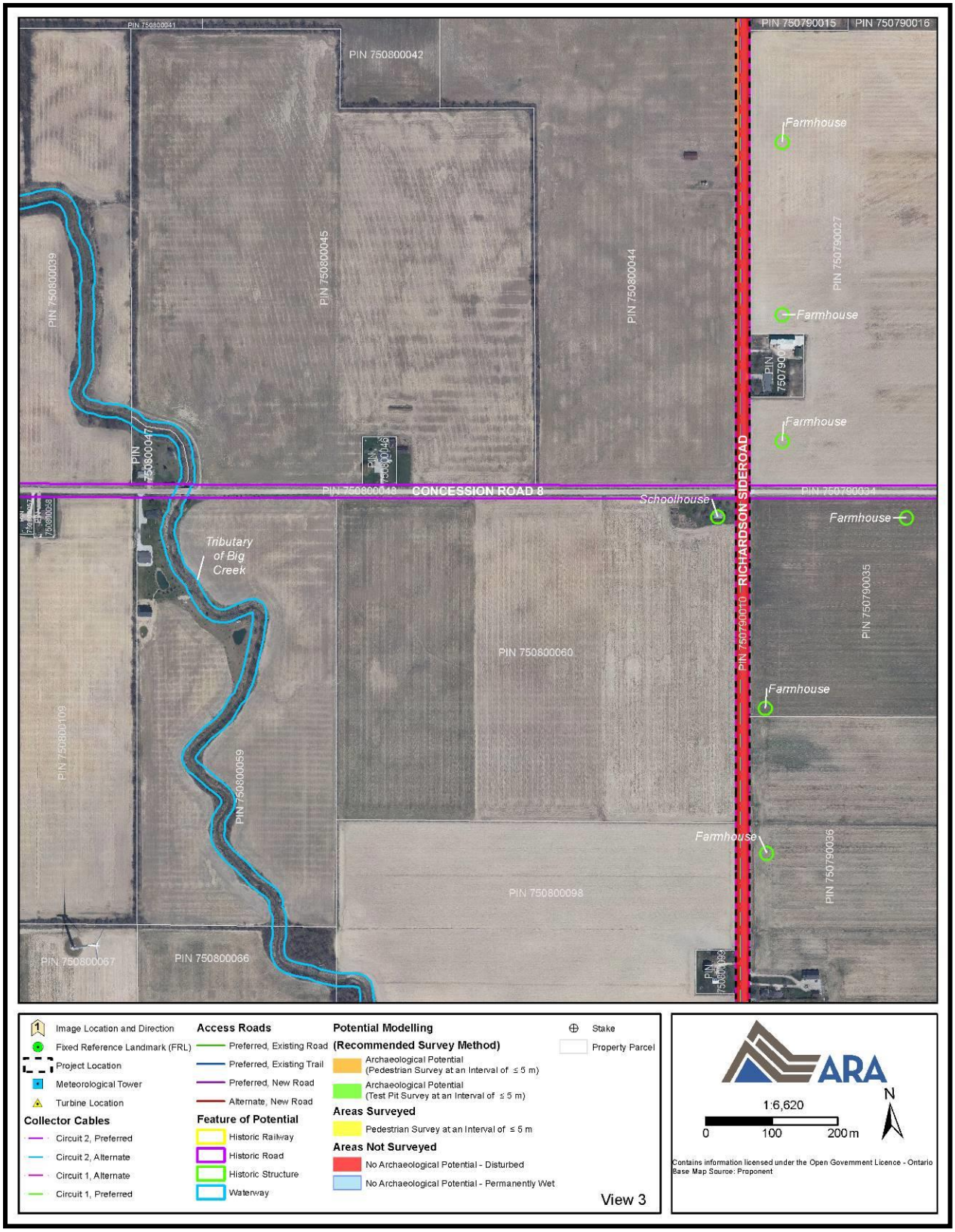

Map 10: Field Methods and Images (View 3)
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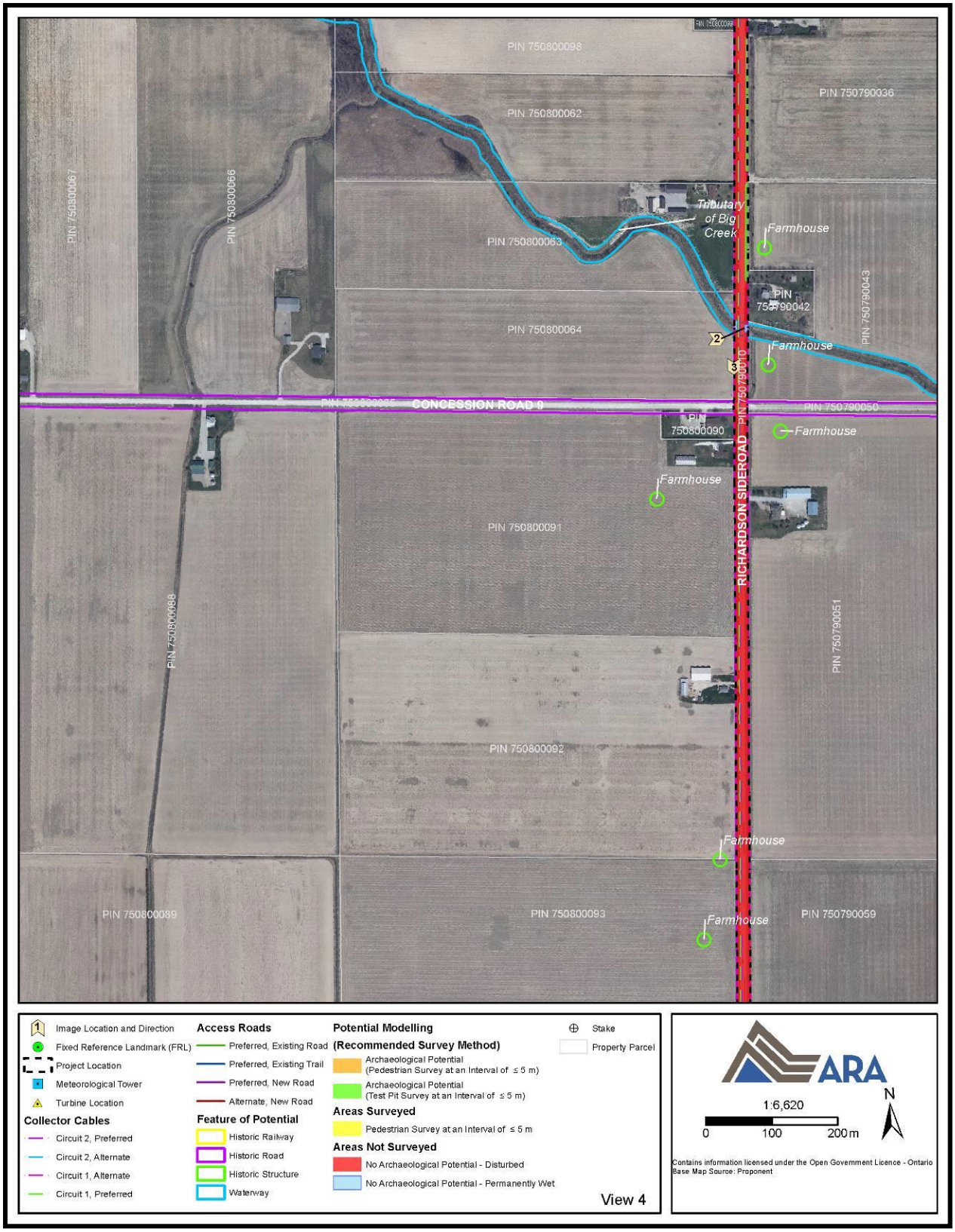

Map 11: Field Methods and Images (View 4)
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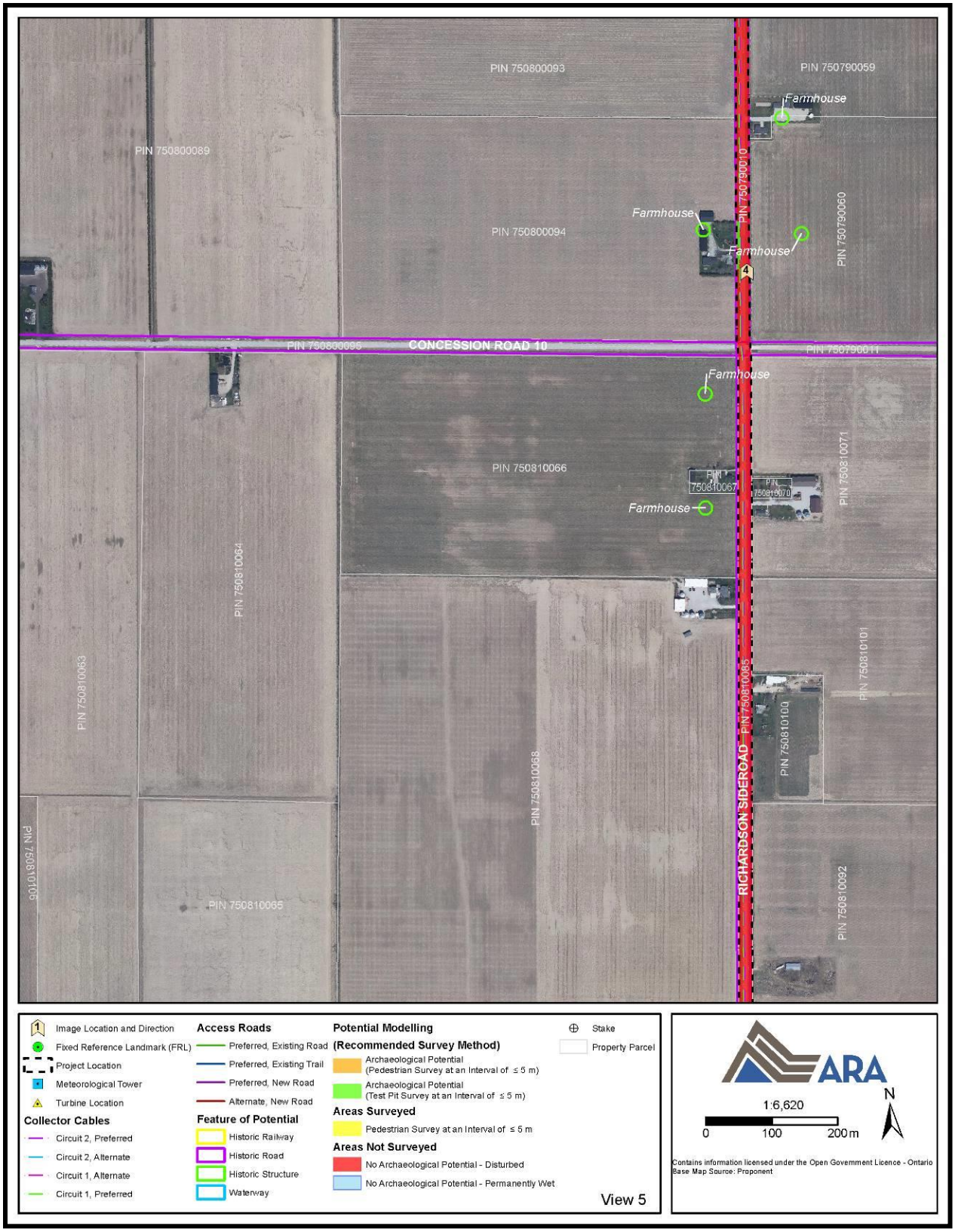

Map 12: Field Methods and Images (View 5)
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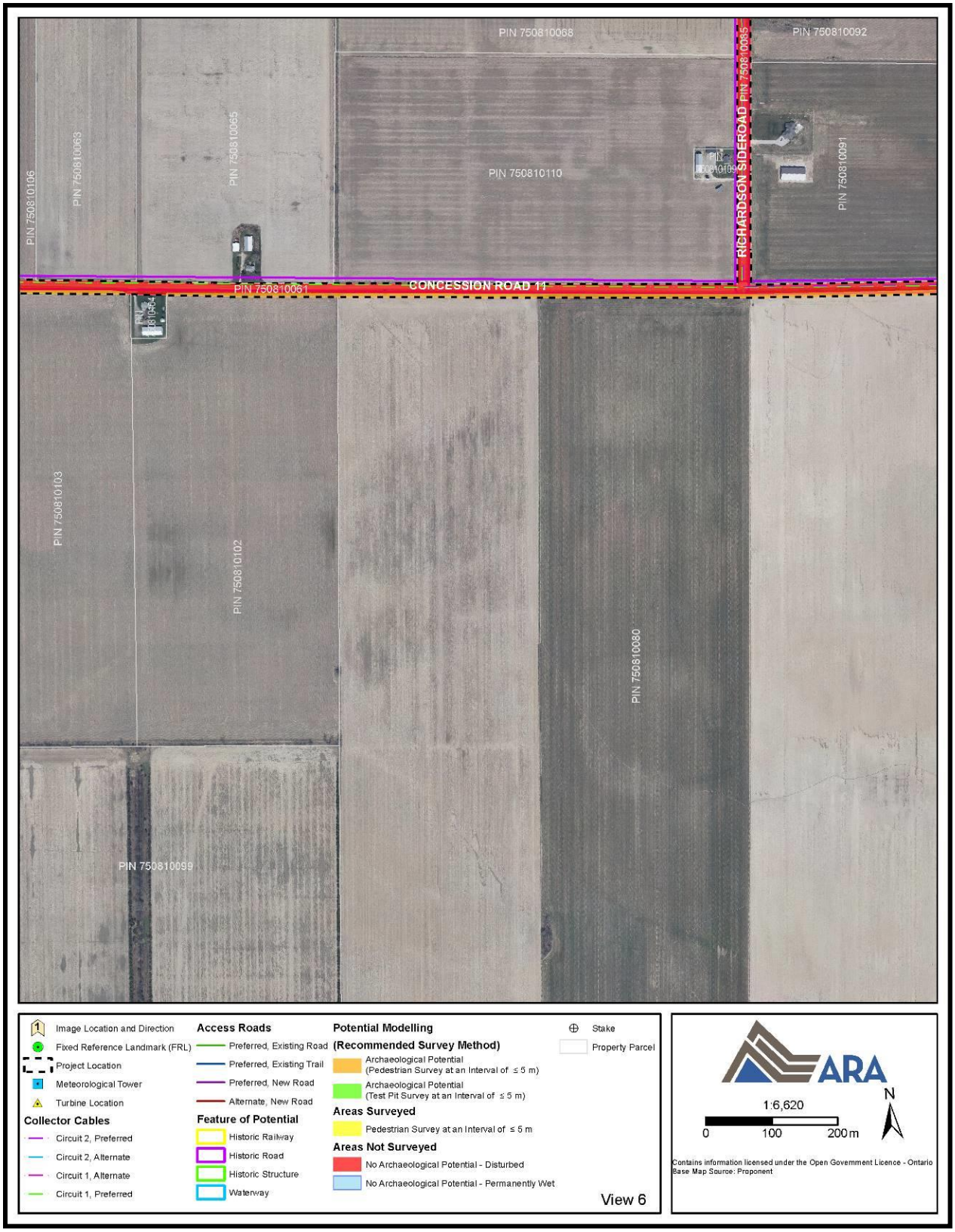

Map 13: Field Methods and Images (View 6)
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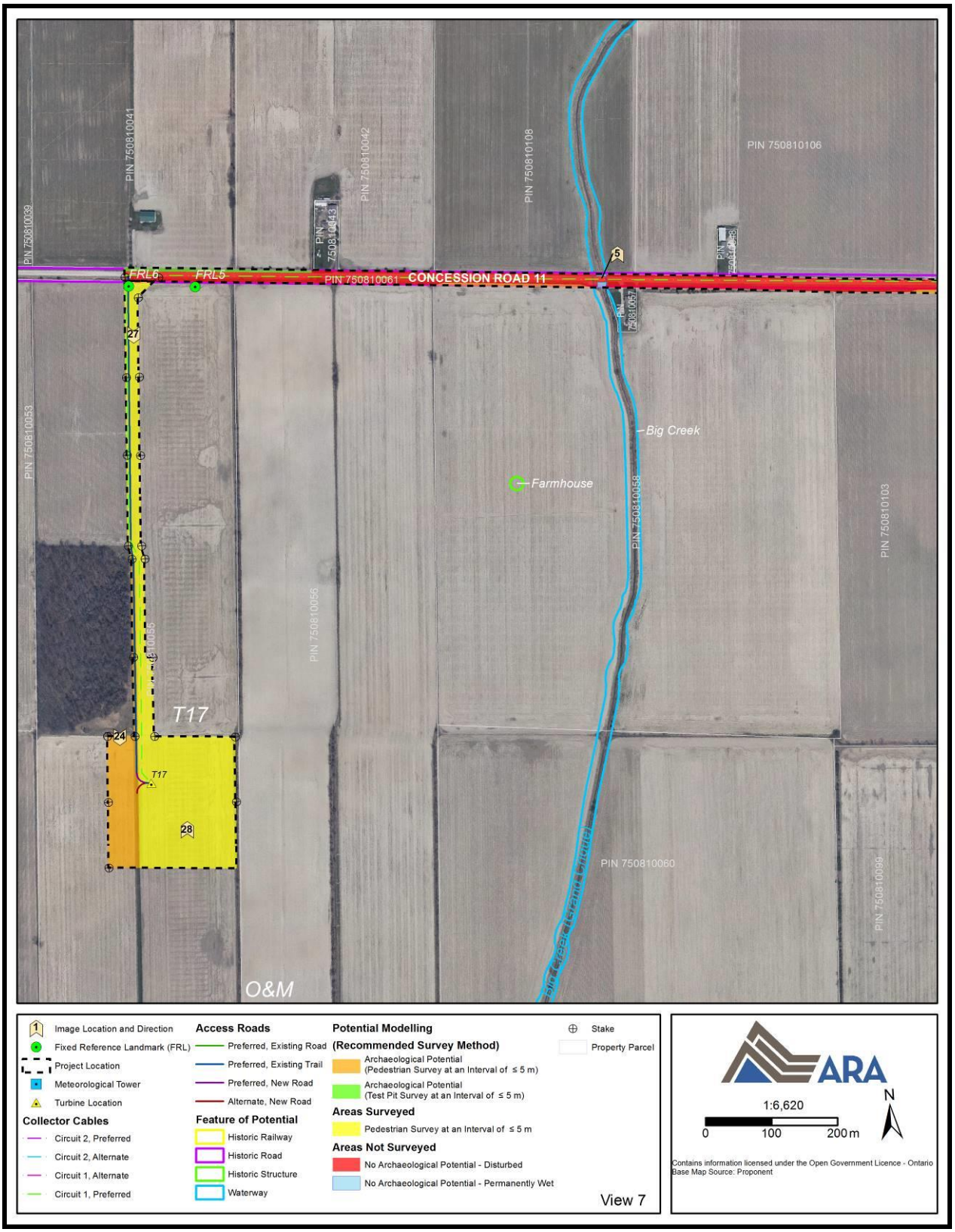

Map 14: Field Methods and Images (View 7)
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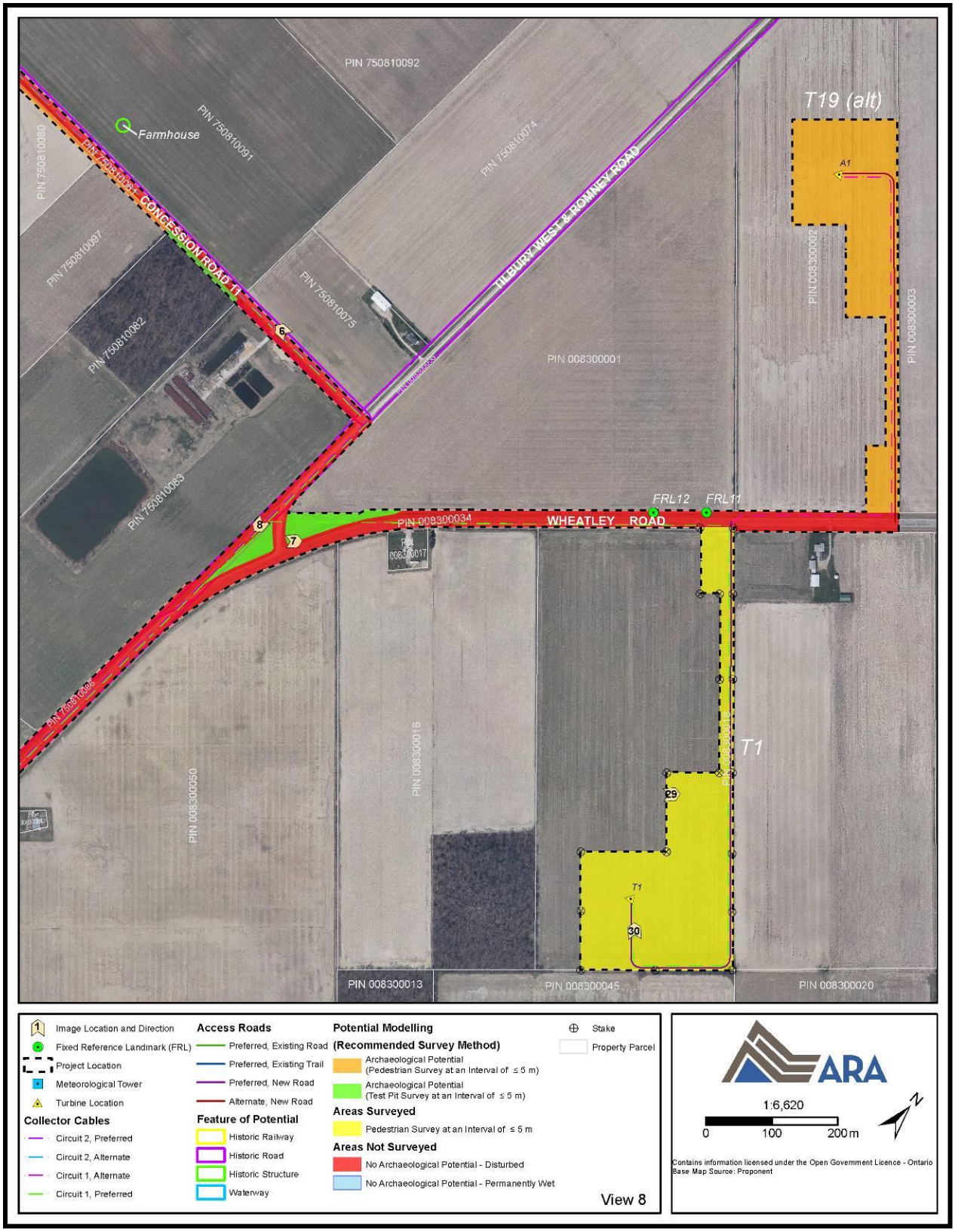

Map 15: Field Methods and Images (View 8)
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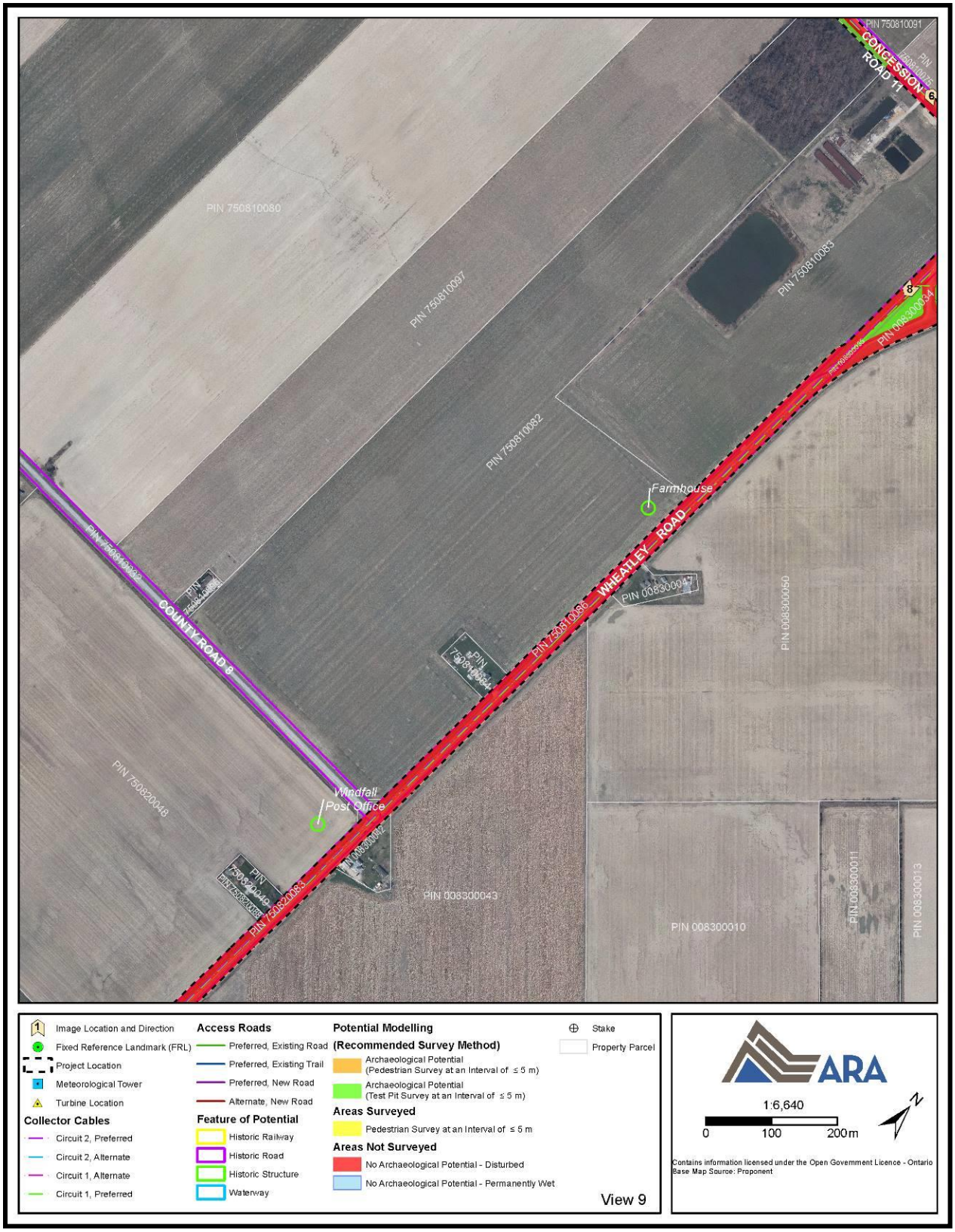

Map 16: Field Methods and Images (View 9)
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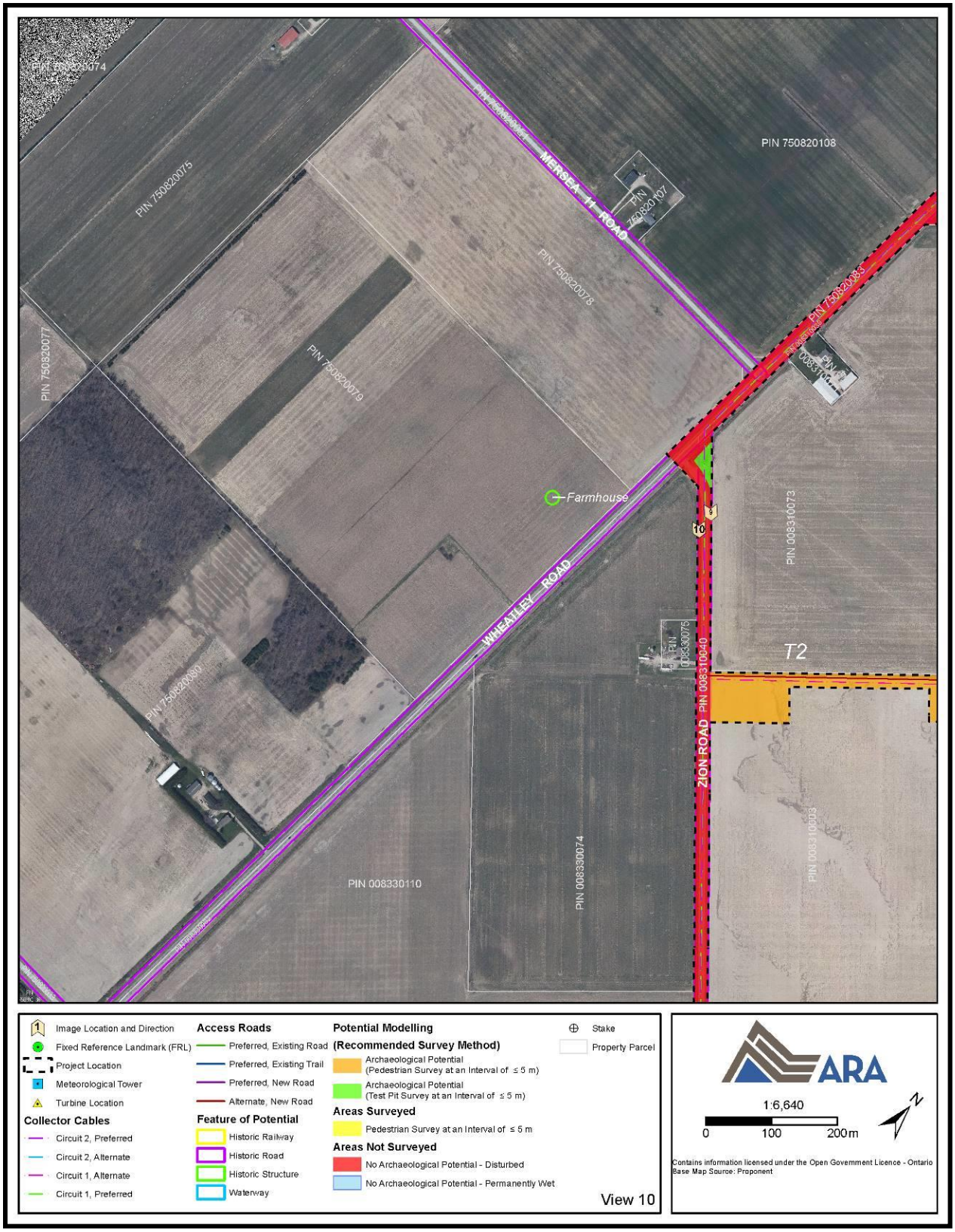

Map 17: Field Methods and Images (View 10)
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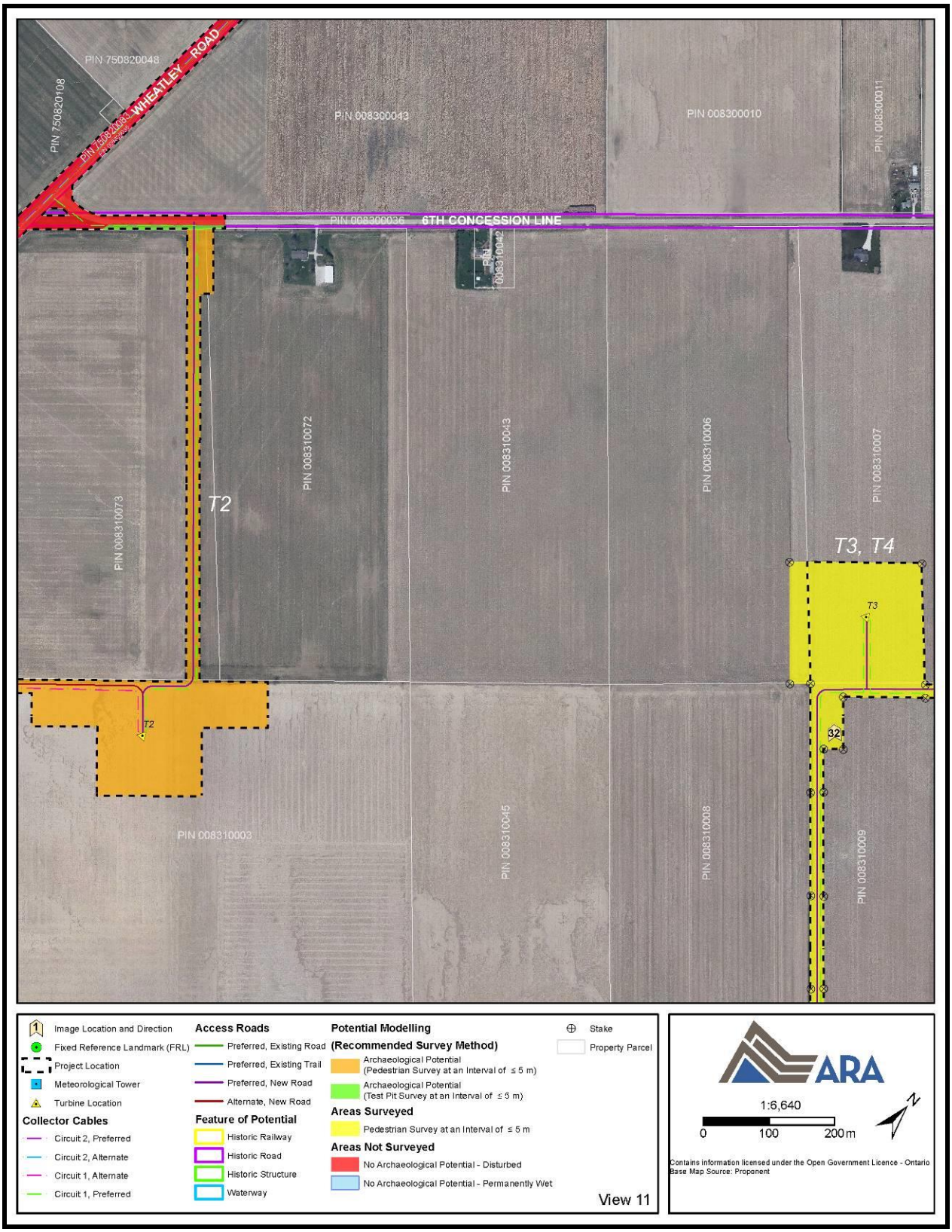
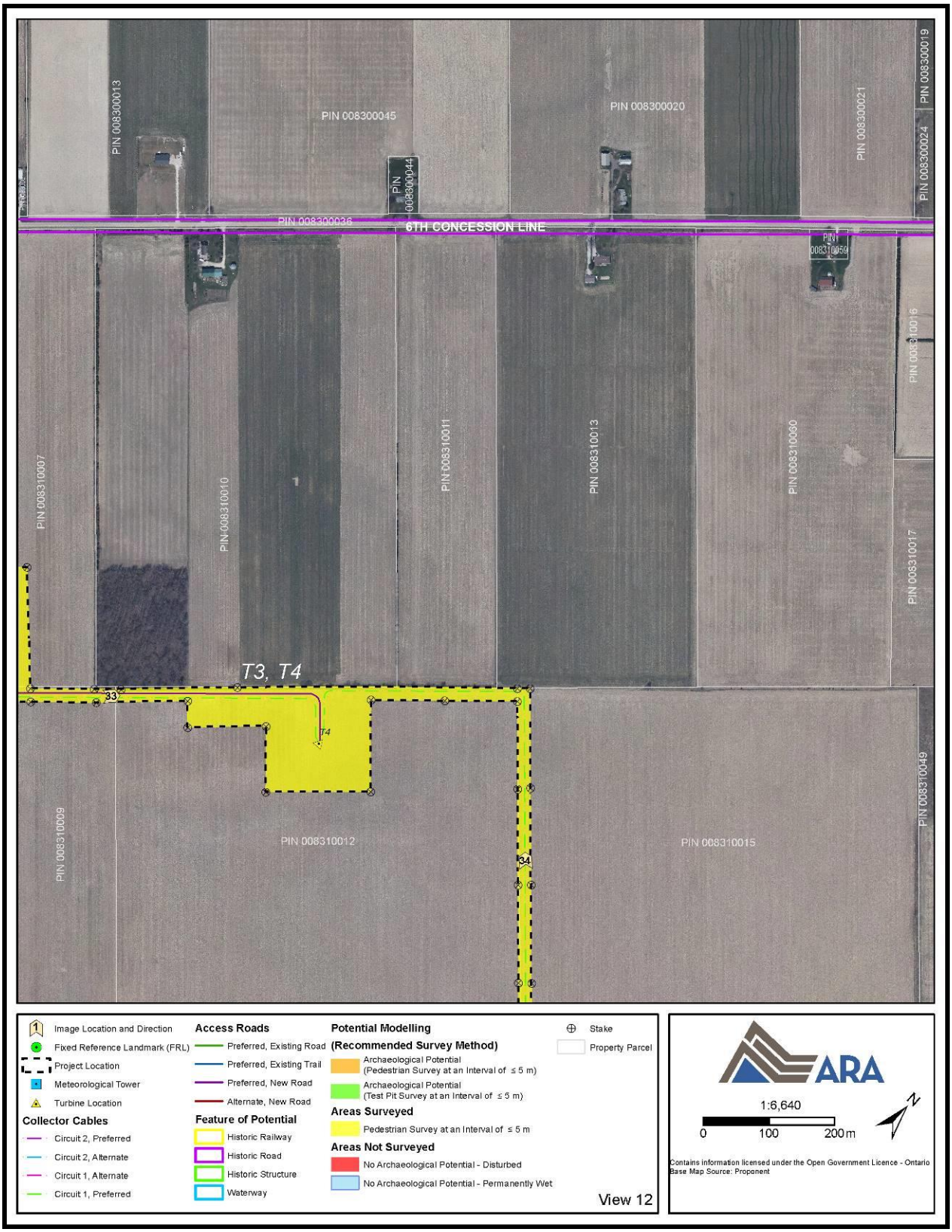
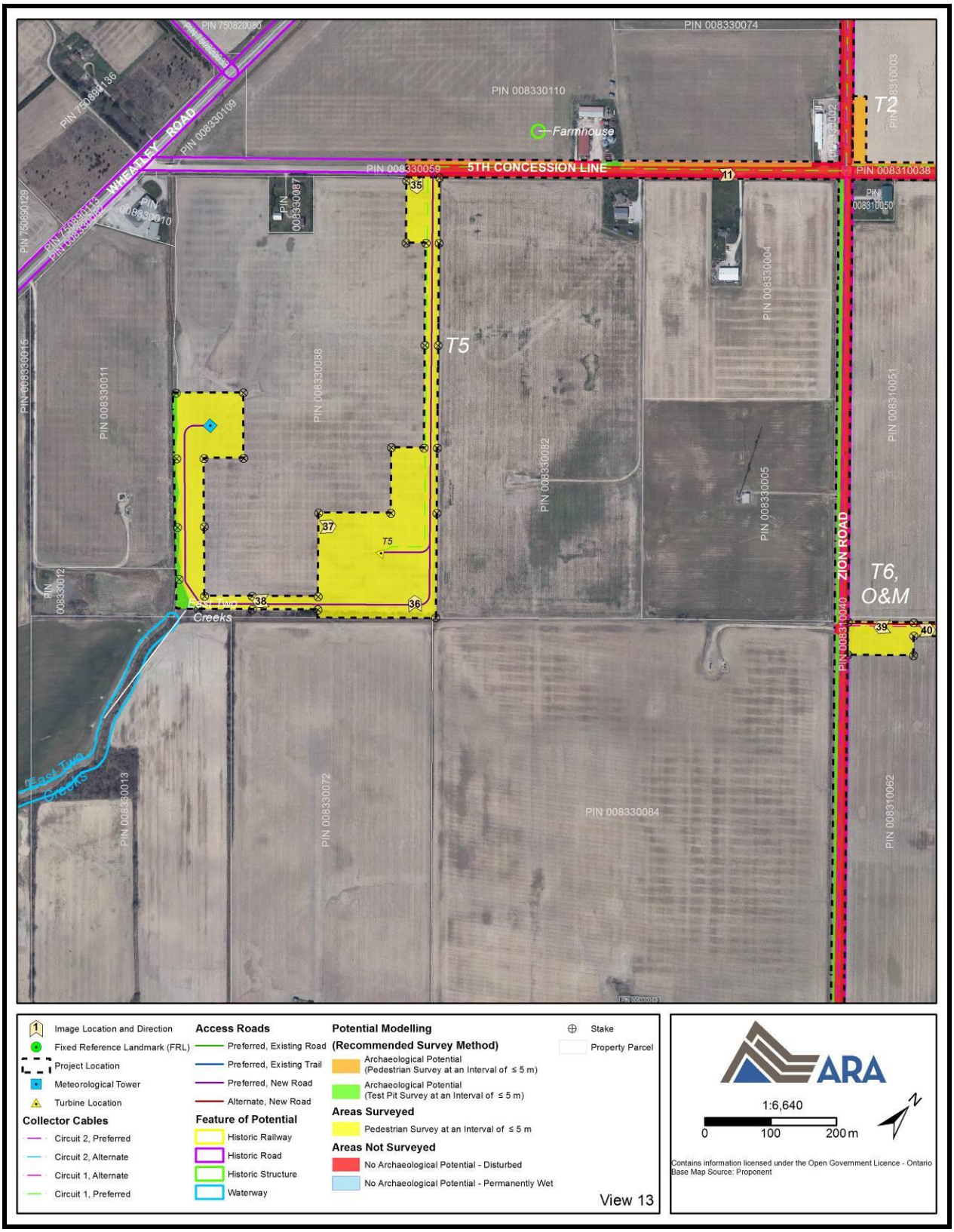


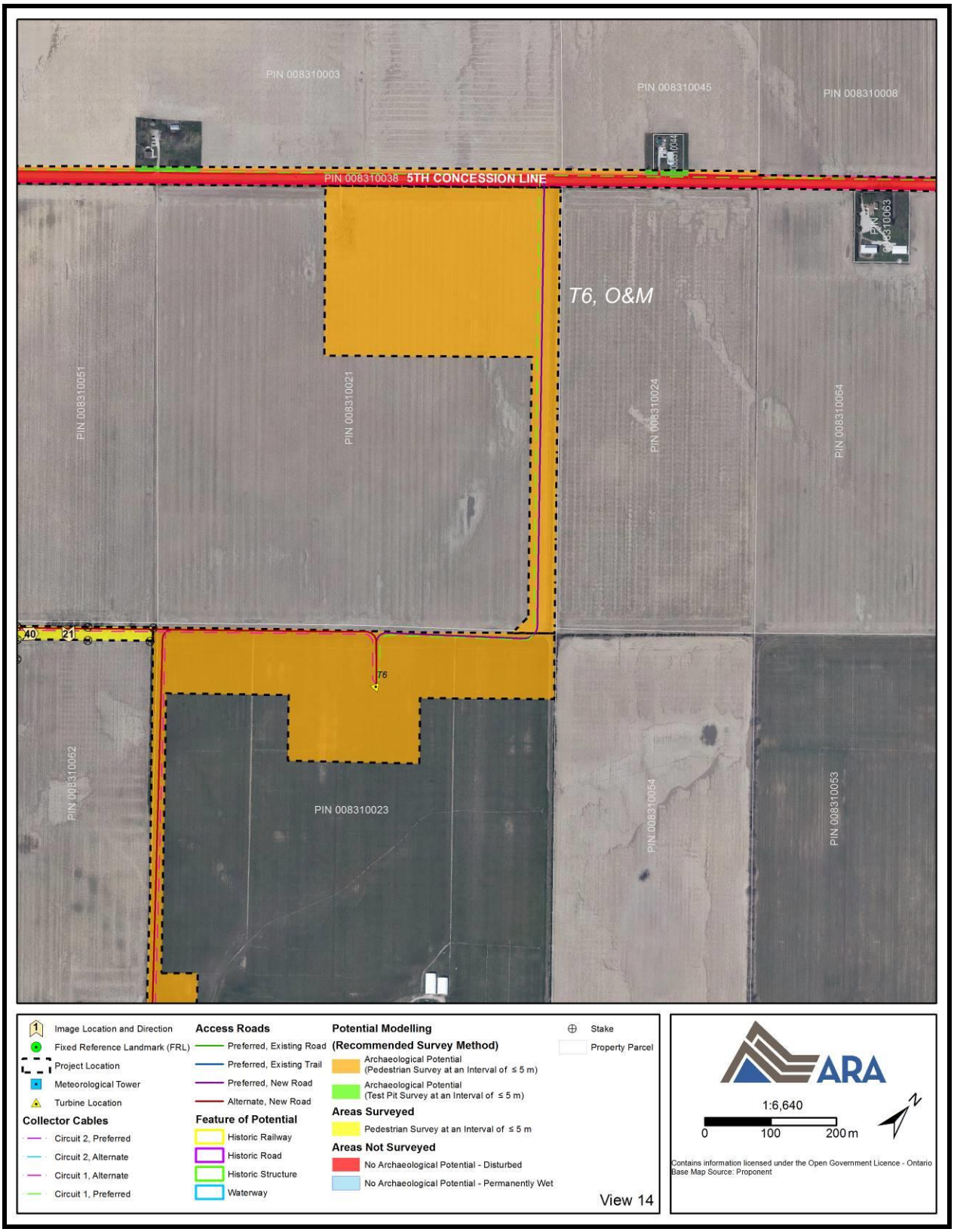
Map 18: Field Methods and Images (View 11)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



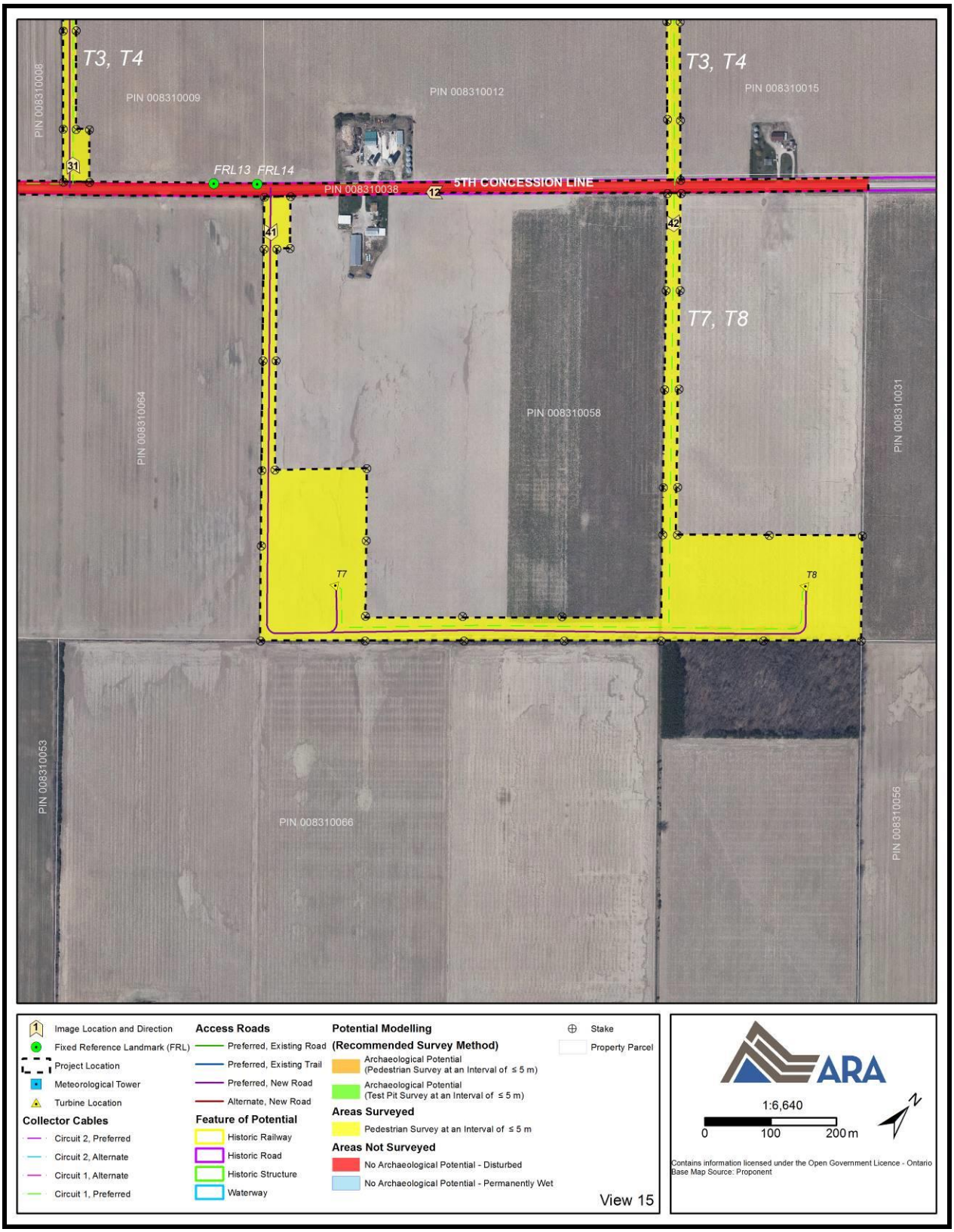
Map 19: Field Methods and Images (View 12)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



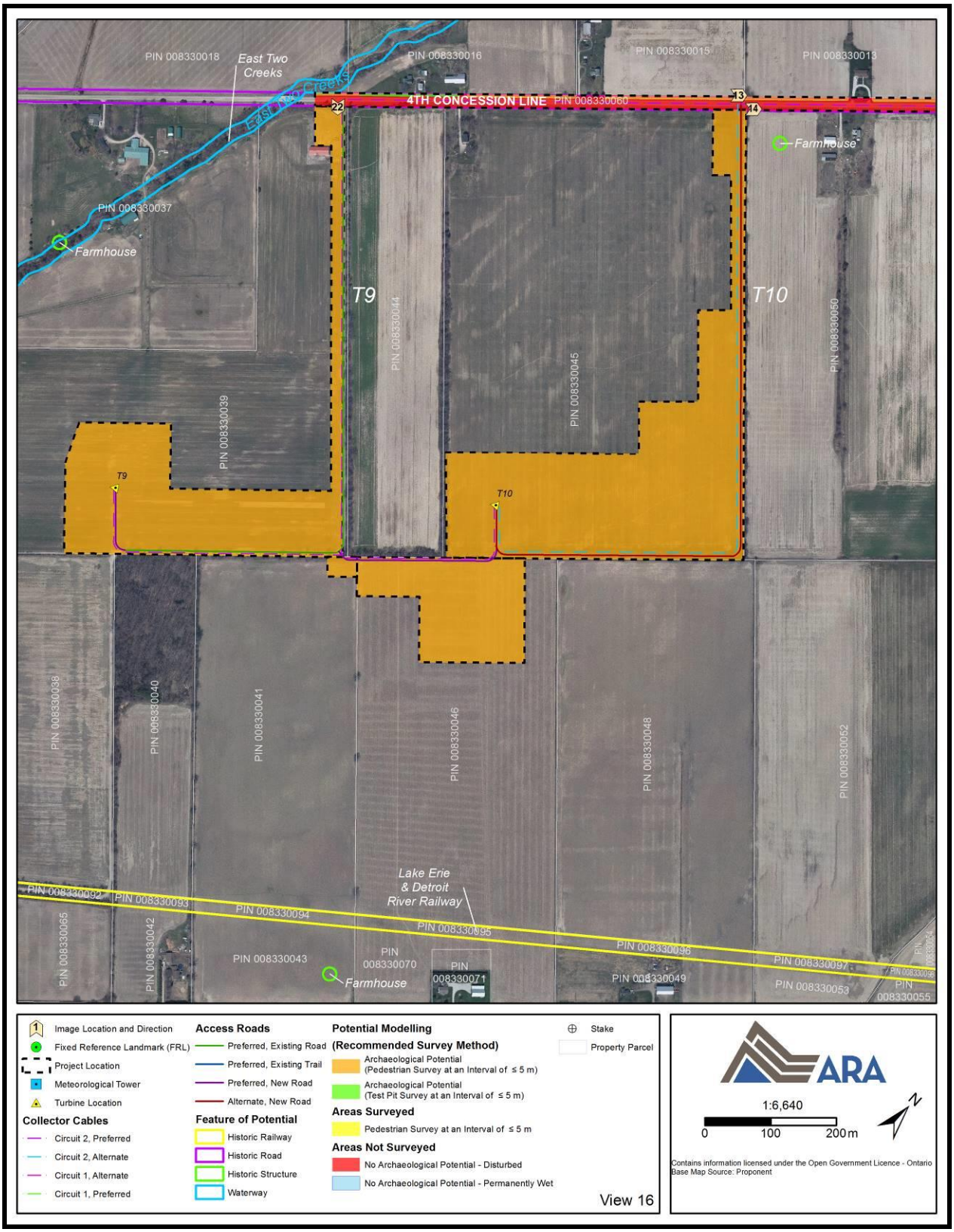
Map 20: Field Methods and Images (View 13)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



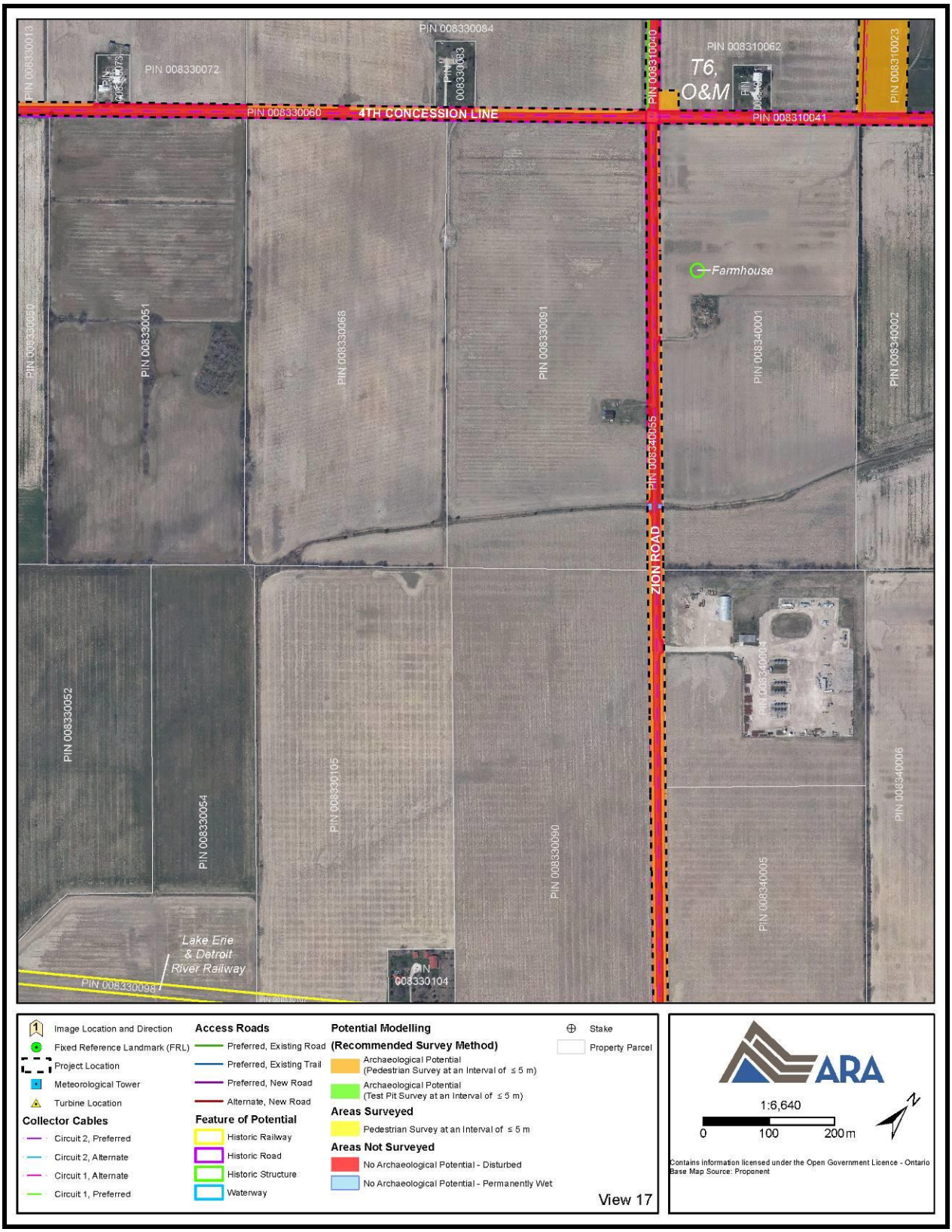
Map 21: Field Methods and Images (View 14)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 22: Field Methods and Images (View 15)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

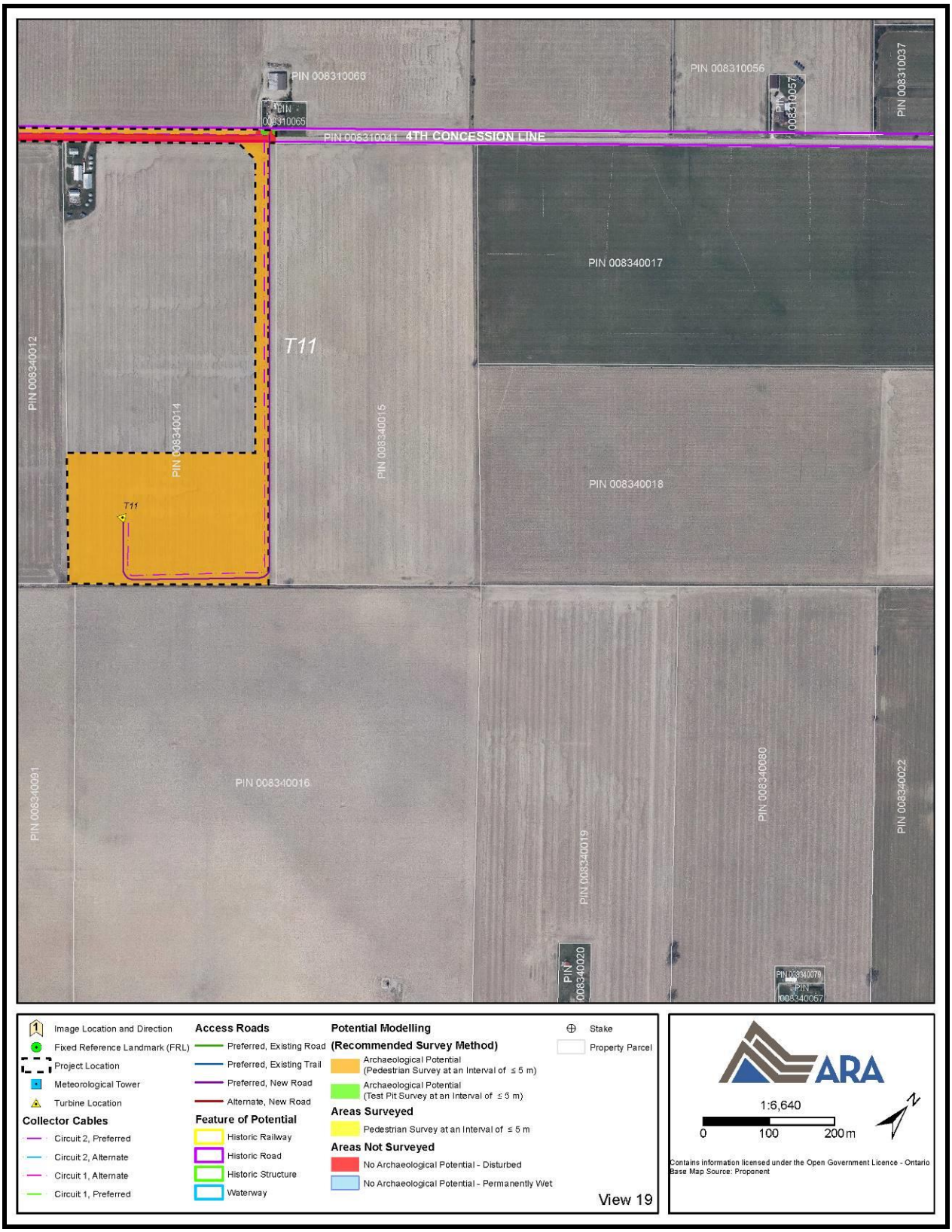


Map 23: Field Methods and Images (View 16)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

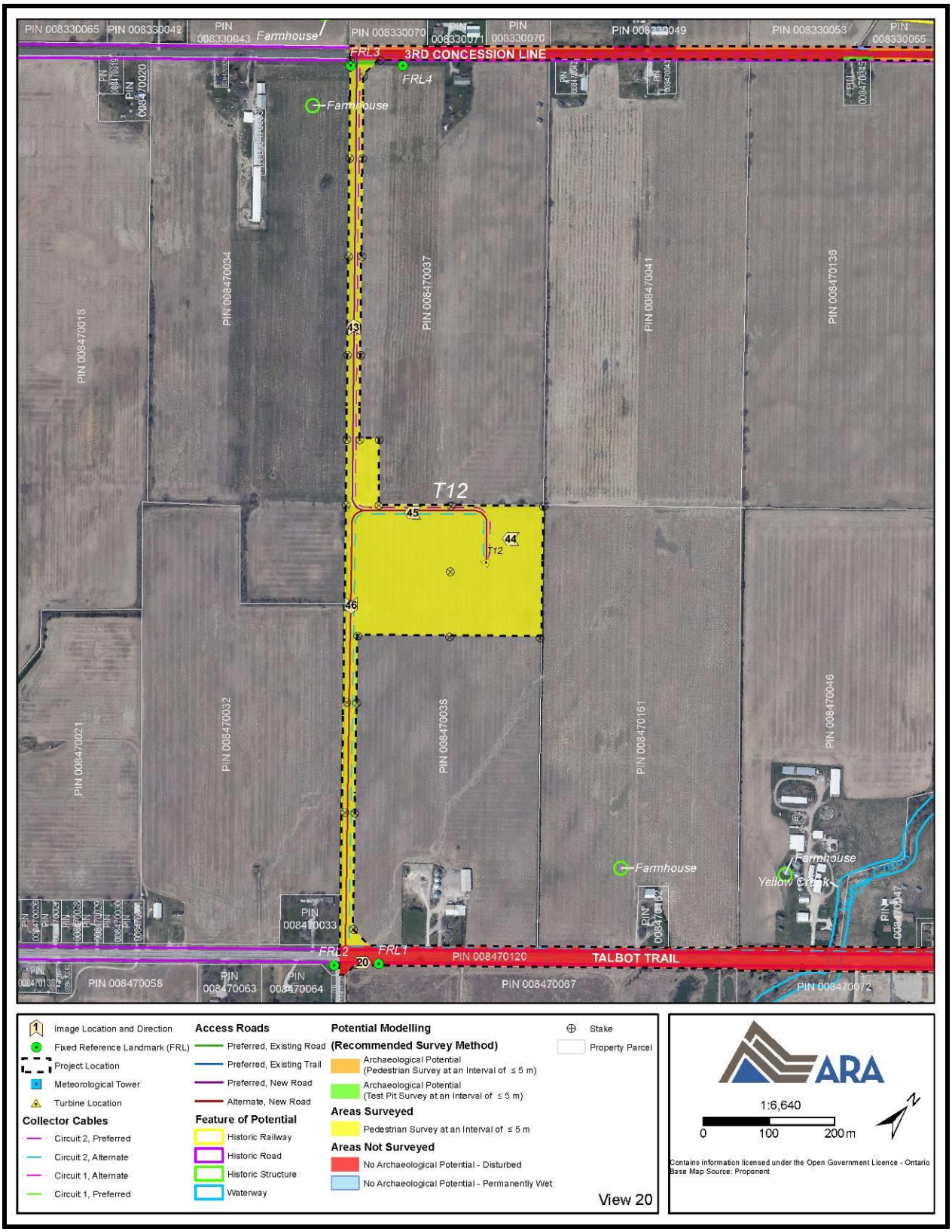


Map 24: Field Methods and Images (View 17)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

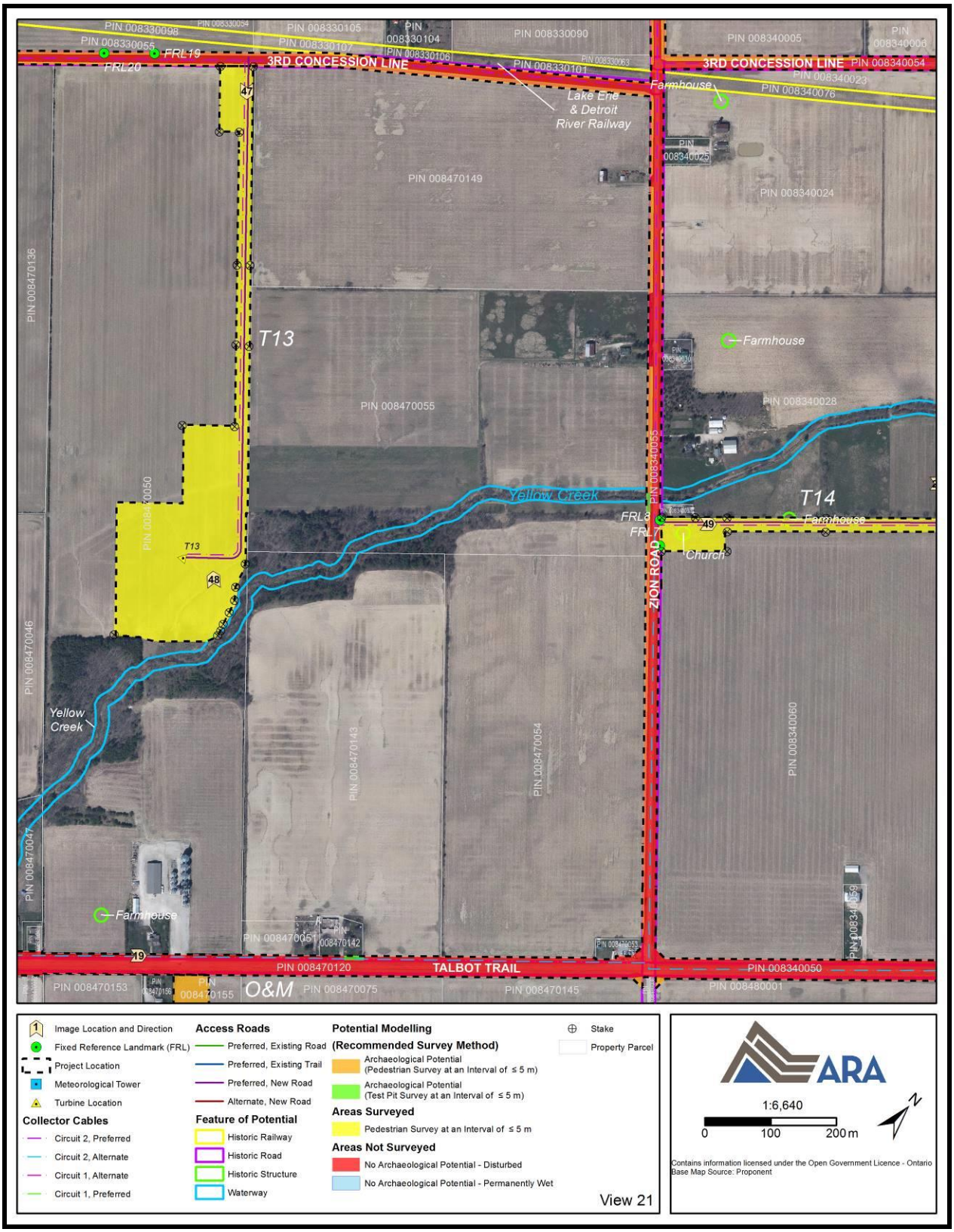
Map 25: Field Methods and Images (View 18)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



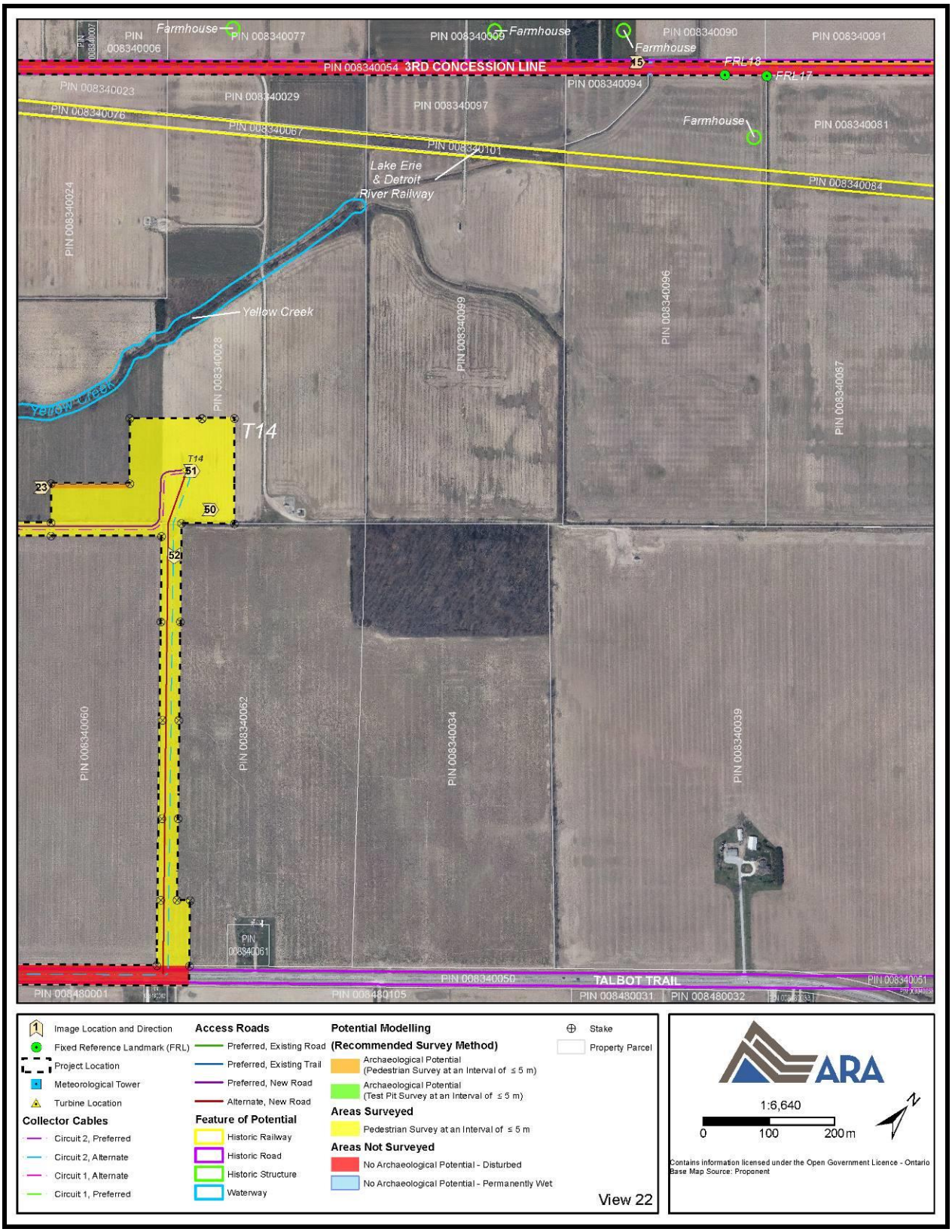
Map 26: Field Methods and Images (View 19)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



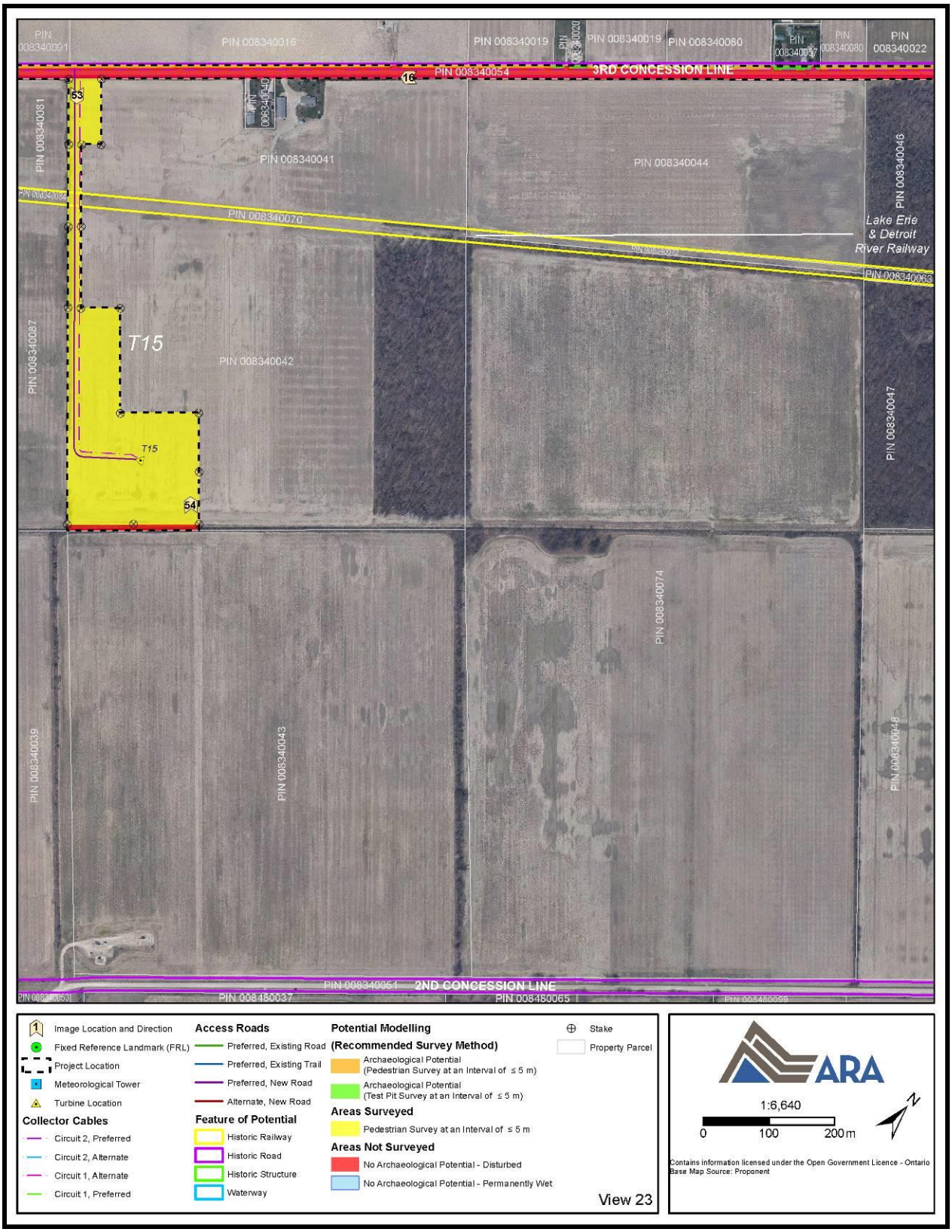
Map 27: Field Methods and Images (View 20)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



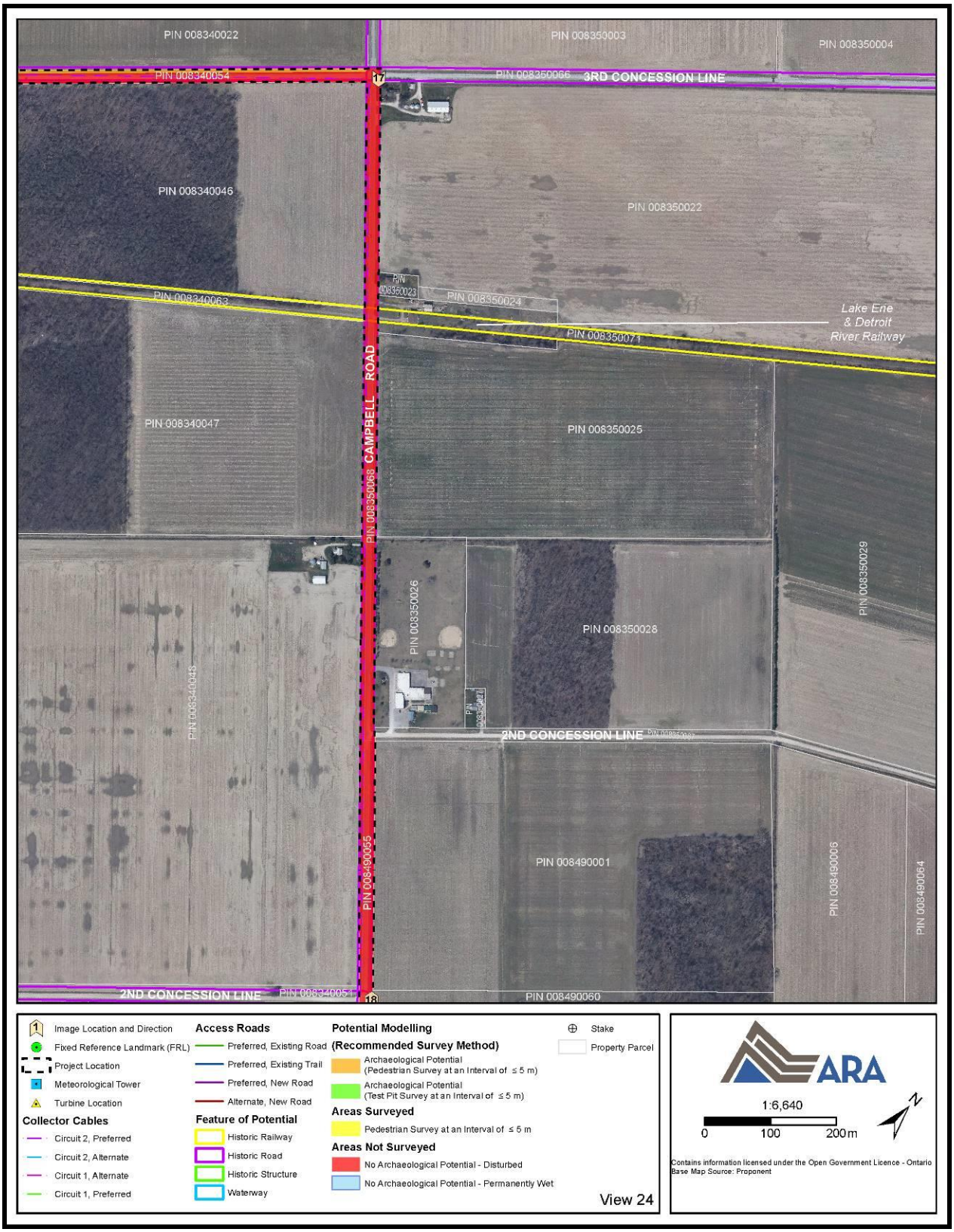
Map 28: Field Methods and Images (View 21)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



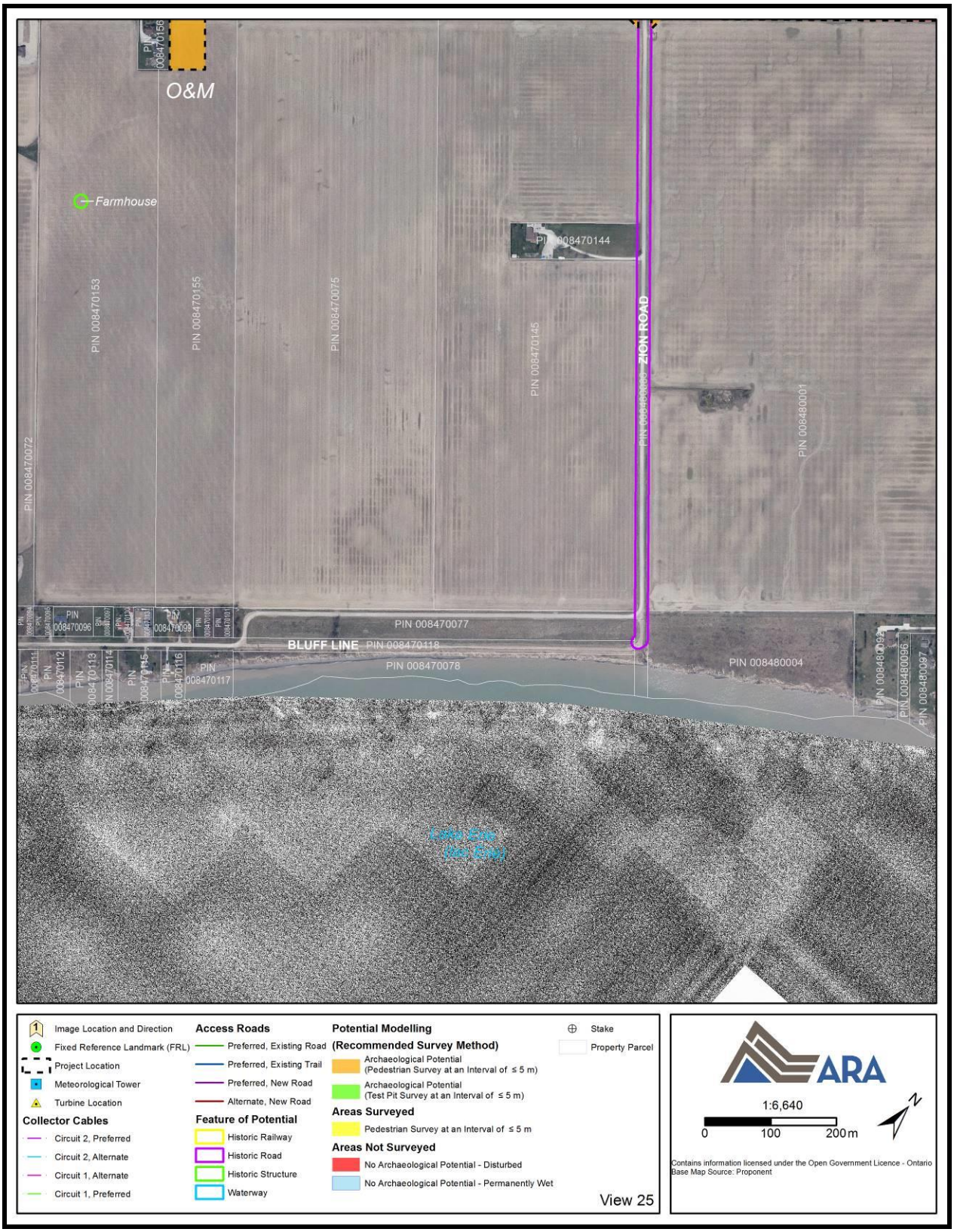
Map 29: Field Methods and Images (View 22)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



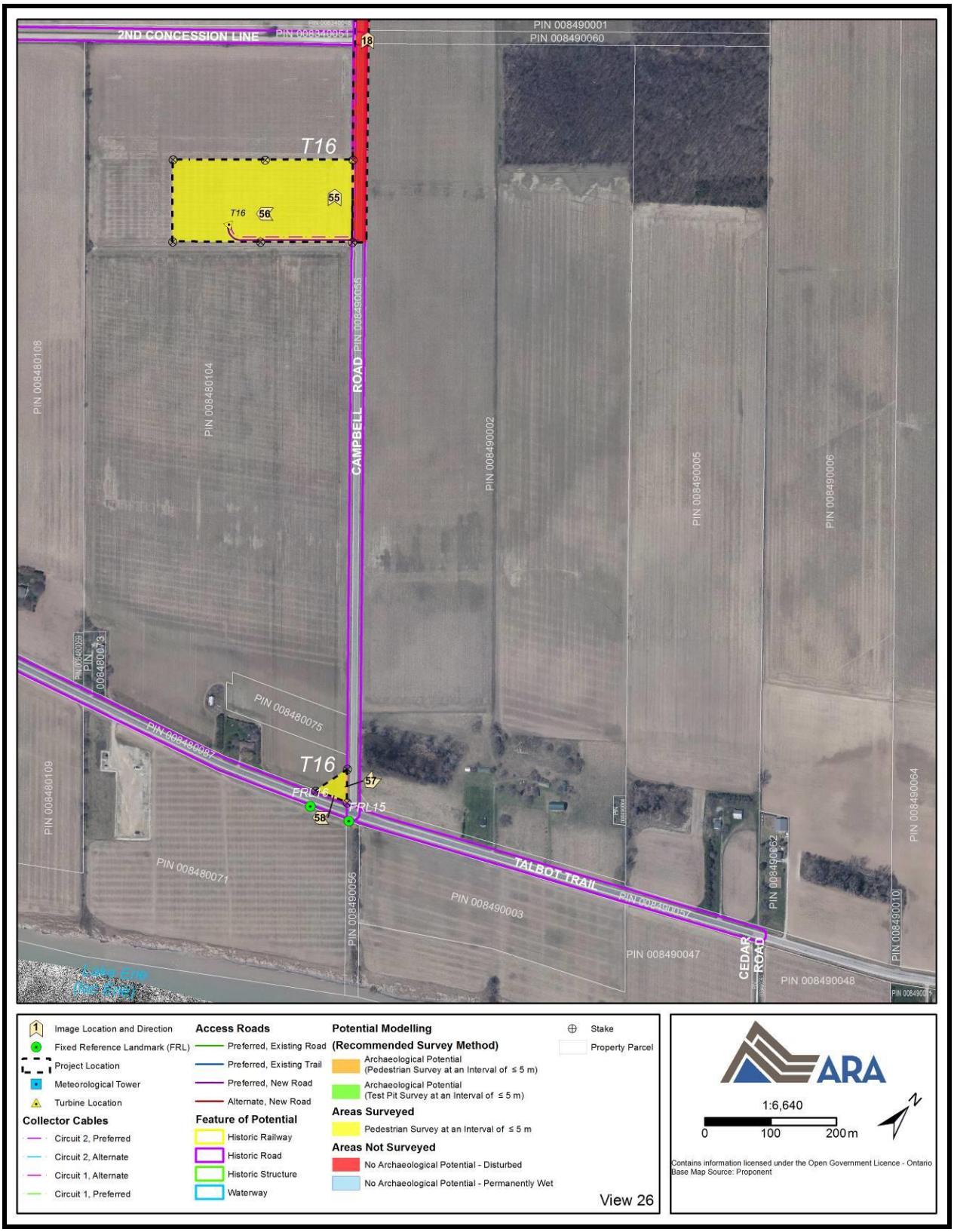
Map 30: Field Methods and Images (View 23)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 31: Field Methods and Images (View 24)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 32: Field Methods and Images (View 25)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



Map 33: Field Methods and Images (View 26)
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

8.0 BIBLIOGRAPHY AND SOURCES

Adams, N., I. Kenyon and D. Doroszenko
1995 **Field Manual for Avocational Archaeologists in Ontario.** 2nd Ed. North York: The Ontario Archaeological Society Inc.

Archaeological Research Associates Ltd. (ARA)
2011 **Stage 2 Archaeological Assessment, Comber Wind Limited Partnership Project (Comber East FIT-FSUTXQ9 and Comber West FIT-FI4DYH9), Town of Lakeshore (Former Townships of Rochester and Tilbury West), Essex County, Ontario**. PIF #P007-269-2010. ARA.

Archives of Ontario (AO)
2015 **Archives of Ontario: Accessing our Collections**. Accessed online at: http://www.archives.gov.on.ca/en/access/our_collection.aspx.

Bourcier, P., H. Dunn, and the Nomenclature Task Force (eds.)
2015 **Nomenclature 4.0 for Museum Cataloguing**. Fourth Edition of Robert G. Chenhall's System for Classifying Cultural Objects. Lanham, Maryland: Rowman & Littlefield.

Chapman, L.J. and D.F. Putnam
1984 **The Physiography of Southern Ontario, 3rd Edition**. Toronto: Ontario Geological Survey, Special Volume 2.

Coyne, J. H.
1895 **The Country of the Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot**. St. Thomas: Times Print.

DNV GL
2016 **Romney Wind Energy Centre Project Description Report**. DNV GL. Accessed online at: http://www.edf-en.ca/project/romney-wind-energy-centre/.

D.R. Poulton & Associates Inc. (DPA)
2007 **The 2007 Stage 1 Archaeological Assessment of the Gosfield Comber Wind Energy Project, Town of Kingsville & Town of Comber, Essex County, Ontario**. CIF #P116-161-2006. DPA.

Eley, B.E. and P.H. von Bitter
1989 **Cherts of Southern Ontario.** Toronto: Royal Ontario Museum.

Ellis, C.J. and N. Ferris (eds.)
1990 **The Archaeology of Southern Ontario to A.D. 1650**. Occasional Publication of the London Chapter, OAS Number 5. London: Ontario Archaeological Society Inc.

Kenyon, T.A. and I.T. Kenyon
2008 **19th Century Notes: A Compendium of Notes from the KEWA (Newsletter of the London Chapter, Ontario Archaeology Society) 1980-1988**. London: London Chapter, OAS.

Lajeunesse, E.J.
1960 **The Windsor Border Region: Canada's Southernmost Frontier**. Toronto: The Champlain Society.

Lauriston, V.
1952 **Romantic Kent: More than Three Centuries of History 1626-1952.** Chatham: Shepherd Printing Company Limited.

Lindsey, B.
2017 **Historic Glass Bottle Identification and Information Website.** Accessed online at: http://www.sha.org/bottle/index.htm.

Lower Thames Valley Conservation Authority (LTVCA)
2016 **Watershed Report Card 2013**. Accessed online at: http://www.lowerthames-conservation.on.ca/about-us/fees-publications/watershed-report-card/.

McEvoy & Co.
1866 **Gazetteer and Directory of the Counties of Kent, Lambton, and Essex, 1866–7**. Toronto: McEvoy & Co.

McGill University
2001 **The Canadian County Atlas Digital Project.** Accessed online at: http://digital.library.mcgill.ca/countyatlas/default.htm.

Miller, G.L.
2000 *Telling Time for Archaeologists*. **Northeast Historical Archaeology** 29:1–22.

Ministry of Natural Resources and Forestry (MNRF)
2015 **Forest Regions**. Accessed online at: http://www.ontario.ca/environment-and-energy/forest-regions.

Ministry of Tourism and Culture (MTC)
2011 **Standards and Guidelines for Consultant Archaeologists**. Toronto: MTC.

Ministry of Tourism, Culture and Sport (MTCS)
2014 **The Archaeology of Rural Historic Farmsteads: A Draft Technical Bulletin for Consultant Archaeologists in Ontario**. Toronto: MTCS.

Munson, M.K. and S.M. Jamieson (eds.)
2013 **Before Ontario: The Archaeology of a Province**. Kingston: McGill-Queen's University Press.

Ontario Agricultural College
1930 **Soil Survey of Kent County.** Report No. 3 of the Ontario Soil Survey. Guelph: Department of Chemistry, Ontario Agricultural College.

Ontario Historical County Maps Project (OHCMP)
2016 **Ontario Historical County Maps Project**. Accessed online at: http://maps.library.utoronto.ca/hgis/countymaps/maps.html.

Parks Canada
2002 **Database Artifact Inventory Coding Guide.** Unpublished Manuscript. Parks Canada.

Phelps, E. and R. Cumming (eds.)
1973 **Illustrated Historical Atlas of the Counties of Essex and Kent**. Reprint of 1880 (Kent) and 1881 (Essex) Editions. Toronto: H. Belden & Co.

Richards, N.R., A.G. Caldwell and F.F. Morwick
1949 **Soil Survey of Essex County**. Report No. 11 of the Ontario Soil Survey. Guelph: Experimental Farms Service, Dominion Department of Agriculture and the Ontario Agricultural College.

Smith, W.H.
1846 **Smith's Canadian Gazetteer: Comprising Statistical and General Information Respecting all Parts of the Upper Province, or Canada West**. Toronto: H. & W. Rowsell.

Surtees, R.J.
1994 *Land Cessions, 1763–1830*. In **Aboriginal Ontario: Historical Perspectives on the First Nations**, edited by E.S. Rogers and D.B. Smith, pp. 92–121. Toronto: Dundurn Press.

Sutton, M.Q. and B.S. Arkush
2002 **Archaeological Laboratory Methods: An Introduction.** 3rd Edition. USA: Kendal/Hunt Publishing Company.

Warrick, G.
2000 *The Precontact Iroquoian Occupation of Southern Ontario.* **Journal of World Prehistory** 14(4):415–456.

Wright, J.V.
1972 **Ontario Prehistory: An Eleven-Thousand-Year Archaeological Outline**. Archaeological Survey of Canada, National Museum of Man. Ottawa: National Museums of Canada.

APPENDICES

Appendix A: Field and Environmental Conditions

Date	Parcel Group(s)	Field Conditions	Weather Conditions	Temperature (°C)	Lighting Conditions
07/11/2016	Multiple (Southern Part of Project Location)	Dry	Sunny	16	Excellent
08/11/2016	Multiple (Northern Part of Project Location)	Damp	Partly Cloudy	10	Excellent
28/11/2016	T12, T13	Dry	Sunny	11	Excellent
29/11/2016	T7, T8, T13	Damp	Sunny	10	Very Good
30/11/2016	T3, T4, T5 (part), T6/O&M (part), T7, T8, T15, T16	Damp	Partly Cloudy	4	Good
01/12/2016	T1, T5, T14 (part), T17 (part)	Damp	Partly Cloudy	5	Good
02/12/2016	Substation	Damp	Partly Cloudy	6	Good

Appendix B: Archaeological Materials Catalogue

Record	Site	Provenience	Lot	Freq.	Class	Material	Object Group	Object Name	Comments	Heat Altered	Box
1	1	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Retouch Flake	Edge Trimming	Yes	A409
2	2	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Retouch Flake		Yes	A409
3	2	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Retouch Flake		No	A409
4	2	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Secondary Flake		No	A409
5	2	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Secondary Flake		No	A409
6	3	CSP	Surface	1	Indigenous	Kettle Point Chert	Lithic Debitage	Primary Flake		No	A409
7	4	CSP	Surface	1	Indigenous	Kettle Point Chert	Lithic Debitage	Secondary Flake		No	A409
8	4	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Secondary Flake		Yes	A409
9	5	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Retouch Flake		No	A409
10	5	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Secondary Flake		No	A409
11	6	CSP	Surface	1	Indigenous	Onondaga Chert	Informal Lithic	Biface Fragment		No	A409
12	6	CSP	Surface	1	Indigenous	Selkirk Chert	Lithic Debitage	Secondary Flake		No	A409
13	7	CSP	Surface	1	Indigenous	Onondaga Chert	Lithic Debitage	Secondary Flake		No	A409

Appendix C: Documentary Record

Field Documents	Total	Nature	Location
Photographs	208	Digital	On server at 219-900 Guelph Street, Kitchener
Notes	14	Digital and hard copy	Filed and on server at 219-900 Guelph Street, Kitchener
Maps	124	Digital and hard copy	Filed and on server at 219-900 Guelph Street, Kitchener