



Samsung Renewable Energy Inc. and

Pattern Energy

7C Additional Stage 2 Property Assessment Main Report

For

South Kent Wind Project

#### **Additional Stage 2 Property Assessment**

# South Kent Wind Project Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario

#### **Prepared for:**

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Archaeological Licence P347 (Andrew Riddle) MTCS PIF P347-102-2011 ASI File 11EA-258

April 25, 2012

#### **REVISED REPORT**



#### **Additional Stage 2 Property Assessment**

# South Kent Wind Project Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario

#### **EXECUTIVE SUMMARY**

Archaeological Services Inc. (ASI) was contracted by Hatch Ltd., Niagara Falls, on behalf of Pattern Energy and Samsung Renewable Energy (the Proponent), to conduct a Stage 2 property assessment on additional lands for the South Kent Wind Project (the "Project"), a 270 MW wind energy project which will be located within the Municipality of Chatham-Kent, in southwestern Ontario. The Project is located south of Highway 401 between the towns of Tilbury and Ridgetown to the west and east, respectively.

The archaeological assessment for the Project is being conducted under Ontario Regulation 359/09, the Renewable Energy Approvals (REA) under Part V.O.1 of the *Environmental Protection Act*.

In the original Stage 2 license report for the Project that ASI filed with the Ministry of Culture, Tourism and Sports (MTCS) in 2011 was a recommendation to conduct a Stage 3 site-specific assessment on 43 archaeological sites. However, during the fall and through to early December, the Proponent actively revised the layout to exclude as many of the sites (or portions thereof) from the Project as possible. This work resulted in Layout L19 R1 within which only 24 sites will now be subject to further Stage 3 assessment.

Between November 22, 2011 and March 1, 2012, ASI conducted a Stage 2 property assessment of new, previously unassessed Project lands within Layout L19 R1, and this included 28 infrastructure survey areas (ISA): 14 plough areas for the turbines and access roads, one substation site, and 13 areas for electrical connection layout, transmission lines and junction boxes. These ISAs were subjected to pedestrian and test pit survey methods. A total of 19 new archaeological sites were identified.

Of these new archaeological sites, eight were determined to be sufficiently assessed and documented at Stage 2, and eleven met the criteria for requiring a Stage 3 site specific assessment.

If changes to the Project layout or temporary workspace requirements result in the inclusion of previously unsurveyed lands, these lands should be subjected to a Stage 2 property assessment.

ASI requests that the MTCS concur with the above recommendations.



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#### 1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Hatch Ltd., Niagara Falls, on behalf of Pattern Energy and Samsung Renewable Energy (the Proponent), to conduct a Stage 2 Property Assessment on additional lands for the South Kent Wind Project (the "Project"), a 270 MW wind energy project which will be located within the Municipality of Chatham-Kent, in southwestern Ontario (Figure 1). The Project is located south of Highway 401 between the towns of Tilbury and Ridgetown to the west and east, respectively.

The Project is proposed to be 270 MW in size, using Siemens wind turbine technology, supporting infrastructure, including access roads, buried cables and overhead collector lines, a 230kV transmission line and two (2) substations to enable step-up of the voltage from 34.5kV to 230 kV to enable connection to the Chatham Switching Station (SS).

This assessment is being conducted under the project management of Andrew Riddle, PhD (MTCS licence P347) and senior project management of Robert Pihl, MA (MTCS licence P057), both of ASI. Dr. Riddle also served as project director for licensing purposes. All activities carried out during this assessment were completed in accordance with the terms of the *Ontario Heritage Act* (2005) and the Ministry of Tourism and Culture's 2011 *Standards and Guidelines for Consultant Archaeologists* (*S & G*).

Section 2 of the S & G lists the objectives of a Stage 2 assessment as follows:

- To document all archaeological resources in the study area;
- To determine whether the study area contains archaeological resources with cultural heritage value or interest that would require further assessment; and
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

This report addresses these objectives in terms of the Project as follows: Section 1.0 first identifies the development context for the Project, then summarizes the archaeological context represented by the Stage 2 property assessment that was previously conducted by ASI for the Project area; Section 2.0 first outlines the field methods employed to conduct the additional Stage 2 property assessment, then provides a general summary of the assessment results for the additional infrastructure survey areas within the Project study area that were examined during the fall 2011 and winter 2012 field season; Section 3.0 characterizes the new archaeological sites identified during the assessment and describes the artifact samples recovered; Section 4.0 analyzes the site and artifact data to determine the nature of the archaeological resources found; Section 5.0 provides recommendations for the next assessment steps; and the remaining sections contain other report information that is required by the *S & G*, such as advice on compliance with legislation, works cited, photo-documentation and mapping.

<sup>&</sup>lt;sup>1</sup> In December 2011, the Ministry of Tourism and Culture expanded to include the sports portfolio and become the new Ministry of Tourism, Culture and Sport (MTCS).



#### 1.1 Development Context

The archaeological assessment for the Project is being conducted under Ontario Regulation 359/09, the Renewable Energy Approvals (REA) under Part V.0.1 of the *Environmental Protection Act*. Under Section 20 (1) and Section 21 of the REA process, the Project must determine if there will be a potential impact to an archaeological resource, and under Section 22, an archaeological assessment must be undertaken if potential impact is determined.

The Project area includes turbine site areas that are typically 125 x 125 m in size as well as any area proposed for construction or development activities, including access roads, temporary lay-down areas, truck turn-around areas, crane pads, distribution and transmission lines.

Permission to access the Project area and to carry out all activities necessary for the completion of the assessment was granted by Hatch Ltd. to ASI on November 18, 2011.

Throughout the duration of this project and under a separate contract with the Proponent, ASI has been actively engaging with Aboriginal communities who have expressed an interest in the ongoing archaeological work within the Project study area. Although this specifically pertains to the Stage 3 site-specific assessments of 24 archaeological sites within the proposed layout, and the Stage 4 mitigative excavations of three sites during the winter of 2012—Sites AcHI-40, -57 and -78, the Stage 2 results for this project were briefly discussed as well (see Supplementary Documentation for further details of Aboriginal Engagement in Archaeology). To date, no concerns with the Project have been expressed.

#### 1.2 Archaeological Context

The archaeological context for the current work derives from the recently completed Stage 1 and Stage 2 assessments conducted by ASI for the Project, and a series of license reports summarizing that work that were submitted to and accepted by the MTCS into the *Provincial Register of Reports*. These include the following:

- Stage 1 Archaeological Assessment (Background Study and Property Inspection), South Kent Wind Project, Municipality of Chatham-Kent, Ontario (ASI 2010; PIF #P264-120-2010);
- Stage 2 Property Assessment, South Kent Wind Project, Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario—Final Report (ASI 2011a; PIF #P347-001-2011). One interim Stage 2 report was also completed and should be noted: ASI and SJAHCE (2011; ASI PIFs #P264-119-2010 & P264-120-2010, and SJAHCE PIF #P027-112-2010); and
- Stage 2 Property Assessment—Supplementary Documentation, South Kent Wind Project, Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario (ASI 2011b; PIF #P347-001-2011).



Previous Archaeological Assessment in the Project Study Area. The Stage 1 assessment report (ASI 2010: Table 1; also summarized in ASI 2011a) provided background data for the Project study area and vicinity in terms of the following: previous archaeological survey and research conducted; an inventory of known sites contained in the MTCS's Archaeological Sites Database; a detailed description of the physical setting; the results of the property inspection; and an evaluation of archaeological site potential. Within the current project mandate, there is no change to the overall Project study area compared to the previous work to warrant additional background study or property inspection.

In ASI's Stage 1 archaeological assessment report, forty-nine archaeological sites were listed within 1 km of the Project study area, and it was noted that three were situated within 300 m of the proposed layout at the time (dated November and December 2010). Since the original list was compiled in 2010, the Project layout has been modified several times, but none of the listed sites have yet to be included within any of the Project. In 2010 and 2011, ASI (and SJAHCE) completed a comprehensive Stage 2 property assessment that consisted of pedestrian survey of 137 infrastructure survey areas (ISA) within cultivated lands, including 130 turbine plough areas, 2 substation plough areas, and 2 meteorological plough areas (based on Layout 10 Rev 5). Another three sections of electrical connection layout within municipal road right-of-way were subjected to test pit survey. Over the course of the fieldwork, a total of 516.11 ha of lands were assessed, and this included all lands that could be assessed by either pedestrian or test pit survey methods, amounting to 507.46 ha (or 98.3% of the total). The balance had no archaeological potential due to disturbance (1.58 ha, or 0.3%) or low, wet ground conditions (7.07 ha, or 1.4%). During the survey, a total of 85 new archaeological sites were identified, sixty of which were just registered with the MTCS's Ontario Archaeological Sites Database (Table 1).

Table 1: Registered Sites within 1 km of Proposed Facilities since December 2010

Borden #	Name	Cultural/Temporal Affilation	Туре	Researcher	Location and Status
AbHn-29	SKWP-P22	Unknown	Non-diagnostic Isolate	ASI 2011a	TPA-065; no further work
AbHn-30	SKWP-P23	Middle Archaic	Diagnostic isolate	ASI 2011a	TPA-065; no further work
AbHn-31	SKWP-H5	Mid-Late 19 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-065; Stage 3 required
AbHn-32	SKWP-H7	Mid-late 19 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-063; Stage 3 required
AbHo-2	SKWP-P9	Middle Archaic	Diagnostic isolate	ASI 2011a	TPA-081; no further work
AbHo-3	SKWP-P10	Early Woodland	Diagnostic isollate	ASI 2011a	TPA-073; no further work
AbHo-4	SKWP-P26	Middle Woodland	Diagnostic isolate	ASI 2011a	TPA-079; no further work
AbHo-5	SKWP-H13	Mid-19 <sup>th</sup> -early 20 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-124; Stage 3 required
AbHo-6	SKWP-P72	Late Archaic	Diagnostic isolate	ASI 2011a	TPA-150; no further work
AcHl-33	SKWP-P4	Middle Woodland	Diagnostic scatter	ASI 2011a	TPA-017; Stage 3 required
AcHl-34	SKWP-P6	Early Archaic	Diagnostic isolate	ASI 2011a	TPA-173; Stage 3 required
AcHl-35	SKWP-P11	Late Archaic	Non-diagnostic scatter	ASI 2011a	TPA-171; Stage 3 required
AcHl-36	SKWP-P12	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-171; Stage 3 required
AcHl-37	SKWP-P13	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-171; Stage 3 required
AcHl-38	SKWP-P15	(Middle) Late Woodland	Diagnostic scatter	ASI 2011a	TPA-171; Stage 3 required
AcHl-39	SKWP-P17	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-171; Stage 3 required
AcHl-40	SKWP-P18	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-107; Stage 3 required



Borden #	Name	Cultural/Temporal Affilation	Туре	Researcher	Location and Status
AcHl-41	SKWP-P19	Late Archaic	Diagnostic isolate	ASI 2011a	TPA-107; no further work
AcHl-42	SKWP-P21	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-107; Stage 3 required
AcHl-43	SKWP-P24	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-107; Stage 3 required
AcHl-44	SKWP-P27	Late Archaic Middle Woodland	Diagnostic scatter	ASI 2011a	TPA-106; Stage 3 required
AcHl-45	SKWP-P28	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-106; Stage 3 required
AcHl-46	SKWP-P29	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-106; Stage 3 required
AcHl-47	SKWP-P30	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-106; Stage 3 required
AcHl-48	SKWP-P31	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-106; Stage 3 required
AcHl-49	SKWP-P35	Early Archaic, Early & Middle Woodland	Diagnostic scatter	ASI 2011a	TPA-105; Stage 3 required
AcHl-50	SKWP-P37	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-010; Stage 3 required
AcHl-51	SKWP-P39	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-105; Stage 3 required
AcHl-52	SKWP-P40	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-105; Stage 3 required
AcHl-53	SKWP-P41	(Middle) Late Woodland	Diagnostic scatter	ASI 2011a	TPA-105; Stage 3 required
AcHl-54	SKWP-P42	Early & Late Archaic	Diagnostic scatter	ASI 2011a	TPA-139; Stage 3 required
AcHl-55	SKWP-P44	(Middle) Late Woodland	Diagnostic scatter	ASI 2011a	TPA-139; Stage 3 required
AcHl-56	SKWP-P46	Late Archaic	Diagnostic isolate	ASI 2011a	TPA-139; no further work
AcHl-57	SKWP-P47	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-103; Stage 3 required
AcHl-58	SKWP-P50	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-103; Stage 3 required
AcHl-59	SKWP-P51	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-103; Stage 3 required
AcHl-60	SKWP-P53	Early Woodland	Diagnostic scatter	ASI 2011a	TPA-006; no further work
AcHl-61	SKWP-P55	(Middle) Late Woodland	Diagnostic isolate	ASI 2011a	TPA-010; no further work
AcHl-62	SKWP-P57	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-140; Stage 3 required
AcHl-63	SKWP-H6	Mid-19 <sup>th</sup> to early 20 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-166; Stage 3 required
AcHl-64	SKWP-P49	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-103; Stage 3 required
AcHl-65	SKWP-P58	Middle Archaic	Diagnostic scatter	ASI 2011a	TPA-118; Stage 3 required
AcHl-66	SKWP-P61	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-104; Stage 3 required
AcHl-67	SKWP-P62	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-104; Stage 3 required
AcHl-68	SKWP-P59	Early Archaic	Diagnostic scatter	ASI 2011a	TPA-118; Stage 3 required
AcHl-69	SKWP-P63	Unknown	Non-diagnostic isolate	ASI 2011a	TPA-020; no further work
AcHl-70	SKWP-H10	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-029; Stage 3 required
AcHl-71	SKWP-P64	Middle Woodland	Diagnostic isolate	ASI 2011a	TPA-019; no further work
AcHl-72	SKWP-P65	Middle Archaic	Diagnostic isolate	ASI 2011a	TPA-020; no further work
AcHl-73	SKWP-H11	Late 19 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-021; Stage 3 required
AcHl-74	SKWP-P66	Unknown	Non-diagnostic	ASI 2011a	TPA-029; no further work



Borden #	Name	Cultural/Temporal Affilation	Туре	Researcher	Location and Status
			isolate		
AcHl-75	SKWP-H12	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	TPA-028; Stage 3 required
AcHl-76	SKWP-P70	Late Archaic	Diagnostic scatter	ASI 2011a	TPA-133; Stage 3 required
AcHl-77	SKWP-P74	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-146; Stage 3 required
AcHl-78	SKWP-P76	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-146; Stage 3 required
AcHm-58	SKWP-P14	Middle Archaic & Middle Woodland	Diagnostic scatter	ASI 2011a	TPA-060; Stage 3 required
AcHm-59	SKWP-P32	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-031; no further work
AcHm-60	SKWP-P34	Unknown	Non-diagnostic scatter	ASI 2011a	TPA-097; no further work
AcHm-61	SKWP-H9	3 <sup>rd</sup> quarter 19 <sup>th</sup> century	Diagnostic scatter	ASI 2011a	CLSA-2; Stage 3 required
TPA: turbine	plough area; CLS	A: connection layout survey a	rea		

Based on an analysis of the results, forty-three of the registered sites listed in Table 1 sufficiently met the *S* & *G* criteria for sites requiring further Stage 3 site-specific assessment if they were to be located within the Project layout. All assessment results have been summarized in a series of license reports that were filed with the Ministry of Tourism and Culture (ASI and SJAHCE 2011 and ASI 2011a); these reports were accepted into the *Provincial Register of Archaeological Reports* on August 25, 2011.

In the fall of 2011, the Proponent initiated a series of revisions to the Project layout that were designed to remove as many archaeological sites (or as much of their site areas) requiring Stage 3 site-specific assessment as possible from the Project. Over the course of the fall and into early December 2011, a variety of layout modifications were made, including the use of alternative access road alignments, restricting the width of the access road, altering the construction laydown area to avoid a site (or portion thereof), moving the location of a turbine site, or eliminating a turbine site altogether. Most of these changes were affected within the assessed plough areas where no archaeological remains were previously encountered but occasionally new lands were required to accommodate the layout revision, and these new lands are the subject of the present Stage 2 investigation. The end result of these changes is layout version L19 R1 which impacts a much smaller number of sites: Table 2 lists the 14 archaeological sites or portions of sites that are now situated within the Project layout. Also listed are sites if a portion of their 20 m construction buffer is situated within the Project layout (per *S & G, Section 7.8.5, Standard 1.e.i*, and personal communication, Shari Prowse, MTCS, emails dated August 22 and November 24, 2011); another 10 archaeological sites are included for this reason. A series of Stage 3 assessments for these sites is currently in progress under a separate contract with the Proponent.

Summary Description of the Physical Setting. The Project study area is situated largely in the St. Clair Clay Plains physiographic region of southern Ontario. The St. Clair Clay Plains comprise several clay plains overlying limestone bedrock, till plains and till moraines. Most of the study area is on the Essex Clay Plain sub-region, an imperfectly drained, flat area of clay overlying till, situated between the basins of Lake Erie and Lake St. Clair. While most of the poorly drained lands would not have been particularly attractive to pre-contact or early historic inhabitants, there is potential for sites in the better drained Table 2: South Kent Wind Project – Sites Requiring Stage 3 Site-specific Assessment under Layout L19 R1



ISA	Site Borden #	Site Field Name	Type and Area of Site withImpact
TPA-010	AcHl-50	SKWP-P37	Construction buffer only: 890.78 m <sup>2</sup>
TPA-017	AcHl-33	SKWP-P4	Construction buffer only: 198.21 m <sup>2</sup>
TPA-021	AcHl-73	SKWP-H11	Site portion: 2,785.82 m <sup>2</sup>
TPA-060	AcHm-58	SKWP-H11	Construction buffer only: 2,703.88 m <sup>2</sup>
TPA-063	AbHn-32	SKWP-H7	Site portion: 255.63 m <sup>2</sup>
TPA-065	AbHn-31	SKWP-H5	Site portion: 620.37 m <sup>2</sup>
TPA-103	AcHl-57	SKWP-P47	Site portion: 1,631.98 m <sup>2</sup>
TPA-104	AcHl-66	SKWP-P61	Construction buffer only: 2,158.01 m <sup>2</sup>
1PA-104	AcHl-67	SKWP-P62	Construction buffer only: 5.13 m <sup>2</sup>
	AcHl-49	SKWP-P35	Construction buffer only: 808.27 m <sup>2</sup>
TPA-105	AcHl-51	SKWP-P39	Site portion: 598.38 m <sup>2</sup>
	AcHl-52	SKWP-P40	Site portion: 3,629.65 m <sup>2</sup>
	AcHl-44	SKWP-P27	Site portion: 74.86 m <sup>2</sup>
	AcHl-45	SKWP-P28	Construction buffer only: 1,657.86 m <sup>2</sup>
TPA-106	AcHl-46	SKWP-P29	Construction buffer only: 276.14 m <sup>2</sup>
	AcHl-47	SKWP-P30	Site portion: 302.75 m <sup>2</sup>
	AcHl-48	SKWP-P31	Site portion: 711.64 m <sup>2</sup>
	AcHl-40	SKWP-P18	Site portion: 554.99 m <sup>2</sup>
TPA-107	AcHl-42	SKWP-P21	Construction buffer only: 585.46 m <sup>2</sup>
	AcHl-43	SKWP-P24	Construction buffer only: 1,804.88 m <sup>2</sup>
TPA-118	AcHl-68	SKWP-P59	Site portion: 683.00 m <sup>2</sup>
TPA-139	AcHl-54	SKWP-P42	Site portion: 3,096.80 m <sup>2</sup>
TPA-140	AcHl-62	SKWP-P57	Site portion: 97.30 m <sup>2</sup>
TPA-146	AcHl-78	SKWP-P76	Site portion: 2,930.52 m <sup>2</sup>

locales. These pockets as well as the areas of inland or shoreline marsh may also have supported plant and animal resources not found elsewhere in the general area.

The northwest two thirds of the Project area are within the Lake St. Clair drainage, drained by Baptiste Creek, Jeannettes Creek, McGregor Creek and numerous other tributaries of the Thames River. On the south edge, the Lake Erie drainage basin includes a narrow margin of the level lands along the lakeshore at the west end of the Project area. Toward the east the lakeshore terrain becomes more rolling, and the Lake Erie tributaries are more entrenched, extending six to seven kilometres inland. Large wetlands occur along the north shore of Rondeau Harbour.

Many of the watercourses in the Project area are natural. However, much of the Project area comprises poorly drained soils and level terrain; extensive systems of ditches were excavated in the nineteenth and twentieth centuries to enhance soil drainage and enable these lands to be farmed. These ditching projects were initiated prior to 1880, and appear on the 1881 historic maps. And, where small or ephemeral natural watercourses occur, most have been channelized, probably with some changes in the water course locations. Where water sources are artificial, the vicinities can be regarded as being distant from water, without associated potential for pre-contact Aboriginal or early historic sites. Indeed, it may be argued that there is probably little potential for early historic or pre-contact Aboriginal sites in such locations due



to ground conditions that were formerly wet for most of the year, thus necessitating the excavation of the ditches.

The Project area also includes relict beach ridges or shore cliffs in several locations. The most extensive is a meandering and ephemeral beach line within the north margin of the Project area. Another beach line occurs along the level lakeshore bluff in the western part of the Project area. The beach lines are visible on the surficial geology mapping as patches of sandy soils. While the beach lines offer little to distinguish them from the surrounding clay plain, due to a lack of adequate soil drainage and a lack of topographic definition, they are by definition areas of possible archaeological potential.

Comments Specific to this Stage 2 Assessment. The current project entails the assessment of additional lands required for the Project and consists of 28 ISAs, including 14 turbine plough areas, one substation site, and 13 areas for the electrical connection layout, transmission lines and junction boxes. These were subjected to pedestrian and test pit survey between November 2011 and January 2012 (see Table 3 for specific dates).

It can be stated that the archaeological context of the Project study area has not changed since the earlier fieldwork was completed in 2011: all current Project facilities are still situated on active agricultural land.

It should be noted that several of the ISAs under consideration are located in the immediate vicinity of or include ISAs containing known archaeological sites. These include: TPA-103 (Sites AcHl-57, -58, -59 and -64); TPA-107 (Sites AcHl-40, -41, -42 and -43); TPA-118 (Sites AcHl-65 and -68); TPA-133 (Site AcHl-76); TPA-139 (Sites AcHl-54, -55 and -56); and TPA-171 (Sites AcHl-35, -36, -37, -38 and -39).

#### 1.3 Historical Context

A detailed discussion of the historical settlement of the Project study area is presented in the Stage 1 background study (ASI 2010; and summarized in 2011b) and only a brief summary will be presented below.

Settlement in this area began around 1790 when the French turned over to the British the lands between the Thames River and Lake Erie. One of the earliest roads in the area was the Talbot Trail, laid out around 1811 (Cook 2009: Historical Plaques of Ontario – Elgin County Plaque #6). Settlers, many of them United Empire Loyalists, began to settle on the better drained lands in the east part of the Project area, along the lakeshore, and north of the Project area along the Thames River. As the five townships were surveyed and a road system was laid out, settlement began to focus on major transportation routes such as the Middle Road, Drake Road, and Communication Road.

The historical atlas maps (Belden 1881) were examined to determine the potential for the presence of historical archaeological remains within the Project area during the nineteenth century. While these maps do indicate residences and businesses, they only identify subscribers, and some townships were not well subscribed. Nevertheless, it should be noted that the illustrated farmsteads indicate a preference for location along the road frontages, rather than being at a greater distance from the road.



It should be noted, however, that the current land use of the Project study area has not changed significantly since the 19<sup>th</sup> century settlement period: it is still characterized by lands and communities that are based on agriculture.

A listing of registered and unregistered historic Kent County cemeteries has been compiled by the Kent Branch Ontario Genealogical Society (OGS). Twenty-nine registered and twenty-eight unregistered cemeteries are listed within the Project area. In addition to known cemetery locations, there are numerous named cemeteries for which no locations are specified or ambiguous locations cited and probably numerous other unidentified family plots.

One designated landmark is present in the Project area. The Buxton Settlement & SS No.13 Raleigh Schoolhouse (museum) in North Buxton, Raleigh Township has been designated as a National Historic Site. The schoolhouse is estimated to have been constructed in 1861.



#### 2.0 FIELD METHODS

All fieldwork undertaken for the Project was tied to the most recent layout: L19 R1. The total number of identified ISAs for the Project now totals 147 and includes: 127 turbine sites, 2 sub-station sites, 2 meteorological tower sites, and 16 electrical connection layout areas. Of these, only 28 represent ISAs that will require additional Stage 2 property assessment to reflect new, unassessed lands needed to accommodate new layout changes; they include: 14 turbine sites, 1 substation site and 13 connection layout areas.

The assessment of lands with open visibility, e.g., cultivated fields, is accomplished by pedestrian survey and subject to *S & G*, *Section 2.1.1*. Pedestrian survey is the prescribed assessment method and involves systematically walking the property, mapping and collecting artifacts found on the ground surface. Survey transects are spaced at maximum intervals of 5 m. When archaeological resources are found, survey transects are decreased to 1 m intervals over a 20 m radius around the find to determine whether it is an isolated find or part of a larger scatter. All formal artifact types and diagnostic categories are collected, while leaving enough in place to relocate the site if necessary. Stage 2 pedestrian survey was only conducted on lands with acceptable survey conditions, specifically, ground surface visibility of 80% or better, and after thorough weathering. The fields were ploughed deep enough to provided total topsoil exposure, but not deeper than previous ploughing. Most of the Project infrastructure for this assessment is situated exclusively within agricultural lands that are under active cultivation and therefore subject to pedestrian survey per the Standards and Guidelines.

In preparation for the additional Stage 2 property assessment, a series of *plough maps* depicting the staked ploughing limits required for each turbine site layout was prepared by the Proponent based on survey completed by Elexco. These plough maps were then distributed to the various farmers contracted to prepare the lands. In total, the current work includes 28 plough areas requiring assessment by Stage 2 pedestrian survey. These encompass an area totalling 39.1703 ha and include the following:

- 13 turbine plough areas (TPA): each designated TPA (e.g., TPA-002) includes lands required for the turbine site, access road and electrical connection to the turbine site, and all turbine construction-related activities, e.g., crane pads, crane paths, turn-around and laydown areas;
- 1 substation plough areas (SPA): the lands required for Sattern Substation (SPA-1); and
- 13 connection layout survey areas (CLSA): the lands required for four connection layout areas and a series of electrical junction box sites, and identified as CLSA-4 to CLSA-16.

Copies of the plough maps were provided to the various field crews to be used in the field, and they included GPS coordinates to geo-reference the layout. GPS coordinates were also taken in the field to determine the locations of any unstaked areas slated for ploughing, or where staked areas differed from those shown on the plough maps.

In rare circumstances, the plough areas included an existing grass-covered farm lane, treeline or lawn, but virtually all lands containing the electrical connection layout (ECL) within the municipal road ROW were



grass-covered. In the latter case, the additional Stage 2 assessment included two CLSAs (CLSA-6 and CLSA-7) within the municipal ROW determined to have archaeological potential. Lands with closed surface visibility must be assessed by test pit survey and are subject to the procedures outlined in S & G, Section 2.1.2. Test pit survey involves the hand excavation of 30 cm diameter test pits through the topsoil and into the first 5 cm of subsoil, and the screening of all test pit fills through 6 mm mesh to facilitate artifact recovery. Any undisturbed areas within 300 m of any feature of archaeological potential must be subject to systematic test pit survey at 5 m intervals, whereas any undisturbed areas more than 300 m from any feature of archaeological potential must be systematically test pitted at 10 m intervals. Test pits were excavated to within 1 m of built structures or until test pits showed evidence of recent ground disturbance, and were examined for stratigraphy, cultural features or evidence of fill. All test pits were backfilled and their locations recorded on field maps. If recovered, artifacts would have been collected according to their associated pit and a maximum of eight additional test pits and one or more 1 metre test units would have been excavated to define site boundaries, per S & G, Section 2.1.3 (1 Option A). Any factors that precluded the excavation of test pits (e.g. excessive slope, drainage, exposed bedrock, previous disturbance) were noted. All such areas were mapped and representative examples of all such areas were photographed, per S & G Sections 2.1(6), 3.2(4) and 7.8.6.

Where necessary, areas of disturbance are confirmed by excavating test pits at specified survey intervals determined by professional judgement. Where narrow extant farm lanes lie along the edge of a cultivated field with good survey conditions, it is often possible and acceptable to use pedestrian survey beside the lane as a proxy for test pit survey within the lane (which is often too compacted to properly test pit and screen.

Field documentation includes notes about survey conditions and results, field mapping results, and representative digital photography of all types of field conditions (per *S & G*, *Sections 2.1(6)*, *3.2(4)* and *7.8.6*) for each assessed turbine plough area and archaeological find. Pertinent survey data are summarized in the report in Table 3 which includes the following for each designated infrastructure survey area: total assessment area for each plough area; its ground conditions at the time of survey; when the property was surveyed and by which survey method; status of completion; and amount of lands assessed by pedestrian and test pit survey methods, or lands not assessed. Also indicated are the number and type of archaeological site that was found, e.g., Aboriginal (SKWP-P#) and Euro-Canadian (SKWP-H#), as well as the relevant map sheet and image numbers. Survey data for the additional Stage 2 fieldwork is also illustrated in a series of map sheets (see Section 8.0: Maps—Sheets 11, 13-15, and 18-40) that show survey methods, and the location and direction of selected photo-documentation (contained in Section 9.0: Images). Note that these map sheets also illustrate any changes to the Project by Layout L19 R1 that relate to the ISAs previously assessed in 2011 (see Section 8.0: Sheets 1-10, 12 and 16-17).

GPS readings were used to geo-reference the location of all sites encountered during the assessment on the plough maps provided to the field crews. One central reading was taken for small archaeological sites (less than 10 m by 10 m) and five or more readings for larger sites, and others as deemed appropriate. Readings were set to NAD 1983, unless stated otherwise<sup>2</sup>. A Garmin Oregon 450 GPS unit was used by

<sup>&</sup>lt;sup>2</sup> In order to protect archaeological sites from unlawful archaeological activity, *S & G*, *Section 7.6.1* requires that all sensitive information pertaining to site location, e.g., site location maps and GPS coordinates, cannot be contained in the licence report that forms part of the public record but instead must be submitted to the MTCS separately (but at the same time) as a Supplementary Documentation package.



all field teams and provided between 3 and 5 m accuracy for all readings. Any conditions that affected or could have affected accuracy of the readings were noted. Additional GPS readings of fixed reference points for each site were also taken as possible or when necessary (see ASI 2011b—Supplementary Documentation: Section 2.0).

The archaeological remains discovered during the fall 2011 and winter 2012 fieldwork are detailed in Section 3.0 of this report, and all field results are further evaluated in Section 4.0.

#### 2.1 Stage 2 Property Survey Results: Plough Areas

In preparation for the additional Stage 2 fieldwork, *all* cultivated lands within the Project area (35.7 ha, or 91.1% of the Project total of 39.2 ha) were either ploughed and weathered by rain prior to pedestrian survey, or had surface visibility that was conducive to pedestrian survey (c.f., 80% surface visibility or better). Extremely small percentages of the Project lands were either in closed vegetation requiring archaeological assessment by test pit survey (2.651 ha, or 6.8%) or have no archaeological potential due to disturbances (0.839 ha, or 2.1%).

Beginning on November 22, 2011 and continuing to March 1, 2012, a Stage 2 field assessment of Project lands was conducted by field crews from ASI; the Project layout is based on L19 R1. ASI has now completely assessed all 15 of the new ploughed infrastructure survey areas: 14 turbine plough areas (TPA) and 1 substation plough area (SPA). The survey results for the various plough areas are listed in Table 3 and illustrated on Sheets 11-15 and 18-22 (see Section 8.0: Maps).

#### 2.2 Stage 2 Property Survey Results: Electrical Connection Layout

In addition to the ISAs within ploughed lands that contained the turbine sites, access roads and buried electrical connection layout (ECL), the current assessment also included changes to the ECL involving overhead transmission lines within the various municipal road and private rights-of-way, as well as nine new junction boxes. Based on layout L19 R1, this new ECL was visibly inspected for archaeological potential, and where further evaluation was required, pedestrian survey was undertaken where conditions were suitable, or test pit survey was undertaken with survey intervals varying according to professional judgement. In general, the municipal road network can be characterized as improved, with elevated road beds, often with little or no shoulders, and pronounced ditching; the ditches varied from narrow to wide, and were close to the shoulder to some distance away. Archaeological potential was almost uniformly determined to be absent due to previous and pervasive road construction disturbance. During this work, four new survey areas (CLSA-4 to CLSA-7) were identified as having archaeological potential, in addition to the nine junction boxes (CLSA-8 to CLSA-16); the location of the ECL survey areas under consideration are depicted on Sheets 24-26 (see Section 8.0 Maps) and field results for this work are summarized in Table 3 and illustrated on Sheets 27-41.

Beginning on December 19, 2011 and continuing until March 1, 2012, a Stage 2 field assessment of Project lands was conducted by field crews from ASI; the Project layout is based on L19 R1. ASI has now completely assessed all 13 new CLSAs within the ECL ROW. The survey results are depicted on Sheets 23-40 (see Section 8.0 Maps) along with accompanying Field Plates (Section 9.0 Images).



Table 3: South Kent Wind Project – Stage 2 Field Results Summary [based on Layout 19]

Infrastructure Survey Area	LAYOUT TYPE	Total Survey Area (ha)	Survey Date	Field Conditions	Survey Method	Status	PS (ha)	TPS (ha)	No Pot'l. (ha)	Sites/Findspots	Map Sheet	Photos	Weather
TPA-002	ECL/AR ROW	2.2994	23 Nov 11	80% visibility	Pedestrian	Complete	2.299			AcHl-85 (SKWP-H14), SKWP-P81	19	19.1, 19.2	Overcast and cold
TPA-028 (includes TPA-029)	ECL/AR ROW	2.2876	22 Nov 11	95% visibility	Pedestrian	Complete	2.288				13	13.1, 13.2	
TPA-029	ECL/AR ROW		22 Nov 11	95% visibility	Pedestrian	Complete				SKWP-P80	13		
TPA-030	ECL/AR ROW	1.0667	11 Jan 12	n/a	TP	Complete		1.067			13		
TPA-031	ECL/AR ROW	1.3337	24 Nov 11	95% visibility	Pedestrian	Complete	1.334				12	12.1, 12.2	
TPA-036	ECL/AR ROW	2.6376	24 Nov 11; 6 Dec 11; 24 Jan 12	85% visibility n/a	Pedestrian TP	Complete	1.887	0.665	0.085	AcHm-62 (SKWP-H15)	11	11.1-11.4	Overcast and cold
TPA-103	TURBINE PAD/ AR ROW	7.6036	7,8, 12, 13, 15 Dec 11	95% visibility	Pedestrian	Complete	7.582		0.021	AcHl-79 (SKWP-P82), AcHl-83 (SKWP-P83), SKWP-P84, AcHl-82 (SKWP-P85), AcHl-83 (SKWP-P86), SKWP-P87, AcHl-84 (SKWP-P88), SKWP-P89	22	22.1-22.5	
TPA-107 (see TPA-171)	TURBINE PAD		23 Nov 11	95% visibility	Pedestrian	Complete					21		Overcast and cold
TPA-118	ECL/AR ROW	1.8775	22 Nov 11	90-95% visibility	Pedestrian	Complete	1.391		0.486	SKWP-P78 AcHl-80 (SKWP-P79)	21	21.2, 21.3	
TPA-133	ECL/AR ROW	1.2220	23 Nov 11	95% visibility	Pedestrian	Complete	1.222				15	15.2. 15.3	Overcast and cold
TPA-139	TURBINE PAD	0.6560	23 Jan 12	80% visibility	Pedestrian	Complete	0.580		0.156		20	20.1, 20.2	Overcast, cool and light rain
TPA-162	TURBINE PAD	3.6950	1 Mar 12	95% visibility	Pedestrian	Complete	3.6950				23	23.1, 23.2	Sun/cloud mix, cool and windy
TPA-166	TURBINE PAD	2.5049	23 Jan 12	95% visibility	Pedestrian	Complete	2.413		0.091		18	18.1	Overcast, cool and light rain
TPA-171 (includes TPA-107)	ECL/AR ROW	1.0168	23 Nov 11	95% visibility	Pedestrian	Complete	1.017				21	21.1	Overcast and cold
CLSA-4 (Debrouwer property)	ECL ROW	0.4460	20 Dec 11	85% visibility	Pedestrian	Complete	0.446			SKWP-P92	28	28.7	Overcast and cold
CLSA-4 (Lugtigheid property)	ECL ROW	0.8980	20 Dec 11; 23 Jan 12	80% visibility	Pedestrian	Complete	0.898				28	28.6	Overcast and cold
CLSA-4 (Jackson property)	ECL ROW	0.4510	20 Dec 11	95% visibility	Pedestrian	Complete	0.451				28	28.5	Overcast and cold
CLSA-4 (English property)	ECL ROW	0.4530	20 Dec 11	95% visibility	Pedestrian	Complete	0.453				27	27.4	Overcast and cold
CLSA-4 (Ferguson-Kay Mgmt. Ltd. property)	ECL ROW	0.9190	20 Dec 11; 12 Jan 12	n/a	TP	Complete		0.919			27	27.3	Overcast, cold with light rain
CLSA-4 (Vermey property)	ECL ROW	1.0025	23 Jan 12	95% visibility	Pedestrian	Complete	1.002				27	27.2	Overcast and cold



Infrastructure Survey Area	LAYOUT TYPE	Total Survey Area (ha)	Survey Date	Field Conditions	Survey Method	Status	PS (ha)	TPS (ha)	No Pot'l. (ha)	Sites/Findspots	Map Sheet	Photos	Weather
CLSA-4 (Van DeHogen property)	ECL ROW	0.1440	20 Dec 11; 11 Jan 12	90% visibility	Pedestrian	Complete	0.144			AcHm-63 (SKWP-H16)	27	27.1	Sun/cloud mix to overcast and cold
CLSA-5 (Richardson property)	ECL ROW	2.4590	19 Dec 11	95% visibility	Pedestrian	Complete	2.459			AcHm-65 (SKWP-P90) AcHm-66 (SKWP-P91)	29/30	29.3, 29.4 30.5, 30.6	Overcast and cold
CLSA-5 (618742 Ontario Inc. property)	ECL ROW	0.7800	20-21 Dec 11; 11 Jan 12	95% visibility	Pedestrian	Complete	0.780			AcHm-64 (SKWP-H17)	29	29.1, 29.2	Sun/cloud mix to overcast with light rain
CLSA-6	ECL ROW	0.4168	25 Jan 12	n/a	TP	Complete	0.417				31	31.1, 31.2	Overcast and cold
CLSA-7	ECL ROW	0.4297	25 Jan 12	n/a	TP	Complete	0.430				32	32.1, 32.2	Overcast and cold
CLSA-8 (P005JB)	ECL ROW	0.010	24 Jan 12	n/a	TP	Complete	0.010				33	33.1	Overcast and cold
CLSA-9 (P036JB)	ECL ROW	0.010	30 Nov 11	95% visibility	Pedestrian	Complete	0.010				34	34.1	Sunny
CLSA-10 (P039JB)	ECL ROW	0.010	30 Nov 11	90% visibility	Pedestrian	Complete	0.010				35	35.1	Sunny
CLSA-11 (P056JB)	ECL ROW	0.010	30 Nov 11	85% visibility	Pedestrian	Complete	0.010				36	36.1	Sunny
CLSA-12 (P069JB)	ECL ROW	0.010	12 Jan 12	95% visibility	Pedestrian	Complete	0.010				37	37.1	Overcast, cold, light rain
CLSA-13 (P070JB)	ECL ROW	0.010	12 Jan 12	85% visibility	Previously Assessed (see ASI 2011b: Figure 15)	Complete	0.010				38	38.1, 38.2	Overcast and cold
CLSA-14 (P116JB)	ECL ROW	0.010	12 Jan 12	90% visibility	Pedestrian	Complete	0.010				39	39.1	Overcast, cold, light rain
CLSA-15 (P139JB)	ECL ROW	0.010	22 Nov 11	90% visibility	Pedestrian	Complete	0.010				40	40.1	Overcast and cold
CLSA-16 (P162JB)	ECL ROW	0.010	30 Nov 11	90% visibility	Pedestrian	Complete	0.010				41	41.1	Sunny
SPA-1	Sattern Substation/ AR ROW	2.4805	20 Dec 11	80% visibility	Pedestrian	Complete	2.480				15	15.1	Sun/cloud mix and cold
Total Percentage		39.1703 100.0					35.678 91.1	2.651 6.8	0.839 2.1				



#### 2.3 Stage 2 Property Survey Results: Summary

In summary, additional Stage 2 property assessment was completed for all infrastructure survey areas that encompassed the Project, totalling 39.1703 ha, and this included all lands that could be assessed by either pedestrian or test pit survey methods (38.329 ha, or 97.9% of the total). The balance has no archaeological potential due to disturbances (0.839 ha, or 2.1%). During the survey, a total of 19 archaeological sites were identified (see Section 3.0 for details and Section 4.0 for analysis of results).

No archaeological resources were recovered from the following 21 infrastructure survey areas—turbine plough areas (TPA), substation plough areas (SPA), and connection layout survey areas (CLSA): TPA-028, TPA-030, TPA-031, TPA-107, TPA-133, TPA-139, TPA-162, TPA-166, TPA-171, CLSA-6, CLSA-7, CLSA-8, CLSA-9, CLSA-10, CLSA-11, CLSA-12, CLSA-13, CLSA-14, CLSA-15, CLSA-16, and SPA-1.



#### 3.0 RECORD OF FINDS

This report section provides pertinent information about each of the 19 new archaeological sites identified during the additional Stage 2 property assessment, per the *S & G Section 7.8.2: Record of Finds*. The following standards apply:

- **Standard 1.** For all archaeological resources and sites that are identified in Stage 2, provide the following:
  - a. a general description of the types of artifacts and features that were identified
  - b. a general description of the area within which artifacts and features were identified, including the spatial extent of the area and any relative variations in artifact density
  - c. a catalogue and description of all artifacts retained
  - d. a description of the artifacts and features left in the field (nature of material, frequency, other notable traits)

Note: the relevant information is contained in individual site reports that are organized by infrastructure survey area.

**Standard 2.** Provide an inventory of the documentary record generated in the field (e.g., photographs, maps, field notes).

Note: the documentary record of each archaeological site includes: a site record form, log of field photography, turbine plough area map with site location, GPS coordinates, and detailed site map, if necessary.

- **Standard 3.** Submit information detailing exact site locations on the property separately from the project report. Information on exact site locations include the following:
  - a. table of GPS readings for locations of all archaeology sites
  - b. maps showing detailed site location information

Note: this information is contained in the Supplementary Documentation package that will be submitted separately to the MTCS in accordance with the *S* & *G* Section 7.6.1.

Artifact documentation and analysis is addressed in the S & G Section 6, and each archaeological site report provides the following:

• a record of artifacts and other archaeological materials from the sites;



- a basis for recommendations either that there are no further concerns for impacts to that archaeological site or that further work will be required to mitigate impacts; and
- enough basic information to help future researchers determine whether the site is relevant for their studies.

For this license report, the record of finds for each archaeological site will use standards from the *S* & *G* Section 6 that are appropriate for a Stage 2 assessment: Standard 1 (citation of typologies and nomenclature used in the analysis), Standard 3 (use of Table 6.3 as a minimum basis for analysis), and Standard 6 (inclusion of a proper artifact catalogue), and Standard 7 (details pertaining to the packed collection).

Per the S & G Section 6, Standard 7, details pertaining to the curated collection are provided as follows:

- the artifact collection from the Stage 2 property assessment is packed into two standard cardboard file boxes, one for pre-contact Aboriginal sites, and one for post-contact Euro-Canadian sites; and
- all artifacts and documentation pertaining to the Project will be curated by ASI until such time that a permanent, accredited repository can be found and all project material transferred under the terms and conditions of the *Ontario Heritage Act*.



#### 3.1 Archaeological Sites within TPA-002

#### 3.1.1 AcHl-85 (formerly Site SKWP-H14)

**Infrastructure Survey Area Impacted:** P002 (see Maps—Sheet 19)

**Location:** At south end of alternate collector line/access road to P002. On north side of Ed's Line (see Supplementary Documentation: Archaeological Site Location, Figure 1)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

Topography: On flat section of agricultural field

Soil Type: Clay-loam

**Features of Archaeological Potential:** Within 50m of historic transportation route (Ed's Line).

**Site Type:** Historic Euro-Canadian Scatter

**Field Conditions:** Ploughed and weathered field, 80%+ ground visibility

Site Size (approximate): 80 x 90 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Approximately 400 artifacts were spread over the defined site area. The majority of the site is located outside the proposed access road.

**Content Summary:** The scatter includes some domestic material, with very little structural material.

**Sample Collected:** A representative sample of 102 artifacts was collected, comprising approximately one quarter of the observed scatter. The sample includes a representation of the various artifact types as well as the diagnostic whiteware ceramics types.

**Sample Description:** The 102 artifact comprise mainly ceramics (66%) and glass (24%), and a small number of personal items (6%). The ceramics are mainly ironstone tableware, and earthenware or stoneware kitchenwares, with a few porcellaneous wares (See Images--Artifact Plate 1). A large amount of pig bones were noted but not collected.

**Site Interpretation:** Site AcHI-85 (SKWP-H14) may be a dumping ground, as evidenced by the presence of a large amount of pig bones, likely from the adjacent pig farm, and the lack of structural materials. The ceramic and glass artifacts are typical of late nineteenth and twentieth century domestic sites. A structure is illustrated in the 1881 Atlas, to the west of the scatter, in the location of the existing pig farm.



## Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** If Site AcHl-85 (SKWP-H14) will be impacted by the Project, then a Stage 3 site-specific assessment must be conducted.

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists, Section 2.2., Standard 1.c.: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include post-contact archaeological sites containing at least 20 artifacts that date the period of use to before 1900.

**Artifact Catalogue for Site AcHl-85 (SKWP-H14)** 

Cat #	Qty	Class	Sub-Class	Туре	Material	Ware	Motif	Form	Comments
H1	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded ivy and broad flutes or exterior
H2	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded - wheatware	Flatware	partially exfoliated
НЗ	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded - wheatware	Holloware	wheat-like motif on exterior
H4	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	
H5	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	
H6	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded - wheatware	Bowl general	deep bowl
H7	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded grape motif on exterior
H8	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	fluted body with moulded grape motif
H9	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded leaf motif on exterior, flared lip on rim
H10	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Floware	Holloware	unidentifiable flow motif on exterior and exterior
H11	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	fluted body
H12	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded dots on exterior
H13	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded flutes, partial holloward
H14	1	Kitchen/Food	Food service	Tableware	Ceramic	Ironstone	Undecorated	Tureen	straight edged tureen base
H15	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Lid	ironstone lid fragment, likely for tureen or serving vessel
H16	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	large round foot ring
H17	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	thick foot ring and base with partial black printed maker's mark "_E ENGLAN"
H18	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	thick base fragment with squat foot ring, moulded horizontal lin on body
H19	3	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	base fragments with unidentifiable black transfer printed maker's marks
H20	4	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	undecorated base fragments with foot rings
H21	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	bases with squat foot rings
H22	5	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	
H23	6	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	
H24	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Red earthenware - coarse	Glazed	Holloware	mottled glaze on interior and exterior
H25	2	Kitchen/Food	Beverage storage	Kitchenware	Ceramic	Stoneware	Glazed	Crock	single rounded lip on exterior, mottled light brown glaze on exteroir, dark brown glaze on interior
H26	2	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Buff earthenware	Rockingham	Holloware	dark mottled brown glaze on both sides
H27	3	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff stoneware with beige glaze on interior and exterior



H28	3	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Hand- painted - general	Holloware	buff stoneware with unidentifiable blue handpainted motif over brown on exterior, very dark brown glaze on interior
H29	2	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware with mottled light brown glaze on exterior, very dark brown glaze on interior
H30	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Salt-glazed	Holloware	grey stoneware with salt-glaze on exterior, brown glaze on interior
H31	4	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware, dark brown glaze on interior
H32	4	Architectural	Building component	Window Glass	Glass				<u> </u>
H33	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				dark amber glass
H34	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				lightly solarized glass, partial patent finish
H35	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light cobalt blue glass, partial round base fragment
H36	2	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light green glass, thick round body fragments
H37	6	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light aqua glass
H38	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				aqua glass, almost complete Perry Davis finish
H39	3	Indeterminate	Indeterminate	Unidentified	Glass				solarized glass, pressed glass with unidentifiable motif
H40	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				aqua glass, partial round base fragment with suction scar
H41	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light green glass, partial round base fragment
H42	1	Kitchen/Food	Food storage	Liner	Glass				partial glass liner fragment
H43	1	Indeterminate	Indeterminate	Unidentified	Glass				solarized glass, round base fragment - possible drinking glass or lamp base
H44	1	Indeterminate	Indeterminate	Unidentified	Glass				solarized glass, rounded rim fragment - possible glass or lamp chimney fragment
H45	3	Personal Artifacts	Personal gear	Smoking Pipe	White Ball Clay				undecorated
H46	1	Personal Artifacts	Personal gear	Smoking Pipe	White Ball Clay				stem has unidentifiable embossed motif close to the bowl, impressed maker's mark on right side "DIXON" and "ONTREAL" on left side
H47	1	Personal Artifacts	Personal gear	Smoking Pipe	White Ball Clay				very heavily thermally altered, impressed maker's mark is worn off, some raised lines leading into bowl
H48	2	Indeterminate	Indeterminate	Unidentified	Porcellaneous Ware				2 fragments of moulded porcellaneous ware, possibly figurines or decorative items
H49	1	Furnishings	Household accessories	Figurine	Porcellaneous Ware				small headless figurine of a woman, seated sideways in a dress
H50	2	Tools/Equipment	Writing	Inkpot	Stoneware				partial stoneware inkwell fragments with brown glaze on exterior and unglazed on interior
H51	1	Personal Artifacts	Clothing	Button	Ceramic				Prosser button with four-hole sew-through fastener and depressed centre
H52	1	Personal Artifacts	Clothing	Button	Ceramic				Prosser button with four-hole sew-through fastener and depressed centre
H53	1	Personal Artifacts	Clothing	Button					Prosser button with four-hole sew-through fastener and pie crust motif
H54	1	Indeterminate	Indeterminate	Scrap	Metal - Ferrous				thick flat fragment with small lip on one side
H55	1	Tools/Equipment	Hardware	Nut	Metal - Ferrous				small square nut

Artifacts are packed into Box 2: Post-contact Euro-Canadian sites



#### 3.1.2 Site SKWP-P81

**Infrastructure Survey Area Impacted:** P002 (see Maps—Sheet 19)

**Location:** 10 m northwest of Ed's Line and 15 m northeast of the gravel parking pad on the adjacent farm property (see Supplementary Documentation: Archaeological Site Location, Figure 1)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a flat portion of agricultural field

**Soil Type:** Silty clay loam

Features of Archaeological Potential: Proximity to former seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Findspot

**Site Size (approximate):** n/a

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 1 isolated artifact

Content Summary: 1 uniface fragment

**Sample Collected**: All artifacts

Sample Distribution: 1 incomplete uniface manufactured of Flint Ridge Chalcedony (See Images-

Artifact Plate 2).

**Site Interpretation**: Site SKWP-P81 likely represents an equipment loss event. Flint Ridge Chalcedony originates in central/eastern Ohio. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.



#### **Artifact Catalogue for Site SKWP-P81**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	1	Un - Uniface	Flint Ridge chalcedony				49.5+	31	9.2	Made from large flake, step fractures/micro chipping along portions of lateral margins/working edge, incomplete

Artifacts are packed into Box 1: Pre-contact Aboriginal sites



#### 3.2 Archaeological Site within TPA-029

#### 3.2.1 Site SKWP-P80

**Infrastructure Survey Area Impacted:** P029 (see Maps—Sheet 13)

**Location:** 670 m southeast from Welch Line and 220 m northeast of the field divide joining Campbell Line and Welch Line (see Supplementary Documentation: Archaeological Site Location, Figure 6)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a relatively flat portion of agricultural field

**Soil Type:** Silty sandy clay

Features of Archaeological Potential: None of note

**Site Type:** Pre-Contact Aboriginal Lithic Findspot

Site Size (approximate): n/a

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 2 artifacts separated by 1 m

Content Summary: 2 biface fragments (refit)

Sample Collected: 2 biface fragments.

**Sample Distribution**: 2 refined biface fragments, one base and one midsection, made of Onondaga chert.

**Site Interpretation**: Site SKWP-P80 probably represents an equipment loss event. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10



m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.

#### **Artifact Catalogue for Site SKWP-P80**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	1	BF - Biface fragment	Onondaga							Refined midsection
2	Surface	1	BF - Biface fragment	Onondaga							Refined base

Artifacts are packed into Box 1: Pre-contact Aboriginal sites



#### 3.3 Archaeological Site within TPA-036

#### 3.3.1 AcHm-62 (formerly Site SKWP-H15)

**Infrastructure Survey Area Impacted:** P036 (see Maps—Sheet 11)

**Location:** At start of access road to P036, off Harwich Road (see Supplementary Documentation: Archaeological Site Location, Figure 8)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On flat section of agricultural field

**Soil Type:** Clay-loam

**Features of Archaeological Potential:** Within 50m of historic transportation route (Harwich Road).

**Site Type:** Historic Euro-Canadian Scatter

Field Conditions: Ploughed and weathered field, 80%+ ground visibility

Site Size (approximate): 20 x 60 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Approximately 140 artifacts were spread over the defined site area.

**Content Summary:** The scatter includes some domestic material, but no structural or personal items.

**Sample Collected:** A representative sample of 33 artifacts was collected, comprising approximately one quarter of the observed scatter. The sample includes a representation of the various artifact types as well as the diagnostic whiteware ceramic types.

**Sample Description:** The 33 artifact comprise mainly ceramics (48.5%) and glass (48.5%). One shell was also collected (3%). The ceramics are mainly ironstone and stoneware, with a small amount of RWE. A large amount of clay pigeon fragments were noted on the surface but not collected (See Images--Artifact Plate 3).

**Site Interpretation:** Site AcHm-62 (SKWP-H15) may be a dumping ground, as it is located next to an existing farmhouse. The lack of structural and personal materials also suggests dumping activities rather than an occupation site. The predominance of whiteware and the high frequency of glass in the assemblage is typical of deposits dating to the late nineteenth or early twentieth century. There are no structures illustrated near the scatter in the 1881 Atlas.



## Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** If Site AcHm-62 (SKWP-H15) will be impacted by the Project, then a Stage 3 site-specific assessment must be conducted.

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists, Section 2.2., Standard 1.c.: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include post-contact archaeological sites containing at least 20 artifacts that date the period of use to before 1900.

**Artifact Catalogue for Site AcHm-62 (SKWP-H15)** 

Cat #	Qty	Class	Sub-Class	Туре	Material	Ware	Motif	Form	Comments
l1	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Transfer print	Flatware	geometric and floral motif,
12	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Factory- made slip - banded	Holloware	thick blue band over partial dar green band on exterior
13	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	RWE	Unidentified	Flatware	unidentifiable motif on upper surface - possibly transfer or handpainted
14	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	partial green transfer print maker's mark on underside: crown over an oversized M and underneath "MYOTTS / ENGLAND", unidentifiable ribbon motif underneath
<del>1</del> 5	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Unidentified	Holloware	interior exfoliated, squat base fragment
16	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	partially exfoliated
H7	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	
H8	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	RWE	Undecorated	Holloware	
H9	1	Kitchen/Food	Beverage service	Tableware	Ceramic	Ironstone	Undecorated	Jug	large handle and partial body fragment
<del>1</del> 10	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Hand- painted - general	Holloware	unidentifiable blue handpainted motif over brown mottled glaze on exterior, dark brown glaze o interior, straight side - likely a milk crock
<del>1</del> 11	2	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff stoneware, grey glaze on exterior, dark brown glaze on interior
112	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Hand- painted - general	Holloware	buff coloured stoneware, handpainted motif over grey glaze on exterior, grey glaze or interior
H13	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware, grey glaze on interior and exterior, very slight lip on exterior
<del>-</del> 1	1	Shell - bivalve		Indeterminate					
114	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				colourless glass
H15	3	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				aqua glass, lightly thermally altered
H16	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				aqua glass, embossed letters "A "
<del>1</del> 17	2	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				solarized glass
H18	1	Kitchen/Food	Food storage	Liner	Glass				light aqua glass
H19	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light aqua glass, round base fragment with mould seam
H20	1	Indeterminate	Indeterminate	Unidentified	Glass				melted colourless glass blob
H21	1	Indeterminate	Indeterminate	Unidentified	Glass				solarized glass, pressed geometric diamonds on interior dots on exterior, likely a



H22	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass	colourless glass, partial threaded finish
H23	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass	colourless glass, moulded flutes on body, vertical mould seam on body
H24	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass	colourless glass, small oval base with diamond maker's mark, likely medicinal or toiletry
H25	1	Kitchen/Food	Beverage storage	Container - Unidentifiable	Glass	colourless glass, double ring finish with small jug handle- likely for liquor
H26	1	Indeterminate	Indeterminate	Unidentified	Glass	light aqua glass, moulded raised circle shape with embossed "8"

Artifacts are packed into Box 2: Post-contact Euro-Canadian sites



#### 3.4 Archaeological Sites within TPA-103

#### 3.4.1 AcHl-79 (formerly Site SKWP-P82)

**Infrastructure Survey Area Impacted:** P103 (former access road alignment) (see Maps—Sheet 22)

**Location:** 280 m southeast from New Scotland Line and 325 m northeast of McKinlay Road Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a broad rise in an agricultural field

**Soil Type:** Silty sandy clay

Features of Archaeological Potential: Proximity to seasonal drainages, raised topography

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 150 m x 75 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 500+ artifacts in two concentrations separated by a shallow swale

Content Summary: Debitage

Sample Collected: 10 lithic debitage

**Sample Distribution**: 5 primary thinning flakes and 5 secondary knapping flakes. Both Bois Blanc and Selkirk cherts are represented.

**Site Interpretation**: Site SKWP-P83 represents a large, likely multi-component seasonal habitation site. Despite the lack of diagnostic artifacts recovered during Stage 2 assessment, the size and density of artifacts on the surface strongly suggests multiple occupations and extensive tool manufacture and rejuvenation activities.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** Avoid with minimum 20 m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment



**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

#### **Artifact Catalogue for Site AcHl-79 (SKWP-P82)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	5	PT - Primary thinning flake	Bois blanc		1					
2	Surface	3	SK - Secondary knapping flake	Bois blanc		0					
3	Surface	2	SK - Secondary knapping flake	Selkirk		0					

Artifacts are packed into Box 1: Pre-contact Aboriginal sites



### 3.4.2 AcHl-81 (formerly Site SKWP-P83)

**Infrastructure Survey Area Impacted:** P103 (see Maps—Sheet 22)

**Location:** 500 m southeast from New Scotland Line and 160 m southwest of Antrim Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a flat portion of agricultural field

**Soil Type:** Silty sandy clay

Features of Archaeological Potential: Proximity to seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 30 m x 20 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 80 artifacts spread relatively evenly over the site area with slight diffusion close to the site periphery.

Content Summary: 80 debitage

Sample Collected: 5 lithic debitage

**Sample Distribution**: 3 secondary knapping flakes and 2 shatter all of Onondaga chert. One shatter is thermally altered.

**Site Interpretation**: Site AcHl-81 (SKWP-P83) represents a small campsite or location where a one or more tool/biface/core production/refurbishment or refinement events occurred. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment



**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

## **Artifact Catalogue for Site AcHl-81 (SKWP-P83)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	т	Comments
1	Surface	3	SK - Secondary knapping flake	Onondaga							
2	Surface	2	SH - Shatter	Onondaga	Yes	1					



#### 3.4.3 Site SKWP-P84

**Infrastructure Survey Area Impacted:** P103 (see Maps—Sheet 22)

**Location:** 500 m southeast from New Scotland Line and 110 m southwest of Antrim Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a small, low knoll/ridge in an agricultural field

Soil Type: Silty sandy clay

Features of Archaeological Potential: Proximity to seasonal drainages, raised topography

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

**Site Size (approximate):** 20 m x 10 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 10 artifacts spread relatively evenly over the site area.

Content Summary: 10 debitage.

**Sample Collected**: 2 lithic debitage.

**Sample Distribution**: 1 secondary knapping flake and 1 shatter, both of Onondaga chert.

**Site Interpretation**: Site SKWP-P84 likely represents a workstation where a single tool/biface production/refurbishment or refinement event occurred. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts. Therefore, artifact density is too low to justify additional assessment.



# **Artifact Catalogue for Site SKWP-P84**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	т	Comments
1	Surface	1	SK - Secondary knapping flake	Onondaga							Shaping flake
2	Surface	1	SH - Shatter	Onondaga	•	•	•		•		

### 3.4.4 AcHl-82 (formerly Site SKWP-P85)

**Infrastructure Survey Area Impacted:** P103 (see Maps—Sheet 22)

**Location:** 500 m southeast from New Scotland Line and immediately adjacent to Antrim Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a low knoll in an agricultural field

Soil Type: Silty sandy clay

Features of Archaeological Potential: Proximity to seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

**Site Size (approximate):** 80 m x 50m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 160 artifacts spread over the site area with a greater concentration towards the centre of the site.

Content Summary: 158 debitage and 2 bifaces.

**Sample Collected**: 4 debitage and a 2 bifaces.

**Sample Distribution**: small scatter consists of 1 primary thinning flake, 1 secondary knapping flake, 2 pieces of shatter and 2 complete bifaces (See Images—Artifact Plate 4), one crude the other refined, all of Onondaga chert.

**Site Interpretation**: Site AcHI-82 (SKWP-P85) represents a moderate-sized campsite where biface production, refurbishment and refinement likely occurred. This site likely represents more than one occupation but the date of the site is unknown given the lack of temporally diagnostic artifacts.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment



**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

## **Artifact Catalogue for Site AcHl-82 (SKWP-P85)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	W	т	Comments
1	Surface	1	PT - Primary thinning flake	Unknown							Fossiliferous chert
2	Surface	1	SK - Secondary knapping flake	Onondaga	Yes	1					
3	Surface	2	SH - Shatter	Onondaga	Yes	1					
4	Surface	1	B - Biface	Onondaga				62	42	9.5	Complete, refined, ovate
5	Surface	1	B - Biface	Onondaga				56	44	19	Complete, crude



### 3.4.5 AcHl-83 (formerly Site SKWP-P86)

**Infrastructure Survey Area Impacted:** P103 (see Maps—Sheet 22)

**Location:** 400 m southeast from New Scotland Line and 290 m northeast of McKinlay Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a low knoll in an agricultural field

**Soil Type:** Silty sandy clay

**Features of Archaeological Potential:** Proximity to seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

**Site Size (approximate):** 40 m x 25 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 16 artifacts covering the site area with no concentrations noted.

**Content Summary:** 15 debitage and 1 projectile point fragment

**Sample Collected**: 2 lithic debitage and a refined projectile point tip/blade fragment.

**Sample Distribution**: 1 primary reduction flake, 1 piece of shatter and one projectile point tip/blade fragment all made of Onondaga chert (See Images—Artifact Plate 5).

**Site Interpretation**: Site AcHl-83 (SKWP-P86) likely represents a small campsite or location where a single tool/biface production/refurbishment or refinement event occurred. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m



pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

# **Artifact Catalogue for Site SKWP-P86**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	т	Comments
1	Surface	1	PR - Primary reduction flake	Onondaga							
2	Surface	1	SH - Shatter	Onondaga							
3	Surface	1	PPf - Projectile point fragment	Onondaga							Refined tip/midsection



#### 3.4.6 Site SKWP-P87

**Infrastructure Survey Area Impacted:** P103 (former access road alignment) (see Maps—Sheet 22)

**Location:** 140 m southeast from New Scotland Line and 375 m northeast of McKinlay Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a small knoll in an agricultural field

**Soil Type:** Silty sandy clay

**Features of Archaeological Potential:** Proximity to seasonal drainages, moderately well-drained soils, elevated topography

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 10 m x 10 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Three artifacts widely spaced

**Content Summary:** 3 lithic debitage

Sample Collected: 3 lithic debitage

**Sample Distribution**: 2 pieces of shatter (one of Onondaga chert the other Selkirk chert) and one primary reduction flake of Selkirk chert (waterworn cobble fragment).

**Site Interpretation**: Site SKWP-P87 likely represents a small campsite or location where a single artifact refurbishment or refinement event occurred. The presence of a waterworn cobble fragment points to material procurement possibly to have taken place on a local beach or waterway. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 *Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1)*: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3



assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.

**Artifact Catalogue for Site SKWP-P87** 

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	т	Comments
1	Surface	1	PR - Primary reduction flake	Selkirk							Water-worn cobble fragment
2	Surface	1	SH - Shatter	Onondaga							
3	Surface	1	SH - Shatter	Selkirk	•	•	•		•		



### 3.4.7 AcHl-84 (formerly Site SKWP-P88)

**Infrastructure Survey Area Impacted:** P103 (former access road alignment) (see Maps—Sheet 22)

**Location:** 120 m southeast from New Scotland Line and 400 m northeast of McKinlay Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** In flat section of agricultural field

**Soil Type:** Silty sandy clay

**Features of Archaeological Potential:** Proximity to seasonal drainages, moderately well-drained soils, elevated topography

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 40 m x 15 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 37 artifacts spread over the site area with no discernable concentration noted.

Content Summary: 37 lithic debitage

**Sample Collected**: 3 lithic debitage

**Sample Distribution**: 2 pieces of shatter and one secondary retouch flake all of Onondaga chert.

**Site Interpretation**: Site AcHl-84 (SKWP-P88) likely represents a small campsite or location where a single tool/biface refurbishment or refinement event occurred. Date of site is unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m



pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

# **Artifact Catalogue for Site AcHl-84 (SKWP-P88)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	2	SH - Shatter	Onondaga							
2	Surface	1	SR - Secondary retouch flake	Onondaga							



#### 3.4.8 Site SKWP-P89

**Infrastructure Survey Area Impacted:** P103 (former access road alignment) (see Maps—Sheet 22)

**Location:** 70 m southeast from New Scotland Line and 350 m northeast of McKinlay Road in agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 19)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a low knoll within an agricultural field

**Soil Type:** Silty sandy clay

**Features of Archaeological Potential:** Proximity to seasonal drainages, moderately well-drained soils, elevated topography

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

**Site Size (approximate):** 30 m x 15 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 7 artifacts spread over the site area with no concentrations noted.

**Content Summary:** 7 lithic debitage

**Sample Collected**: 4 lithic debitage

**Sample Distribution**: 1 modified secondary knapping flake and three pieces of shatter all of Onondaga chert.

**Site Interpretation**: Site SKWP-P89 is possibly a small, briefly occupied campsite where the refurbishment or production of lithic tools occurred. The presence of a modified flake/expedient tool suggests that food and/or raw material processing activities took place at the site. Unfortunately, the small artifact sample provides little insight into the occupation of this site.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 *Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1)*: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3



assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.

**Artifact Catalogue for Site SKWP-P89** 

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	т	Comments
1	Surface	1	SK - Secondary knapping flake	Onondaga			Yes				Modified along portions of two opposing lateral margins, one ventral margin and one dorsal margin
2	Surface	3	SH - Shatter	Onondaga							_



## 3.5 Archaeological Sites within TPA-118

#### 3.5.1 Site SKWP-P78

**Infrastructure Survey Area Impacted:** P118 (see Maps—Sheet 21)

**Location:** 760 m northeast from Kent Bridge Road and 870 m northwest of New Scotland Line in an agricultural field adjacent to a man-made pond and a large channelized drainage (see Supplementary Documentation: Archaeological Site Location, Figure 21)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a flat portion of agricultural field

Soil Type: Sandy clay-loam

**Features of Archaeological Potential:** Proximity to a large drainage (< 100 m)

Site Type: Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 40 m x 20 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** 6 artifacts distributed relatively evenly over the site area

Content Summary: All debitage

Sample Collected: 3 lithic debitage

**Sample Distribution**: 2 shatter of Onondaga chert and 1 piece of shatter of Bois blanc chert which has waterworn cortex and is also modified along the distal dorsal end.

**Site Interpretation**: Site SKWP-P78 likely represents a small worksite or camp where tool manufacture or repair occurred. In addition, the presence of a modified flake/expedient tool points to resource processing activities taking place at the site. The date of the site's occupation is unknown due to a lack of temporally diagnostic artifacts.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required



**Justification:** Does not meet MTC's 2011 *Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1)*: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.

# **Artifact Catalogue for Site SKWP-P78**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	W	Т	Comments
1	Surface	2	SH – Shatter	Onondaga							_
2	Surface	1	SH – Shatter	Bois blanc			Yes				Modified along distal dorsal

Artifacts are packed into Box 1: Pre-contact Aboriginal sites

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### 3.5.2 AcHl-80 (formerly Site SKWP-P79)

**Infrastructure Survey Area Impacted:** P118 (see Maps—Sheet 21)

**Location:** 150 m northeast from Kent Bridge Road and 950 m northwest of New Scotland Line along a field divide in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 21)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On a flat portion of agricultural field

**Soil Type:** Silty sandy clay

Features of Archaeological Potential: Proximity to seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

Site Size (approximate): 60 m x 10 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 18 artifacts distributed relatively evenly over the site area

**Content Summary:** 18 debitage

Sample Collected: 7 lithic debitage

**Sample Distribution**: 7 pieces of lithic debitage consisting of 2 primary thinning flakes (one of Onondaga chert and one of an unknown chert) and 5 pieces of shatter (4 of Onondaga chert and one of an unknown chert). One piece of Onondaga chert is modified along one lateral margin at the distal end.

**Site Interpretation**: Site AcHI-80 (SKWP-P79) is likely a small, briefly occupied campsite or location where the early stages of chert reduction occurred. The presence of a modified flake/expedient tool points to hide/wood/food processing activities taking place at the site. The presence of a waterworn cobble fragment (1 primary flake of an unknown chert) points to material procurement possibly to have taken place on a local beach or waterway. Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No



**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

## **Artifact Catalogue for Site AcHl-80 (SKWP-P79)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	1	PT - Primary thinning flake	Onondaga							
2	Surface	1	PT - Primary thinning flake	Unknown							Waterworn cobble fragment
3	Surface	3	SH - Shatter	Onondaga							
4	Surface	1	SH - Shatter	Unknown							
5	Surface	1	SH - Shatter	Onondaga			Yes				Modified along one lower lateral margin at distal dorsal end (fine rounded "nibbling")



#### 3.6 Archaeological Sites within CLSA-4

## 3.6.1 AcHm-63 (formerly Site SKWP-H16)

Infrastructure Survey Area Impacted: CLSA-4—Van DeHogen ECL (see Maps—Sheet 26)

**Location:** At east end of ECL ROW, along Fargo Road (see Supplementary Documentation: Archaeological Site Location, Figure 33)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On flat section of agricultural field

Soil Type: Clay-loam

**Features of Archaeological Potential:** Within 50m of historic transportation route (Fargo Road).

**Site Type:** Historic Euro-Canadian Scatter

Field Conditions: Ploughed and weathered field, 80%+ ground visibility

Site Size (approximate): 90 x 150 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Approximately 241 artifacts were spread over the defined site area. Some brick fragments were noted but not collected.

**Content Summary:** The scatter includes some domestic material, but few structural or personal items.

**Sample Collected:** A representative sample of 36 artifacts was collected, comprising approximately 15% of the observed scatter. The sample includes a representation of the various artifact types as well as the diagnostic whiteware ceramic types.

**Sample Description:** The 36 artifacts comprise mainly glass (58.3%) and ceramics (33.3%). Three pieces of metal were also collected (8.3%). The ceramics are all ironstone or stoneware. The glass fragments are from a variety of coloured containers. The metal included one piece of scrap metal and two machine-cut nails (See Images—Artifact Plate 6).

**Site Interpretation:** The lack of structural and personal materials suggests that AcHm-63 (SKWP-H16) might be a dumping ground rather than an occupation site. The predominance of whiteware and the high frequency of glass in the assemblage is typical of deposits dating to the late nineteenth or early twentieth century. Although there is little structural material, there is a sawmill illustrated in the location of the scatter in the 1881 Atlas.



# Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** If Site AcHm-63 (Site SKWP-H16) will be impacted by the Project, then a Stage 3 site-specific assessment must be conducted.

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists, Section 2.2, Standard 1.c.: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include post-contact archaeological sites containing at least 20 artifacts that date the period of use to before 1900.

### **Artifact Catalogue for Site AcHm-63 (Site SKWP-H16)**

Cat #	Qty	Class	Sub-Class	Type	Material	Ware	Motif	Form	Comments
H1	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	
H2	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded - wheatware	Flatware	
H3	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	2 mend to 1, moulded floral and linear motif
H4	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	
H5	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded horizontal line on exterior, lightly thermally altered
H6	2	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware, dark brown glaze on interior and exterior
H7	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware, dark brown glaze on interior and exterior
H8	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	light grey glaze on interior and exterior
H9	1	Kitchen/Food	Indeterminate	Kitchenware	Ceramic	Stoneware	Glazed	Holloware	buff coloured stoneware, light brown glaze on exterior and dark brown glaze on interior
H10	7	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				thick olive green glass
H11	1	Kitchen/Food	Beverage storage	Container - Soft Drink	Glass				colourless glass, partial crown finish
H12	1	Kitchen/Food	Beverage storage	Container - Liquour	Glass				dark amber glass, beer bottle neck
H13	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				thick solarized glass, rounded base fragment
H14	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light green glass, partial double ring finish
H15	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				colourless glass, partial round base fragment with "NADA" embossed on the bottom
H16	3	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light aqua glass
H17	1	Kitchen/Food	Food storage	Stopper	Glass				dark amber glass and cork stopper
H18	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light cobalt blue glass
H19	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				colourless glass
H20	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				thick flat solarized body panel fragment
H21	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				colourless glass, small rounded base and body fragment
H22	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				rectangular shaped thick colourless glass, embossed numbers "155B"
H23	1	Indeterminate	Indeterminate	Scrap	Metal - Ferrous				thin flat J shaped fragment
H24	2	Architectural	Building component	Nail – Machine Cut	Metal - Ferrous				

Artifacts are packed into Box 2: Post-contact Euro-Canadian sites



#### 3.6.2 Site SKWP-P92

**Infrastructure Survey Area Impacted:** CLSA-4—Debrouwer ECL (see Maps—Sheet 27)

**Location:** 60 m northwest from Horton Line and 10 m northeast of Fargo Road (immediately adjacent to the roadway) (see Supplementary Documentation: Archaeological Site Location, Figure 32)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

Topography: In flat section of agricultural field

**Soil Type:** Sandy loam

Features of Archaeological Potential: Proximity to historic transportation route and seasonal drainages

**Site Type:** Pre-Contact Aboriginal Lithic Findspot

Site Size (approximate): n/a

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Isolated artifact

Content Summary: 1 biface fragment

**Sample Collected**: All artifacts

**Sample Description**: Refined biface tip manufactured from unknown chert (See Images—Artifact Plate 9).

**Site Interpretation**: Site SKWP-P92 likely represents intentional discard due to breakage (fossil corral inclusion likely weakened integrity of tool during manufacture). Date of site unknown due to lack of temporally diagnostic tools.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: Yes

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.



# **Artifact Catalogue for Site SKWP-P92**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	w	Т	Comments
1	Surface	1	PPf - Projectile point fragment	Unknown							Refined tip, fossil coral inclusion likely reason for breakage

#### 3.7 Archaeological Sites within CLSA-5

## 3.7.1 AcHm-64 (formerly Site SKWP-H17)

Infrastructure Survey Area Impacted: CLSA-5—618742 Ontario Inc. ECL (see Maps—Sheet 28)

**Location:** Within ECL ROW, north of Communication Road (see Supplementary Documentation: Archaeological Site Location, Figure 31)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** On flat section of agricultural field

Soil Type: Clay-loam

**Features of Archaeological Potential:** Within 50m of historic transportation route (Communication Road).

Site Type: Historic Euro-Canadian Scatter

**Field Conditions:** Ploughed and weathered field, 80%+ ground visibility

**Site Size (approximate):** 20 x 40 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter periphery.

**Density & Distribution:** Approximately 312 artifacts were spread over the defined site area.

**Content Summary:** The scatter includes some domestic material, but only a few personal and one architectural item. Coal was noted on the surface but not collected.

**Sample Collected:** A representative sample of 34 artifacts was collected, comprising approximately 11% of the observed scatter. The sample includes a representation of the various artifact types as well as the diagnostic whiteware ceramic types.

**Sample Description:** The 34 artifacts comprise mainly ceramics (56%) and glass (35%). Two buttons (6%) and one machine-cut nail (3%) make up the rest of the sample. The ceramics are mainly ironstone, with a few pieces of RWE, semi-porcelain and bone china (See Images—Artifact Plate 7).

**Site Interpretation:** The lack of structural and personal materials suggests a possible dumping ground rather than an occupation site. The predominance of whiteware and the high frequency of glass in the assemblage is typical of deposits dating to the late nineteenth or early twentieth century. There is a school house illustrated directly adjacent to the scatter in the 1881 Atlas, on the opposite side of the treeline.



# Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2: No

**Recommendations:** If Site AcHm-64 (SKWP-H17) will be impacted by the Project, then a Stage 3 site-specific assessment must be conducted.

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists, Section 2.2, Standard 1.c.: Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include post-contact archaeological sites containing at least 20 artifacts that date the period of use to before 1900.

**Artifact Catalogue for Site AcHm-64 (SKWP-H17)** 

Cat #	Qty	Class	Sub-Class	Type	Material	Ware	Motif	Form	Comments
H1	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	RWE	Transfer print	Holloware	blue stippled transfer motif on exterior
H2	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	partial black transfer maker's mark on underside "_EAL." and graphic underneath
НЗ	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Flatware	moulded floral motif
H4	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	small handle fragment - could be for a teacup or creamer
H5	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	
H6	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Floware	Flatware	linear motif
H7	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Transfer print	Unidentifiable	unidentfiable motif on one side, other side exfoliated
H8	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	RWE	Transfer print	Flatware	linear and geometric motif
H9	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	large moulded holloware handle, possible a pitcher
H10	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Flatware	moulded scroll motif
H11	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Moulded	Holloware	moulded floral motif
H12	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Bone china	Decalcomania	Holloware	squiggly decalcomania motif on exterior, thin line of gold gilt along interior
H13	2	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	<u> </u>
H22	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Semi- porcelain	Undecorated	Holloware	
H14	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	
H15	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Holloware	large hollowware rim fragment, likely a serving vessel
H16	1	Kitchen/Food	Indeterminate	Tableware	Ceramic	Ironstone	Undecorated	Flatware	brown transfer print maker's mark on underside: bee hive with writing around it "_N, AL SEMI CHINA / E MARK / _NETT & Co / SLEM / LAND"
H17	1	Personal Artifacts	Medicine	Container - Medicine	Glass				aqua glass, patent finish
H18	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				light green glass, incomplete double oil finish
H19	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				dark amber glass, partial brandy finish
H20	1	Indeterminate	Indeterminate	Unidentified	Glass				bright blue glass, moulded linear motif, unidentifiable shape
H21	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				solarized glass
H23	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				amber glass
H24	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				milk glass, thick squared base fragment
H25	2	Indeterminate	Indeterminate	Container - Unidentifiable	Glass				thick dark amber glass, partial round base fragment



H26	1	Indeterminate	Indeterminate	Container - Unidentifiable	Glass	dark amber glass, likely a beer bottle
H27	2	Indeterminate	Indeterminate	Container - Unidentifiable	Glass	aqua glass, square base with bevelled edges
H28	1	Personal Artifacts	Clothing	Button	Shell	shell button with two-hole sew through fastener
H29	1	Personal Artifacts	Clothing	Button	Ceramic	white Prosser button with four hole sew-through fastener and depressed centre, lightly thermally altered
H30	1	Architectural	Building component	Nail - Machine Cut	Metal - Ferrous	

Artifacts are packed into Box 2: Post-contact Euro-Canadian sites



## 3.7.2 AcHm-65 (formerly Site SKWP-P90)

Infrastructure Survey Area Impacted: CLSA-5—Richardson ECL (see Maps—Sheet 28)

**Location:** 510 m southeast of Creek Road and 400 m southwest of Communication Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 31)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** In flat section of agricultural field

Soil Type: Clay loam

Features of Archaeological Potential: Proximity to former seasonal drainage

**Site Type:** Pre-Contact Aboriginal Lithic Findspot

**Site Size (approximate):** 5 m radius

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** Two artifacts 5 m apart

**Content Summary:** 1 Projectile Point and 1 shatter

**Sample Collected**: 1 lithic debitage and 1 projectile point.

**Sample Description**: 1 shatter and one modified Late Archaic Innes projectile point, both manufactured of Onondaga chert (See Images—Artifact Plate 8).

**Site Interpretation**: Site AcHm-65 (SKWP-P90) likely represents an equipment loss event or a small campsite or location where tool production/refurbishment or refinement occurred as well as possible animal hide processing. Innes points date to the Late Archaic Period (1800 – 900 BC) and so SKWP-P90 can typologically be dated to this period. This projectile point has been modified into a hafted end scraper.

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2:  $_{\rm Yes}$ 

**Recommendations:** No further assessment required

**Justification:** Does not meet MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(1): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3



assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m pedestrian survey area comprised of at least 1 diagnostic artifact or fire-cracked rock and two non-diagnostic artifacts.

# **Artifact Catalogue for Site AcHm-65 (SKWP-P90)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	W	Т	Comments
1	Surface	1	SH - Shatter	Onondaga							
2	Surface	1	PP - Projectile point	Onondaga			Yes	28	22	10	Late Archaic Innes point reworked into an end scraper



### 3.7.3 AcHm-66 (formerly Site SKWP-P91)

Infrastructure Survey Area Impacted: CLSA-5—Richardson ECL (see Maps—Sheet 28)

**Location:** 525 m southeast of Creek Road and 325 m southwest of Communication Road in an agricultural field (see Supplementary Documentation: Archaeological Site Location, Figure 31)

**UTM Coordinates (Centre, NAD 83):** See Supplementary Documentation: GPS Coordinates for Site Locations, Table 1

**Topography:** In flat section of agricultural field

**Soil Type:** Sandy clay loam

Features of Archaeological Potential: Proximity to former seasonal drainage

**Site Type:** Pre-Contact Aboriginal Lithic Scatter

**Site Size (approximate):** 30 m x 30 m

**Assessment Method:** Pedestrian survey at intensified 1 m intervals to a buffer of 20 m from the scatter

periphery.

**Density & Distribution:** 24 artifacts spread across the site area with no notable artifact concentration.

Content Summary: 24 debitage

**Sample Collected**: 2 lithic debitage

**Sample Description**: 1 piece of shatter and one secondary knapping flake, both of Onondaga chert.

**Site Interpretation**: Site AcHm-66 (SKWP-P91) likely represents a small campsite or location where a single tool/biface refurbishment or refinement event occurred. Date of site unknown due to lack of temporally diagnostic tools

Has the Cultural Heritage Value or Interest Been Sufficiently Assessed and Documented in Stage 2:  $_{\rm No}$ 

**Recommendations:** Avoid with minimum 20m buffer (may require archaeological monitoring during construction), or Stage 3 Assessment

**Justification:** Meets MTC's 2011 Standards and Guidelines for Consultant Archaeologists; Section 2.2, Standard 1.a.i.(3): Artifacts, groups of artifacts, or archaeological sites requiring Stage 3 assessment include pre-contact diagnostic artifacts or a concentration of artifacts (or both) within a 10 m by 10 m



pedestrian survey area situated on or west of the Niagara Escarpment with at least 10 non-diagnostic artifacts.

# **Artifact Catalogue for Site AcHm-66 (SKWP-P91)**

Cat #	Sub-Operation	Qty	Туре	Material	T-A	# Altered	Retouch/ Utilized	L	W	т	Comments
1	Surface	1	SK - Secondary knapping flake	Onondaga							
2	Surface	1	SH - Shatter	Onondaga							



#### 4.0 ANALYSIS AND CONCLUSIONS

Additional Stage 2 property survey of the 28 infrastructure survey areas was completed on March 1, 2012, and ASI identified a total of 19 new archaeological sites within the Project: 15 pre-contact Aboriginal sites, and 4 Euro-Canadian sites, in addition to the previously reported 84 archaeological sites (note that AcHl-77 and -78 have been combined into the latter site designation). Table 4 presents pertinent information for each site (but see Section 3.0 for the detailed reports for each new site).

In this report section, the cultural heritage value or interest of all 19 identified archaeological resources will be discussed.

Table 4: South Kent Wind Project – Stage 2 Archaeological Site Summary

ISA	Site Borden No.	Site Field Name	Artifact Content	Cultural Affiliation/Age	Site Type	Site Size	Within Layout L19 R1
TPA-002	AcHl-85	SKWP-H14	Ironstone, glass, pig bone, and other artifacts	Late 19 <sup>th</sup> -early 20 <sup>th</sup> century	Diagnostic Scatter	80 x 90 m	Yes
	SKWP-P81		1 uniface fragment	Unknown	Non-diagnostic Isolate		Yes
TPA-029		SKWP-P80	2 biface fragments (refit)	Unknown	Non-diagnostic Isolate		No
TPA-036	AcHm-62	SKWP-H15	Ironstone, glass, clay pigeon fragments and other artifacts	Late 19 <sup>th</sup> -early 20 <sup>th</sup> century	Diagnostic Scatter	20 x 60 m	Yes
	AcHl-79	SKWP-P82	500+ flakes	Unknown – likely multi- component	Non-diagnostic Scatter	150 x 75 m	No
	AcHl-81	SKWP-P83	80 flakes	Unknown	Non-diagnostic Scatter	30 x 20 m	Buffer only
		SKWP-P84	10 flakes	Unknown	Non-diagnostic Scatter	20 x 10 m	Buffer only
TPA-103	AcHl-82	SKWP-P85	158 flakes and 2 bifaces	Unknown	Non-diagnostic Scatter	80 x 50 m	Yes
	AcHl-83	SKWP-P86	15 flakes and 1 projectile point	Unknown	Non-diagnostic Scatter	40 x 25 m	Yes
		SKWP-P87	3 flakes	Unknown	Non-diagnostic Scatter	10 x 10 m	No
	AcHl-84	SKWP-P88	37 flakes	Unknown	Non-diagnostic Scatter	40 x 15 m	No
		SKWP-P89	7 flakes	Unknown	Non-diagnostic Scatter	30 x 15 m	No
TPA-118		SKWP-P78	6 flakes	Unknown	Non-diagnostic Scatter	40 x 20 m	Yes
15W-110	AcHl-80	SKWP-P79	18 flakes	Unknown	Non-diagnostic Scatter	60 x 10 m	Yes
CLSA-4	AcHm-63	SKWP-H16	Ironstone, stoneware, glass and 2 machine- cut nails	Late 19 <sup>th</sup> – early 20 <sup>th</sup> century	Diagnostic Scatter	90 x 150 m	Yes



ISA	Site Borden No.	Site Field Name	Artifact Content	Cultural Affiliation/Age	Site Type	Site Size	Within Layout L19 R1
CLSA-4		SKWP-P92	1 biface fragment	Unknown	Non-diagnostic Findspot		Yes
CLSA-5	AcHm-64	SKWP-H17	Ironstone, RWE, semi-porcelain, bone china, glass, buttons, 1 machine-cut nail	Late 19 <sup>th</sup> – early 20 <sup>th</sup> century	Diagnostic Scatter	20 x 40 m	Yes
	AcHm-65	SKWP-P90	1 flake and 1 projectile point	Late Archaic	Diagnostic Scatter	5 m radius	Buffer only
	AcHm-66	SKWP-P91	24 flakes	Unknown	Non-diagnostic Scatter	30 x 30 m	Yes

In accordance with the *S* & *G* Section 2.2, each archaeological resource was evaluated for cultural heritage value or interest (CHVI) to meet the definitions of "artifact" and "archaeological site" under the *Ontario Heritage Act*. Applicable criteria are detailed under Standard 1, and these were used to define artifacts, groups of artifacts or archaeological sites that meet the requirements for Stage 3 site-specific assessment. The applicable standards that apply to the Project results are:

**Standard 1.a.i.(1):** pre-contact diagnostic artifacts or a concentration of artifacts (or both) found within a

10 m by 10 m pedestrian survey area with at least one diagnostic artifact or fire-cracked

rock in addition to two or more non-diagnostic artifacts;

Standard 1.a.i.(3): pre-contact diagnostic artifacts or a concentration of artifacts (or both) found within a

10 m by 10 m pedestrian survey area, in areas on or west of the Niagara Escarpment,

and containing at least 10 non-diagnostic artifacts;

**Standard 1.c:** post-contact archaeological sites containing at least 20 artifacts that date the period of

use to before 1900.

To date, eight (8) pre-contact Aboriginal archaeological sites *do not meet* these standards for further Stage 3 site-specific assessment (see Table 5).

The eleven remaining archaeological sites *meet* one of the *S* & *G* listed above for sites requiring further Stage 3 Site-specific assessment per *Section 2.2* (see Table 6). Within this group is one site that also shows evidence for a high level of CHVI and will likely require Stage 4 mitigation per *S* & *G Section 7.8.3*, *Standard 2.c.* 

Based on data from Table 4, the site types used to devise the Stage 3 site-specific assessment strategy are listed in Table 7 (per *S & G Section 3.2.3, Standard 1, see Table 3.1*).

Based on the above, it is noted that of the 28 infrastructure survey areas subjected to additional Stage 2 property assessment in support of Layout L19 R1 changes, six (6) (or 22.2%) contain archaeological sites that must be subjected to Stage 3 site-specific assessment. The following ISAs are affected: TPA-002, TPA-036, TPA-103, TPA-118, CLSA-4, and CLSA-5.



Table 5: South Kent Wind Project – Archaeological Sites that DO NOT MEET Standards for Further Stage 3 Sitespecific Assessment

ISA	SITE	Section 2.2 Standard
TPA-002	SKWP-P81	Standard 1.a.i.(1)
TPA-029	SKWP-P80	Standard 1.a.i.(1)
	SKWP-P84	Standard 1.a.i.(3)
TPA-103	SKWP-P87	Standard 1.a.i.(1)
	SKWP-P89	Standard 1.a.i.(1)
TPA-118	SKWP-P78	Standard 1.a.i.(1)
CLSA-4	SKWP-P92	Standard 1.a.i.(1)
CLSA-5	AcHm-65 (SKWP-P90)	Standard 1.a.i.(1)

Table 6: South Kent Wind Project – Archaeological Sites that MEET Standards for Further Stage 3 Site-specific Assessment and Likely Standards for Stage 4 Mitigation

ISA	SITE	STAGE 3 ASSESSMENT section 2.2, Standard 1	STAGE 4 MITIGATION section 7.8.3, Standard 2.c
TPA-002	AcHl-85 (SKWP-H14)	Standard 1.c.	
TPA-036	AcHm-62 (SKWP-H15)	Standard 1.c.	
	AcHl-79 (SKWP-P82)	Standard 1.a.i.(3)	Yes
	AcHl-81 (SKWP-P83)	Standard 1.a.i.(3)	
TPA-103	AcHl-82 (SKWP-P85)	Standard 1.a.i.(3)	
	AcHl-83 (SKWP-P86)	Standard 1.a.i.(1)	
	AcHl-84 (SKWP-P88)	Standard 1.a.i.(3)	
TPA-118	AcHl-80 (SKWP-P79)	Standard 1.a.i.(3)	
CLSA-4	AcHm-63 (SKWP-H16)	Standard 1.c.	
CLSA-5	AcHm-64 (SKWP-H17)	Standard 1.c.	
CL3A-5	AcHm-66 (SKWP-P91)	Standard 1.c.	

Table 7: South Kent Wind Project – Archaeological Site Types for Stage 3 Site-specific Assessment

Site Type for Stage 3 Site-specific Assessment	ISA	Archaeological Site
Small, pre-contact Aboriginal scatter:		AcHl-81 (SKWP-P83)
CHVI not yet evident	TPA-103	AcHl-82 (SKWP-P85)
	1FA-103	AcHl-83 (SKWP-P86)
		AcHl-84 (SKWP-P88)
	TPA-118	AcHl-80 (SKWP-P79)
Small post-contact Euro-Canadian scatter:	TPA-002	AcHl-85 (SKWP-H14)
CHVI not yet evident	TPA-036	AcHm-62 (SKWP-H15)
	CLSA-4	AcHm-63 (SKWP-H16)
	CLSA-5	AcHm-64 (SKWP-H17)
	CL3A-5	AcHm-66 (SKWP-P91)
Small, pre-contact Aboriginal scatter: CHVI evident	TPA-103	AcHl-79 (SKWP-P82)



#### 5.0 RECOMMENDATIONS

1) If changes to Layout L19 R1 or temporary workspace requirements result in the inclusion of previously unsurveyed Project lands, they should be subjected to a Stage 2 property assessment.

In addition to the above, based on the results of the Stage 2 property assessment of the South Kent Wind Project (the Project) area, Archaeological Services Inc. (ASI) makes the following recommendations:

- 2) The Stage 2 property assessment did not find any archaeological sites within 17 infrastructure survey areas (ISA), including turbine plough areas (TPA), substation plough areas (SPA), and connection layout survey areas (CLSA) and, therefore, it is recommended that no further archaeological assessment of these areas is required. These areas are: TPA-028, TPA-030, TPA-031, TPA-162, TPA-166, CLSA-6, CLSA-7, CLSA-8, CLSA-9, CLSA-10, CLSA-11, CLSA-12, CLSA-13, CLSA-14, CLSA-15, CLSA-16; and SPA-1.
- 3) In addition to the ISAs listed in Recommendation #2 above, only TPA-029 contains an archaeological site for which no further archaeological assessment is required, and, therefore, it is recommended that no further archaeological assessment of this ISA is required;
- 4) In addition to the ISAs listed in Recommendations #2 and 3 above, the Stage 2 property assessment did not find any archaeological sites within 4 ISAs; however, these are associated with archaeological sites that were previously identified during the 2011 Stage 2 assessment (ASI 2011a). While no further archaeological assessment of these 4 ISAs are required, it is recommended that if any archaeological sites associated with these survey areas are still within the Project and previously determined to require further Stage 3 assessment, they should be further assessed. These areas (and the applicable archaeological sites) include:

ISA	Archaeological Sites within Project	Mapped Location*		
TPA-107	AcHl-40, -42 and -43	Figure 22		
TPA-133	None [AcHl-76 no longer within the Project]	Figure 24		
TPA-139	AcHl-54 [AcHl-55 no longer within the Project]	Figure 25		
TPA-171	<b>None</b> [AcHl-35, -36, -37, 38 and -39 are no longer within	Figure 22		
the Project]				
*see Supplementary Documentation which accompanies this report (ASI 2012)				

5) Of the 19 archaeological sites documented during the Stage 2 property assessment, eight (8) sites are not recommended for further archaeological assessment as their cultural heritage value or interest (CHVI) has been sufficiently assessed and documented at Stage 2. These are:

ISA	Archaeological Sites
TPA-002	SKWP-P81
TPA-029	SKWP-P80
TPA-103	SKWP-P84, SWKP-P87, SKWP-P89
TPA-105	SKWP-P78
CLSA-4	SKWP-P92
CLSA-5	AcHm-65 (SKWP-P90)



- 6) Of the 19 archaeological sites documented during the Stage 2 property assessment, Site AcHl-84 (SKWP-P88) and its 20 m construction buffer is not located within the Project (ASI 2012—Supplementary Documentation: Figure 19) and is therefore not recommended for further archaeological assessment;
- 7) It is recommended that the remaining ten (10) archaeological sites documented during the Stage 2 property assessment be subject to Stage 3 site specific assessment if they are to be located within the project limits as they all meet the criteria for requiring a Stage 3 site-specific assessment based on *S & G, Section 2.2 Analysis: Determining the requirements for Stage 3 assessment.* The type of site as per *S & G Section 2.2* and the detailed Stage 3 requirements for each site as per *S & G Section 3* and *S & G Section 7.8.4. Standard 1c* are as follows:
  - a) Stage 3 is recommended for the following five (5) archaeological sites or portions thereof located within the Project lands based on *S & G Section 2.2, Standard 1.a.i.(1) or (3)*:

ISA	Archaeological Sites
	AcHl-81 (SKWP-P83)
TPA-103	AcHl-82 (SKWP-P85)
	AcHl-83 (SKWP-P86)
TPA-118	AcHl-80 (SKWP-P79)
CLSA-5	AcHm-66 (SKWP-P91)

The Stage 3 assessment must be carried out according to the criteria for small pre-contact Aboriginal sites *where it is not yet evident* that the level of CHVI will result in a recommendation to proceed to Stage 4. The Stage 3 site-specific assessment for these sites includes:

- historical documentation per S & G Section 3.1, Standard 1.a-b, if necessary;
- controlled surface pick-up of the site area: surface preparation may be required if ground conditions have deteriorated since the Stage 2 property assessment was conducted; and
- test unit (1 m square unit) excavation at 5 m intervals across the site plus an additional 20% of focused sampling;
- b) The Stage 2 property assessment identified four (4) post-contact Euro-Canadian archaeological sites that meet the criteria for requiring a Stage 3 site specific assessment based on *S & G Section 2.2, Standard 1.c,* and, therefore, it is recommended that a Stage 3 site-specific assessment be conducted for these sites or portions thereof located within the Project lands. These sites are:

ISA	Archaeological Sites
TPA-002	AcHl-85 (SKWP-H14)
TPA-036	AcHm-62 (SKWP-H15)
CLSA-4	AcHm-63 (SKWP-H16)
CLSA-5	AcHm-64 (SKWP-H17)



The Stage 3 assessment must be conducted according to the criteria for small post-contact Euro-Canadian sites *where it is not yet evident* that the level of CHVI will result in a recommendation to proceed to Stage 4. The Stage 3 site-specific assessment for these sites includes:

- historical documentation (i.e., land use history of property) per *S & G Section 3.1*, *Standard 1.b-g*, as appropriate;
- controlled surface pick-up of the site area (except for AcHl-61 that was discovered during test pit survey): surface preparation may be required if ground conditions have deteriorated since the Stage 2 property assessment was conducted; and
- test unit (1 m square unit) excavation at 5 m intervals across the site plus an additional 20% of focused sampling;
- c) The Stage 2 property assessment identified one pre-contact Aboriginal archaeological site—AcHl-79 (SKWP-P82) within TPA-103—that meets the criteria for requiring a Stage 3 site specific assessment based on *S & G Section 2.2, Standards 1.a.i.(3)*, and, therefore, it is recommended that a Stage 3 site-specific assessment be conducted for this site or portions thereof located within the Project lands.

The Stage 3 assessment must be conducted according to the criteria for a large, relatively dense plough disturbed site with multiple scatters containing more than one diagnostic artifact *where it is clearly evident* that the level of CHVI will result in a recommendation to proceed to Stage 4. The Stage 3 site-specific assessment for these sites includes:

- historical documentation per *S* & *G* Section 3.1, Standard 1.a-b, if necessary;
- controlled surface pick-up of the site area: surface preparation may be required if ground conditions have deteriorated since the Stage 2 property assessment was conducted; and
- test unit excavation:
  - --place multiple grids over areas of artifact concentration and excavate across those grids at 5 m intervals;
  - --place and excavate additional test units, amounting to 20% of the initial grid total, between areas of concentration to document areas of lower concentration; and
  - --place and excavate additional units, amounting to 10% of the initial grid total, on the periphery of the surface scatter to determine the site extent and sample the site periphery.



#### 6.0 ADVICE ON COMPLIANCE ADVICE WITH LEGISLATION

In addition, the following advice on compliance with legislation is provided:

- 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 field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, 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 field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- The *Cemeteries Act*, R.S.O. 1990, c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must immediately notify the police or coroner and the Registrar of cemeteries, Ministry of Consumer Services.
- Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological licence.



## 7.0 REFERENCES

Archaeological Services Inc. (ASI)

- 2010 Stage 1 Archaeological Assessment (Background Study and Property Inspection), South Kent Wind Project, Municipality of Chatham-Kent, Ontario [PIF #P264-120-2010]. Report on file, Ministry of Tourism, Culture and Sport, Toronto.
- 2011a Stage 2 Property Assessment, South Kent Wind Project, Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario: Final Report [PIF #P347-001-2011]. Report on file, Ministry of Tourism, Culture and Sport, Toronto.
- 2011b Stage 2 Property Assessment, South Kent Wind Project—Supplementary Documentation, Romney, East Tilbury, Raleigh, Harwich and Howard Townships, Former Kent County, Municipality of Chatham-Kent, Ontario [PIF #P347-001-2011]. Report on file, Ministry of Tourism, Culture and Sport, Toronto.
- ASI / Scarlett Janusas Archaeological and Heritage Consulting and Education (SJAHCE)
  - 2011 Stage 2 Archaeological Assessment (Property Assessment), South Kent Wind Project, Municipality of Chatham-Kent, Ontario: Interim Report on the 2010 Field Season [ASI PIFs #P264-119-2010 & P264-120-2010 and SJAHCE PIF #P027-112-2010]. Report on file, Ministry of Tourism, Culture and Sport, Toronto.

## Belden, H.

- 1881 Kent County Supplement in the Illustrated Atlas of the Dominion of Canada. Toronto: H. Belden & Co.
- 1881 Illustrated Historical Atlas of the Counties of Essex and Kent. Toronto: H.Belden & Co.

## Ontario Ministry of Tourism of Tourism and Culture

- 2005 Ontario Heritage Act.
- 2011 Standards and Guidelines for Consultant Archaeologists. Queen's Printer for Ontario, Toronto.



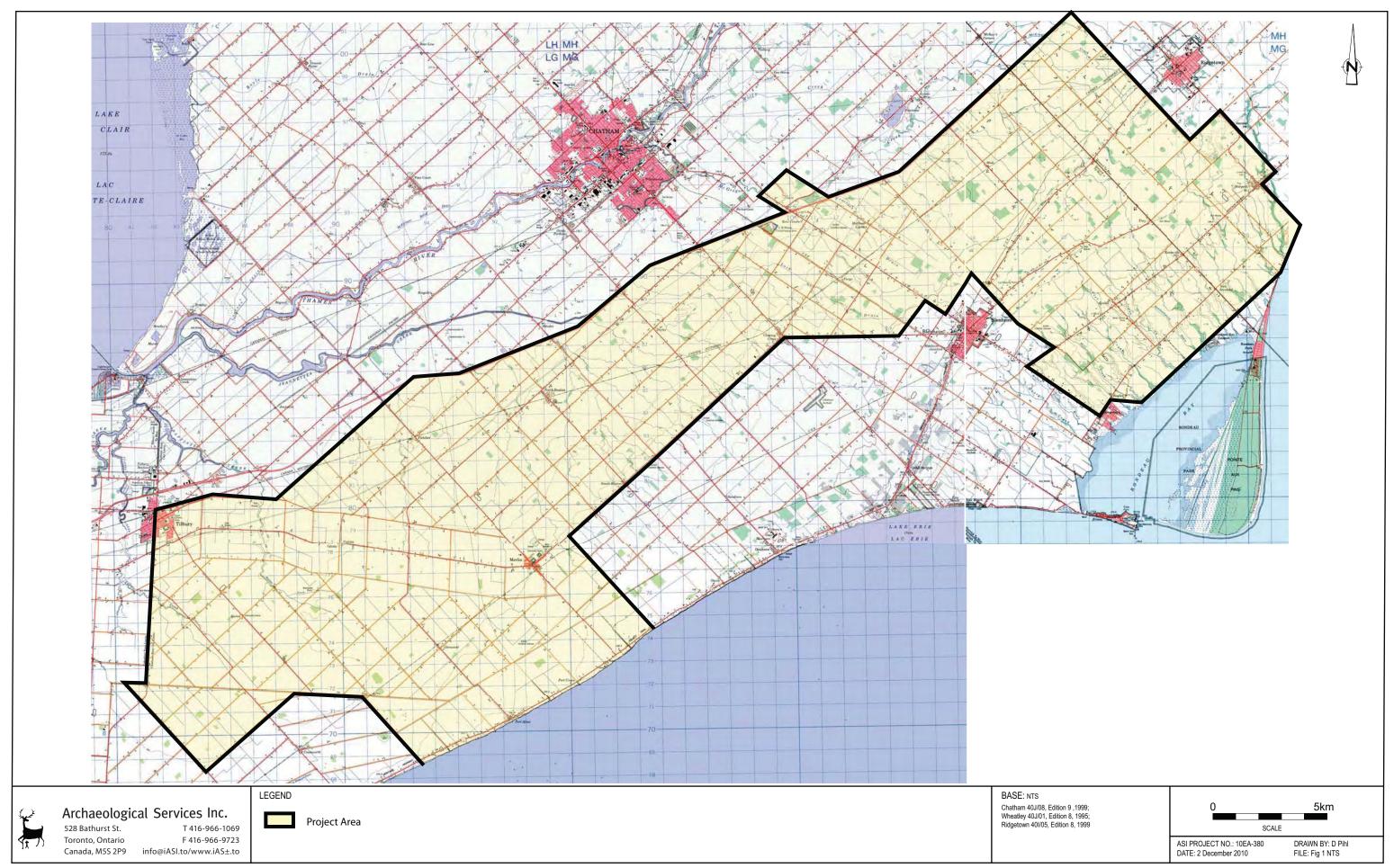
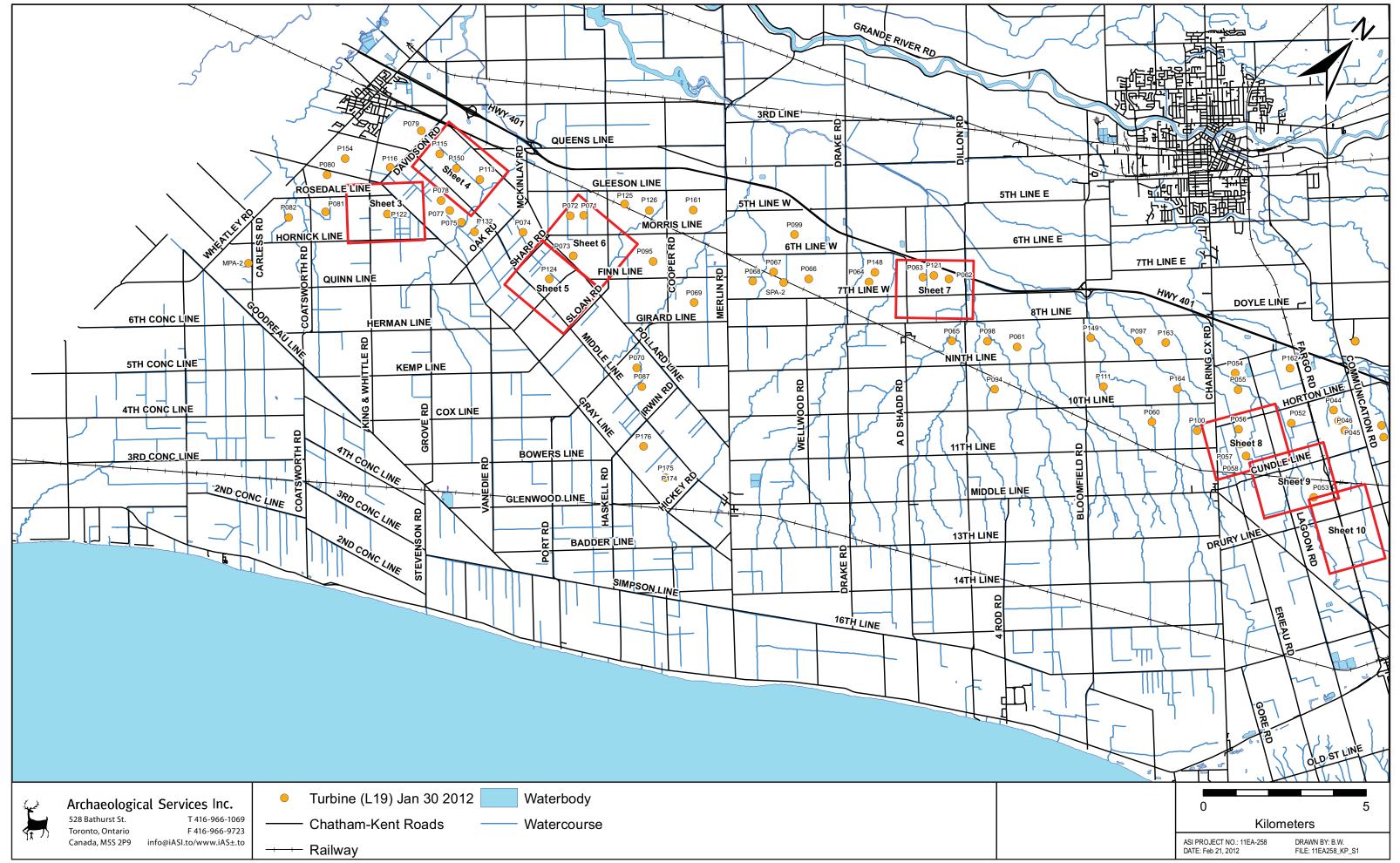
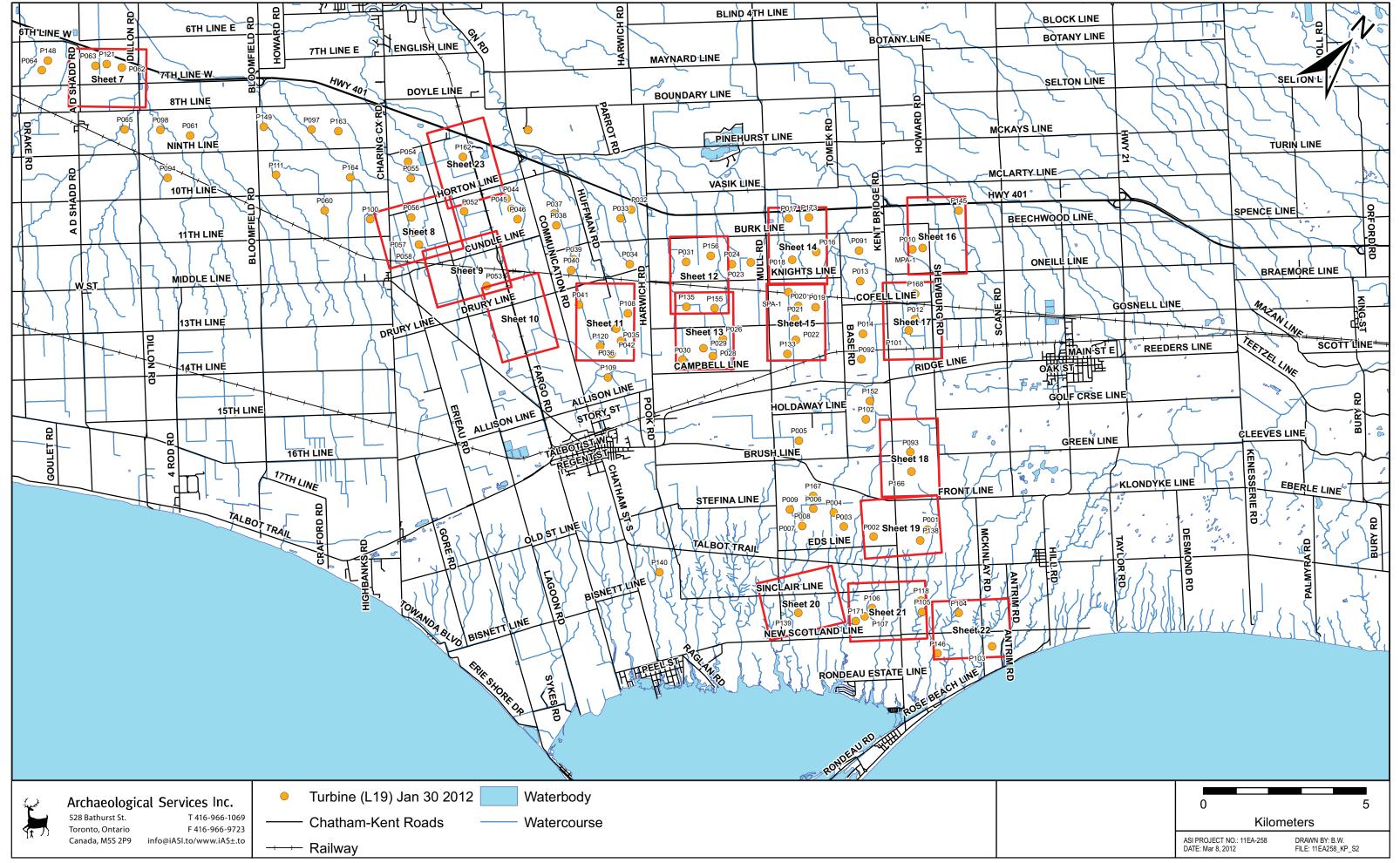


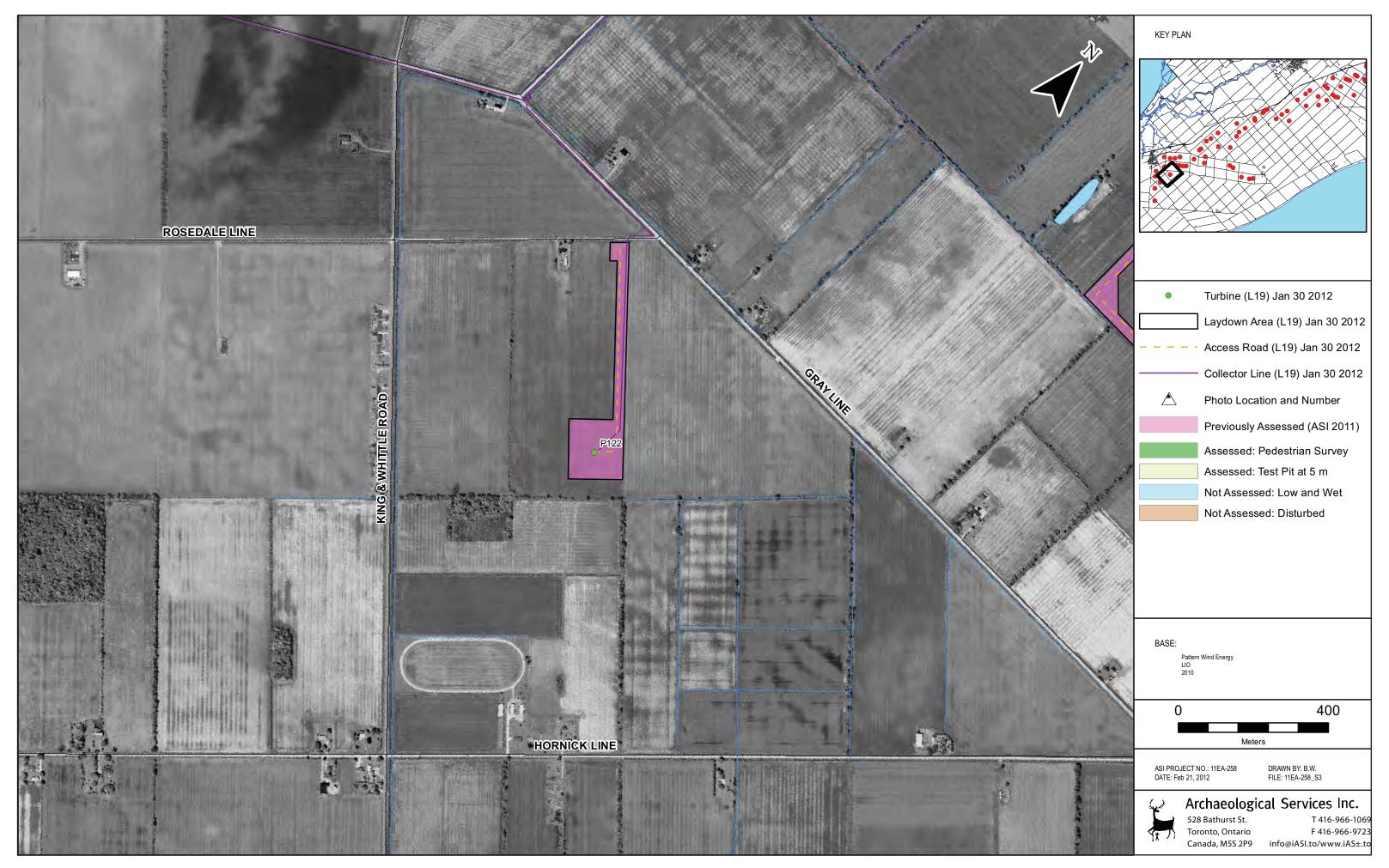
Figure 1: Location of South Kent Wind Project



Sheet 1: South Kent Wind Project - Key Plan (West)



Sheet 2: South Kent Wind Project - Key Plan (East)



Sheet 3: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Area 122



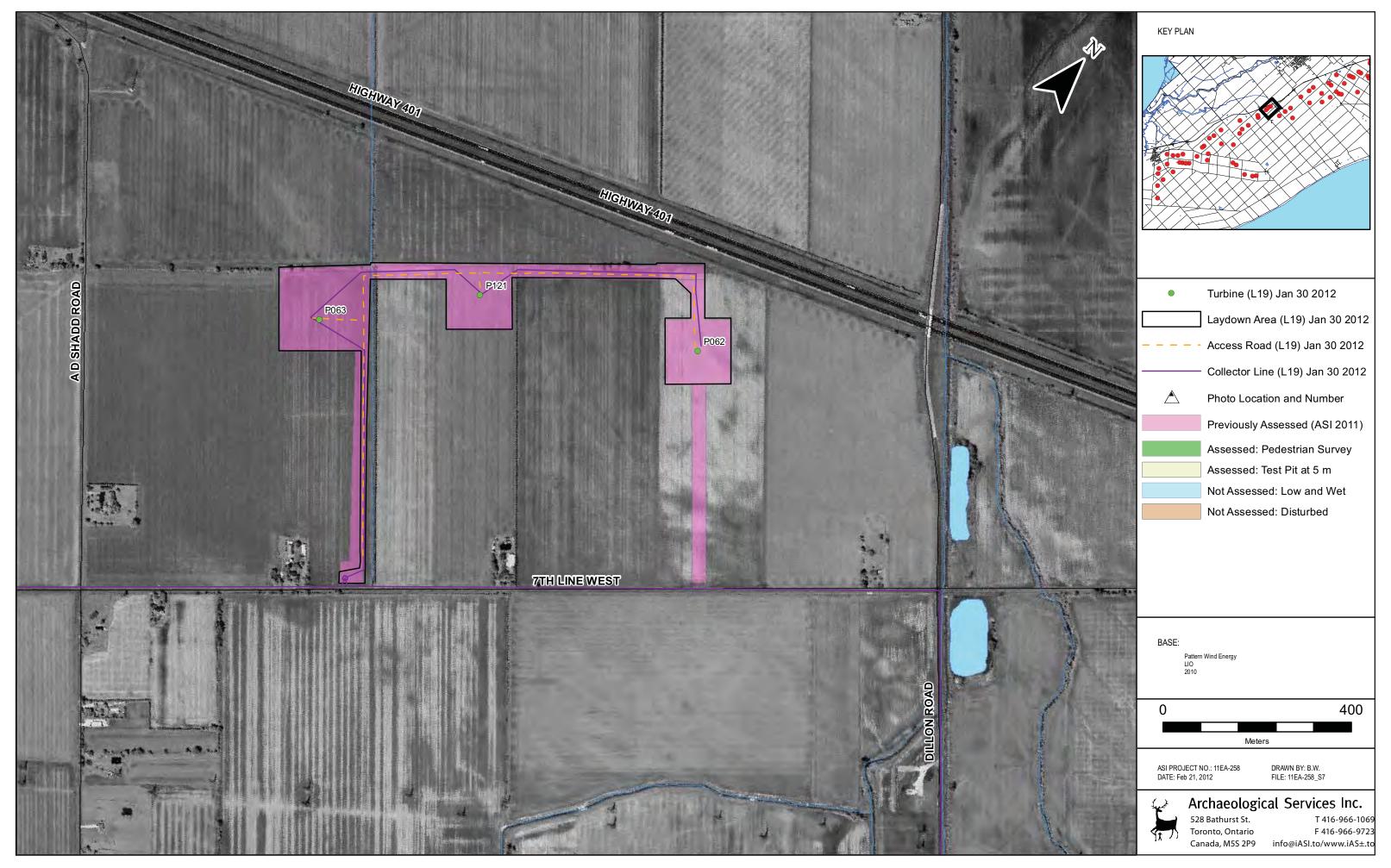
Sheet 4: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 113, 115 and 150



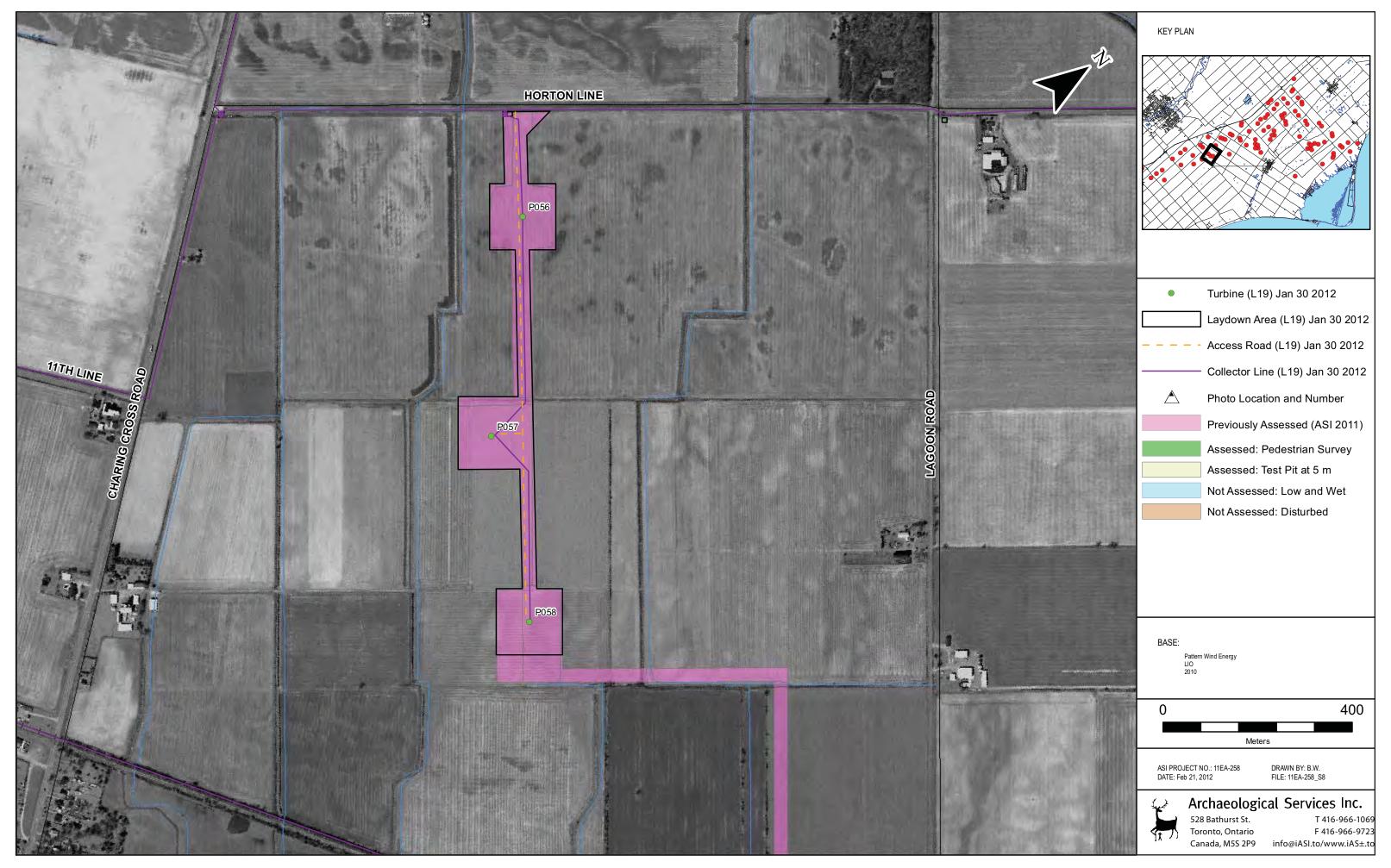
Sheet 5: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 73 and 124



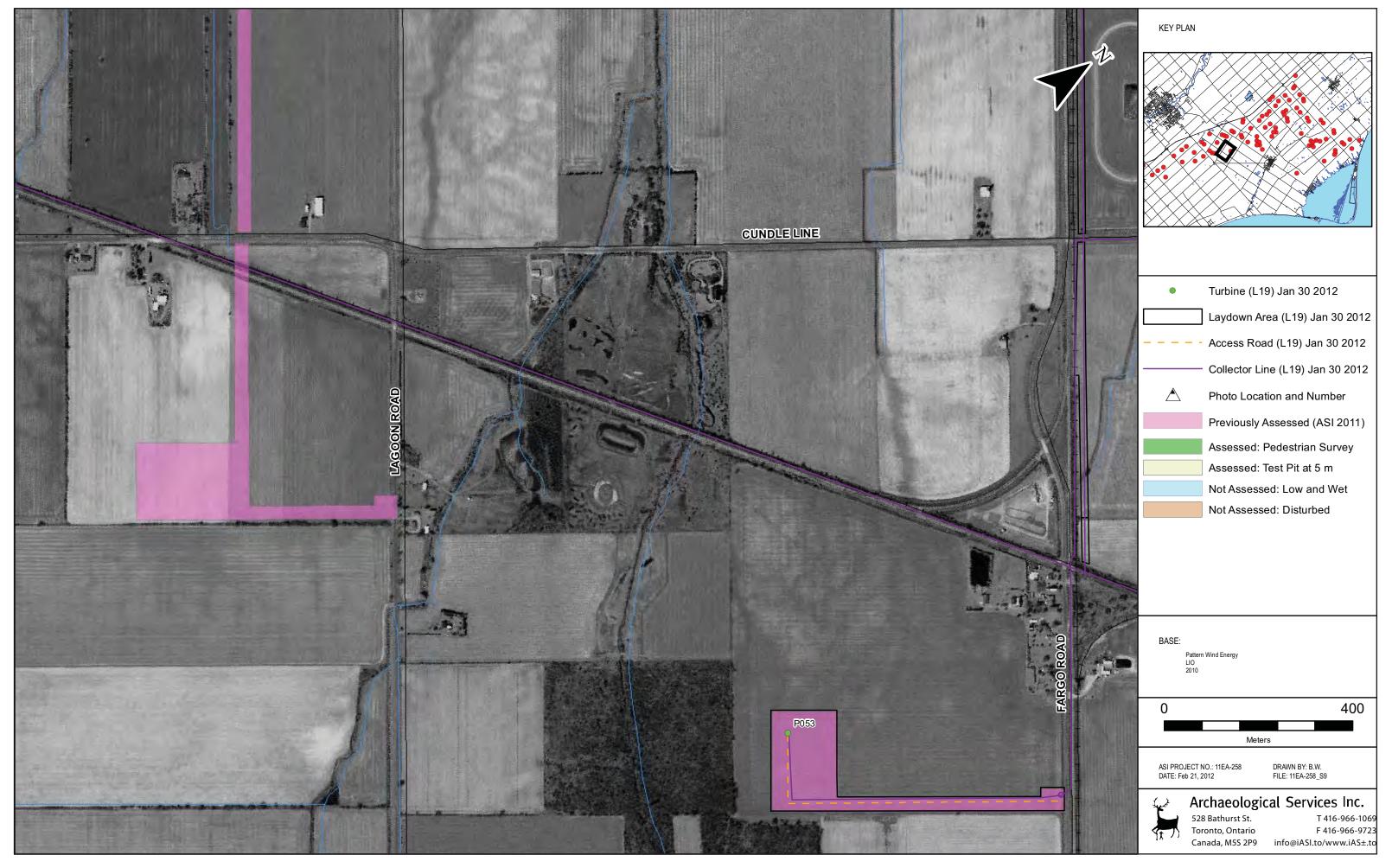
Sheet 6: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 71, 72 and 73



Sheet 7: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 62, 63 and 121



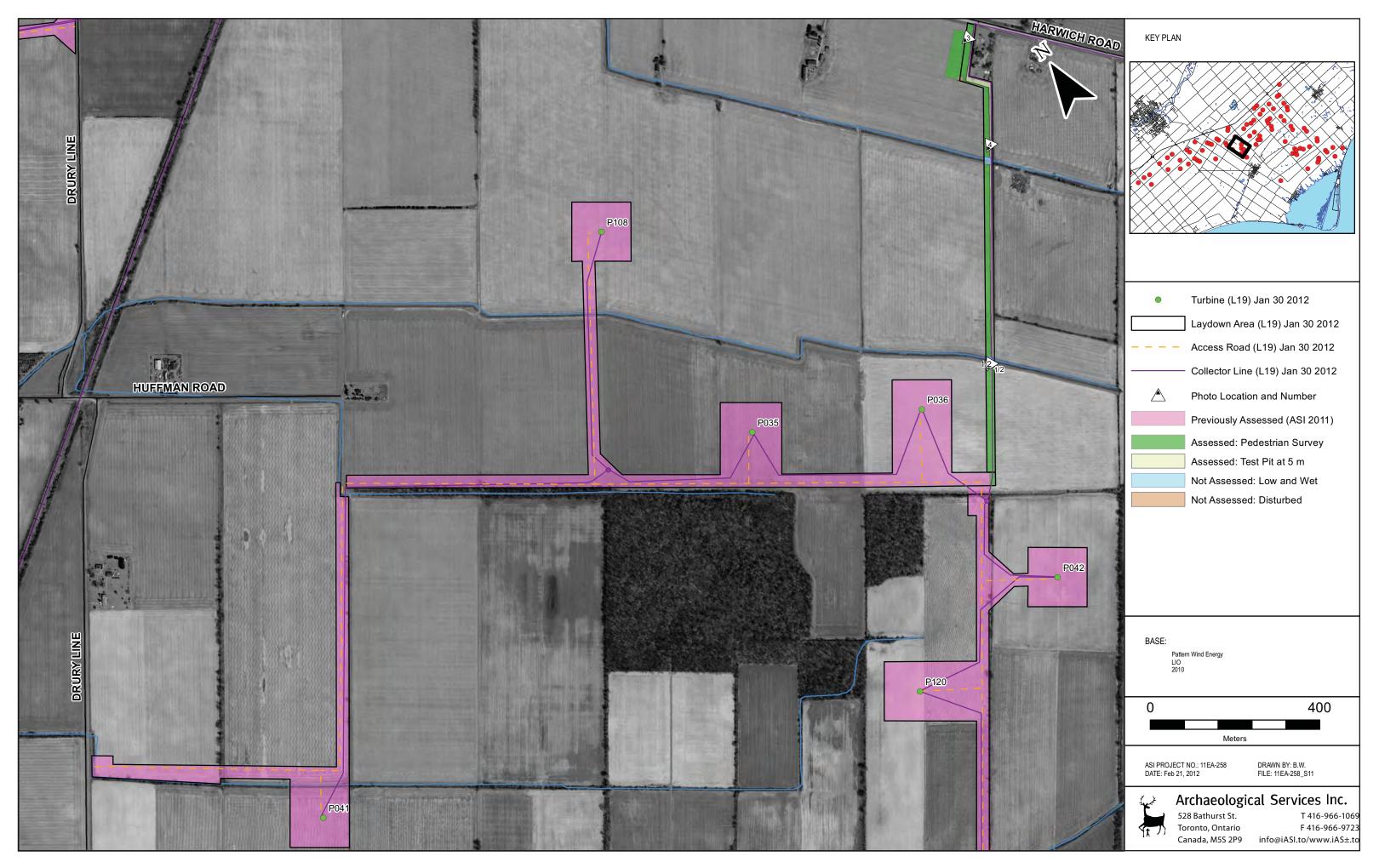
Sheet 8: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 56, 57 and 58



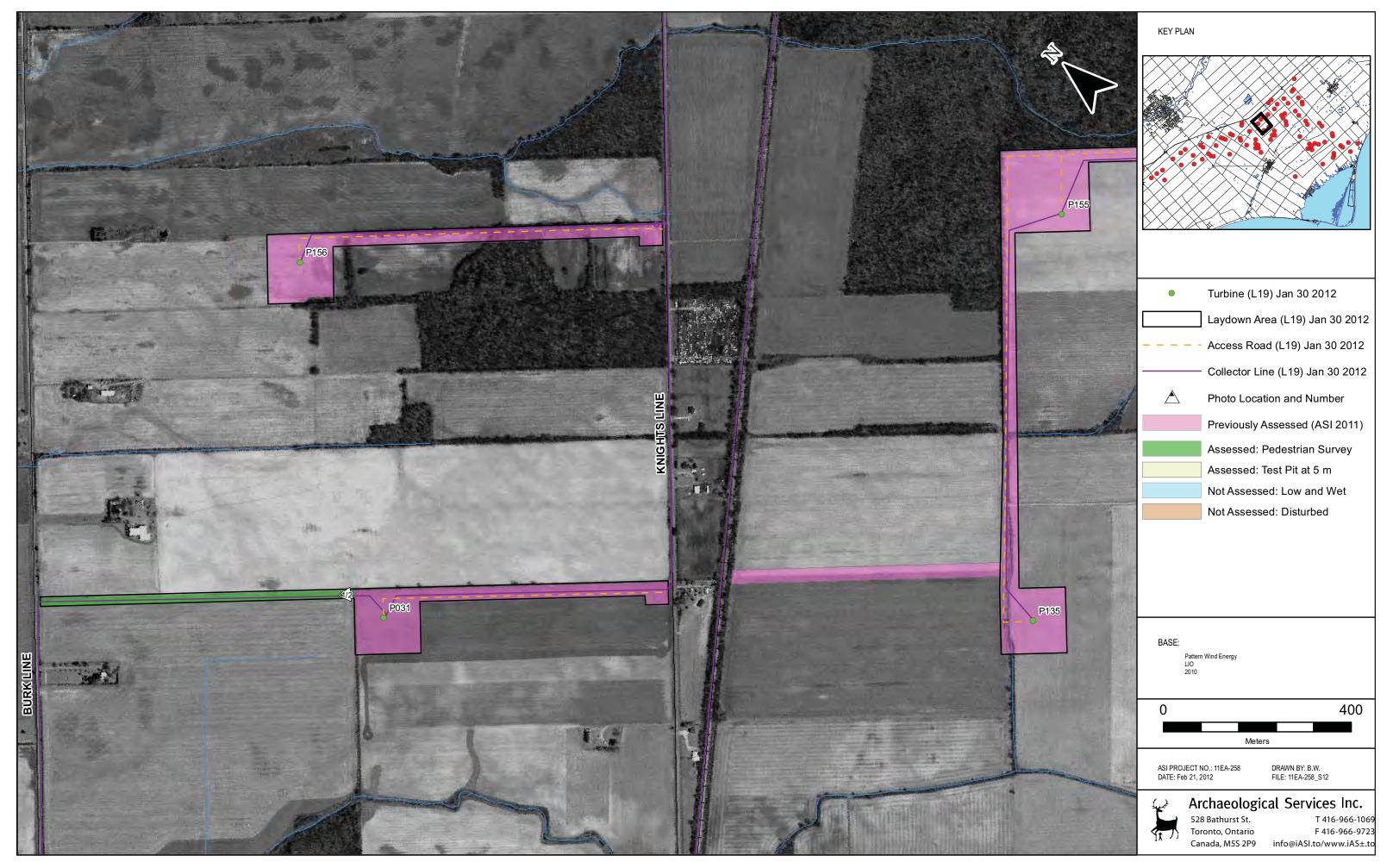
Sheet 9: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 53 and 165 (dropped)



Sheet 10: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 47 and 48 (both dropped)



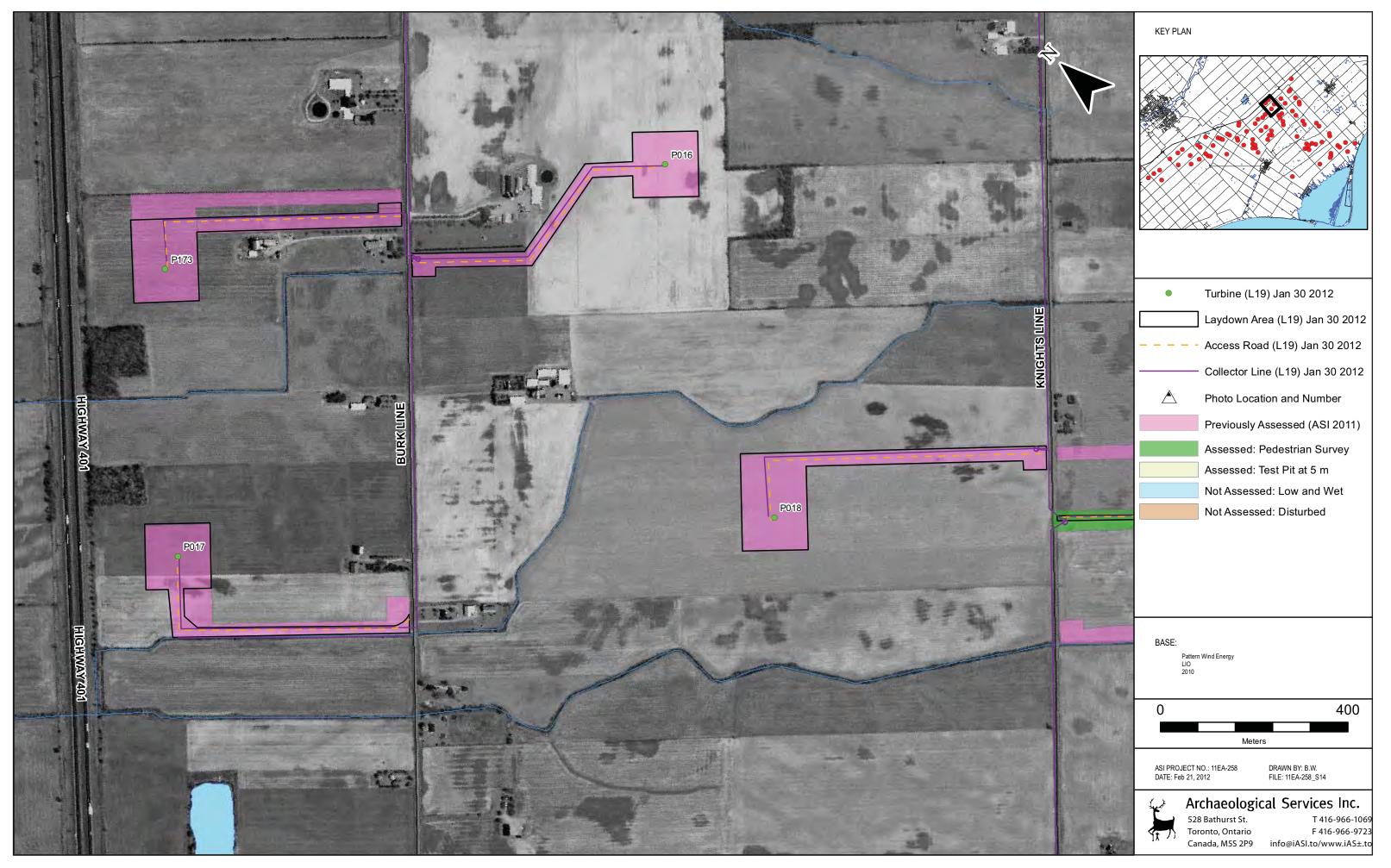
Sheet 11: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 35, 36, 41, 42, 108 and 120



Sheet 12: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 31, 135, 155 and 156



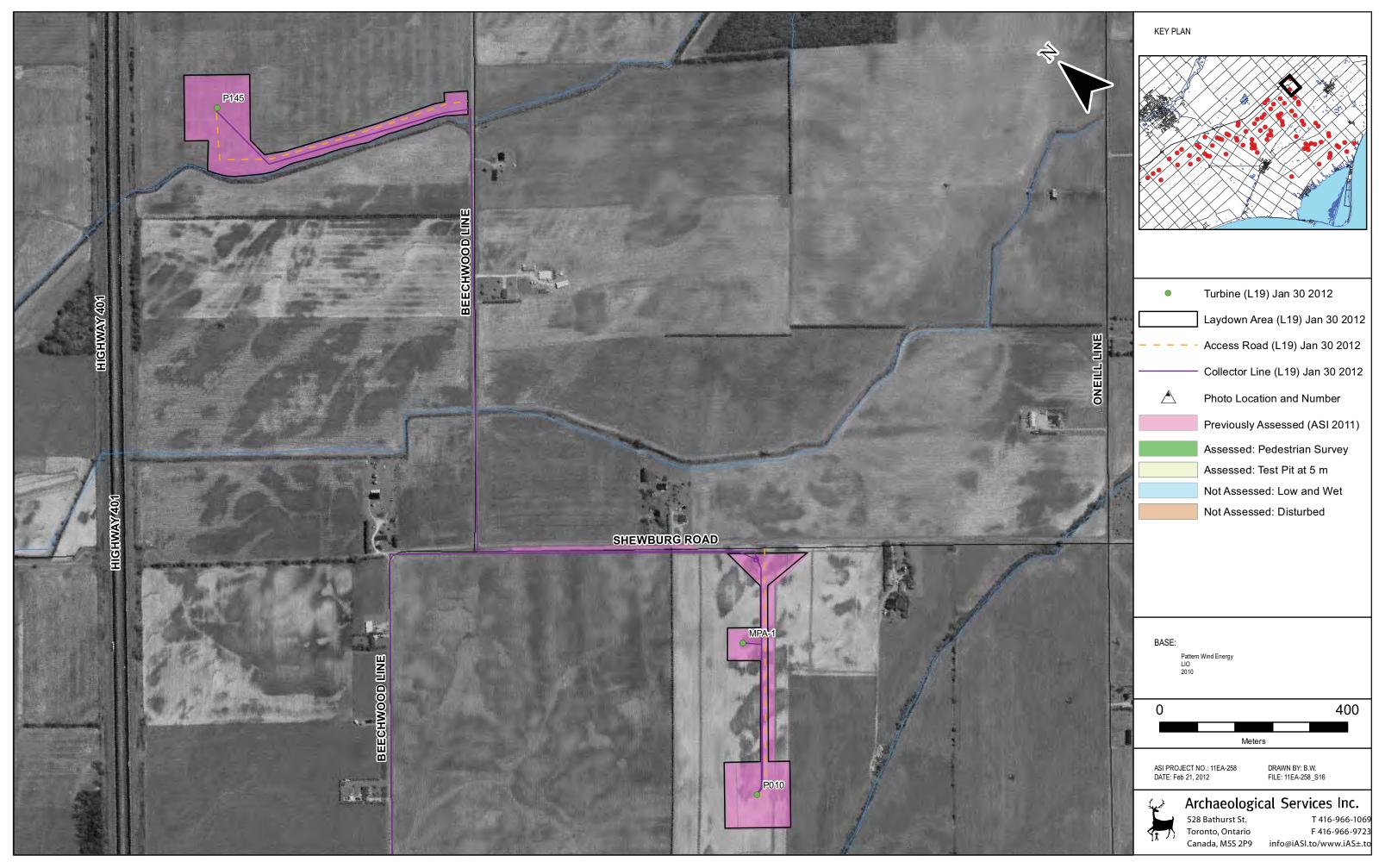
Sheet 13: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 26, 28, 29, 30, 135 and 155



Sheet 14: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 16, 17, 18 and 173



Sheet 15: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 19, 20, 21, 22, 133 and Substation 1



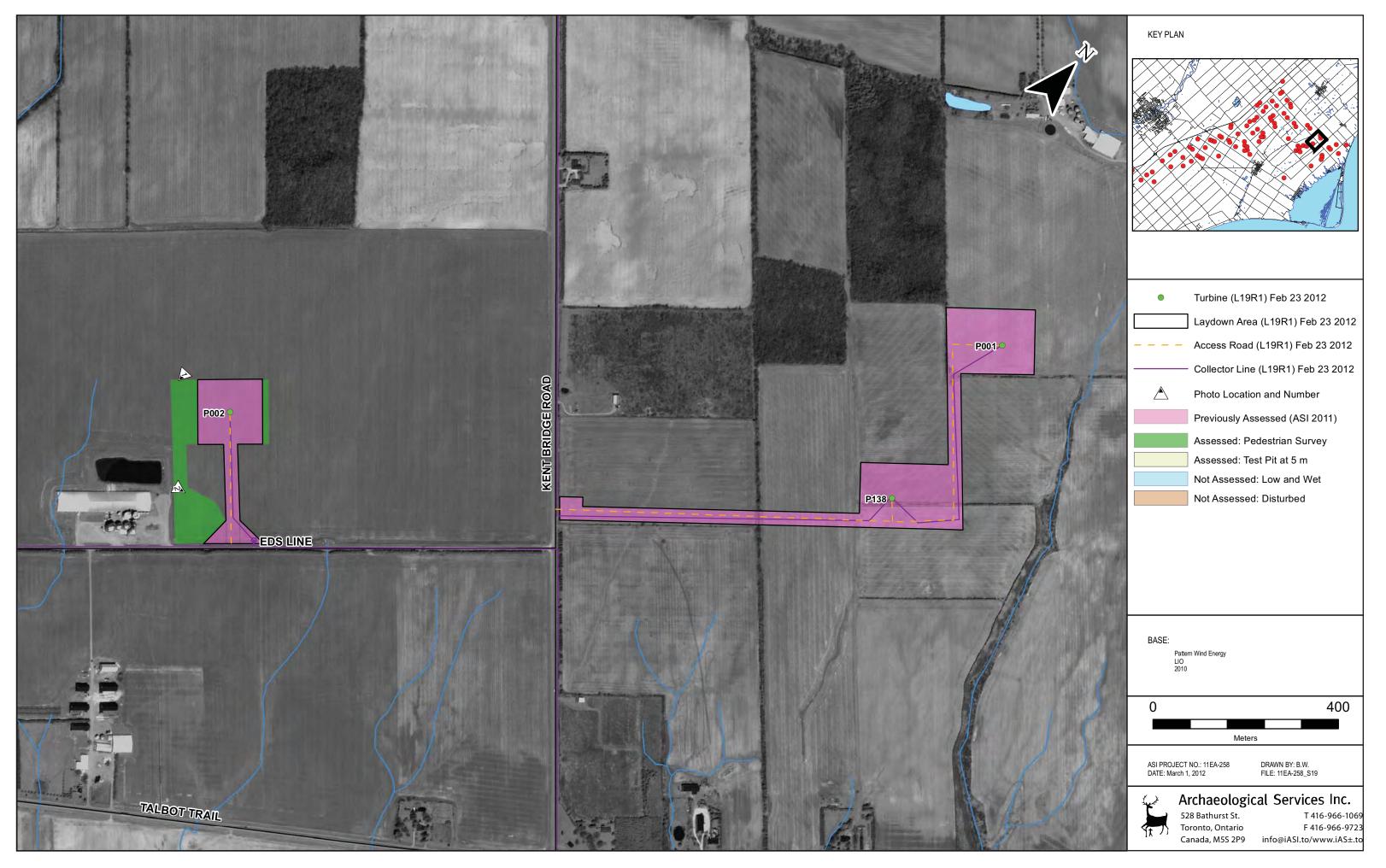
Sheet 16: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 10, 145 and Meteorological Tower 1



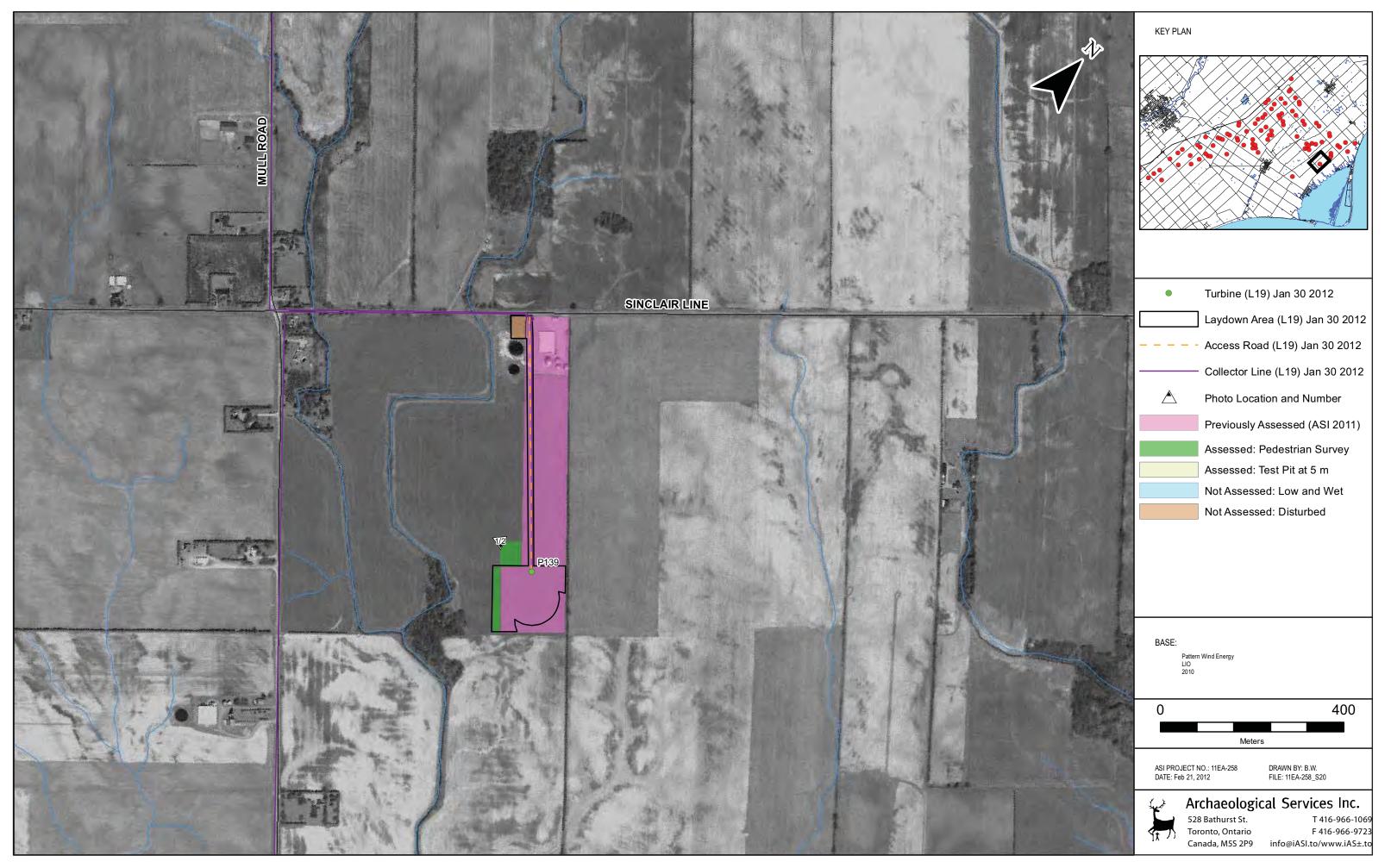
Sheet 17: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 12, 101 and 168



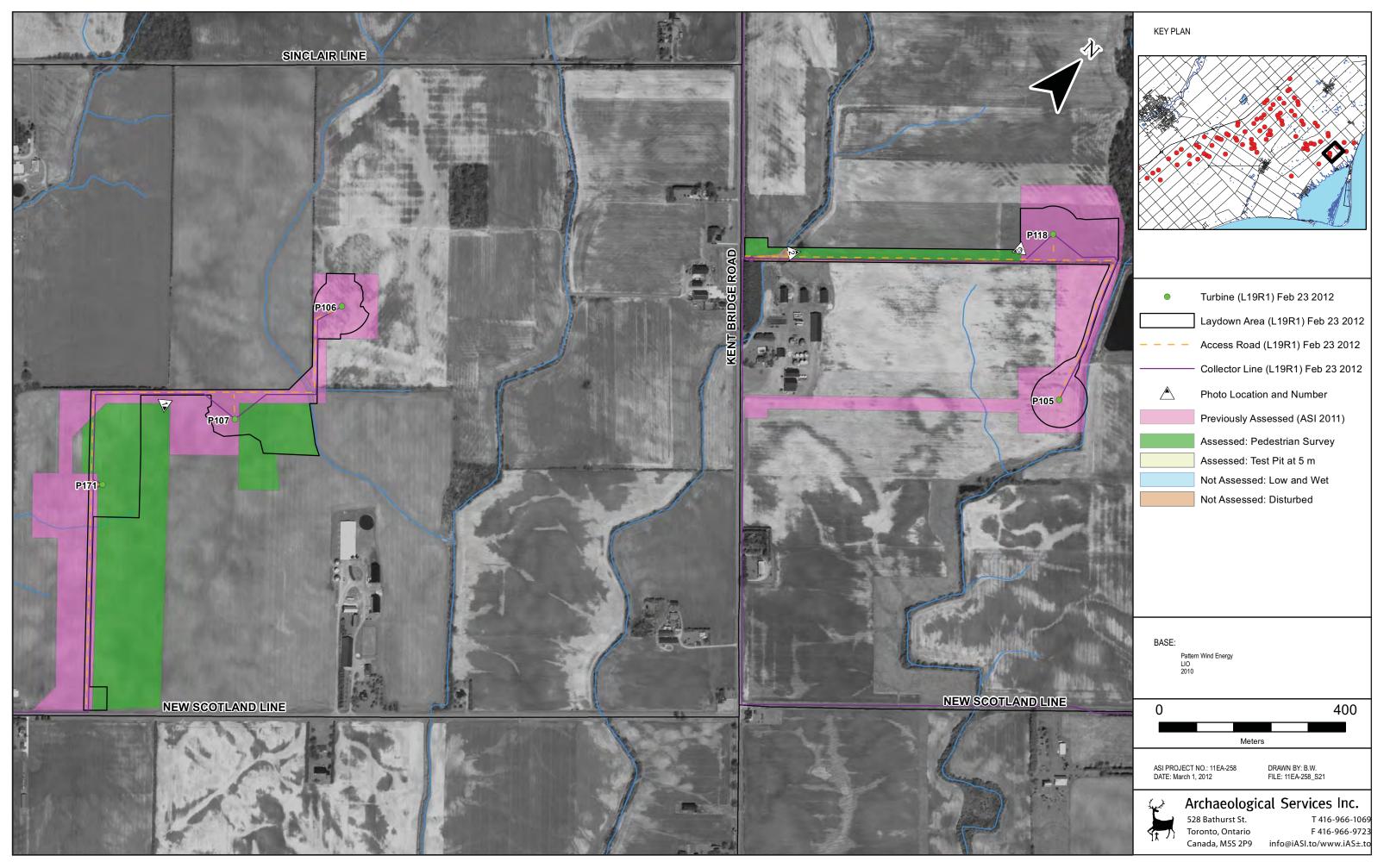
Sheet 18: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 93 and 166



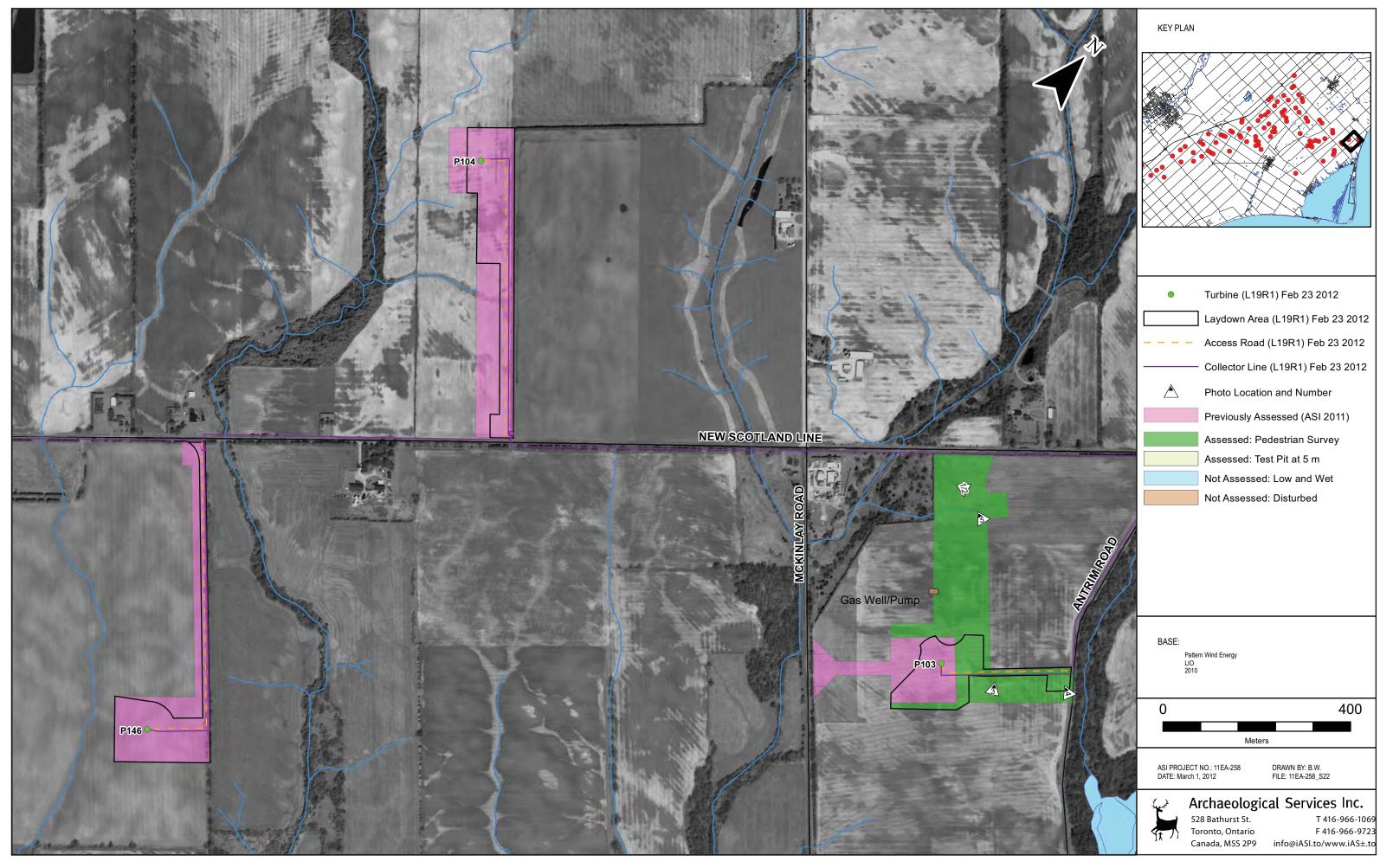
Sheet 19: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 1, 2 and 138



Sheet 20: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Area 139



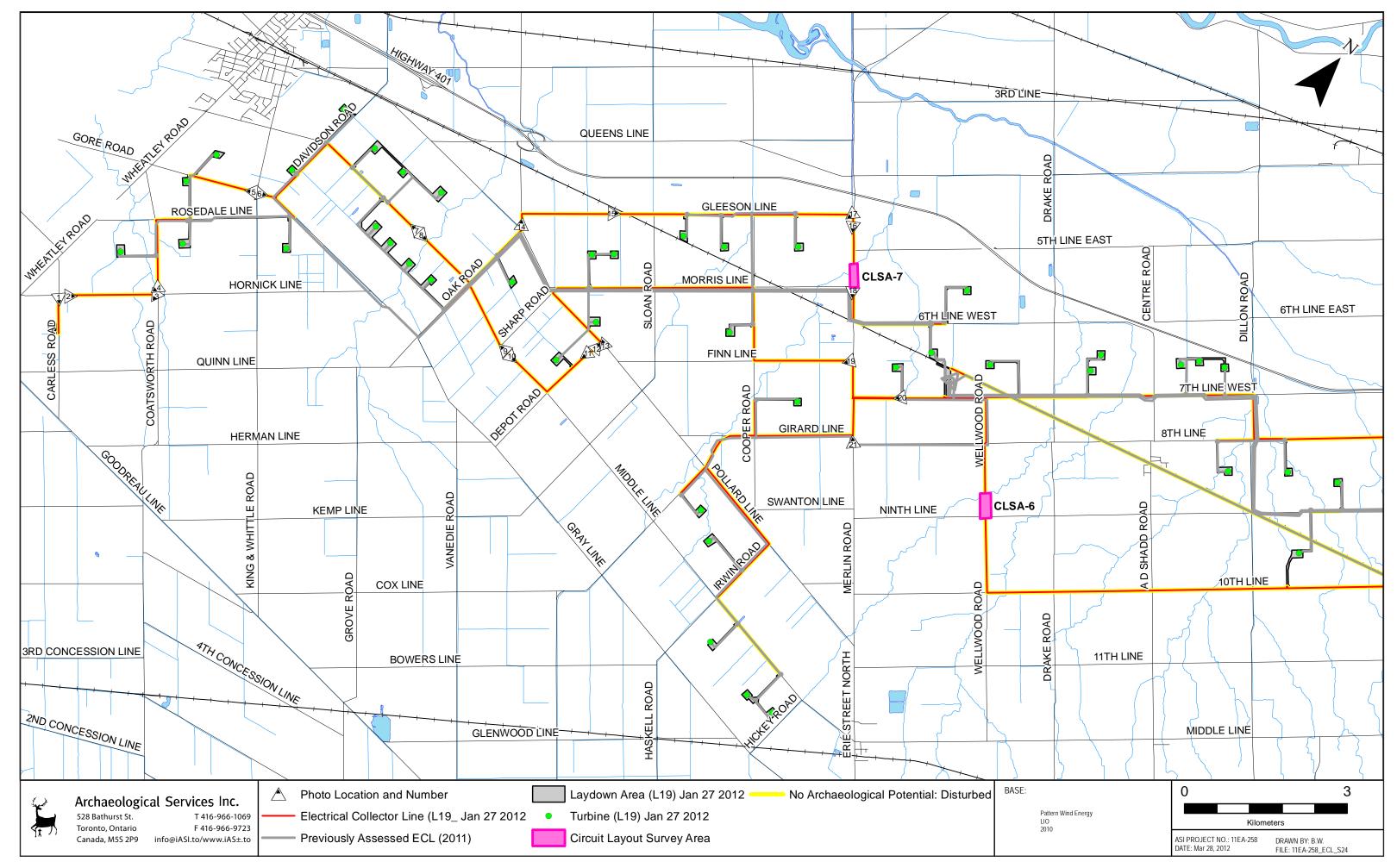
Sheet 21: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 105, 106, 107, 118 and 171



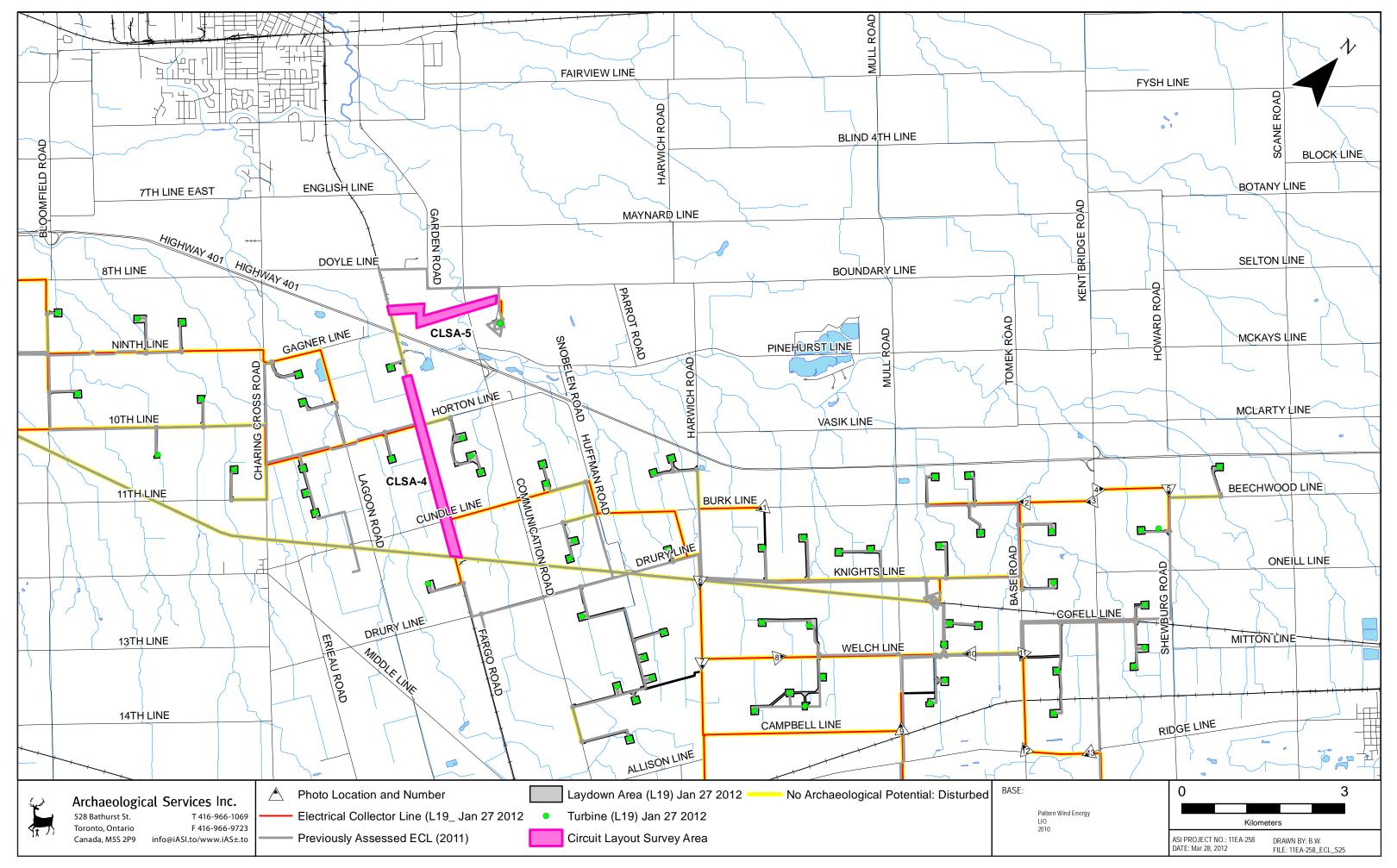
Sheet 22: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 103, 104 and 146



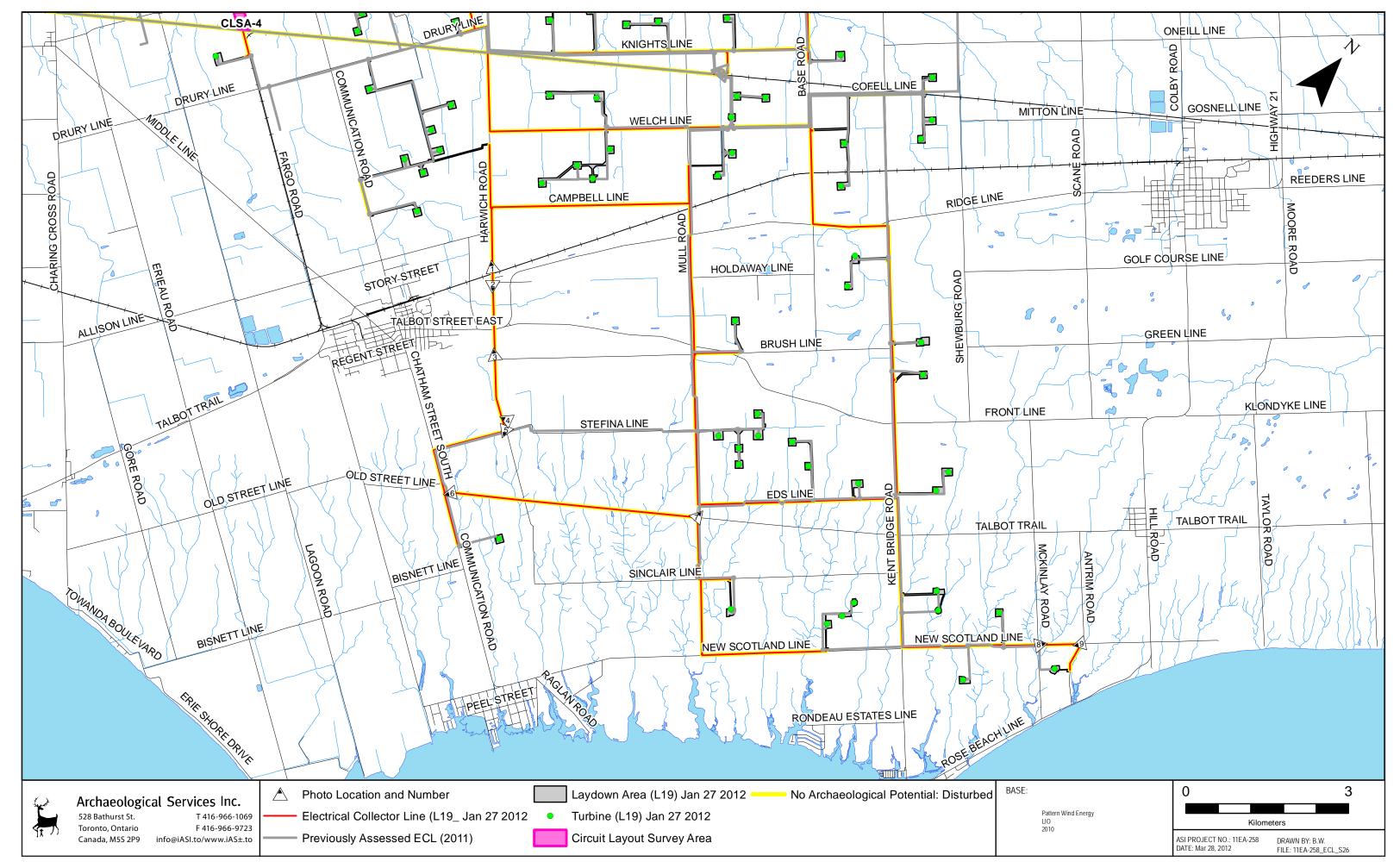
Sheet 23: South Kent Wind Project - Stage 2 Assessment Results of Turbine Plough Areas 162 and 162 (Old Layout)



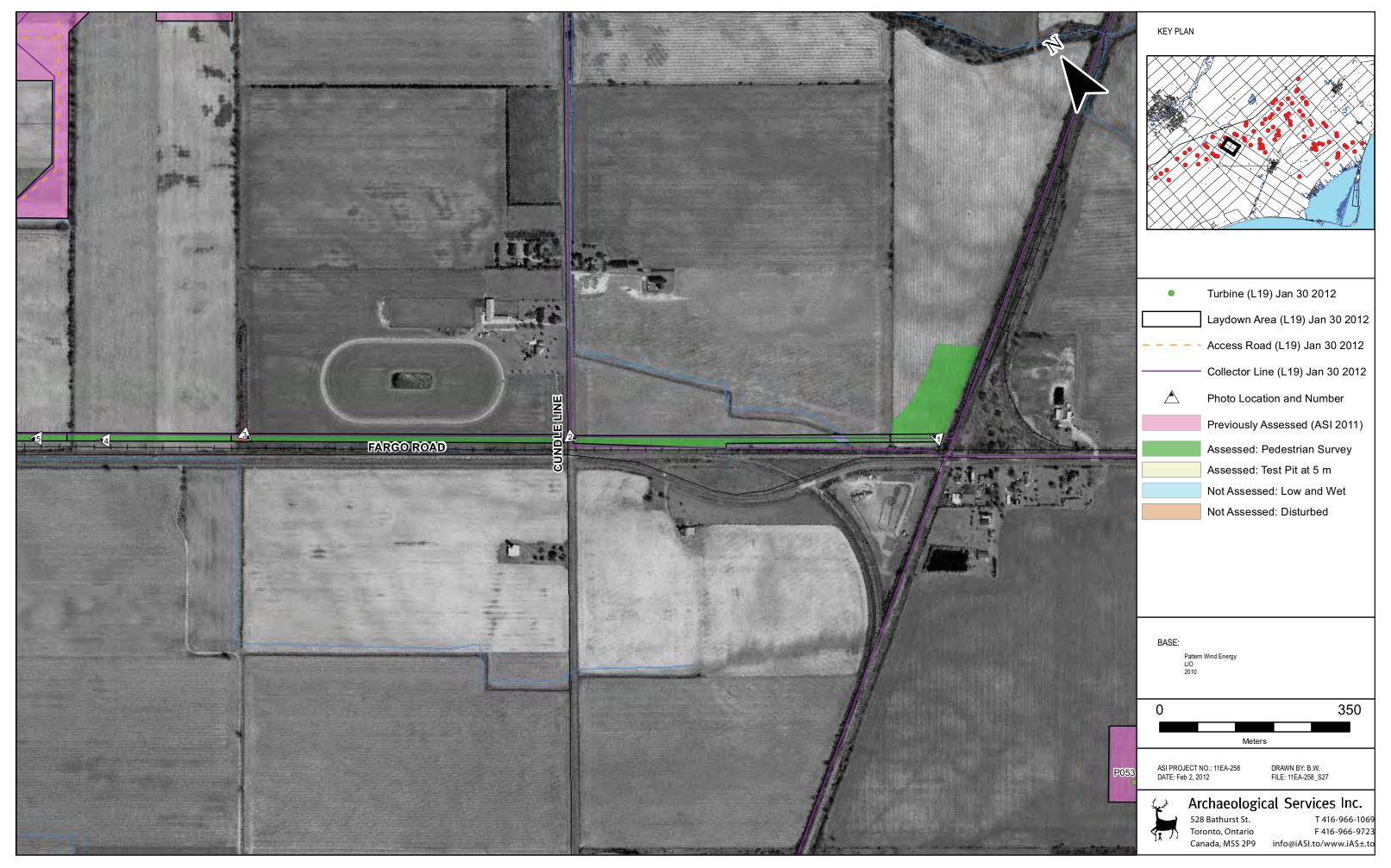
Sheet 24: South Kent Wind Project - Stage 2 Assessment Results of Electrical Circuit Layout (West)



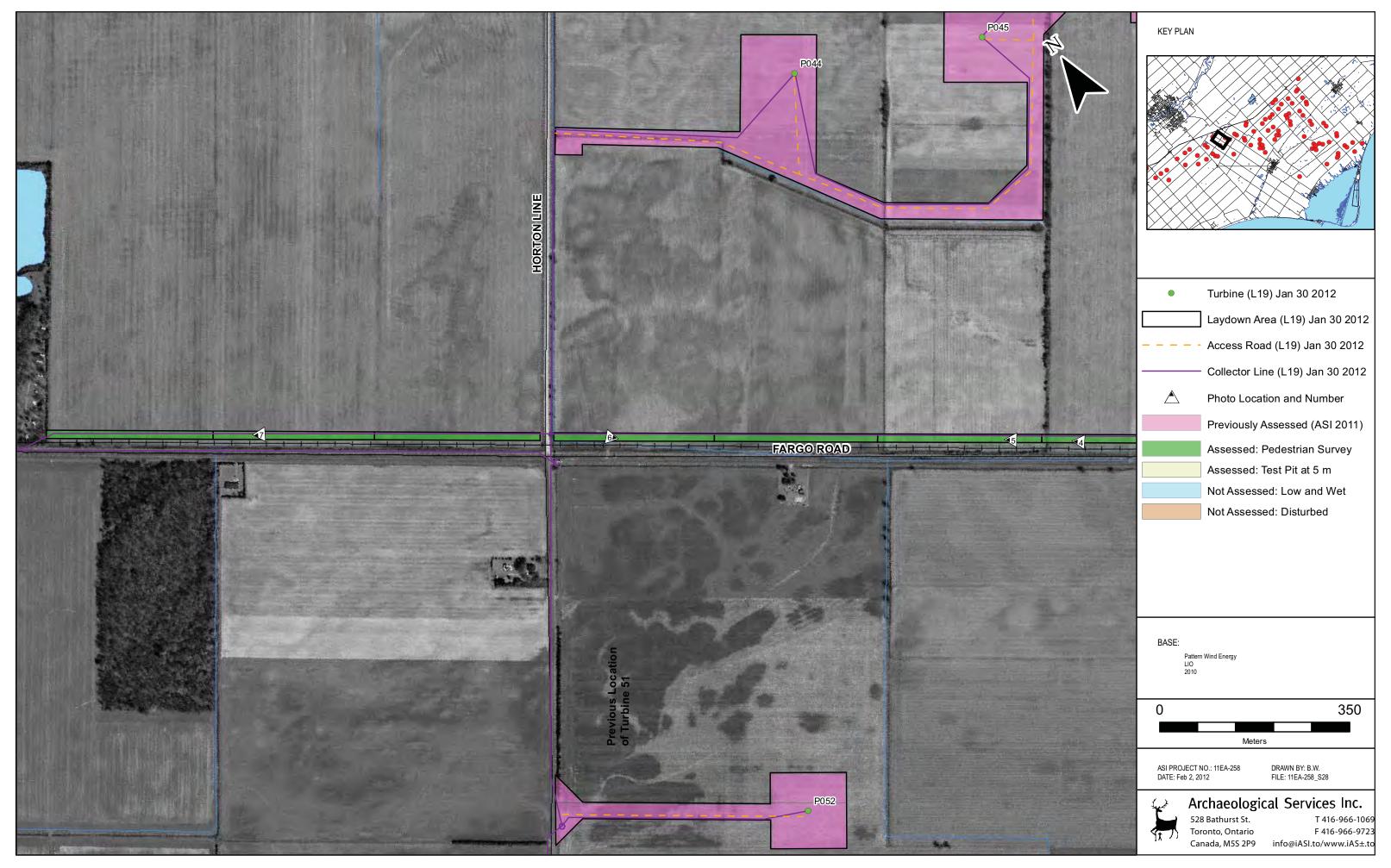
Sheet 25: South Kent Wind Project - Stage 2 Assessment Results of Electrical Circuit Layout (East)



Sheet 26: South Kent Wind Project - Stage 2 Assessment Results of Electrical Circuit Layout (South)



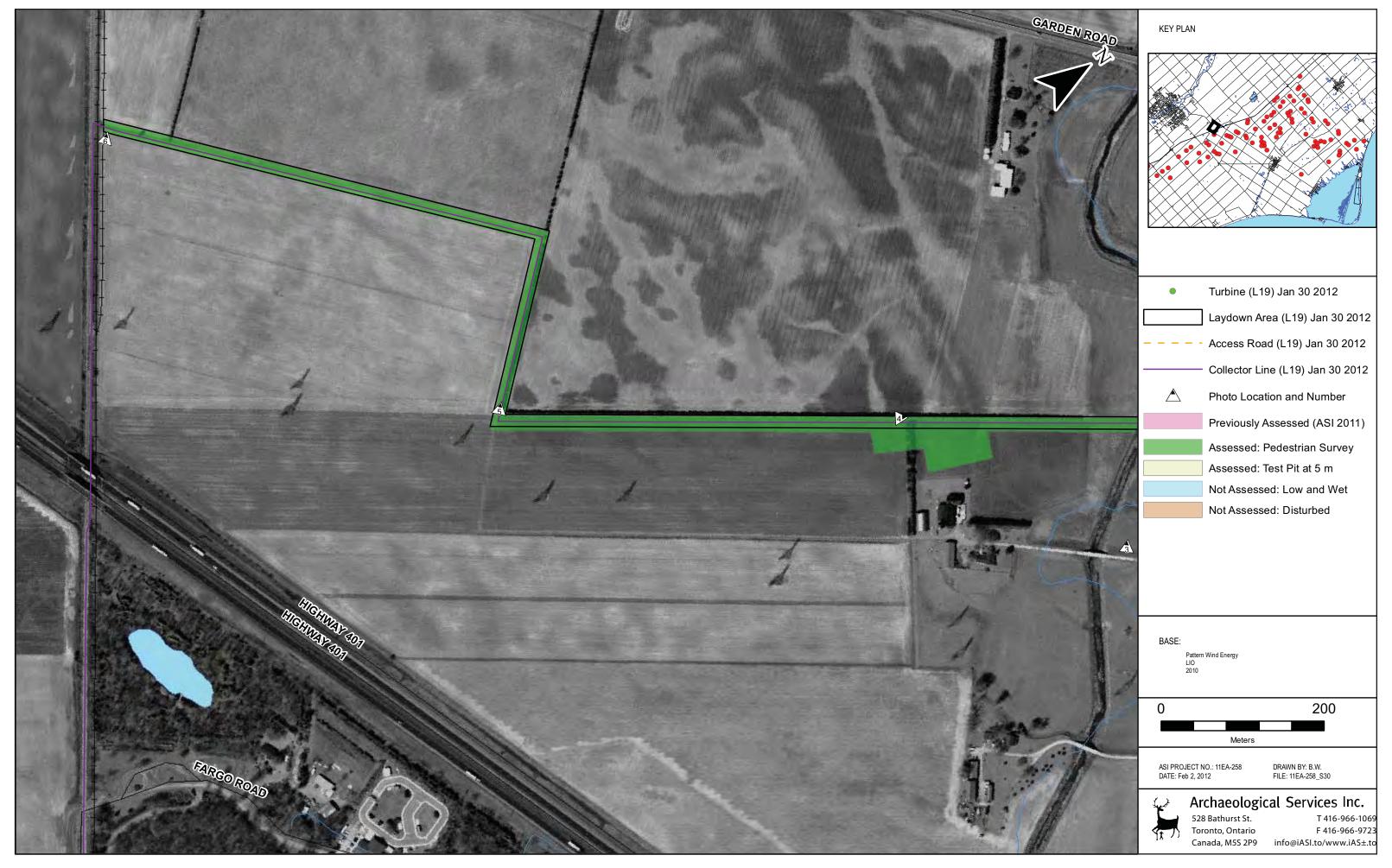
Sheet 27: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-4 East)



Sheet 28: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-4 West)



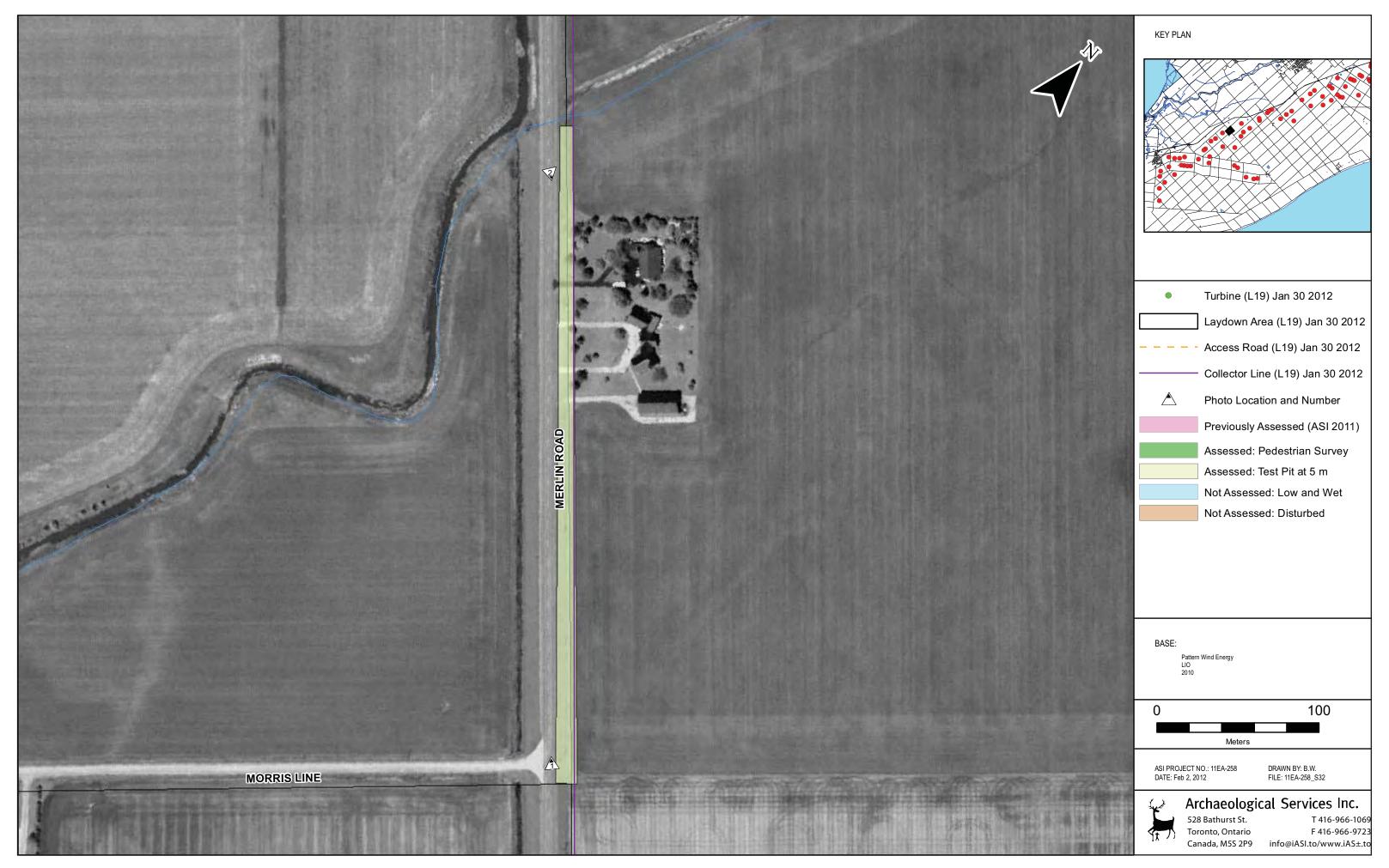
Sheet 29: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-5 East)



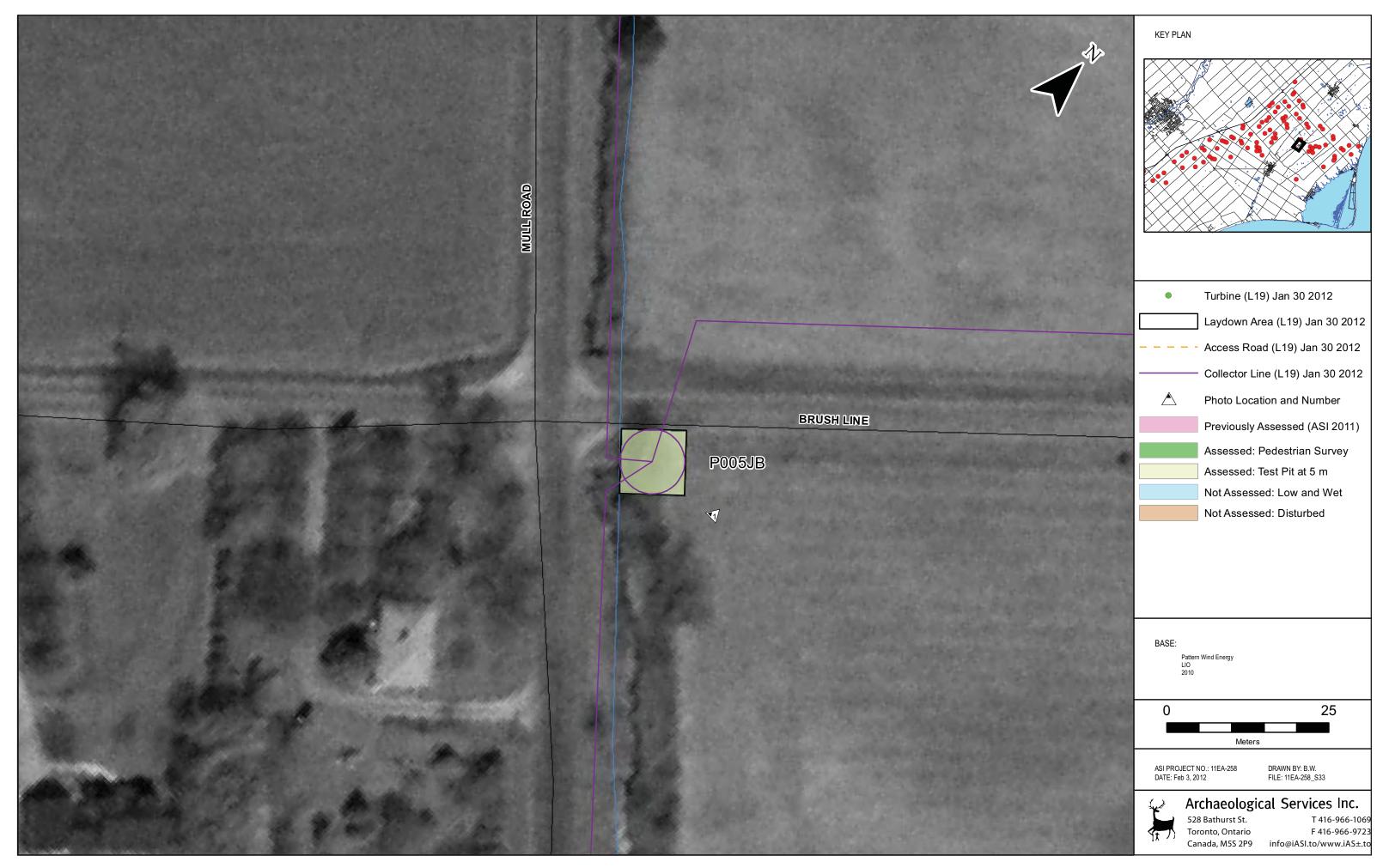
Sheet 30: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-5 West)



Sheet 31: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-6)



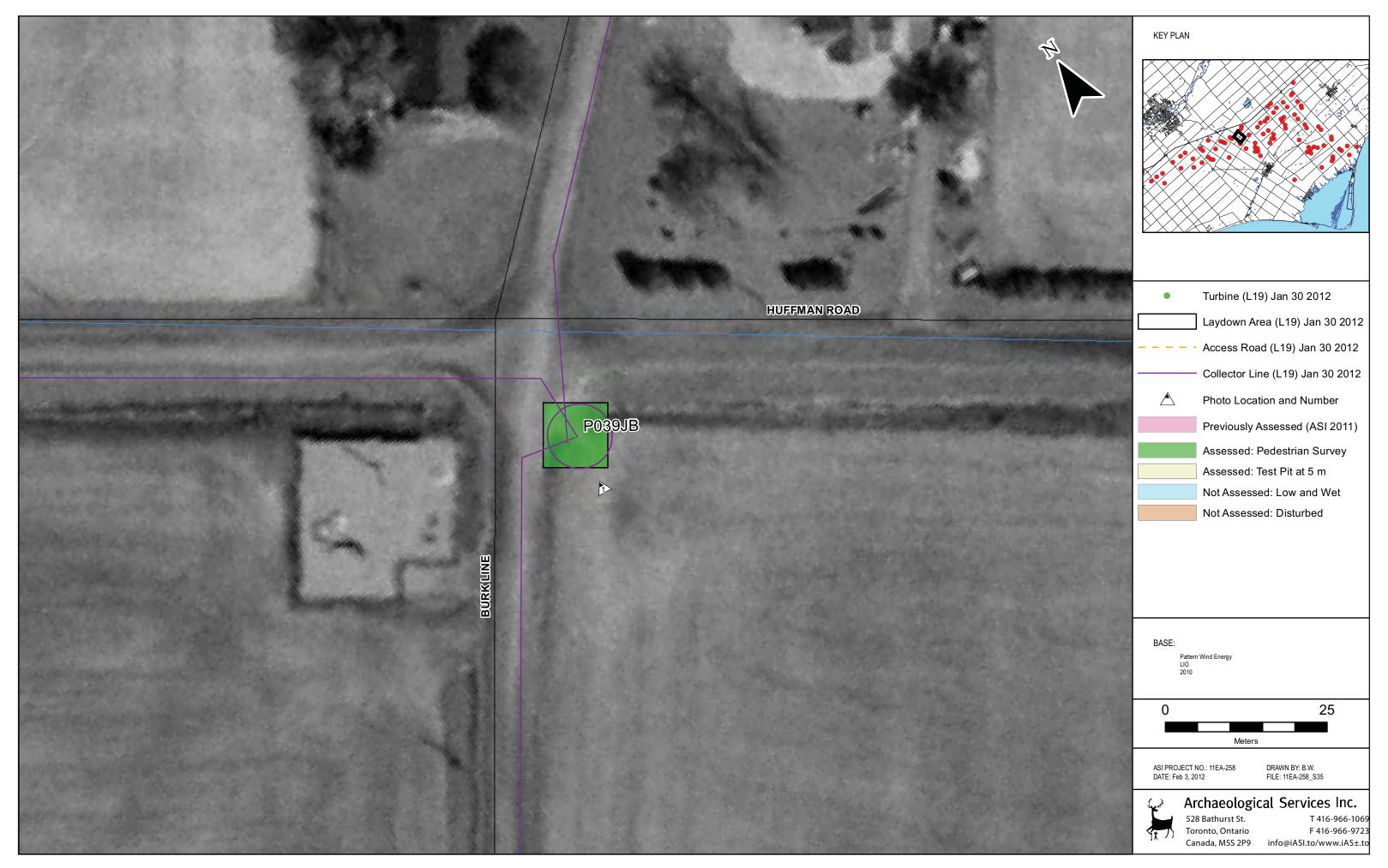
Sheet 32: South Kent Wind Project - Stage 2 Assessment Results of Electrical Connection Layout (CLSA-7)



Sheet 33: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P5JB (CLSA-8)



Sheet 34: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P36JB (CLSA-9)



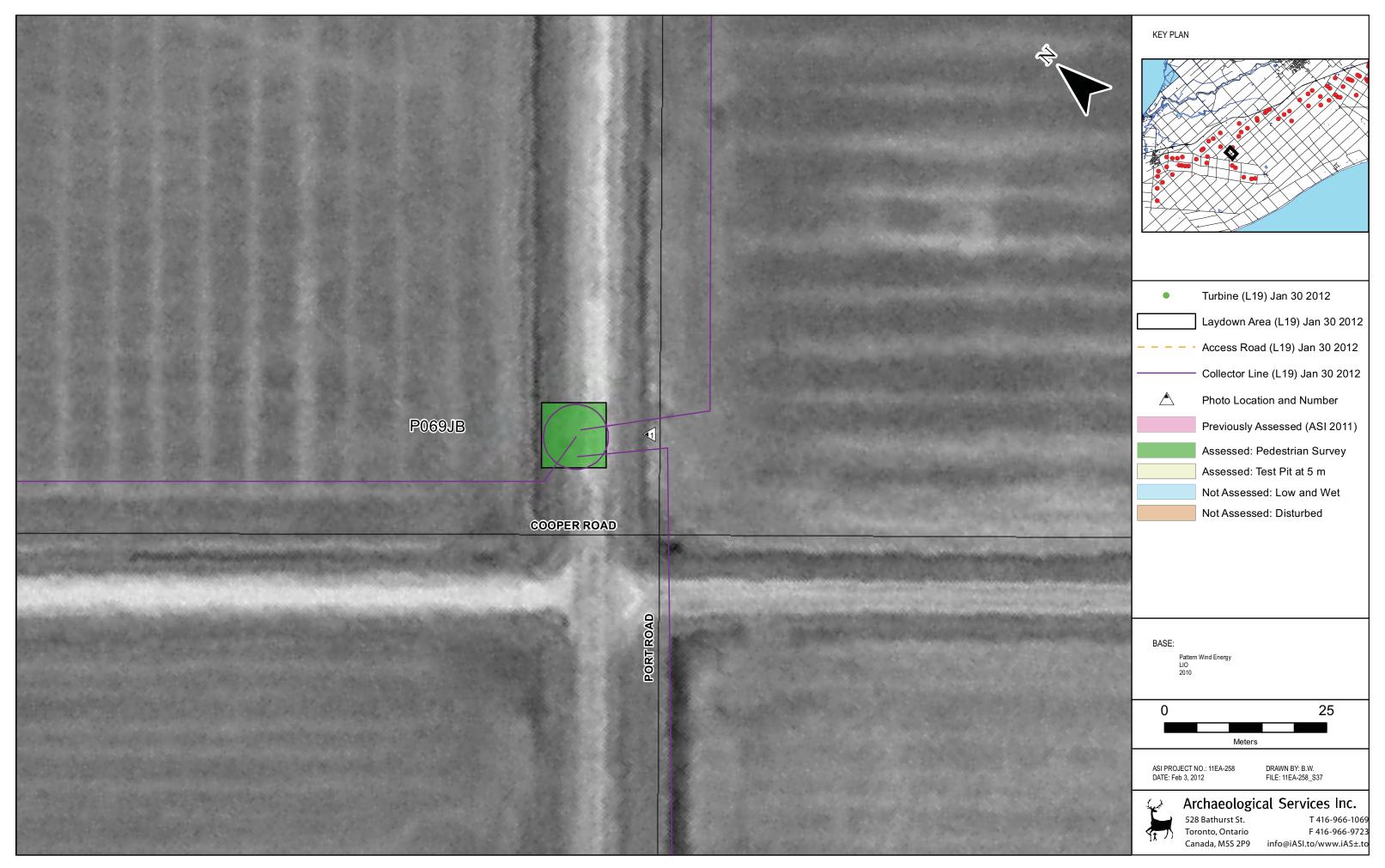
Sheet 35: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P39JB (CLSA-10)



Sheet 36: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P56JB (CLSA-11)



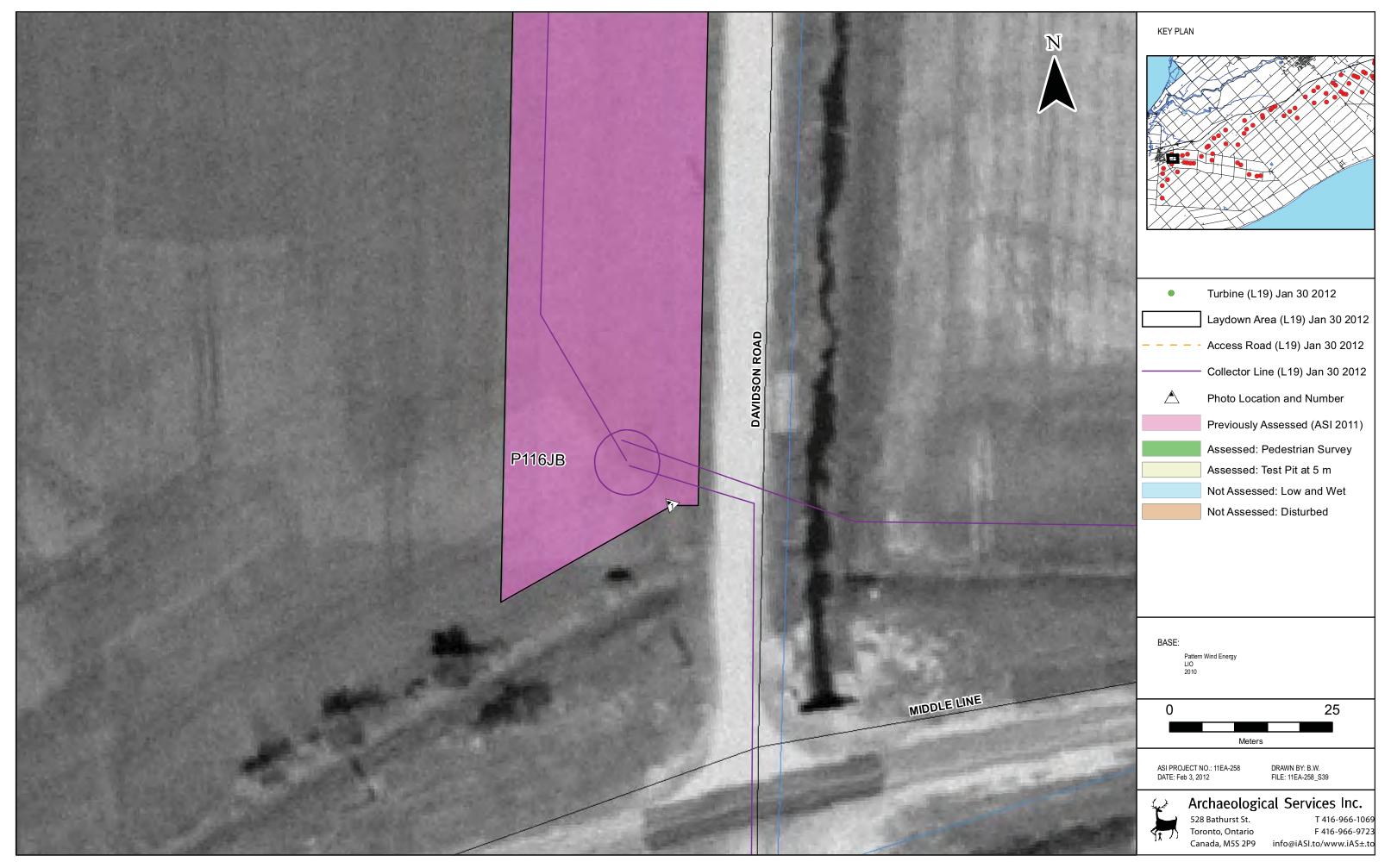
Sheet 36: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P56JB (CLSA-11)



Sheet 37: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P69JB (CLSA-12)



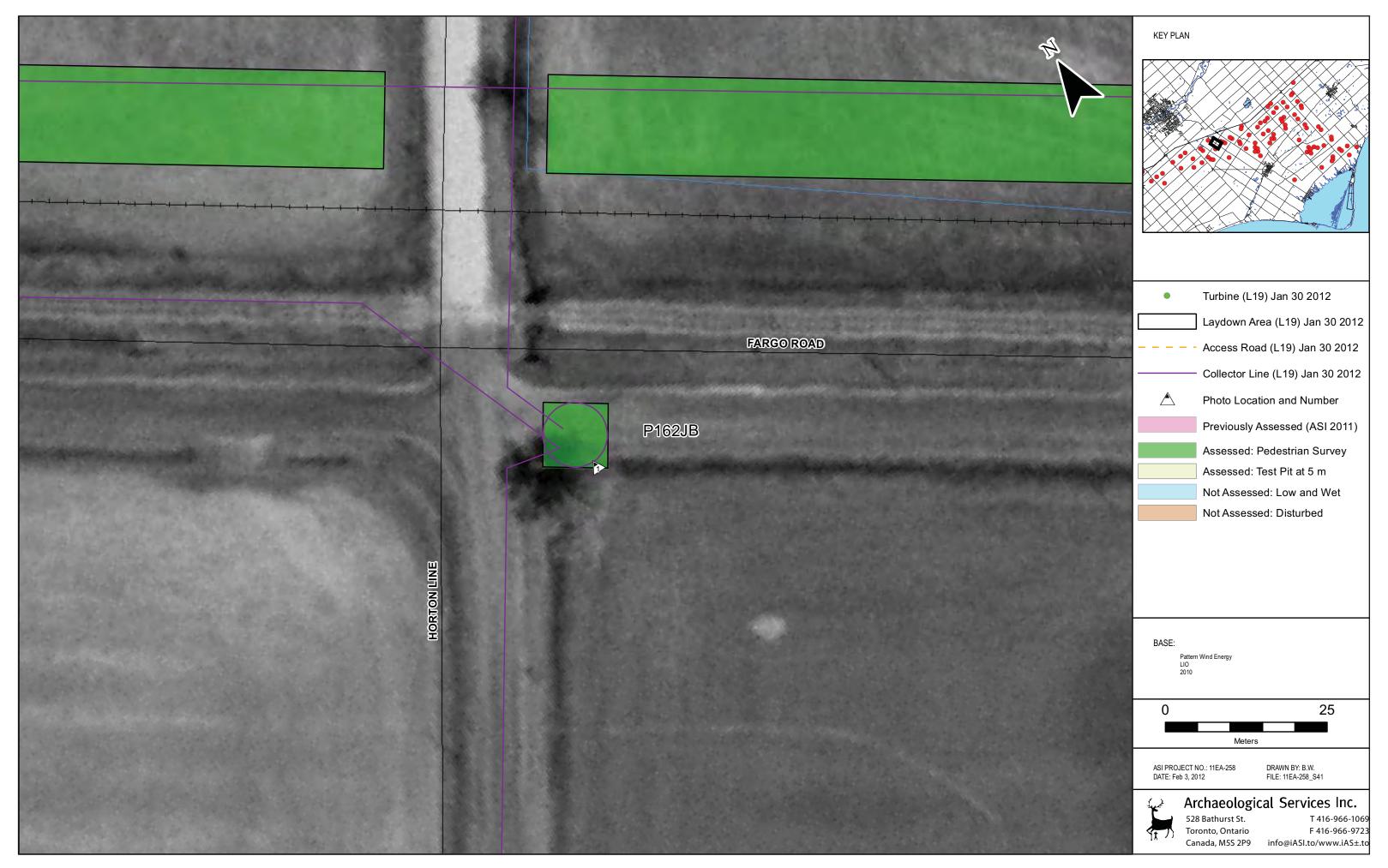
Sheet 38: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P70JB (CLSA-13)



Sheet 39: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P116JB (CLSA-14)



Sheet 40: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P139JB (CLSA-15)



Sheet 41: South Kent Wind Project - Stage 2 Assessment Results of Junction Box P162JB (CLSA-16)

## 9.0 IMAGES

## 9.1 Field Plates



Field Plate 11.1: View of survey conditions at TPA-036.



Field Plate 11.2: View southwest of pedestrian survey at TPA-036.



Field Plate 11.3: View southwest of pedestrian survey at TPA-036, and Site H15.



Field Plate 11.4: View southwest of test pit survey at TPA-036.



Field Plate 12.1: View northwest of pedestrian survey at TPA-031.



Field Plate 12.2: View of survey conditions at TPA-031.





Field Plate 13.1: View northeast of pedestrian survey at TPA-028.



Field Plate 13.2: View northeast of test pit survey at TPA-029/TPA-030.



Field Plate 15.1: View west of SPA-1.



Field Plate 15.2: View southwest of pedestrian survey at TPA-133.



Field Plate 15.3: View northeast of wet and wooded area in TPA-133.



Field Plate 18.1: View north of pedestrian survey at TPA-166.



Field Plate 19.1: View southwest of pedestrian survey at TPA-002.



Field Plate 19.2: View southeast of pedestrian survey at TPA-002, and Site H14.



Field Plate 20.1: View north of pedestrian survey at TPA-139.



Field Plate 20.2: View of survey conditions at TPA-139.



Field Plate 21.1: View southeast of pedestrian survey at TPA-171.



Field Plate 21.2: View northeast of Site P79 at TPA-118.





Field Plate 21.3: View southwest of pedestrian survey at TPA-118.



Field Plate 22.1: View southeast of pedestrian survey at TPA-103.



Field Plate 22.2: View of survey conditions at TPA-103.



Field Plate 22.3: View northwest of pedestrian survey at Site P83 in TPA-103.



Field Plate 22.4: View northwest at Site P85 in TPA-103.



Field Plate 22.5: View northwest at Site P87 in TPA-103.



Field Plate 23.1: View south across AR ROW at TPA-162.



Field Plate 23.2: View east across turbine site at TPA 162.



Field Plate 24.1: View southeast at ECL ROW.



Field Plate 24.2: View northeast at ECL ROW.



Field Plate 24.3: View south at ECL ROW.



Field Plate 24.4: View southwest at ECL ROW.



Field Plate 24.5: View west at ECL ROW.



Field Plate 24.6: View east at ECL ROW.



Field Plate 24.7: View west at ECL ROW.



Field Plate 24.8: View east at ECL ROW.



Field Plate 24.9: View west at ECL ROW.



Field Plate 24.10: View east at ECL ROW.



Field Plate 24.11: View south at ECL ROW.





Field Plate 24.13: View northwest at ECL ROW.



Field Plate 24.14: View northwest at ECL ROW.



Field Plate 24.15: View southeast at ECL ROW.



Field Plate 24.16: View southeast at ECL ROW.



Field Plate 24.17: View southwest at ECL ROW.



Field Plate 24.18: View southeast at ECL ROW.



Field Plate 24.19: View southeast at ECL ROW.



Field Plate 24.20: View southwest at ECL ROW.



Field Plate 24.21: View northwest at ECL ROW.



Field Plate 25.1: View southwest at ECL ROW.



Field Plate 25.2: View southwest at ECL ROW.



Field Plate 25.3: View southwest at ECL ROW.



Field Plate 25.4: View northeast at ECL ROW.



Field Plate 25.5: View southeast at ECL ROW.



Field Plate 25.6: View southeast at ECL ROW.



Field Plate 25.7: View southeast at ECL ROW.



Field Plate 25.8: View northeast at ECL ROW.



Field Plate 25.9: View northwest at ECL ROW.



Field Plate 25.10: View southwest at ECL ROW.



Field Plate 25.11: View south at ECL ROW.



Field Plate 25.12: View northwest at ECL ROW.



Field Plate 25.13: View southwest at ECL ROW.



Field Plate 26.1: View northwest at ECL ROW.



Field Plate 26.2: View southeast at ECL ROW.



Field Plate 26.3: View northwest at ECL ROW.



Field Plate 26.4: View west at ECL ROW.



Field Plate 26.5: View south at ECL ROW.



Field Plate 26.6: View southwest at ECL ROW.



Field Plate 26.7: View north at ECL ROW.



Field Plate 26.9: View southwest at ECL ROW.



Field Plate 27.2: View southeast at CLSA-4.



Field Plate 26.8: View northeast at ECL ROW.



Field Plate 27.1: View northwest at pedestrian survey of CLSA-4 and Site H16.



Field Plate 27.3: View southeast of test pit survey at CLSA-4.



Field Plate 27.4: View northwest of pedestrian survey at CLSA-4.



Field Plate 28.5: View northwest of pedestrian survey at CLSA-4.



Field Plate 28.6: View southeast of pedestrian survey at CLSA-4.



Field Plate 28.7: View northwest of pedestrian survey at CLSA-4.



Field Plate 29.1: View southwest of pedestrian survey at CLSA-5.



Field Plate 29.2: View northwest at pedestrian survey of CLSA-5 and Site H17.





Field Plate 29.3: View northwest towards wet area at CLSA-5.



Field Plate 29.4: View northeast at CLSA-5.



Field Plate 29.5: View northwest at CLSA-5.



Field Plate 29.6: View northwest at CLSA-5.



Field Plate 31.1: View southeast at CLSA-6.



Field Plate 30.2: View northwest of test pit survey at CLSA-6.



Field Plate 32.1: View northwest at CLSA-7.



Field Plate 32.2: View southeast at CLSA-7.



Field Plate 33.1: View southwest at POO5JB (CLSA-8).



Field Plate 34.1: View north at PO36JB (CLSA-9).



Field Plate 35.1: View north at PO39JB (CLSA-10).



Field Plate 36.1: View west at PO56JB (CLSA-11).



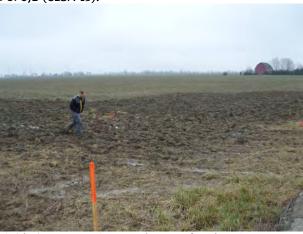
Field Plate 37.1: View northwest of pedestrian survey at PO69JB (CLSA-12).



Field Plate 38.1: View south of pedestrian survey at PO70JB (CLSA-13).



Field Plate 38.2: View of survey conditions at PO70JB (CLSA-13).



Field Plate 39.1: View northwest of pedestrian survey at P116JB (CLSA-14).



Field Plate 40.1: View south at P139JB (CLSA-15).



Field Plate 41.1: View north at P162JB (CLSA-16).

## 9.2 Artifact Plates



Artifact Plate 1: Site AcHl-85 (SKWP-H14) within TPA-002 – Representative Sample.



Artifact Plate 3: Site AcHm-62 (SKWP-H15) within TPA-036 – Representative Sample.



Artifact Plate 2: Site SKWP-P81 within TPA-002 – Uniface Fragment.



Artifact Plate 4: Site AcHl-82 (SKWP-P85) within TPA-103 – Bifaces.



Artifact Plate 5: Site AcHl-83 (SKWP-P86) within TPA-103 – Projectile Point Fragment.



Artifact Plate 6: Site AcHm-63 (SKWP-H16) within CLSA-4 – Representative Sample.



Artifact Plate 7: Site AcHm-64 (SKWP-H17) within CLSA-5 – Representative Sample.



Artifact Plate 8: Site AcHm-65 (SKWP-P90) within CLSA-5 -- . Projectile Point





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Artifact Plate 9: Site SKWP-P92 within CLSA-4 - Biface Fragment