MANAGEMENT SUMMARY FORM

Report Title: ***Clare Industrial Park Project Archaeological Phase I Reconnaissance, Vernon Township (T16N R4W) Isabella County, Michigan 23ha06e1***

Report Date:**18 JUNE 2024**

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Firm and Internal Report Number: Heartsong Archaeology llc, 23ha06e1

Report Submitted To: SHPO

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Survey Type, Check All that Apply:

☒ Literature/Desktop Review

☒ Phase I Survey, Acres Surveyed: 95ac

☐ Phase II Evaluation, Acres Intensive:

☐ Phase III Data Recovery, Acres Intensive:

Field Methods, Check All that Apply:

☐ Geophysical Survey	☒ Shovel Testing	☒ Pedestrian Survey
☐ Monitoring	☐ Mechanical Stripping	☐ Deep Testing
☐ Excavation Units	☐ Salvage Excavation	☐ Underwater Survey

County: Isabella

USGS 7.5 Min. topographic quadrangle(s):Clare, MI

Township Name	Township	Range	Section/Private Claim
Vernon	16N	4W	S1/2 NW1/4 of Section 2 SW1/4 NE1/4 of Section 2, NE1/4 SW1/4 of Section 2, and NW1/4 SE1/4 of Section 2

Site(s) Revisited: ☒ No ☐ Yes, if yes then list site numbers:

New Site(s) Identified: ☐ No ☒ Yes, if yes then list new site numbers: 20IB62, 20IB63, and 20IB64

***Note**: Include site forms as an appendix to the report for all revised and new sites.*

Management Summary Abstract (1-2 sentences that summarizes method, location, and whether sites were identified)**: 5 m interval pedestrian survey and 155 STPS excavated throughout portions of Direct APE identified three new archaeological sites - 20IB62, 20IB63, and 20IB64.**

Report Citation (Use American Antiquity style):

Kramar, Mandy, Shelly White, and Monte Lawton.

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Vernon Township, Michigan

Phase I Archaeological Reconnaissance

Clare Industrial Park Project

Isabella County, Michigan, 23ha06e1

June 2024

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Clare Industrial Park Project Phase I Archaeological Reconnaissance

Isabella County, Michigan, 23ha06e1

June 2024

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June 2024

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Abstract

The Proposed Clare Industrial Park Project will result in the preparation of an area for the future construction of industrial structures. The Direct Area of Potential Effects (APE) consists of approximately 95 acres that lie immediately south of Clare Industrial Parkway, west of US-127, and east of Business 127 in the S1/2 NW1/4 of Section 2, the SW1/4 NE1/4 of Section 2, the NE1/4 SW1/4 of Section 2,and the NW1/4 SE1/4 of Section 2, Vernon Township (T16N, R4W) in Isabella County, Michigan (Figures 1 and 2). Shovel testing and pedestrian surveys were conducted in December 2023, February 2024, and March 2024 by Heartsong Archaeology llc.

The majority of the Direct APE exists as tilled agricultural fields and contained excellent surface visibility (50-80%). Pedestrian survey was conducted across the entire field at 5 m intervals. In total, 155 round 40-centimeter in diameter (cm) shovel tests were excavated throughout the proposed Project Area's Direct Area of Potential Effects as determined necessary by the field director (APE). The APE was subjected to subsurface testing in some areas due to ground cover of grass and leaves with low (0-5%) surface visibility and in some areas determined to have moderate to high sensitivity for Precontact period archaeological resources. Pedestrian Survey at 5 m intervals identified sites 20IB62 and 20IB64 on the surface and shovel tests through the APE at 15m intervals identified archaeological site 20IB63. 20IB62 consists of a single chert flake identified on the surface, 20IB63 is a small lithic scatter identified in an array of shovel tests. 20IB64 is a historical dump containing material primarily from the early and mid twentieth century. No historical resources associate a structure or activity with this location and it is probable that this was a case of a secondary deposition, potentially as fill related to the construction of an adjacent facility.

A total of 95 acres were investigated by pedestrian survey, shovel testing, and visual inspection for slope and disturbance. Sites 20IB62, 20IB63, and 20IB64 are recommended to be not eligible for listing in the NRHP. The research conducted at each site by Heartsong Archaeology llc is recommended sufficient to exhaust their respective research potentials. **No further archaeological research is recommended for the Clare Industrial Park Project.** If human remains are identified, Michigan Attorney General Opinion 6585 must be carefully followed.

Introduction

On behalf of the City of Clare, Heartsong Archaeology llc conducted Phase I Investigations at the Proposed Clare Industrial Park Project Area in Isabella County, Michigan (Figure 1; USGS 2023). The

current study complies with Section 106 of the National Historic Preservation Act (NHPA), as amended. The goal of the research was to determine if archaeological deposits are present within the Clare Industrial Park Project Area and to determine if identified cultural resources might be eligible for inclusion in the National Register of Historic Places (NRHP). All archaeological research for the project was conducted in compliance with Section 106 of the NHPA of 1966 (as amended), and its implementing regulations at *36 CFR 800* (Revised 2001), Final Rule on Revision of Current Regulations, December 12, 2000, and including amendments effective August 5, 2004, and other applicable state and federal guidelines.

This report documents the results of the recent Phase I investigations at the Clare Industrial Park Project Area. Phase I investigations were designed to assess the potential for archaeological sites within the proposed Area of Potential Effect (APE), determine the extent and nature of sites if they are identified, and support recommendations for NRHP eligibility. Fieldwork was conducted in December 2023, February 2024, and March 2024 by Nick Bacon, Mandy M. Kramar, Monte Lawton, Jessica Overbee, and Joseph Senk. The conditions permitted pedestrian survey throughout most of the Direct APE however this was supplemented by shovel testing when determined necessary by the field director. Investigations resulted in the excavation of 155 round 40 cm in diameter shovel test pits (Figures 3 through 7).

The Proposed Clare Industrial Park Project will result in the preparation for future construction of industrial structures and utilities, some of which will require vertical disturbance of up to 12 ft. The Direct Area of Potential Effects (APE) consists of 95 acres south of Clare Industrial Parkway, west of US-127, and east of Business 127 in the S1/2 NW1/4 of Section 2, the SW1/4 NE1/4 of Section 2, the NE1/4 SW1/4 of Section 2,and the NW1/4 SE1/4 of Section 2, Vernon Township (T16N, R4W) in Isabella County, Michigan (Figures 1 and 2).

The proposed Direct APE will consist of approximately 384,451 sq m or 95 acres. The APE is a large agricultural field that includes three small wetlands, two that lie directly west of US-127 and one which is immediately east of Business US-127. Industrial buildings lie to the north of the APE and across Clare Industrial Pkwy. There are no residences in the immediately surrounding area. Previous archaeological surveys in the one-mile radius of the Direct APE, otherwise known as the Study Area, were completed by Great Lakes Research Associates, Inc. in 1990 (Branstner 1990) and the Institute for Minnesota Archaeology in 1998 (Murray et al. 1998). These archaeological surveys were completed near to the Project Area prior to the construction and expansions of the St. Vincent to St. Clair Gas and Sault Lateral and Great Lakes Gas Transmission (GLGT) Pipelines and no archaeological sites were identified in or near to the current proposed APE.

An archaeological survey of the Direct APE identified three new archaeological sites – 20IB62, 20IB63, and 20IB64. Heartsong Archaeology llc recommends that the proposed project proceed **without** additional archaeological research.

Environmental Setting

The Project Area lies in the northernmost portion of the VI.4.1 Lansing Sub-Subsection in the regional landscape ecosystem model developed for Michigan and the Upper Great Lakes, near the edge of the Cadillac Sub-Subsection (Albert 1995: 22). This Sub-subection is characterized by loamy soils that have been largely converted to agricultural use. Gently rolling ground moraines dominate the topography. To the north and west, there are also numerous end-moraine ridges that tend to be too steep for practical agricultural use. The soils in association with the moraines are often well drained, while soils in the lower depressions are often poorly drained (Albert 1995: 128).

Pre-settlement vegetation of the end moraines was beech sugar maple forest that include black maple, basswood, red oak, and white ash. Some drier end moraine ridges grew oak-hickory forests. Swamp forests would be seen in the depressions however, wet meadows would be seen along streams which included silver maple, American elm, red ash, and swamp white oak. Hackberry and tamarack were also present in poorly drained outwash channels (Albert 1995: 128-129).

Immediately north and west of the Direct APE is the Sub-Subsection VII.2.1 Cadillac in the regional landscape ecosystem model developed for Michigan and the Upper Great Lakes (Albert 1995: 42). This sub-subsection is a high, broad outwash plain including several large lakes and rivers. This region contains several steep ridges of ice-contact sands surrounded by flat plains characterized by mostly well drained sandy soils punctuated by localized lacustrine clays and clay loams, particularly near lakes. The project area is situated on mostly Emmet-Montcalm complex (5B) – nearly level (0-6% slope), well drained soils characteristic of sandy loam. On the south end of the APE includes Nester sandy loam (12B) with 6-12% slope. This soil is also classified as well drained. On the eastern end of the APE, Iosco loamy sand (40A) is found. This soil is somewhat poorly drained and is fairly flat at 0-3% slope (Soil Survey Staff 2023).

Presettlement forests in the Cadillac Sub-Subsection varied across the landforms. On sandy end moraine ridges northern hardwood forests included beech and sugar maple as well as red oak, hemlock, and white pine. Isolated ridges as well as the surrounding outwash often held forests of jack pine and northern pin oak, with outwash plains also including red and white pines. On excessively drained sandy ridges there were oakpine forests that included red and white pine; red, white, and black oak; red maple; and bigtooth aspen. Outwash plain consisted of either oak-pine forest or jack pine barrens. (Albert 1995:43). Presettlement, the APE was located in a mixed oak-pine forest, adjacent to a floodplain of silver maple, red ash, and black ash (MNFI 2023).

The Project Area is located in a gently sloping ground moraine with a local elevation ranging from 846 to 872 feet (or 258 to 266 m) above mean sea level (amsl). Small areas of sandy ground moraines are surrounded by loamy soils (Albert 1995:127). Much of the area surrounding the Project Area consists of a

somewhat poorly drained and poorly drained loamy drift plain. The Little Tobacco Drain, 4,029 ft (1227m) west of the APE, appears to be a natural riparian resource.

The soils in the Direct and Indirect APE consist of Ithaca Loam (23B) and Onekama Loam (22B), a classification associated with moraines and till plains that are somewhat poorly drained on the till plains and well drained in the higher elevations on moraines (Soil Survey Staff 2024).

Regional Cultural Context

Paleo-Indian Period

There is established evidence for human occupation throughout Michigan during the late Pleistocene (Buckmaster and Paquette 1988; Carr 2009; Shott and Wright 1999). Populations are believed by researchers to have been small and sites dating to this period are rare. The inhabitants of North America at this time are generally considered to have been migratory groups who created the often large, fluted bifaces characteristic of the period. There is no reason to doubt that they had material cultures beyond stone as varied and complex as any foraging society in the more recent ethnohistoric record (Shott and Wright 1999). Previous research indicates that the Paleo-Indian economy focused around gathering and storing nuts, mushrooms, and plants and hunting and scavenging game like caribou, elk, mastodon, mammoth, and moose, all of which were present in Michigan when these groups (considered Paleo-Indians by some researchers) occupied North America (Shott and Wright 1999). It is supposed that these as well as Early Archaic (9950-7950 B.P. or 8000-6000 B.C.) groups were moving across long distances (perhaps following populations of these herd mammals) based on their extensive tool kits of non-local materials and seasonal occupations (Stothers 1996).

The Gainey site in Genesee County (near present-day Grand Blanc) yielded two thermoluminescence dates from burned stone tools with an age of 10,800 B.P. (Shott and Wright 1999:70). The Leavitt site in Clinton County (20CL81) and the Lux site in Saginaw County (20SA196) were similar to the Gainey site and provided a more diverse tool kit (Shott 1993; Wright 1996; Shott and Wright 1999). The Barnes site in Midland County (20MD1) produces bifaces that succeeded the Gainey tools and were made of Bayport chert. The sources for this material are in Huron and Arenac Counties (Wright and Roosa 1966). An earlier date of 15,000 B.C.E. has been associated with the recovery of Mastodon bones that indicate evidence of human butchering (Fisher 1981:452).

Most evidence of these early mobile hunters resides in the form of their frequently large and well-made bifaces, usually identified in plowed agricultural fields by collectors and farmers. These stone tools are seldom accompanied by other archaeological deposits from the same period. It is entirely possible that others lived in North America before the Clovis people; evidence supporting this assertion is as yet limited, though growing (Shott and Wright 1999). The two confirmed glacial interstadials of the past 60,000 years may have permitted similar forms of human migration and subsequent occupation in the

recently glaciated midwest United States, if only temporarily (Kapp 1999). Although the Last Glacial Maximum (LGM) undoubtedly destroyed the majority of contexts that may have once hosted pre-LGM archaeological resources, it should not be considered impossible to identify an intact context. Research at locales such as the Belson site near Saint Joseph, Michigan has and will continue to impact the research designs of workers going forward (Talbot et al. 2021).

Archaic Period

The lifeways of early Native Americans are generally believed to have shifted to a more sedentary lifestyle throughout the early and middle Holocene, a period considered the Archaic by archaeologists (Lovis 1999:84). Marked by the gradual introduction of new settlement patterns and the cultivation of non-native plants at the end of the period (Fowler 1971), the Archaic provided the context for the widespread horticultural and technological changes that would come to define the proceeding Woodland period.

The emergence of basally notched (Dalton, Hi-Lo) and sometimes heavily serrated corner notched chipped stone tools (Kirk) throughout the midwest is considered to have reflected transitions from Paleo-Indian adaptations to Early Archaic technological patterns (Fitting 1969). Other types common to the Early Archaic include what are frequently large Thebes-style bifaces and smaller bifurcated "dart" points like Lecroy. The Middle Archaic Raddatz points make a distinctive break from these previous styles, as did middle Late Archaic lifeways from those of the Early Archaic and before. It is during this middle to late Archaic period that more localized logistical foraging systems are considered to have come into play, economic models that would continue throughout the remainder of the Precontact period (Robertson 1987).

Lithic bifaces were predominantly corner notched in the Late Archaic, a period characterized by environmental conditions similar to the modern period, long-distance trade networks, and the spread of horticultural adaptations (Lovis 1999:84). High water levels related to the isostatic rebound of the earth's mantle (the non-solid layer beneath the earth's crust) after deglaciation would have brought local water levels in the Grand River watershed to 605 ft. for a significant period during the Late Archaic (Anderton 1993). Geoarchaeological research throughout the Great Lakes has indicated that the vast majority of creeks and rivers were probably not appropriately stabilized until the Late Archaic to support significant populations of spawning fish (Lovis 1999:94). The population capacity of the northern Lower Peninsula was likely impacted directly throughout the Holocene by the availability of reliable fisheries.

The Pomranky site (20MD3), the Naugle site (20MD30), and the Conservation Park site (20GR33) were occupied in the Late Archaic period. 20MD3 and 20MD30 are located in Midland County and 20GR33 is located in Gratiot County, south and east of the APE. 20MD30 demonstrated to be a part of an unnamed phase in the Saginaw Valley of the terminal archaic phase (Lovis and Robertson 1989). 20GR33 illustrates the transitional period known as the Terminal Late Archaic, producing dates comparable with sites in Michigan, New York, and Ontario that yielded ceramic assemblages, though the conservation park

site itself notably did not yield ceramics (Beld 1991). 20MD3 is a Late Archaic mortuary site in the Saginaw valley consisting of an isolated burial (Binford 1963). Isolated burials in the Saginaw Valley suggest less status and more egalitarian social order and seasonal occupations (Robertson et.al. 1999).

Woodland Period

Although pottery and localized logistical broad spectrum systems have been demonstrated to predate the Woodland period in many parts of North America, this final nearly three millennia era is characterized by a significant series of changes that took place, frequently on a large-scale, prompting real consequences for the people of the Eastern Woodlands of North America. The cultures of the Woodland period constructed a versatile, seasonally-based subsistence economy that combined multiple hunting, fishing, collecting, and horticultural strategies, with a new pronounced emphasis on exploiting aquatic resources (Dunham and Drake 2004;135). Based on evidence from the Schultz site near present-day Saginaw, squash may have been available in southern Michigan at the end of the Late Archaic and Early Woodland (Lovis et al. 2001). Ceramic technologies are believed to have arrived in the region by around 600 B.C.E.. during the Early Woodland (Fitting 1972). Early woodland artifacts consist primarily of thick, grit-tempered pottery and stemmed bifaces. There is evidence suggesting inland fisheries were maintained by highly organized labor teams during the summers. This resource was harvested, processed, and stored for the winter months when the cold and scarcity normally limited aquatic resource harvest (Dunham and Drake 2004; Fitting and Cleland 1969; Frederick 2011).

Site 20GR33, Conservation Park site, located in Gratiot County is a multi-component site that contains dates of 970-410 BC (Beld 1991). This site, including others in the Saginaw valley, makes it clear that long distance trading was occurring as material was not often sourced in Michigan nor any other singular source (Garland and Beld 1999). Site 20IA37 located in Ionia County is a multi-component site that contains dates of 1000-400 BC and 77-236 AD and exhibits an occupation representing a potential transition from the Early to Middle Woodland and another occupation that demonstrates the transition from the Middle Woodland to the Early Late Woodland. Doreen Ozker's model suggests that the Early Woodland settlement pattern throughout the valley would include 20IA37 as an aggregation of the population for ceremonial purposes (Ozker and Taggart 1981). The site lies on a hill near the Grand River in Ionia County. It consists of an earthwork enclosure that was excavated into the side of the hill. South and west of the APE in Allegan County is the Armintrout-Blackman site, a small but intensely occupied, predominantly Middle Woodland site that yielded Marion-like vessel sherds (Kingsley et al. 1999:136). The Middle Woodland period saw what is considered by many Great Lakes researchers to be the incorporation of nonlocal characteristics into an existing stable local population, resulting in a configuration known as the "Goodall Tradition." Exotic trade items and elaborate grave goods typify the Hopewell influence sphere's ceremonial traditions. Traditions in western Michigan at this time are documented to be distinctly different from the documented traditions on the east side of Michigan. The eastern tradition is called the Saginaw Hopewellian Tradition, manifested in sites like 20SA194 in Saginaw County (Kingsley et al.1999:147).

Mortuary practices among the Hopewell are well documented. The Hopewell created monuments in the form of earthen mounds where they interred their dead. While many such mounds were vandalized prior to formal archaeological studies, there are detailed records at the University of Michigan documenting the excavation of one of the largest burial complexes in the state, the Norton Mounds. The complexity of mortuary activities does not appear to be quite the degree that is seen in Illinois, though sampling may be at play (Kingsley et al. 1999:161). While Hopewell mounds in Illinois had ramp-like structures around the mounds, Michigan mounds were likely not as elaborate and there have been far fewer fully intact mounds identified. Saginaw Hopewell mounds tend to be small and relatively shallow, making them notoriously difficult to recognize in the present day. The Goodall tradition mounds were notably larger though still not on the scale of structures built in nearby Illinois, Indiana, Ohio, and Wisconsin. The Middle Woodland period in Michigan has offered archaeologists a window into the mortuary processes, cosmology, and socio-economic life among Great Lakes pre-European contact period peoples in a way that previous periods have not, and perhaps cannot.

The Late Woodland was a complicated part of the precontact sequence and "formed the cultural base" for the Protohistoric American cultures encountered by early European explorers (Brashler et al, 1999: 193). Further specialization of stone tools, pottery, trade goods, ornaments, and mortuary goods continue from the Middle Woodland. Archaeologists have been able to study cultural developments and traditions within Michigan at a finer spatial and temporal resolution due to the many Late Woodland sites identified. Cleland (1966) suggests that large mammal hunting strategies figured prominently in Late Woodland economies throughout southern Michigan. Excavations at the Casassa site (20SA1033) and the Flint River site (20SA1034) in the Saginaw Valley, south and east of the APE, each yielded maize in Late Woodland contexts in what are described as horticultural camps (Branstner and Hambacher 1994; Monaghan et al. 2005;137-141).The fields may have been occasionally tended throughout the growing season however the smaller amounts of maize recovered in Michigan contexts suggest that this was a rather small part of a much larger broad-spectrum economy. Throughout the later warm months, corn feasts and camp meetings would take place, often lasting days or even weeks (Fitting 1970). The attendants of these camp meetings would prepare a central location, provide large meals, and discuss current issues. As the late fall and winter set in, these groups would disperse, forming two or three family-sized units that would find an inland part of the river or nearby streams to dwell near and hunt off of (Cleland 1966; Cleland 1992; Dustin 1930). Late Woodland artifacts are often typified by corner notched Jack's Reef and, later triangular Madison chipped stone bifaces and cord-marked grit and shell-tempered pottery.

Post-European Contact Period

In 1634 French explorer Jean Nicolet was recorded as the first European to arrive in the upper Great Lakes, coming via the Ottawa River in present-day Canada. Nicolet's travels led him west to Green Bay. Trade goods such as beads are known to have entered Michigan prior to that (Walder 2018). By the 1600s many groups living around the Western Great Lakes fled west due to the wars of the Haudenosaunee (Iroquois) and others who had acquired access to European firearms and other forms of material backing. Though some groups eventually returned, like the Potawatomi, the pre-contact (1450-1650) populations of

Michigan and Indiana, and possibly to some extent Ohio, may not have been accurately represented in the post-contact period (1650-1800) when groups moved into previously emptied areas. In 1671 the Odawa/Ottawa and Wendat (Huron) settled at Michilimackinac, as Sainte Ignace was then known, after occupying many locations around the western Great Lakes, including Sault Sainte Marie. They, along with groups that came to be known as the Chippewa later spread into the Lower Peninsula (Cleland 1992:98,102-103). Though archaeologists have long endeavored to collect and determine the evidence supporting corroboration between pre-European and post-European contact groups, such links remain tentative.

Around the time of the Odawa and Wendat arrival at the original Michilimackinac (north shore of the Straits of Mackinac) in 1671, the French established Fort du Baud and a mission near the two forts. The French abandoned the mission and fort in the late seventeenth century and established Fort Pontchartrain (Detroit) in 1701 but returned north in 1715 to establish Fort Michilimackinac on the south shore of the Straits of Mackinac (Cleland 1992:98,114). The French also established Fort Repentigny at Sault Sainte Marie (Michigan) by 1750 or earlier, which remained until 1759, perhaps later (Peyser 1996:174,196).

After the French withdrawal in 1760 following the Seven Years' War, a confederacy led by an Ottawa war chief named Pontiac was largely successful in a series of raids against the English who had claimed the lands lost by the French. This military action and period of resistance is known as Pontiac's War/Rebellion and occurred in 1763.

The Treaty of Saginaw in 1819 (Royce 1899) appropriated for public sale the land north of the Grand River and east of the "indian line" established north-south near the center of the lower peninsula of Michigan. The Ottawa and Chippewa people living in Eastern Michigan were afforded a limited series of reservations in this region, though the small size of these locations presaged the end of the traditional broad spectrum economies by which these communities had thrived and through which they understood their world.

Historical Atlases, Historic Topographic Maps, and Historic Aerial Photographs for the Proposed Clare Industrial Park Project Area

Three historical atlases and two annotated topographic maps were available online for Vernon Township, Isabella County. Two historical and two recent aerial photographs were also examined for the Proposed Clare Industrial Park Project Area in order to establish the land history of the proposed project area and determine if there are any potential historical archaeological resources in or near to the Project Area. The following Section summarizes information derived from the aerial photographs and maps.

The earliest plat map available of Isabella County was from 1879 (Figure 9). There are two structures indicated within Section 2, one in the NW corner of the section and the other in the SW corner of the

section, both well outside of the Direct APE. The owners indicated where the APE is located are Rust Eaton & Co, who owned the N1/2 of Section 2, C.W Perry whose holdings consisted of the N1/2 SW1/4 of Section 2 and E1/2 SE1/4 of Section 2, Jos. Ramey who held the S1/2 SW1/4 of Section 2 and SE1/4 SE1/4 of Section 3, and C. Bradway who is indicated to have owned the W1/2 SE1/4 of Section 2. No structures or other features are indicated within the proposed Direct APE.

The 1899 plat map of Isabella County indicated a structure west of the APE in the NW1/4 NW1/4 SW1/4 of Section 2 owned by C.W. Perry on present day N. Mission Rd, previously known as State Rd (Figure 10). The owners of the Direct APE are indicated to be Donald McCrimmon who owns the NW1/4 of Section 2, "C.W. Perry," who is indicated to hold the N1/2 SW1/4 of Section 2 and the SW1/4 NE1/4 of Section 2, L. Eberhart is shown to control the SE1/4 SE1/4 of Section 2, and Chas. Bradway who is indicated to own the W1/2 SE1/4 of Section 2. No structures or other features are indicated within the proposed Direct APE.

An 1915 Atlas of Isabella County was also consulted (Figure 11). This resource indicates the aforementioned structures in the NW1/4 NW1/4 SW1/4 of Section 2 and SW corner of Section 2 however the structure in the NW corner Section 2 is no longer present. Also indicated are more structures, one in the SE1/4 NW1/4 NW1/4 NW1/4 of Section 2 and another in the SE1/4 SW1/4 SE1/4 SW1/4 of Section 2. One structure is west of the Direct APE on N. Mission Rd associated with the now 200 ac "C.W. Perry" property which comprises the S1/2 NW1/4 of Section 2, the SW1/4 NE1/4 of Section 2, and the N1/2 SW1/4 of Section 2. The SE section of the APE is indicated to have been owned by "Chas Bradway," comprising the W1/2 SE1/4 of Section 2. The southernmost section of the APE is shown to have been owned by "Jacob Krupp," an area indicated as the SE1/4 SW1/4 of Section 2. A small drainage runs from the center of the Direct APE eastward. Another is indicated in the southernmost portion running south. No structures or other features are indicated within the proposed Direct APE.

A 1953 aerial photograph of the Project Area (Figure 12) indicates a structure west of the Direct APE on N. Mission Rd in a location that was indicated to contain a structure in the 1915 atlas to be owned by C.W. Perry. The Direct APE and area surrounding the APE consists of open agricultural fields. No structures are indicated within the proposed Direct APE.

The 1959 Clare 7.5 minute quadrangle (Figure 13) indicates more structures along N. Mission Rd including a structure that appears in the same location as one in the previous aerial and atlases west of the APE owned by C.W. Perry in the 1915 resource. Much of the area surrounding the current APE is indicated to be open land though there are two small areas of wetland mapped. One wetland is shown to be partially wooded in the NW1/4 NW1/4 SE1/4 of Section 2. No structures or other features are indicated within the proposed Direct APE.

A 1968 aerial photograph of the Project Area (Figure 14) indicates structures in the location that the "Perry" family residence were formerly shown in the previous historical atlas and topographic maps west

of the APE on N. Mission Rd. There are also structures not previously shown northwest of the APE on N. Mission Rd in Clare County. The area comprising the APE consists of open agricultural fields. No structures or other features are indicated within the proposed Direct APE.

A 1998 aerial photograph of the Project Area (Figure 15) shows a few commercial structures north of the APE across the newly installed Clare Industrial Pkwy. The old "Perry" structure on N. Mission Rd west of the APE is indicated on this photograph even though it is difficult to visually see the individual structures due to the poor quality of the photograph. No structures or other features are indicated within the proposed Direct APE.

A 2022 aerial photograph of the Project Area (Figures 3-7) indicates new industrial structures that encompass much of the land north of the APE, north of Clare Industrial Pkwy. There is also a new industrial structure directly north of the APE on the south side of Clare Industrial Pkwy. There is a semi truck trailer parked at the southernmost extent of the Direct APE which is being utilized as a billboard. No structures or other features are indicated within the proposed Direct APE.

Previously Recorded Sites and Surveys

An inquiry of records at the Michigan State Archaeological Site File (SASF) residing at the Michigan SHPO revealed that there is one previously recorded archaeological site within or near to the 1.0 mile (mi) (1.6 km) radius Study Area surrounding the Direct APE. There have been at least three archaeological surveys within the Study Area (Figure 1) around the Direct APE.

Previous Archaeological Sites within a 1 mi (1.6 km) radius of the APE of the Proposed Clare Industrial Park Project Area

Site 20CE6 is also called the Cooper Site, and it is described as an isolated undetermined Precontact Period lithic point that was documented by UMMA (no date). The SASF indicates that more information is needed to determine whether 20CE6 is eligible for the National Register of Historic Places. No other information is available regarding Site 20CE6.

Previous Archaeological Surveys within a 1 mi (1.6 km) radius of the APE of the Proposed Clare Industrial Park Project Area

There have been at least three previously recorded archaeological surveys conducted within the 1.0 mi (1.6 km) radius Study Area of the Direct APE (Figure 13).

A survey (ER-89508) was conducted by Great Lakes Research in 1990 (Branstner 1990). This survey was associated with the permitting and construction of the original GLGT Pipeline. No archaeological sites were identified within or near to the APE as result of the survey.

In 1998, The Institute for Minnesota Archaeology Consulting, Inc conducted a survey (ER97-434) for the GLGT Gas pipeline additional workspaces (Murray et.al. 1998). No archaeological sites were identified within or near to the APE as result of the inventory.

In 2018, Trileaf conducted a survey (ER02-261.18.640423) for a telecommunication tower site in the City of Clare (Ledezma et al. 2018). No archaeological sites were identified as a result of the inventory.

Archaeological Sensitivity and Above-Ground Viewshed Assessment

The larger Study Area of a 1.0 mi (1.6 km) radius around the Project Area varies in archaeological sensitivity from low to high sensitivity (Figure 1). Locations of low sensitivity for potential archaeological sites are typified by fine-textured ground moraines and glacial till plains which are not likely to contain buried soil horizons. These are often characterized by poorly and very poorly drained soils in low-lying areas like depressions and wetlands. This low sensitivity classification also applies to those areas which are known to have been significantly disturbed by previous earth-moving activities (gravel pits, made land, and construction). Areas with high degrees of slope (greater than 18%) are also considered low sensitivity for archaeological resources. The lower half of the Direct APE as well as the large areas of poorly and very poorly drained soils to the east of the APE are all considered low sensitivity for archaeological resources.

Moderate sensitivity occurs in locations with soils that range from somewhat poorly drained to excessively well-drained which are not documented to have been significantly impacted by construction. They also have slopes of 18% or less and are generally found on outwash and lake plains, drumlins, and moraines. The undisturbed areas within and surrounding the Direct APE are considered moderate sensitivity for archaeological resources. The soils are not hydric or poorly drained and consist of some of the better positioned locations near the extensive areas of wetland east (Figure 1). Such locations may have served as staging areas for wetland resource extraction activities in the past, though generally the scale and/or longevity of activity required to generate a significant archaeological site would be positioned close to a clean water source.

High archaeological sensitivity occurs in areas within close proximity (75 m or less) to relict and historical riparian resources that are either not poorly drained or are likely to contain buried soil horizons. These include natural channels and lakes that may have existed temporarily during previous periods as a result of deglaciation. Such locations may have poorly drained or excessively well-drained soils and can often be in unlikely positions on the landscape. The setting along drainage ways and lakes evolves through time, and a location may have functioned entirely differently on the landscape in the past. In those occasions where archaeological site burial by flood borne alluvium or transferral from unstable landforms (aeolian and coluvial deposition) is considered likely, enhanced research strategies should be adopted which are

capable of identifying deeply buried archaeological sites (Waters 1992). There are small segments of high sensitivity locations along the Little Tobacco Drain to the north and west, and an unnamed drain directly south of the APE (Figures 1 and 8).

Background research using available historic documents, data on file at the SHPO, and environmental information for the area suggests a low to moderate archaeological sensitivity for the Proposed Clare Industrial Park Project area. The majority of the Direct APE is considered moderate archaeological sensitivity (Figure 1).

Phase I Field Methods

The goal of a Phase I survey is to apply a range of demonstrated and effective archaeological sampling procedures that have the ability to identify all archaeological *site types* which are known to exist in the surrounding region or similar geographical contexts. Although Phase I reconnaissance may not be intended to identify all sites present in an APE, surveys should be structured so as to be realistically capable of identifying all types of sites known to exist in the area (Precontact and Historical, deeply buried sites and small scatters as well as their large, dense, near surface counterparts). Phase I efforts should also be designed to determine if any identified sites have the potential to contain significant information that would warrant further investigation.

Pedestrian Survey

Pedestrian survey is conducted 5 m intervals in areas with sufficient ground visibility, like tilled agricultural fields. If an artifact is identified, it is marked and additional walkover transects are completed between the existing positive transects so as to complete a 2.5 m interval survey throughout the site. Once the site has been delineated, a small grid of shovel tests may be appropriate so as to collect soil and integrity information about the site which cannot be assessed from the surface.

Shovel Test Pit Excavation

Subsurface testing is conducted at 15 m intervals in those areas where sufficient surface visibility (greater than 50%) is not available. Shovel test pits are often also conducted to determine the potential for buried soil and cultural horizons. After a site is identified, STPs help determine the site's size, archaeological integrity, and research potential. Occasionally when a high sensitivity area is being tested, STPs may be placed at closer (7.5 m or 10 m) intervals to better identify and assess the location.

The pits measure 0.40 m in diameter. The plow zone was removed as a single level, though all sub-plow zone sediments were separately excavated in either arbitrary 10-cm levels or natural stratigraphic units not exceeding 10 cm in thickness, as appropriate. Levels are excavated until at least 10 cm of sterile subsoil is reached. All excavated sediments were put through 0.64-cm hardware cloth and recovered artifacts were bagged and labeled with provenience information, including site number, unit number, soil horizon, and depth below surface. All excavation information is recorded in the field using written and digital

photographic procedures. Shovel Test Unit locations were recorded using a GPS unit consisting of an Android Galaxy S21 paired with a Trimble R-1 GPS receiver operating with SBAS real-time-correction. Profile descriptions per standard United States Department of Agriculture (USDA) terminology as discussed in the Soil Survey Manual (Soil Survey Division Staff 1993) were taken. Descriptions included soil horizon, Munsell color, texture, mottling, soil structure, boundary rate and type, and inclusions, such as organic material or artifacts. Descriptions were organized by master horizons (with appropriate subdivisions) noting lithologic discontinuities. USDA soil texture terminology is used in all soil and sediment descriptions. A qualified professional archaeologist meeting the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 F.R. 44716) with experience in Midwest Quaternary landscapes, deposits and soil geomorphology, was responsible for constructing descriptions.

Laboratory Methods

Processing of recovered artifacts includes cleaning, sorting, and otherwise preparing items according to raw material type and provenience. Provenience is facilitated using a triple redundancy field specimen log system, which records materials recovered. The land owner has elected to keep the artifacts until a curation facility can be decided upon. In Appendix I there are tables that include all of the recovered materials, organized by provenience.

Project Results

Project Description

Heartsong Archaeology llc conducted Phase I investigations in the proposed workspace provided by the client. Fieldwork was conducted in December 2023, February 2024, and March 2024 by Nick Bacon, Mandy Kramar, Monte Lawton, Jessica Overbee, and Joseph Senk. In total, 155, 40 cm diameter shovel tests were excavated in the proposed direct area of potential effects (APE). Portions of the APE was subjected to subsurface testing because it was a fallowed agricultural field and maintained little to no surface visibility. Three new archaeological sites were identified during testing – 20IB62, 20IB63, and 20IB64. All three sites were recommended not eligible for listing on the NRHP by Heartsong Archaeology llc. It is recommended that sufficient information regarding each site has been obtained by the survey and that their research value has been exhausted. Heartsong Archaeology llc recommends that the project proceed **without** additional archaeological testing.

Representative STU Descriptions

155 STPs were excavated in total. 15 were positive for archaeological materials; 11 for historical period resources, 4 for precontact. Representative tests have been included below.

Representative STPs

STP B-1 was excavated in the northern portion of the Project Area, 30 m north of 20IB63. The Ap horizon was 31 cm deep consisting of 10YR 3/3 silt loam underlain by a Bt horizon of mottled 10YR 4/3 clay, which was exposed to 40 cm below surface (bs). The test was terminated in sterile subsoil and was negative for cultural materials.

STP C-4 was excavated in the northern portion of the Project Area inside of the boundaries of 20IB63. The Ap horizon was 29 cm deep consisting of 10YR 4/6 sandy clay loam underlain by a Bt horizon of mottled 10YR 4/6 clay, which was exposed to 40 cmbs. The test was terminated in sterile subsoil. This test was positive for precontact cultural materials and contained one lithic flake.

STP D-8 was excavated in the norther portion of the Project Area approximately 70 m south-southeast of 20IB63. The Ap horizon was 35 cm deep consisting of 10YR 4/4 sandy clay loam underlain by a Bt horizon of mottled 10YR 4/6 clay which was exposed to 50 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

STP B-11 was excavated in the northern portion of the Project Area approximately 107 m south of Site 20IB63 The Ap horizon was 26 cm deep consisting of 10YR 3/3 sand loam underlain by a Bt horizon of mottled 10YR 3/4 clay, which was exposed to 56 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

STP M-0.5 was excavated in the northwestern portion of the Project Area immediately east of Site 20IB64. The Ap horizon was 30 cm deep consisting of 10YR 3/3 wet sand loam underlain by a Bt horizon of mottled 10YR 4/4, 10YR 5/4, and 10YR 3/3 clay, representing likely redoximorphic soils, which were exposed to 41 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

STP M-6 was excavated in the northwestern portion of the Project Area approximately 10 m west of Site 20IB64. The Ap horizon was 20 cm deep consisting of 10YR 3/3 wet sand loam underlain by a Bt horizon of 10YR 4/6 clay mottled with 10YR 3/3 sandy loam which was exposed to 30 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

STP N-2 was excavated in the northwestern portion of the Project Area within the boundaries of Site 20IB64. The Ap horizon was 44 cm deep consisting of 10YR 3/3 sand loam mottled with 10YR 4/4 clay, underlain by a Bt horizon of 10YR 4/4 clay which was exposed to 64 cmbs. The test was terminated in sterile subsoil. This test was positive for cultural materials, and included glass, brick, nails, faunal bone, foil, charcoal, and concrete fragments, all located in the first stratum which appeared to have been disturbed based on the mottling present.

STP O-3 was excavated in the northwestern portion of the Project Area within the boundaries of Site 20IB64. The Ap horizon was 39 cm deep consisting of 10YR 3/3 sand loam with a layer of 10%

rocks/pebbles (33-39 cmbs). This was underlain by a Bt horizon of 10YR 5/4 clay, mottled with 10YR 3/2 and 10YR 4/6 representing possible redoximorphic clay soils, which were exposed to 53 cm below surface. The test was terminated in sterile subsoil. This test was positive for cultural materials, and included glass and concrete fragments within the tests first horizon, as well as concrete fragments on the surface near the test (which were not collected).

STP P-2 was excavated in the northwestern portion of the Project Area less than 10 m south of Site 20IB64. The Ap horizon was 22 cm deep consisting of 10YR 3/3 silty clay loam underlain by a Bt horizon of 10YR 4/3 clay which was exposed to 34 cmbs. A third horizon, composed of 10YR 4/4 sand, was excavated 47 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

STP PC-1 was excavated in the northern portion of the Project Area immediately adjacent to isolate Site 20IB62. The Ap horizon was 17 cm deep consisting of 10YR 3/3 silty clay loam underlain by a Bt horizon of 10YR 3/3 clay mottled with 10YR 4/6 clay, which was exposed to 32 cmbs. The test was terminated in sterile subsoil and was negative for cultural materials.

Description of Newly Identified Archaeological Sites

Site 20IB62
Resource Type: Precontact Isolate
Affiliation: Precontact undetermined period
Topographic Setting: Level 0-4% slope
Size: 5m N-S x 5m W-E
Elevation: 863 ft (263 m) absl
Location: SE1/4 SE1/4 NW1/4 of Section 2 (T16N R4W)
Michigan Georef Coordinates: NORTHING: 362727m EASTING: 599634m, NAD1983
Soils: Ithaca loam
Diagnostic Artifacts: 1 Chert Flake

Recommendations: 20IB62 is an isolated precontact site consisting of a single chert flake. All of the eight shovel test pits excavated at 5 m intervals around the isolated surface find failed to identify cultural material. Heartsong Archaeology llc recommends that site 20IB62 is not eligible for the NRHP and exhibits no further research potential.

Site 20IB63
Resource Type: Lithic Scatter
Affiliation: Precontact undetermined period
Topographic Setting: Level 0-4% slope
Size: 12m N-S x 32m W-E
Elevation: 856 ft (261 m) absl
Location: SE1/4 SE1/4 NW1/4 of Section 2 (T16N R4W)
Michigan Georef Coordinates: NORTHING: 362768m EASTING: 599692m, NAD1983
Soils: Ithaca loam
Diagnostic Artifacts: 5 Chert flakes, 1 Chert core fragment, and 1 Fire Cracked Rock

Recommendations:
20IB63 consists of a small scatter of lithic debitage. The artifacts appear to primarily consist of debitage and despite numerous radial shovel tests near the positives, the density of the site remains low and no tools indicating activities which may have occurred at the site were identified. Heartsong Archaeology llc recommends that Site 20IB62 is not eligible for the NRHP and exhibits no further research potential.

Site 20IB64
Resource Type: Historic Period Dump Site
Affiliation: Twentieth Century Homestead
Topographic Setting: Level 0-4% slope
Size: 39.9m N-S x 61.8m W-E
Elevation: 852 ft (260 m) absl
Location: NW1/4 SE1/4 SW1/4 SW1/4 NW1/4 of Section 2 (T16N R4W)
Michigan Georef Coordinates: NORTHING: 362800m EASTING: 599184m, NAD1983
Soils: Ithaca Loam
Diagnostic Artifacts: Glass containers, window glass, wire insulators, wire nails, horse shoe nails, whiteware, tableware, china.

Recommendations: 20IB64 is a moderately large scatter of historic artifacts. The soils of some tests exemplified characteristics often associated with filling and mechanical grading, a practice not uncommon on agricultural fields like the one which hosts the Direct APE and Site 20IB64. Subsurface testing throughout the site and close interval pedestrian survey (2 m or less) contained a mixture of early to mid twentieth century material with a few items which could pertain to the late nineteenth century. No historical records accessed indicated a structure in or near to this location. Given the location of the site

along a modern road and its proximity to an adjacent modern manufacturing facility, this site likely represents intentional dumping and or filling not directly associated with any one particular historical structure or farmstead. Heartsong Archaeology llc recommends that site 20IB64 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

Artifact Descriptions

20IB64 consists of a scatter of historic artifacts including wire nails, horse shoe nails, ceramic, whiteware, tableware, china, porcelain, glass, and various pieces of unidentified metal. Many of the artifacts were located on the surface and all artifacts were identified in the plowzone soils.

Conclusions and Recommendations

Heartsong Archaeology llc conducted Phase I investigations for the Clare Industrial Park Project in Isabella County, Michigan in December 2023, February 2024, and March 2024. 155 round 40 cm in diameter shovel test pits were excavated at 15 m intervals. Excavations resulted in the identification of Ap-Bt sequences. The silty clay loam A horizons were typically 17-30 cmbs in depth and were commonly underlain by a clay Bt horizon.

Pedestrian Survey at 5 m intervals identified sites 20IB62 and 20IB64 on the surface and shovel tests through the APE at 15 m intervals identified archaeological site 20IB63. All three sites are recommended by Heartsong Archaeology llc as not eligible for listing on the NRHP. As a result, Heartsong Archaeology llc recommends that the project proceed **without** additional archaeological research.

If the proposed project is substantially altered to include other nearby locations which contain potential historical significance or a high sensitivity for archaeological resources, it is recommended that a qualified professional archaeologist be consulted to conduct field research. If human remains are identified during construction, work **must** stop immediately within 100 feet of the location and local public safety, consulting Tribal Historic Preservation Officers, and the State Historic Preservation Office must be notified within 24 hours. This is in accordance with the Michigan Attorney General's Opinion 6585 (Kelly 1989), which covers the process governing inadvertent discoveries of human remains and which states that improper handling of human remains is a criminal offense.

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FIGURES

Figure 1. 2023 Topographic Map of the Study Area and Project Area Archaeological Sensitivity on the 2023 Clare and Loomis 7.5 Minute Quadrangles (Michigan Geographic Data Library 2023; Soil Survey Staff 2023; USGS 2023a;b)

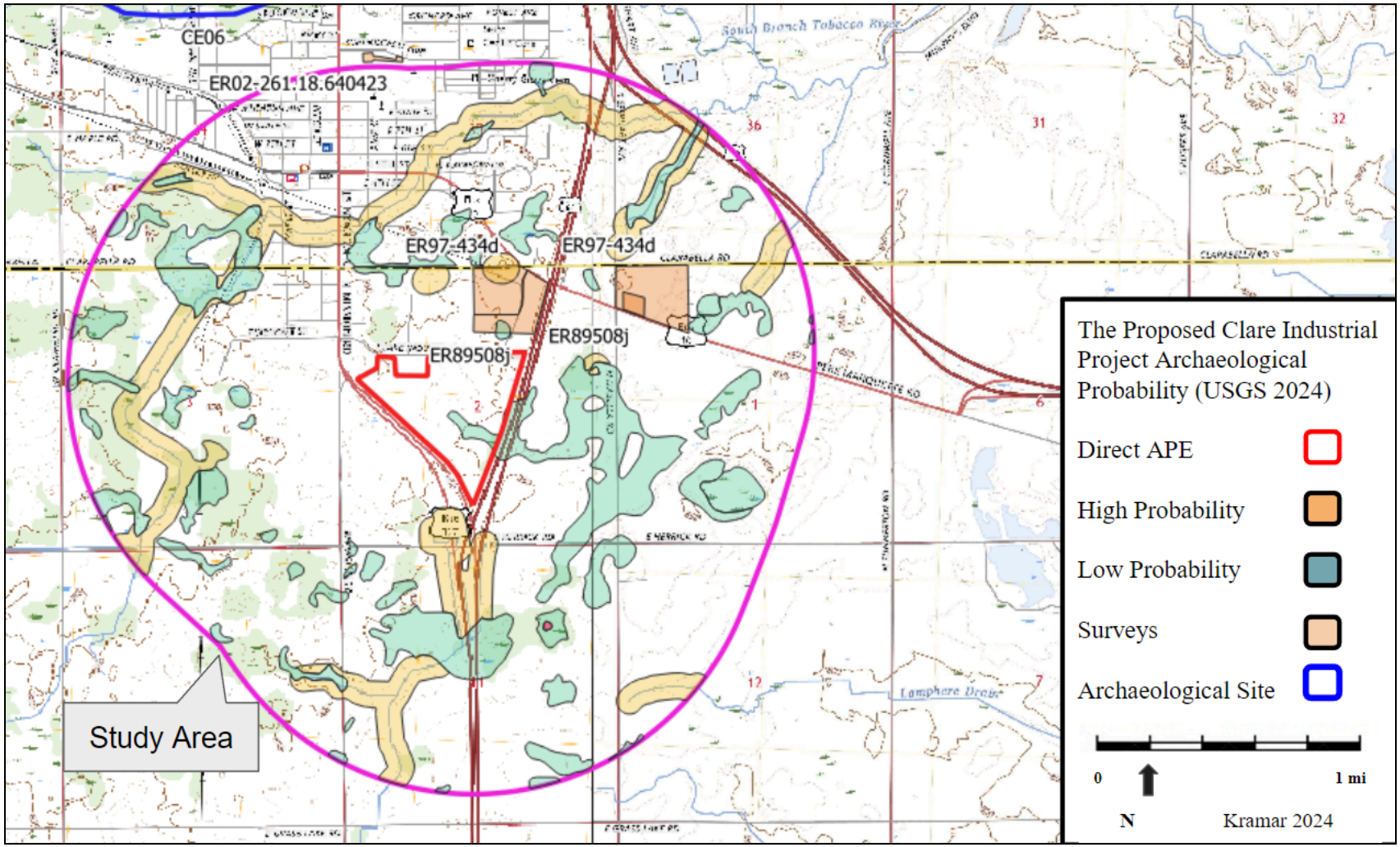

Figure 2. 2023 street map of the Clare Industrial Park Project Direct APE indicated (USGS 2023c)

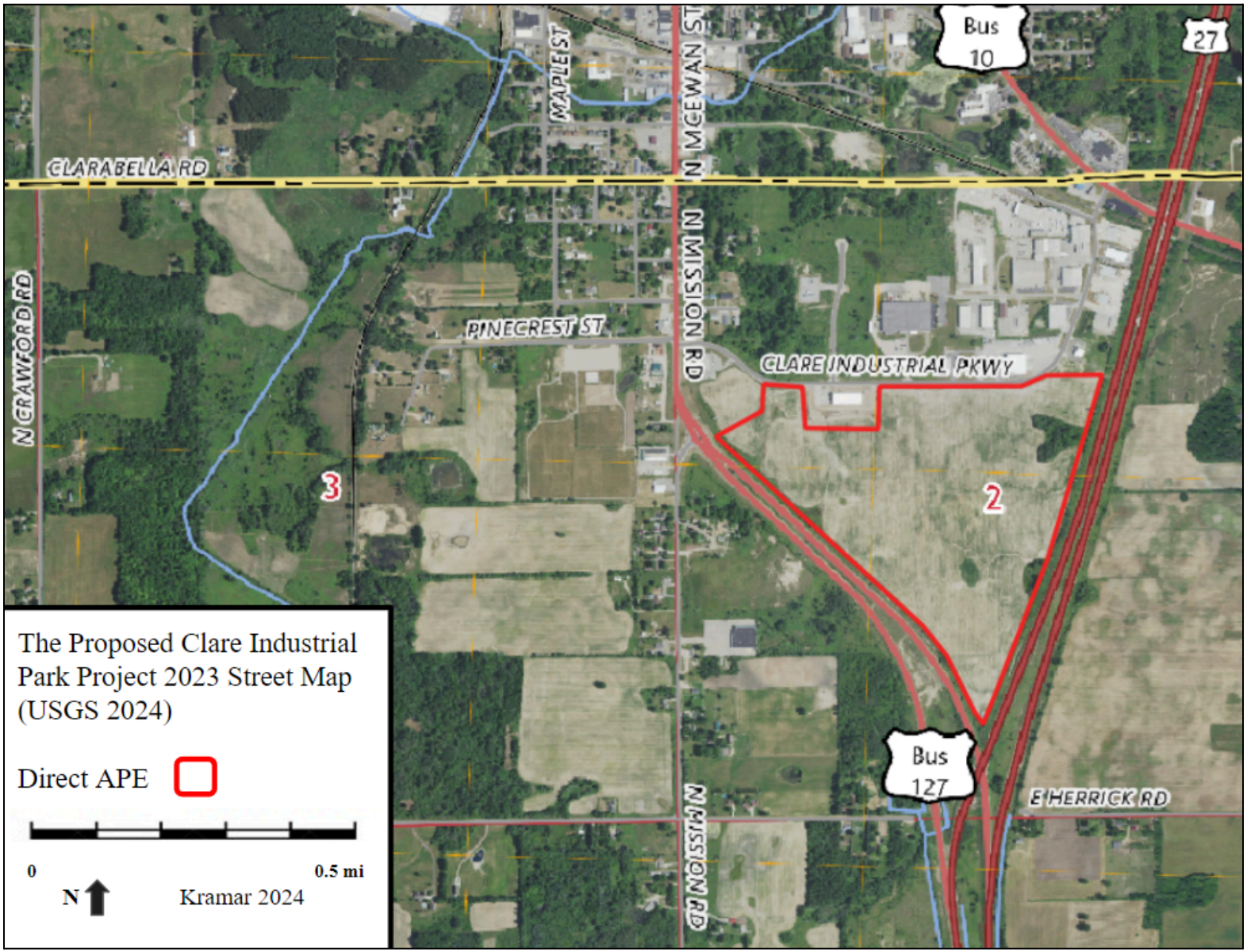

Figure 3. Field Methods Map of the Northeastern Portion of the Project Area (USGS 2022)

Figure 4. Field Methods Map of the Southern Portion of the Project Area (USGS 2022)

Figure 5. Field Methods Map of the Northwestern Portion of the Project Area (USGS 2022)

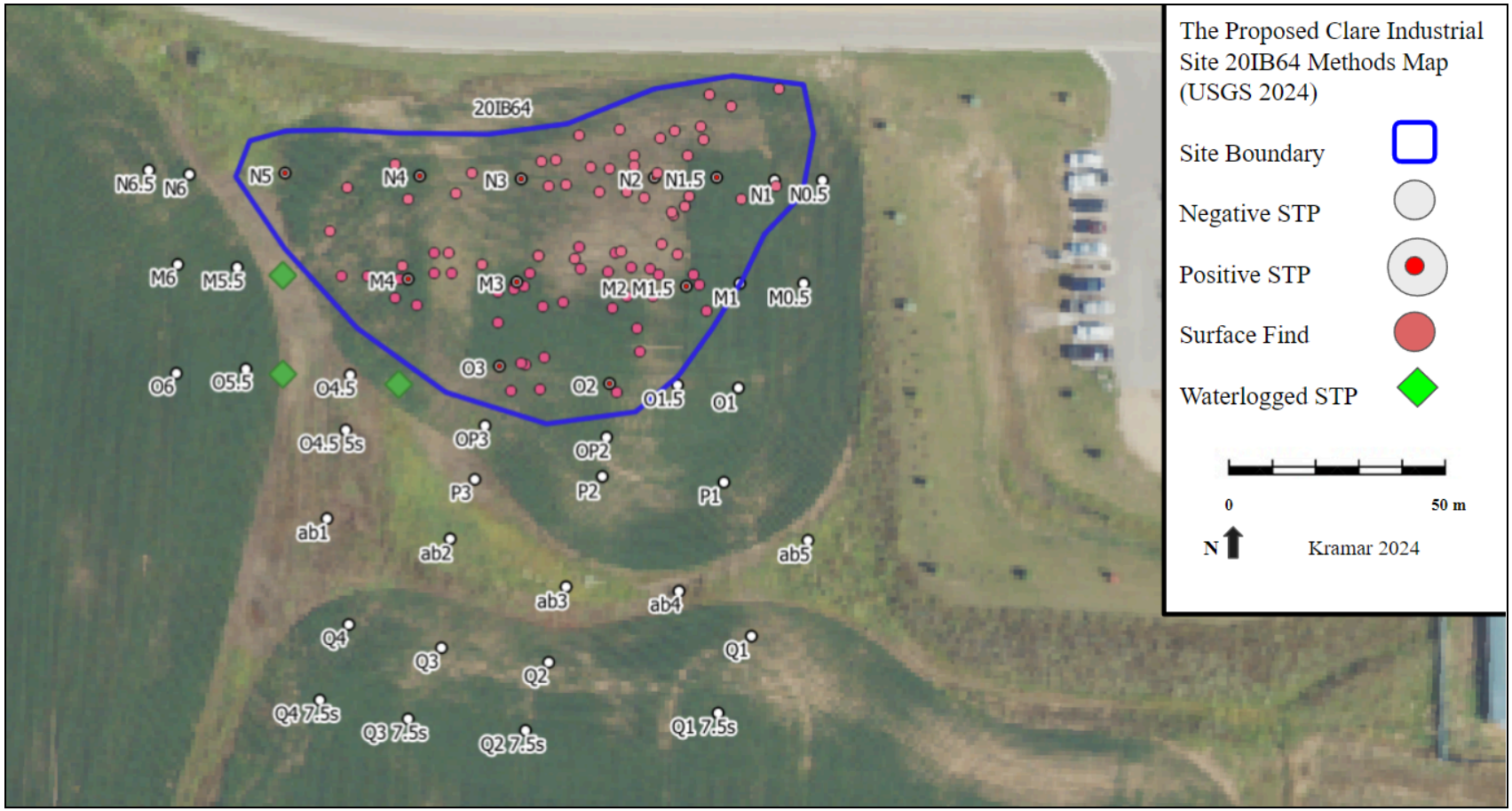

Figure 6. Field Methods Map of Sites 20IB62 and 20IB63 (USGS 2022)

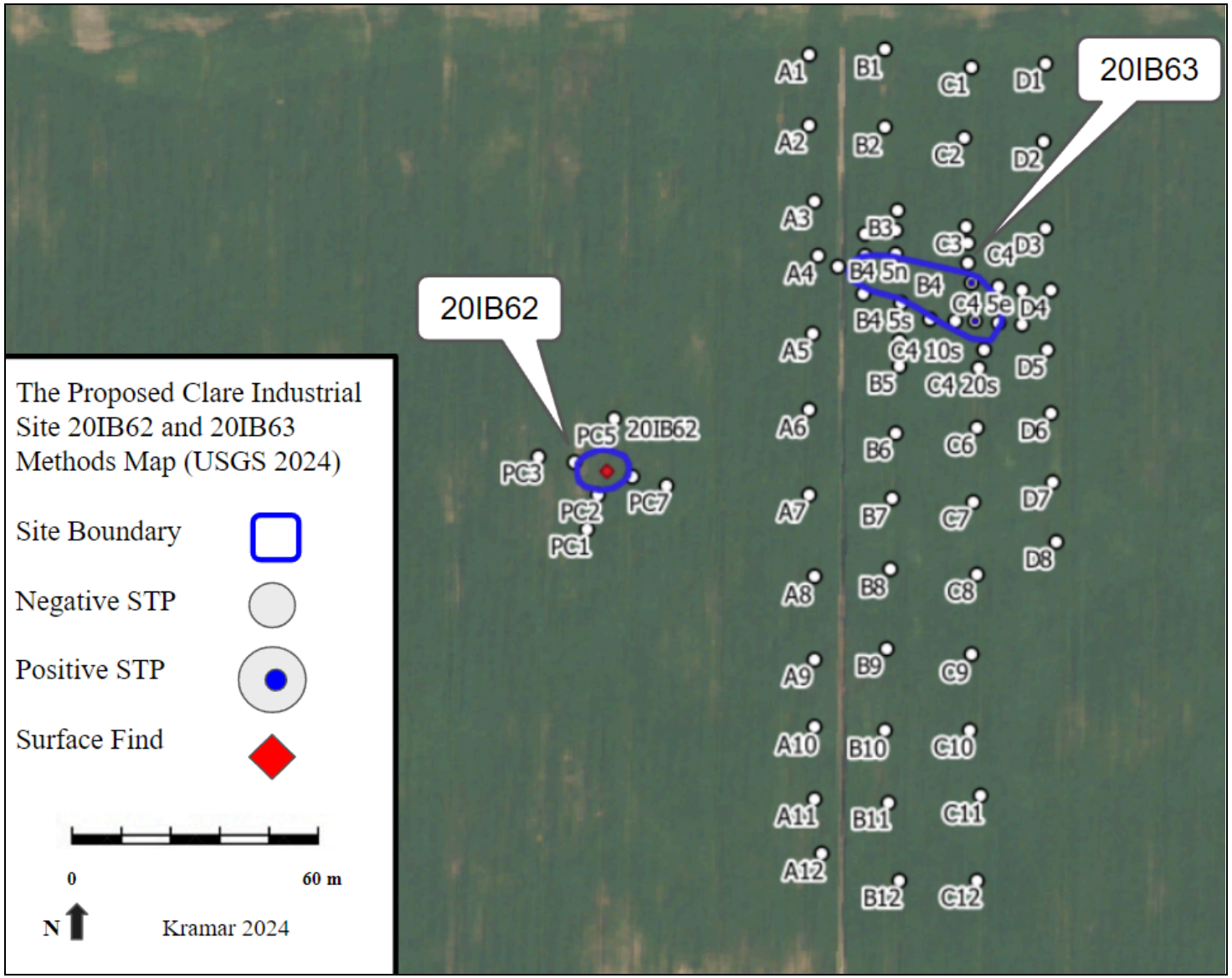

Figure 7. Field Methods Map of Site 20IB64 (USGS 2022)

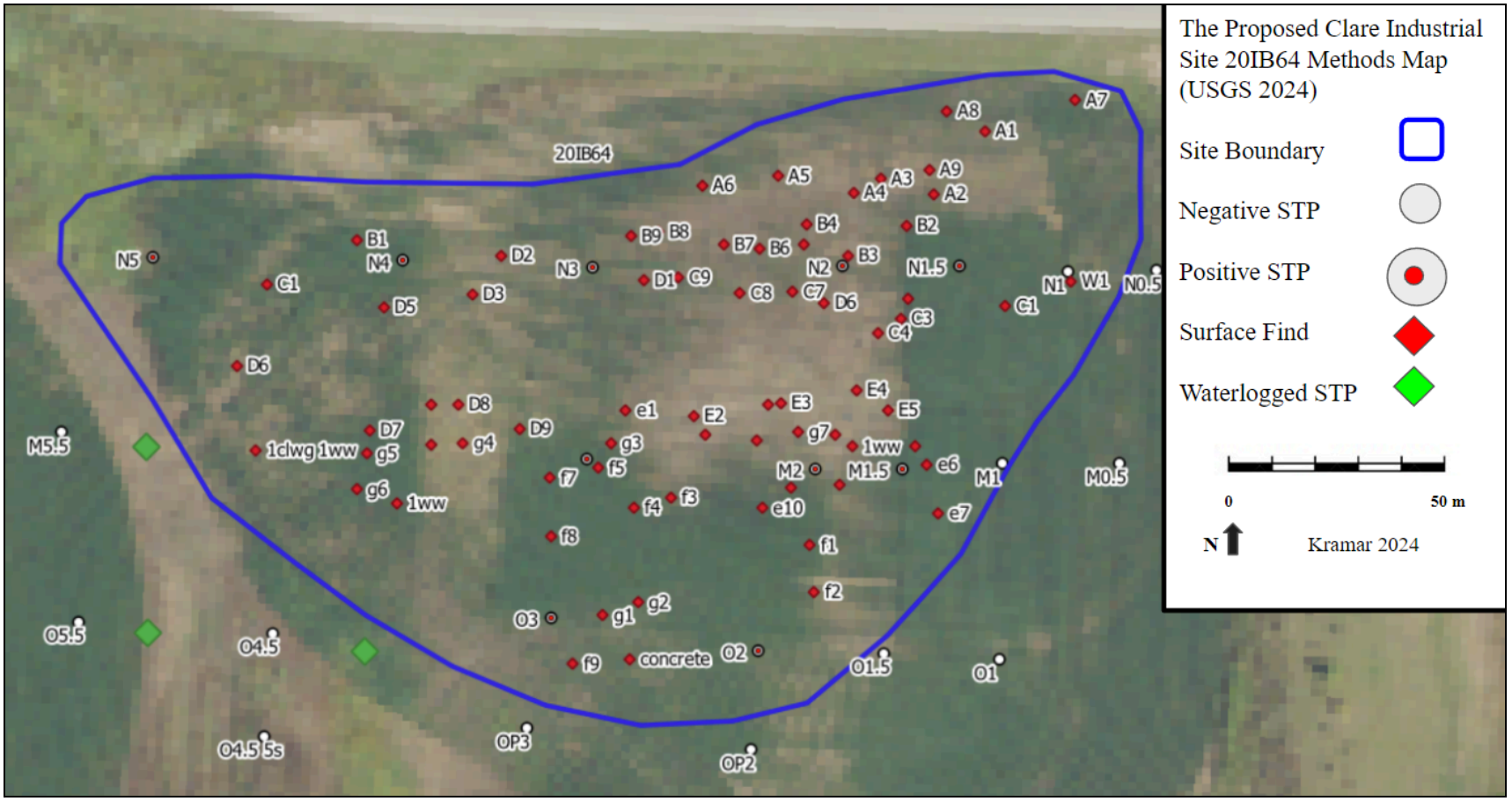

Figure 8. 2023 Topographic Map of the Study Area and Project Area Archaeological Landforms of Importance on the 2023 Clare and Loomis 7.5 Minute Quadrangles (Michigan Geographic Data Library 2023; Soil Survey Staff 2024; USGS 2023a;b)

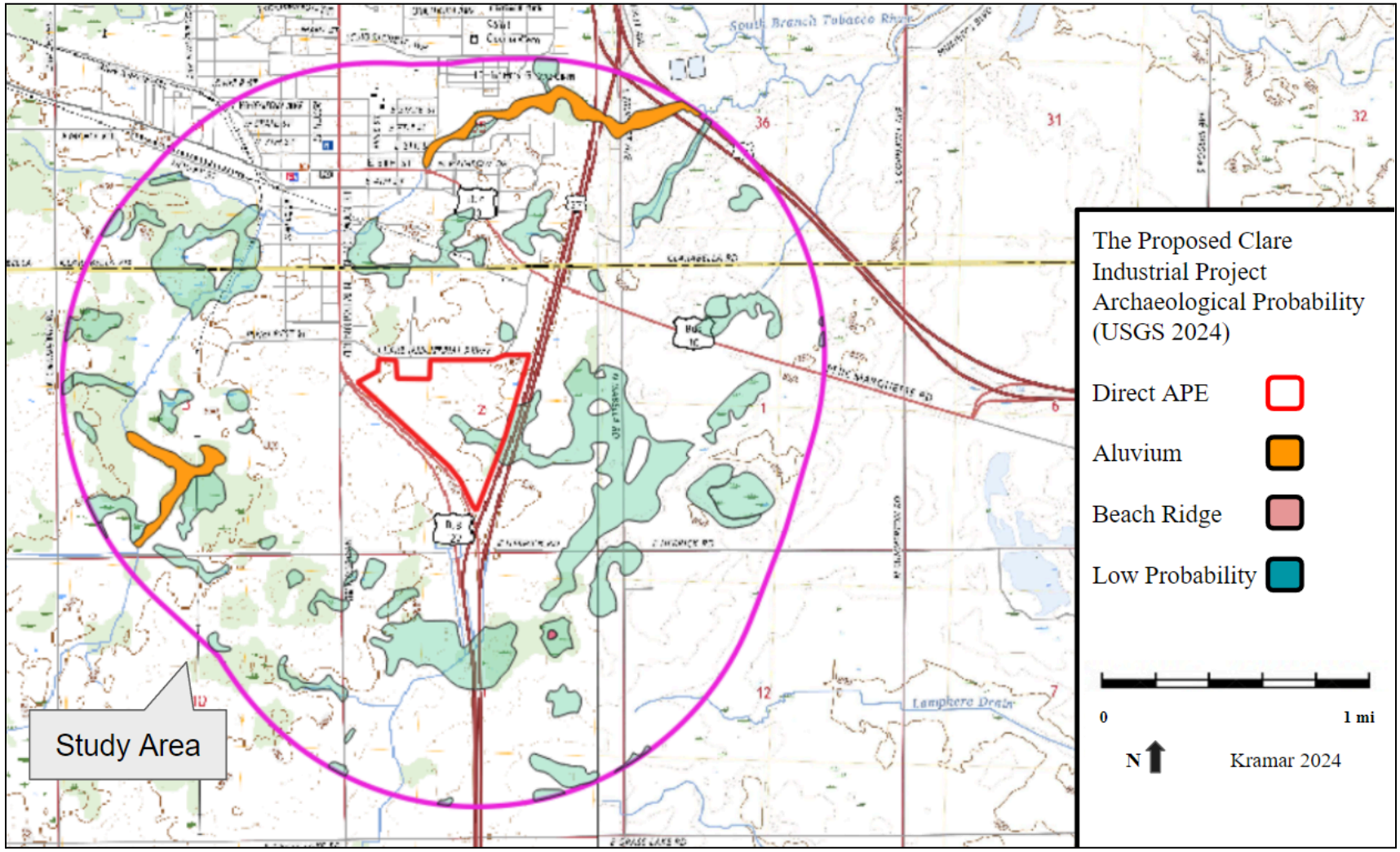

Figure 9. 1879 Plat Atlas of the Direct APE (Borquin 1879)

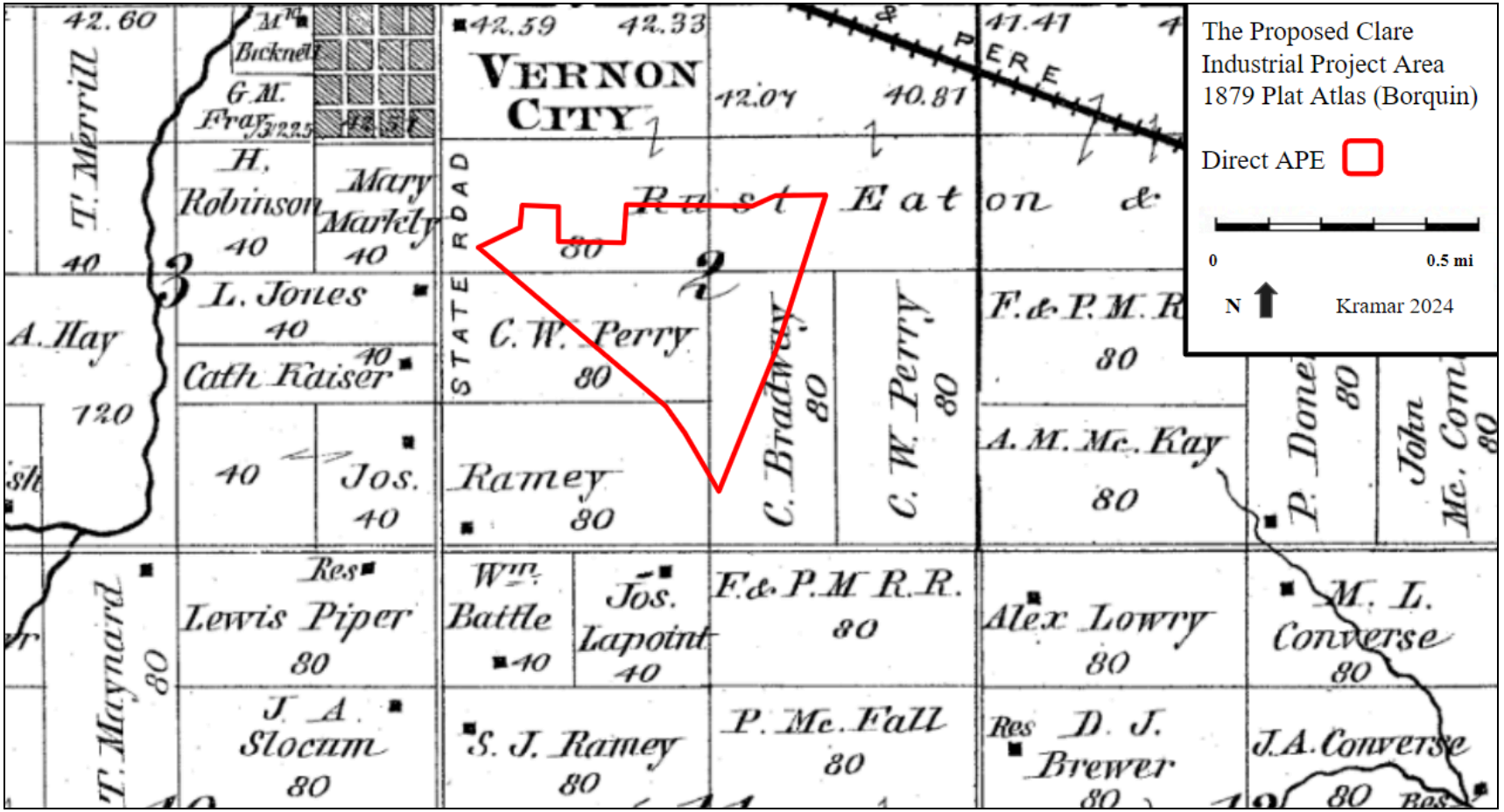

Figure 10. 1899 Plat Atlas of the Direct APE (Hood and Foot 1899)

Figure 11. 1915 Plat Atlas of the Direct APE (Standard Map Co. 1915)

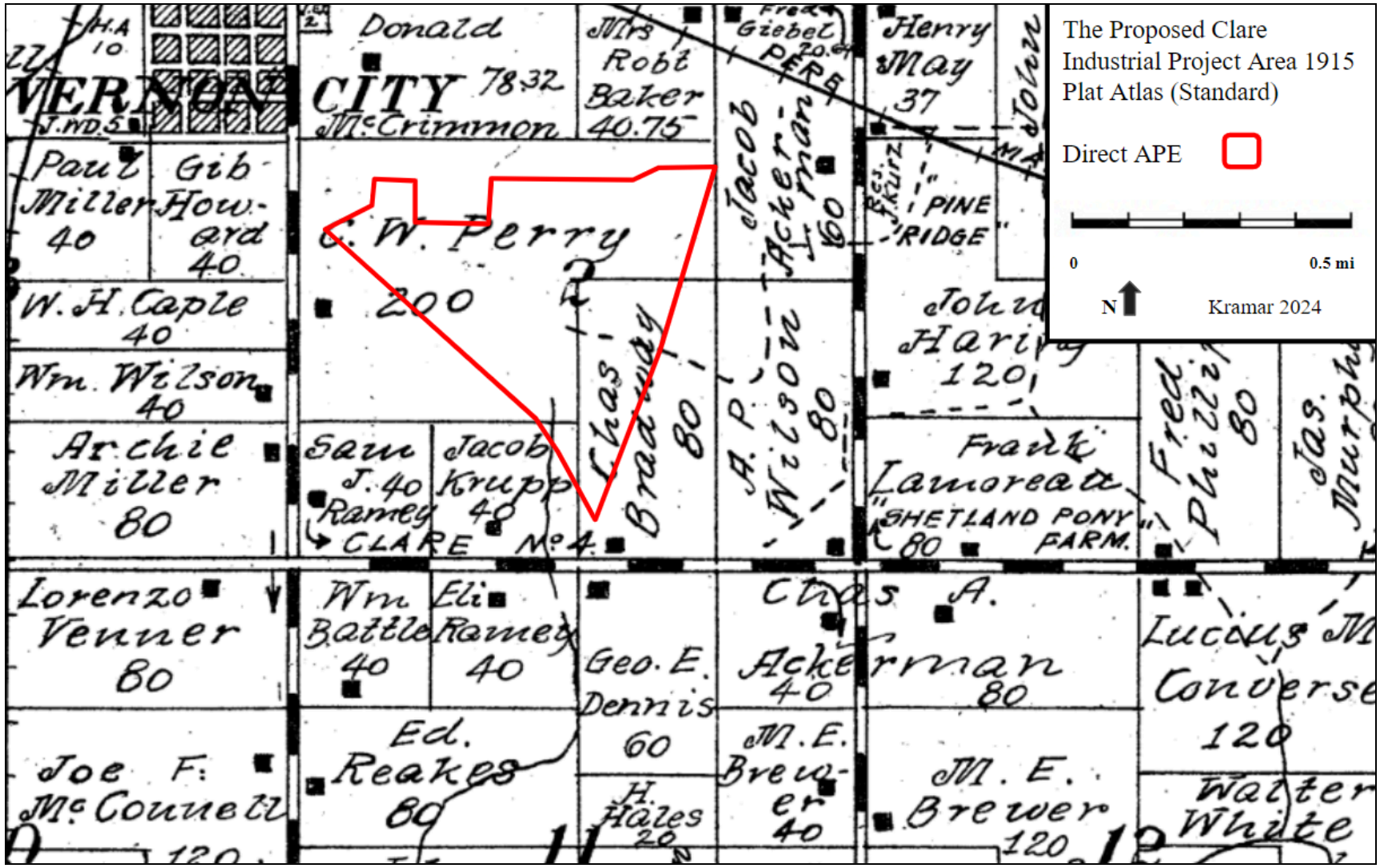

Figure 12. 1953 Aerial Photograph of the Direct APE (USGS 1953)

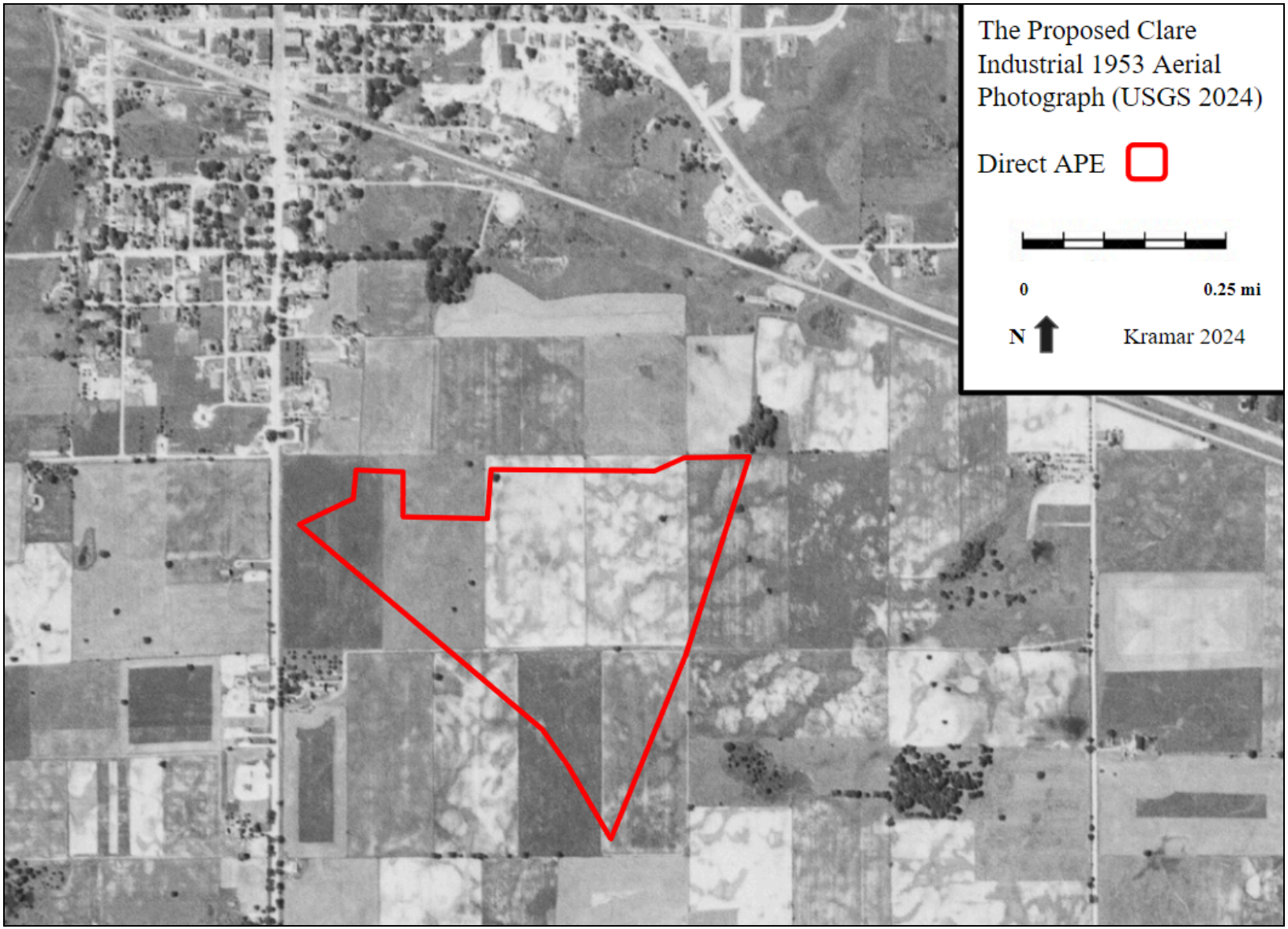

Figure 13. 1959 Clare 7.5’ Topographic Quadrangle of the Direct APE (USGS 1959)

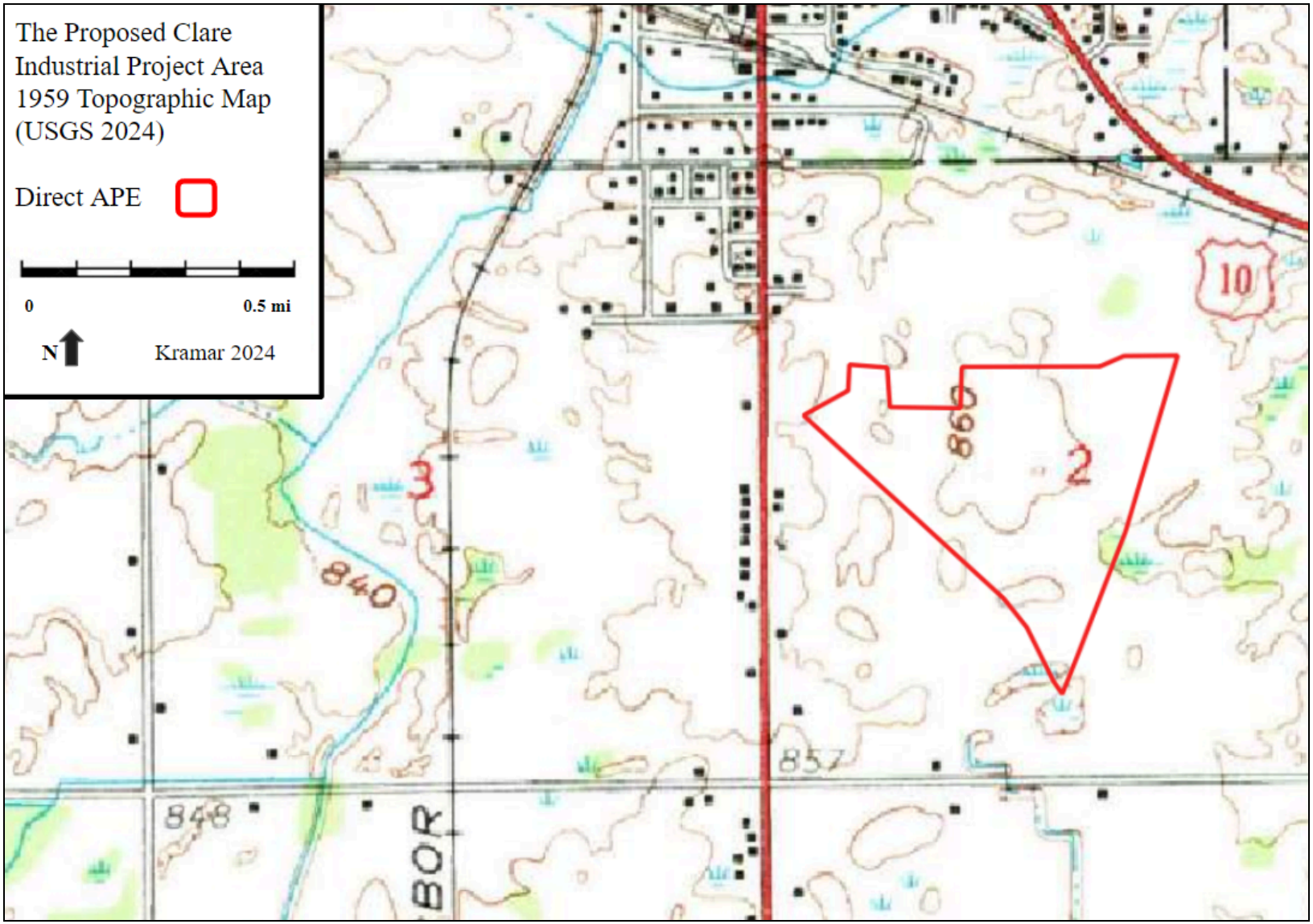

Figure 14. 1968 Aerial Photograph of the Direct APE (USGS 1968)

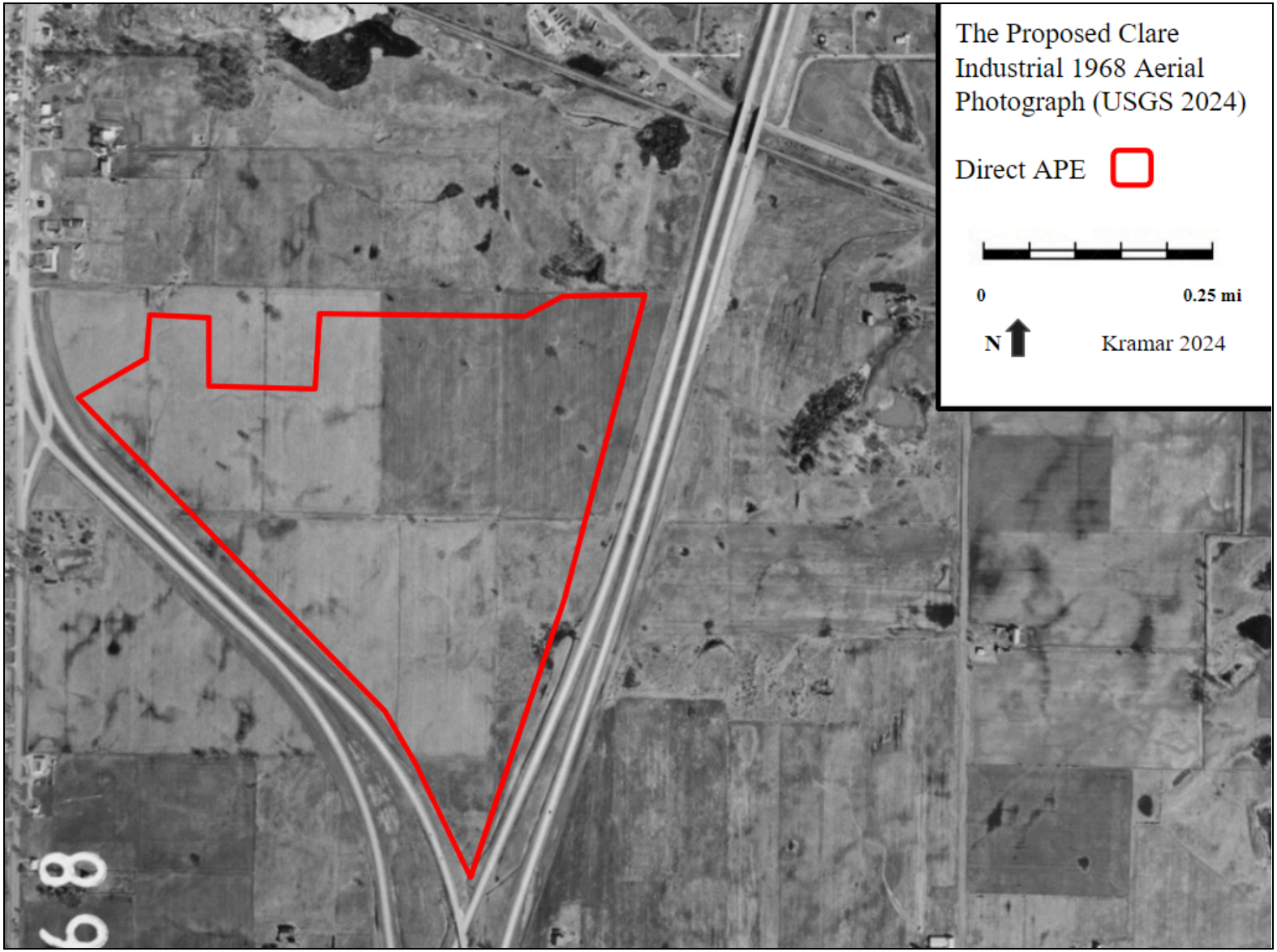

Figure 15. 1998 Aerial Photograph of the Direct APE (USGS 1998)

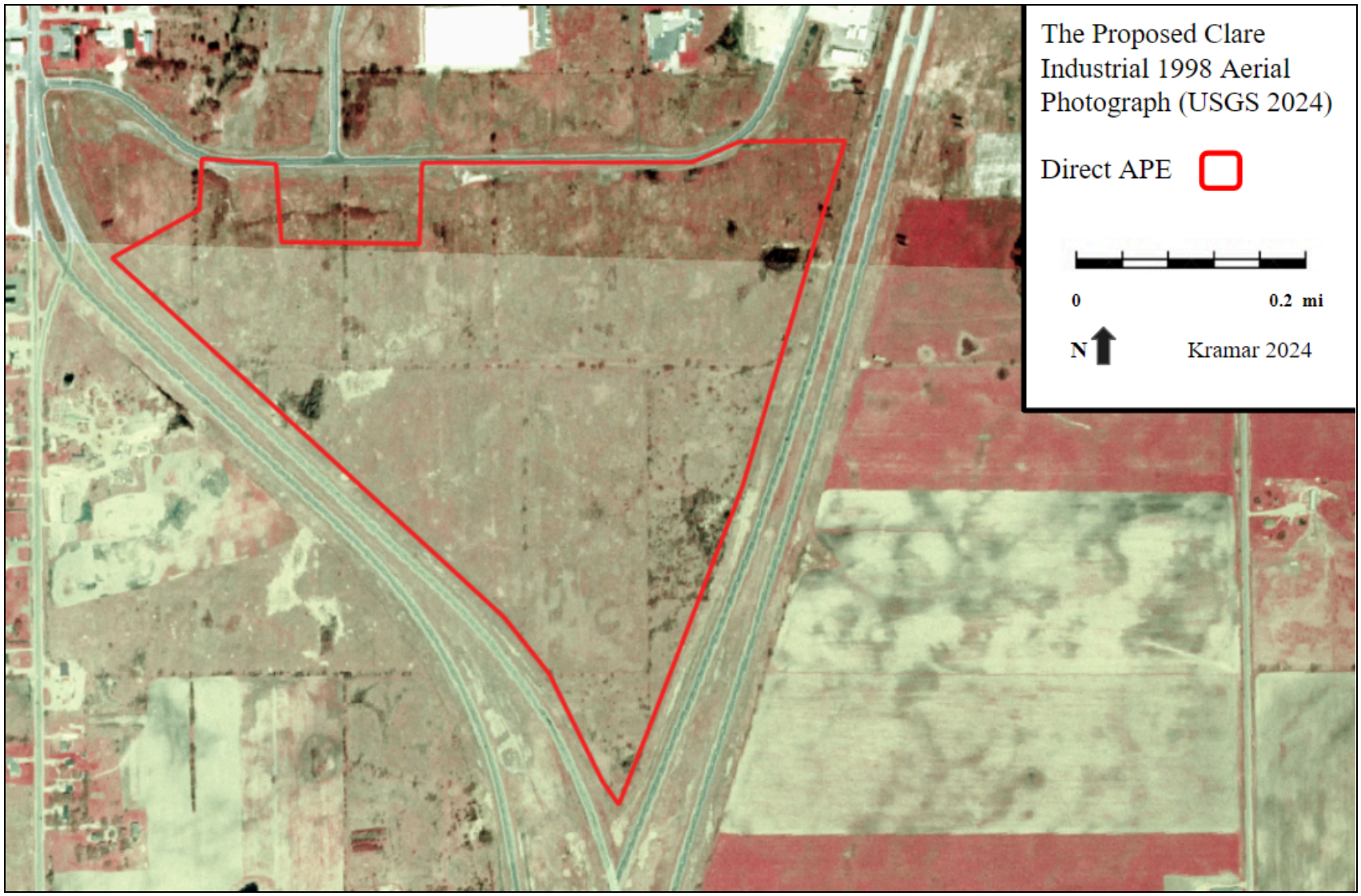

Figure 16. 2023 Clare and Loomis 7.5' Topographic Quadrangles of the Direct APE and Study Area (USGS 2023a;b)

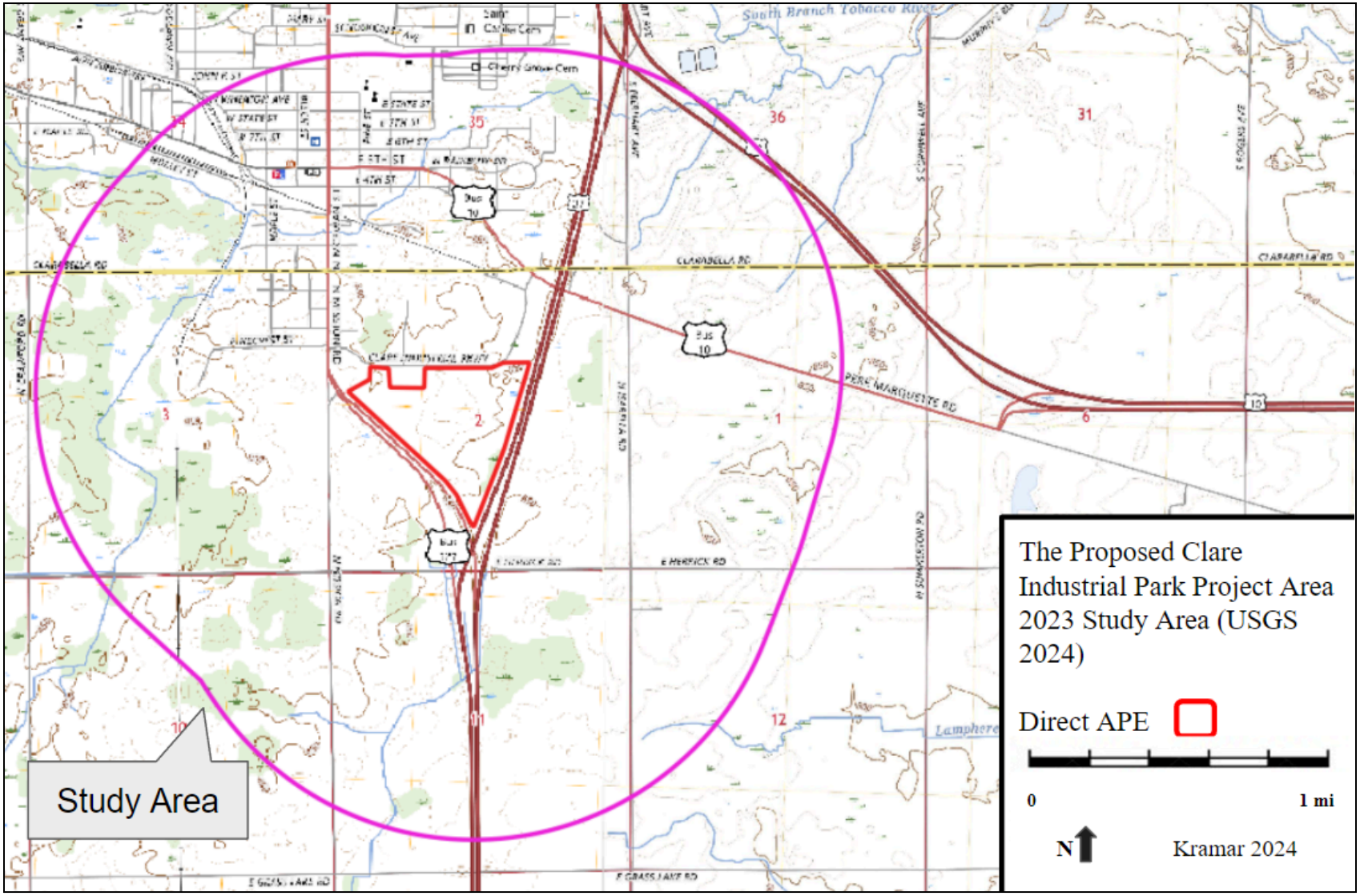

Figure 17. Archaeologist excavating STP 7e, looking northeast.

Figure 18. Possible Filled Kettle Lake, looking southeast from STP 3e

Figure 19. Visibility in the pre-harvest corn field

Figure 20. Southern portion of the Direct APE, looking south from the top of the moraine

Figure 21. Northern portion of the Direct APE, looking north from the top of the moraine

Figure 22. Archaeologist conducting pedestrian survey, adjacent facility in the background. Looking east-northeast from STP Q1

Figure 23. STP 1b, south wall profile.

Figure 24. STP 3d, south wall profile.

APPENDIX I - NEW SITE FORMS

TERRESTRIAL ARCHAEOLOGICAL SITE FORM

STATE SITE NUMBER (assigned by SHPO): 20IB62

☐ CHECK IF SUBMITTING A REVISED SITE FORM

**Confidential - this document is exempt from public dissemination under Michigan Freedom of Information Act*

SHPO USE ONLY	DATA ENTRY: _____	UPLOAD: _____	GIS: _____

INSTRUCTIONS

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Fill in form on your computer. Or print and complete by hand.

Complete site location information is required. Include a USGS Topographic Quad map showing the site dimensions. If submitting GIS shapefiles, follow our data requirements.

Attach any additional documentation or reports as PDF files.

Send completed forms and attachments to Sarah Surface-Evans (surfaceevanss1@michigan.gov).

(MCL 15.231)

SITE NAME: CLARE INDUSTRIAL PARK PRECONTACT ISOLATE

OTHER SITE NAMES:

SITE DESCRIPTION (brief overview/synopsis): 20IB62 is a single component artifact of a chert flake. All of the eight shovel test pits excavated at 5m intervals around the isolated surface find were negative for cultural material. Heartsong Archaeology llc recommends that site 20IB62 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

LOCATION

COUNTY: Isabella

TOWNSHIP NAME	TOWNSHIP	RANGE	SECTION/PRIVATE CLAIM
Vernon	16N	4W	NE1/4 SE1/4 SE1/4 NW1/4 of Section 2

USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE NAME: Clare and Loomis, MI

MAP DATUM:1988

MICHIGAN GEOREF COORDINATES: NORTHING: 362727m EASTING: 599634m, NAD1983 (Location of surface artifact)

METHOD COORDINATES COLLECTED: Trimble R-1 Receiver with SBAS correction

☐ INTERPOLATED FROM USGS QUAD ☒ GPS FIELD COLLECTED, GPS ACCURACY (in meters): 0-1M

SITE SIZE (in meters), LENGTH (N/S): 5M WIDTH (E/W): 5M

AREA: 25M2

RELIABILITY OF SITE LOCATION: ☒ EXCELLENT ☐ APPROXIMATE ☐ UNVERIFIED

NEAREST INTERSECTION & DIRECTIONS:South of Industrial Dr., West of US127, East of Bus. 127

SITE DESCRIPTION

Cultural Period (check all that apply):

☐Unknown ☒Unassigned Pre-Contact ☐Paleoindian ☐ Late Paleoindian

☐Archaic ☐Early ☐Middle ☐Late

☐Woodland ☐Early/Initial ☐Middle ☐Late/Terminal

☐Mississippian/Oneota

Post-Contact, Century: ☐17th Century ☐18th Century ☐19th Century ☐20th Century

Post-Contact, Affiliation: ☐ Native American ☐African American ☐Euro-American

☐ unknown ☐Other Affiliation:

Phase/Culture: Unknown

Site Type/Function (for each cultural period, EG. Habitation, isolated find, camp, farmstead, lumber camp, unknown etc…)

Unknown

Fieldwork conducted & how site identified: Phase I Pedestrian Survey

Field Evidence, diagnostic artifacts: chert flake

Features:

Site Integrity: ☐unknown ☐High ☒ Moderate ☐Low ☐Destroyed

Risk Assessment (describe potential risks to the site due to cultural or environmental conditions):Future Industrial projects will significantly impact the site, however former agricultural activities have moderately affected the site already.

National Register Recommendation:All of the eight shovel test pits excavated at 5m intervals around the isolated surface find were negative for cultural material. Heartsong Archaeology llc recommends that site 20IB62 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

☐Eligible ☒Not Eligible ☐More Information ☐ Unevaluated

Recommendation Made By: Monte Lawton Date of Evaluation: 12 JUNE 2024

ENVIRONMENT

Soil Association & Type: Ithaca Loam, 0-4% slopes, somewhat poorly drained

Typical Soil Profile (if applicable): STP PC-1 was excavated in the central portion of the Direct APE 10 m south of the isolated surface find. The first horizon was 17cm deep consisting of 10YR 3/3 sandy clay loam underlain by a 10 YR 4/6 sandy clay which was exposed to 32cm below surface. The second horizon was mottled, containing 15% 10YR 3/3 sandy clay content.

Percent Slope: ☒0-5% ☐6-10% ☐11-25% ☐26-50% ☐>50%

Drainage: ☐ very poorly drained ☐poorly drained ☒ moderately well drained ☐ well drained

Current Vegetation & Land use: agricultural field

Nearest Water Source: Tributary of the South Branch of the Tobacco River

Distance to Water Source (in meters): 990m to the NW

River Drainage: Tobacco

River Drainage Region: ☐Eastern UP ☐Western UP ☒Saginaw ☐Grand ☐Manistee/Muskegon ☐NE Lower Peninsula ☐ NW Lower Peninsula

☐SE Lower Peninsula ☐SW Lower Peninsula

OWNERSHIP

☐Federal ☐State of Michigan ☒Local: City of Clare ☐Tribe:

☐Private, Name:

Owner Contact (address, phone, email): 202 W 5th St Clare, MI 48617

Collection(s) Associated with Site (Describe range, quantity, and types of materials): 1 Chert Debitage (Site 20IB62)

Location of Collection(s) (name/address):202 W 5th St Clare, MI 48617

RECORDER

Recorded By: Monte Lawton and Mandy Kramar

Affiliation: Heartsong Archaeology llc, LLC

Date form Completed: 12 JUNE 2024

Additional Comments for SHPO Office:

ATTACHMENTS CHECKLIST

☒ Quad Map of site location (required)

☐ Historic Map(s) of location (if applicable)

☐ Field Photos (optional)

☒ Photographs of Diagnostic Artifacts (if applicable)

☒ Publications/Reports (if applicable)

Publications for this site (list all published & unpublished documentation, include copies as PDF files with this form)

Kramar, Mandy, Shelly White, and Monte Lawton.
2024 Archaeological Phase I Reconnaissance of the Clare Industrial Park Project, (T16N R4W) Isabella County, Michigan 23ha06e1. Report on File at the State Historic Preservation Office, Lansing, MI. Heartsong Archaeology llc LLC., Chesaning, MI.

FIGURE 1. 1:24,000 SCALE TOPOGRAPHIC MAP OF 20IB62

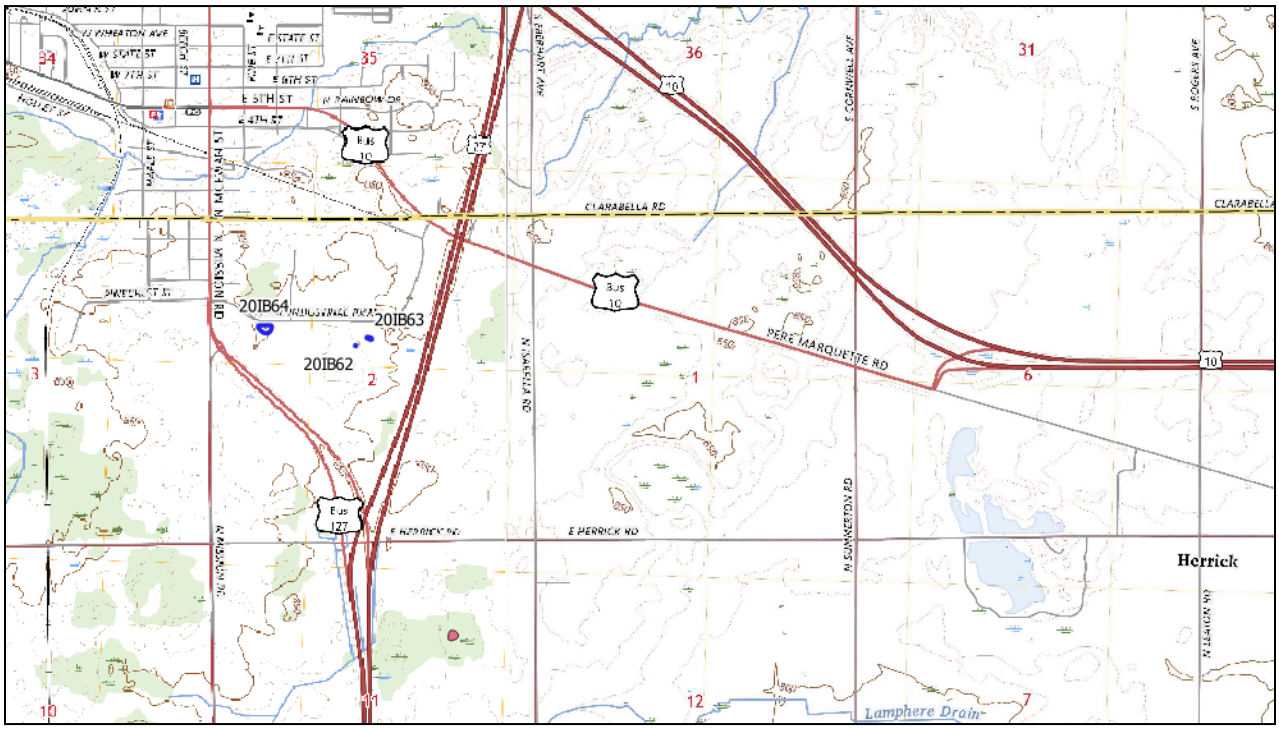

FIGURE 2. 1:3000 SCALE TOPOGRAPHIC MAP OF 20IB62

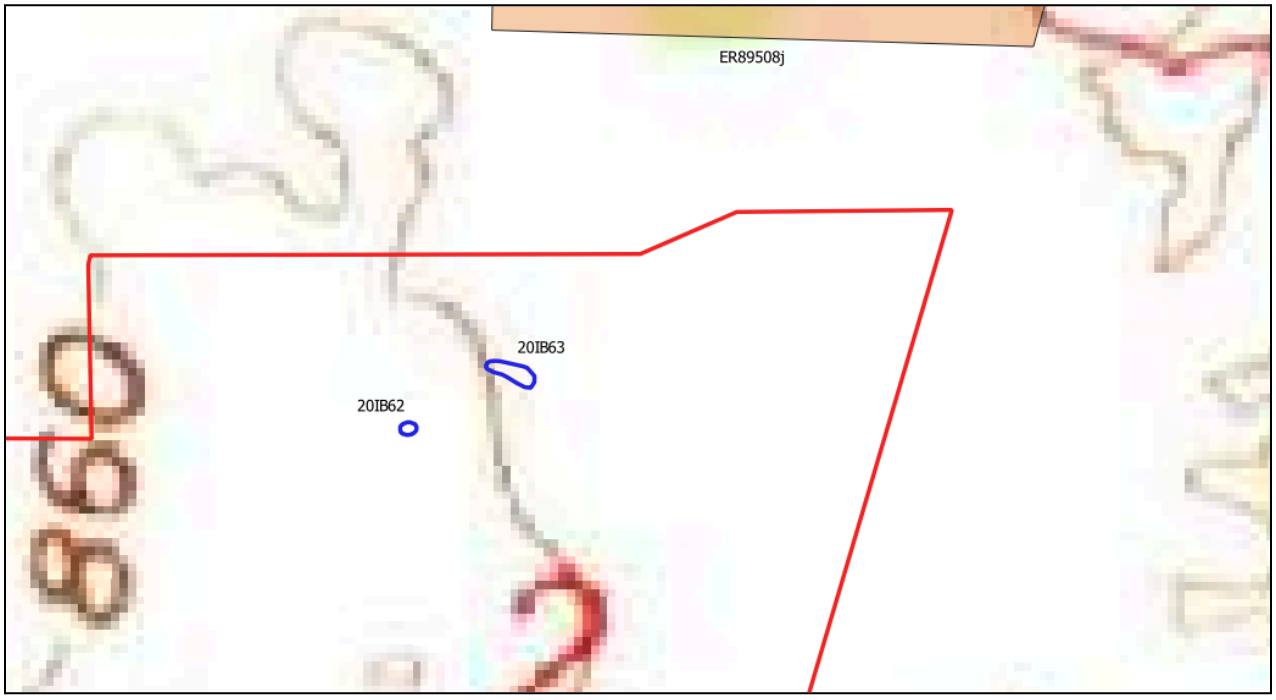

Figure 3. Methods Map for 20IB62

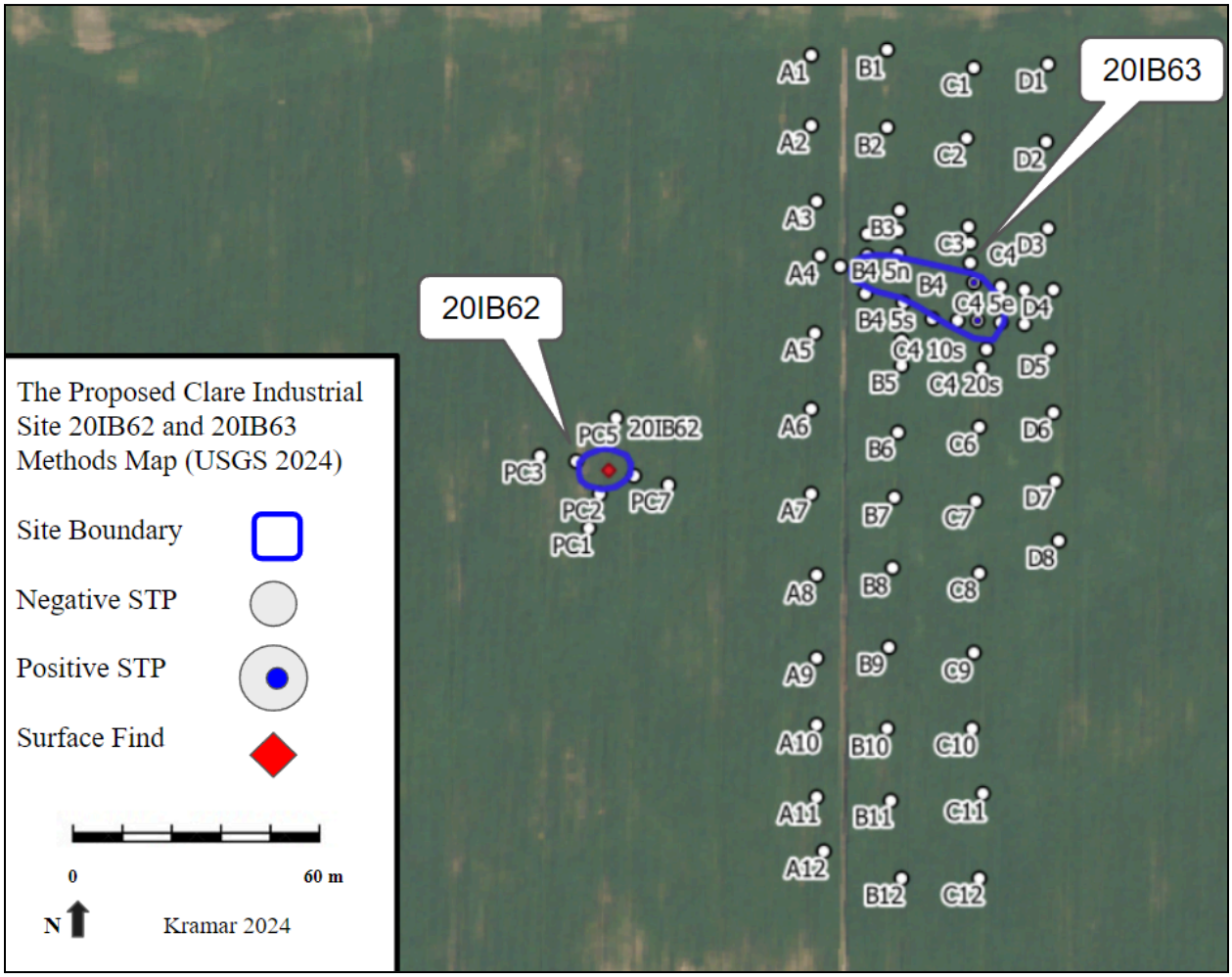

Table 1. Artifacts Recovered from 20IB62

Cat. #	Unit	Strat	Material	Form/ Artifact	Color	Wgt. (g)	Count
101	20IB62	Surface	chert	secondary flake	grey	1.5	1

TERRESTRIAL ARCHAEOLOGICAL SITE FORM

STATE SITE NUMBER (assigned by SHPO): 20IB63

☐ CHECK IF SUBMITTING A REVISED SITE FORM

**Confidential - this document is exempt from public dissemination under Michigan Freedom of Information Act*

SHPO USE ONLY	DATA ENTRY: _____	UPLOAD: _____	GIS: _____

INSTRUCTIONS

To report a new archaeological site contact Senior Archaeologist, Sarah Surface-Evans, (surfaceevanss1@michigan.gov) for a State Site number **prior** to submitting this form. Also submit questions regarding this form to Sarah Surface-Evans.

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Fill in form on your computer. Or print and complete by hand.

Complete site location information is required. Include a USGS Topographic Quad map showing the site dimensions. If submitting GIS shapefiles, follow our data requirements.

Attach any additional documentation or reports as PDF files.

Send completed forms and attachments to Sarah Surface-Evans (surfaceevanss1@michigan.gov).

(MCL 15.231)

SITE NAME: CLARE INDUSTRIAL PARK LITHIC SCATTER

OTHER SITE NAMES:

SITE DESCRIPTION (brief overview/synopsis): 20IB63 is a small scatter of lithic debitage. The artifacts appear to primarily consist of debitage and despite numerous radial shovel tests near the positives, the density of the site remains low and no tools indicating activities which may have occurred at the site were identified. Heartsong Archaeology llc recommends that site 20IB63 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

LOCATION

COUNTY: Isabella

TOWNSHIP NAME	TOWNSHIP	RANGE	SECTION/PRIVATE CLAIM
Vernon	16N	4W	NW1/4 SW1/4 SW1/4 NE1/4 of Section 2

USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE NAME: Clare and Loomis, MI

MAP DATUM:1988

MICHIGAN GEOREF COORDINATES: NORTHING: 362768m EASTING: 599692m, NAD1983 (Location of STP B4)

METHOD COORDINATES COLLECTED: Trimble R-1 Receiver with SBAS correction

☐ INTERPOLATED FROM USGS QUAD ☒ GPS FIELD COLLECTED, GPS ACCURACY (in meters): 0-1M

SITE SIZE (in meters), LENGTH (N/S): 12M WIDTH (E/W): 32M

AREA: 384M2

RELIABILITY OF SITE LOCATION: ☒ EXCELLENT ☐ APPROXIMATE ☐ UNVERIFIED

Nearest Intersection & Directions:South of Industrial Dr., West of US 127, East of Bus. 127

SITE DESCRIPTION

Cultural Period (check all that apply):

☐Unknown ☒Unassigned Pre-Contact ☐Paleoindian ☐ Late Paleoindian

☐Archaic ☐Early ☐Middle ☐Late

☐Woodland ☐Early/Initial ☐Middle ☐Late/Terminal

☐Mississippian/Oneota

Post-Contact, Century: ☐17th Century ☐18th Century ☐19th Century ☐20th Century

Post-Contact, Affiliation: ☐ Native American ☐African American ☐Euro-American

☐ unknown ☐Other Affiliation:

Phase/Culture: Unknown

Site Type/Function (for each cultural period, EG. Habitation, isolated find, camp, farmstead, lumber camp, unknown etc…)

Unknown

Fieldwork conducted & how site identified: Phase I Pedestrian Survey

Field Evidence, diagnostic artifacts: chert flakes, primary and secondary stage reduction, one core fragment, two fire cracked rock

Features:

Site Integrity: ☐unknown ☐High ☒ Moderate ☐Low ☐Destroyed

Risk Assessment (describe potential risks to the site due to cultural or environmental conditions):Future Industrial projects will significantly impact the site, former agricultural activities have already affected the site for many years

National Register Recommendation: 20IB63 consists of a small scatter of lithic debitage. The artifacts appear to primarily consist of debitage and despite numerous radial shovel tests near the positives, the density of the site remains low and no tools indicating activities which may have occurred at the site were identified. Heartsong Archaeology llc recommends that site 20IB63 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

☐Eligible ☒Not Eligible ☐More Information ☐ Unevaluated

Recommendation Made By: Monte Lawton Date of Evaluation: 12 JUNE 2024

ENVIRONMENT

Soil Association & Type: Ithaca Loam, 0-4% slopes, somewhat poorly drained

Typical Soil Profile (if applicable): STP B4 was excavated in the central portion of Site 20IB63. The first horizon was 26 cm deep consisting of 10YR 3/3 silt loam underlain by a 10 YR 4/6 sandy clay which was exposed to 42 cm below surface.

Percent Slope: ☒0-5% ☐6-10% ☐11-25% ☐26-50% ☐>50%

Drainage: ☐ very poorly drained ☒ poorly drained ☐ moderately well drained ☐ well drained

Current Vegetation & Land use: agricultural field

Nearest Water Source: Tributary of the South Branch of the Tobacco River

Distance to Water Source (in meters): 1000m to the NW

River Drainage: Tobacco

River Drainage Region: ☐Eastern UP ☐Western UP ☒Saginaw ☐Grand ☐Manistee/Muskegon ☐NE Lower Peninsula ☐ NW Lower Peninsula ☐SE Lower Peninsula ☐SW Lower Peninsula

OWNERSHIP

☐Federal ☐State of Michigan ☒Local: City of Clare ☐Tribe:

☐Private, Name:

Owner Contact (address, phone, email): 202 W 5th St Clare, MI 48617

Collection(s) Associated with Site (Describe range, quantity, and types of materials): 5 Chert debitage, 2 FCR, and a chert core fragment (Site 20IB63)

Location of Collection(s) (name/address): 202 W 5th St Clare, MI 48617

RECORDER

Recorded By: Monte Lawton and Mandy Kramar

Affiliation: Heartsong Archaeology llc, LLC

Date form Completed: 12 JUNE 2024

Additional Comments for SHPO Office:

ATTACHMENTS CHECKLIST

☒ Quad Map of site location (required)

☐ Historic Map(s) of location (if applicable)

☐ Field Photos (optional)

☒ Photographs of Diagnostic Artifacts (if applicable)

☒ Publications/Reports (if applicable)

Publications for this site (list all published & unpublished documentation, include copies as PDF files with this form)

Kramar, Mandy, Shelly White, and Monte Lawton.
2024 Archaeological Phase I Reconnaissance of the Clare Industrial Park Project, (T16N R4W) Isabella County, Michigan 23ha06e1. Report on File at the State Historic Preservation Office, Lansing, MI. Heartsong Archaeology llc LLC., Chesaning, MI.

FIGURE 1. 1:24,000 SCALE TOPOGRAPHIC MAP OF 20IB632

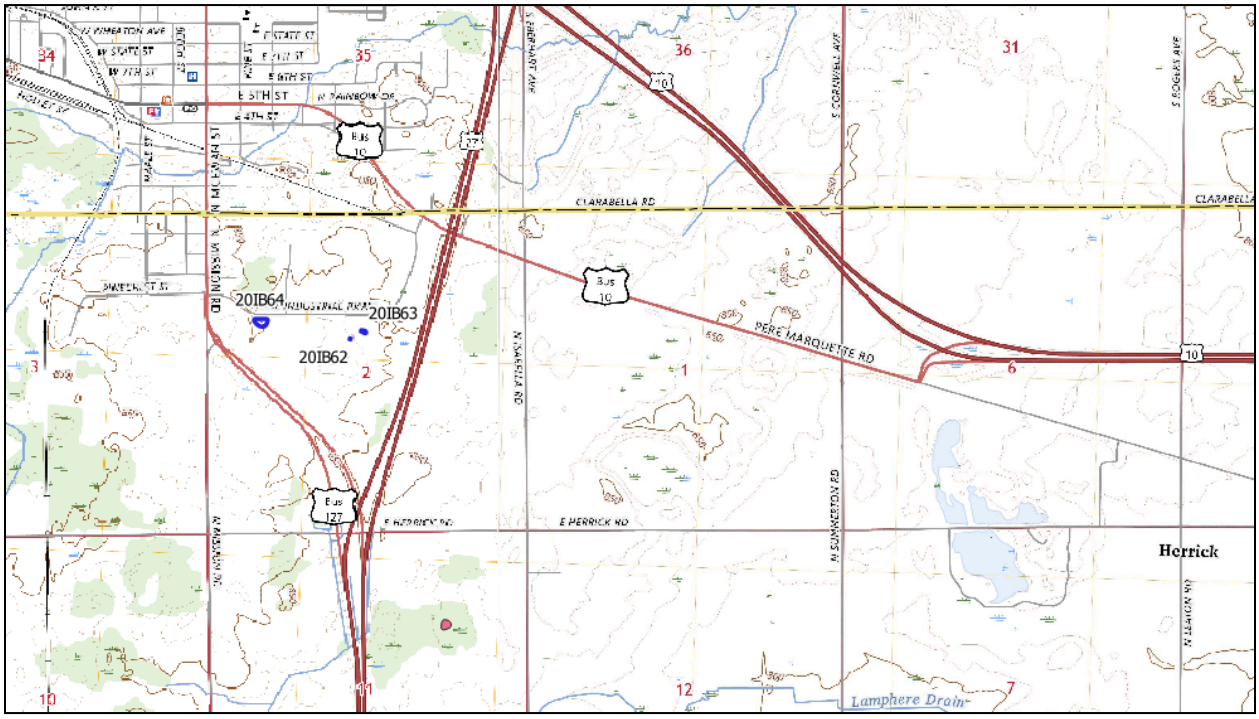

FIGURE 2. 1:3000 SCALE TOPOGRAPHIC MAP OF 20IB63

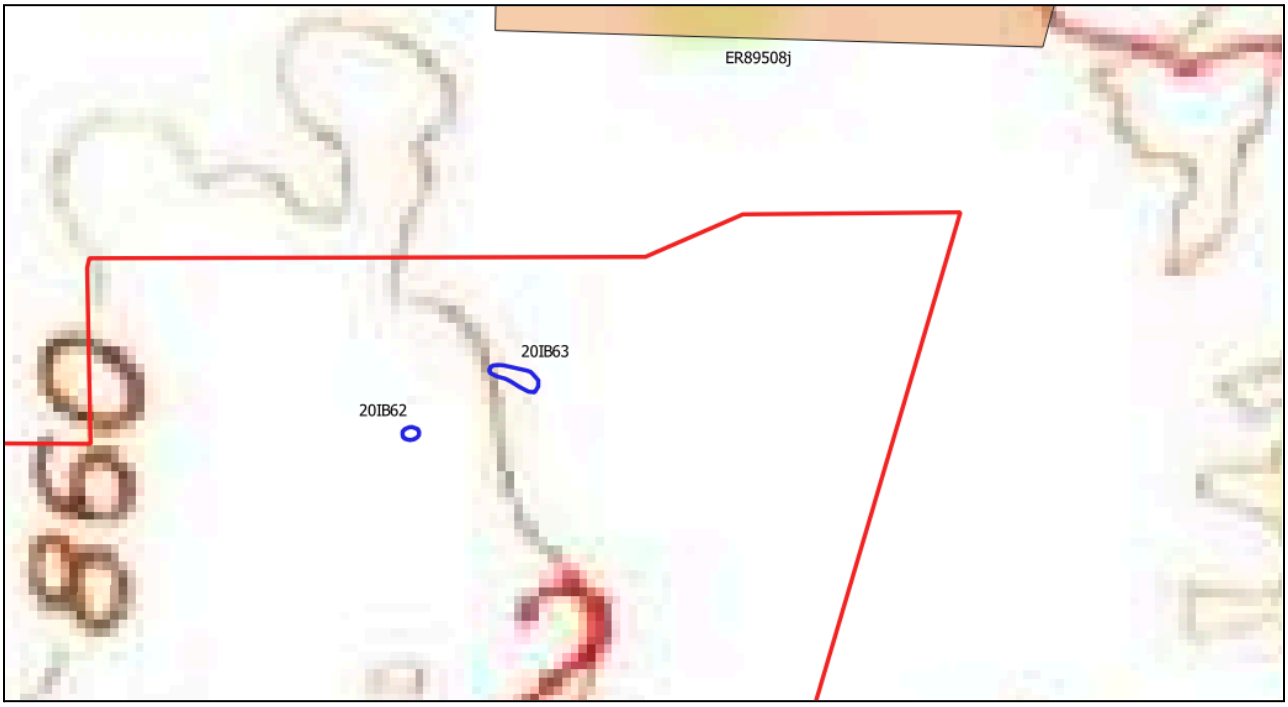

Figure 3. Methods Map for 20IB63

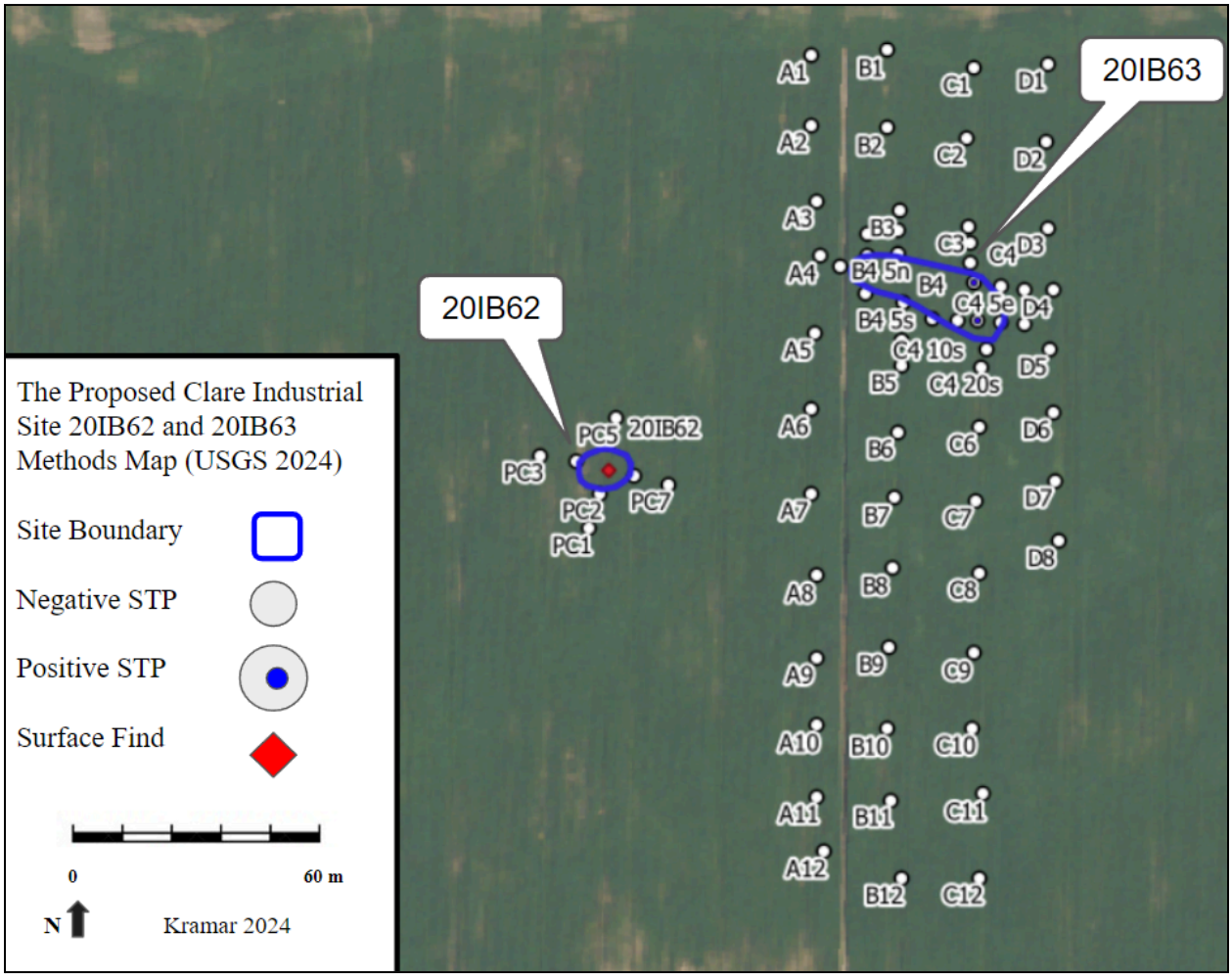

Table 1. Artifacts Recovered from 20IB63

Cat. #	Unit	Strat	Material	Form/ Artifact	Color	Wgt. (g)	Count
94	20IB63	STP b4 5w strat I	chert	secondary flake	white	1.7	1
95	20IB63	STP b4 5w strat I	chert	secondary flake	white	0.9	1
96	20IB63	STP b4 5w strat I	limestone	fire cracked rock	grey	21.6	2
97	20IB63	STP b4 5w 5n strat I	chert	secondary flake	grey	1.4	1
98	20IB63	STP c4 10s	chert	core	grey	15.7	1

		strat I		fragment			
99	20IB63	STP c4 strat I	chert	primary flake	grey	6.5	1
100	20IB63	STP b4 5w strat I	chert	primary flake	orange	2.8	1

TERRESTRIAL ARCHAEOLOGICAL SITE FORM

STATE SITE NUMBER (assigned by SHPO): 20IB64

☐ CHECK IF SUBMITTING A REVISED SITE FORM

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INSTRUCTIONS

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(MCL 15.231)

SITE NAME: CLARE INDUSTRIAL PARK HISTORICAL DUMP SITE

OTHER SITE NAMES:

SITE DESCRIPTION (brief overview/synopsis): 20IB64 is a moderately large scatter of historic artifacts. The soils of some tests exemplified characteristics often associated with filling and mechanical grading, a practice not uncommon on agricultural fields like the one which hosts the Direct APE and Site 20IB64. Subsurface testing throughout the site and close interval pedestrian survey (2 m or less) identified a mixture of early to mid twentieth century material with a few items which could pertain to the late nineteenth century. No historical records accessed indicated a structure in or near to this location. Given the location of the site along a modern road and its proximity to an adjacent modern manufacturing facility, this site likely represents intentional dumping and or filling not directly associated with any one particular historical structure or farmstead. Heartsong Archaeology llc recommends that site 20IB64 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

LOCATION

COUNTY: Isabella

TOWNSHIP NAME	TOWNSHIP	RANGE	SECTION/PRIVATE CLAIM

Vernon	16N	4W	NE1/4 NW1/4 SW1/4 NW1/4 of Section 2

USGS 7.5 Min. topographic quadrangle name: Clare and Loomis, MI

Map Datum:1988

Michigan Georef Coordinates: NORTHING: 362800m EASTING: 599184m, NAD1983 (Location of STP M3)

Method Coordinates Collected: Trimble R-1 Receiver with SBAS correction

☐ Interpolated from USGS Quad ☒GPS field collected, GPS Accuracy (in meters): 0-1m

Site Size (in meters), Length (N/S): 39.9m Width (E/W): 61.8m

Area: 2468m2

Reliability of Site Location: ☒ Excellent ☐Approximate ☐Unverified

Nearest Intersection & Directions:South of Industrial Dr., West of US 127, East of Bus. 127

SITE DESCRIPTION

Cultural Period (check all that apply):

☐Unknown ☐Unassigned Pre-Contact ☐Paleoindian ☐ Late Paleoindian

☐Archaic ☐Early ☐Middle ☐Late

☐Woodland ☐Early/Initial ☐Middle ☐Late/Terminal

☐Mississippian/Oneota

Post-Contact, Century: ☐17th Century ☐18th Century ☐19th Century ☒20th Century

Post-Contact, Affiliation: ☐ Native American ☐African American ☒Euro-American

☐ unknown ☐Other Affiliation:

Phase/Culture: Historical Euro-american Twentieth Century Artifact Scatter

Site Type/Function (for each cultural period, EG. Habitation, isolated find, camp, farmstead, lumber camp, unknown etc…)

Secondary Dump

Fieldwork conducted & how site identified: Phase I Pedestrian Survey

Field Evidence, diagnostic artifacts: Glass containers, window glass, wire insulators, wire nails, whiteware, tableware, china.

Features:

Site Integrity: ☐unknown ☐High ☐ Moderate ☐Low ☒Destroyed

Risk Assessment (describe potential risks to the site due to cultural or environmental conditions):Future Industrial projects will significantly impact this site, however the site contains little to no integrity given that it is a roadside dump not associated with any particular Business, farm, or residence.

National Register Recommendation: Subsurface testing throughout the site and close interval pedestrian survey (2 m or less) contained a mixture of early to mid twentieth century material with a few items which could pertain to the late nineteenth century. No historical records accessed indicated a structure in or near to this location. Given the location of the site along a modern road and its proximity to an adjacent modern manufacturing facility, this site likely represents intentional dumping and or filling not directly associated with any one particular historical structure or farmstead. Heartsong

Archaeology llc recommends that site 20IB64 is not eligible for the National Register of Historic Places (NRHP) and exhibits no further research potential.

☐Eligible ☒Not Eligible ☐More Information ☐ Unevaluated

Recommendation Made By: Monte Lawton Date of Evaluation: 12 JUNE 2024

ENVIRONMENT

Soil Association & Type: Ithaca Loam, 0-4% slopes, somewhat poorly drained

Typical Soil Profile (if applicable): STP M3 was excavated in the central portion of Site 20IB64. The first horizon was 29 cm deep consisting of 10YR 3/3 sandy loam underlain by a 10 YR 4/3 sandy clay. A third stratigraphic layer began at 44 cm composed of a 10 YR 5/4 clay which was exposed to 57 cm below surface. The third horizon was mottled, containing 15% 10YR 4/6 and 10% 10 YR 3/2 content.

Percent Slope: ☒0-5% ☐6-10% ☐11-25% ☐26-50% ☐>50%

Drainage: ☐ very poorly drained ☒ poorly drained ☐ moderately well drained ☐ well drained

Current Vegetation & Land use: agricultural field

Nearest Water Source: Tributary of the South Branch of the Tobacco River Distance to Water Source (in meters): 750m to the N

River Drainage: Tobacco

River Drainage Region: ☐Eastern UP ☐Western UP ☒Saginaw ☐Grand ☐Manistee/Muskegon ☐NE Lower Peninsula ☐ NW Lower Peninsula

☐SE Lower Peninsula ☐SW Lower Peninsula

OWNERSHIP

☐Federal ☐State of Michigan ☒Local: City of Clare ☐Tribe:

☐Private, Name:

Owner Contact (address, phone, email): 202 W 5th St Clare, MI 48617

Collection(s) Associated with Site (Describe range, quantity, and types of materials): 10 pieces of crockery tile, 49 ceramic, steel pipe, 20 pieces of iron, 134 pieces of glass (see table for precise styles and sub quantities)(Site 20IB64)

Location of Collection(s) (name/address): 202 W 5th St Clare, MI 48617

RECORDER

Recorded By: Monte Lawton and Mandy Kramar

Affiliation: Heartsong Archaeology llc, LLC

Date form Completed: 12 JUNE 2024

Additional Comments for SHPO Office:

ATTACHMENTS CHECKLIST

☒ Quad Map of site location (required)

☐ Historic Map(s) of location (if applicable)

☐ Field Photos (optional)

☒ Photographs of Diagnostic Artifacts (if applicable)

☒ PUBLICATIONS/REPORTS (if applicable)

PUBLICATIONS FOR THIS SITE (list all published & unpublished documentation, include copies as PDF files with this form)

Kramar, Mandy, Shelly White, and Monte Lawton.
2024 Archaeological Phase I Reconnaissance of the Clare Industrial Project, (T16N R4W) Isabella County, Michigan 23ha06e1. Report on File at the State Historic Preservation Office, Lansing, MI. Heartsong Archaeology llc LLC., Chesaning, MI.

FIGURE 1. 1:24,000 SCALE TOPOGRAPHIC MAP OF 20IB64

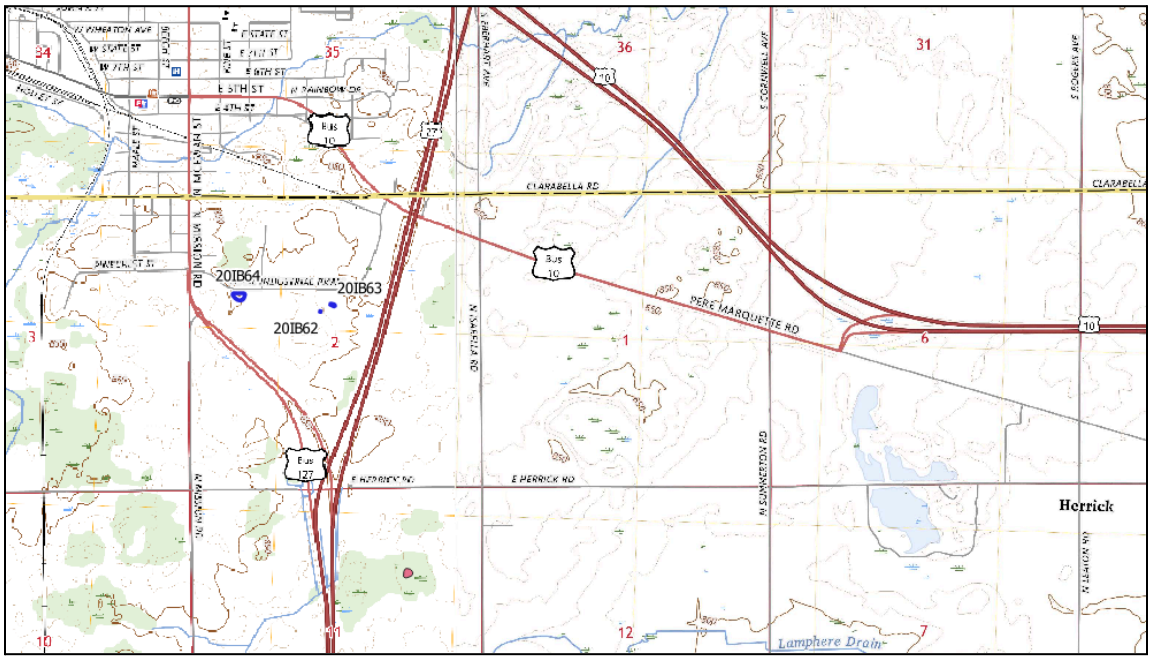

FIGURE 2. 1:3000 SCALE TOPOGRAPHIC MAP OF 20IB64

FIGURE 3. METHODS MAP FOR 20IB64

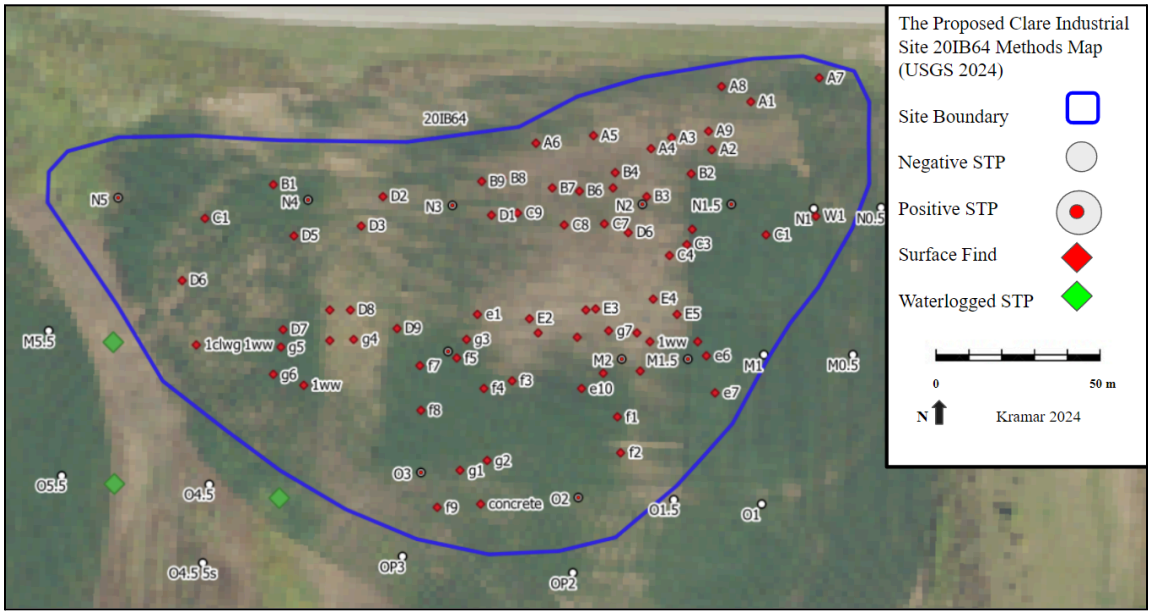

TABLE 1. ARTIFACTS RECOVERED FROM 20IB64

Cat. #	Unit	Strat	Material	Form/ Artifact	Color	Wgt. (g)	Count
1	Row A 20IB64	Surface	ceramic	whiteware	white	4	1
2	Row A 20IB64	Surface	ceramic	china	hite/black	1	1
3	Row A 20IB64	Surface	glass	container	qua clear	3.8	1
4	Row A 20IB64	Surface	glass	container	clear	15.1	1
5	Row A 20IB64	Surface	glass	container	lue/clear	10.9	1
6	Row A 20IB64	Surface	glass	container	clear	13.5	1
7	Row A 20IB64	Surface	glass	container	lue/clear	0.8	8
8	Row A 20IB64	Surface	ceramic	whiteware	white	1.5	2
9	Row A 20IB64	Surface	ceramic	whiteware	white	4.9	2
10	Row A 20IB64	Surface	ceramic	whiteware	white	-	1
11	Row A 20IB64	Surface	glass	container	lue/clear	4.7	1
12	Row B 20IB64	Surface	ceramic	whiteware	white	0.5	1
13	Row B 20IB64	Surface	ceramic	whiteware	pink	-	1
14	Row B 20IB64	Surface	glass	container	reen/clear	0.5	1
15	Row B 20IB64	Surface	glass	container	rple/clear	5	1
16	Row B 20IB64	Surface	porcelain	container	white	1.9	1
17	Row B 20IB64	Surface	ceramic	whiteware	white	7	1
18	Row B 20IB64	Surface	cast steel	pipe	grey	-	1
19	Row B 20IB64	Surface	glass	window	qua/clear	2.9	1
20	Row B 20IB64	Surface	glass	container	brown	3.7	1
21	Row B 20IB64	Surface	glass	container	clear	7.7	4
22	Row B 20IB64	Surface	ceramic	whiteware	white	7.6	4
23	Row B 20IB64	Surface	glass	wiindow	clear	1.1	1
24	Row B 20IB64	Surface	glass	container	clear	2.9	1
25	Row B 20IB64	Surface	ceramic	whiteware	white	1.1	1
26	Row B 20IB64	Surface	glass	window	qua/clear	2.3	1
27	Row B 20IB64	Surface	glass	flat	clear	6.6	1
28	Row B 20IB64	Surface	glass	container	brown	5	1
29	Row B 20IB64	Surface	glass	decorative	clear	5.3	1
30	Row C 20IB64	Surface	porclein	decorative	white	3	1
31	Row C 20IB64	Surface	ceramic	whiteware	white	7.4	1
32	Row C 20IB64	Surface	ceramic	whiteware	white	1.8	1
33	Row C 20IB64	Surface	glass	container	clear	60.3	1
34	Row C 20IB64	Surface	clay	draintile	brown	48.8	1
35	Row C 20IB64	Surface	glass	container	clear	14.7	1

36	Row C 20IB64	Surface	GLASS	WINDOW	CLEAR	5.9	1
37	Row C 20IB64	Surface	GLASS	CONTAINER	CLEAR	67.5	1
38	Row C 20IB64	Surface	GLASS	CONTAINER	GREEN	4.3	1
39	Row C 20IB64	Surface	CLAY	CROCKERY	BLACK	65.6	1
40	Row C 20IB64	Surface	GLASS	CONTAINER	QUA/CLEAR	3.9	1
41	Row C 20IB64	Surface	GLASS	CONTAINER	CLEAR	8.3	2
42	Row C 20IB64	Surface	CLAY	BRICK	BROWN	56.7	1
43	Row C 20IB64	Surface	GLASS	FLOYD MILK GLASS	WHITE	3.2	1
44	Row C 20IB64	Surface	GLASS	CONTAINER	CLEAR	5.9	1
45	Row D 20IB64	Surface	CERAMIC	DECORATIVE	ITE/BLUE/GREEN	0.8	1
46	Row D 20IB64	Surface	GLASS	CONTAINER	AQUA	4.6	1
47	Row D 20IB64	Surface	CERAMIC	DECORATIVE	ITE/PUR/GREEN	8.3	2
48	Row D 20IB64	Surface	GLASS	CONTAINER	CLEAR	7.8	1
49	Row D 20IB64	Surface	CERAMIC	DECORATIVE	HITE/PURPLE	8	1
50	Row E 20IB64	Surface	FLATWARE	KNIFE HANDLE	SILVER	46.9	1
51	Row E 20IB64	Surface	CERAMIC	DECORATIVE	HITE/GREEN	1.7	1
52	Row E 20IB64	Surface	PORCELEIN	DECORATIVE	HITE/GREEN	1.4	1
53	Row E 20IB64	Surface	CERAMIC	DELFWARE	LUE/WHITE	5.2	1
54	Row E 20IB64	Surface	CERAMIC	WHITEWARE	WHITE	5.6	2
55	Row E 20IB64	Surface	CERAMIC	CROCKERY	BEIGE	5.6	1
56	Row E 20IB64	Surface	BAKELITE	SERVICEWARE	WHITE	23.9	1
57	Row E 20IB64	Surface	GLASS	BOTTLENECK	CLEAR	10.9	1
58	Row E 20IB64	Surface	GLASS	CONTAINER NECK	EAR/PURPLE	26.8	1
59	Row E 20IB64	Surface	GLASS	CONTAINER	CLEAR	1.6	1
60	Row E 20IB64	Surface	CERAMIC	INSULATOR	WHITE	56.4	1
61	Row E 20IB64	Surface	GLASS	DECORATIVE	EAR/PURPLE	35.7	1
62	Row E 20IB64	Surface	GLASS	CONTAINER	LEAR/AQUA	1.5	1
63	Row E 20IB64	Surface	CERAMIC	WHITEWARE	WHITE	3.4	1
64	Row E 20IB64	Surface	PORCELEIN	LID	WHITE	2.7	1
65	Row E 20IB64	Surface	CLAY	BRICK	ORANGE	8.1	1
66	Row F 20IB64	Surface	CLAY	CROCKERY	WHITE	98	1
67	Row F 20IB64	Surface	CERAMIC	WHITEWARE	WHITE	5.1	1
68	Row F 20IB64	Surface	COAL	BURNT	BLACK	3.8	1
69	Row F 20IB64	Surface	GLASS	FLAT	CLEAR	2.8	1

70	Row F 20IB64	Surface	CERAMIC	INSULATOR W/NAIL	WHITE	62	1
71	Row F 20IB64	Surface	GLASS	CONTAINER	EAR/PURPLE	8.6	1
72	Row F 20IB64	Surface	GLASS	FLAT	CLEAR	1.9	1
73	Row F 20IB64	Surface	GLASS	CONTAINER	CLEAR	8.9	1
74	Row F 20IB64	Surface	CERAMIC	WHITEWARE	WHITE	2.3	1
75	Row F 20IB64	Surface	GLASS	MIRROR	EAR/SILVER	1.5	1
76	Row F 20IB64	Surface	GLASS	FLAT	CLEAR	2.8	1
77	Row F 20IB64	Surface	GLASS	CONTAINER	LEAR/AQUA	3	1
78	Row F 20IB64	Surface	ASPHALT	SHINGLE	BLACK	3	1
79	Row F 20IB64	Surface	GLASS	BOTTLEHEAD	CLEAR	18.2	1
80	Row F 20IB64	Surface	GLASS	MILKGLASS	WHITE	4.5	1
81	Row F 20IB64	Surface	GLASS	CONTAINER	LEAR/AQUA	9	1
82	Row G 20IB64	Surface	GLASS	CONTAINER	CLEAR	17.6	1
83	Row G 20IB64	Surface	GLASS	MILK GLASS CONTAINER	WHITE	4.2	1
84	Row G 20IB64	Surface	GLASS	MILK GLASS CONTAINER	WHITE	5.1	1
85	Row G 20IB64	Surface	CERAMIC	DECORATIVE	WHITE	7.6	1
86	Row G 20IB64	Surface	CLAY	CROCKERY	BROWN	28.6	1
87	Row G 20IB64	Surface	GLASS	HEAD LAMP	CLEAR	4.3	1
88	Row G 20IB64	Surface	STEEL	BOTTLECAP	RUSTED	1.7	1
89	Row G 20IB64	Surface	GLASS	BOTTLECAP	CLEAR	7.5	1
90	Row G 20IB64	Surface	GLASS	BOTTLE HEAD	CARNIVAL	5.7	1
91	Row G 20IB64	Surface	GLASS	CONTAINER	LEAR/BLUE	1.8	1
92	Row G 20IB64	Surface	GLASS	CONTAINER	LEAR/BLUE	27.6	1
93	PROVENIENCED 20IB64	Surface	CERRAMIC	CHINA	LUE/WHITE	0.8	1
103	TPA30/N2-20IB64	1	GLASS	DECORATIVE CONTAINER	CLEAR	4	1
104	TPA30/N2-20IB64	1	GLASS	FLAT	CLEAR	13.1	6
105	TPA30/N2-20IB64	1	GLASS	CONTAINER	CLEAR	5.6	4
106	TPA30/N2-20IB64	1	GLASS	AUTO GLASS	CLEAR	0.8	2
107	TPA30/N2-20IB64	1	GLASS	CONTAINER	CLEAR	1.6	1
108	TPA30/N2-20IB64	1	GLASS	MILK	WHITE	1.1	1
109	TPA30/N2-20IB64	1	CHINKING	WHITE	WHITE	5.1	1
110	TPA30/N2-20IB64	1	BONE	RIB	BEIGE	5.2	1
111	TPA30/N2-20IB64	1	BONE	DEER MAX	WHITE	2.7	1
112	TPA30/N2-20IB64	1	IRON	HORSE SHOE	BROWN	2	1

113	TPA30/N2-20IB64	1	IRON	SQUARE HEARI	BROWN	2.3	1
114	TPA30/N2-20IB64	1	IRON	UKN	BROWN	5.1	3
115	TPA30/N2-20IB64	1	IRON	FLAT	BROWN	0.9	1
116	TPA30/N2-20IB64	1	IRON	FENCE	BROWN	9.7	1
117	TPA30/N2-20IB64	1	GLASS	CONTAINER	BROWN	0.01	1
118	TPA30/N2-20IB64	1	CONCRETE	CHUNK	BROWN	54.5	1
119	TPA30/N2-20IB64	1	COAL	PIECES	BLACK	22.7	9
120	TPA30/N2-20IB64	1	UKN	DECORATIVE CONTAINER	BROWN	0.4	1
121	TPA30/N2-20IB64	1	CLAY	BRICK	ORANGE	3.3	2
122	OW M1.5/20IB64	1	GLASS	CONTAINER	BROWN	10	1
123	OW M1.5/20IB64	1	GLASS	BOTTLE	CLEAR	30	1
124	OW M1.5/20IB64	1	GLASS	CONTAINER	CLEAR	17.7	6
125	OW M1.5/20IB64	1	GLASS	MILK	WHITE	3.6	1
126	OW M1.5/20IB64	1	IRON	UKN	BROWN	1.9	2
127	OW M1.5/20IB64	1	IRON	WIRE	BROWN	8.2	1
128	OW M1.5/20IB64	1	GLASS	FLAT	CLEAR	1.6	1
129	OW M1.5/20IB64		GLASS	FLAT	CLEAR	6.2	1
		1					
130	Row M2/20IB64		BRICK	HUNK	BROWN	21.3	1
131	Row M2/20IB64	1	BRICK	HUNK	BROWN	40.9	1
132	ow M2,3,4/20IB64	1	CERAMIC	DECORATIVE	HITE/PURPLE	5.2	2
133	ow M2,3,4/20IB64	1	GLASS	CONTAINER	CLEAR	2.4	1
134	ow M2,3,4/20IB64	1	GLASS	HANDLE	CLEAR	38.7	1
135	ow M2,3,4/20IB64	1	GLASS	CONTAINER	CLEAR	0.4	1
136	ow M2,3,4/20IB64	1	CLAY	BRICK	BROWN	1.7	2
137	ow M2,3,4/20IB64	1	GLASS	CONTAINER	LEAR BLUE	5.6	2
138	ow M2,3,4/20IB64	1	GLASS	CONTAINER	CLEAR	7.8	4
139	ow M2,3,4/20IB64	1	GLASS	FLAT	CLEAR	1.1	1
140	ow M2,3,4/20IB64	1	CERAMIC	WHITEWARE	HITE/PURPLE	2.3	2
141	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	CHINKING	CHINKING	WHITE	1.7	1
142	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	IRON	NAIL	BROWN	2.6	1

143	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	BROWN	3.3	1
144	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	CERAMIC	WHITE	WHITE	0.8	1
145	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	IRON	UKN	BROWN	3.3	1
146	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	GREEN	1.3	1
147	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	FLAT	AQUA CLEAR	4	5
148	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	CLEAR	6.3	4
149	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	AQUA CLEAR	3.8	2
150	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	CLAY	MODERN	GREY	2.1	1
151	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	CLEAR	2.2	1
152	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	IRON	UKN	BROWN	3.1	2
153	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	CERAMIC	INSULATOR	WHITE	26.1	1
154	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	FLAT	CLEAR	2.9	1
155	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	CERAMIC	TABLEWARE	WHITE	9.1	1
156	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	FLAT	CLEAR	2.2	1
157	Rows .5,4,5,6.5,02,03,W1 /20IB64	1	GLASS	CONTAINER	CLEAR	1.9	1
158	TPA45/N3-20IB64	1	GLASS	FLAT	QUA/CLEAR	5.1	3

159	TPA45/N3-20IB64	1	GLASS	FLAT	CLEAR	0.6	1
160	TPA45/N3-20IB64	1	GLASS	CONTAINER	CLEAR	17.7	8
161	TPA45/N3-20IB64	1	GLASS	CONTAINER	QUA/CLEAR	7.1	1
162	TPA45/N3-20IB64	1	CERAMIC	WHITEWARE	WHITE	9.3	3
163	TPA45/N3-20IB64	1	CERAMIC	WHITEWARE	WHITE	9.3	3
164	TPA45/N3-20IB64	1	CERAMIC	WHITEWARE	ROWN RED	1.7	1
165	TPA45/N3-20IB64	1	GLASS	CONTAINER	BROWN	3.3	3
166	TPA45/N3-20IB64	1	IRON	NAIL	BROWN	22.5	5
167	TPA45/N3-20IB64	1	IRON	STAPLE	BROWN	9	1
168	TPA45/N3-20IB64	1	GLASS	TABLEWARE	WHITE	1.4	1
169	TPA45/N3-20IB64	1	CERAMIC	WHITEWARE	WHITE	1.4	1
170	TPA45/N3-20IB64	1	COAL	CHARED	BLACK	57.8	L1
171	TPQ3/S1-20IB64	1	CERAMIC	WHITEWARE	WHITE	20.3	1
172	TPQ3/S1-20IB64	1	GLASS	WHITE MILK BOTTLE LID FRAGMENT	WHITE	20.3	1

11/30/2023

MICHIGAN ARCHAEOLOGICAL SITE FILE
CONFIDENTIAL-NOT FOR PUBLIC DISTRIBUTION

Name: Cooper **Site Number:** 20CE6

Other Names:

County: Clare

Township: Grant Township

Region: Saginaw **River Basin:** Tittabawassee **Map:** Clare Quadrangle, 7.5'

USGS

Township	Range	Section	Quarter
17N	04W	27	S1/2

Longitude:

Latitude:

Narrative Description: FINDSPOT - POINT

Information Sources:

Field Evidence:

Period	Date	Culture	Function
A - Prehistoric Period		Native American	undetermined

Field Work Summary:

Collections:

Publications:

Author	Year	Title	Publisher
		Clare Quadrangle, 7.5' USGS	

Other Documentation: UMMA SITE FILE - PHOTO, LETTER **NRHP Status:** More Information Needed/Unevaluated

Evaluation	Date of Evaluation	Evaluation Comment

Ownership:

Projects:

Record Created: 4/3/2015 **Record Last Modified:** 11/26/2019 **By:** #

SA_MiSHPO_CRM

PROJECT BIBLIOGRAPHY REPORT

PROJECT DETAILS

Project ID	ER02-261.18.640423
Project Name	Trileaf Communications Tower Site Review #640423, 2000 Clare DT

PROJECT BIBLIOGRAPHY RECORDS

	Bibkey
Citation: Ledezma, Abraham, Craig Picka, and Daniel Salas with Christopher Nelson. 2018. Phase I Cultural Resource Investigation for the 2000 Clare DT Telecommunication Tower, Clare County, Michigan. In Situ Archaeological Consulting **Notes**: No archaeological sites were located in a survey of 0.4 acres at T17N, R04W, Section 35.	15442

PROJECT BIBLIOGRAPHY REPORT

PROJECT DETAILS

Project ID	ER-2222
Project Name	Great Lakes Gas Pipeline, Gogebic to St. Clair Counties

PROJECT BIBLIOGRAPHY RECORDS

	Bibkey
Citation: Demeter, C. Stephan and Donald J. Weir. 1981. Archaeological and Historical Investigation of MUP 2-3, Vicinity of Marenisco, Michigan. R-2296. Commonwealth Associates, Inc. **Notes**: This site, also known as 20GB69, was tested archaeologically because of the significance ascribed to it in a Phase I survey report (Weir, 1981a) and impending damage/destruction which would occur with construction of a gas transmission pipeline. The site, located in Sec. 17, T46N R42W, Marenisco Township, Gogebic County, was found to date primarily post-1940 and not to the earlier part of the century as had been believed and should be considered a homestead from which both logging and farming activities were conducted simultaneously.	00880
Citation: Weir, Donald J. 1981. A Cultural Resource Inventory - St. Vincent to St. Clair Gas and Sault Lateral Pipelines, Minnesota, Wisconsin, and Michigan. R-2215. Commonwealth Associates, Inc. **Notes**: Survey of pipelines crossing the Upper and Lower Peninsulas of Michigan. Roughly 500 miles of a 75' wide ROW were surveyed for an estimated 7.1 sq.mi. total coverage. The 55 newly reported sites are 20CX63, 20CE5, 20DE83-84, 20EM55-56, 20GB65-68, 20GR102, 105; 20IO45-48, 20IB26-28, 20KK9, 20LP268-269, 138,157,159; 20MK132-133, 20MB461, 20MQ22,20MA36, 20SA583-599, 20SC98-104. These are in Charlevoix, Cheboygan, Delta, Emmet, Gogebic, Gratiot, Iron, Isabella, Kalkaska, Lapeer, Mackinac, Macomb, Marquette, Missaukee, Saginaw and St. Clair counties.	00784

PROJECT BIBLIOGRAPHY REPORT

PROJECT DETAILS

Project ID	ER-89508
Project Name	Great Lakes Gas Pipeline (See ER-89508)

PROJECT BIBLIOGRAPHY RECORDS

	Bibkey

Citation: Beaverson, Sheena K. and Howard D. Mooers. 1993. Reconstruction of the Late Glacial and Holocene Paleoenvironmental Setting at 20SA596, Saginaw Valley, Michigan. 210. Institute for Minnesota Archaeology (IMA/IMAC) **Notes**: An analysis and discussion of the regional late-glacial and post-glacial geomorphology and vegetational history of 20SA596 located in Saginaw County (T10N, R4E). Samples from four excavation units were analyzed for sediment and soil composition and morphology, paleobotanical, and macrofossil remains. The stratigraphy indicated that varved clays accumulated under deep water in early Lake Saginaw and glacial Lake Arkona times. Sand was deposited as the water became more shallow in the Lake Warren and Lake Wayne stages. Windblown sands accumulated during the Algonquin to Stanley period, and vegetation became established. The Nipissing transgression was marked by development of a wetland and accumulation of peat. An oak log at this level was radiocarbon dated to 4780 +- 50 BP (BETA-51001, uncalibrated). Periodic changes in water level were marked by repeated cycles of inundation and aeolian dune development. Exposed land surfaces were colonized by grasslands until flooded again. Finally the waters regressed enough for sand to accumulate and a stable plant community to grow.	03656
Citation: Branstner, Mark C. 1990. Great Lakes Gas Transmission Co. Pipeline Expansion Projects: Michigan. Part 1: Pipe and Contractor Yard Surveys. A Cultural Resource Management Study. I. Great Lakes Research LLC **Notes**: Great Lakes Research was authorized by Braun Environmental Laboratories, Inc. to proceed with the cultural resource management surveys of a number of properties associated with the Great Lakes Gas Transmission Company natural gas pipeline. An archival/literature review was done before fieldwork commenced. Fieldwork included surface reconnaissance and shovel testing. This effort resulted in the identification of four previously unrecorded archaeological sites (20CX109, 20GS100, 20MD487, 20SA1031).	17783
Citation: Branstner, Mark C. 1995. 1991 Great Lakes Gas Transmission Limited Partnership Pipeline Expansion Projects: Michigan. Phase III Investigations at the Vogelaar Site (20SA291) Part 2: Appendices. 95-02. Great Lakes Research Associates, Inc. **Notes**: This volume contains the appendices for the Phase III investigations at the Vogelaar site (20SA291 for Great Lakes Research Associates' work for Great Lakes Gas Transmission	17788

Limited Partnership's project. The actual excavation covered less than one acre. For the excavation bibliography (volume 1) please see bib #01050 and survey #220.	

Citation: Branstner, Mark C. 1990. 1990 Great Lakes Gas Transmission Co. Pipeline Expansion Projects: Michigan, Part II: Pipeline Corridor Survey, TCPL-2/Loop 15 (MP776.5-815.7). Great Lakes Research Associates, Inc. **Notes**: Pipeline right-of-way, access roads, sediment basins and staging areas along Loop 15 were surveyed in eastern Missaukee and western Clare counties. About 1069 acres were covered. Two sites were found: 20MA60, an ineligible findspot; and 20CE51, a possible eligible nineteenth-century homestead. Protection by fencing during construction is recommended for the homestead site.	02511
Citation: Branstner, Mark C. 1990. 1989 Great Lakes Gas Transmission Company Pipeline Expansion Projects (MCV/TCPL-1): Phase I Cultural Resource Inventory Surveys of Extra Work Spaces, Access Roads and Storage Yards in Michigan. Great Lakes Research Associates, Inc. **Notes**: Small areas, generally less than 1 acre each totaling 268 acres were surveyed. There were 193 such areas scattered along a pipeline crossing northern and upper Michigan. the areas were in Iron, Dickenson, Mackinac, Emmet, Charlevoix, Kalkaska, Crawford, Missaukee, Midland and Isabella counties. Three sites were found, a homestead (20IO158) which has been badly damaged and is recommended for salvage documentation; and two ineligible prehistoric findspots (20IB34-35). A known lumber camp (20MK132) was resurveyed and boundaries refined; it will not be affected by construction.	01464
Citation: Branstner, Mark C. 1990. The Davis Trailer Park Site (20IO158), Iron County, Michigan. Great Lakes Research Associates, Inc. **Notes**: Shovel testing and additional historical research found that this homestead was established in 1912 by Alex Eckola and was abandoned after his death in the 1940s. The house and immediate outbuildings are represented only by concrete footings and very little scatter. The site has minimal research potential and is not eligible for the National Register. The survey covered an area of 6 acres.	00652
Citation: Branstner, Mark C. 1991. 1990 Great Lakes Gas Transmission Co. Pipeline Expansion Projects: Michigan, Part I: Pipe and Contractor Yard Surveys, Addendum B: Additional Yards. Great Lakes Research Associates, Inc. **Notes**: Six contractor yards were surveyed in Clare, Gratiot, Macomb, Otsego and Schoolcraft Counties. About 85 acres were covered. Only one artifact, a biface fragment (20MB474) was found; it was not judged to be significant.	01306

Citation: Branstner, Mark C. 1991. 1990 Great Lakes Transmission Company Pipeline Expansion Projects: Michigan Part III A-B: Pipeline Corridor Survey TCPL-2/Loops 11-14, 16-17 Addendum E Additional Access Roads, Extra Work Spaces and Yards. Great Lakes Research Associates, Inc. **Notes**:	07569

This survey covered approximately 124 acres in Sections 33 and 34, T42N, R23W in Delta County, Section 17, T41N, R21 W in Delta County, Sections 3 and 10 T40N, R17W in Schoolcraft County, and Section 18, T43N, R11W in Mackinac County. using pedestrian reconnaissance techniques no significant archaeological/architectural resources were found.	
Citation: Branstner, Mark C. 1991. 1990 Great Lakes Gas Transmission Company Pipeline Expansion Projects: Michigan Part III A-B: Pipeline Corridor Survey TCPL-2/Loops 11-14, 16-17, Addendum C - Additional Access Roads. Great Lakes Research Associates, Inc. **Notes**: Surveys were conducted at 11 access road locations in Schoolcraft (T42N, R15W; T41N, R17W), Delta (T41N, R18W), Mackinac (T42N, R6W), Emmet (T38N, R4W; T36N, R4W; T35N, R4W; T34N, R4W), Saginaw (T10N, R3E) and Tuscola (T10N, R8E) counties. Locations are provided only to Section; no maps or acreage figures are provided. No archaeological sites were found.	02199
Citation: Branstner, Mark C. 1991. 1990 Great Lakes Gas Transmission Co. Pipeline Expansion Projects: Michigan: Part III A-B: Pipeline Corridor Survey TCPL-2/Loops 11-14, 16-17, Addendum D: Sediment Basins. Great Lakes Research Associates, Inc. **Notes**: This volume covers survey of 11 sediment basins totaling about 13 acres in Delta, Schoolcraft, Mackinac, Otsego and Saginaw counties. (T41N, R19W; T41N, R16W; T42N,R14W; T42N, R13W; T43N, R7W; T42N,R6W; T29N,R4E-OE; T10N,R3E; T1-N,R4E; T10N,R4E; T10N,R4E; T10N,R5E). The only sites encountered were in Saginaw County: 20SA1049, lithic scatter; 20SA1050, findspot; an extension of 20SA1033 (prehistoric camp), and the Misteguay homestead, 20SA1051, a 20th c. site.	01099

Citation: Branstner, Mark C. and Michael J. Hambacher. 1995. 1991 Great Lakes Gas Transmission Limited Partnership Pipeline Expansion Projects: Phase III Investigations at the Vogelaar Site (20SA291) Saginaw County, Michigan. Part 1: Report and Exhibits. 92-02. Great Lakes Research Associates, Inc. **Notes**: Phase III mitigation at the Vogelaar site (20SA291), Saginaw County, involved block excavation of 730 square meters. Numerous pit and hearth features, as well as a possible living floor were recorded for components (often mixed) dating from the Late Archaic to the early Late Woodland. Artifacts recovered included bifaces, ceramics, ground stone tools, worked hematite, and stone beads. Paleo-environment, including geology and hydrology are discussed. Also included are Sections on faunal and floral data. Five radiocarbon dates from features are documented. Based on the abundance of lithic tools, the site is interpreted to be primarily a fall/winter hunting base camp, although some floral and faunal evidence suggests warm season use. For the appendices in part 2, please see bib # 17788 and survey # 5704.	01050
Citation: Branstner, Mark C. et al. 1995. 1991 Great Lakes Gas Transmission Limited Partnership Pipeline Expansion Projects: Michigan, Phase III Investigations at the Cassasa Site (20SA1021) Part 2: Appendices. 95-01. Great Lakes Research Associates, Inc. **Notes**:	17789

This volume contains the appendices for the Phase III Investigations at the Cassasa Site (20SA1021). For part 1, please see bib #00560 and survey #223.	
Citation: Branstner, Mark C., editor. 1991. 1990 Great Lakes Gas Transmission Company Pipeline Expansion Projects (TCPL-2): Phase II Cultural Resource Evaluations and Mitigative Recommendations (Part IVA). 91-04. Great Lakes Research Associates, Inc. **Notes**: Six sites covering about eight acres were tested in Gratiot and Saginaw counties. All are believed to meet National Register criteria. The sites were 20GR105, a prehistoric camp with at least one feature; 20SA2991, a large camp with many features and Early Woodland and Middle Woodland components; 20SA596, a buried stratified site with Early Archaic and Middle Woodland components; 20SA1021, a stratified site with features containing Early, Middle and Late Woodland components; 20SA1033, a buried Late Woodland camp; and 20SA1034, another buried Late Woodland camp. Many of these sites were identified by deeptrenching and had not been apparent from any surface indications. Both "no impact" (avoidance) and mitigation recommendations are made for these sites.	02296

Citation: Branstner, Mark C., Michael J. Hambacher, William A. Lovis, G. William Monaghan, Randall Schaetzl and Beverley A. Smith. 1994. 1991 Great Lakes Gas Transmission Limited Partnership Pipeline Expansion Projects: Michigan, Phase III Investigations at the Shiawassee River (20SA1033) and Bear Creek Sites (20SA1043), Saginaw County, Michigan. 93-01. **Notes**: Phase III mitigation was undertaken at the Shiawassee River and Bear Creek sites (20SA1033 and 20SA1043), Saginaw County. Block excavation of 535 sq. meters at Bear Creek found evidence of Middle Archaic through Late Woodland occupations. At the Shiawassee River site, 1035 sq. meters of block excavation produced assemblages from the Early Woodland through Late Woodland periods. The report includes Sections on paleo environment, floral and faunal analyses, and six radiocarbon dates. Based on the relative paucity of features, these sites are interpreted to be primarily temporary base camps for late season extractive activities. Some faunal evidence also suggests spring use of the Shiawassee River site. [ER-89508yy]	02757
Citation: Branstner, Mark C., W. A. Lovis and G. W. Monaghan. 1990. The Great Lakes Gas Transmission Company Natural Gas Pipeline Corridor (MP 562.6-972.9): A Preliminary Sensitivity Model and Testing Strategy. Great Lakes Research Associates, Inc. **Notes**: This volume presents statewide prehistoric and historic context summaries and overall methodology for this enormous survey project. Geomorphic and archaeological considerations are used to identify areas needing deep testing along the route, which stretches from St. Clair County to Delta County. The corridor will be 225 feet wide and extend over 400 miles.	03297
Citation: Branstner, Mark C., with W. A. Lovis and G. W. Monaghan. 1990. 1990 Great Lakes Gas Transmission Company Pipeline Expansion Projects (TCPL-2): Phase I Cultural Resource Inventory Surveys of Pipeline Corridor and Access Roads Associated with Loops 11-14 and Loops 16-17 in Michigan [two volumes]. Great Lakes Research, Inc. **Notes**:	01308

This survey stretched across the state from Delta County to St. Clair County. About 3685 acres were covered. Deep testing took place at 24 locations near stream crossings. Thirty six new sites were recorded in Mackinac, Gratiot, Emmet, Saginaw, Lapeer and St. Clair counties. An additional thirty-two previously reported sites were revisited or could not be relocated: Volume 1 (Part IIIA) includes the text, site forms, and management recommendations. Volume 2 (Part IIIB) includes maps of the surveyed areas and site locations.	

Citation: Buckmaster, Marla M. 1989. An Archaeological Survey of Selected Locations along Loop 7 of the Planned Great Lakes Gas Transmission Company's Pipeline in Iron County, Michigan. 22. **Notes**: Nine work spaces were surveyed in Sections 8, 13, 14 and 15 of T43N, R35W; and Sections 17, 18, 21, 22 and 25 of T43N, R34W, Iron County. No cultural resources were found.	06233
Citation: Dobbs, Clark A. 1993. Projectile Points From 20SA596: Documentation of the Ebenhoh Collection. 232. Institute for Minnesota Archaeology (IMA/IMAC) **Notes**: Documents a private surface collection of 169 projectile points and 5 other tools from 20SA596. Includes summary of site excavation results, discussion of basic characteristics of the point collection, and statistics for types within the assemblage, including metric data. Field data sheets and sketches of the each point are included. The collection was dominated by corner-notched points (n=120) and a lesser number of side-notched points (n=36). There were only 4 Late Woodland points and 9 lanceolate and bifurcate forms. [ER-8980508ww]	00800
Citation: Dobbs, Clark A. and Matthew L. Murray. 1993. Ancient Native American Occupation at 20SA596 in the Saginaw Valley, Michigan. 209. Institute for Minnesota Archaeology (IMA/IMAC) **Notes**: Eleven 1m by 1m test units were excavated at 20SA596 in Saginaw County as part of pipeline mitigation. A series of well points were used to locally drain the excavation area because of the high water table. The Wellpoint site consists primarily of buried deposits (c. 60-70 cm) dating from the Early to the Late Archaic period, with smaller Middle and Late Woodland components represented. The site is situated on a Nipissing beach ridge. The report site stratigraphy, site assemblage, flotation samples, radiocarbon dates, and artifact patterning. The profile of the block excavation, over 100 m long, provided excellent geomorphological documentation of late glacial and Holocene events.	03086
Citation: Dobbs, Clark A., Craig Johnson, Kathryn Parker and Terrence Martin. 1993. 20SA1034: A Late-Prehistoric Site on the Flint River in the Saginaw Valley, Michigan. 229. Institute for Minnesota Archaeology (IMA/IMAC) **Notes**: Report documents the Phase III excavations in the area of a proposed pipeline right-of-way at the Flint River site (20SA1034). The site is interpreted as a small, temporary camp associated with intermittent visits for horticultural activities. Lithics are scarce. The ceramics (mainly Wayne ware, with a few Vase and Macomb vessels) and radiocarbon dates suggest occupation c. 1150-1250. The site is on mesic land on the flood plain. Many	03710

of the 32 refuse pits contained cultigens, including corn, squash, sunflower and tobacco, as well as many wild edible seeds, fruits and tubers. Faunal remains are not numerous, but represent a wide range of species, mostly small mammals, fish, turtles, grouse and turkey. The assemblage suggests ephemeral warm weather occupation. [ER89508vv]	
Citation: Hambacher, Michael J. and M.C. Branstner. 1991. 1990/1991 Great Lakes Gas Transmission Company Pipeline Expansion Projects (TCPL-2): Phase II Cultural Resource Evaluations and Mitigative Recommendations (Part B). 91-07. Great Lakes Research Associates, Inc. **Notes**: Seventeen sites of all periods in Saginaw and Lapeer counties were tested (20LP270, 20LP290-292, 20SA585, 20SA594, 20SA597-598, 20SA1008-1009, 20SA1017-1018, 20SA1022-1024, 20SA1026-1027). None meet the criteria for listing on the National Register of Historic Places, although a few appear to have more intact portions off the right-of-way which could not be assessed during this project. Intensive-level survey: 34 acres.	01490
Citation: Sauer, Norman J., Michael J. Hambacher, and Mark C. Branstner. 1992. 1991 Great Lakes Gas Transmission Limited Partnership Pipeline Expansion Projects: Michigan. Osteological Remains from the Cassasa Site (20SA1021). 92-06. Great Lakes Research Associates, Inc. **Notes**: Report on Woodland period human skeletal remains from the Cassasa site (20SA1021). The remains were encountered during salvage excavations prior to the widening of a pipeline trench. Some of the remains were scattered bone disturbed by earlier construction activities. Six burial features and scattered fragments were recovered. Osteological study indicated that at least seven individuals were represented: two adult males, on young adult and four subadults.	00604