

**PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE
MERRIAM JUNCTION SANDS PROJECT,
LOUISVILLE TOWNSHIP, SCOTT COUNTY, MINNESOTA**

FINAL REPORT

Submitted to:
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March 2015

MANAGEMENT SUMMARY

Merriam Junction Sands, LLC (MJS) is proposing to develop several parcels of land located in Louisville Township, Scott County, Minnesota, for non-metallic mineral mining and processing operations to accommodate the production of industrial sands in addition to the continued production of construction aggregates. Some of the parcels have been mined in the past or are currently being mined for sand and gravel limestone resources. As currently defined, the Merriam Junction Sands (MJS) project is not considered to be a federal undertaking as defined by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations (36CRF 800). If future information indicates the action is a federal undertaking this report may serve as a basis for additional study. The MJS project is subject to regulations associated with several permits from various government units, as shown in Table 1. Summit Envirosolutions, Inc. (Summit) was previously retained in June 2011 by Sunde Engineering, PPLC (Sunde) on behalf of the previous project owner, to complete a Phase I cultural resources investigation of the project area. In 2015, Sunde contracted with Summit on behalf of MJS to update the earlier Phase I study to reflect the current project.

Table 1. Merriam Junction Sands Permits and Applications Schedule

Unit of Government	Type of Application	Status
U.S. Army Corps of Engineers (COE)	Section 404 Permit, Clean Water Act	To be submitted if required
Minnesota Pollution Control Agency (MPCA)	Air Emissions Permit	To be submitted, 2015
	NPDES/SDS Construction Activity Permit	To be submitted, 2015
	Amendment to existing or new NPDES/SDS Permit for Construction Sand & Gravel, Rock Quarrying & Hot Mix Asphalt Production or Individual NPDES/SDS Permit	To be submitted, 2015
	Section 401 Water Quality Certification	To be submitted if required
Minnesota Department of Natural Resources (MnDNR)	Amendment to Existing Water Appropriations Permit or new water appropriations Permit	To be submitted, 2015

Minnesota Department of Health (MDH)	Drilling/Sealing of Wells	Submitted, 2012
Scott County	Interim Use Permit (IUP)	To be submitted 2015
	Conditional Use Permit for rail yard	To be submitted 2015
	Septic system, building permits, etc.	To be submitted 2015
Louisville Township	Wetland Conservation Act	Submitted 2012
Lower Minnesota River Watershed District	Grading permit	Not currently required, may be required in the future subject to decisions on the jurisdiction authority.

The purpose of cultural resources study was to identify any archaeological sites that are potentially eligible for inclusion in the National Register of Historic Places (NRHP) or architectural history properties listed in the NRHP that are within the MJS project area of potential effects (APE). The cultural resources investigation was conducted in accordance with the Minnesota Historic Sites Act, the Minnesota Field Archaeology Act, and the Minnesota Private Cemeteries Act.

The MJS project is located in Sections 16 and 21, T 115N, R 23W, Louisville Township, Scott County, Minnesota. The APE for archaeology is the same as the project area and comprises 682 acres (276 hectares) within the Prairie Lakes archaeological sub-region. The APE for architectural history accounts for the visual effects of the project on surrounding properties and comprises 3,363.8 acres (1,361.3 hectares).

The archaeological investigation included both a literature search and field survey component. The archaeological field survey consisted of visual assessment as well as systematic pedestrian reconnaissance and shovel testing in those portions of the archaeology APE considered to have moderate to high archaeological potential. Garrett Knudsen served as Principal Investigator for archaeology. The architectural history investigation included a literature search. Andrew Schmidt served as Principal Investigator for architectural history.

During the Phase I archaeological survey, no archaeological sites were identified within the project area. Mounds likely associated with sites 21SC0029 and 21SC0030 were observed, however, just outside of the project area. It is recommended, therefore, that a

50-foot buffer be established around the maximum extent of these sites within which no surface or subsurface disturbance may occur.

Two foundations, a depression, and historic midden situated within the depression, were observed just outside of the project area within the 21SC0030 site boundary. Based on the review of historical aerial photographs and plat maps, these foundations are likely associated with historic farmsteads that once occupied this area. Because they are located outside of the archaeology APE, documenting these foundations in greater detail was outside the scope of this investigation.

No additional archaeological investigation is recommended for the remaining portions of the project area.

No properties listed in the NRHP are located within or adjacent to the MJS project area. The Carver Historic District, located across the Minnesota River from the project area, may have views of some structures associated with the project. Therefore, Summit recommends additional consultation regarding potential visual effects to the Carver Historic District.

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1.0 INTRODUCTION

Merriam Junction Sands, LLC (MJS) is proposing to develop several parcels of land located in Louisville Township, Scott County, Minnesota, for non-metallic mineral mining and processing operations to accommodate the production of industrial sands in addition to the continued production of construction aggregates. Some of the parcels have been mined in the past or are currently being mined for sand and gravel limestone resources. As currently defined, the Merriam Junction Sands (MJS) project is not considered to be a federal undertaking as defined by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations (36CRF 800). If future information indicates the action is a federal undertaking this report may serve as a basis for additional study. The MJS project is subject to regulations associated with several permits from various government units, as shown in Table 1.

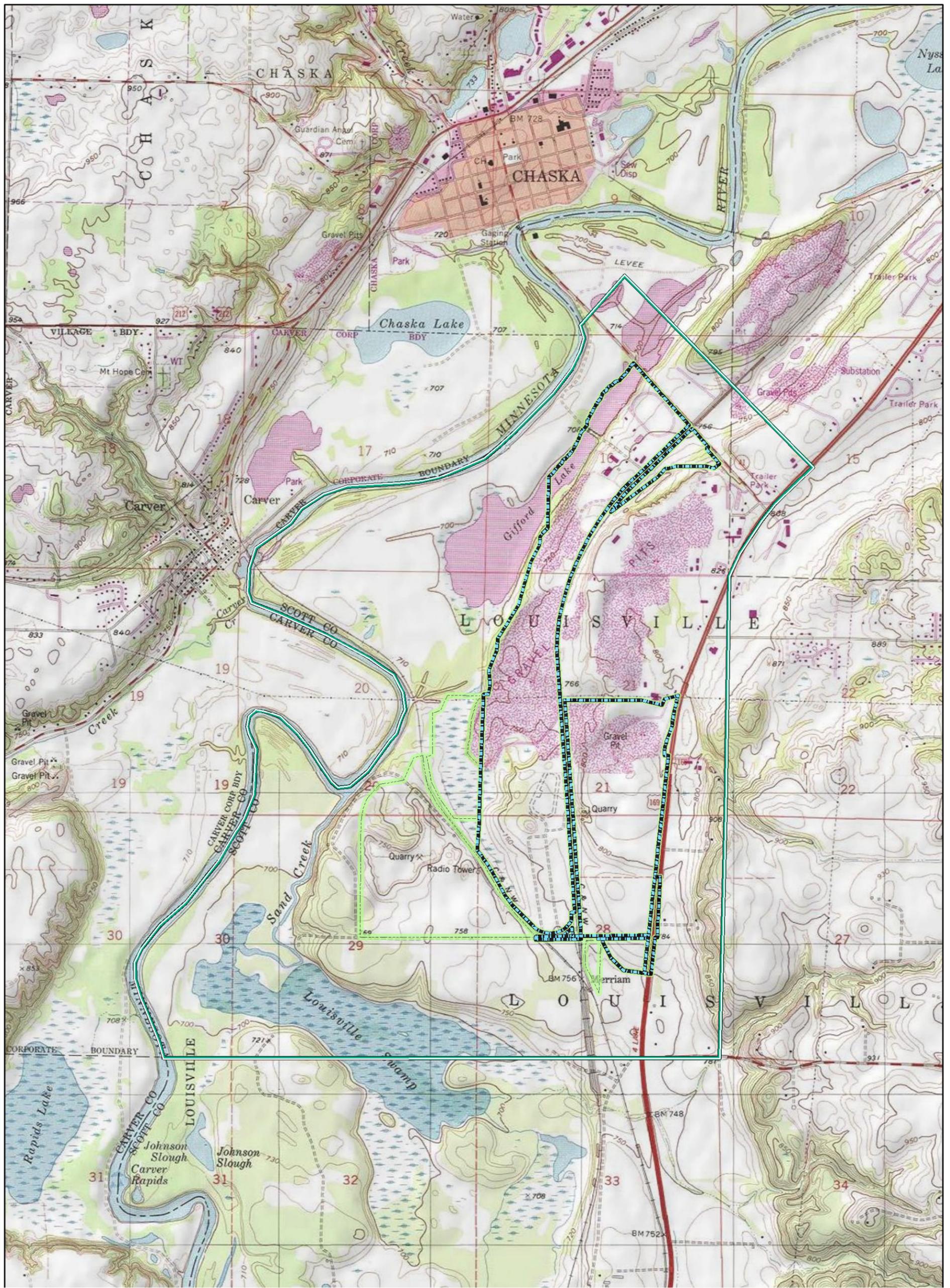
Summit Envirosolutions, Inc. (Summit) was previously retained in June 2011 by Sunde Engineering, PPLC (Sunde) on behalf of the previous project owner, to complete a Phase I cultural resources investigation of the project area. Sunde coordinated with Summit on behalf of the current owner to update the earlier Phase I study to reflect the current project. The purpose of the cultural resources study was to identify any archaeological sites that are potentially eligible for listing in the National Register of Historic Places (NRHP) or any architectural history properties listed in the NHRP within the MJS project area of potential effects (APE). The cultural resources investigation was conducted in accordance with the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

The original MJS project area comprised portions of Sections 16, 20, 21, 28, and 29, T 115N, R 23W, Louisville Township, Scott County, Minnesota (Figure 1). As of 2015, the project area no longer included the E ½ of the SE ¼ and the SW ¼ of the SE ¼ of Section 20, the NW ¼ of the SW ¼ of the NW ¼ and the S ½ of the NW ¼ of the NW ¼ and the E ½ of the NE ¼ of the SW ¼ of Section 28, and the NW ¼ of the NE ¼ and the S ½ of the NE ¼ of Section 29 (see Figure 1)

The APE for archaeology is the same as the project area and includes the maximum potential construction limits and all areas of potential ground disturbance, such as staging areas, associated with the construction of the mining and processing facilities and the removal of the sand and gravel resources. The current (2015) project area comprises 682 acres (276 hectares) within the Prairie Lakes archaeological sub-region. The UTM coordinates (NAD 83) for the archaeology APE are Zone 15, northwest corner: E452265.7137 N4958082.5587; northeast corner: E453908.218 N4958082.5587; southwest corner: E452265.7137 N4953991.6009; and southeast corner: E453908.218 N4953991.6009. Coordinates were calculated electronically using ArcGIS 10.

In addition to the project area, the APE for architectural history accounts for the potential indirect effects of the project on surrounding properties that may result from changes in visual qualities, noise, and traffic. The APE includes the project area plus surrounding

properties bounded by the river bluffs, Trunk Highway 169, and the Minnesota River. Although properties across the Minnesota River generally were not considered to be within the APE, the City of Carver has expressed concern regarding potential visual changes resulting from the project, and therefore, Carver was included in the literature search. The architectural history APE comprises 3,363.8 acres (1,361.3 hectares)(see Figure 1).



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Sections 16, 20, 21, 28, and 29

Legend

-  Merriam Junction Sands Project Location
-  Original Project Location (2011)
-  APE for Architectural History



Project Location

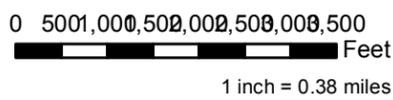


FIGURE 1. PROJECT LOCATION

Merriam Junction Sands Project
Louisville Township, Scott County, Minnesota



File: Fig1-2015.mxd
Summit Proj. No.: 2115-0001
Plot Date: 03-20-2015
Arc Operator: SJN
Reviewed by: LO

2.0 METHODS

2.1 OBJECTIVES

The principal objectives of the Phase I cultural resources survey were twofold: to identify archaeological resources within the archaeology APE that are listed in or are eligible for listing in the National Register of Historic Places (NRHP) in accordance with the Minnesota Field Archaeology Act and Private Cemeteries Act; and historic properties within the architectural history APE that are listed in the NRHP, in accordance with the Minnesota Historic Sites Act. The potential for archaeological resources was assessed by means of a literature search and systematic in-field inspection and testing.

Summit's investigation was guided by the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716) and by the *SHPO Manual for Archaeological Projects in Minnesota* (Anfinson 2001). Fieldwork and preparation of the final report with recommendations were accomplished or directly supervised by a professional archaeologist and architectural historian meeting the standards set forth in 36 CFR 61.

2.2 LITERATURE SEARCH

Summit staff completed background research at the Minnesota State Historic Preservation Office (SHPO), the Minnesota Historical Society (MHS) library, and the University of Minnesota. The purpose of research at the SHPO, conducted in September 2011 and March 2015, was to identify previously recorded cultural resources and cultural resource surveys previously conducted in the vicinity of the project area. In addition, topographic maps, soil surveys, aerial photographs, and historical maps were consulted to obtain historical information about the APEs and their potential to contain previously unidentified cultural resources.

In accordance with the Minnesota Historic Sites Act, historic resources were considered to be properties listed in the NRHP. The literature search indicated that no historic resources are located within the architectural history APE. However, the City of Carver expressed concern regarding visual changes that may result from the project, and therefore, Summit included Carver in the literature search area.

The assessment of an area's potential to contain precontact archaeological resources is based on the analysis of the terrain, water sources, and other natural resources in and adjacent to that area. Permanently wet areas (e.g., wetlands and streams), poorly drained areas, and areas with slopes greater than 20 percent are generally considered inhospitable to human occupation and are unlikely to contain cultural resources.

In general, areas with higher precontact archaeological potential are in proximity to a relatively substantial water source, typically within 500 feet, though the exact distance often varies according to environmental conditions such as the size of the body of water, the nature of the water source (perennial versus intermittent), and the extent of the

floodplain. Topographic prominence and proximity to previously recorded precontact sites are also typically indicative of high precontact archaeological potential.

Areas in proximity to historic-period buildings or structures (standing or ruins) are considered to hold higher potential for containing historic-archaeological resources. These areas are not limited to the locations of buildings, as often the most important information comes from deposits within associated features, such as privies, cisterns, or middens, which were located away from primary buildings.

Additional research was conducted to develop historic contexts for the project area and to assess whether any potential historic-archaeological resources in the project area might be historically significant. County histories, historic topographic maps, historic aerial photographs, and General Land Office survey maps and tract books were consulted in this regard. Historic maps were also used for comparison with existing buildings and structures in the field.

2.3 ARCHAEOLOGY

2.3.1 Field Methods

The Phase I archaeological field investigation consisted of visual assessment, systematic pedestrian survey, and shovel testing. The use of these methods was based on ground surface visibility, slope, distance to water, degree of previous disturbance, terrain, and vegetation as found within the survey areas.

Areas demonstrably disturbed through previous construction or other modern land-use practices were excluded from survey unless the potential existed for intact cultural deposits beneath the disturbance. In addition, permanently wet areas (wetlands, lakes, ponds, streams) and slopes greater than 20 percent were excluded from survey because they are generally inhospitable to human occupation and are unlikely to contain cultural resources.

Visual reconnaissance of the APE was conducted during the Phase I archaeological survey to identify aboveground archaeological features or other indicators of the presence of past peoples, such as burial mounds. Areas of moderate to high archaeological potential exhibiting 25 percent or more surface visibility were examined through a systematic pedestrian survey. A systematic pedestrian survey is a visual examination of the ground surface, during which field personnel walk across the project area at regular intervals to observe the surface for the presence of cultural remains. During this project, pedestrian reconnaissance was conducted along transects spaced 15 meters (49 feet) apart.

Areas of moderate to high archaeological potential exhibiting less than 25 percent surface visibility were examined through systematic shovel testing. Systematic shovel testing involves the manual excavation of small holes 30 to 40 centimeters in diameter, typically at regular intervals of 15 meters (49 feet), to identify subsurface archaeological materials.

Shovel tests were excavated through all soil horizons with the potential for containing cultural remains and into the underlying sterile subsoil (C horizon), or to a maximum depth of one meter (three feet), depending on which condition was first encountered. Excavated soils were passed through ¼-inch hardware mesh to ensure consistency in the recovery of cultural materials. Shovel test data were recorded on standardized forms. Recorded information included: 1) the designated field area within which each test was located; 2) the location of each shovel test in relation to natural or cultural features, or to other shovel tests, as appropriate; 3) a description of soil horizons, including depth, texture, and Munsell® color designation; and 4) the nature and depth of natural or cultural inclusions. The locations of all shovel tests were recorded using a Trimble Pro-XRS®.

3.0 ENVIRONMENTAL CONTEXT

The proposed project area is located within the Prairie Lakes Archaeological Region (Region 2). Region 2 encompasses most of southwestern and south-central Minnesota, including all of Scott County, and extends into northeastern South Dakota and north-central Iowa.

3.1 GEOLOGY AND GLACIAL HISTORY

The most conspicuous geological features within FS project area were formed primarily through glacial activity during the most recent glaciation stage, the Wisconsin, which began sometime between circa 75,000 and 60,000 years ago (Gibbon et al. 2002a; Ojakangas and Matsch 1982:105; Tester 1995:11; Wright 1972b:524). During this time period, the advance and retreat of ice lobes into and within Minnesota created “various landforms, such as moraines, drumlins, eskers, and a variety of lakes, streams, and wetlands” (Tester 1995:11). Of the many different ice lobes present during the Wisconsin Glaciation, the Des Moines Lobe was the one to primarily affect the project area. During the Split Rock-Pine City Phase of the Wisconsin Glaciation, the Des Moines Lobe of the Laurentide ice sheet moved southward across the state following the Minnesota and Des Moines River valleys and eventually terminating in central Iowa around 14,000 years ago (Ojakangas and Matsch 1982; Tester 1995:11; Wright 1972b:540). As it moved, a varied landscape of moraines, drumlins, lakes, and streams were formed through its recurrent advances and retreats (Wright 1972b:534-541, 543-546). Sometime during the final retreat of the Wisconsin Glacier, between 8,000 and 12,000 years ago, the Des Moines Lobe receded far enough north to aid in the creation of Glacial Lake Agassiz and subsequently Glacial River Warren (Tester 1995:12-13; Wright 1972b:534-545).

3.2 CLIMATE

During most of the Wisconsin Glaciation, Minnesota was largely covered by glacial ice masses (Gibbon et al. 2002a). Circa 14,000 years ago, however, a rise in the average annual temperature caused the Laurentide ice sheet to wane, resulting in a warmer and drier climate (Ojakangas and Matsch 1982:108; Knox 1984:34). Between 10,000 and 10,000 years ago, as glacial retreat continued, glacial activities such as till deposition, scarring, and erosion gradually altered the topography of the surrounding landscape. These changes were accompanied by vegetational adaptations, as the openings created by the tundra and spruce forests following the retreating glaciers northeast were slowly filled with deciduous forests. By 10,000 years ago, the vegetation of the project area was largely composed of birch, alder, and pine (Gibbon et al. 2002a).

Throughout the course of the Early and Middle Holocene periods, approximately 10,800 to 4,900 years ago, forests continued to retreat northeastward, and in their place, vast prairies developed. The dry, warm, air that ushered in the first part of the Middle Holocene (8,000 to 6,000 years ago) triggered a significant decrease in precipitation and an increase in temperatures, resulting in up to 20 percent less rainfall and an average

temperature of up to 5 degrees Fahrenheit higher than modern conditions (Gibbon et al. 2002a).

By approximately 6,000 years ago, however, the climate underwent a cooling trend, accompanied by frequent and heavy rainfall and associated floods (Gibbon et al. 2002a; Knox 1984:31). The resulting climate stimulated a reversal of previous vegetation trends, with prairies retreating to their approximate modern borders and deciduous forest once again populating the project area by the end of the Middle Holocene (Gibbon et al. 2002a).

Today, warm, humid summers and cold, dry winters characterize the climate of the project area (Tester 1995:28). The average winter temperatures for Scott County range from 14 to 19 degrees Fahrenheit (F), with winter average daily minimum temperatures ranging from 5 to 10 degrees F. The average summer temperatures for the county range from 69 to 72 degrees F, with summer average daily maximum temperatures ranging from 79 to 82 degrees F (Homefacts 2015). In addition, Scott County receives an average of 50 inches of snow and 28 inches of rain per year (Scott County 2006).

3.3 HYDROLOGY

Scott County is located within the Mississippi River basin. Portions of the Mississippi River Valley located south of its confluence with the Minnesota River were formed by Glacial River Warren, which was responsible for draining glacial Lake Agassiz (Schwartz and Thiel 1963:26, 291).

The 14,000-plus lakes in Minnesota were formed through glacial erosional and depositional processes that resulted in the creation of an uneven topography that filled with melting ice and precipitation (Schwartz and Thiel 1963:25; Tester 1995:197). Minnesota boasts the greatest percentage of water area contained within a U.S. state, with “one square mile of water for every twenty of land” (Schwartz and Thiel 1963:25). Not surprisingly, Minnesota also contains a substantial area occupied by wetlands, especially in the northwestern portions of the state once covered by glacial Lake Agassiz (Schwartz and Thiel 1963:45).

Many of Minnesota’s lakes, however, have been altered through drainage. This widespread method of lowering and drying out lakes and other bodies of water was primarily practiced after Euro-American settlement to improve the land for agricultural purposes. Consequently, many of the lakes and other bodies of water present within the region may not reflect their historical appearance, and caution should be exercised when evaluating areas apparently lacking a current water source, or containing less substantial water sources, such as wetlands, for their potential to contain precontact archaeological resources.

3.4 PHYSIOGRAPHIC REGION

The current project area is situated within the Prairie Lakes region, whose topography is dominated by the swells and swales of ground moraines which are in turn framed by hillier end moraines. The soils are associated with the Altamont moraine, and tend to be fine and loamy. The broad Minnesota River Valley bisects the region from southwest to northeast, and served as the primary outlet for glacial River Warren, a drainage of glacial Lake Agassiz. Other common topographic features within the region include shallow “pot hole” lakes and an abundance of streams and rivers – all of which eventually flow into the Mississippi River (Gibbon et al. 2002a).

3.5 FLORA AND FAUNA

At the end of the Wisconsin Glaciation, the Minnesota environment transformed from a tundra-like plain, to a spruce parkland, and then to a conifer-dominated forest. Fossil evidence suggests that megafauna such as giant beaver, mastodon, and buffalo were present, as well as white-tail deer, mountain lion, caribou, lynx, wolverine, and moose. Deciduous forests began to replace the spruce parkland/coniferous forests in southern Minnesota around 11,500 years ago and within the next 1,000 years, had advanced into central and northern portions of the state (Gibbon et al. 2002a).

Prairies, in turn, began to dominate the landscape of southern Minnesota in the wake of retreating deciduous forests around 10,000 years ago. Fossil evidence suggests that animal populations during this period were comprised of many species of birds and fresh-water fish, an assortment of amphibians and reptiles, and a variety of mammals, including timber wolf, beaver, red fox, black bear, white-tailed deer, porcupine, fisher, coyote, and otter (Kay 1998:16-47; Gibbon et al. 2002a).

By 8,000 years ago, all but the northeastern Arrowhead region of the state was covered by prairie. Bison were plentiful during this time, as were smaller mammals and birds such as gophers, jackrabbits, ground squirrels, raccoons, skunks, weasels, badgers, prairie chickens, sparrows, owls, hawks, and blackbirds. Beavers, muskrat, waterfowl, and fish were also common in wetter areas (Kay 1998:16-47).

As the climate became wetter around 6,000 years ago, the deciduous forests began to once again migrate into the west and south. Approximately 3,000 years ago, the forest/prairie boundary reached the extent found at the time of European contact, and the animals and plants residing within those distinct environments would mirror those described by the first settlers during the Contact Period (Kay 1998:16-47).

4.0 LITERATURE SEARCH RESULTS

4.1 ARCHAEOLOGY

4.1.1 Previous Investigations

Background research revealed that four archaeological surveys have previously occurred within or adjacent to the project area (Figure 2).

Between 1977 and 1980, the Minnesota Historical Society conducted a Minnesota Statewide Archaeological Survey, which primarily utilized pedestrian reconnaissance conducted at 50-meter intervals. This survey included the investigations of sites 21SC0029 and 21SC0030 (Roberts 1993; Gibbon et al. 2002b), the results of the investigations are provided in Section 4.1.2.

In 1972, an archaeological survey was conducted within proposed alternate corridors in advance of the relocation of Trunk Highways 212, 41, and 169. This investigation included the northern 1,000 feet of the current project area, as shown in Figure 2. At that time, 17 of the original 69 mounds associated with 21SC0026 were visible within a cultivated field. Since the proposed highway alternates would endanger the site, it was recommended that “testing with possible salvage be conducted” (Nystuen 1973: 32).

In 2000, A Phase I reconnaissance survey was undertaken within the location of a proposed amphitheater and adjacent to the northern end of the current project area (see Figure 2). Through the course of pedestrian reconnaissance and visual inspection, it was determined that mining operations had significantly disturbed this portion of the project area. At that time, all of the topsoil had been removed and replaced, and representatives from the mining company indicated that up to 20 feet of soil had been removed from the mining area. No further archaeological was, therefore, recommended for this portion of the project area (Mather 2000).

In 2006, a Phase I archaeological investigation was conducted within several alternative route corridors for Trunk Highway 41 near Chaska, Minnesota, including the E ½ of the NE ¼ and the N ½ of the NE ¼ of the SE ¼ of Section 20, Section 21 (excluding the NE ¼), and Section 28 (excluding the SW ¼)(see Figure 2). These areas were investigated via pedestrian survey and/or visual inspection, and all of the project area was considered to be significantly disturbed or not surveyable (Schoen 2006). This investigation also included a geomorphical study at the location of a proposed bridge crossing in the S ½ of the NE ¼ of the NW ¼ of Section 16, T115N, R23W (see Figure 2). Soil coring and hand probing in this location revealed the presence of mortaine till that progrades to the southeast over floodplain deposits. It was determined that despite a limited testing sample in this area, the potential for the deposits to contain archaeological resources was low due to their young age and general absence of buried soils. Although one buried soil horizon was encountered near the southern end of the study area, it was also considered to hold low archaeological potential since it was recovered from a marshy environment (Kolb 2006). For these reasons, no additional archaeological work was recommended for these areas (Kolb 2006; Schoen 2006).

4.1.2 Previously Identified Archaeological Sites

Precontact Archaeology

Literature and archival research indicates that no precontact archaeological sites have been previously recorded (field verified) or reported (not field verified) within or adjacent to the current project area. Eight additional precontact sites, 21CR0002, 21SC0021, 21SC0026, 21SC0028-30, 21SC0062, and 21SC0029, have been previously recorded or reported within one mile of the APE, as summarized in Table 2 and shown on Figure 3.

Historical Archaeology

Literature and archival research indicates that two historic-archaeological sites, 21SCaq and 21SCr, have been previously recorded or reported within or adjacent to the current project area (see Figure 3, Table 2). These sites are described in greater detail below.

Eleven additional historic-archaeological sites, 21CRq, 21CRv-y, 21SC0027, 21SC0064, 21SCaa, 21Scab, 21SCi, and 21SCj, have been previously recorded or reported within one mile of the APE, as summarized in Table 2 and shown on Figure 3.

21SCaq (Louis La Croix Fur Post)

Site 21SCaq comprises the reported location of Louis La Croix's fur post, which was situated on the east bank of the Minnesota River (see Figure 3). It was here that Mr. La Croix "built a cabin which he used as a trading post in 1850" (Neill and Bryant 1882). According to Roberts (1993), the 21SCaq site boundary may also encompass the location of the former H. H. Spencer house and grist mill, which were established in the early 1850s. No additional information regarding the site is currently available (State site form 21SCaq, on file at the SHPO). This site appears to be adjacent to, but outside of, the current project area.

21SCr (Merriam)

Site 21SCr includes the former locations of the village of Merriam, which was platted in 1866 and subsequently abandoned in 1871, and the Merriam Junction Station (also known as Sioux Junction) (see Figure 3). Undated field notes and photographs in the state site file document the presence of structural remains related to three unidentified buildings, a well, smoke house, and a stage line stop/half way house (circa 1870s-1880s), and also indicate the presence of remnants of the "old stage coach line road" (State site form 21SCr, on file at the SHPO). No other information regarding the site is currently available. The plat of the village extends into the current project area, but location of the former railroad station appears to be adjacent to, but outside of, the current project area.

Winchell (1888) also noted the presence of a limestone quarry in the SE ¼ of Section 20 or the SW ¼ of Section 21, T115N, R23W, on the east side of the Minnesota River stating that "In Louisville, Mrs. M. A. Spencer owns a quarry... which has been worked fifteen years with annual sales from \$200 to \$950. The stone is in layers from one to three feet thick, hard and compact, except that small cavities sometimes occur in it. It has

been used for much of the bridge masonry of Scott and Carver counties, including the railroad-bridges at Chaska and Carver.”

Historic maps of the project area that depict buildings date to 1855, 1874, 1898, 1913, and 1944. Historic aerial photographs of the project area date to 1937, 1951, 1963, 1964, and 1991. These maps and photographs were reviewed to determine the potential for encountering historic-archaeological sites within the current project area.

A map of the project area as it appeared during the mid nineteenth century depicts a branch of the Minneapolis and St. Louis Railway running northwest to southeast from the town of Carver through the eastern half of Section 20 and western half of Section 28 to Merriam Station and Sioux City Junction, which were located adjacent to the southern end of the APE. A second railroad was depicted running southwest-to-northeast within the E ½ of Section 16 and north-to-south through the center of Sections 21 and 28. At that time, this segment of track was owned by the Sioux City and St. Paul Railroad. A road was also present running east-to-west through the S ½ of the S ½ of the N ½ of Section 28 that provided access from the station to a farmstead owned by M. A. Spencer located in Section 28 (west of the current project area) (Andreas 1874).

By 1898, six farmsteads had been constructed in the project area, including one farmstead in the SE ¼ of the NE ¼ of the SW ¼ of Section 16 within property owned by J. Gifford, one in the NW ¼ of the SE ¼ of the NW ¼ in Section within property owned by H. S. Bass, two in the SE ¼ of the SE ¼ of the SW ¼ of Section 21 and one in the NE ¼ of the NE ¼ of the NW ¼ of Section 21 within property owned by D. G. Thompson, and one in the NW ¼ of the NW ¼ of the SE ¼ of Section 28 within property owned by H. Pitzschneider. Additionally, a “R. H. Gravel Pit” had been established in the SE ¼ of the NW ¼ of Section 21 by that date, as well as a road that ran northwest-to-southeast from the eastern bank of the Minnesota River and over Gifford Lake, and crossing the project area in the S ½ of Section 16 (Northwest Publishing Co. 1898).

Within the next fifteen years, few changes were noted within the project area other than the transfer of land ownership (Webb Publishing Co. 1913). By 1937, however the farmsteads located in the NW ¼ of Section 21 and the SE ¼ of Section 28 had been removed (Aerial Photograph 1937). The aerial photograph also shows that what had been originally interpreted as three separate farmsteads owned by D. G. Thompson on the 1898 map were in fact a single, sprawling farmstead (Aerial Photograph 1937). A new farmstead is visible on the aerial photograph of the project area dating to 1940 in the NE ¼ of the SW ¼ of Section 21, indicating that it had been constructed sometime during that three-year period (Aerial photograph 1940). The exclusion of a farmstead previously depicted in the SE ¼ of the SW ¼ of Section 21 on the 1944 plat map appears to be a cartographic error, as the farmstead is clearly visible on aerial photographs of the project area that date to 1951 through 1964 (Dahlgren 1944; Aerial Photographs 1951, 1963, and 1964).

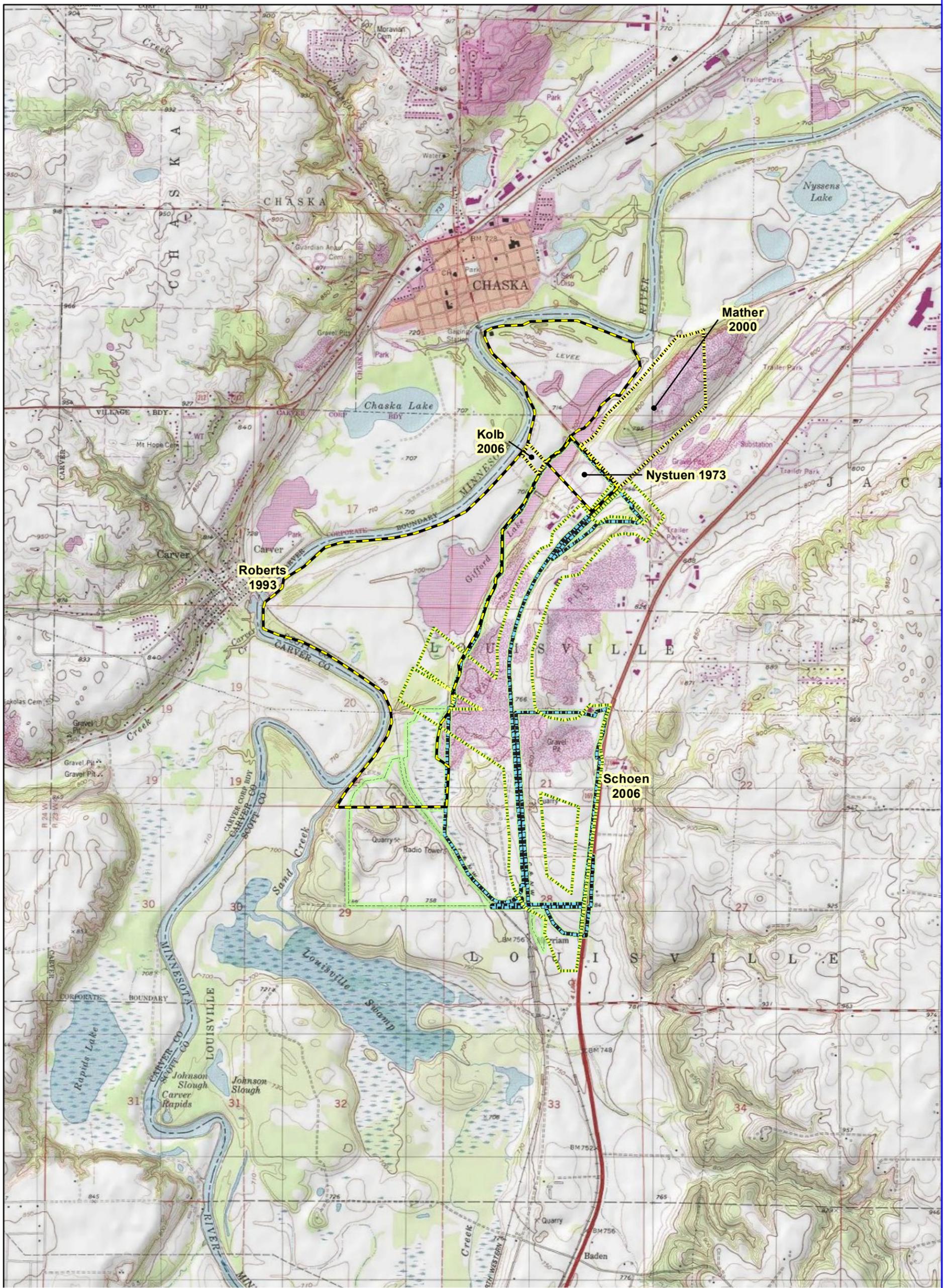
By 1963, mining operations had extended into the NW ¼ of the SE ¼ of Section 21 in the project area, and by 1991, the majority of the project area had been significantly disturbed due to mining operations and the construction of racing and festival facilities (Aerial Photographs 1963, 1964, and 1991). Current aerial photographs show that the only portions of the project area that have not been significantly disturbed by mining, cultivation, or construction include those located in the SW ¼ of the NE ¼ and the NW ¼ of the SE ¼ of Section 28, T115N, R23W.

Table 2. Previously Identified Archaeological Sites

Site Number (Site Name)	Twp	Range	Section(s)	¼ Sections	Site Type	Tradition	National Register
21CR0002	115	23	9	C-W-W-NW	Mound complex	Woodland	Listed
21CRq	115	23	31	SW	Ghost town	Euroamerican	Not evaluated
21CRv (Oliver Fairbault Post)	115	23	9	W-NW	Trading post	Euroamerican, Initial US	Listed
21CRw (Thomas A. Holmes Post)	115	23	9	NW-SW	Trading post	Euroamerican	Listed
21CRx (Mission of St. Francis Xavier)	115	23	9	NW-SW-NW	Mission	French	Listed
21CRy (Chaska Ferry)	115	23	9	NW-SW	Ferry	Euroamerican	Listed
21SC0021	115	23	29	NW-NE	Mound complex	Woodland	Not evaluated
21SC0026 (Malkerson)	115	23	9, 10	9: SE-SE & 10: SW-SW	Mound complex	Woodland	Not evaluated
21SC0027 (Little Rapids)	115	23	31, 32	31: E-E-NE & 32: W-W-NW	Multi-type	French	Not evaluated
21SC0028 (Jab's Farm)	115	23	29	SW-SE-SW	Mound complex	Woodland	Not evaluated
21SC0029	115	23	20	NW-SE	Mound complex	Woodland	Not evaluated
21SC0030	115	23	20	N-N-SW-SE	Mound complex	Woodland	Not evaluated
21SC0062	115	23	29	NE-NW	Lithic scatter	Precontact	Not evaluated
21SC0064 (Malkerson)	115	23	16	SE-NW-NE	Lithic scatter	Euroamerican	Not evaluated
21SC0091 (Highway 42 Trail)	115	23	10	W-NW-SW	Lithic scatter	Precontact	Not evaluated
21SCaa	115	23	29	C-SE	Ghost town	Euroamerican	Not evaluated
21SCab	115	23	32	C-W-NE	Ghost town	Euroamerican	Not evaluated
21SCaq (Louis La Croix Fur Post)*	115	23	20	E	Trading post	Initial US	Not evaluated
21SCi (Little Rapids)	115	23	31	E-E-NE & W-NE, W-E-NE	Ghost town	Euroamerican	Not evaluated
21SCj (Louisville)	115	23	20, 29	S-S, N-N	Ghost town	Euroamerican	Not evaluated
21SCr (Merriam)**	115	23	28	N/A	Ghost town	Post-contact (Railroad and Agriculture Development)	Not evaluated

*Located adjacent to the Project Area

**Located within or adjacent to the Project Area



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Sections 16, 20, 21, 28, and 29

Legend

-  Merriam Junction Sands Project Location
-  Original Project Location (2011)
-  Previously Conducted Survey
-  Previously Conducted Survey



Project Location

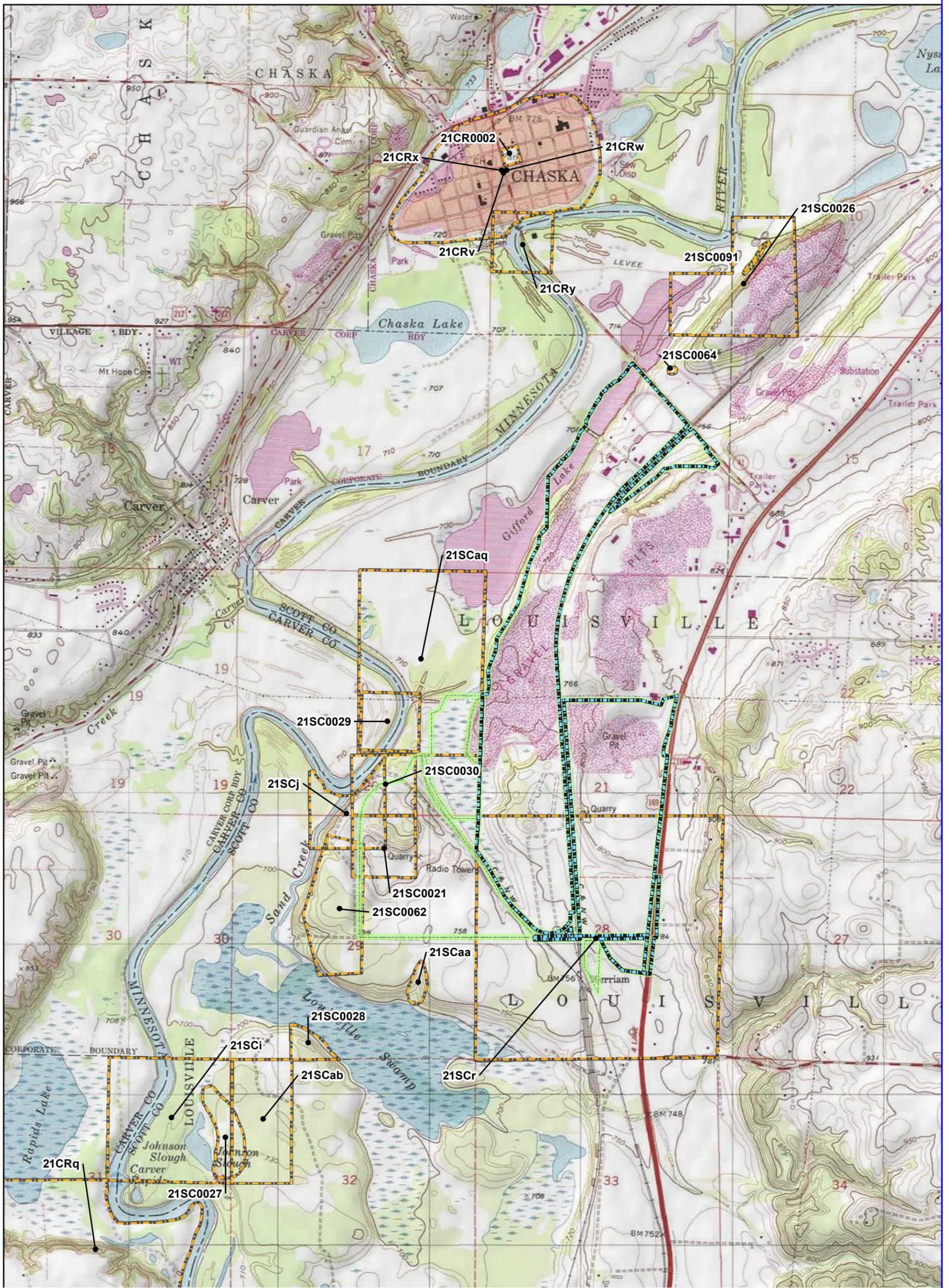


FIGURE 2. PREVIOUSLY CONDUCTED ARCHAEOLOGICAL SURVEYS

Merriam Junction Sands Project
Louisville Township, Scott County, Minnesota



File: Fig2-2015.mxd
Summit Proj. No.: 2115-0001
Plot Date: 03-20-2015
Arc Operator: SJN
Reviewed by: LO



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Sections 16, 20, 21, 28, and 29

Legend

-  Merriam Junction Sands Project Location
-  Original Project Location (2011)
-  Previously Identified Archaeological Sites



Project Location



1 inch = 0.38 miles

FIGURE 3. PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES

Merriam Junction Sands Project
Louisville Township, Scott County, Minnesota



File: Fig3-2015.mxd
Summit Proj. No.: 2115-0001
Plot Date: 03-20-2015
Arc Operator: SJN
Reviewed by: LO

4.2 ARCHITECTURAL HISTORY

4.2.1 Previous Investigations

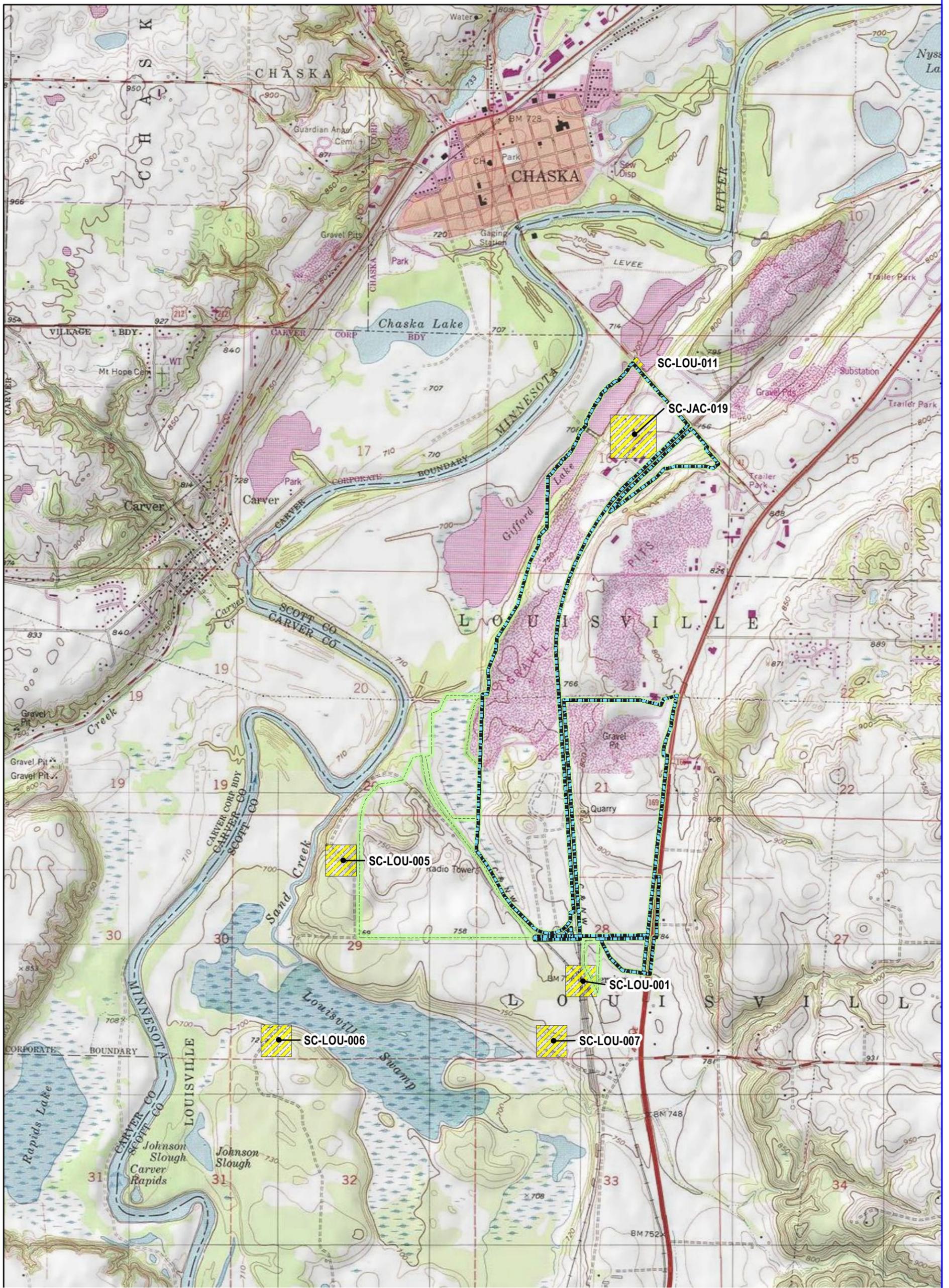
Background research was conducted for previously inventoried properties within the architectural history APE to determine if any properties listed in the NRHP may be affected by the project. Table 3 depicts properties within the architectural history APE that have been previously inventoried. None of the properties is listed in the NRHP, and the only extant properties, SC-JAC-019 and SC-LOU-011, have been evaluated as not eligible for listing in the NRHP.

The City of Carver expressed concern regarding visual changes that may result from the project. Within Carver, the Carver Historic District was listed in the NRHP in 1980, and includes commercial, residential, social, and religious buildings from 1852 to 1900.

Table 3. Previously Identified Architectural History Properties

Inventory Number	Property Name	Township	Range	Section	USGS Quad	Address	National Register
SC-JAC-019*	Malkerson Stables	115	23	16	Shakopee	12360 Chestnut Blvd.	Not eligible
SC-LOU-001	Merriam Junction Depot (razed)	115	23	28	Jordan East	on Chicago & Northwest RR tracks	Not evaluated
SC-LOU-004	Farmstead Ruins (razed)	115	23	21	Shakopee	off U.S. Highway 169	Not evaluated
SC-LOU-005	Ruin	115	23	29	Jordan East	N/A	Not evaluated
SC-LOU-006	Masonry Ruins	115	23	29	Jordan East	N/A	Not evaluated
SC-LOU-007	Ruins	115	23	28	Jordan East	N/A	Not evaluated
SC-LOU-011	Bridge Number 6763	115	23	23	Shakopee	TH 41 over Minnesota River overflow	Not eligible

*Located within the Project Area



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Sections 16, 20, 21, 28, and 29

Legend

-  Merriam Junction Sands Project Location
-  Original Project Location (2011)
-  Previously Identified AH Properties



Project Location

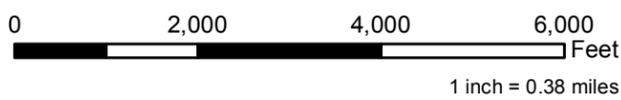


FIGURE 4. PREVIOUSLY IDENTIFIED ARCHITECTURAL HISTORY PROPERTIES

Merriam Junction Sands Project
Louisville Township, Scott County, Minnesota



File: Fig4-2015.mxd
Summit Proj. No.: 2115-0001
Plot Date: 03-20-2015
Arc Operator: SJN
Reviewed by: LO

4.3 HISTORIC CONTEXTS

The following sections provide relevant historic contexts for the precontact period (before ca. 375 years ago), contact period (A.D. 1630-1820), and historical period (A.D. 1820-present) in North America in general and Scott County in particular. These contexts are divided into a number of periods and sub-periods, and constitute research themes under which archaeological resources identified in the project area can be evaluated for their NRHP significance.

4.3.1 Precontact Period

First Settlement of North America (before circa 11,500 years ago)

It is not clear how or when the first human populations arrived in the Americas. Linguistic and genetic studies indicate that Native American ancestors may have originated from Northeast Asia (Stanford 1999:284), possibly traveling along a coastal route. Other archaeologists suggest that the first settlers entered North America across a land bridge from Siberia to Alaska, or they may have crossed the south Pacific and spread northwards from southern South America.

At one time, archaeologists believed that the original inhabitants of the New World were the Clovis people (described below), who arrived approximately 11,500 years ago. Now, some archaeologists question this assertion because a small number of sites that may predate Clovis have been identified in the United States, such as the La Sena site in southwestern Nebraska, the Dutton and Selby sites in northeastern Colorado, and the Kanorado site in northwestern Kansas, which range in date from approximately 13,200 to 19,600 years ago (Bhuta et al. 2011:12). Unfortunately, because only a few pre-Clovis sites have been discovered to date, they do not give us a clear idea of who these settlers were or how they lived. Based on the limited evidence discovered to date, it is possible that the first human groups resided in the Americas before 13,000 years ago.

To date, no “pre-Clovis” sites have been confirmed in Minnesota, and no indisputably pre-Clovis sites have been identified on the Plains (Stanford 1999:286). In 2004, a possible pre-Clovis site, 21CA0668 (Walker Hill), was identified in Cass County near Leech Lake. This site contained a pit feature from which it was reported that lithic artifacts had been recovered from an “intact buried deposit believed to be of late glacial age” (Bhuta et al. 2011:15). In 2006, a Phase III investigation was conducted at the site, though the final results are pending. The following year, two small hearth-like features and two small lithic tools were identified at the site. While absolute dates could not be obtained from soil samples collected from 21CA0668, this area was ice-free as early as ca. 15,000 years ago; therefore, it is possible for late glacial-age archaeological sites to be present within Minnesota (Bhuta et al. 2011:15). A series of potentially pre-Clovis sites have been found in southeastern Wisconsin, in and near Kenosha. These sites contain butchered mammoth remains and stone artifacts, and have been dated between 12,200 and 13,500 years ago. At the Sheguiandah site on Manitoulin Island, Ontario, at the northern end of Lake Huron, a group of artifacts was recovered from glacial till, suggesting that the site could be older than 30,000 years ago (Lee 1954a, 1954b). Additional possible pre-Clovis sites identified in nearby states include The Big Eddy site

on the western edge of the Ozarks in Missouri, which contains strata tentatively identified as pre-Clovis through Clovis from which artifacts interpreted as “megamammal bone processing tools” (Haynes 2002:49) have been recovered; and a site in Miami, Missouri, where the remains of an adult mammoth and associated stone tools were recovered (Overstreet and Kolb 2002).

Paleoindian Period (circa 11,500 to 8,500 years ago)

Sites dating to the Paleoindian period mark the earliest clear and undisputed evidence for humans living in the Americas, and the earliest have been dated to approximately 11,500 years ago. Although Paleoindian sites are not common when compared with the number of sites from later periods, many have been found, and a number have been excavated. The evidence from these sites indicates that Paleoindian peoples were big game hunters. Their prey included animals that are now extinct, including the mammoth. It appears that they traveled long distances in pursuit of game and other resources. The total population was relatively small compared to later time periods.

Distinctive Paleoindian artifacts include large lanceolate, or "leaf shaped," projectile points, presumably used to arm spears and probably also as knives. These points are noteworthy for their fine craftsmanship. Chipped stone axes and adzes, large "turtleback" scraping tools, and trihedral blades are also characteristic of the Paleoindian period. Trihedral blades are long, parallel-sided stone tools made by very careful preparation of a core, or larger piece of toolstone. Most of the work goes into shaping the core; the final blade is detached with one final blow. These tools were used for a variety of tasks.

In the Midwest, the Paleoindian period is commonly divided into Early and Late stages. Early Paleoindian sites in Minnesota are very rare, and most are no more than discoveries of a distinctive Early Paleoindian projectile point either found in isolation, or mixed in with artifacts from a later time period. Late Paleoindian sites are somewhat more common.

No Paleoindian sites have been previously identified within one mile of the project area.

Archaic Period (circa 8,500 to 2,500 years ago)

The beginning of the Archaic period is marked by two main changes in technology. The first is that large, lanceolate projectile points were replaced by various types of smaller points. Some of these smaller points have stems, others have side notches, and still others are simply triangular. Some of these may have been spear points, but others were probably dart points. The second major technological change was the replacement of chipped stone axes and adzes by groundstone adzes, axes, and other groundstone tools.

Other significant, non-technological changes occurred between the Paleoindian and Archaic periods. Archaeological evidence indicates that Archaic peoples were not as mobile as their predecessors and did not cover such large territories in search of game or other resources. They did not hunt mammoth or other large ice-age animals, since such

creatures had become extinct. Instead, they hunted the more familiar bison, deer, elk, and moose, as well as smaller animals.

The Archaic period is commonly divided into Early, Middle, and Late stages. In this region, it is sometimes difficult to distinguish between stages. Some archaeologists instead prefer to divide the Archaic geographically, into Shield, Prairie, Lake-Forest, and Riverine Archaic, emphasizing environmental zones rather than chronological differences, given that resource exploitation became more regionally specific at this time.

No Archaic Period-sites have been previously identified within one mile of the project area.

Woodland Period (beginning circa 2,500 years ago)

The Woodland period is marked by three main changes that appear in the archaeological record. Two are technological: People in this region began making pottery and growing crops. The third is spiritual: People began building earthen mounds in which to bury the dead.

In the United States, pottery making began in what is now the southeastern part of the country. It spread somewhat gradually, and arrived in what is today Minnesota by no later than 2,500 years ago. The earliest ceramic vessels tended to be conical, or cone shaped. They had a wide mouth, tapered to a blunt point or a small flattened bottom, and were commonly one to two feet tall. Later styles added a straight-sided neck above the body of the vessel; the neck, which was only a few inches tall, was narrower in diameter than the body of the pot. Both the earlier and later styles were probably built from coils of clay, laid one on top of the other and then smoothed together with a scraping tool. Even later pots were shaped more like a globe or slightly flattened globe, generally with a smaller mouth and a short neck. Some of these globular pots also had handles near the top of the pot.

All of these pots were fired in open-air fires rather than closed kilns, resulting in pots that were somewhat softer than familiar modern ceramics but still quite tough and durable. It is easy to decorate moist clay, and a wide variety of decorations were used on precontact ceramics. The combination of decoration and overall vessel form are the two most important characteristics in helping to determine the age of the ceramics. Several dozen distinct kinds of ancient pottery have been discovered in Minnesota. Each has its own time period and geographic range.

Mound building also spread into Minnesota from other areas. It began at about the same time as pottery making, around 2,500 years ago. Most mounds were used as burial places, although a few elaborate mounds were built in the form of animals, or as platforms for ceremonial buildings. Thousands of mounds have been found in Minnesota. Some were excavated by earlier archaeologists, into the 1970s. Most were destroyed by development, plowing, or other activities that affect the landscape. Currently, mounds are protected as cemeteries under state law and may not be disturbed.

At some point, people began growing crops. In some cases, this amounted to intensive gardening, or horticulture. In other cases, it was still more intensive and is more properly called agriculture. Important crops included corn, many kinds of squash and gourds, and various kinds of beans. Corn, or maize, was first domesticated in Central America and was gradually spread into North America. Squash and beans may have been first domesticated in the area that is now the southeastern and south-central United States, and spread from there. In northern Minnesota, north of the climatic limit for growing these ancient corn varieties, a different practice developed. There, people began intensive harvesting of wild rice, which grows in shallow lakes. Although this plant was not domesticated, it may have been deliberately spread to new areas. In all parts of the state, this changed relationship with food plants allowed the population to increase, and also allowed people to stay in one location for longer parts of the year because more food could be raised in that area. Though these practices made plants a more reliable source of food, hunting continued to be a significant part of subsistence practices, as indicated by the invention of the bow and arrow at this time.

The Woodland period is commonly divided into Early, Middle, and Late stages. The Early-Middle and Middle-Late divisions occurred at around 2,100 and 1,300 years ago, respectively. Some archaeologists question whether these divisions are appropriate in Minnesota, however, and prefer to divide the Woodland into Initial and Terminal stages. The Initial-Terminal division occurred around 1,300 years ago. More Woodland sites have been discovered in the state than have sites from other time periods or cultures.

Six sites have been identified as belonging to the Woodland Tradition within one mile of the project area: 21CR0002, 21SC0021, 21SC0026, 21SC0028, 21SC0029, and 21SC0030, as previously discussed in Section 3.1.2.

Village Cultures (beginning ca. 1,100 years ago)

In some parts of the state, Woodland cultures were succeeded by Village cultures. The latter generally spread along major rivers, especially the Mississippi and Minnesota. The Village cultures practiced a mixed foraging and farming economy. Their crops allowed them to build larger, semi-permanent village sites, sometimes protected by earthen banks and log palisades. They too made pottery and built mounds, in complexes of up to more than one hundred mounds. Villagers engaged in seasonal movement and activities that included planting villages in the summer, deer hunting camps in the fall, winter camps during the cold months, and muskrat camps and sugar maple camps in the spring, though not all of these activities were undertaken throughout the state.

Three main Villager groups are notable to Minnesota: Mississippian, Oneota, and Plains Village. The Mississippians spread from the Southeast and eventually covered much of what is now the eastern United States. In Minnesota, they were present in the southeastern part of the state. The Oneota either came in along the Mississippi River from the south and replaced the Mississippians, or were their descendants or contemporaries. The Plains Villagers came from the west, and were generally restricted to parts of southwestern Minnesota.

No Plains Village sites have been previously identified within one mile of the project area.

4.3.2 Contact and Post-Contact Periods

Within the Prairie Lakes Region, Contact Period sites are typically associated with the Yankton Dakota, as well as the Teton Dakota, or Lakota, and the Yanktonai Dakota, or Nakota, as well as with fur and wintering posts established by French, English, and American explorers. Exactly when they migrated to and lived within this region of Minnesota is not well understood, though records left by early explorers suggests that these populations existed throughout the prairies between the upper-Mississippi and Missouri rivers (Cross 1938; Dobbs 1990). Linguistically-related groups, including the Eastern Dakota, were present to the south and west, who resided primarily within northern and central Minnesota (Howard 1976; Michlovich 1985).

The movement of Dakota-related tribes in Minnesota increased dramatically following their initial contact with Euro-Americans (ca. A.D. 1700), primarily in response to the displacement of tribes by the incoming Ojibwe (and possibly other native groups), who had obtained guns from the French through the fur trade (Warren 1984). From their first point of contact with the French at La Pointe Island on the south shore of Lake Superior, the Ojibwe “radiated in bands inland, westward and southward towards the beautiful lakes and streams which form the tributaries of the Wisconsin, Chippeway, and St. Croix rivers, and along the south coast of the Great Lake to its utmost extremity, and from thence even inland unto the headwaters of the Mississippi” (Warren 1984[1885]:126). Consequently, “the Mississippi Headwaters and most of the lake-forest region of Minnesota was occupied and controlled by [Ojibwe] people” by the 1780s (Dobbs 1990:47), and by the early nineteenth century, the Yankton groups had fled out of Minnesota to the Great Plains. Alternately, some of the Yankton may have already occupied the Great Plains prior to the arrival of the Ojibwe in Minnesota due to the plentiful supply of bison. Regardless, only the Eastern Dakota remained in the state by 1820, who established their villages along the Minnesota and Mississippi Rivers (Dobbs 1990).

The French were the first to enter Minnesota around A. D. 1660. This initial contact with the Native American populations resulted in cultural and technological exchanges, as well as the establishment of a fur trade and a “paternalistic Indian policy” (Dobbs 1990:62). The French continued to expand their network of forts and fur trading posts along major waterways across the stage for the next hundred years (Gibbon et al. 2002a), until they ceded their lands west of the Mississippi River to Spain. They then relinquished most of their remaining North American property to the British, who quickly established a monopoly on the fur trade west of Lake Superior through the development of the North West Company in 1783 (Dobbs 1990).

These changes resulted in the increased dependence on manufactured goods and credit by Native Americans. European materials, such as glass and iron, replaced indigenous manufacturing materials, and hunting for trade became increasingly important. The introduction of foreign diseases and warfare had devastating impacts to Native

communities, and many were forced to relocate due to the influx of other tribes into their territories (Gibbon et al. 2002a).

Following the signing of the Treaty of Paris in 1783 and the construction of Fort Snelling in 1819, the U. S. Government began to take control of the lands that would become Minnesota (Gibbon et al. 2002a). In 1837, the Ojibwe, who primarily occupied the northern reaches of the state, and the Dakota, who inhabited the south, began to surrender their lands to the U. S., thereby “opening the flood gates of Euro-American intrusion into Minnesota” (Minnesota State Historic Preservation Office 1993).

One Contact Period site, 21SCaq, has been previously reported within the current project area, and one Contact Period site, 21SC0027, has been previously recorded within one mile of the APE, as previously described in Section 4.1.3 and summarized in Table 2.

4.3.3 Historic Period

The historic period is marked by three attributes: an influx of large numbers of Europeans and Euro-Americans, the clearing of large areas of land for agriculture, and the demise of many traditional American Indian technologies and traditions. The influx of Euro-Americans began with military reservations, and increased as treaties resulted in Native groups ceding land that was then made available to Euro-American settlers and resource speculators. Many of the incoming settlers were farmers, who proceeded to clear large areas for fields. Some were lumber barons, who clear-cut large swatches of virgin forest. Others built roads and railroads, bridges, and towns, and otherwise proceeded to alter the landscape on a scale never seen before in North America. One immediate result that can be seen in the archaeological record is the erosion of soil from fields and its deposition in the stream valleys. This "post settlement" deposition can amount to 3 to 6 feet in some areas.

As the Euro-American presence increased, Euro-American technology and culture heavily impacted the indigenous traditional culture. Evidence of technologies such as stone-tool making and low-fire ceramics diminished in the archaeological record. These technologies were gradually replaced with metal knives, brass kettles, and other goods. Eventually, even traditional housing and clothing were replaced. Most of this happened during the 1800s, as land was ceded by American Indian peoples and opened for settlement.

In part because this is a recent period, and in part because we have extensive historical documentation and oral tradition in addition to archaeological evidence, the post-contact period lends itself to a number of historic contexts. Statewide historic contexts that have been developed for the post-contact period include: Indian Communities & Reservations (1837-1934); Early Agriculture & River Settlement (1840-1870); Northern Minnesota Lumbering (1870-1930s); Tourism & Recreation (1870-1945); St. Croix Triangle Lumbering (1830s-1900s); Railroads & Agricultural Development (1870-1940); Iron Ore Industry (1880s-1945); and Urban Centers (1870-1940). The following is a brief historic context relevant to Scott County.

Following the signing of the Mendota Treaty in 1851 and the Traverse des Sioux in 1853, the Dakota were officially relocated to northern Minnesota, and much of southern Minnesota became open for settlement. Scott County was established in 1853, and Shakopee, which was founded in 1851 as a trading post near the Dakota village of Chief Shakopee, became the county seat. The first settlers to arrive in Scott County were the Yankees, German, Irish, Czech, and Scandinavians, who traveled there via the Minnesota River and ox cart trails and primarily became farmers (Scott County Historical Society n.d.; Wikipedia 2014a, b).

Farming, in addition to lumbering and fur trading, were the primary industries in Minnesota throughout the nineteenth century. Farming in Scott County followed the broad patterns of development experienced in the majority of central Minnesota between the mid-1850s and the mid-twentieth century. A period of settlement and subsistence farming was followed by an era when most farmers specialized in wheat production. The construction of tracks between Minneapolis and Merriam by the Minneapolis and St. Louis Railway (M&StL) in 1871 provided a connection to the St. Paul and Sioux City Railroad Company (later the Omaha Road). The following year, the track was also connected to the Hastings and Dakota (later the Chicago Milwaukee and St. Paul Railroad). These connections provided access between Minneapolis businesses and the raw materials to the west and south (Schmidt et al. 2007).

Several crop failures resulting from tornados; insect, rodent, and fowl infestations; poor weather; and falling wheat prices during the 1870s diminished the attraction of specializing in raising wheat (Curtiss-Wedge 1977a:250). Although wheat was still produced in larger quantities than other crops through 1899, Scott County farmers increasingly participated in diversified farming and dairying (Robinson 1915:261). Many wheat fields were converted to cattle pasture, or utilized for other crops. Farmers continued to diversify, raising a variety of crops, cattle, sheep, goats, swine, and poultry for several decades until the agricultural depression beginning in the 1920s. Though many of the state's farmers suffered during this time, those in Scott County and surrounding areas benefitted from sufficient moisture and diversification, which resulted in lower debt (Granger and Kelly 2005).

By 1930, dairying had formed the cornerstone of the farming economy in the south central part of the state, including Scott County. Approximately 45 percent of the region's farms reported that 40 percent or more of their income resulted from dairying (Granger and Kelly 2005:4.6). In contrast, approximately four percent of the region's farms were cash grain farms in 1930. These farms focused on corn and other small grains, such as oats, barley, and wheat. The remaining farms were classified as general/diversified farms, or animal specialty farms. The production of sugar beets and flaxseed began to rise during this period (Robinson 1915:270-271), and hog raising became the "second most important livestock activity" in the region. An increase in mechanization was also noted during this era, with approximately 55 percent of farms in south-central Minnesota utilizing tractors by 1940. As reliance upon these devices grew,

the number of farm horses and mules dramatically decreased, and larger parcels of land were farmed with increased efficiency (Granger and Kelly 2005:4.6-4.7).

5.0 FIELDWORK RESULTS

5.1 ARCHAEOLOGY

Garrett Knudsen served as Principal Investigator for archaeology. Since the fieldwork was completed prior to the reduction of the project area, the full results of the survey are provided in this chapter. On September 15, 2011, Summit, Sunde Engineering, a representative of the property's owner, and staff from the Office of the State Archaeologist met to discuss the proposed project plans and to develop a suitable survey strategy for the project area. It was suggested that Summit use a combination of LiDAR and field verification to determine the accurate boundaries for previously recorded mound complexes and a previously reported ghost town located within the project area. It was learned from the Minnesota Department of Natural Resources that at that time, the LiDAR data was not yet available for Scott County, so efforts were focused on field verification. Site files, survey reports, historic maps, aerial photographs, landowner interviews, and land-use data from other sources were used to create a research design focused on delineating the edges of the mound complexes and burial sites. Then, a conservative buffer was established around the sites to protect the integrity of the site areas. In September 2011, Mr. Knudsen conducted a visual assessment of and pedestrian reconnaissance within the locations of sites 21SC0021, 21SC0029, and 21SC0030 (see Figure 3). The nearby location of 21SCj was also visually assessed.

Field methods included walking 15-meter transects parallel to significant topographic features or prominent landmarks, such as contour lines, roads, trails, and bluff edges. Navigation was aided through the use of hand-held GPS unit with sub-meter accuracy, as well as a comprehensive collection of field maps, aerial photographs, topographic maps, and notes. Photographs were taken of significant features, and GPS data was collected, as appropriate. Mr. Knudsen's letter report to the OSA containing the results of the survey is provided in Appendix B.

From April 4 through April 7, 2012, Mr. Knudsen conducted shovel testing and additional pedestrian reconnaissance with Laurie Ollila. Visual assessment, pedestrian reconnaissance, windshield survey, maps depicting natural features as they appeared historically, and intensive reconstruction of past development activities on the property were used to ascertain which portions of the APE held a greater potential for containing intact precontact or historic-archaeological resources. For ease of reference in the field, these areas were designated Areas A through D (Figure 5). The results for each area are provided below.

The remaining portions of the survey area have low potential for archaeological resources because they have been disturbed by processes such as mining; are wetlands; or lacks topographic prominence and proximity to water sources or previously recorded sites. Because these areas were considered to have low potential for containing archaeological resources, they were excluded from systematic survey.

5.1.1 21SC0021

This site was located on a high elevation in an area located off site, west of the project area, originally recorded as “on a bluff about 100 ft. above the river” (see Figure 3) (Lewis 1889). This area was actively quarried beginning in the 1950’s. Near vertical walls dropping off 40 to 50 feet mark the edge of the quarry where stone and gravel were removed decades ago.

Currently, the land adjacent to this edge has been severely altered. Massive volumes of overburden have been pushed on top of the most prominent elevations and other areas have been excavated significantly. There were no identifiable mounds in the vicinity of what must have been their original location, as these were likely disturbed decades ago.

Recommendations

Although no traces of 21SC0021 were identified during the survey, it is recommended that a 50-foot buffer be established around the maximum extent of the site within which no surface or subsurface disturbance may occur.

5.1.2 21SC0029

This site is located west of the project area and north of 21SC0021, immediately west of a wetland complex located in the southeastern portion of Section 20 (see Figure 3). Several transects were completed across the probable landforms, but only one possible mound was identified. The majority of this area had been leveled some time ago and then cultivated. This mound was located just outside of the project area near a parcel that contains a large wetland complex (see Figure 5) and is not proposed to be mined.

A second area of the mound complexes within this site is located southwest of the railroad and the trestle bridge. In this area, a leveled and groomed trail is maintained by the state that runs parallel to the river. No mounds could be positively identified in this area, although multiple transects along and parallel to the trail were surveyed. This site was predominantly located on the strip of State land between the project area and the Minnesota River.

Recommendations

Although a mound likely associated with 21SC0029 was identified during the survey, it is situated outside of the project area and is not proposed to be mined. In order to help ensure protection of the site, however, it is recommended that a 50-foot buffer be established around the maximum extent of the site within which no surface or subsurface disturbance may occur.

5.1.3 21SC0030

This site was located on 60-foot bluffs above the confluence of Sand Creek with the Minnesota River west of the project area (see Figure 3). We traveled perpendicular from the property line and ran several transects parallel to the trail, the property line, and the river. It is our assessment that these mounds have been severely disturbed by maintenance and construction of the State trail.

There were no remnants of any mounds within the project area. Towards the north end of this mound complex, we identified possible remnants of two mounds; each of these is located on what is currently State land between the western boundary of the project area and the State trail. The locations of the mounds were recorded with the GPS unit and photographs were taken. There are no other remaining mounds visible between the State trail and the property or within the project area itself. This site was predominantly located on the strip of state land between the project area and the Minnesota River.

Two foundations, a depression measuring approximately four meters square, and historic midden situated within the depression, were observed just outside of the project area within the 21SC0030 site boundary, as shown on Figure 5. Based on the review of historical aerial photographs and plat maps, these foundations are likely associated with historic farmsteads that once occupied this area. Documenting these foundations in greater detail was outside the scope of this investigation, however.

Recommendations

Although two mounds likely associated with 21SC0029 were identified during the survey, they are situated outside of the project area and are not proposed to be mined. In order to help ensure protection of the site, however, it is recommended that a 50-foot buffer be established around the maximum extent of the site within which no surface or subsurface disturbance may occur.

5.1.4 21SCj

This site, the Louisville Ghost Town, is located west of the project area, between the wetland complex and the Minnesota River. The recorded location of the site was surveyed in standard transects. No foundations, depressions, or other cultural features were observed within this portion of the project area during the investigation. The majority of this site is located on the strip of state land situated between the project area and the Minnesota River.

Recommendations

No cultural features were identified during this survey within the site boundary of 21SCj. Furthermore, historical aerial photographs show that the portions of the site within the current project area have been previously disturbed by cultivation and mining activities. For these reasons, no additional archaeological work is recommended.

5.1.5 Area A

Area A consists of a terrace gradually sloping westward, located approximately 100 feet east of Gifford Lake, adjacent to a series of trailers on what has been the site of the “Trail of Terror” for the last several years (Figure 5). Based on its topographic relationship and proximity to the lake, Area A was considered to have moderate to high potential to contain unknown precontact archaeological resources. However, there was a strong likelihood that this location was disturbed in the process of stabilizing the shoreline of Gifford Lake in the past.

At the time of survey, Area A was covered in mowed lawn. Two single east-to-west-running transects of four shovel tests placed at 15-meter (49-foot) intervals were established across the landform. Shovel tests in this area contained a 20-to-50-centimeter-thick, very dark gray to dark gray (2.5Y 3/1 to 10YR 4/1) mixed with gravel, with higher concentrations of gravel and sands at greater depths. It was confirmed that this feature of the landscape was disturbed. No cultural materials were encountered in any of the shovel tests.

Recommendations

Based on these negative results and the determination that the location was previously disturbed no additional archaeological investigation is recommended for Area A.

5.1.6 Area B

Area B consists of sloping terrace at the northeast corner of the project area, above what may have been a wetland to the west in historic times wetland (Figure 5). Based on its topographic relationship and proximity to the stream, Area B was considered to have moderate to high potential to contain unknown precontact archaeological resources.

At the time of survey, Area B was covered by brush; this location was used as a crop field during much of the 20th century. The eastern edge of the area currently abuts a gravel road. A single north-to-south-running transect of three shovel tests placed at 15-meter (49-foot) intervals was established across the landform. Shovel tests in this area contained a 20-to-30-centimeter-thick, very dark gray to dark gray (2.5Y 3/1 to 10YR 4/1), sandy loam A horizon above a light olive brown (2.5Y 4/2 to 5/3) sandy clay and gravel subsoil, with varying amounts of gravel and sand. No cultural materials were encountered in any of the shovel tests.

Recommendations

Based on these negative results, no additional archaeological investigation is recommended for Area B.

5.1.7 Area C

Area C consists of various flat, elevated areas currently within the Renaissance Festival grounds (Figure 5). Based on its topographic prominence and proximity to surrounding

wetlands, Area C was considered to have moderate potential to contain unknown precontact archaeological resources.

At the time of survey, Area C was covered in mowed lawn, carnival structures, and a gravel road system. The western and northern edges of the area are constituted by a steep slope to the wetlands below. Three sets of transects of three shovel tests each were placed at 15-meter (49-foot) intervals across flatter and more elevated areas of the landform. Shovel tests in this area contained a 5-to-10-centimeter-thick, very dark gray to dark gray (2.5Y 3/1 to 10YR 4/1), sandy loam mixed with gravel and modern refuse above dense limestone gravel, cobbles, boulders, or bedrock. No cultural materials were encountered in any of the shovel tests.

Recommendations

Based on these negative results, no additional archaeological investigation is recommended for Area C.

5.1.8 Area D

Area D consists of a low terrace gradually sloping southward, east of a wetland area (Figure 5). This area is currently in use as the parking lot for the Renaissance Festival. In several areas, this landform contains exposed limestone bedrock. Based on its topographic relationship and proximity to the wetland, Area D was considered to have moderate potential to contain unknown precontact archaeological resources.

The western and northern edges of the area are constituted by a steep slope to the wetlands below. A transect of eight shovel tests were placed at 15-meter (49-foot) intervals across western edge of the landform, above the wetland. Shovel tests in this area contained a 5-to-10-centimeter-thick, very dark gray to dark gray (2.5Y 3/1 to 10YR 4/1), sandy loam mixed with gravel above dense limestone gravel, cobbles, boulders, or bedrock. No cultural materials were encountered in any of the shovel tests.

Recommendations

Based on these negative results, no additional archaeological investigation is recommended for Area D.



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Sections 16, 20, 21, 28, and 29

Legend

-  Merriam Junction Sands Project Location
-  Original Project Location (2011)
-  Mound/Depression
-  Foundation
-  Shovel Test Areas



FIGURE 5. ARCHAEOLOGY RESULTS

Merriam Junction Sands Project
Louisville Township, Scott County, Minnesota



File: Fig5-2015.mxd
Summit Proj. No.: 2115-0001
Plot Date: 03-20-2015
Arc Operator: SJN
Reviewed by: LO

6.0 SUMMARY OF RECOMMENDATIONS

6.1 ARCHAEOLOGY

During the Phase I archaeological survey, no archaeological sites were identified within the project area. Mounds likely associated with sites 21SC0029 and 21SC0030 were observed but are located approximately 1000 feet outside of the current project area.

Two foundations, a depression, and historic midden situated within the depression, were observed within the 21SC0030 site boundary and are located approximately 2000 feet outside of the current project area. Based on the review of historical aerial photographs and plat maps, these foundations are likely associated with historic farmsteads that once occupied this area. Those historic-period farmsteads are located outside of the archaeology APE.

No additional archaeological investigation is recommended for the current project area.

6.2 ARCHITECTURAL HISTORY

No properties listed in the NRHP are located within the architectural history APE. However, the City of Carver expressed concern that the project may result in visual changes to the Carver Historic District. Additional consultation with the City is recommended regarding potential visual changes to the district.

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APPENDIX A: LIST OF PROJECT PERSONNEL

Principal Investigator, Archaeology

Garrett L. Knudsen, M.A.

Principal Investigator, Architectural History

Andrew J. Schmidt, M.A.

Field Archaeologist

Laurie S. H. Ollila, M.A., RPA

GIS/Graphics Specialists

Tylia Varilek, B.A.

Sara Nelson, B.A.

APPENDIX B: OSA LETTER

December 26, 2011

Mr. Scott Anfinson
Office of the State Archaeologist
Fort Snelling History Center
St. Paul, MN 55111-4061

Merriam Junction Sands
Sunde Engineering & Bruce Malkerson

Dear Mr. Anfinson,

Summit Envirosolutions, Inc. (Summit), has completed an assessment of burial mound complexes located on or near the edge of property located within the Merriam Junction Sands project (Project Area) in Louisville Township, Scott County, MN (Figure 1). The project involves the continuation of mining activities on property located near the Minnesota River. Our assessment of sites 21-SC-0021, 21-SC-0029, and 21-SC-0030, located in T1115N, R 23W, Sections 20 and 29 follows (Figure 1). Please find attached the site reports and original sketch maps, photo plates of our visual survey, and composite maps that include survey shapefiles, reproductions of Lewis and Winchell sketches, the property boundary, and a buffer we propose to ensure preservation of the burial sites.

As described below, our field investigation identified three possible remaining burial mounds at two of the sites near the property boundary of the Project Area. No burial mounds were identified within the Project Area itself. No mining or land-disturbing activity is proposed near these identified resources. Based on our meeting with you on September 14, 2011, we are requesting a letter to proceed, as it appears no authentication will be necessary.

The proposed project is the continuation of a mining operation that currently produces limestone and construction aggregates and will begin removing industrial sand for use in the oil and gas industry. The history of land use in the Project Area is complex; intensive mining and agriculture occurred at various intervals for the last several

decades. The result is an extremely altered landscape, with few intact natural features remaining.

Sunde Engineering, Inc. (Sunde) contacted Summit to perform the assessment of cultural resources in light of the plans for continued mining. Upon initial investigation and visual assessment, it was apparent that consultation with the Office of the State Archaeologist (OSA) would be required.

Summit, Sunde, a representative of the property owners (Bruce Malkerson), and OSA met on 9/15/11 to discuss proposed project plans and a suitable and responsible path forward. It was suggested that we use a combination of LiDAR and field verification to determine accurate boundaries for the recorded mound complexes. It was learned from the Minnesota DNR that LiDAR data is not yet available for Scott County, so efforts were focused on field verification. Site files, survey reports, historical maps, aerial photography, landowner interviews, and land use data from other sources were used in creating a research design focused on delineating the edges of recorded mound complexes and burial sites (Winchell 1873; Lewis 1970) and drawing a conservative buffer around those edges, in insure perpetuating integrity of intact site areas.

Surface surveys and visual assessments were completed to determine the locations and conditions of sites 21-SC-0029, 21-SC-0030, and 21-SC-0021. Field methods employed included walking 15-meter transects parallel to significant topographic features or prominent landmarks, such as contour lines, roads, trails, and bluff edges. Navigation was aided through the use of hand-held GPS with sub-meter accuracy and a comprehensive collection of field maps, aerial photos, topo maps, and notes. Summaries of survey results follow. Points and polygons were recorded, and photos were taken of significant features. The three sites are described in geographical order, from north to south.

21-SC-0029

This site is located in the north edge of the Project Area, immediately west of a wetland complex located in the southeastern portion of Section 20 (Figures 2 and 3; Plate 1). Several transects were completed across the probable landforms, but only one possible mound was identified. The majority of this area had been leveled some time ago and then cultivated. This mound was located just outside of the Project Area near a parcel that contains a large wetland complex and is not proposed to be mined. A second area of the mound complexes were southwest of the railroad and the trestle bridge. In this

area, a leveled and groomed trail is maintained by the State that runs parallel to the river. Although several historic foundations and middens - all located on State land - were identified in searching out remaining burial mounds, the documentation of these were outside the scope of this phase of investigation. No mounds could be positively identified in this area, although multiple transects along and parallel to the trail were surveyed. This site was predominantly located on the strip of State land between the Project Area and the Minnesota River.

21-SC-0030

This site was located on 60-foot bluffs above the confluence of Sand Creek with the Minnesota River (Figures 4 and 5; Plate 2). We traveled perpendicular from the property line and ran several transects parallel to the trail, the property line, and the river. It is our assessment that these mounds have been severely disturbed by maintenance and construction of the State trail. There were no remnants of any mounds within the Project Area. Towards the north end of this mound complex, we identified possible remnants of two mounds; each of these is located on what is currently State land between the western boundary of the Project Area and the State trail. Shapefiles were created around these mounds and photos were taken. There are no other remaining mounds visible between the State trail and the property or within the Project Area itself. This site was predominantly located on the strip of state land between the Project Area and the Minnesota River.

21-SC-0021

This site was located on a high elevation in the southwestern portion of the Project Area (Figures 6 and 7; Plate 3), originally recorded as “on a bluff about 100 ft. above the river.” (Lewis 1889). This portion of the Project Area was actively quarried beginning in the 1950’s. Near vertical walls dropping off 40-50 feet mark the edge of the quarry where stone and gravel were removed decades ago. Currently, the land adjacent to this edge has been severely altered. Massive volumes of overburden have been pushed on top of the most prominent elevations and other areas have been excavated significantly. There were no identifiable mounds in the vicinity of what must have been their location, as these were likely disturbed decades ago.

We have investigated the locations of all three sites that are of question; very little remains that is identifiable. There were no indications of any burial mounds or remnants of burial mounds within the Project Area itself. There are enough diagnostic landmarks and features on the original sketch maps for reasonably confident manual

geo-referencing. We have placed digitally traced reproductions of those sketch maps over topo maps and aerial photos at our best approximations of their original locations. To these maps, we have added the professionally-surveyed property line and the shapefiles collected during the visual assessment. Finally, we have drawn a buffer of 50 feet around the maximum extent of the possible mound complexes and burial sites. Portions of these buffer areas extend just into the Project Area. These buffer areas represent areas that the property owner and project proposer have agreed to leave intact and protect from any mining or land disturbance activity in order to preserve the remaining burial mounds and meet the requirement of the MN Office of the State Archaeologist.

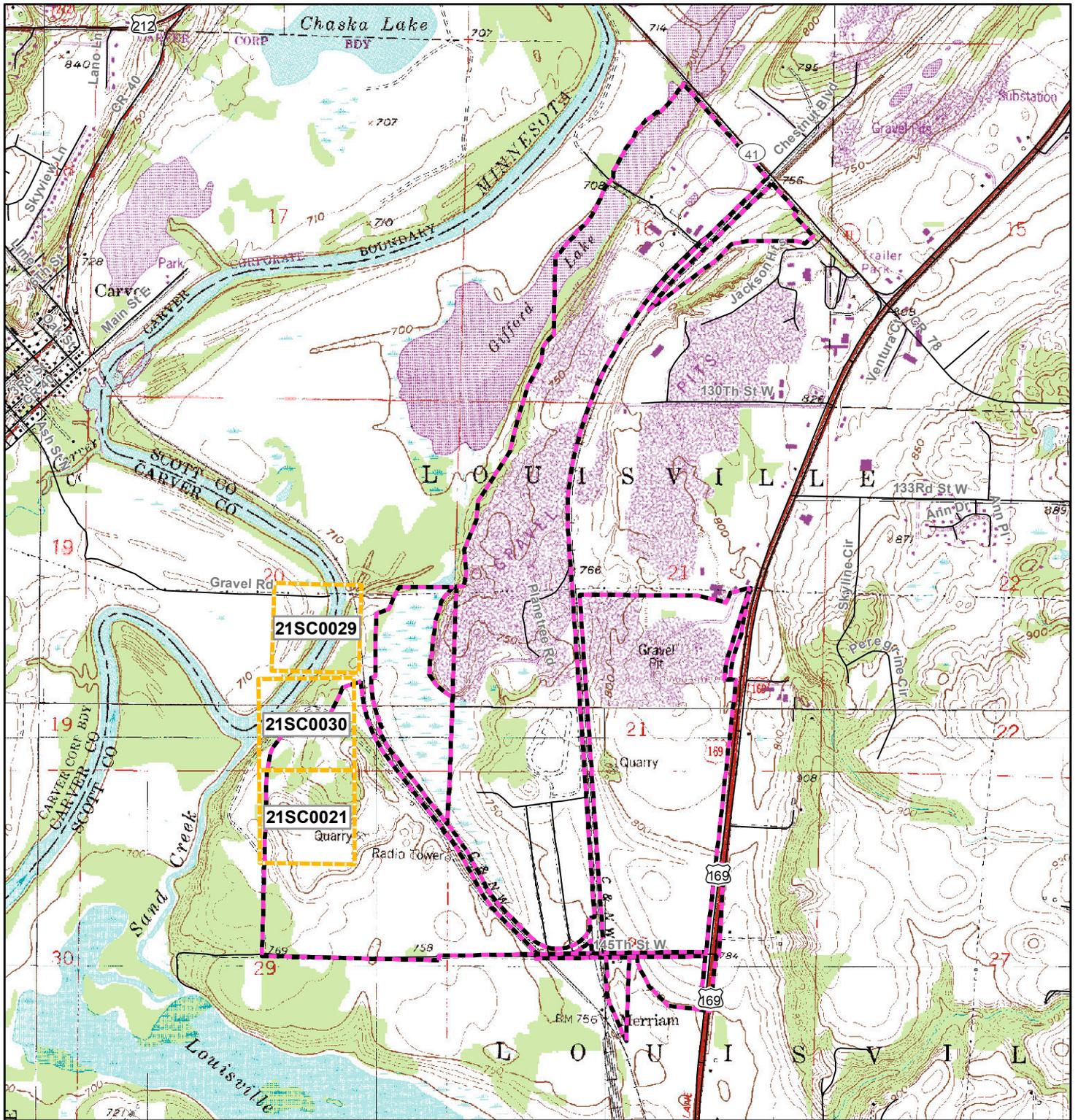
I am available, anytime, if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Knudsen', written in a cursive style.

Garrett Knudsen
M.A., PhD Candidate
973.432.4897

List of attachments:
Figures (1-7)
Plates (1-3)
Site Reports (3)



Map adapted from USGS 7.5 minute topographic map(s): Jordan East, Jordan West, Shakopee, and Victoria, MN; T 115N, R 23W, Section 20 and 29

Legend

-  Project Location/Property Boundary
-  Previously Identified Site



0 2,000
Feet
1 inch = 2,000 feet



PROJECT LOCATION
 Sunde Engineering - Letter to OSA
 Louisville Township, Scott County, Minnesota



Figure 1

File: Fig1
 Summit Proj. No.: 2115-0001
 Plot Date: 10/24/2011
 Arc Operator: THV
 Reviewed by: GLK



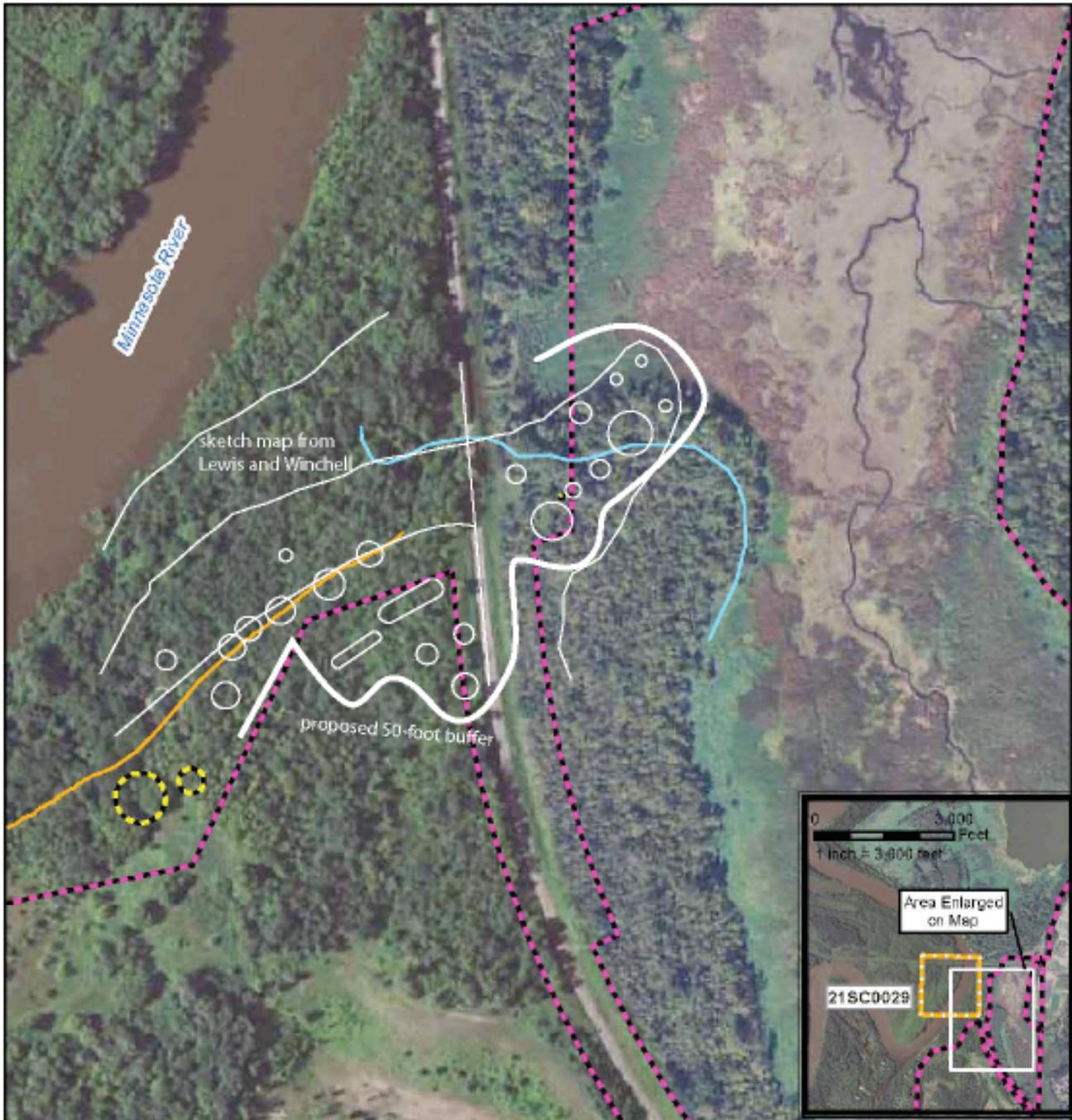
Plate 1 *Points of interest in vicinity of site 21-SC-0029: A, trestle bridge from the south; B, view of possible mound, east of railroad track.*



Plate 2 *Points of interest in vicinity of site 21-SC-0030: E, view of Minnesota River looking south from the state trail, south of site; F, state trail, looking north, from south of site; G, edge of state trail, showing results of grading; H, possible mound on state land; I, view from possible mound east towards the property; J, second possible mound.*



Plate 3 *K, Disturbed area in vicinity of 21-00-0021.*



Map adapted from USDA FSA NAIP Orthophoto, 2010; Scott County, Minnesota.

Legend

-  Mound
-  Property Boundary
-  Topographic Line
-  Trail



0 250 Feet
1 inch = 250 feet



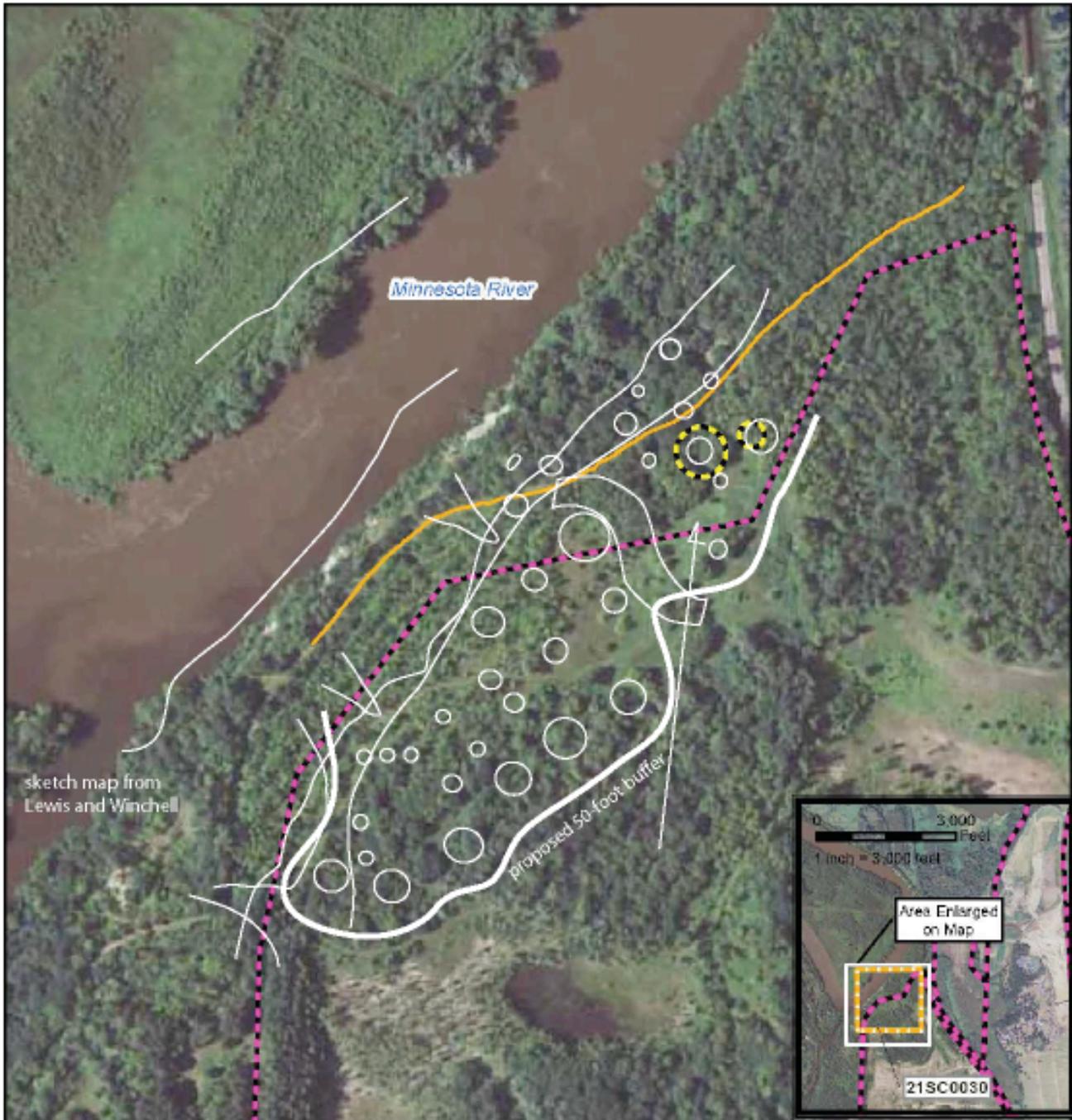
21SC0029

Sunde Engineering - OSA Letter
Louisville Township, Scott County, Minnesota



Figure 2

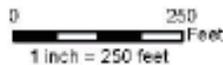
File: Fig2_21SC0029
Summit Proj. No.: 2115-0001
Plot Date: 10-17-2011
Arc Operator: THV
Reviewed by: GLK



Map adapted from USDA FSA NAIP Orthophoto, 2010; Scott County, Minnesota.

Legend

-  Mound
-  Property Boundary
-  Trail



21SC0030

Sunde Engineering - OSA Letter
Louisville Township, Scott County, Minnesota



Figure 4

File: Fig4_21SC0030
Summit Proj. No.: 2115-0001
Plot Date: 10-17-2011
Arc Operator: THV
Reviewed by: GLK



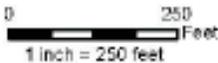
Map adapted from USDA FSA NAIP Orthophoto, 2010; Scott County, Minnesota.

Legend

-  Drop-off
-  Property Boundary



Site Location




21SC0021
Sunde Engineering - OSA Letter
Louisville Township, Scott County, Minnesota



Figure 6

File: Fig6_21SC0021
Summit Proj. No.: 2115-0001
Plot Date: 10-17-2011
Arc Operator: THV
Reviewed by: GLK

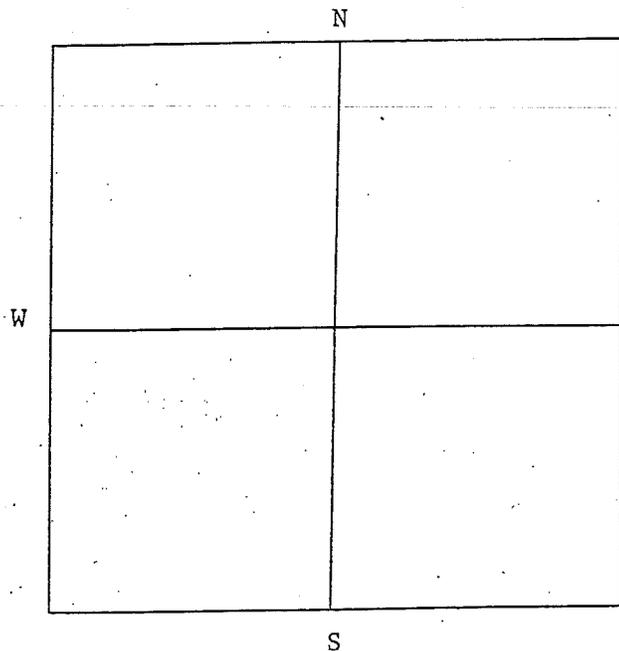
Survey Sheet
Archaeology Laboratory
University of Minnesota

County Scott
Site number 21SC29
Site name _____

1. Type of site (mound, village, etc.) Mounds(22)
2. Map reference Lewis, No. 12, p. 40; Winchell, p. 185
3. Cultural affiliation _____
4. Location: Sec. 20 Twp. 115 R. 23 Verbal description 350'-400' from
Sc-30
5. Owner and address _____
6. Surface collection owners _____

7. Site description 22 mounds 25 to 35 feet above river. *Mounds of the Minnesota river, N. $\frac{1}{2}$, S. E. $\frac{1}{4}$, sec. 20, T. 115-23. A group of 22 mounds, all circular but two, which are simple elongated mounds. The largest circular mound is 68 ft. in diameter and 4-ft. high. They are from 25 ft. to 35 ft. above the river. This group is close to the next. Indeed, it might be said to be a part of the next, as but 400 feet separate No. 22 from No. 33 of the next. Surveyed Sept. 23, 1889. (Shown below.)*

8. Sketch map of location (indicate chief topographical features, houses and roads, section numbers, and outline location of site).



Scale and Comments

9. Arch Lab photo # _____
10. Arch Lab accession # _____
11. Recorded by _____
12. Date _____

County Scott

University of Minnesota
Department of Anthropology
Archaeological Site Survey

Site Number SC-29

Site Name _____

1. Map reference Lewis, No. 12, pg. 40
Winchell, pg. 185

2. Type of site Mounds

3. Cultural affiliation _____

4. Location _____

NW ~~N. 1/2~~ of SE 1/4 of Sec. 20 T. 115 R. 23

5. Owner and address _____

6. Tenant _____

7. Informants _____

8. Site description Group of 22 mounds 25 to 35 feet above the river.

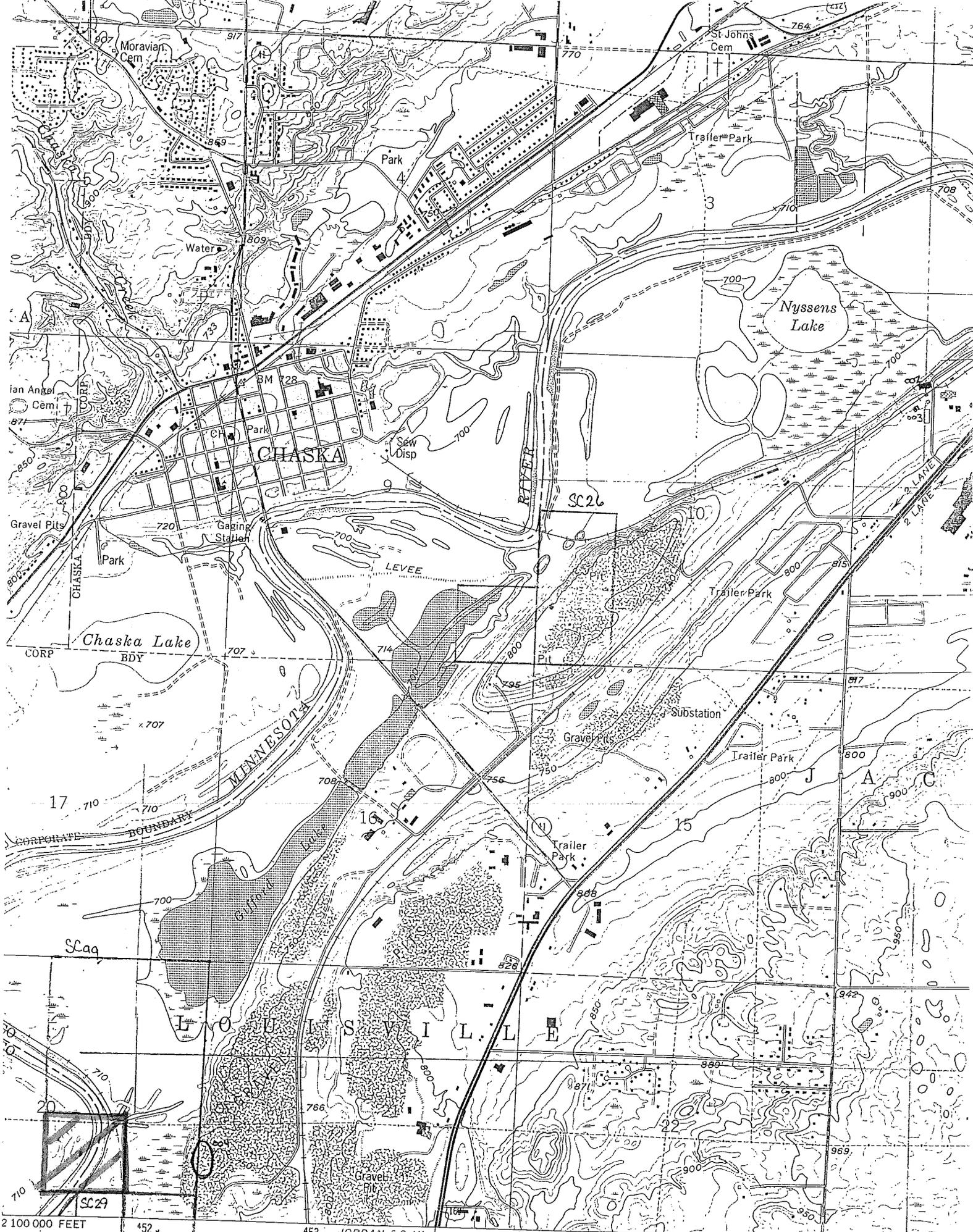
9. Depth and character of fill _____

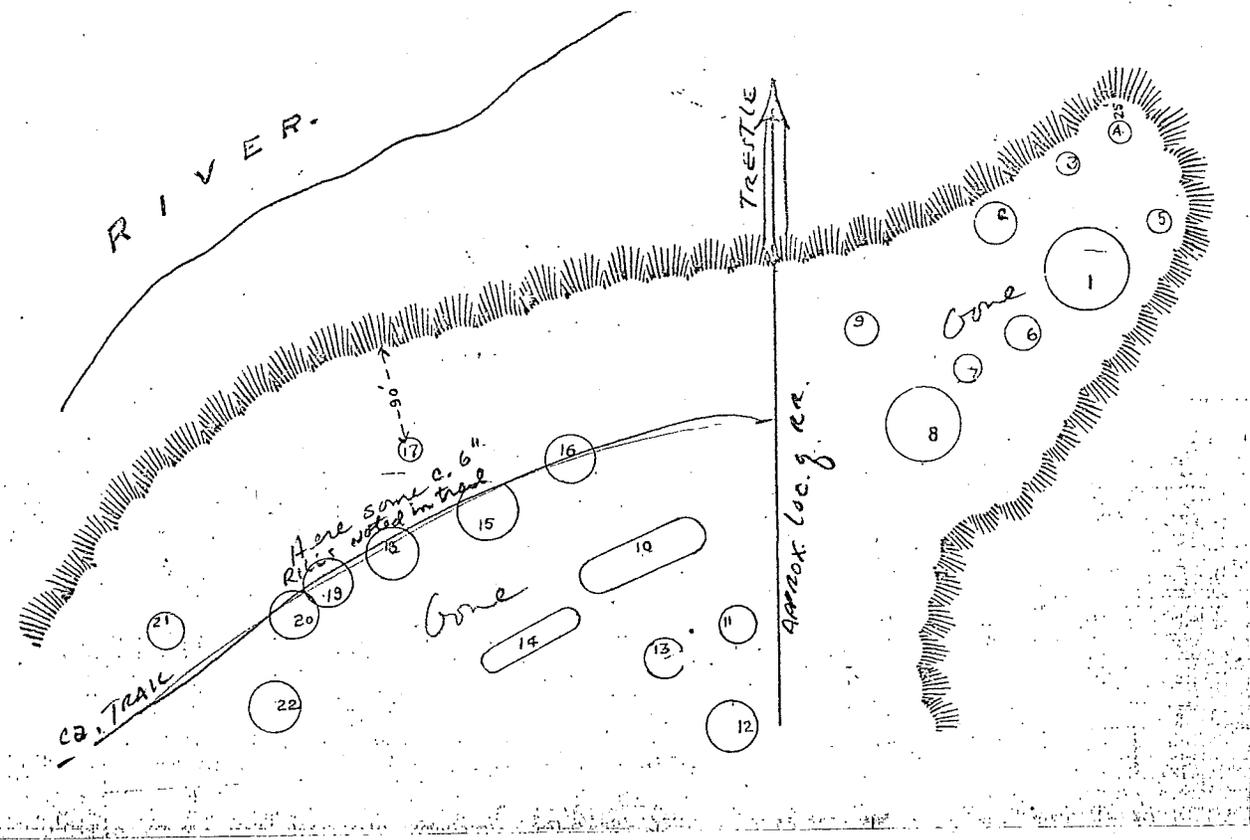
LOUISVILLE MAP

CULTIVATED - 5 POSSIBLE REMNANTS.

10. Present condition _____

Shakopee 7.5'





- md # 1 - 68 X 4
- 2 - 32 X 2
- 3 & 5 - 20 X 1
- 4 - 18 X 1
- 6 - 25 X 1
- 7 - 22 X 1
- 8 - 60 X 3
- 9 - 25 X 1 1/2
- 10 - 120' X 30' X 1 1/2'
- 11 - 38 X 2 1/2
- 12 - 40 X 2 1/2
- 13 - 36 X 2
- 14 - 100 X 20 X 1
- 15 - 48 X 2 1/2
- 16 - 38 X 2
- 17 - 20 X 1
- 18 - 40 X 2 1/2
- 19 - 38 X 2
- 20 - 46 X 2
- 21 - 30 X 1
- 22 - 40 X 2

DESTROYED BY CULTIVATION

OCT 15, 1975

5 possible remnants in trail

<u>Destroyed</u>	
1-14 - Farm	(14)
17 - Farm	(1)
21-22 - Farm	(2)
	<u>17</u>

<u>Recognizable but disturbed</u>	
15-16	(2)
18-20	(3)
	<u>5</u>

THY-73-01

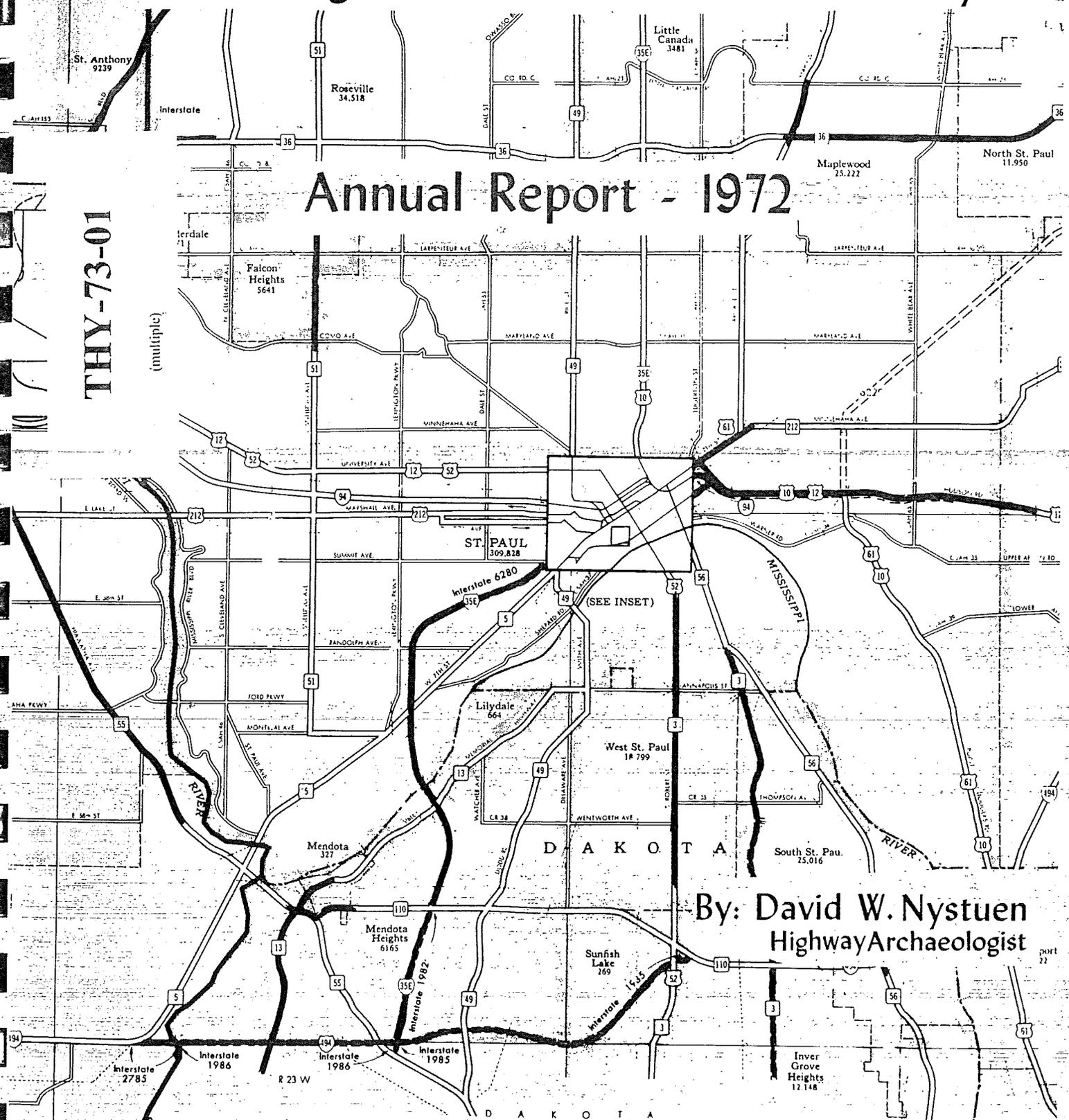
SHPO

RAMSEY

The Minnesota Trunk Highway Archaeological Reconnaissance Survey:

Annual Report - 1972

THY-73-01
(multiple)



By: David W. Nystuen
Highway Archaeologist

Submitted to the Commissioner of Minnesota
Highways in accordance to Agreement No. 55699

St. Paul Port
5487

Handwritten notes in the top right corner, including "Still in use" and "P. 185".

Survey Sheet
Archaeology Laboratory
University of Minnesota

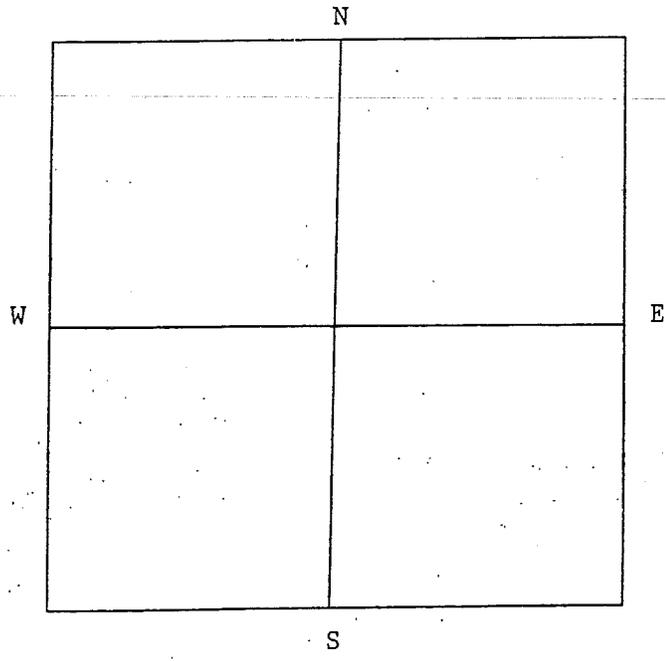
County Scott
Site number 21SC30
Site name _____

- 1. Type of site (mound, village, etc.) Mounds(33)
- 2. Map reference Lewis, No. 12, p. 41; Winchell, p. 185
- 3. Cultural affiliation Hopewell(?)
- 4. Location: Sec. 20 Twp. 115 R. 23 Verbal description 300-400'
From SC-29
- 5. Owner and address _____
- 6. Surface collection owners _____

7. Site description 33 mounds 60 to 80 feet above river.

Mounds of the Minnesota river, on S. W. 1/4, S. E. 1/4, sec. 20, T. 115-23. This group, which consists of 33 tumuli, is from 60 ft. to 80 ft. above the river, and its No. 33 is about S. 40 degrees W., 300 ft. from No. 22 of the last group. The largest mound is 80 ft. in diameter and 5 1/2 ft. high. Another, which is 70 ft. in diameter, is also 5 1/2 ft. high. Others 54 ft. and 60 ft. in diameter are respectively 4 ft. and 5 ft. in height. The smallest is 18 ft. Surveyed Sept. 23, 1889. (Shown below.)

8. Sketch map of location (indicate chief topographical features, houses and roads, section numbers, and outline location of site).



Scale and Comments

- 9. Arch Lab photo # _____
- 10. Arch Lab accession # _____
- 11. Recorded by _____
- 12. Date _____

County Scott

University of Minnesota
Department of Anthropology
Archaeological Site Survey

Site Number SC-30

Site Name _____

1. Map reference Lewis, No. 12, pg. 41
Winchell, pg. 185

2. Type of site Mounds

3. Cultural affiliation Hopewellian?

4. Location _____

SW 1/4 of SE 1/4 of Sec. 20 T. 115 R. 23

5. Owner and address _____

6. Tenant _____

7. Informants _____

8. Site description Group of 33 mounds 60 to 80 feet above the river.

9. Depth and character of fill _____ LOOSE TWP.

10. Present condition CULTIVATED - 8 REMNANTS VISIBLE

11. Previous excavations _____

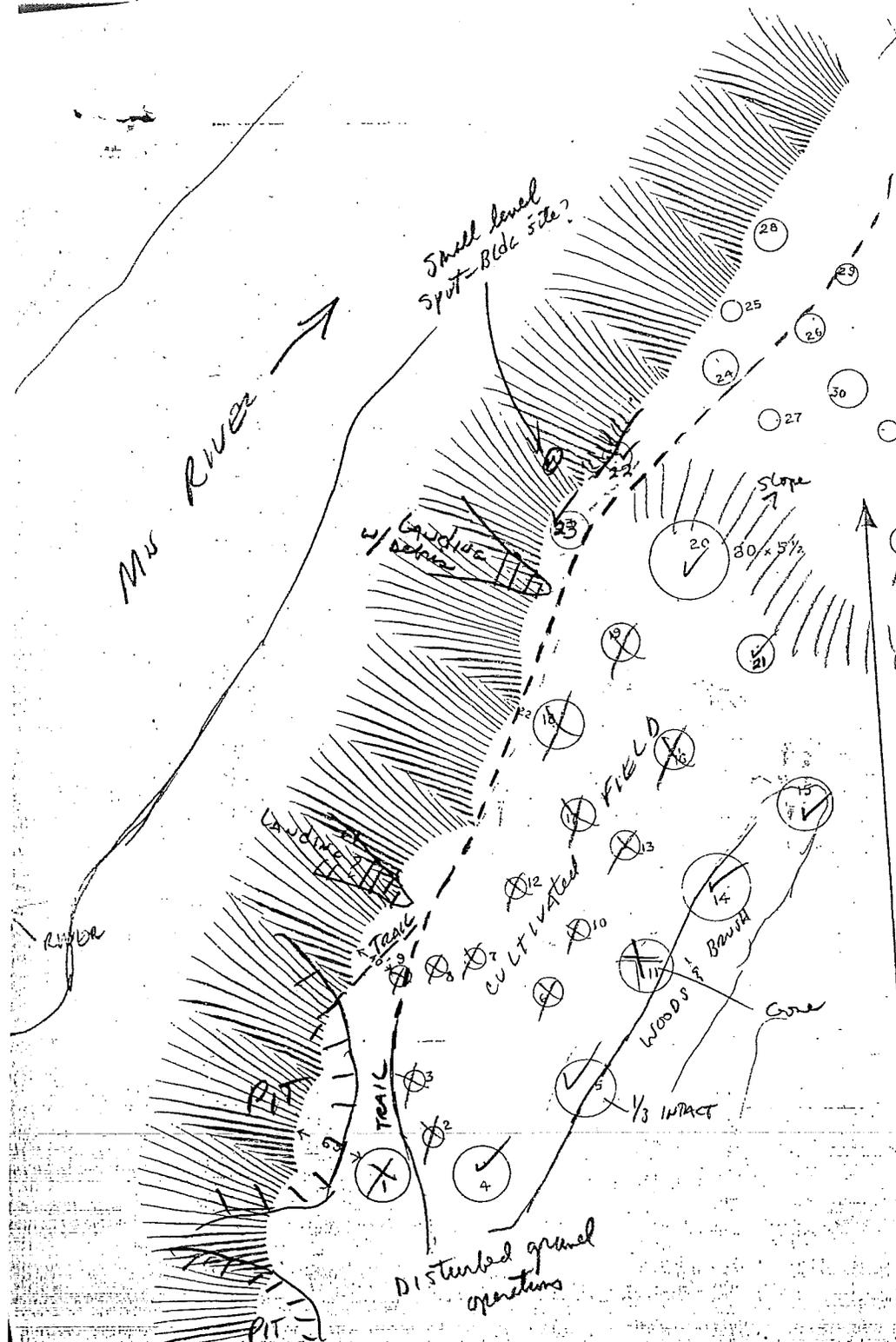
12. Surface collections and owners _____

13. Anthropology museum collections _____

14. Published reports _____

15. Photographs nos. _____
16. Maps of site _____
17. Remarks:

Recorded by _____ Date _____



Scale
 X 2000 ft
 House of Louisville

No. 2.2 of Int.
 About N. 40° E. - 500 ft.

Recognizable but disturbed	(5)
4+5	(2)
14+15	(2)
20-23	(4)
33	(1)
Destroyed	9
1-3 Industrial gravel pit	(3)
6-13 Farm	(8)
16-19 Farm	(4)
24-32 Farm	(9)
	24

✓ visible, BUT disturbed

OCT 15, 1975

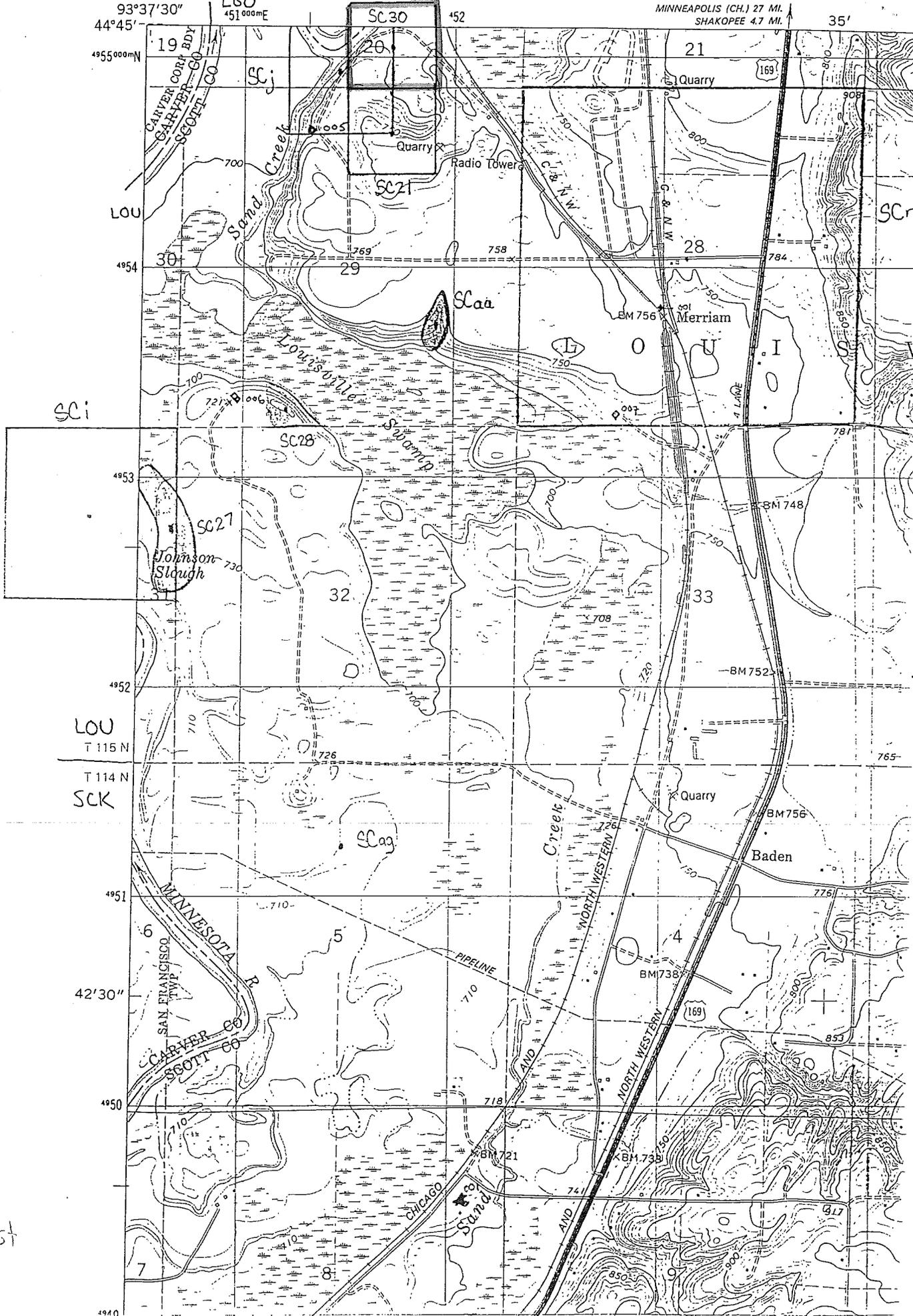
md # 1 - 54' X 4'

- 2 - 21 X 1
- 3 - 20 X 1
- 4 - 56 X 4
- 5 - 60 X 5
- 6 - 32 X 2
- 7-9 - 20 X 1
- 10 - 25 X 1
- 11 - 54 X 4
- 12 - 20 X 1
- 13 - 32 X 2
- 14 - 70 X 5 1/2
- 15 - 54 X 3 1/2
- 16 - 42 X 3
- 17 - 34 X 2 1/2
- 18 - 48 X 3 1/2
- 19 - 40 X 2 1/2
- 20 - 80 X 5 1/2
- 21 - 42 X 3
- 22 - 32 X 2
- 23 - 40 X 2 1/2
- 24 - 35 X 2 1/2
- 25 - 18 X 1
- 26 - 30 X 1 1/2
- 27 - 20 X 1
- 28 - 35 X 2
- 29 - 25 X 1
- 30 - 40 X 2 1/2
- 31 - 30 X 1 1/2
- 32 - 18 X 1
- 33 - 56 X 3

1 SW
37 ORA

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

93°37'30" 44°45' 4955000mN 451000mE SC.30 452 MINNEAPOLIS (CH.) 27 MI. SHAKOPEE 4.7 MI. 35'



Jordan East

THY-73-01

SHPO

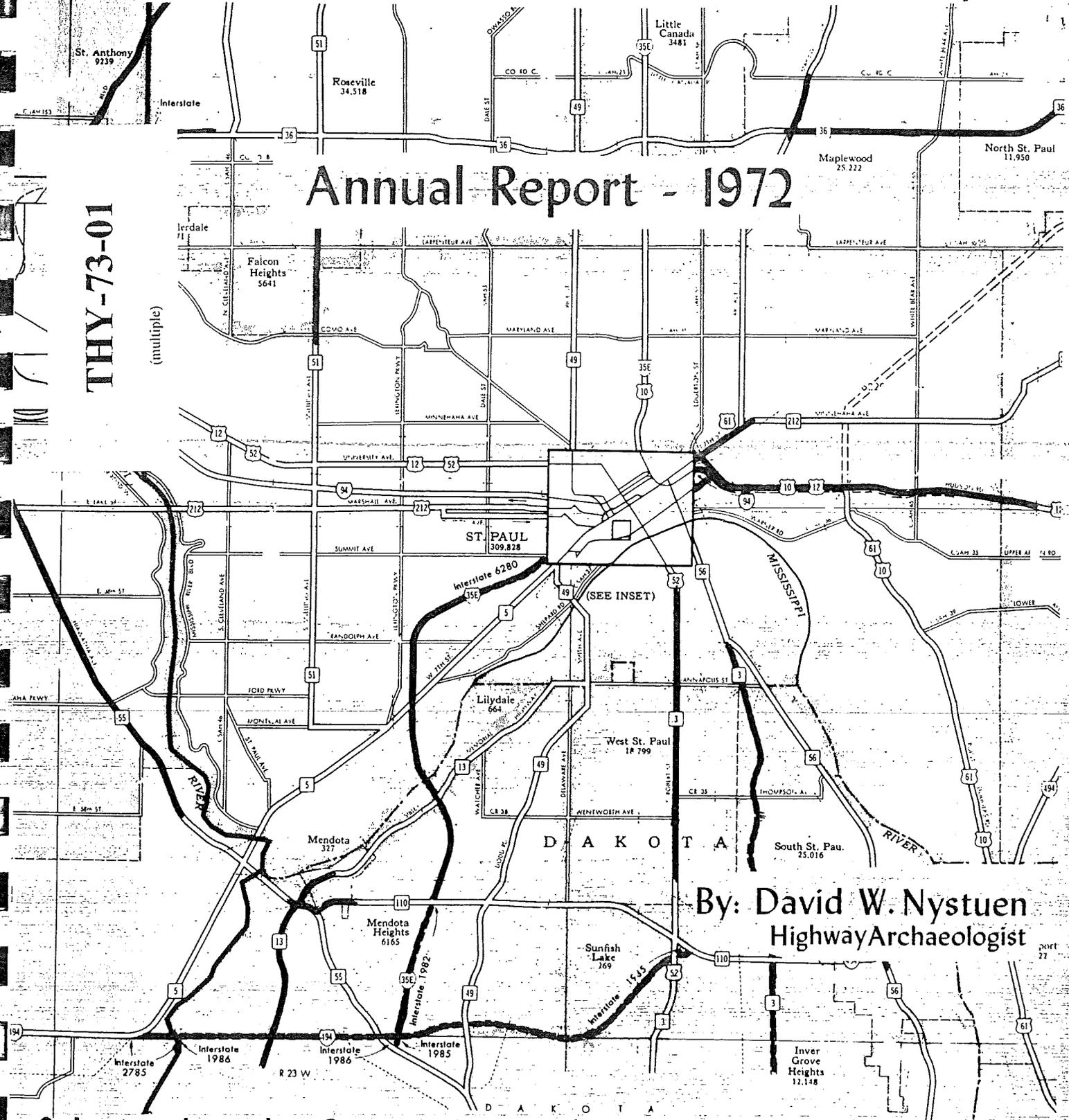
R A M S E Y

Jem Lake 716

The Minnesota Trunk Highway Archaeological Reconnaissance Survey:

Annual Report - 1972

THY-73-01
(multiple)



By: David W. Nystuen
Highway Archaeologist

Submitted to the Commissioner of Minnesota
Highways in accordance to Agreement No. 55699

St. Paul Park 5587

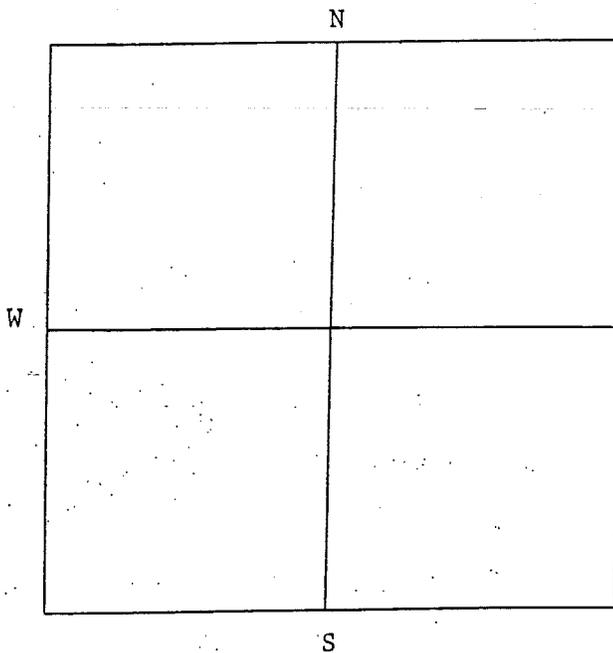
Survey Sheet
Archaeology Laboratory
University of Minnesota

County Scott
Site number 21SC21
Site name _____

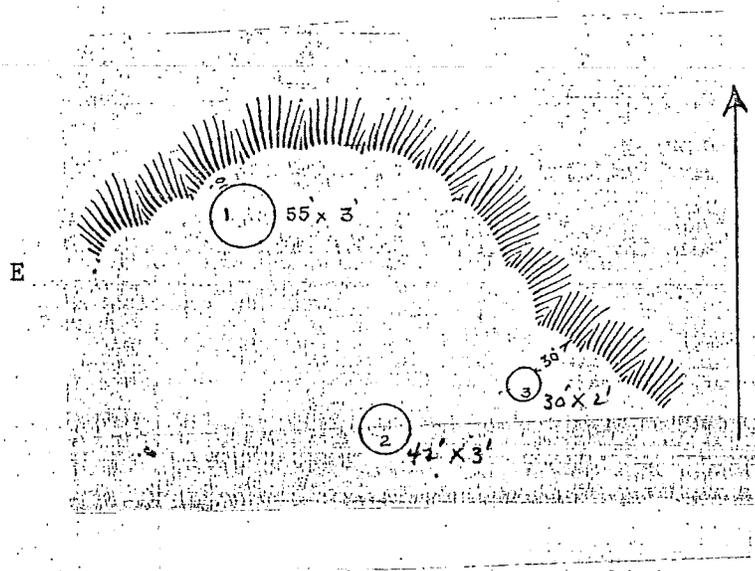
1. Type of site (mound, village, etc.) Mounds(3)
2. Map reference Lewis, No. 12, p. 43; Winchell, p. 190
3. Cultural affiliation _____
4. Location: Sec. 29 Twp. 115 R. 23 Verbal description _____
5. Owner and address _____
6. Surface collection owners _____
7. Site description 3 mounds 100 above river.

Mounds of the Minnesota river, on the N. W. ¼, N. E. ¼, sec. 29, T. 115-23, is a group of three mounds on a bluff about 100 ft. above the river. Surveyed Sept. 23, 1889. (Shown opposite.)

8. Sketch map of location (indicate chief topographical features, houses and roads, section numbers, and outline location of site).



Scale and Comments



9. Arch Lab photo # _____
10. Arch Lab accession # _____
11. Recorded by _____
12. Date _____

County Scott

University of Minnesota
Department of Anthropology
Archaeological Site Survey

Site Number SC-21

Site Name _____

1. Map reference Lewis. No. 12, pg. 43
Winchell, pg. 190

2. Type of site Mounds

3. Cultural affiliation _____

4. Location _____

NW 1/4 of NE 1/4 of Sec. 29 T. 115 R. 23

5. Owner and address _____

6. Tenant _____

7. Informants _____

8. Site description Group of 3 mounds 100 feet above the river.

9. Depth and character of fill _____ LOWVILLE TWP

10. Present condition _____

THY-73-01

SHPO

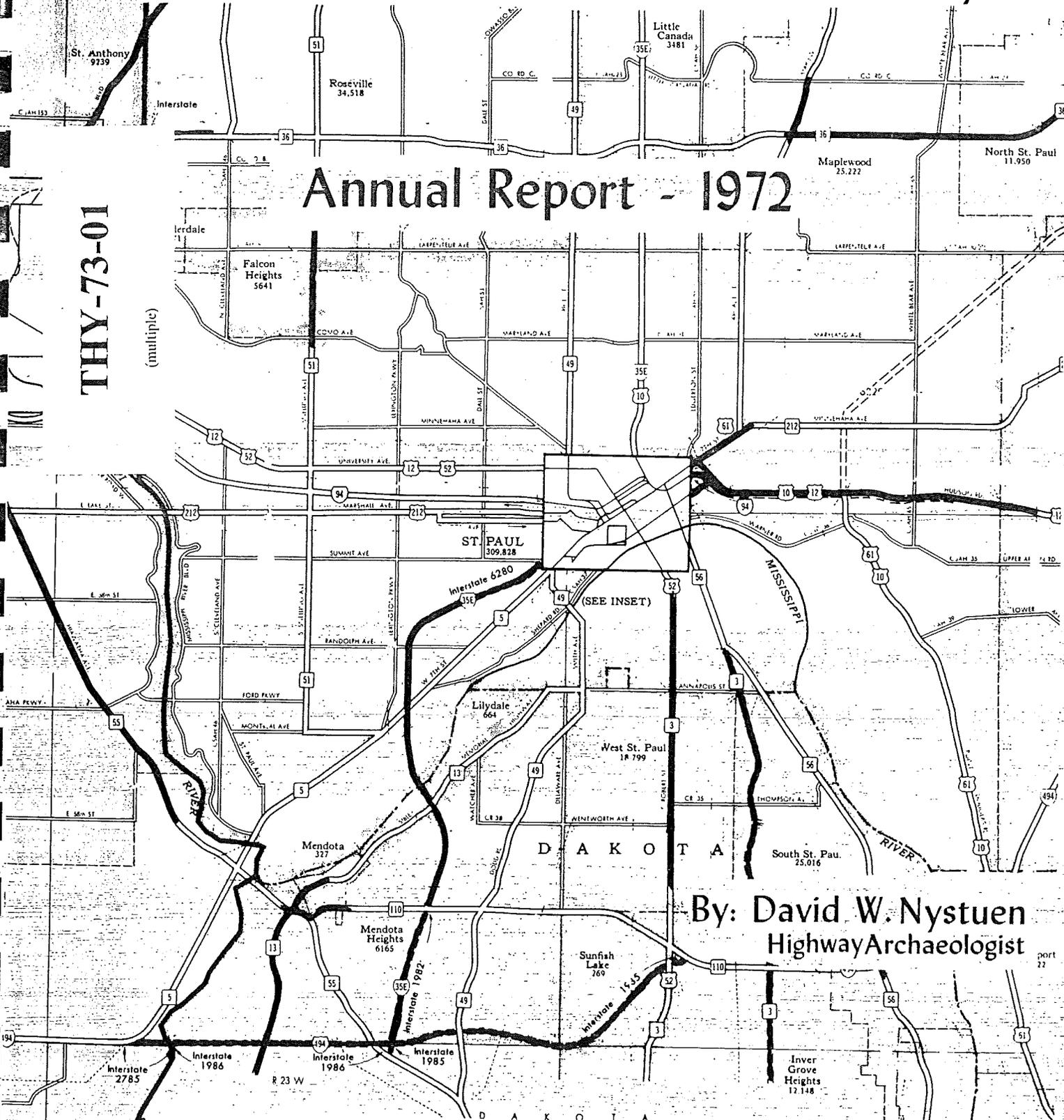
RAMSEY

Mem Lake 216

The Minnesota Trunk Highway Archaeological Reconnaissance Survey:

Annual Report - 1972

THY-73-01
(multiple)



By: David W. Nystuen
Highway Archaeologist

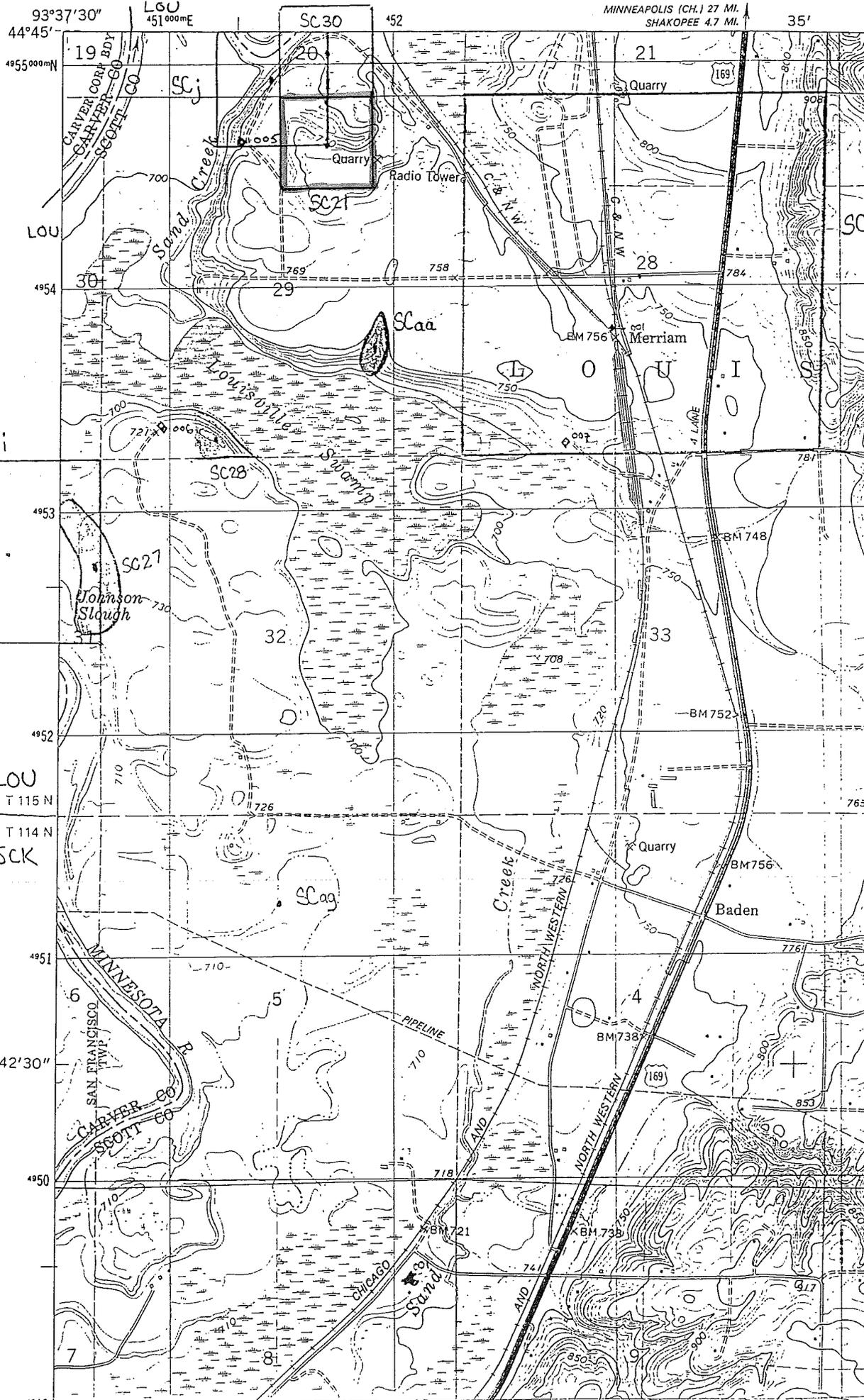
Submitted to the Commissioner of Minnesota
Highways in accordance to Agreement No. 55699

St. Paul Park 5587

1 SW
STORIA

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINNEAPOLIS (CH.) 27 MI.
SHAKOPEE 4.7 MI.



Jordan East