Phase Ia Archaeological Reconnaissance

Proposed Indiana Enterprise Center
Olive Township, Saint Joseph County, Indiana

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Prepared for:
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EXECUTIVE SUMMARY

Christopher B. Burke Engineering (CBBE) contracted Orbis Environmental Consulting (Orbis) to conduct cultural desktop review and Phase Ia archaeological reconnaissance (Phase Ia) for the proposed Indiana Enterprise Center (IEC). This Phase Ia survey is part of the site certification process administered through the Indiana Office of Community and Rural Affairs (OCRA). This program involves performing environmental and cultural resources review to certify sites prior to economic development, so there was no specific project design at the time of our survey.

Based on the potential for 401/404 Wetland Permitting for any future development of this area, Orbis coordinated with CBBE and the South Bend, Indiana field office of the U.S. Army Corps of Engineers to establish a survey area for a Phase Ia survey.

This survey area included two proposed retention basins (approx. 43 and 77 acres, respectively), the existing Niespodziany Ditch (approx. 2 miles), and a new proposed ditch (approx. 2 miles). The survey area along the ditches measured 25 feet wide on each side.

Fieldwork took place in November 2019. Orbis recorded six new archaeological sites (12-Sj-0536 – 541). Three of these sites are prehistoric isolated finds (12-Sj-0536, 539, and 540). One is a scatter of historic artifacts (12-Sj-0538). The remaining two are associated with historic farmsteads, one active (12-Sj-0537) and one abandoned (12-Sj-0541). Orbis documented historic foundations at 12-Sj-0541 that are outside the survey area for the project.

No further work is recommended for these archaeological sites. Additional work may be necessary if the anticipated project activities change, particularly at 12-Sj-0541.
INTRODUCTION

In response to a request from Christopher B. Burke Engineering (CBBE), Orbis Environmental Consulting (Orbis) conducted a cultural desktop review and Phase Ia archaeological reconnaissance (Phase Ia) for the proposed Indiana Enterprise Center (IEC) (Figure 1). This Phase Ia survey is part of the site certification process administrated through the Indiana Office of Community and Rural Affairs (OCRA). This program involves performing environmental and cultural resources review to certify sites prior to economic development, so there was no specific project design at the time of our survey.

Based on the potential for 401/404 Wetland Permitting for any future development of this area, Orbis coordinated with CBBE and the South Bend, Indiana field office of the U.S. Army Corps of Engineers to establish a survey area for a Phase Ia survey.

This survey area included two proposed retention basins (approx. 17.4 and 31.1 ha [43 and 77 acres], respectively), the existing Niespodziany Ditch (approx. 3.2 km [2 miles]), and a new proposed ditch (approx. 3.2 km [2 miles]). The survey area along the ditches measured 7.6 m (25 ft) wide on each side of the centerline.

The survey area is in Olive Township, St. Joseph County, Indiana, within Sections 1, 6, 7, and 12 of Township 37N, Range 1W on the Lydick, Indiana USGS Quadrangle.

Orbis reviewed records on documented cultural resources, available at the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology (DHPA) in Indianapolis, Indiana. Sources included historic atlases, county histories, environmental information, and information about known archaeological sites and previous archaeological surveys.

Key personnel committed to the project include Principal Investigator J Ryan Duddleson, Field Director Alycia Giedd, and Field Technician Jeremy Sheets. Mr. Duddleson performed the field investigation and served as report co-author. Ms. Giedd conducted background research and served as report co-author. Mr. Sheets performed the field investigation and the GIS mapping. Mr. Duddleson performed the lab analysis.

This report presents the research design and results of the background research, the field and laboratory methods used during the survey, results of the field investigation, followed by the conclusions and recommendations. Appendix A includes the photographs documenting the investigation; Appendix B contains the artifact catalog.
2.0 RESEARCH DESIGN

The purpose of this section is to provide a basic context through which we evaluate the results of our investigations. This section will briefly outline the cultural background of the region in and around the survey area.

2.1 Background Research

The goal of the literature review was to identify previously recorded archaeological sites, historic structures, and other cultural resources. Orbis reviewed records at the DHPA, focusing on previously recorded resources within a 1.6-km (1-mi) study area around the survey area.

For the literature review we consulted the following resources:

- National Historic Landmark list;
- National Register of Historic Places (NRHP) list;
- Indiana SHAARD Archaeology and Structures Application (ISASA);
- Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM);
- Cultural Resource Management reports;
- Historic Maps and Atlases;
- Archaeological Map of Indiana.

2.1.1 National Historic Landmark List

There are no National Historic Landmarks (NHL) located within the study area.

2.1.2 National Register of Historic Places

Available records show one historic property within the study area listed in the National Register of Historic Places (NRHP).

The Studebaker Clubhouse and Tree Sign (#141-372-62031) was built in 1926 and altered in 1938. The structure was listed in the NRHP in 1985 for its local significance (IHBBCM 2019).

This resource is approximately 285 meters (0.18 mi) southwest of the project area.

2.1.3 Indiana SHAARD Archaeology and Structures Application (ISASA)

*Archaeological Sites*

The ISASA indicates that there are 24 archaeological sites within the study area; (19 prehistoric and 5 historic sites) – none of these are located in the survey area (Table 1).
Table 1 - Archaeological Sites within the Study Area

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Cultural Affiliation</th>
<th>Site Type</th>
<th>NRHP Eligibility</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-Sj-0001</td>
<td>Middle/Late Archaic</td>
<td>Camp</td>
<td>Eligible</td>
<td>GBL 1937</td>
</tr>
<tr>
<td>12-Sj-0273</td>
<td>Unidentified Prehistoric</td>
<td>Camp</td>
<td>Potentially Eligible</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0274</td>
<td>Historic</td>
<td>Farmstead</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0275</td>
<td>Unidentified Prehistoric</td>
<td>Lithic Scatter</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0276</td>
<td>Late Woodland</td>
<td>Lithic Scatter</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0277</td>
<td>Late Woodland</td>
<td>Camp</td>
<td>Potentially Eligible</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0278</td>
<td>Unidentified Prehistoric</td>
<td>Lithic Scatter</td>
<td>Potentially Eligible</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0279</td>
<td>Unidentified Prehistoric</td>
<td>Lithic Scatter</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0280</td>
<td>Unidentified Prehistoric</td>
<td>Camp</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0281</td>
<td>Late Woodland</td>
<td>Camp</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0282</td>
<td>Unidentified Prehistoric</td>
<td>Camp</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0283</td>
<td>Late Woodland</td>
<td>Lithic Scatter</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0284</td>
<td>Historic</td>
<td>Isolated Find</td>
<td>N/A</td>
<td>Schurr 1992</td>
</tr>
<tr>
<td>12-Sj-0406</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0407</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0408</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0409</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0410</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0411</td>
<td>Unidentified Prehistoric</td>
<td>Isolated Find</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
<tr>
<td>12-Sj-0412</td>
<td>Historic</td>
<td>Historic Scatter</td>
<td>Not Eligible</td>
<td>Scuoteguazza 2001</td>
</tr>
</tbody>
</table>
Site Number | Cultural Affiliation | Site Type         | NRHP Eligibility | Reference       |
---|---------------------|-------------------|------------------|-----------------|
12-Sj-0413 | Historic            | Historic Scatter  | Not Eligible     | Scuoteguazza 2001 |
12-Sj-0414 | Unidentified Prehistoric | Lithic Scatter | Not Eligible     | Scuoteguazza 2001 |
12-Sj-0415 | Unidentified Prehistoric | Lithic Scatter | Not Eligible     | Scuoteguazza 2001 |
12-Sj-0416 | Historic            | Historic Scatter  | Not Eligible     | Scuoteguazza 2001 |

### 2.1.4 Indiana Buildings, Bridges, and Cemeteries Map (IBBCM)

The IBBCM provides ratings to quantify the integrity and significance of these historic structures. A rating of “Outstanding” is the highest rank and indicates that the structure is listed or is eligible for listing on the National Register of Historic Places (NRHP). A rating of “Notable” indicates that the property is above average in importance, but further investigation is necessary to determine NRHP eligibility. A rating of “Contributing” indicates the property is historic but is not currently eligible for listing on the NRHP (IHBBCM 2019).

There are three historic structures listed as Outstanding and Contributing within the study area (IHBBCM 2019). None of these are within the survey area. They are listed in Table 2 below.

#### Table 2 - Historic Structures within the Study Area

<table>
<thead>
<tr>
<th>IHBBCM Number</th>
<th>Time Period</th>
<th>Property Name/Type</th>
<th>Architectural Style</th>
<th>IHBBCM Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-372-62031</td>
<td>1926 and 1938</td>
<td>Studebaker Clubhouse and Tree Sign Historic District</td>
<td>Colonial Revival</td>
<td>Outstanding (National Register - NR -0720)</td>
</tr>
<tr>
<td>141-372-62032</td>
<td>1926</td>
<td>-</td>
<td>Commercial Style Building</td>
<td>Outstanding</td>
</tr>
<tr>
<td>141-372-62043</td>
<td>1935</td>
<td>-</td>
<td>Bridge (Bridge Number S583)</td>
<td>Contributing</td>
</tr>
</tbody>
</table>
2.1.5 Cultural Resource Management (CRM) Reports

Records on file at the DHPA indicate that six previous archaeological cultural resource management (CRM) projects have been conducted over portions of the study area (Bellis 1988; Glass 1992; Grob and Parsell 2016; Schurr 1992a; Schurr 1992b; Scuoteguazza 2001). These studies and CRM reports consist of small projects within the county, as well as a county-wide research project.

The University of Notre Dame performed an archaeological study for existing and new road construction projects, and a water line improvement project in St. Joseph County, Indiana (Bellis 1988). The study did not identify any new archaeological sites; therefore, no further archaeological work was recommended.

The DHPA conducted an archaeological survey for two proposed fishing pier walkways at Potato Creek State Park in St. Joseph County, Indiana (Glass 1992). The archaeological survey sought to rediscover and reevaluate site 12-Sj-0001. The survey did rediscover the site and recommended it as eligible for the NRHP and that it should be avoided during construction activities.

In 1992 the University of Notre Dame conducted an archaeological assessment, field reconnaissance, and test excavation of an area totaling 675 acres, within 16 separate parcels in St. Joseph County, Indiana (Schurr 1992a). Part 1 of the investigation included the field Reconnaissance and assessment. This survey produced 116 site records, 102 of which were new archaeological sites. Twelve of these sites (12-Sj-0273 - 12-Sj-0284) are located within the study area. Three of these sites (12-Sj-0273, 12-Sj-0277, and 12-Sj-0278) were recommended as potentially eligible for the NRHP (Schurr 1992a). Part 2 of this investigation includes the test excavation of the Bellinger Mound (Schurr 1992b). However, this mound is not within the study area.

In 2001, GAI Consultants, Inc conducted a Phase Ia cultural resource survey for the Acadia Bay Energy Generating Facility in St. Joseph County, Indiana (Scuoteguazza 2001). The archaeological survey revealed 11 new archaeological sites and two previously unidentified historic structures. All 11 of the archaeological sites are located within the study area (12-Sj-0406 - 12-Sj-0416). None of these sites were considered as potentially eligible for the NRHP, and no further work was recommended.

In 2016 Cardno, Inc. performed a Phase I archaeological reconnaissance for the St. Joseph Lateral project, in St. Joseph County, Indiana (Grob and Parsell 2016). The fieldwork documented one previously unidentified archaeological site (12-Sj-0500). Site 12-Sj-0500 is outside of the study area.
2.1.6 Historic Maps and Atlases

Research examined atlas maps dating from 1875, 1876, 1895, and 1911, for information pertaining to the historic use of the project area in Lake County (Higgins Belden & Co. 1875; Indiana Historical Society 1968; Geo. A. Ogle 1895; Higgins Belden & Co 1895; Geo. A. Ogle 1911).

The 1875 historic map shows one structure in the survey area (Higgins Belden & Co. 1875). The 1876 historic map does not depict individual residences but shows a schoolhouse northeast of the survey area (Indiana Historical Society 1968). The 1895 historic map shows one structure within the survey area (Ogle Co. 1895). The 1911 historic map shows two structures within the survey area (Ogle Co. 1911).

2.1.7 Archaeological Map of Indiana

In addition to the historic atlas maps, research also reviewed the 1932 archaeological map “Indiana: influence of the Indian upon its History...” (Guernsey 1932). Like other historic archaeological maps of its time, this map depicts archaeological resources at a county-wide scale. This provides an overview of sites across the county but limits the locational accuracy of these features. The Guernsey map indicates no known archaeological sites within the project area.

2.2 Environmental Context

The project area is in the Northern Moraine and Lake Physiographic Region that defines northwest Indiana. The landforms in the northern part of the state largely owe their origin to glacial processes. The Northern Moraine and Lake Region includes a diverse landscape containing glacial moraines, outwash plains, valley trains, lake plains, kettle lakes, sand dunes, and peat bogs (Schneider 1966).

2.2.1 Physiography

Beginning in the northernmost extent of the region the bedrock geology of the project area includes Silurian rocks and Devonian and Mississippian shales, spanning between 260 and 360 million years ago. This is overlain by a variety of glacial and post-glacial features within the Northern Moraine and Lake Region.

Because of this variety, the Northern Moraine and Lake Region is further subdivided into three smaller physiographic units. The project travels through one of these units, the Valparaiso Morainal Area (Homoya et al. 1985).

The Valparaiso Morainal Area marks the southern terminal edge of the glacial Lake Michigan. The moraine rises approximately 46 m (150 ft) above the Calumet Lacustrine Plain, with highest portions reaching elevations of 290 m (950 ft). Topography across the moraine is more varied to the north and east. The topography of this area is mostly “knob-and-kettle” in the east which then slopes into a gently rolling till plain to the west (Homoya et al, 1985).
2.2.2 National Wetlands Inventory and Soils

The National Wetlands Inventory (NWI) shows numerous freshwater emergent, and freshwater shrub/forested wetlands in the region, but none within the survey area.

The soils in the project area belong to the following soil associations (UCD-CSRL 2020):

- Sparta-Maumee-Gilford
- Elston-Coupee

2.2.3 Climate

Cold winters and warm summers characterize the continental climate typical of northwest Indiana, though winds from Lake Michigan tend to buffer temperatures in both winter and summer (USDA/SCS 1977). The average winter temperature in the region including St. Joseph County falls to the mid-20s Fahrenheit (-3 C) and reaches the mid-70s Fahrenheit (low 20s C) in the summer months. Total annual precipitation is about 99 cm (39 in) and is well distributed throughout the year (USDA/SCS 1977).

2.2.4 Flora and Fauna

There are five basic vegetation zones in Indiana. The project area is in the Northwestern Morainal Natural Region. This area marks the convergence of numerous vegetation types included eastern deciduous forest, tallgrass prairie, and the northern forest and wetlands. As such, no other natural region in the state contains more diversity in plant types.

The survey area is in the Valparaiso Moraine Section of the Northwestern Morainal Natural Region. This section contains a variety of natural communities including fens, bogs, lakes, marshes, savanna, seeps, and swamps. The region includes species within the Beech-Maple and Oak-Hickory forest communities. Oak savanna and prairie communities were also present but have largely disappeared except for small pockets. Fen species include Kalm’s lobelia, shrubby cinquefoil, Indian plantain, tofieldia, small white ladyslipper, parnassia, prairie dock, fringed gentian, and several varieties of sedges. Bog communities are also present (Homoya 1985).

2.3 Pre-Contact Cultural Setting

Archaeologists generally divide the time in Indiana before European contact into four broad periods; Paleoindian, Archaic, Woodland, and Mississippian. The Paleoindian period encompasses the cultural remains of the earliest recorded occupations of the region, dating from roughly 13,000 – 8,000 B.P. (years Before Present). Paleoindians were nomadic groups comprised of small kin-based bands that primarily practiced a foraging subsistence strategy. It is important to understand, however, that the term “Paleoindian” refers broadly to a pattern of nomadic mobility and foraging rather than to a discrete group of people.
Archaeologists describe the Archaic period as the time when more localized seasonal settlement and subsistence patterns replaced the broad seasonal migration pattern of the Paleoindian period. Broad exchange patterns, the innovation of ceramic technology, the emergence of cultivated plants, and an increasing shift toward sedentism generally identify the transition to the Woodland time period. The Mississippian period is marked by continued population growth, large villages, and subsurface storage pits resulting from an increased reliance on maize agriculture. The Mississippian also is marked by increasing indications of social instability and population movement. This period also marks the appearance of European materials but precedes the arrival of European groups themselves to the region. This section will outline each of these time periods including smaller divisions within each.

2.3.1 Paleoindian Period (ca. 13,000 – 10,000 B.P.)

Paleoindians were nomadic groups comprised of small kin-based bands that primarily practiced a foraging subsistence strategy. It is important to understand, however, that the term “Paleoindian” refers broadly to a pattern of nomadic mobility and foraging rather than to a discrete group of people. Current research suggests that these Paleoindian groups repetitively moved within a geographic range to intercept large herd animals during their migratory cycles (Gramly 1988; Stothers 1996). Over time, the focus likely shifted from large-scale expeditions to more regular smaller-scale hunting along with a decrease in the overall size of territory exploited by these groups.

Paleoindian sites are most easily recognized in the archaeological record by the presence of narrow, lance-shaped spear points. These points may or may not have a flute (a large flat flake) removed from each side of the point. Early Paleoindian projectile points are often made of high-quality materials, usually from a widely dispersed area, which suggests a high level of mobility (White et al. 2007). Later Paleoindian points are more often made from local chert types, which may reflect a reduction in this mobility.

Emerging research suggests that in addition to Pleistocene megafauna, Caribou may also have been a primary food source for Paleoindian populations in northern Indiana (White et al. 2007). Paleoindian groups occupied the southern Great Lakes region circa 11,500 to 10,800 B.P. (Waters and Stafford 2007). In Indiana, most Paleoindian sites are in the southern part of the state; however, fluted projectile points have been found in the Great Lakes region and generally date from 11,000 to 10,000 BP (White et al. 2007). Due to small group size and mobility, few sites have been studies and many of the artifact finds are isolates. A total of three Paleoindian sites have been documented in St. Joseph County.

2.3.2 The Archaic Period (8,000 – 3,000 B.P.)

Environmental changes including the movement the of Great Lakes shorelines toward present day water levels and the continuing decline of megafauna populations marked the beginning of the Archaic period (8,000 – 3,000 B.P.). In response, populations
developed new subsistence regimens to adapt to the changing environmental conditions that also included a gradual shift from coniferous forests to deciduous forests. The wide seasonal migration routes of Paleoindian populations were gradually replaced by an increasingly more localized seasonal subsistence strategy during the Archaic period (Fitting 1975).

Information on the region’s Early Archaic draws primarily from projectile point data and research conducted in surrounding regions. Early Archaic people probably lived in similar ways as the Paleoindians, but without fluted projectile points and megafauna. Prehistoric groups in the Indiana Dunes region would have encountered substantially lower lake levels, with the Lake Michigan shoreline lying approximately 30 miles north of its modern location (Chrzastowski and Thompson 1992).

Overall, the Middle Archaic is not well defined in northwest Indiana, but many of these trends continue into the Late Archaic period. In northwest Indiana, the settlement pattern during the Late Archaic was less restricted to river valleys than during the Middle Archaic (White et al. 2007). Domestication of some native plants (squash, gourd, and possibly sunflower) is thought to occur, as well as intensified resource procurement (White et al. 2007). In addition, tool technology becomes more varied and exchange networks are developed, as evidenced by the presence of non-local resources including Wyandotte chert from southern Indiana, copper from the Great Lakes, mica from mid-Atlantic states, and obsidian from Wyoming (White et al. 2007). Mortuary practices are also developed during the Late Archaic, with burials generally located in glacial kames. In addition, ceramic production is introduced during the Late Archaic (White et al. 2007).

The lake would have reached its highest post-glacial lake level during this period, creating vastly different resources available to prehistoric groups. (Sturdevant and Bringelson 2007). As the water began to recede towards modern levels, the resulting marsh habitat created abundant plant and animal resources (Sturdevant and Bringelson 2007).

2.3.3 The Woodland Period (3,000 – 500 B.P)

Populations in the Woodland period tended to be broad spectrum hunter-gatherers, living in semi-sedentary occupations made up of small groups, likely based on kinship. These occupations were typically located around riverine environments and organized around communal burials. Innovations such as a more intensive reliance on pottery and horticulture as well as the bow and arrow also occur during the Woodland time period. Large earthworks, elaborate burials and exchange of artifacts across broad trade networks are a hallmark of the Woodland period. Throughout the Woodland, populations continued to focus on a diverse subsistence strategy including hunting, collecting wild plants, and practicing horticulture, with increasing reliance on maize and beans. The transition to the Woodland, however, likely varied regionally with
settlement and subsistence patterns more typical to the Archaic persisting later in some areas.

In northwest Indiana Early Woodland burial mounds have little internal division or architecture and tend to be depositional and/or accretional. Mounds are most often found on bluff tops and appear to have been constructed and added to as burials were interred (Surface-Evans et al. 2005).

Ceramic production is widespread through the region during the Early Woodland. The “Marion Thick” pottery, defined as crudely made with thick walls and large quantities of course grit is the diagnostic pottery type for northwest Indiana (Surface-Evans et al. 2005). Stemmed projectile points such as the Kramer type are also diagnostic to the Early Woodland period (Surface-Evans et al. 2005).

The prehistoric trade of exotic materials reached a high during the Middle Woodland as populations within the “Hopewell Interaction Sphere” traded materials from as far away as the Upper Peninsula of Michigan (copper), the Gulf Coast (shell and shark teeth), and the Carolinas (mica). This system remains poorly understood, but this network clearly represented interaction based on long distance exchange of prestige goods associated with complex social and religious concepts.

A significant reduction in the extensive, extra-regional trade of exotic goods and materials marks the Late Woodland period. The construction of large ceremonial earthworks ceases at this time, along with a shift in mortuary practices away from monumental internments, to placing burials in existing, older mounds or small stone mounds. Isolated, individual burials also appear. Settlement patterns become increasingly sedentary as large nucleated villages appear, supported by a growing reliance on cultigens including starchy and oily seeded plants as a substantial part of the Late Woodland diet. Maize also contributed to the diet, though to a lesser extent before 1,200 B.P. (Bush 2003). Palisades, ditches and other defensive structures were sometimes constructed around these villages suggesting an increasing social instability. The Albee Phase represents the Late Woodland period in northern Indiana; however, archaeologists have begun reinvestigating the application of the Albee Phase in the northwest part of the state (Schurr 2003).

Lake Michigan continued its progression into the modern phase through the Woodland period, including the development of complex marsh ecosystems, and associated abundant plant and animal resources (Sturdevant and Bringelson 2007). Research indicates the Late Woodland occupation of the lakeshore region may be less dense than preceding periods, but more research is necessary to clarify this (Sturdevant and Bringelson 2007).

2.3.4 Mississippian Period (ca. A.D. 900 – 1450)

Archaeologists divide the Mississippian period into two general cultural adaptations. The Middle Mississippian represents the expression of influences from the southeast involving the development of complex sociopolitical organizations. Middle
Mississippian sites generally occur in the southern half of Indiana. The second adaptation, the Upper Mississippian, may be characterized as the “Mississippianization”, of indigenous groups practicing a generally Late Woodland lifestyle influenced by populations in the Great Lakes region.

The seasonal exploitation of plant and animal resources supplemented using domesticated plant foods continues into the Late Prehistoric Upper Mississippian period. The region between the Kankakee marsh and Lake Michigan would have provided a variety of ecological resources for use by Upper Mississippian groups. These populations tended to be organized in seasonally occupied villages and smaller hunting or resource procurement camps (Schurr 2003). Late prehistoric Fisher-Huber tradition ceramics included shell tempered vessels decorated with a variety of incised lines and punctates. European goods appear at Huber phase sites which suggest that these groups had direct or indirect contact during the second half of the seventeenth century (Schurr 2003).

The appearance of Upper Mississippian pottery in northwest Indiana is defined as an intrusion in pottery styles and other artifact types from the west (Oneota styles from Minnesota, Wisconsin, and Iowa) (Schurr 2003). It is not clear if the "Upper Mississippian intrusion" represents the cultural transmission of these styles; or if they represent the physical migration of Oneota people during this time period (Schurr 2003). There is a widespread convergence toward Oneota styles across the Midwest during the Late Prehistoric period, suggesting cultural transmission over physical migration (Brown 1990 in Schurr 2003).

The Upper Mississippian Oneota peoples are the first fully adapted maize agriculturalists in the region. Their subsistence economy combined the cultivation of domesticated plants (especially maize) with hunting and wild resource collection (Schurr 2003). In northwest Indiana, Upper Mississippian subsistence appears to have been oriented primarily to seasonal exploitation of the Kankakee Marsh and marshy sections of the Calumet Lacustrine Plain (Faulkner 1972). Upper Mississippian sites, defined by the presence of shell-tempered pottery, are located almost exclusively on marsh islands in the Kankakee Valley (Schurr 1999, 2003).

In general, settlement consisted both of semi-permanent villages and camps located in the Calumet Lacustrine Plain and the Kankakee Marsh, and in the open forests and prairies of the surrounding uplands (Faulkner 1972). The villages were occupied seasonally, primarily in the spring and fall, and contained several multifamily structures and perhaps one larger ceremonial structure (Faulkner 1972). Cemeteries containing primarily extended burials with some secondary (bundle) burials were often located in or near the village (Faulkner 1972). Seasonal hunting and gathering groups were smaller, consisting of one or two shelters, and were occupied during seasons when the village was abandoned (Faulkner 1972).
2.4 Contact Period

The historic record suggests that many different ethnic groups occupied northwest Indiana during the early historic period. Multi-ethnic encampments appear to have been the norm rather than the exception within the Kankakee Valley (Schurr 2003). Every excavated site in the area seems to produce at least a few pottery sherds of types from outside northwest Indiana, suggesting that use of the Kankakee and Lower St. Joseph River Valleys by different ethnic groups is a longstanding pattern (Schurr 2003).

Europeans cannot be documented in northwestern Indiana before A.D. 1679, and sparse amounts of European trade goods found on Huber sites in northern Illinois dated to the late 1610’s indicate that Native Americans of the region first had direct or indirect contact with Europeans in the 17th century. The prehistoric period ends with LaSalle’s 1679 journey down the Kankakee (Secunda et al. 2002). As a result, the Contact Period can be defined as the period between 1679 and 1832, when northern Indiana was surveyed and opened to European settlement (Secunda et al. 2002). During this time the Miami and Potawatomi were the primary inhabitants of northern Indiana.

2.5 Historic Cultural Setting

Father Jacques Marquette is generally regarded to be the first European to reach northern Indiana, arriving as early as 1675. Four years later Robert Cavelier, Sieur de la Salle travelled down the Kankakee River on the first of several trips to the region. Along with claiming all the land drained by the Mississippi River for France, La Salle also established several trading posts, solidifying the French fur trade in the region. By the early 18th century, numerous French forts were constructed forming the first permanent European settlements in Indiana.

In 1754, conflicts between the French and English colonies erupted into the French and Indian War. By 1763, the French had lost the war and their claims to the land east of the Mississippi River. While the British officially controlled the eastern part of the continent, their hold over the land remained tenuous. Tensions between English settlers and Native groups continued through the beginning of the Revolutionary War.

During the war, George Rogers Clark fought a series of battles against the British interests in the area, culminating in a decisive American victory at Fort Vincennes on February 25, 1779.

By 1781 the Northwest Territory became public domain. By 1785, the U.S. government began selling land to settlers in the territory, but conflicts with indigenous groups in the area continued to deter settlement. In 1794, the Battle of Fallen Timbers ended in the defeat of the Miami, Shawnee, Delaware and Wyandot alliance. The resulting Treaty of Greenville in 1795 effectively opened much of Ohio and southeastern Indiana to American settlement.
The Indiana Territory was established in 1800, with its capital at Vincennes, led by William Henry Harrison as the first Governor of the Territory. Harrison negotiated numerous treaties with the Indians and by 1806 had acquired all the land in the southern part of the territory. In 1809 the Treaty of Fort Wayne secured an additional 3 million acres. Harrison defeated members of the Shawnee, Wyandot, Potawatomi and other tribes led by Tecumseh and his half-brother Tenskwatawa, better known as the Prophet, at the Battle of Tippecanoe on November 7, 1811. Despite this setback, native resistance to American settlement continued through the end of the war of 1812, until British support was effectively removed from the region.

In September 1838 more than 850 members of the Potawatomi were forcibly removed and led on a 660-mile route across Illinois and Missouri, ending in Kansas. More than 40 individuals died during the two-month removal.

2.5.1 St. Joseph County

Pierre Navarre was the first European settler in present-day St. Joseph County, arriving in the area in 1820 from Monroe, Michigan. Fur traders were particularly attracted to the area that marked the portage from the St. Joseph River to the Kankakee River. Navarre established a trading post here at the “south bend” of the St. Joseph River, at the present-day location of the city of South Bend, Indiana. St. Joseph County was established in 1830, with South Bend officially platted a year later.

By the 1840s industries began harnessing of the river running through the community at two “races” first using waterpower directly, and then using the river to generate electricity. These early plants distributed electricity to the town until self-contained generators eventually allowed offsite production of electricity. Industry continued to dominate the local economy and spur the growth of South Bend. Prominent examples included the Studebaker Manufacturing Company, the Oliver Chilled Plow Works, and the Singer Sewing Machine Company.

In the mid-nineteenth century a small community of free African Americans grew up around the farm of Samuel Huggart in a rural section of the county south of the City of South Bend. The Huggart Settlement likely represented the first rural African American settlement in northern Indiana. In 1884, residents of the Huggart Settlement, along with Euro American settlers established the Porter-Rea Cemetery Association to administer an integrated cemetery containing the graves of both white and black residents.

2.6 Current Land Use

The survey area is in a rural portion of St. Joseph County and includes active agricultural fields, three residential parcels, and a wooded parcel (Figure 2) (Appendix A, Photos).
Legend

- **Survey Area**
- **Existing Ditch**
- **Proposed Ditch**

Source: Google 2020

Figure 2

Aerial Map

Project #1804002

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Olive Township, St. Joseph County, Indiana
2.7 Summary

Unidentified prehistoric archaeological sites present in or near the project area may represent a variety of time periods ranging from prehistoric Paleoindian period sites through contact period Native American sites. These sites may represent a variety of site types including isolated artifacts to larger occupational sites.

The historic context of the region suggests that unidentified historic archaeological sites may represent a variety of activities, ranging from agricultural or domestic activities associated with rural areas in St. Joseph County. Some common site types that may be represented include farmsteads or other residential sites, or historic dump and debris discard areas. Historic sites also tend to occur in conjunction with transportation features such as drainages, railroads, and roads.
3.0 METHODS

This section describes the regulations and guidelines governing archaeological fieldwork as well as the research design, field methods, and laboratory methods employed during the Phase Ia survey. The objective of the investigation was to identify archaeological resources that may be located within the survey area.

3.1 Applicable Regulations

This Phase Ia survey is part of the site certification process administrated through the Indiana OCRA. This program involves performing environmental and cultural resources review to certify sites prior to economic development, so there was no specific project design at the time of our survey.

Based on the potential for 401/404 Wetland Permitting for any future development of this area, Orbis coordinated with CBBE and the South Bend, Indiana field office of the U.S. Army Corps of Engineers to establish a survey area for a Phase Ia survey.

Orbis performed the investigation in accordance with professional standards and guidelines of the DHPA.

3.2 Survey Area

This survey area included two proposed retention basins (approx. 17.4 and 31.1 ha [43 and 77 acres], respectively), the existing Niespodziany Ditch (approx. 3.2 km [2 miles]), and a new proposed ditch (approx. 3.2 km [2 miles]). The survey area along the ditches measured 7.6 m (25 ft) wide on each side of the centerline.

3.3 Research Design

Orbis based the research design on the results of the records check, environmental data, and the prehistoric and historic cultural background information.

Based on the prehistoric context of the area, we anticipated the potential presence of numerous documented sites and additional unidentified prehistoric sites in or near the survey area, potentially representative of a range of site types and time periods. Interior uplands, particularly in association with drainages or other water sources, are landforms that could contain prehistoric archaeological sites. Unidentified archaeological sites in lowland areas may occur along slight topographic features and ridges.

Based on the historic context of the area, any unidentified historic sites are likely to be related to agricultural and/or rural domestic activity associated with the historic development of St. Joseph County. Some common site types that may be represented include farmsteads or other residential sites, or historic dump and debris discard areas.
3.4 Field Methods

Orbis conducted a controlled surface collection in areas with greater than 30% surface visibility, such as agricultural fields. This survey was conducted in transects spaced at a 10-m (33-ft) interval.

Orbis conducted systematic shovel probing in areas with less than 30% surface visibility, such as turf grass and woodlots. The crew excavated shovel probes in transects spaced at 15 m (50 ft) intervals. Adherence to these intervals was maintained as closely as possible, although shovel test units were occasionally off-set due to the presence of trees, roots, etc.

Shovel probes were 30 cm (11.8 inches) in diameter and extended into undisturbed soils below the ‘A’ horizon. Archaeologists screened the soils through ¼-inch hardware mesh for cultural materials and immediately backfilled the probes. The crew documented and characterized soil stratigraphy according to the Munsell color guide (Munsell 2018). Shovel probes that exhibited disturbance such as mixed and mottled “A” and “B” horizons or subsoil present at the ground surface were noted, but not fully excavated.

Additionally, portions of the survey area contained existing utilities, or other modern development. In these areas, Orbis conducted visual inspection only by walking over the surface of the project area and documenting local conditions.

We assigned unique Provenience Numbers (PN) to any shovel probe or surface location which yielded cultural material. The crew then collected and bagged artifacts by PN, recorded relevant information such as soils and depth of deposits, mapped features, and took photographs.

During the course of fieldwork, survey crews noted structures within the survey area that appeared to be more than 50 years old. The crew photographed any such structures as a due diligence effort to afford them consideration during project activities.

3.5 Laboratory Methods

Laboratory staff cleaned, sorted, and cataloged all cultural material recovered during the investigations. Following initial processing, they classified prehistoric materials in increasingly specific terms: material type (e.g. lithic) and morphological attributes (e.g. tertiary flake).

3.5.1 Prehistoric Artifacts

Prehistoric cultural material can help archaeologists build an understanding of site function, activity areas, chronology, technology, settlement patterns, and landscape use. For example, functionally diagnostic material, such as lithic artifacts, can indicate the types of activities people conducted in the past, from resource procurement and tool manufacture to plant and animal processing. Temporally diagnostic materials can
indicate the period when a site was occupied, however, as in this case, little information is available from non-diagnostic artifacts.

Lithic Artifacts

Laboratory staff sorted lithic artifacts into the following categories based on the individual attributes of each sample (this list includes only categories relevant to this survey).

- Tertiary flake - a lithic flake with previous flake scars on the dorsal surface and no remaining cortex. Tertiary flakes result from late stages of lithic reduction.

3.5.2 Historic Artifacts

Following the completion of initial processing, historic materials were identified according to material, manufacture, form, and function. Artifacts are generally first separated into broad material categories (i.e., ceramics, glass, metal), then more specific categories if possible (tableware, flat glass, wire nails). The assemblage collected during this survey, however lacked distinctive and diagnostic features, so this section will be limited to a general discussion of these material types.

Metal

Metal artifacts are identified by material (aluminum, brass, copper, iron, lead, steel, etc.), form, and function (hardware, tools, roofing, buttons, etc.). The mode of manufacture may be identified to date the artifact; this has proven especially successful in the analysis of historic nails (Adams 2002). It is common that metal artifacts are found in severely deteriorated states that compromise the success of their identification. When good preservation exists, metal artifacts can be useful not only in dating an assemblage, but also in identifying site activity areas and establishing construction dates for architectural and mechanical features.

Ceramics

Ceramics are one of the most temporally diagnostic artifact classes, the analysis of which can illustrate the socio-economic scaling of site occupants, market access and practices, personal preferences and fashion, and the range of some site-specific activities in which they were historically engaged. However, the limited nature of this assemblage prevents such analysis.

During laboratory analysis, ceramics are initially sorted in the paste types: (earthenware, e.g.). They are next sorted into ware types, (white improved earthenware and yellowware).

Glass

Prior to the late-19th century, the glass industry was relatively static and almost every piece was handmade. Glassmaking underwent a “revolution” of change during the 19th century, resulting in numerous identifiable temporal markers. These manufacturing characteristics and their respective temporal ranges were identified for
container, tableware, and miscellaneous glass. For example, a bottle with a pontil scar predates 1857, while one with side seams that continue to the base of the lip postdates 1881, and another with a seam on the lip postdates 1903. Glass is primarily identified by color, form, function, and manufacturing techniques. While color is not always a reliable diagnostic tool, it can illustrate function and can sometimes provide dates. For instance, solarized (purple) glass was made before 1914, when glass manufacturers stopped using magnesium as a clarifying agent (Jones and Sullivan 1989).

Faunal

Faunal remains are used to determine patterns of diet for the occupants of a site. The identification of the method of butchering, type of cut, and historic affordability of the animals consumed can help date and economically scale a site’s assemblage. Faunal remains located within archaeological contexts of farmsteads are frequently analyzed to illustrate the historic extent of participation in microlocal (farm) versus macrolocal (market) economies. However, because the assemblage contains only a single piece of animal bone, this type of analysis is not available.

A mechanically cut animal bone is the single item in this category. When possible, faunal remains are assigned to species. However as is true in this case, the fragmentary nature of faunal remains often precludes this. Therefore, when remains cannot be assigned to species, they are separated by class: mammal (Mammalia) (Gilbert 1990). They are then separated into size categories: small, small/medium, medium, medium/large, and large. The definitions of these categories differ depending on class. This assemblage represents a medium sized mammal.

Brick

While brick is a ceramic material it also represents a structural element. For the purposes of this project brick will be classified as a separate material type. Isolating brick from ceramics ensures functional clarity between architectural ceramic and container ceramic in artifact documentation and analysis.

Local manufacturers dominated early brick making in the United States. Early bricks often are characterized by coarse bodies and imperfections in manufacturing (in the quality of the finished product’s composition and form). In the 20th century less local brick making occurred. Some brick makers molded their name and markers of production locations onto their products.

Analysis of brick can reveal information on site chronology, design, and market access. Different size and quality bricks traditionally were used for different constructions or phases of construction. Bricks that can be sourced materially can tell archaeologists about where bricks were produced, identify market access and practices, and possibly serve as socio-economic markers through reference to historic price indexes and commercial catalogues. The quality and style of bricks also may indicate past functions for structures, as high quality or decorative bricks often are associated with formal
constructions while inferior quality bricks were used more likely for buildings considered less significant or visually important at the time of their construction. This assemblage, however, is limited to a few small brick fragments.

Functional Categories

Artifacts are also separated into functional categories in order to determine the function of a feature or site. The functional categories used in the present study include:

- **Kitchen**, which is divided into food preparation, food service, and food storage;
- **Architectural**, which is divided into construction materials, hardware, and fixtures;
- **Faunal** which consists of animal remains;
- **Unknown** which includes items for which the function cannot be determined such as fragments of metal, glass or ceramic.

3.6 Curation

Following agency review and concurrence of the report of investigations by the Orbis will return the artifacts to the appropriate landowner.
4.0 RESULTS

Orbis conducted the field work in November 2019. Weather was cool, with temperatures ranging from the 40s-60s Fahrenheit. Photographs are included in Appendix A. This survey identified six (6) new archaeological sites (12-Sj-0536 through Sj-0541) (Figure 3). The sections below also include detailed figures for Sites 12-Sj-0537, 0538, and 0541 showing the location and distribution of positive shovel test probes. This section does not include such figures for Sites 12-Sj-0536, 0539, and 0540 because they are isolated artifacts.

4.1 Project Setting

The survey area is located in western St. Joseph County, approximately 1.5 miles southeast of the town of New Carlisle. Most of the survey area contains active agricultural fields, including a portion that follows along the existing Niespodziany Ditch. The remainder contains three residential homes and the associated yards, and finally, two wooded areas (Appendix A Photos).

While the survey area is located within an active agricultural setting, a large industrial facility, In-Tek, is located approximately 2 km (1.25 mi) northeast of the survey area.

4.2 Site 12-Sj-0536

Site Type: Isolate
Cultural Affiliation: Unknown Prehistoric
Site Location: SW ¼, NW ¼, SW ¼; Section 1; Township 37 N; Range 1 West
UTM (NAD 83): 4614737N 542899E, Zone 16
Approximate Site Area: 1m² (10ft²)
Topographic Setting: Upland Flat
Elevation: 227 m (745 ft) amsl
Soil Type: Tracy sandy loam, 0 to 1 percent slopes (TmpA)
Nearest Water Source: Niespodziany Ditch 163 m (533 ft) North
Survey Method: Controlled Surface Collection

Site 12-Sj-0536 is located in an active agricultural field approximately 800 m (0.5 mi) northwest of the intersection of Fillmore and Walnut Roads (Figure 3) (Appendix A, Photo 3). Ground surface visibility was 100% from recent tilling. This site consists of a single isolated lithic flake which likely represents limited short-term use of the area related to stone tool maintenance or modification (Appendix B, Table 1). The material at this site reveals no chronological or diagnostic information. Based on the limited potential for Site 12-Sj-0536 to provide additional important information relevant to the prehistory of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.
Legend
- Shovel Test Survey
- Visual Survey
- Pedestrian Survey
- Existing Ditch
- Proposed Ditch

Source: USGS Lydick, 1969 and New Carlisle, 1958 (Caltopo)

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Figure 3
Results Map - Surveys
Project #1804002

Shovel Test Survey
Visual Survey
Pedestrian Survey
Existing Ditch
Proposed Ditch
### 4.3 Site 12-Sj-0537

**Site Type:** Historic farmstead  
**Cultural Affiliation:** Late Nineteenth-Mid twentieth century  
**Site Location:** SW ¼, NW ¼; Section 12; Township 37 N; Range 1 West  
**UTM (NAD 83):** 4613733N 542814E, Zone 16  
**Approximate Site Area:** 0.28 Ha (0.7 Ac)  
**Topographic Setting:** Moraine Slope  
**Elevation:** 227-226 m (745-742 ft) amsl  
**Soil Type:** Coupee silt loam, 0 to 1 percent slopes (CrrA), Auten loam, 0 to 1 percent slopes (Axva)  
**Nearest Water Source:** Niespodziany Ditch 1,140 m (3,739 ft) North  
**Survey Method:** Systematic Shovel Probe

Site 12-Sj-0537 is associated with an occupied modern farmstead along Willow Road, approximately 500 m (0.3 mi) north of the intersection of Willow Road and State Route 2. (Figures 3, 4) (Appendix A, Photos 7-14). The property contained the residence, pole barn, shed, chicken coop, and spring house. Ground surface visibility was 0% from turf grass.

Fourteen positive shovel probes yielded 41 artifacts (Appendix B, Table 1). The assemblage included wire nails and other corroded metal objects (N=23), brick fragments (N=7) glass fragments (N=6), and with individual items such as a canning jar lid and liner, a concrete fragment, a ceramic fragment, and faunal bone fragment.

*Architectural* materials include the nails, brick and concrete fragments, the *kitchen* materials include the canning jar lid and liner, a glass container and the ceramic. *Unknown* materials include badly corroded metal objects and flat glass, and finally, *the Faunal* material includes the butchered bone fragment from a medium mammal, likely a rib. The representative soil profile at this site consists of 30 cm (12 in) of very dark grayish brown (10YR3/2) silty loam above brown (10YR4/3) silty clay.

This site generally corresponds to the location of a structure on the 1875 and 1911 atlas maps (Higgins Belden & Co. 1875, Geo A. Ogle 1911)(Figure 5, 6). These maps show H.H. Clark as the landowner in 1875 and H.N. Rodgers as the landowner in 1911. The buildings onsite however are modern – i.e. metal pole barn, split-level home, etc. Wire nails indicate a post-1880 date, but the assemblage otherwise lacks distinctive or diagnostic elements and suggests a late nineteenth - mid twentieth century period (Adams 2000). These items are consistent with ancillary activities typical at a rural home and likely represent routinely discarded materials.

The material at this site reveals no specific chronological or diagnostic information. There is no indication of intact subsurface features. Based on the limited potential for Site 12-Sj-0537 to provide additional important information relevant to the history of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.
Figure 4
Site 12-Sj-0537
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Legend
- Shovel Test Survey
- Pedestrian Survey
- Proposed Ditch
- Negative Shovel Tests
- Positive Shovel Tests (PN #)
- Septic Tank
- Utility
Figure 5 - 1875 Saint Joseph County Atlas (Higgins, Belden & Co. 1875)

Figure 6 - 1911 Saint Joseph County Atlas – (Geo A. Ogle 1911)
4.4 **Site 12-Sj-0538**

**Site Type:** Unknown historic  
**Cultural Affiliation:** Late Nineteenth-Early twentieth century  
**Site Location:** SW ¼, SE ¼, NW ¼; Section 1; Township 37 N; Range 1 West  
**UTM (NAD 83):** 4615145N 543200E, Zone 16  
**Approximate Site Area:** 25m² (250 ft²)  
**Topographic Setting:** Upland Flat  
**Elevation:** 227 m (745 ft) amsl  
**Soil Type:** Auten loam, 0 to 1 percent slopes (Axva), Quinn loam, 0 to 1 percent slopes (QuiA)  
**Nearest Water Source:** Niespodziany Ditch 38 m (125 ft) Northeast  
**Survey Method:** Systematic Shovel Probe

Site 12-Sj-0538 is located in a woodlot 20 m (65 ft) north of Early Road, approximately 320 m (0.2 mi) west of the intersection of Early and Willow Roads (Figures 3, 7) (Appendix A, Photo 16). Ground surface visibility was 0% and the vegetation was mixed trees and scrub understory.

Two positive shovel probes yielded 11 artifacts. The assemblage includes glass fragments (N=5), wire nails (N=2), canning jar lid liner fragments (N=2), and earthenware bowl fragments (N=2) (Appendix B, Table 1).

*Kitchen* items include the canning jar lid liner fragments and the earthenware bowl fragments. *Architectural* items include the wire nails, and the *Unknown* items include glass fragments.

None of the available historic atlases show a structure in this location. There is no indication of intact subsurface features. The material at this site reveals no chronological or diagnostic information. These items are consistent with ancillary activities typical at a rural home and likely represent routine discarded materials.

Based on the limited potential for Site 12-Sj-0538 to provide additional important information relevant to the history of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.
Shovel Test Survey
Pedestrian Survey
Existing Ditch
Proposed Ditch
Negative Shovel Tests
Positive Shovel Tests (PN #)

Legend

Source: Google 2020

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Figure 7
Site 12-Sj-0538
Project #1804002
4.5 **Site 12-Sj-0539**

**Site Type:** Isolate  
**Cultural Affiliation:** Unknown prehistoric  
**Site Location:** SW \(\frac{1}{4}\), NW \(\frac{1}{4}\); Section 12; Township 37 N; Range 1 West  
**UTM (NAD 83):** 4613807N 542824E, Zone 16  
**Approximate Site Area:** 1m\(^2\) (10ft\(^2\))  
**Topographic Setting:** Upland flat  
**Elevation:** 227 m (746 ft) amsl  
**Soil Type:** Coupee silt loam, 0 to 1 percent slopes (CrrA)  
**Nearest Water Source:** Niespodziany Ditch 1,071 m (3,514 ft) North  
**Survey Method:** Controlled Surface Collection

Site 12-Sj-0539 is located in an active agricultural field approximately 470 m (0.3 mi) southeast of the intersection of Early and Willow Roads (Figure 3) (Appendix A, Photo 20). Ground surface visibility was 100% from recent tilling. This site consists of a single isolated lithic flake which likely represents limited short-term use of the area related to stone tool maintenance or modification (Appendix B, Table 1). The material at this site reveals no chronological or diagnostic information. Based on the limited potential for Site 12-Sj-0539 to provide additional important information relevant to the prehistory of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.

4.6 **Site 12-Sj-0540**

**Site Type:** Isolate  
**Cultural Affiliation:** Unknown Prehistoric  
**Site Location:** NE \(\frac{1}{4}\), NW \(\frac{1}{4}\), NW \(\frac{1}{4}\); Section 12; Township 37 N; Range 1 West  
**UTM (NAD 83):** 4614140N 542997E, Zone 16  
**Approximate Site Area:** 1m\(^2\) (10ft\(^2\))  
**Topographic Setting:** Upland flat  
**Elevation:** 226 m (742 ft) amsl  
**Soil Type:** Coupee silt loam, 0 to 1 percent slopes (CrrA)  
**Nearest Water Source:** Niespodziany Ditch 782 m (2,567 ft) North  
**Survey Method:** Controlled Surface Collection

Site 12-Sj-0540 is located in an active agricultural field approximately 285 m (0.18 mi) southeast of the intersection of Early and Willow Roads (Figure 3) (Appendix A, Photo 22). Ground surface visibility was 100% from recent tilling. This site consists of a single isolated lithic flake which likely represents limited short-term use of the area related to stone tool maintenance or modification (Appendix B, Table 1). The material at this site reveals no chronological or diagnostic information. Based on the limited potential for Site 12-Sj-0540 to provide additional important information relevant to the prehistory of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.
4.7 Site 12-Sj-0541

Site Type: Historic farmstead
Cultural Affiliation: Late Nineteenth-Mid twentieth century
Site Location: NE ¼, NW ¼, SW ¼; Section 7; Township 37 N; Range 1 East
UTM (NAD 83): 4613429N 544682E, Zone 16
Approximate Site Area: 0.28 Ha (0.7 Ac)
Topographic Setting: Upland flat
Elevation: (222 m) 727 ft amsl
Soil Type: Quinn loam, 0 to 1 percent slopes (QuiA)
Nearest Water Source: Niespodziany Ditch 294 m (966 ft) West
Survey Method: Shovel probe survey and visual inspection

Site 12-Sj-0541 is located at the southwest corner of the intersection of Strawberry Road and State Route 2. (Figures 3, 8) (Appendix A, Photos 27-40). The survey area at this location is limited to the 7.6 m (25 ft) wide corridor along a section of proposed ditch that parallels the existing roadway, travelling through a wooded area.

The shovel probes in this area did not contain artifacts. Archaeologists however, noted historic foundations in the woodlot southwest of the survey area. We recorded these foundations as a due diligence effort to allow for any potential changes to the project, but at the time of this survey, these foundations are each outside the survey area.

Site 12-Sj-0541 consists of two historic foundations, one partially collapsed structure, and one standing structure. The foundations are arranged east-west, matching the nearby roads. The vegetation at the site consists of mixed hardwood trees and scrub undergrowth. Visual inspection also noted modern trash including plastic bottles near the foundations.

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Dimensions (ft)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>105 by 42</td>
<td>Poured concrete foundation with large aggregate. Visible impressions from wooden forms. Slab floor. Remnants of collapsed roof with lumber, various metal hardware, and corrugated metal roof.</td>
</tr>
<tr>
<td>2</td>
<td>30 by 30</td>
<td>Collapsed outbuilding - wooden structure with corrugated metal roof and concrete footers. The structure has collapsed on twentieth century farm equipment.</td>
</tr>
<tr>
<td>3</td>
<td>30 by 30</td>
<td>Outbuilding - wooden structure with corrugated metal roof and concrete footers.</td>
</tr>
<tr>
<td>4</td>
<td>37 by 27</td>
<td>Cinder block foundation - likely former residence. Two smaller associated poured concrete foundations - possible outbuildings.</td>
</tr>
</tbody>
</table>
Shovel Test Survey
Visual Survey
Pedestrian Survey
Foundations
Negative Shovel Tests
Proposed Ditch
Push Pile

Legend
- Shovel Test Survey
- Visual Survey
- Pedestrian Survey
- Foundations
- Negative Shovel Tests
- Proposed Ditch
- Push Pile

Source: Google 2020

Proposed Indiana Enterprise Center
Christopher B. Burke Engineering
Olive Township, St. Joseph County, Indiana

Figure 8
Site 12-Sj-0541
Project #1804002
These foundations correspond to the location of a structure shown on the 1895 map on land owned by Josephus Davis and later on the 1911 atlas map on land owned by the Josephus Davis estate (Geo. A. Ogle 1895, 1911) (Figures 9, 10). The cinder block and poured concrete foundations at the site are typical of early to mid-twentieth century period.

Because the ditch is proposed along the existing roadway, and shovel probes within this survey area did not yield cultural material no additional work is necessary.

If project plans change, and activities will occur outside this survey area, additional investigation may be necessary to assess the potential effects on site 12-Sj-0541.

Figure 9 - 1895 Saint Joseph County Atlas (Geo. A. Ogle 1895)
Figure 10 - 1911 Saint Joseph County Atlas (Geo A. Ogle 1911)
5.0 CONCLUSIONS AND RECOMMENDATIONS

Orbis identified six (6) new archaeological sites (12-Sj-0536 - 0541).

Sites 12-Sj-0536, 0539, and 0540 each are isolated prehistoric artifacts associated with short-term use of the area related to stone tool maintenance or modification. These sites do not appear to meet the eligibility criteria for listing in the NRHP, therefore, no further work is recommended.

Site 12-Sj-0537 represents domestic activities associated with a rural farmstead. The artifacts lack distinctive or diagnostic elements and suggest a late nineteenth – mid twentieth century. This location corresponds to a structure location on historic atlas maps, but the current buildings are modern. There is no indication of intact subsurface features. Based on the limited potential for Site 12-Sj-0537 to provide additional important information relevant to the history of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.

Site 12-Sj-0538 represents rural domestic activities. The limited artifact assemblage, however, reveals no chronological or diagnostic information and likely represent routine discarded materials. Based on the limited potential for Site 12-Sj-0538 to provide additional important information relevant to the history of the region, it does not appear to meet the eligibility criteria for listing in the NRHP and no further work is recommended.

Site 12-Sj-0541 represents an historic farmstead outside, but adjacent to the survey area. Shovel probe survey within the nearby survey area did not encounter cultural material. Visual inspection documented foundations from four structures (including one outbuilding which still stands). These structures correspond to a structure location on historic atlas maps. The cinder block and poured concrete foundations at the site are typical of early to mid-twentieth century period.

Because the proposed ditch is located along the existing roadway, and shovel probes within this survey area did not yield cultural material, no additional work is necessary. If project plans change, and activities will occur outside this survey area, additional investigation may be necessary to assess the potential effects on site 12-Sj-0541.

These recommendations are made with the condition that if archaeological artifacts or human remains are identified during construction, work within the area will stop and the DHPA will be notified pursuant to Indiana Code.
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Appendix A

Photographs

Phase Ia Archaeological Reconnaissance

Proposed Indiana Enterprise Center
Olive Township, Saint Joseph County, Indiana
1 - Overview of northern retention area, face S.

2 - Representative surface visibility in retention areas.

3 - Site 12-Sj-0536, face N.

4 - Overview of residence at NE corner of Willow Road and SR 2, southern retention area, face E.
5 – Overview of shovel probe survey in southern retention area, face E.

6 – Overview of shovel probe survey in southern retention area, face S.

7 – Site 12-Sj-537, face NW.

8 – Modern shed at Site 12-Sj-0537, face NE.
9 – Modern residence at site 12-Sj-0537, face E.

10 – Springhouse at site 12-Sj-0537, face NE.

11 – Modern pole barn at site 12-Sj-0537, face SE.

12 – Overview of site 12-Sj-0537, face SE.
13 – Overview of Site 12-Sj-0537, face S.

14 – Modern chicken coop at Site 12-Sj-0537, face NE.

15 – Overview of woodlot along Early Road, face N.

16 – Site 12-Sj-0538, face W.
17 – Residence along N side of SR 2 – southern retention area, face N.

18 – Outbuildings at residence along N side of SR 2 – southern retention area, face N.

19 – Niespodziany Ditch flowing under Walnut Road, Face N.

20 – Site 12-Sj-0539, face SE.
21 – Southern retention area, face SW.

22 – Site 12-Sj-0540, face SE.

23 – Southern retention area, face E.

24 – Niespodziany Ditch flowing through culvert under Fillmore Road, face SW.
25 – Overview of survey area along Niespodziany Ditch North of SR2, face NE.

26 – Overview of survey area along Niespodziany Ditch, south of SR2 face NE.

27 – Foundation 1 at 12-Sj-0541, note the impressions from the concrete mold and the metal hardware, face W.

28 – Foundation 1 at 12-Sj-0541, face SE.

*Note – 12-Sj-0541 is outside the survey area
29 - Closeup of metal hardware in collapsed roof of Foundation 1 at Site 12-Sj-0541.

30 - Collapsed roof of Foundation 1 at Site 12-Sj-0541, face E.

31 - Closeup of wire nails in collapsed roof of Foundation 1 at Site 12-Sj-0541.

32 - Foundation 1, note tree roots at surface, suggesting a slab floor, face E.

*Note – 12-Sj-0541 is outside the survey area.
33 – Foundation 1 at 12-Sj-541, face W.

34 – Concrete footers and collapsed outbuilding - Foundation 2 at Site 12-Sj-0541, face W.

35 – Collapsed outbuilding - Foundation 2 at Site 12-Sj-0541, face W.

36 – Modern farm equipment under collapsed outbuilding – Foundation 2, face E.

*Note – 12-Sj-0541 is outside the survey area
37 - Standing outbuilding, Foundation 3 at 12-Sj-541, face NW.

38 - Foundation 4 at Site 12-Sj-0541, face NE.

39 - Foundation 4 at Site 12-Sj-0541, face N.

40 - Outbuilding near Foundation 4 at Site 12-Sj-0541, face SE.

*Note – 12-Sj-0541 is outside the survey area
Appendix B

Artifact Table

Phase Ia Archaeological Reconnaissance

Proposed Indiana Enterprise Center
Olive Township, Saint Joseph County, Indiana
<table>
<thead>
<tr>
<th>Catalog</th>
<th>PN</th>
<th>Field Site Number</th>
<th>Site Number</th>
<th>Level</th>
<th>Object Name</th>
<th>Material Type</th>
<th>Object Description</th>
<th>Function</th>
<th>Count</th>
<th>Notes</th>
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<tbody>
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<td>001</td>
<td>001</td>
<td>12-Sj-0536</td>
<td>Surface</td>
<td>tertiary flake</td>
<td>Lithic</td>
<td>Chert debitage</td>
<td>1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>001</td>
<td>12-Sj-0537</td>
<td>A</td>
<td>concrete fragment</td>
<td>Concrete</td>
<td>Concrete fragment with aggregate</td>
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<td>003</td>
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<td>002</td>
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<td>A</td>
<td>canning jar lid liner</td>
<td>Glass</td>
<td>Colorless glass lid liner</td>
<td>kitchen</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>005</td>
<td>002</td>
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<td>canning jar lid</td>
<td>Metal</td>
<td>Metal canning jar lid fragment</td>
<td>kitchen</td>
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<td>attached to glass lid liner</td>
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<td>006</td>
<td>003</td>
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<td>tableware</td>
<td>White improved earthenware</td>
<td>Undecorated rim fragment</td>
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<td></td>
<td></td>
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<td>004</td>
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<td>Corroded wire nail</td>
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<td>14</td>
<td>post 1880 (Adams 2000)</td>
<td></td>
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<td>12-Sj-0537</td>
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<td>008</td>
<td>12-Sj-0537</td>
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<td>Colorless container glass</td>
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<td>009</td>
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<td>Unknown mammal bone fragment</td>
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<td>saw marks from butchering</td>
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*Field site 4 was discarded as non-cultural*