PHASE I CULTURAL RESOURCES INVESTIGATIONS FOR THE KENT BYPASS PROJECT, TRUNK HIGHWAY 75 MCCAULEY TOWNSHIP, WILKIN COUNTY, MINNESOTA

S.P. No. 8408-44
MnDOT Agreement No. 03253
Minnesota Archaeological License No. 13-032
SHPO No. Pending
Summit Project No. 1727-0042

Authorized and Sponsored by:
Minnesota Department of Transportation
and the Federal Highway Administration

Submitted by:
Summit Envirosolutions, Inc.

Minnesota Department of Transportation

Office of Environmental Stewardship
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July 28, 2014

Paul Munsterteiger
MnDOT District 4
1000 US Highway 10 West
Detroit Lakes, MN 56501

Regarding: S.P. 8408-44 (TH 75, Wilkin County)
Realignment and bridge building around Kent (Kent Bypass)
T. 134 N., R. 48 W., S. 1, 2, 11, 12, McCauleyville Twp.

Dear Mr. Munsterteiger:

We have reviewed the above-referenced undertaking pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), and as per the terms of the Programmatic Agreement (PA) between the FHWA and the Minnesota State Historic Preservation Office (SHPO) (June 2005). The project involves the realigment of TH 75 around the town of Kent. In addition to the new road, two new bridges will be constructed, one over the BNSF Railroad and another over Whiskey Creek.

Summit Envirosolutions, Inc. conducted a Phase I architectural survey and subcontracted a Phase I archaeological survey to HDR Engineering, Inc. The results of this work will be reported in a forthcoming report. Due to delays in completing the report, a draft Phase I report was reviewed by MnDOT. This report identified a non-eligible precontact archaeological site (21WL55) and a potentially eligible historic property (TH 75). The preliminary evaluation of TH 75 indicates that it is not eligible for listing in the National Register of Historic Places. This Phase II evaluation of TH 75, along with the Phase I architecture and archaeology work, will be included in a single forthcoming report.

We have determined that there will be **no historic properties affected** by the project as currently proposed. As there are no historic properties within the project APE, the section 106 review of this project is now complete and no SHPO comment period and response are required under the terms of the new PA. If the project scope changes, please provide our office with the revised information and we will conduct an additional review.

Sincerely,

Craig Johnson
Cultural Resources Unit (CRU)

cc: MnDOT CRU Project File

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Submitted by:
Summit Envirosolutions, Inc.
1217 Bandana Boulevard North
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Report Authors:
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Principal Investigators

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May 2014

MANAGEMENT SUMMARY

The Minnesota Department of Transportation (MnDOT) will be using Federal Highway Administration (FHWA) funds for proposed improvements to Trunk Highway (TH) 75. The project, known as the TH 75 Kent Bypass project, will re-construct an approximately 1.8 mile segment of TH 75 on a new alignment, construct two new bridges, and re-align access openings. A portion of the existing TH 75 will be removed and reshaped to be seeded. The project is located in Kent, Wilkin County, Minnesota. The project area is located within Sections 2, 3, 11, and 12, T134N, R48W, and Section 34, T135N, R48W. Because this project is receiving federal funds, it must comply with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800). MnDOT contracted with Summit Envirosolutions, Inc. (Summit) to complete Phase I cultural resources studies within the project area, as well as a Phase II evaluation for architecture-history. Michael Justin served as Principal Investigator for archaeology, and Andrew Schmidt served as Principal Investigator for architecture-history.

The areas of potential effects (APEs) for archaeology and architecture-history were determined in consultation with the MnDOT Cultural Resources Unit (CRU) Project Manager. The APE for archaeology consists of the project construction limits. It comprises approximately 71.1 of acres (28.8 hectares) within the Red River Valley archaeological sub-region. The Phase I archaeological investigation included literature search and field survey components. During the Phase I survey, which consisted of pedestrian survey, shovel testing, and augering in areas with moderate to high potential for containing archaeological sites, one archaeological site, 21WL0055, was identified. Site 21WL0055, a sparse precontact artifact scatter, cannot be associated with a specific historic context, has extremely low artifact density, and did not exhibit evidence for potential features. This site is therefore recommended as not eligible for listing in the NRHP, and no further archaeological work is recommended for this site prior to or during construction.

For architecture-history, the APE included the proposed construction limits as well as a buffer around the project corridor sufficient to account for indirect effects. It comprises 1,022.6 acres (413.8 hectares). The Phase I architecture-history survey included five farmsteads, one house, one bridge, a railroad corridor, and a highway corridor. One property, the TH 75 highway corridor, had potential to be eligible for listing in the NRHP and, therefore, was evaluated at the Phase II level. As a result of the Phase II evaluation, the TH 75 corridor is recommended as not eligible for listing in the NRHP.

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1.0 INTRODUCTION

The Minnesota Department of Transportation (MnDOT) will be using Federal Highway Administration (FHWA) funds for proposed improvements to the proposed Trunk Highway (TH) 75 Realignment project in Kent, Wilkin County, Minnesota (Figure 1). Currently, the MnDOT is considering reconstructing TH 75 on a new alignment for approximately 1.8 miles. The existing bridge over Whiskey Creek will be removed and a new bridge will be built over Whiskey Creek on the new alignment approximately 600 feet east of the in place bridge. A new bridge will also be constructed where the new alignment crosses the Burlington Northern Santa Fe Railroad. A large portion of the existing alignment of TH 75 will be removed, reshaped, and seeded. Also proposed are realignments of two private property access openings, CSAH 24, CSAH 1, 225th St., and several field entrances.

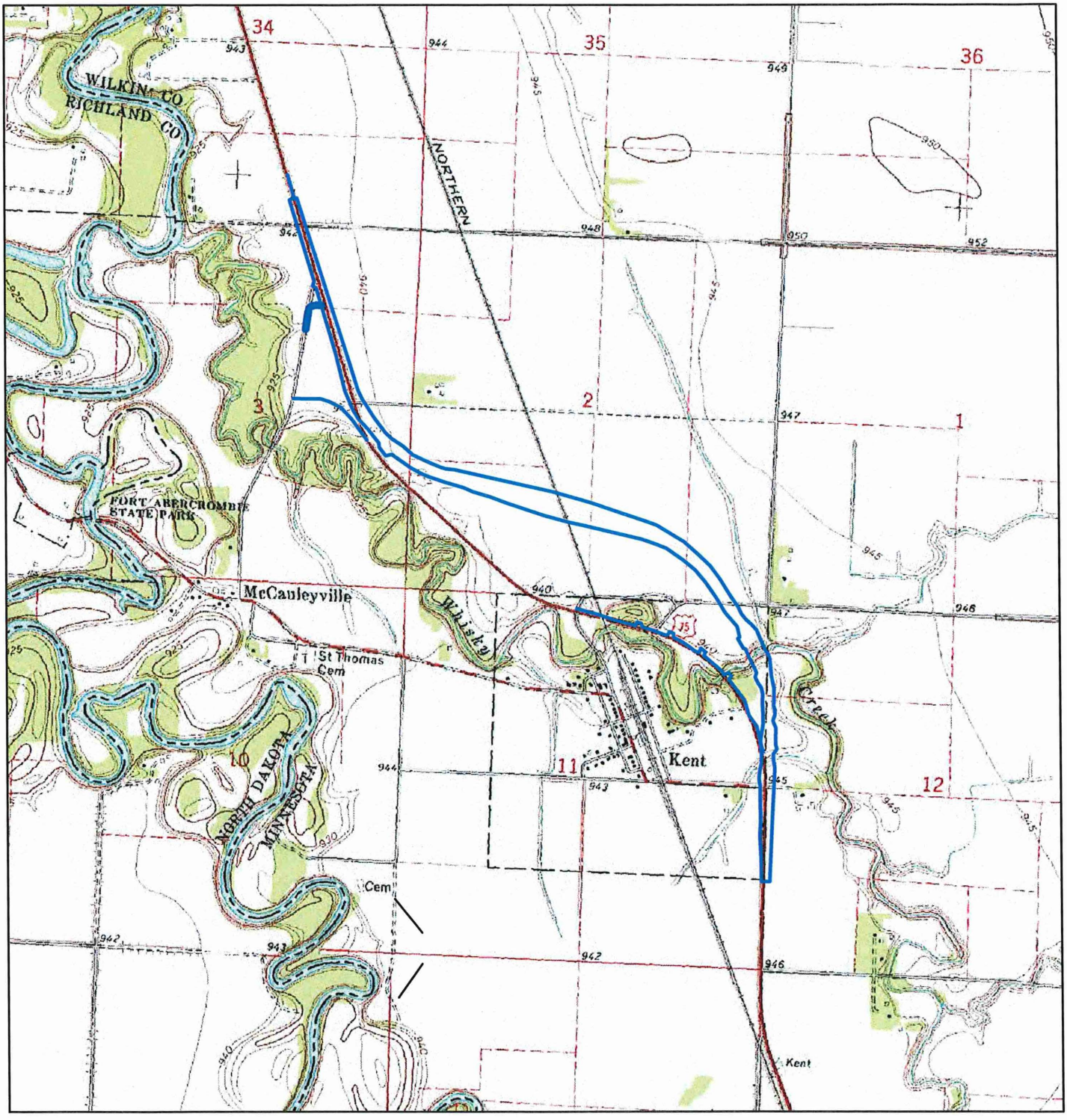
Because this project is receiving federal funds, it must comply with Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations (36 CFR 800); therefore, the MnDOT, as FHWA's delegated administrator, contracted with Summit Envirosolutions, Inc. (Summit) to complete Phase I cultural resources investigations for the project. The cultural resources studies were conducted in accordance with Section 106, as well as the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act (Minn. Stat. 138.36).

Legal locations for the project area are provided in Table 1. The area of potential effects (APE) was determined in consultation with the MnDOT Cultural Resources Unit (CRU) Project Manager, Craig Johnson. For archaeology, the APE consists of the proposed construction limits associated with the construction of the corridor, and for architecture-history, the APE includes the construction limits plus a buffer around the project corridor sufficient to account for indirect effects. The APEs fall within portions of McCauley and Roberts townships. The UTM coordinates (NAD 83) for the APE are Zone 15, north end: E 215466, N 5151552; south end: E 217530, N 5148523. Coordinates were calculated using ArcGIS 10.1.

The following report describes the methods of investigation, the cultural and environmental background of the project area, results of the Phase I fieldwork, results of the Phase II evaluation, and cultural resources recommendations for the Kent Bypass project.

Table 1. Project Area Legal Locations

Township	Range	Section	Quarter Sections
134 N	48 W	2	S-N-SW, S-NE-SW, N-SW-SE, W-SE-SE
134 N	48 W	3	E-W-NE, W-SE-NE, N-NE-SE
134 N	48 W	11	E-E-NE, E-NE-SE
134 N	48 W	12	SW-NW-NW, W-SW-NW, W-NW-SW
135 N	48 W	34	SE-SW-SE



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

Construction Limits

N
W E
S

Site Location

0 0.5 1 Miles

1 inch = 2,000 feet

Project Location

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 1

File: Project_Location
Summit Proj. No.: 1727-0042
Plot Date: 5-27-2014
Arc Operator: SJN
Reviewed by: LSHO

2.0 METHODS

2.1 OBJECTIVES

The principal objectives of the Phase I cultural resources survey are twofold: to identify all previously recorded cultural resources within the archaeology and architecture-history APEs that are listed in or are eligible for listing in the National Register of Historic Places (NRHP) and to identify, to the extent possible by means of systematic in-field inspection and testing, other potentially NRHP-eligible resources within each APE.

Summit's investigation was guided by the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716), the *SHPO Manual for Archaeological Projects in Minnesota* (Anfinson 2005), and *MnDOT's Cultural Resources Unit Project Requirements* (MnDOT 2008). Fieldwork, laboratory analysis, and preparation of the final report with recommendations were accomplished or directly supervised by an archaeologist and an architectural historian, both of whom meet the standards set forth in 36 CFR 61.

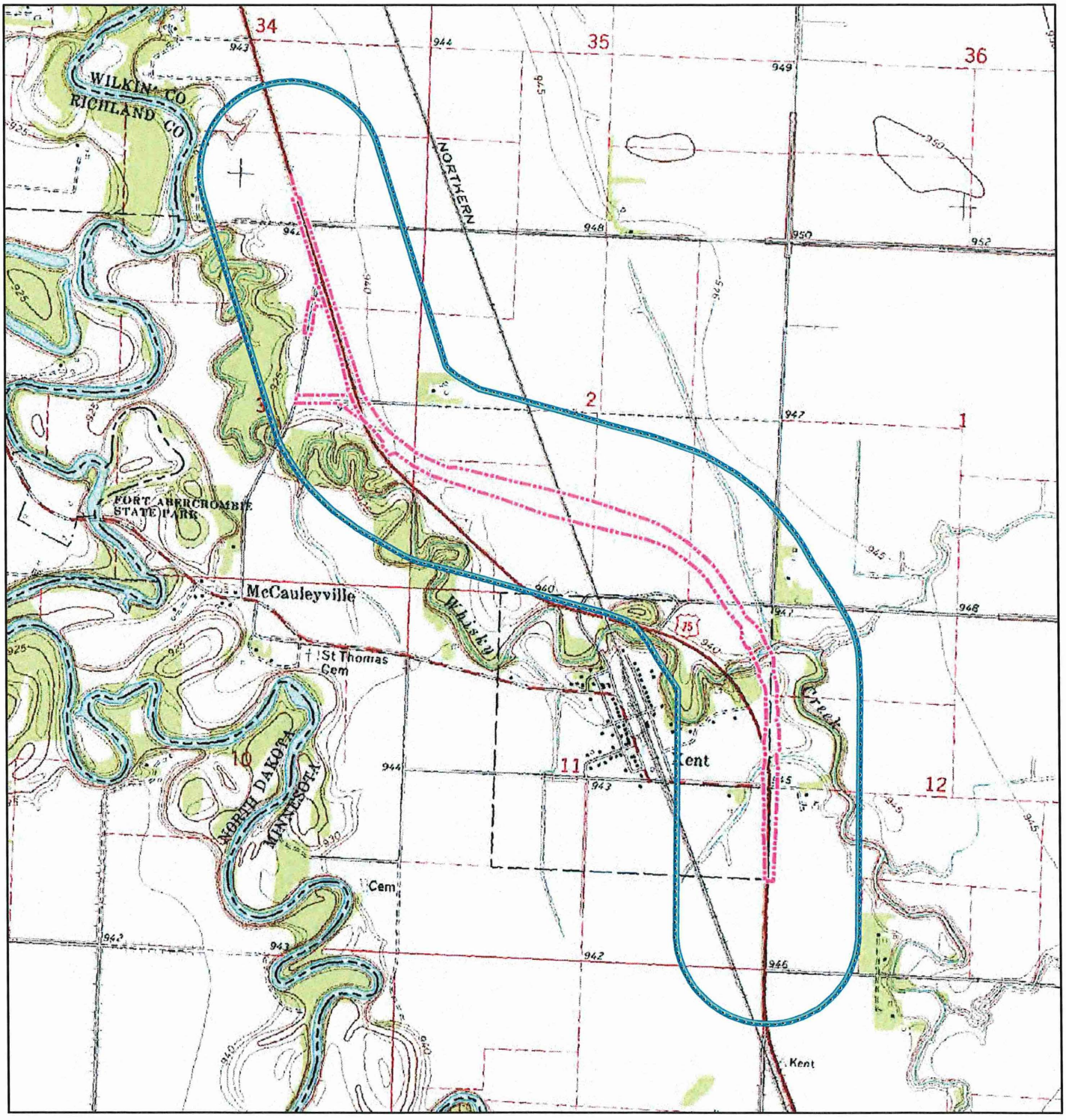
2.2 AREA OF POTENTIAL EFFECTS

2.2.1 Archaeology

The APE for archaeology was determined in consultation with the MnDOT CRU Project Manager, and it comprises approximately 71.1 acres (28.8 hectares) within the Red River Valley archaeological sub-region (Figure 2). It includes the proposed construction limits associated with the new TH 75 alignment; new bridge installation; and roadway, access opening, and field entrance realignments, as previously described (see Figure 1). The width of the construction limits varies, from 50 to 350 feet, as shown in Figure 1. A shapefile of the construction limits was provided to Summit by MnDOT in July of 2013, prior to the field survey.

2.2.2 Architecture-History

The APE for architecture-history was delineated in consultation with the MnDOT CRU Project Manager, and it accounts for direct and indirect effects to historic properties (Figure 2). The APE comprises 1,022.6 acres (413.8 hectares) and encompasses the area within the proposed project construction limits, as well as a buffer around the construction limits to account for indirect effects, including changes in visual qualities and noise levels for surrounding properties. In addition, because it was expected that the architecture-history APE area may contain historic farmsteads, potential changes to historical land-use patterns were considered in establishing the APE. In general, the architectural APE consists of the project area plus approximately ¼ mile in either direction from the centerline for roadway re-construction. However, this distance varied according to on-site conditions, such as topography and vegetation that would affect the distance that changes would be noticeable.



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

- Architecture History APE
- Archaeology APE

N
W E
S

Site Location

0 0.5 1 Miles

1 inch = 2,000 feet

Areas of Potential Effect

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 2

File: Project_Location
Summit Proj. No.: 1727-0042
Plot Date: 5-27-2014
Arc Operator: SJN
Reviewed by: LSHO

2.3 LITERATURE SEARCH

Summit staff completed background research at the Minnesota State Historic Preservation Office (SHPO) in March and September of 2013. The purpose of the research 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, historical maps, and county histories held at the Minnesota Historical Society (MHS) and University of Minnesota (U of M) were consulted to obtain historical information about the APE and its potential to contain previously unidentified cultural resources.

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/or proximity to previously recorded precontact sites are also typically indicative of high precontact archaeological potential.

The project lies within the Red River Valley archaeological subregion. This area was completely submerged by Glacial Lake Agassiz and it is presumed that human occupations of Paleoindian and Early Archaic times are absent, or deeply buried under alluvium. Artifacts from these times may be found along beach ridges that formed over time as the glacial lake expanded and receded. In general, Woodland era occupations may be found on higher elevations along the Red River and its tributaries (Gibbon et al. 2002).

Areas in proximity to former and/or existing historical-period buildings or structures are considered to hold higher potential for containing historical-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.

Research at the MHS and U of M related to the historic built environment in the vicinity of the project area was conducted by a Summit architectural historian in order to obtain information for use in the development of historic contexts. These contexts informed the field survey regarding the expected property types within the APEs as well as the potential significance of those properties.

2.4 FIELD SURVEY

2.4.1 Archaeology

The Phase I archaeological field investigation consisted of systematic pedestrian survey, systematic shovel testing, and soil auger 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 therefore 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 typically spaced 15 meters (49 feet apart), but at reduced intervals where the width of the survey area was constricted.

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 at regular intervals to identify subsurface archaeological materials. For this project, shovel tests were typically excavated at intervals of 15 meters (49 feet).

Portions of the APE adjacent to Whiskey Creek were explored with 4" bucket auger tests to test for buried topsoils (A horizons) that may contain cultural materials. These tests were excavated to a minimum depth of 150 centimeters below the ground surface, and the excavated soils and corresponding data were processed in the same manner as those from shovel tests, as described below. In addition, the cutbank of Whiskey creek was visually inspected for buried soil horizons and cultural materials that may have eroded out of the soil.

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 100 centimeters below the ground surface (cmbs), as appropriate. Excavated soils from the shovel and auger tests were passed through ¼-inch hardware mesh to ensure consistency in the recovery of cultural materials. Shovel and auger 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 or auger test in

relation to natural or cultural features, or to other shovel or auger 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 and auger tests were recorded using a Trimble Geo XH®.

When archaeological sites were encountered during fieldwork, they were documented and given a unique field number. Site locations, characteristics, and conditions were recorded manually and digitally. GPS coordinates were recorded for each site, and each site was recorded on a 7.5-minute USGS quadrangle map of the project area.

2.4.2 Architecture-History

The Phase I architecture-history field investigation consisted of pedestrian survey of all buildings and structures within the APE. Buildings and structures 45 years in age or older were identified based on background research and professional judgment and were inventoried with field notes and digital photographs. Buildings and structures less than 45 years old were not recorded. Historic-period farmsteads were further documented with site-plan sketches. Generally, the interiors of buildings were not surveyed. In the case of historic-period barns, however, if access could be gained, interiors were documented through photographs and floor-plan and cross-section sketches. Upon completing the field survey, a Minnesota Architecture-History Form was prepared for each recorded property within the APE.

One property, TH 75, had potential to be eligible for listing in the NRHP, and therefore, a Phase II evaluation was completed for the highway corridor. Additional historical research was conducted related to the development of the trunk highway system in Minnesota and regarding construction of TH 75. In addition, previous studies were consulted, including linear resources studies in Minnesota (Henning 2004; Mead & Hunt 2013; Schmidt et al. 2007) and highways contexts in other states (ACRE 2003; Autobee and Dobson-Brown 2002; KSK 2011; Ingalls 2009). With this information, a historic context was developed for trunk highway construction in Minnesota prior to World War II. An intensive survey of the TH 75 corridor within the Project APE was conducted, and to better understand the TH 75 corridor, a reconnaissance survey was completed for the portion of highway between Moorhead and Ortonville. Other portions of the highway in the state were analyzed via maps and aerial photographs. With the historical information and the field results, the Principal Investigator then applied the NRHP criteria of significance to the TH 75 corridor.

2.5 LABORATORY

Artifacts collected during the survey were bagged by provenience and returned to Summit for processing, analysis, and temporary curation. Artifacts were processed according to current professional standards and state repository guidelines. Processing included cleaning and cataloging. Artifacts were analyzed with reference to type, material, function, and cultural association.

Artifacts recovered during the survey were located on private land. If the landowner chooses not to donate the artifacts recovered from his or her property, those artifacts will be transferred back to the landowner. If the landowner chooses to donate artifacts found on his or her property to the MHS, those artifacts will be prepared for curation at the MHS and submitted with associated copies of the field notes, laboratory records, maps, site forms, project report, and other relevant records.

3.0 LITERATURE SEARCH RESULTS

3.1 ARCHAEOLOGY

3.1.1 Previous Investigations

Background research revealed that no archaeological surveys have previously occurred within or adjacent to the project area.

3.1.2 Precontact Archaeology

No precontact archaeological sites have been previously recorded within or adjacent to the project area. Five precontact archaeological sites, 21WL0002, 21WL0021, 21WL0022, 21WL0052, and 21WL0053, have been previously recorded (field verified) within one mile of the APE (Table 2, Figure 3).

Site 21WL0002 (McCauleyville Mound) is comprised of a single precontact mound and possible village located on the east side of the Red River, approximately 3,280 feet (0.62 mile) southwest of the project area. The site was first recorded in 1911 by Winchell, at which time it was described as containing a lone mound that measured approximately 50 feet by 4 feet, and was situated within an agricultural field. In 1939, Wilford noted potential precontact village or mound remnants in the southern half of the field. He later excavated the mound in 1952, from which human and faunal remains and precontact ceramics were recovered. Artifacts recovered from this site have been attributed to the Woodland and Oneota traditions (Site file 21WL0002, on file at the SHPO).

Site 21WL0021 (Lawrence Tschackert No. 1) and 21WL0022 (Lawrence Tschackert No. 2) are two Woodland Tradition sites located on the Red River flood plain approximately 4,250 feet (0.80 mile) and 1 mile southwest of the project area, respectively. These sites were first identified in 1984, and have yielded grit tempered ceramics (and shell tempered ceramics from 21WL0022), artifacts of Knife River Flint and Swan River Chert, and bovid remains from the surface of agricultural fields. In addition, a small triangular point of Tongue River silica was recovered from 21WL0022, and a clam shell was identified at 21WL0021 during pedestrian reconnaissance (Site files 21WL0021 and 21WL0022, on file at the SHPO).

Two sparse artifact scatters, 21WL0052 and 21WL0053, are located on riverine terraces approximately 2,180 and 2,670 feet (0.41 and 0.51) west of the project area, respectively. Survey work at site 21WL0052 conducted in 2004 yielded one chert core, six Swan River chert flakes, and two bone fragments, one of which may be a bison tooth fragment, from the surface of an agricultural field. A similar assemblage was collection from the surface of another agricultural field that same year, including two Swan River chert flakes, two Swan River chert end scraper fragments, one shell fragment, two bone fragments, and fire-cracked rock. These artifacts were designated site 21WL0053 (Site files 21WL0052 and 21WL0053, on file at the SHPO).

A comparison of the original General Land Office survey map and the current topographic map show Whiskey Creek to be in the same general location as it was

historically, though slightly closer to the APE in Section 3. The creek crosses the APE in Section 11, T134N, R48W. Based on their topographic relationship and proximity to the creek and wetlands, the dry and relatively high portions of the project area near the wetlands and creek were considered to have moderate to high potential for containing precontact archaeological resources.

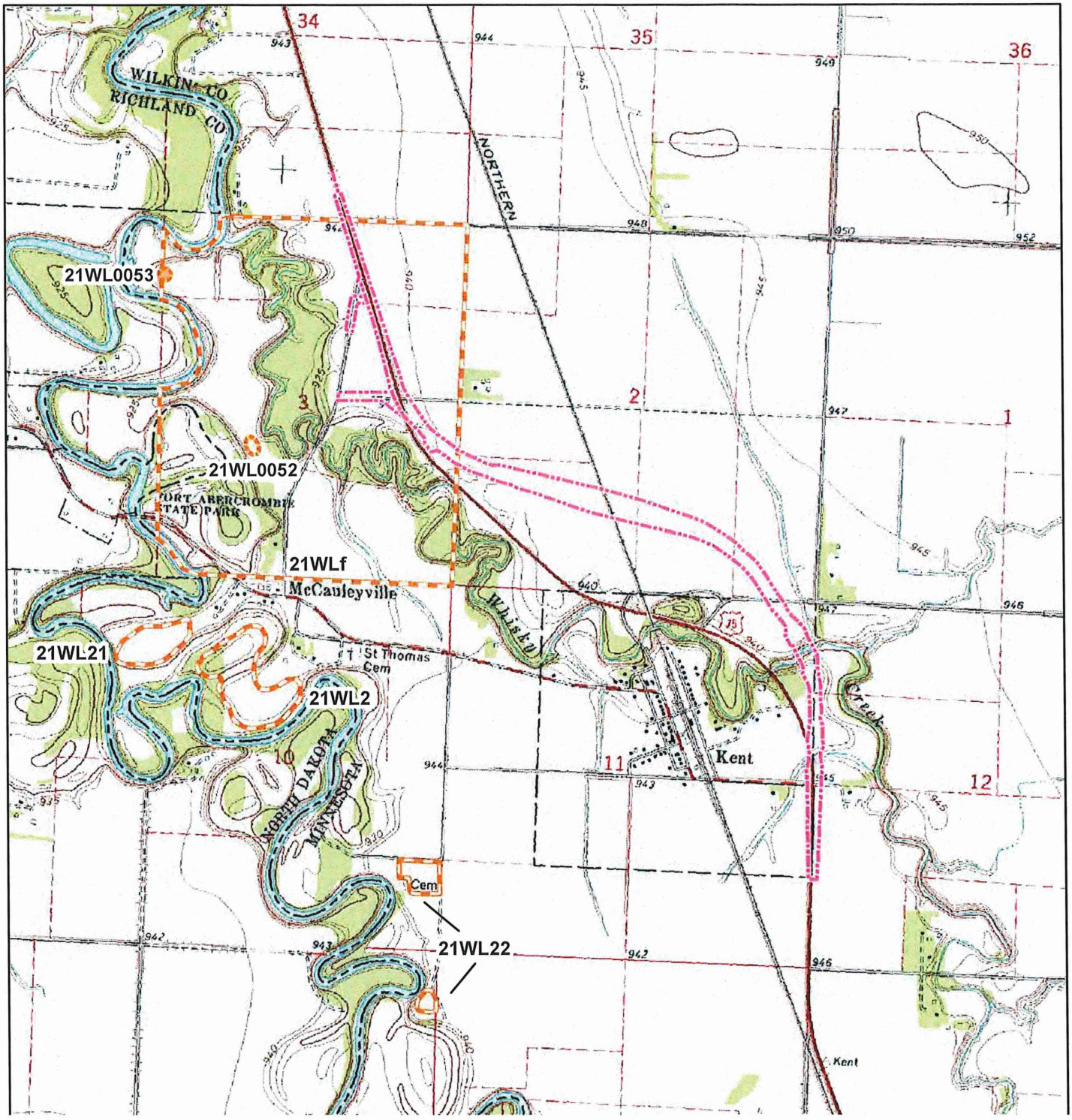
3.1.3 Historical Archaeology

One historical-archaeological site, 21WLf, has been previously reported (not field-verified) within the APE (Table 2 and Figure 3). Site 21WLf encompasses the former military reserve and structures associated with Fort Abercrombie, which was "the first permanent United States military fort established in what was to become North Dakota" (State Historical Society of North Dakota 2013). The fort was established by authority of an act of Congress, March the 3rd, 1857 and encompassed 25 square miles on both sides of the Red River. The main building compound was on the west side of the Red River and was occupied between 1858 and 1877, during which time it provided protection for several transportation routes across the northern Midwest as well as steamboat traffic along the Red River. The fort was also used as a refuge for settlers during the Dakota conflict of 1862 (State Historical Society of North Dakota 2013). The Minnesota portion of the reserve was vacated in 1876 to allow for settlement.

Historical maps of the project area that depict buildings date to 1859, 1874, 1903, and 1915. With the exception of the railroad which crosses the project area in Section 2, T134N, R48W, and first appears on a map of the project area dating to 1903, these maps do not depict any buildings or structures in the location of the project area, and the closest depicted buildings are not close enough to the project area to suggest the presence of associated historical features (General Land Office 1859; Andreas 1874; North West Publishing Co. 1903; Webb Publishing Company 1915). For these reasons, the project area is considered to have moderate to low potential for containing historical-archaeological resources.

Table 2. Previously Identified Archaeological Sites within One Mile of the APE

Site Number	Site Name	Twp	Range	Sec.	¼ Sec.	Site Description	Eligibility
21WL0002	McCauleyville Mound, Mel Vermillion	134	48	10	SE-NW, SE-NW-	Precontact Earthwork, Artifact Scatter	Unevaluated
21WL0021	Lawrence Tschackert No. 1	134	48	10	S-NW-NW	Precontact Artifact Scatter	Unevaluated
21WL0022	Lawrence Tschackert No. 2	134	48	10	NE-SE-SE, C-E-NE-NE	Precontact Artifact Scatter	Unevaluated
21WL0052		134	48	3	SE-NE-SW	Precontact Lithc Scatter	Unevaluated
21WL0053		134	48	3	SE-NW-NW	Precontact Lithic Scatter	Unevaluated
21WLf	Ft. Abercrombie	134	48	3	0	Historically Documented	Unevaluated



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

- Archaeology APE
- Previously Identified Sites

N
W E
S

Site Location

0 0.5 1 Miles

1 inch = 2,000 feet

Archaeology Sites within 1 Mile

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 3

File: Project_Location
Summit Proj. No.: 1727-0042
Plot Date: 5-27-2014
Arc Operator: SJN
Reviewed by: LSHO

3.2 ARCHITECTURE-HISTORY

The only previous architecture-history survey in the vicinity of the project area was the 1979 county-wide reconnaissance survey conducted by MHS staff (Harvey 1979). This survey inventoried a number of properties within Kent but did not evaluate their NRHP eligibility (Table 3). None of the properties inventoried in 1979 is within the project APE.

Two historic-period bridges are within the project APE and have been inventoried by MnDOT. Built in 1932, Bridge No. 5185 is a five-span, steel through girder bridge that carries the BNSF railroad over TH 75. Although the MnDOT Structure Inventory Report refers to the bridge as not NRHP eligible, the bridge has not been evaluated according to the statewide historic railroads Multiple Property Documentation Form (MPDF) (Schmidt et al. 2007). Bridge No. 5186, also built in 1932, is a steel beam span that carries TH 75 over Whiskey Creek and, per the MnDOT Structure Inventory Report, was previously found to be not eligible for listing in the NRHP.

Table 3. Previously Identified Architecture-History Properties within One Mile of APE

Inventory Number	Property Name	Address	Property Type	Eligibility
WL-KNC-001	St. Thomas Catholic Church	Harris and 5th Streets	Church	Not Eligible
WL-KNC-002	Kent Farmer's Elevator	Main and 4th Streets	Grain Elevator	Unevaluated
WL-KNC-003	Kent Town Hall	Main and 4th Streets	Public Building	Unevaluated
WL-KNC-004	Main Street, West Side	Main Street north of 4th Street	Commercial Buildings	Unevaluated
WL-KNC-005	Kent Post Office	Main and 3rd Streets	Public Building	Unevaluated
WL-KNC-008	Log House	4th Street West	House	Unevaluated
WL-KNC-009	Bridge No. 5185	BNSF railroad over TH 75	Bridge	Unevaluated
WL-KNC-010	Bridge No. 5186	TH 75 over Whiskey Creek	Bridge	Not Eligible

Note: all properties are located in T134N, R48W, Sec. 11

3.3 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 historic period (A.D. 1820-present) in North America in general and Wilkin County in particular. These contexts constitute research themes under which cultural resources identified within the project area can be evaluated for their NRHP significance. Because only precontact and historic-period properties were encountered during the survey, contexts related to the contact period would be extraneous to this report and, therefore, are not provided here. Architecture-history properties inventoried during the survey were evaluated under research themes based on the statewide contexts *Railroads and Agricultural Development, 1870-1940* and *Railroads in Minnesota, 1862-1956.*

3.3.1 Precontact Period

The Precontact period encompasses the human habitation of the Americas prior to the first contact with European settlers. In Minnesota, this contact occurred in approximately A.D. 1630. Since these societies predate the use of written records, archaeologists have

attempted to discern cultural-temporal distinctions in the archaeological record through the identification and analysis of multiple cultural components, such as settlement and subsistence patterns, tool kits, ceramic assemblages, and mortuary practices. This process also involves an assessment of factors affecting cultural change, including environmental shifts, migrations, population pressures, local innovations, trade, and varying levels of political complexity. This section will provide an overview of the major cultures that resided in Minnesota during the Precontact period in relation to these components and factors.

First Settlement of North America (before circa 9500 B.C.)

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 9500 B.C. 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 B.P. (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 11,000 B.C.

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 B.P.; 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 B.P. (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 Stage (circa 9500 to 6000 B.C.)

Sites dating to the Paleoindian stage, which began approximately 9500 B.C., provide the earliest undisputed evidence for humans living in the Americas. This stage corresponds to the end of the last Ice Age, which was marked by increasing temperatures, rising sea levels, and significant changes in flora and fauna (Morrow 1996:1). In Minnesota, climatic conditions were cooler and wetter than those of today. The retreat of glaciers from southern Minnesota set in motion massive alterations to the natural landscape with rivers, lakes, and new vegetation. Areas once covered by glaciers became inhabited by spruce parklands dominated by coniferous trees and grasslands.

Excavations at Paleoindian sites across the country indicate that Paleoindian populations were highly mobile hunters and gatherers, covering large territories or ranges in pursuit of herds of large game including mastodon, bison, and woodland caribou, as well as a variety of smaller animals and other natural resources, into the tundra and open pine and oak forests that populated that landscape behind retreating glaciers (Dobbs 1990:56; Morrow 1996:2; Stanford 1999:289). These settlers entered Minnesota following the retreat of the Wisconsin Glaciation, and many of their sites have subsequently been buried beneath thick deposits of Middle Holocene sediments (Dobbs 1990:56).

Typically, Paleoindian sites include temporary campsites, faunal processing sites, short-term stone-tool-manufacturing sites, and animal kill sites with a notable lack of long-lasting structures, which reflect their nomadic lifestyle (Morrow 1996). This lifestyle may also be reflected in the high quality, exotic lithic raw materials used in Paleoindian tool kits, which included bifacial fluted and unfluted lanceolate (leaf-shaped) projectile points, and tools used for game and hide processing, such as knives, scrapers, rubbing stones, abraders, and various bone tools (Alex 1980:114; Stanford 1999:289). These materials were acquired either through extensive travel or continental trade networks (Morrow 1996:2; Stanford 1999:289).

Differing stone tool technologies provide the basis for cultural distinctions within the Paleoindian stage. Early Paleoindian cultures identified in Minnesota include the Clovis and the Folsom, which date between 9500 and 8000 B.C. (Dobbs 1990:39), the Folsom succeeding the Clovis during the later part of this period. The Clovis tradition is characterized by fluted projectile points that are long, thin, and relatively narrow. Grinding along the basal edges of the point was also commonly employed to protect binding materials from wear and cutting by sharp edges (Higginbottom 1996:3). The Folsom tradition began to replace Clovis technologies in response to rapidly changing climatic conditions, accompanied by a decrease in mammoth populations circa 8850 B.C. It is characterized by projectile points that are shorter, broader, and have more complete fluting than Clovis points. Unifacial flaked tools such as knives and scrapers, burins,

gravers, perforators, abraders, large choppers, and bone tools including needles, notched disks, projectile points, and fleshers, were common components of the Folsom tradition (Anfinson 1997:29; Stanford 1999; Gibbon et al. 2002).

Sites dating to the Early Paleoindian period in Minnesota are scarce and largely limited to the fluted spear points typical of the period without any associated features or artifacts (Dobbs 1990:56). Clovis finds have been reported for counties, including Hennepin, Rock, Nobles, Fillmore, Yellow Medicine, Blue Earth, Waseca, and Murray counties (Anfinson 1997:29; Higginbottom 1996:3). Folsom finds have also been reported for several Minnesota counties, including Sherburne, Stearns, Freeborn, Nobles, Cottonwood, Redwood, and Washington Counties. (Anfinson 1997:29; Higginbottom 1996:3). Other Early Paleoindian artifacts have been reported or recorded from counties such as Brown, Hennepin, Olmsted, and St. Louis (Higginbottom 1996:3; Anfinson 1997; Vermeer 2005). Although these locations suggest that the occupation of Minnesota during this period was concentrated in the central and southern regions of the state, additional Early Paleoindian sites may have yet to be discovered in the northern half of Minnesota.

The late Paleoindian stage in Minnesota saw the Plano culture begin to emerge around 8000 B.C., as the weather became warmer and wetter (Anfinson 1997:28; Haynes 2002:267). Plano projectile points are characterized by long or stemmed lanceolate blades with parallel flaking and are not usually fluted (Higginbottom 1996:3). The morphological changes exhibited in Plano and other lanceolate stone tool technologies may reflect an increase in subsistence strategy and tool style regionalization that resulted from the gradual extinction of all megafauna within North America, and/or differences in projectile point hafting methods (Alex 1980:113-114; Dobbs 1990:64, 70). Different Plano types that have been identified in Minnesota include Agate Basin, Alberta, Angostura, Brown's Valley, Hell Gap, and Scottsbluff (Higginbottom 1996:4).

Late Paleoindian Plano points have been frequently identified in private surface collections across the state, but only a handful have been observed during excavation. Plano points have been recovered in situ from sites including the Brown's Valley site in Traverse County, the East Terrace site in Benton County, the Bradbury Brook site in Mille Lacs County, the Greenbush site in Roseau County, and the Cedar Creek site in Aitken County, and the Pedersen site in Lincoln County (Dobbs 1990:64; Higginbottom 1996:4).

Archaic Stage (circa 6000 to 1000 B.C.)

Milder climatic conditions ushered in the Archaic period, which began circa 6000 B.C. (Higginbottom 1996). New landscapes emerged from beneath the ice, and the future state of Minnesota transitioned from a forested region to an expanse of prairie interspersed with large lakes and swiftly-flowing rivers fed by glacial runoff. These changes brought on the extinction of the Pleistocene megafauna, which were replaced with new complexes of animals and plants (Gibbon et al. 2002:10). Even so, big-game hunting continued to occur, as indicated by the retention of lanceolate projectile points,

which are typically medium to large in size and exhibit "steep alternate edge sharpening," (Higginbottom 1996:5) basal thinning, and grinding along the edges of haft elements.

Temperatures continued to climb after 5000 B.C., and the environment became increasingly arid. Minnesota prairies covered all but the northeastern quarter of the state during this period, which lasted until circa 2000 B.C., and many of the glacial meltwater lakes and rivers began to recede or completely dry up. Archaic populations continued to diversify their resource exploitation, as evidence through the emergence of new tool technologies. The introduction of manos and metates indicates an increased reliance upon vegetable resources, while the recovery of bannerstone weights implies the adoption of the atlatl. The large lanceolate projectile points of the Paleoindian Tradition were replaced by small, notched, and stemmed chipped-stone points, atlatl darts, and knives. Chipped stone axes were in turn succeeded by groundstone adzes, axes, and other groundstone tools (Dobbs 1990:79; Higginbottom 1996). During this period, metal implements composed of Great Lakes copper were also introduced into the traditional Archaic toolkit. This copper was recovered from glacial till and mined from locales such as the Isle Royale in Lake Superior. "Old Copper" tools, which included crescent-shaped knives, projectile points, and awls, were highly valued due to the enormous resource and energy expenditure their manufacture required and were produced and utilized until approximately 3,500 years ago (Dobbs 1990:79; Higginbottom 1996:6).

The end of the warming period witnessed cooler, wetter conditions similar to those of today. Consequently, the vast expanse of prairie was forced to retreat, reaching its modern border by approximately 1000 B.C. (Gibbon et al. 2002:2). With this stabilization in the environment came a predictability that allowed for a decrease in population movement. Archaic peoples therefore established longer-term seasonal camps with temporary structures and storage pits, which restricted the resources available to them, but also allowed them to experiment with plant domestication and small-scale garden horticulture (Higginbottom 1996:6).

Ceremonial activities may also have increased during this period, as evidenced by the construction of non-utilitarian objects such as the delicate Turkey Tail projectile point, and the production of rock art, which has been identified in various forms in northeastern Minnesota, along the Mississippi and St. Croix Rivers and their tributaries, and in southwestern portions of the state at sites such as Jeffers Petroglyphs in Cottonwood County (Dudzik 1995; Higginbottom 1996:6-7).

Because of the level and directional changes experienced by groundwater tables, rivers, and lakes during the Archaic, many of these sites have become deeply buried in sediment or are no longer situated by currently existing bodies of water; consequently, these sites are more difficult to locate than those belonging to other prehistoric periods (Dobbs 1990:81; Gibbon et al. 2002:5). One of the most thoroughly studied Archaic sites in Minnesota is the Itasca Bison Kill site located in Clearwater County, which dates to approximately 6,000 to 5,000 B.C. This site is situated along a tributary of Nicollet Creek and encompasses both the side of a hill located immediately northwest of the valley, as well as a portion of the valley floodplain. Archaic hunters visited the valley

during the fall to trap bison in the streambed during the bison migration from the western grasslands to the partially wooded areas to the east that offered shelter during the winter. Artifacts recovered from the hilltop campsite indicate that approximately 25 to 100 people seasonally occupied this area, which was used for tool manufacture and maintenance, and bison processing. The recovery of a dog skull, one of the earliest in Minnesota, indicates that Archaic populations may have utilized canines to pull loads, hunt, and provide an alternate source of food when necessary (IMA 1999; MSU 2007).

Woodland Period (beginning circa 500 B.C.)

During the Woodland stage, Minnesota exhibited a mixture of forest and prairie, which existed within an increasingly stable climate. The Woodland stage is commonly divided into two periods: the Initial Woodland period (ca. 500 B.C. – A. D. 500), and the Terminal Woodland period (ca. A.D. 500-1650).

Initial Woodland inhabitants of Minnesota resided in small seasonal settlements throughout Minnesota. Many of these sites demonstrate similarities with those dating to the Late Archaic, indicating an overlap of the two cultures. These hunter-gatherers continued to refine and expand their subsistence base within Minnesota's diverse environment, as reduced mobility and increasing regionalization placed greater restrictions on the availability of local resources. In southern and central Minnesota, vegetables such maize, squash, gourds, and beans were raised in small family gardens. In northern Minnesota, Native Americans began to harvest wild rice (Higginbottom 1996:8; Gibbon et al. 2002:6). Such resource and implied cultural regionalization encouraged the development of trade networks. Minnesota's Woodland populations were exposed to a variety of influences, including those from the Great Lakes and the northern forests, the western plains, and the southeast. The highly varied material culture of this period reflects these influences. Projectile points, for example, range from the large, corner-notched points of the western plains to eastern varieties that include long, triangular, side-notched points; small to medium corner-notched points with expanding stems; and medium to large, ovate, corner-notched points with expanding stems (Higginbottom 1996). Perhaps the most significant innovation of the Initial Woodland period was the advent of ceramic production, as indicated by La Moille Thick (500 - 300 B.C.) ceramics, and Malmo/Kern ceramics (800 B.C. – A.D. 200) associated with Havana Complex influences from the east and south (Anfinson 1979). The Initial Woodland societies of Minnesota also constructed burial mounds. These changes in Minnesota mark not only advancements in procurement technologies, but also changes in ritual activities and the expression of religious beliefs. It should be noted that these innovations were not adopted in all areas of the state at the same time or necessarily together. Grit-tempered ceramics affiliated with the Woodland period have been recovered from two sites within one mile of the project area, 21WL0021 and 21WL0022, as previously detailed in Section 3.3.1.

The ever-growing Terminal Woodland populations of Minnesota generally settled in long-term and reoccurring seasonal village sites dispersed across the expansive prairies in the west and oak savanna in the northwest to the southeast. By A.D. 500, hunting was

facilitated by the use of the bow and arrow, as evidenced by the abundance of small, triangular, notched and unnotched points used for arrows. Other material culture recovered in association with Terminal Woodland sites includes a variety of side-notched projectile points and ceramics that were typically globular, thin-walled vessels with woven-cord, impressed exteriors (Higginbottom 1996:10; Anfinson 1997:87). One of the most distinct features of the Terminal Woodland period is the presence of effigy mounds in southeastern Minnesota and surrounding states. These earthen mounds were constructed between approximately A.D. 650 and 1,000 in a variety of sizes, shapes, and arrangements in topographically prominent locations, often overlooking bodies of water (Perry 1996:3; Gibbon et al. 2002:6). In Houston County, for example, several bird effigies have been identified on plateaus overlooking Mississippi River floodplains (Winchell 1911). The effigy mounds resemble a variety of animals, including bears, birds, deer, buffalo, turtles, and humans. Some of the mounds contain simple burials with a few grave goods, though the paucity of other artifact types recovered from areas surrounding the mounds suggests that other activities, such as habitation, did not occur nearby (Perry 1996:3; Gibbon et al. 2002:6). Within the Red River headwaters region, however, the Terminal Woodland period is not well known. The apparent scarcity of related sites may be a result of burial by thick deposits of river sediment over the last several centuries. Decorated ceramics that have been recovered from the region dating to the Terminal Woodland include those with likely Lake Benton/Kathio influences (Holley and Michlovic 2013:103). Artifacts of the Kathio complex, which dates between A.D. 900 and 1300, include grit-tempered, cord-marked globular ceramic vessels; triangular points; end scrapers; deer ulna awls; and rectangular semi-subterranean houses. Peoples associated with this complex also engaged in intensive harvesting of wild rice and constructed burial mounds (Dobbs 1989:234).

Late Precontact Stage (circa A.D. 900 to 1630)

Between approximately A.D. 900 and 1630, Minnesota experienced several minor climatic changes. Cooler and wetter conditions gave way to warmer temperatures and sporadic droughts until the seventeenth century, when the Little Ice Age settled across North America and other parts of the globe. The Little Ice Age brought bitterly cold winters and highly variable levels of precipitation, decreasing the length and reliability of the growing season until its termination in the mid nineteenth century (Wikipedia 2013).

During this period, American Indian populations typically established and inhabited semi-permanent villages, which were complemented by temporary campsites used for seasonal activities related to resource procurement. On the whole, this period saw "the intensification of food production… significant population increase, and the emergence of well-defined regional complexes" (Dobbs 1990:185). Overall, however, the lifeways and environments of the peoples who lived during this time varied significantly, resulting in a number of temporally and regionally specific cultures over the Midwest. The most prominent of these cultures was that archaeologically designated as the Mississippian Tradition. Mississippian sites are distinguishable from their Ceramic/Mound-stage counterparts by their greater artifact density, highly distinct ceramics styles, corn and vegetable storage pits, and large semipermanent village complexes located on river valley

terraces. This cultural development has possible ties to cultures of the southern United States and Mexico, which made their way up southeastern Minnesota from the Mississippi River and southwestern portions of the state through the Missouri River region and from the Mississippian center at Cahokia in southern Illinois. Three complexes of the Mississippi Tradition, including the Oneota, Plains Village, and Silvernale have been identified in Minnesota (Higginbottom 1996:10; Gibbon et al. 2002:6). The current project area is situated within the former extent of two of these complexes, the Oneota and the Plains Village.

The Oneota complex emerged in southern Minnesota as early as A.D. 900. This complex spread from the southeastern United States and developed along the Upper Mississippi Valley. First appearing in the Red Wing area, the Oneota relied heavily upon maize horticulture, hunting, and riverine resources, and established "large horticultural villages" with abundant storage pits (Dobbs 1990:183,203; Anfinson 1997:90). Oneota material culture demonstrates both Terminal Woodland and Mississippian influences, suggesting that the Oneota may either have replaced or descended from the region's native Terminal Woodland populations (Higginbottom 1996:10; Anfinson 1997:90). Ceramics attributed to the Oneota culture are usually shell-tempered, globular, straight-rimmed jars with wide-trailed line decoration. Pipestone plaques and pipes are common, as well as small, unnotched projectile points, bison scapula hoes, awls, hide fleshers, fishhooks, shaft wrenches, and gaming pieces (Higginbottom 1996:10; Anfinson 1997:90). Evidence for 200 years of intense interaction between the Oneota and southern Middle Mississippian groups is present in and around Red Wing, and this interaction is followed by increased "regionalization" of the Oneota, who moved out from Red Wing to the west and south sometime between A.D. 1300 and 1400. As previously described in Section 3.3.1, artifacts recovered from site 21WL0002 (McCauleyville Mound), which is located within one mile of the current project area, have been associated with both the Woodland and Oneota traditions.

Roughly contemporaneous with the Oneota complex was the Plains Village complex. The Plains Village pattern is the result of the adaptation of local populations to the prairies within Minnesota and the surrounding states, developing primarily along the Missouri River (Higginbottom 1996:10). At Plains Village occupations, this adaptation was manifested in the development of seasonally occupied river terrace villages containing rectangular, semi-subterranean dwellings and "adjacent river bottom gardens" (Anfinson 1997:89). Fortification of several of these sites, including palisade walls, suggests an increase in conflict, possibly related to growing competition for limited local resources (Higginbottom 1996:10; Anfinson 1997:89). The subsistence strategies of these groups followed a yearly cycle, including spring musktrat camps and sugar maple camps, summer planting villages, autumn deer hunting camps, and winter camps during the colder months. Like the Oneota, material culture associated with these occupants, such as globular ceramics and small, triangular, notched and unnotched projectile points, demonstrates a combination of Terminal Woodland and Mississippian components, suggesting possible Terminal Woodland ancestry, cultural assimilation, or population replacement. Additionally, Plains Village peoples maintained a diverse set of mortuary practices, including interments in communal cemeteries, isolated upland burials,

entombments in preexisting Woodland mounds, and burials near settlements both with and without accompanying grave goods such as ceramic vessels and personal ornaments (Anfinson 1979:87; Tiffany and Alex 2002:83). The regionally specific traits of the Plains Village cultures left behind regionally unique sets of archaeological evidence, or "complexes," which in many instances can be used to directly or tentatively relate archaeological sites to known Native American groups.

Overlapping with the later portion of and succeeding Kathio complex in the region, through possibly related to both, was the culture archaeologically designated as Wanikan. Wanikan culture is represented by Sandy Lake ceramics, shell- or grit-tempered globular vessels, typically with vertical cordmarking "and plain or smoothed-over cordmarking" (Dobbs 1989:234). Wanikan culture as currently known is represented not only by Sandy Lake ceramics, but also by "intrusive mound burials; exclusive circular conical mounds with shallow burial pits; primary flexed interments with associated mortuary vessels; small triangular projectile points; formally prepared ricing jigs or threshing pits; fire hearths and pits; middens; small, seasonally occupied sites in recognizable lakes area patterns; and the inferred use of wild rice as a staple crop" (Birk 1977). Sandy Lake ceramics may have been produced as late as A.D. 1750, and it is believed that the Wanikan culture is associated with speakers of Siouan languages, ancestral to either the Assiniboine or the Eastern Dakota (Dobbs 1989:235). Sandy Lake and Oneota ceramics have been recovered from the Femco village site (21WL0001) in Wilkin County. A possible S-shaped jar with cord-impressed decorations was also collected from the site (Holley and Michlovic 2013:130).

3.3.2 Railroads and Agriculture in Wilkin County

Early History

Although railroads were critical to the development of Wilkin County, Euro-American settlement began prior to the arrival of the railroads. The Red River was an important transportation route for fur traders during the early nineteenth century, especially after the establishment of Fort Snelling in 1819. As St. Paul developed at the head of commercial navigation on the Mississippi River by the late 1830s, oxcart trails connected the Red and Mississippi rivers. Trade grew during the 1840s, and by the late 1850s, over 600 vehicles travelled the various Red River trails each year, some of which crossed Wilkin County. In 1857, a group of speculators platted the town of Breckenridge, and the U.S. Army established Fort Abercrombie on the Dakota Territory side of the Red River. Although settlement in Wilkin County stopped temporarily following the 1862 U.S.-Dakota Conflict, it resumed after the St. Paul and Pacific (later St. Paul, Minneapolis and Manitoba [Manitoba], then Great Northern) railroad reached Breckenridge in 1871. The Manitoba, Northern Pacific and Soo Line railroads built additional railroad lines in Wilkin County during the 1870s and 1880s, further spurring development.

Development of Railroads

The following railroad context has been adapted from *Railroads in Minnesota, 1862-1956* (Schmidt et al. 2007).

General Development

During the nineteenth and early twentieth centuries, as Minnesota moved from a sparsely settled territory to a state integrated in the national economy, railroads provided important transportation connections that contributed to settlement, agriculture, commerce, industry, community development, and tourism. Between 1862 and the 1890s, Minnesota established a network of railroad corridors. The network connected resource procurement areas, smaller cities, urban centers, and the state's primary commercial and industrial centers—Minneapolis, St. Paul, and Duluth—as well as other regional markets, such as Chicago and Omaha. By the turn of the twentieth century, the railroad network extended throughout southern and central Minnesota, and the Red River Valley, and within another 20 years, much of northern Minnesota. In Minnesota, railroads were the dominant form of transportation and for many people were the only practical means of long distance transportation. The economic influence of railroads peaked in Minnesota and nationally during the early decades of the twentieth century. By 1920, railroads directly employed two million people nationwide, carried the bulk of the mail, hauled 77 percent of all freight, and carried 98 percent of the traveling public.

The economy of Minnesota during the nineteenth and early twentieth centuries was based on the extraction of raw materials from the land. Towns were platted along railroad corridors as gathering points for commodities and as distribution centers for manufactured goods, and some of those towns grew into urban centers that became hubs for industry and commerce. Railroad corridors were at the heart of the commercial and industrial development of the state, transporting the commodities, manufactured goods, and people between the rural areas, small towns, and cities. Transportation via railroad corridors opened up whole regions of the state to agricultural production, logging, and iron ore mining. Railroad corridors brought in new residents and shipped out their produce and livestock. Furthermore, railroad corridors actively encouraged migration from the eastern United States and from abroad.

Within the context of agricultural development, railroad corridors hauled crops and animal products from farm to market with a speed and level of service that was unmatched during the nineteenth century. The massive volumes of wheat hauled on railroad corridors to mills in Minneapolis and elsewhere facilitated industrial crop production, large-scale milling, and mass marketing of flour and food products. Similarly, through efficient transportation, railroad corridors facilitated the transition to diversified agriculture in Minnesota after 1880 by connecting producers of a variety of agricultural commodities with processors.

Great Northern Railway Company

In 1893, the Great Northern Railway Company became the fifth transcontinental railroad in the United States. Extending from St. Paul to Seattle, this northernmost of the transcontinental lines represented the vision and the business acumen of James Jerome Hill, a man with a legacy of undisputed importance in the development of the railroad industry and the state of Minnesota. Hill is widely known as the Empire Builder. Propelled by his active efforts in the areas of immigration, legislation, advertising, and agriculture, his empire grew along the routes of his railroad lines into the western United States. By the time of his death, the lines of the Great Northern covered over 8,100 miles

and ran through parts of Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Montana, Idaho, Washington, and Canada (Hidy 1988:318-323).

Despite its widespread presence, the history of the Great Northern is rooted in Minnesota. It was in Minnesota where the road began, and where Hill, who lived in St. Paul for 60 years, began to build his empire through a complex web of predecessor companies and rail lines that reached all but the easternmost corners of the state. On paper, the direct predecessor of the Great Northern is the Minneapolis and St. Cloud Railway Company. Incorporated in 1856 with the intent to "build and operate a railroad between Minneapolis and the navigable waters of Lake Superior via St. Cloud," this road was reorganized as the Great Northern Railway in 1889 (Prosser 1966:142). Physically, however, the Great Northern in Minnesota is truly the descendant of the St. Paul and Pacific, later the St. Paul Minneapolis and Manitoba (Manitoba), under whose tenure the first operational rail line in Minnesota was constructed. This rail line was the first segment of what would become the Great Northern mainline to the Pacific Coast.

In 1857, the Minnesota and Pacific Railway Company was formed with the goal of constructing a mainline from Stillwater to Breckenridge via St. Paul and St. Anthony and a branch line from St. Anthony to St. Vincent near the mouth of the Pembina River (Prosser 1966:149). Although grading began quickly, the construction project soon faced financial difficulties. By 1860, the Minnesota and Pacific could claim nearly 63 miles of graded roadway, but none of it with tracks. With eastern financing, 1,400 feet of tracks were built in September of the following year in St. Paul, but legal issues took their toll, and construction ceased for the Minnesota and Pacific (Luecke 1997:2-4).

On March 10, 1862, the Minnesota legislature transferred the rights and property of the failed railroad free of all encumbrances to the St. Paul and Pacific Railroad Company, and less than two weeks later, the laying of rail resumed. June 28 saw the first train make its run between St. Paul and St. Anthony along the first operational line in the state. Days later, the St. Paul and Pacific began offering regular passenger service between the two cities. A mail contract and freight traffic followed shortly thereafter (Luecke 1997:2-4). Despite these initial successes, the western terminus of the line remained on the east side of the Mississippi River for the next five years, due to the daunting task and expense of constructing the bridge that would be required to carry the mainline over the river between St. Anthony and Minneapolis. Grading west of the river, however, continued during this period.

In May of 1867, the bridge over the river was complete, and within three months, construction on the main line had progressed to allow service to resorts in Wayzata along Lake Minnetonka. By November of 1869 the railroad reached Willmar, and in July of the following year, it arrived in Benson. Even so, the St. Paul and Pacific continued to face financial constraints, and in November of 1870, the Northern Pacific was, with certain conditions, allowed to buy the majority of the stock in the railroad. Following this arrangement, the goal of building to Breckenridge on the Red River was attained in 1871 (Hidy et al. 1988: 6-13; Prosser 1966:160).

When the Northern Pacific went into bankruptcy in 1873, it was forced to relinquish control of the St. Paul and Pacific. In August of 1873, Jesse P. Farley, an Iowa railroad man who had worked for several eastern roads, was granted receivership of the railroad (Hidy et al. 1988:23-25; Luecke 1990:32). At this time, Hill, Donald Alexander Smith, and Norman Wolfred Kittson began plans to gain control of the St. Paul and Pacific railroad. After years of machinations and negotiations by these individuals and Smith's cousin, George Stephen, the St. Paul Minneapolis and Manitoba Railway Company (Manitoba) was formed on May 23, 1879. The Manitoba immediately took control of the St. Paul and Pacific before purchasing it outright on June 14. Beginning one week after taking control of the St. Paul and Pacific and over the next four and a half years, the Manitoba engaged in a flurry of acquisitions and construction that would provide it with key connections between the Twin Cities and the Red River Valley (Hidy et al. 1988:28-36; Prosser 1966:161).

The Red River Valley had become a key economic center with the growth of the fur trade. Various goods were transported via oxcarts north to Canada along paths paralleling the river, and furs, hides, and related goods returned south the same way. While these paths once extended to St. Paul, they stopped well short of that destination after the St. Paul and Pacific built its line to Sauk Rapids. Hill, recognizing the profits that might be generated by innovative transportation between the Twin Cities and the Red River Valley, became part-owner of a steamboat company in 1871. When he and Kittson incorporated the Red River Valley Railroad Company in 1875, the fur trade was in decline, but wheat cultivation was shifting from the southeastern portion of the state to the Red River Valley. Over the next 10 years, Hill became a dominant figure in transportation to, from, and within the Red River Valley, first through his steamboat company, next through his affiliation with the St. Paul and Pacific, and especially through his role in the Manitoba, which had made the Red River Valley its stronghold. During this period, James J. Hill served first as general manager, then after election in 1882, as president of the Manitoba. Although the Red River Valley was not a population center, it was a solid source of freight. In 1884, for example, 20 percent of the freight traffic of the Manitoba was wheat, coming chiefly from the farmers of the Red River Valley and destined largely for the flour mills of Minneapolis (Hidy et al. 1988:52).

Hill was not satisfied with Red River Valley to Twin Cities-based markets alone, and he was concerned about the seasonality of and increasing competition for wheat shipments, which meant the Manitoba needed to tap into other markets. Initially, this need set off numerous episodes of construction and acquisition of branch lines throughout Minnesota. Then, as the Manitoba system was solidifying its hold of the state, Hill turned his attention westward, building lines into North Dakota in 1879, South Dakota in 1886, and Montana in 1887. Building west from Breckenridge, the main line reached Durbin, North Dakota, in 1880, Pacific Junction, Montana, in 1887, and Spokane, Washington, in 1892. It reached a point near Scenic, Washington, the scene of the final spike ceremony, in January of 1893. There, it met with the line that had been constructed east from Puget Sound beginning in 1891.

By the time the Manitoba main line was connected near Scenic, all of its properties had been under lease to the Great Northern, which Hill had formed using the charter of the Minneapolis and St. Cloud railroad, for three years. After operating under the Great Northern for more than a decade, the Manitoba was officially acquired by the Great Northern in November 1, 1907.

With its control of the Northern Pacific and Chicago, Burlington and Quincy and with a balanced route structure, the Great Northern was a dominant railroad in the Upper Midwest and Northwest. With its transcontinental connections and numerous feeder lines in the agricultural and ranching lands in Montana, the Dakotas and Minnesota, the Great Northern main line running west out of Minneapolis was an important transportation corridor through the first half of the twentieth century. Although railroad profits began declining across the board during the 1920s due to intermodal competition and although most of its Twin Cities competitors had declared bankruptcy by the late 1930s, the Great Northern remained viable through this period. As a result the Great Northern increased its dominance of railroad markets within its territory. During the post-World War II years, while many railroad companies faced decline, the Great Northern's freight tonnage, not including iron ore, remained steady through the 1950s and 1960s. Much of that tonnage was shipped on the main line between Minneapolis and Breckenridge, which was the busiest stretch of road in the entire system. By the late 1960s, the Great Northern formalized its relationship through merger with the Northern Pacific and Chicago, Burlington and Quincy, forming in 1970, the Burlington Northern (Hidy et al. 1988; Hofsommer 2005).

Development of Agriculture in the Red River Valley

Sparsely settled during the early 1870s, the Red River Valley was the location of an agricultural boom during the late 1870s to mid 1880s. Several factors led to the rapid expansion of the agricultural frontier into the valley during the 1870s: population increases and depletion of soil fertility in eastern and other Midwestern states; development of wheat markets, particularly in Minneapolis; the success of early large-scale wheat producers; and the development of regional trade centers, such as Fargo/Moorhead and Grand Forks/East Grand Forks, to supply farmers and serve as shipping points for their products. It was the introduction of railroad transportation, however, that allowed for fast and efficient transportation of agricultural products on a large scale. Because the Red River Valley lacked connections to markets via navigable rivers, railroads were the only form of large-scale long-distance transportation prior to the development of the trucking industry. Railroads not only shipped out the produce and livestock to urban markets, they brought building materials, farm implements, and other manufactured goods to the settlers.

The expansion of agriculture to the prairies after the Civil War was a regional pattern. An area covering the west half of Minnesota and Iowa, North and South Dakota, Kansas, and Nebraska was brought into agricultural production between 1865 and 1900. More farmland was put into cultivation during this period than in the entire previous history of the nation. In the process, the center of crop production shifted from east of the Mississippi River to the west. At the same time, railroad mileage expanded rapidly.

Within Minnesota, the Dakotas, Iowa, Kansas, Nebraska, and Texas, railroad mileage increased from less than 1,000 miles in 1860 to over 42,000 miles in 1900 (Stover 1997:90-91). This railroad network helped create an agricultural-industrial complex that was part of the broader American industrial system. This system of industrialized agriculture led to the rapid development of the Red River Valley, where large-scale farms grew wheat for flour mills in Minneapolis.

After the Northern Pacific and the St. Paul and Pacific railroads reached the Red River in 1871 and the Northern Pacific railroad began building west into Dakota Territory in 1872, agricultural settlement expanded greatly in the Red River Valley and along tributary streams. The development of large-scale (bonanza) wheat farms, railroad connections, and the Minneapolis wheat market encouraged rapid agricultural settlement in the Red River Valley and eastern northern Dakota from the late 1870s to the mid 1880s known as the First Dakota Boom. One historian directly links the corporate interests of the Northern Pacific with the growth of bonanza farms in the Red River Valley (Strom 2003). As a result of the railroad's bankruptcy and the ensuing Panic of 1873, James B. Power, general agent of the company's land policy, believed the way to revive the company was through sale of its land grant. To demonstrate the suitability of land in the Red River Valley for agriculture and thus increase its sale value, Power persuaded George W. Cass, president of the Northern Pacific, to acquire 13,440 acres near Casselton in Dakota Territory and establish a model wheat farm. Other Northern Pacific bondholders then began to trade their worthless securities for railroad land, on which they also established large wheat farms. The bonanza wheat farms varied in size from 1,000 to 61,000 acres (Strom 2003:15). As word spread that great profit could be made growing wheat in the valley, speculators and small farmers alike bought railroad land or homesteaded federal land for wheat farms.

As railroads built in the Red River Valley during the late 1870s and 1880s, the three railroad main lines—Northern Pacific, Manitoba, and Soo Line—primarily traveled east-west, connecting the valley with the Twin Cities and Duluth. Branch or "feeder" lines primarily ran north-south and completed the basic network in the Red River Valley. By the mid 1870s, land claims in the Red River Valley outstripped the capacity of the General Land Office surveyors to subdivide the lands. The first land office was established at Pembina in 1870 and two more on the northern Dakota side of the river followed, at Fargo in 1874 and Grand Forks in 1877.

Like the rest of the Red River Valley, early settlement in Wilkin County concentrated along the railroads, which established the county's transportation network during the 1870s and 1880s. Starting with the St. Paul and Pacific in 1871, by 1887 there were six railroad lines in the county, operated by the Manitoba, the Northern Pacific, and the Soo Line railroads. The Moorhead and Southeastern (Manitoba), which runs through the current APE, was completed in 1887. Three towns were platted along this line in Wilkin County: Kent (1889), Wolverton (1899), and Brushvale (1906).

With a railroad network and demand for wheat, Wilkin County was settled first with large-scale wheat farms during the 1870s, then with smaller family farms during the

1880s. The population of the county grew during this time, from 295 in 1870 to 1,906 in 1880, then at a more rapid pace, reaching 4,346 in 1890, and 8,080 in 1900. By 1891, less than 1,500 acres of government land remained unclaimed (Harvey 1979). During this era of growth, the town of Kent was platted along the Moorhead and Southeastern railroad. During the late 1880s and 1890s, most of the bonanza wheat farms were sold off to smaller landholders, who began to develop diversified family farms, particularly after 1900. Although residents of Wilkin County primarily came from the eastern U.S., many also came from Germany and Scandinavia (Harvey 1979).

As diversified farming became the rule in Minnesota by the early twentieth century, Wilkin County and the Red River Valley were still in the process of diversifying, and wheat remained an important cash crop. By the 1910s, Wilkin County farmers were growing increasing amounts of flax and potatoes and raising dairy cows and other livestock. During this time, the size of Wilkin County farms were nearly double the statewide average – 305 acres in Wilkin versus 177 acres statewide (Granger and Kelly 2005: 3.47). The population of Wilkin County continued growing, surpassing 9,000 by 1910 (Harvey 1979).

During the early twentieth century, the Red River Valley, including Wilkin County, was the principal small grain area in the state. As farmers increasingly diversified their crops and livestock, however, by 1940, "dairy farms [were] more numerous than either cash grain or crop specialty farms" (Granger and Kelly 2005: 4.17). Oats, barley and wheat were the main small grain crops, and potatoes were planted on 3-5 percent of the tillable land. Over 20 percent of the farms were dairy farms, and 90 percent of all farms had some dairy cows (Granger and Kelly 2005: 4.17-19). Following World War II, Wilkin County farmers continued diversified farming but shifted crop production to sugar beets and sunflower seeds. Although the population of the county remained relatively stable, fluctuating between 9,000 and 11,000 during the postwar years, the number of farms and the farm population dropped. By 1970 nearly half of the county's residents lived in Breckenridge (Harvey 1979).

Agricultural Built Environment

As subsistence farming gave way first to cash crops and then to diversified farming, farmers continually updated the built environment, reflecting changes in production methods and the economy, as well as architectural styles. A notable addition to many holdings during the 1880s and 1890s was the construction of a substantial wood-frame or brick farmhouse, replacing the sod houses and dugouts of the settlement period. A common type of rural house from the late-nineteenth century in the general study area was the L-plan or T-plan house, with a two-story gable-roofed main mass, a one- or two-story wing, and a porch tucked in the "L."

The built environment continued to evolve during the late nineteenth century. In order to accommodate their growing herds, many farmers built substantial barns with areas for animal shelter as well as for storing hay and feed. Earlier barns tended to be one-story, gable-roofed buildings with three bays. Three-bay barns generally had large double doors centered on both long sides of the structure and opening into the center bay, which

was used for threshing grain, particularly wheat. The other two bays, usually of equal dimensions, flanked the central threshing bay and were used for storage.

As the Minnesota agricultural economy moved away from primarily relying on grain production to diversified farming and dairying in the late-nineteenth century, the threshing barn's form began to change. The single-level barn lacked space necessary to house the larger numbers of cows maintained on dairy farms. Raised three-bay barns, which were essentially three-bay barns raised on a foundation of stone, brick, or later, concrete, provided a solution by allowing animal shelter on the lower level. The upper bays or loft functioned to store hay and feed, while in the basement, stalls, stanchions, and pens bordered aisles running from end to end. Framing on early barns generally consisted of a series of heavy timber post-and-beam bents held together by mortise-and-tenon joints.

At about the time when farmers needed larger barns to house their growing herds of dairy cows and to store hay and feed, advances in construction techniques enabled them to build larger barns at a lower cost. By the late-nineteenth century, builders began applying the balloon framing technique (previously developed for houses) to barns and began using the lumber-truss, which replaced the older post-and-beam method. In addition to the greater affordability of dimension lumber versus heavy timber, truss-supported roofs opened up the loft area by eliminating the cross beams and heavy posts, which allowed for the use of hay forks and opened the loft for more storage space in general. During the late-nineteenth century, builders experimented with different truss techniques and combinations of heavy timber and dimension lumber. By the early-twentieth century, balloon-framed barns with trussed roofs became the standard for barn construction. Reflecting the new roof-support systems, the roof shape of barns transitioned from primarily gable to gambrel during the 1910s and 1920s, then to gothic arched during the 1930s through 1950s.

Fueled by the scientific agriculture movement, farmers also built specialized outbuildings during the early-twentieth century to accommodate their diversified farming operations. Such buildings included dairy barns, horse barns, hog barns, loafing barns, chicken coops, granaries, corn cribs, and silos. By the 1920s and later, reflecting increased mechanization, farmers added garages and machine/equipment storage sheds or converted other outbuildings. These outbuildings are ubiquitous in rural areas, and there are many examples in the study area.

During the early twentieth century, farmers upgraded their residences, as well. A common house type during this period was the two-story foursquare, which had a cubic massing and modest Classical or Craftsman stylistic influences. The Craftsman bungalow was another common house type. By mid century, the Minimal Tradition and rambler were common house types, either as a replacement for an older farmhouse or as a rural residence on one or two acres of land.

4.0 SURVEY RESULTS

4.1 ARCHAEOLOGY

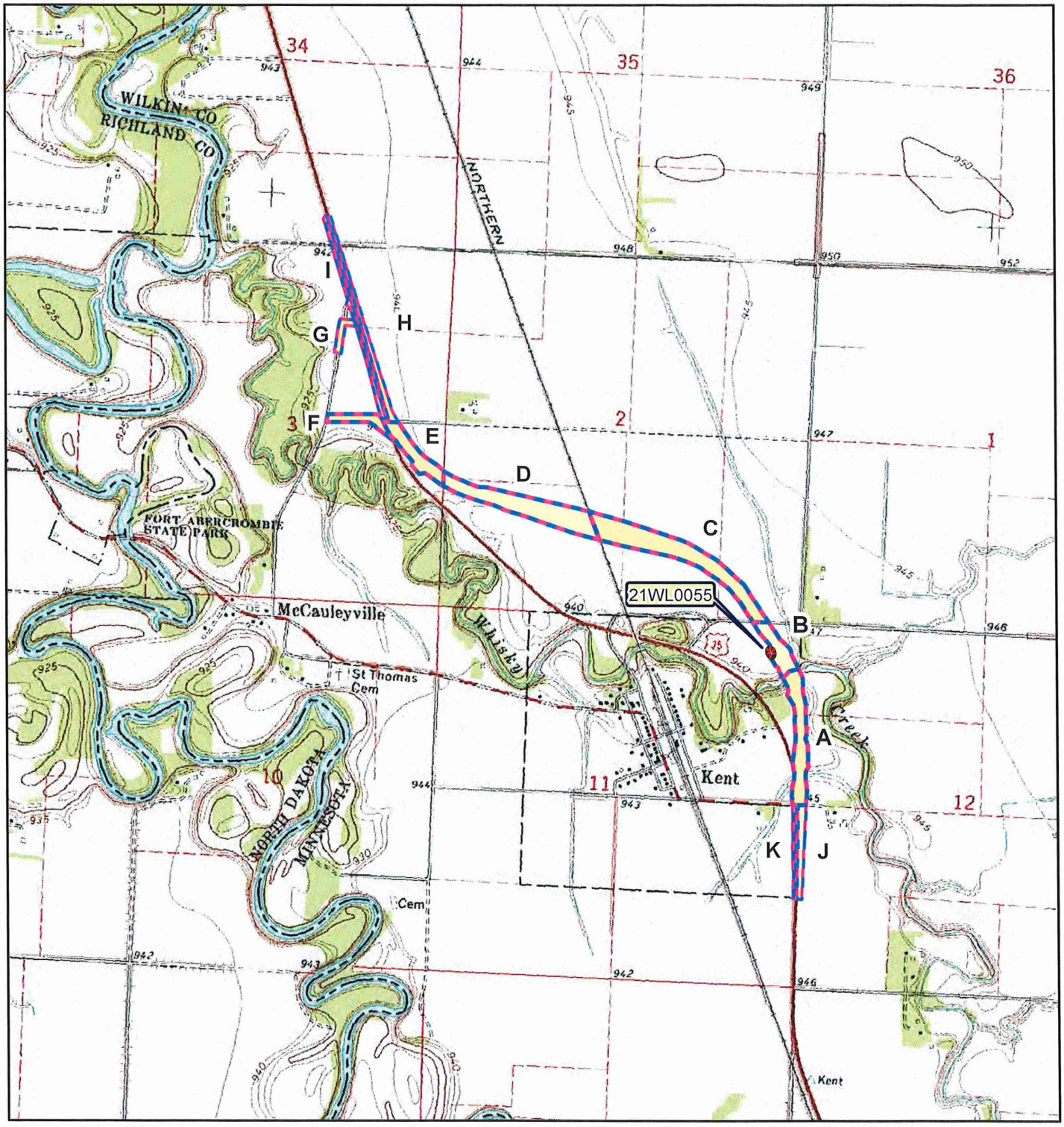
Summit conducted a Phase I archaeology survey of the Kent Bypass project area on September 30th through October 2nd, 2013. Michael Justin served as Principal Investigator for archaeology and conducted the fieldwork with Laurie Ollila, Liesl Darnell, and Forest Seaberg-Wood. Pedestrian reconnaissance and windshield survey were used in conjunction with the results of the literature search to ascertain which portions of the APE held a greater potential for containing intact archaeological resources. For ease of reference in the field, these areas were designated Areas A through K (Figure 4). The results for each area are provided below.

The remaining portions of the APE consist of existing roadways, slopes and ditches associated with the roadways and containing buried utility lines, or residential construction, all of which have been substantially disturbed and would be unlikely to contain intact archaeological resources, as well as wet and/or low-lying areas and areas that are significantly sloped, which would be considered to have low potential for containing archaeological resources. These remaining portions of the APE were therefore excluded from systematic survey.

4.1.1 Area A

Area A consists primarily of relatively level agricultural fields located east of TH 75 and immediately south of Whiskey Creek within the southern half of the APE (Figure 4). An intermittent branch of Whiskey Creek also traverses this area. Based on its topographic relationship and proximity to the creek, Area A was considered to hold moderate to high potential for containing precontact archaeological resources.

At the time of the survey, the majority of Area A had been recently harvested and tilled, which resulted in surface visibility of at least 75 percent. Pedestrian reconnaissance was therefore utilized as the primary survey method in this area, with transects spaced at 10 and 15-meter (33 and 50-foot) intervals. Based on the width of the project corridor, which ranged from 200 to 260 feet wide, transects were spaced at 10- and 15-meter (33- and 49-foot) intervals, as appropriate.



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

- Survey Areas
- Site Boundary (21WL0055)

N W E S

Site Location

0 1 Miles

1 inch = 2,000 feet

Archaeology Survey Results

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 4

File: FigX_SiteLocation
Summit Proj. No.: 1727-0042
Plot Date: 07-23-2014
Arc Operator: SJN
Reviewed by: LSHO

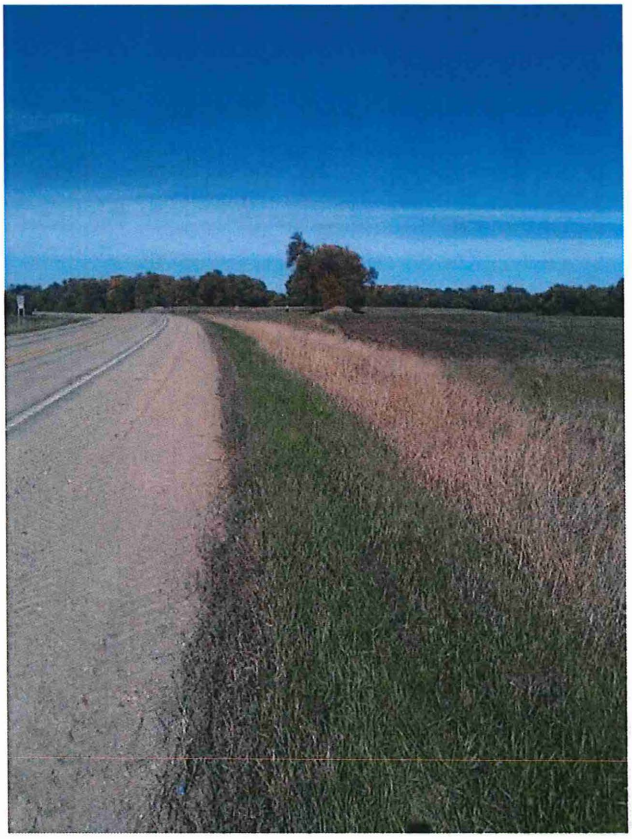


Figure 5. Area A looking north toward Whiskey Creek

Figure 6. Whiskey Creek from the south bank looking north

The northern 50 to 100 feet of Area A along the bank of Whiskey Creek was heavily wooded (Figure 5); therefore, this portion of the project area was shovel tested at 15-meter (49-foot) intervals. A total of six shovel tests were excavated within Area A (Figure 11). All six tests contained a black (10YR 2/1) clay loam A horizon that extended from 67 to 120 centimeters below the surface (cmbs) that rested upon a 49- to 76-centimeter-thick horizon of very dark gray or very dark grayish brown (10YR 3/1 to 3/2 or 2.5Y 3/1 to 3/2) clay loam with varying amounts of silt and sand. Beneath this layer of clay loam, the profiles in five out of the six shovel tests diverged. In Shovel Test 1, a layer of very dark grayish brown (2.5Y 3/2) wet sand was encountered beneath the clay loam, which was excavated to a final test depth of 150 cmbs. A light olive brown (2.5Y 5/3) wet silty clay was identified beneath the clay loam in Shovel Test 2 that extended to 188 cmbs, at which depth water was encountered, and the shovel test was terminated at 194 cmbs. In Shovel Test 3, a layer of black (10YR 2/1) sandy clay was found beneath the clay loam starting at approximately 140 cmbs. This possible paleosol (buried horizon) extended to the terminus of the shovel test at 165 cmbs. In Shovel Test 5, a layer of olive brown (2.5Y 4/4) sandy clay was encountered beneath the clay loam at approximately 180 cmbs, which extended to the depth of the test at 185 cmbs. In Shovel Test 6, the clay loam transitioned to a gray (10YR 5/1) dry silty clay at approximately 150 cmbs, then to a grayish brown (10YR 5/2) dry silty clay, which was excavated to a final depth of 165 cmbs. No cultural materials were recovered from these tests.

Finally, the cutbank on the south side of Whiskey Creek (Figure 6) within the APE was closely inspected. Soil type and textures appeared fairly uniform throughout. No cultural materials were observed in Area A.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area A.

4.1.2 Area B – 21WL0055

Area B consists of uplands located immediately north of Whiskey Creek (see Figure 4). Based on its topographic relationship and proximity to the creek, Area B was considered to hold high potential for containing precontact archaeological resources.

At the time of the survey, the majority of Area B was within a harvested and tilled agricultural field with visibility greater than 75 percent (Figure 7). This portion of Area B was therefore surveyed through systematic pedestrian reconnaissance along transects spaced 15 meters (49 feet) apart.

Figure 7. Area B, from hilltop, looking southeast toward Whiskey Creek

The southernmost 50 to 100 feet of Area B contained grasses and trees, which afforded less than 25 percent ground surface visibility. This portion of Area B, which was situated somewhat lower than its northern counterpart, was therefore surveyed through the excavation of five shovel tests placed at 15-meter (49-foot) intervals (see Figure 11). Three of the five shovel tests (STs 2, 3, and 4) were augered to a final depth of at least 120 cmbs following the completion of the shoveling at approximately 100 cmbs. In addition, three bucket auger tests were excavated along the edge of the plowed field within Area B to determine if paleosols were present (see Figure 11). The exposed bank of Whiskey Creek (Figure 8) was checked within the corridor for evidence of cultural materials that may be eroding into the creek. The cutbank exhibited a buried A horizon with a weak transition at irregular intervals throughout the area at about roughly 150 cmbs.

Figure 8. North bank of Whiskey Creek, looking west

The shovel tests contained a black (10YR 2/1) clay loam A horizon that ranged from 80- to 120-centimeters-thick that rested upon a layer of very dark gray (10YR 3/1) clay loam with varying amounts of sand and silt. A stoneware crock, a colorless glass rim fragment, and several small unidentified metal fragments were recovered from this horizon at approximately 20 cmbs in Shovel Test 2. These items were not in a definable context, however, and therefore do not constitute an archaeological site. The metal pieces are not unexpected items, as there are several junked cars (circa 1966) less than 200 feet upstream from this test. In two shovel tests, Shovel Tests 2 and 3, the water table was encountered at approximately 120 and 125 cmbs, respectively. In Shovel Test 8, a mottled horizon of very dark gray (2.5Y 4/1) and light brownish gray (2.5Y 6/2) silty clay loam was identified beneath the very dark gray clay loam at approximately 140 cmbs, which extended to the bottom of the shovel test at 160 cmbs.

Auger Tests 1 and 3 contained a black to very dark grayish brown (10YR 2/1 to 3/2; 2.5Y 3/1) silty clay loam A horizon that ranged from 12- to 90-centimeters thick, beneath which a layer of dark gray (10YR 4/1) or dark grayish brown (2.5Y 4/2) silty clay loam was encountered. This was followed by a layer of mottled light and dark (2.5Y 6/2 and 2.5Y 2.5/1) silty clay loam between 40 and 50 centimeters thick, which in Auger Test 3 extended to 162 cmbs. Auger Test 1, which was excavated to a depth of 157 cmbs, contained an additional layer of very dark gray (10YR 3/1) clay loam in the final 13 centimeters of the test. This layer of clay loam was identified as a possible paleosol similar to that exhibited in a nearby cutbank described below. The remaining auger test, Auger Test 2, exhibited only slight variations of black (10YR 2/1) and very dark gray (2.5Y 3/1) silty clay loam to the final test depth at 153 cmbs. No cultural materials were recovered from these tests.

A cutbank adjacent to the project area was also examined on the north side of the creek. At approximately 145 centimeters below surface, the soil made a weak transition from multiple thin bands of silty clays to a black (10YR 2/1-3/1) silty clay loam (Figure 9).

Figure 9. Soil profile of north bank of Whiskey Creek

This possible paleosol did not appear to be widespread or evenly distributed along the cutbank within the APE. No cultural materials were noted eroding from the bank. During the pedestrian reconnaissance of Area B, a sparse precontact artifact scatter was identified, as described below.

21WL0055

Site 21WL0055 consists of a sparse artifact scatter identified on a ridge/upland situated adjacent to and overlooking Whiskey Creek to the south (see Figure 3). The artifacts (2 lithic and one precontact ceramic) were recovered from the surface of an agricultural field during pedestrian reconnaissance of the area (Figure 10).

Figure 10. Overview of 21WL0055, looking east

One shovel test was excavated near the artifact find spots (Figure 11). This test contained a black (2.5Y 2.5/1) clay loam horizon that extended to 24 cmbs, beneath which an olive brown (2.5Y 4/3) sandy clay loam was identified. The subsoil, a grayish brown to light olive brown (2.5Y 5/2 to 5/3) clay was encountered at approximately 50 cmbs.

Artifact Analysis

Lithic Analysis

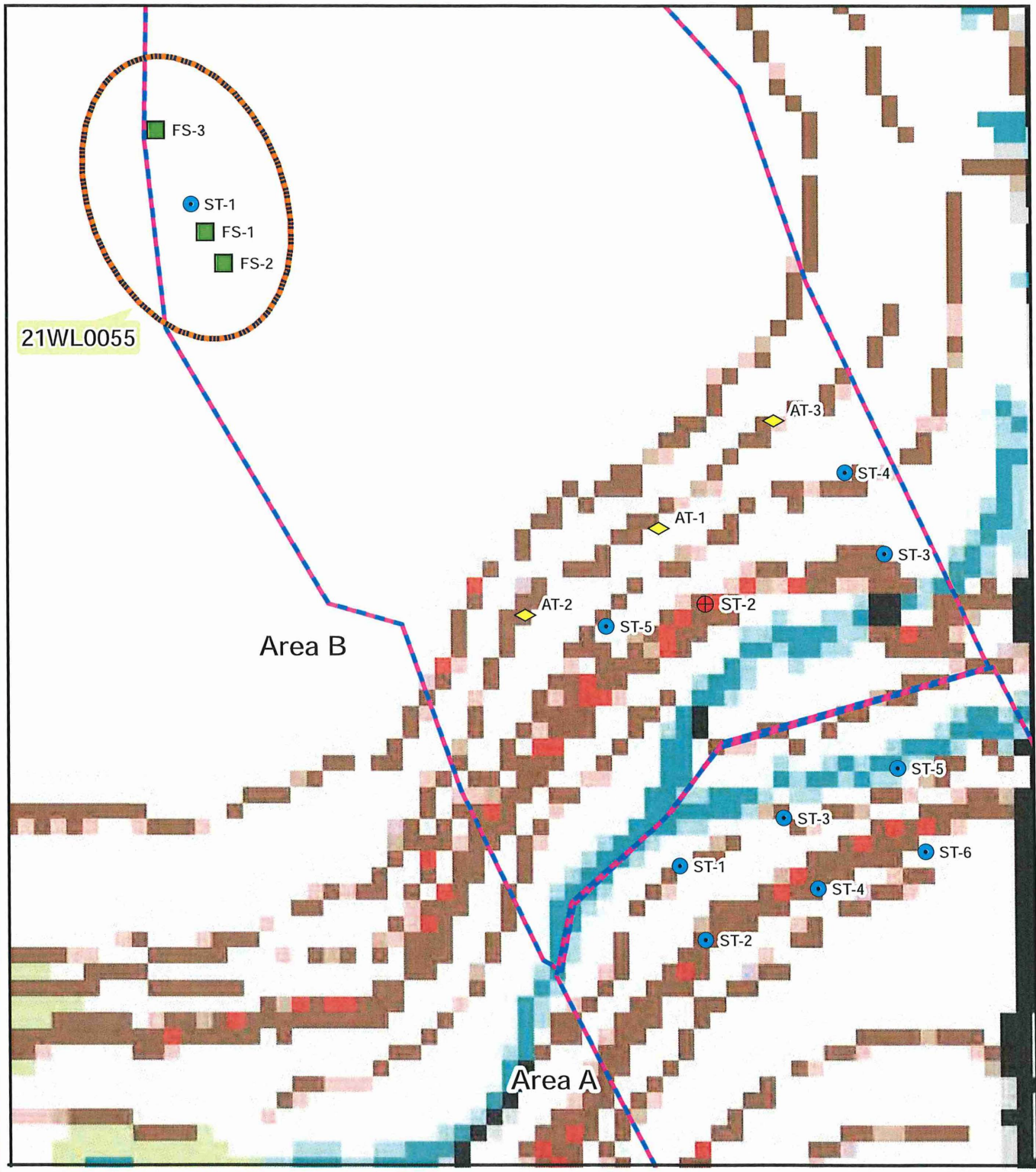
Phase I investigations at 21WL0055 yielded one lithic flake and one lithic core fragment,.

Raw-Material Type

The flake is of Knife River Flint, and the core fragment is of Tongue River Silica. Knife River Flint is available in glacial tills, though this source is typically of low quality. The flake from 21WL0055 is of higher quality and is likely from the primary source area in west-central North Dakota. Tongue River Silica is available in glacial gravels in the region (Bakken 1995).

Morphology

The lithic flake from 21WL0055 is a primary flake.



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

- Site Boundary (21WL0055)
- Find Spots
- Shovel Test (Positive)
- Shovel Test (Negative)
- Auger Test
- Survey Areas

N W E S

Site Location

0 50 100 150 Feet

1 inch = 70 feet

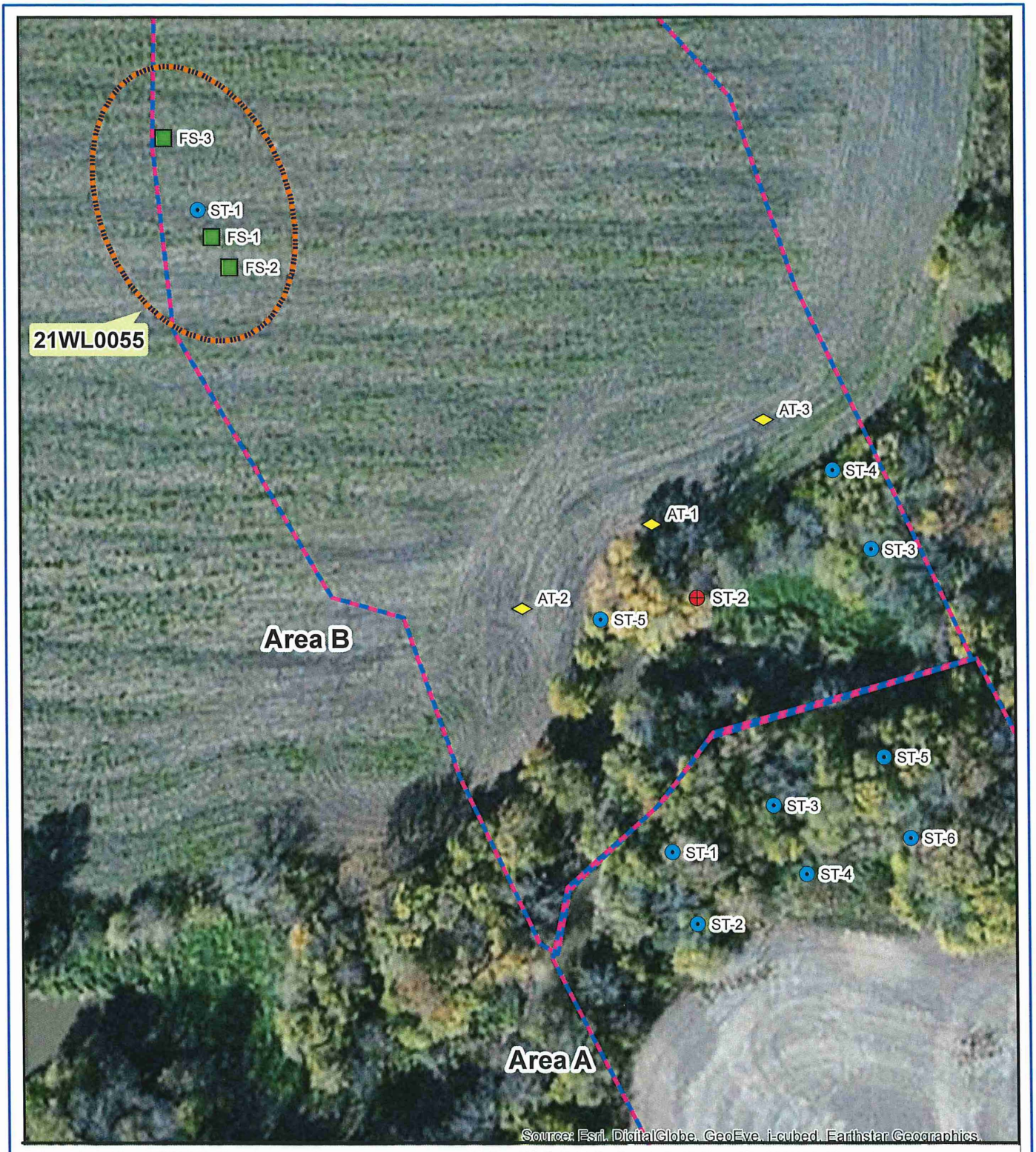
Archaeology Survey Results

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 11a

File: FigX_SiteLocation
Summit Proj. No.: 1727-0042
Plot Date: 07-23-2014
Arc Operator: SJN
Reviewed by: LSHO



Map adapted from USGS 7.5 minute topographic map(s): Abercrombie, MN; T 134 N, R 48 W, Sections 2, 3, 11, 12 and T 135 N R 48 W Section 34

Legend

- Site Boundary (21WL0055)
- Find Spots
- Shovel Test (Positive)
- Shovel Test (Negative)
- Auger Test
- Survey Areas

N, W, E, S

Site Location

0 50 100 150 Feet

1 inch = 70 feet

Archaeology Survey Results

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 11b

File: FigX_SiteLocation
Summit Proj. No.: 1727-0042
Plot Date: 07-23-2014
Arc Operator: SJN
Reviewed by: LSHO

Ceramic Analysis

The sherd from 21WL0055 is grit-tempered and exhibits an impressed surface treatment. The impression technique, however, could not be determined because of the small size of the pottery fragment.

Synthesis

The non-diagnostic and isolated nature of the artifacts that constitute 21WL0055 preclude an assessment of site function, beyond a general likelihood of lithic tool manufacture or maintenance. The presence of high-quality Knife River Flint indicates a possible connection to raw-material sources several hundred miles to the northwest. Also, the fact that the artifacts were found on the surface of a cultivated field argues against the presence of intact cultural features remaining at the site. The presence of these objects only tells us that someone occupied the site for a presumably short period at some point in the distant past.

Recommendations

Because the artifacts recovered from 21WL0055 are not diagnostic, they cannot be linked to a specific historic context, as would be required for the site to be significant under Criterion A. Likewise, the non-diagnostic character of the artifacts, combined with their isolated nature, presence in a disturbed context, and an absence of evidence for intact cultural features below the plow zone, are indications that the site would not be able to shed light on important research questions; therefore, the site does not meet the eligibility requirements for the NRHP under Criterion D. Based on its lack of integrity, 21WL0055 is recommended as not eligible for listing in the NRHP, and no further archaeological work is recommended for Area B.

4.1.3 Area C

Area C consists of level uplands located immediately north of 230th Street and situated (at its closest point) approximately 800 feet north of Whiskey Creek and 260 feet east of a Whiskey Creek tributary (Figure 4). Based on its topographic relationship and proximity to the water sources, Area C was considered to hold moderate potential for containing precontact archaeological resources.

At the time of the survey, Area C was occupied by a partially-harvested soybean field (Figure 12), which afforded an average of at least 25 percent ground surface visibility throughout much of the area. A 200 to 350-foot portion of Area C located near the railroad tracks, however, had been tilled that provided up to 80 percent surface visibility. Pedestrian survey was therefore used to survey this portion of the project area, with intervals spaced at 15 meters (49 feet). No cultural materials were observed in Area C.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area C.

Figure 12. Field conditions of Area C, looking southeast

4.1.4 Area D

Area D consists of fairly level uplands that, at their closest, are situated approximately 350 feet northeast of Whiskey Creek (see Figure 4). Based on its topographic relationship and proximity to the creek, Area D was considered to hold moderate potential for containing precontact archaeological resources.

At the time of the survey, Area D contained a recently harvested agricultural field that afforded an average of at least 25 percent ground surface visibility. Pedestrian reconnaissance was therefore used to survey this portion of the project area, with transects spaced at 15-meter (49-foot) intervals. No cultural materials were observed in Area D.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area D.

4.1.5 Area E

Area E consists of level uplands located just northeast of TH 75 and approximately 300 to 500 feet northeast of Whiskey Creek (see Figure 4). Based on its topographic relationship and proximity to the creek, Area E was considered to hold moderate to high potential for containing precontact archaeological resources.

In addition, Area E is located within a historically documented portion of the military reserve associated with Ft. Abercrombie (21WLf), as previously described in Section

3.1.3 (see Figure 4). This portion of the project area is also, therefore, considered to hold moderate potential for containing historical-archaeological resources.

At the time of the survey, Area E was planted in corn, which was mature and near harvest at the time of survey, and the ground appeared to have good visibility. Three transects were completed within the field, although the corn proved to be an impediment to survey. One transect was completed by the technician with the GPS unit. The other archaeologists were unable to accurately follow the curvature of the project area due to a lack of landmarks within the cornfield, resulting in irregular transect intervals. No cultural materials were observed in Area E.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area E.

4.1.6 Area F

Area F consists of slightly undulating uplands located north of 135th Avenue and west of TH 75, and at its closest point, approximately 650 feet north of Whiskey Creek (see Figure 4). Based on its topographic relationship and proximity to the creek, Area F was considered to have moderate potential for containing precontact archaeological resources.

In addition, Area F is located within a historically documented portion of the military reserve associated with Ft. Abercrombie (21WLf), as previously described in Section 3.1.3 (see Figure 3). This portion of the project area is also, therefore, considered to hold moderate potential for containing historical-archaeological resources.

The agricultural field in which Area F is located was planted in corn which was mature at the time of survey, and afforded 75 percent surface visibility. Because of the width of the project area in this location, a single pedestrian transect was considered sufficient to survey the area. No cultural materials were observed in Area F.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area F.

4.1.7 Area G

Area G consists of level uplands located approximately 700 to 900 feet east of Whiskey Creek, and situated along 135th Avenue and west of TH 75 (see Figure 4). Based on its topographic relationship and proximity to the creek, Area G was considered to hold moderate potential for containing precontact archaeological resources.

In addition, Area G is located within a historically documented portion of the military reserve associated with Ft. Abercrombie (21WLf), as previously described in Section 3.1.3 (see Figure 3). This portion of the project area is also, therefore, considered to hold moderate potential for containing historical-archaeological resources.

At the time of the survey, the majority of Area G was occupied by an agricultural field that afforded an average of at least 25 percent ground surface visibility. Pedestrian reconnaissance was therefore utilized as the primary survey method in this area. Based on the width of the project corridor in this portion of the APE, a single transect was considered sufficient for survey coverage. The remaining portion of Area G contained the existing road right-of-way, and due to the degree of previous disturbance that likely took place during road construction, was excluded from systematic survey.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended in Area G.

4.1.8 Area H

Area H consists of level uplands situated immediately east of TH 75 and, at its closest point, approximately 860 feet east of Whiskey Creek (see Figure 4). Based on its topographic relationship and proximity to the creek, Area H was considered to hold moderate potential for containing precontact archaeological resources.

In addition, Area H is located within a historically documented portion of the military reserve associated with Ft. Abercrombie (21WLf), as previously described in Section 3.1.3 (see Figure 3). This portion of the project area is also, therefore, considered to hold moderate potential for containing historical-archaeological resources.

At the time of the survey, the majority of Area H was occupied by agricultural fields planted in soybeans and corn, which afforded at least 25 percent ground surface visibility between the rows. This portion of the APE was therefore surveyed by pedestrian reconnaissance. Based on the width of the project corridor in this portion of the APE, a single transect was considered sufficient for survey coverage. The remaining portion of Area H contained the existing road right-of-way, and due to the degree of previous disturbance that likely took place during road construction, was excluded from systematic survey. No cultural materials were observed within Area H.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area H.

4.1.9 Area I

Area I is located just west of Area H along the west side of TH 75, as shown in Figure 4. It encompasses level uplands situated approximately 700 feet east of Whiskey Creek at its closest point. Based on its topographic relationship and proximity to the creek, Area I was considered to hold moderate potential for containing precontact archaeological resources.

In addition, Area I is located within a historically documented portion of the military reserve associated with Ft. Abercrombie (21WLf), as previously described in Section 3.1.3 (see Figure 3). This portion of the project area is also, therefore, considered to hold moderate potential for containing historical-archaeological resources.

At the time of the survey, the majority of Area I contained an agricultural field planted with soybeans that afforded at least 25 percent ground surface visibility (Figure 13); therefore, this portion of the APE was surveyed by pedestrian reconnaissance using a single transect due to the narrowness of the APE in this part of the project area. The remaining portion of Area I contained the existing road right-of-way, and due to the degree of previous disturbance that likely took place during road construction, was excluded from systematic survey. No cultural materials were observed within Area I.

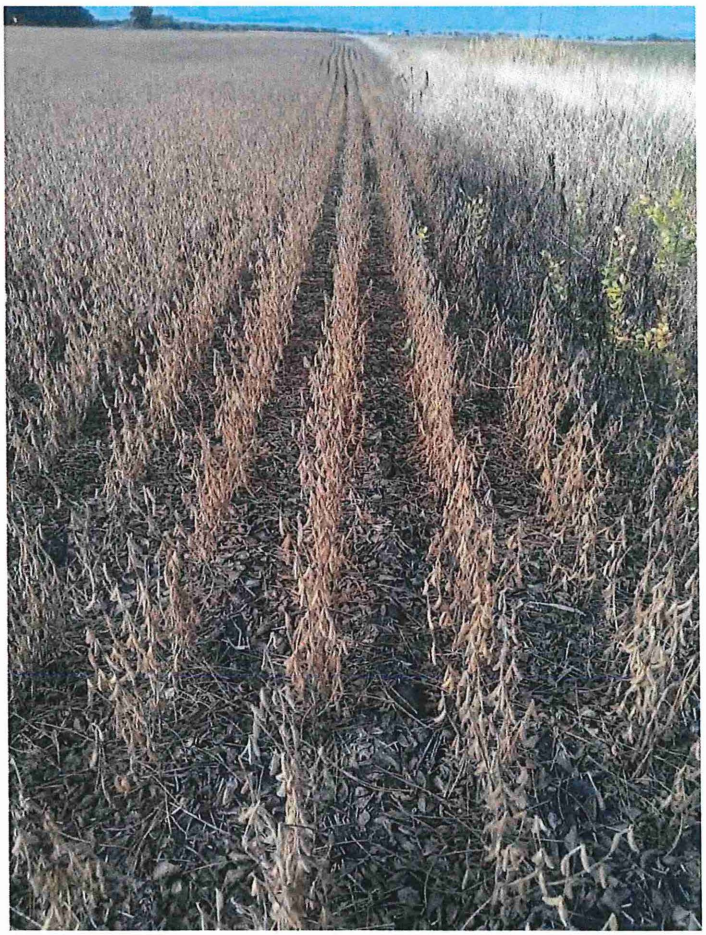


Figure 13. Area I conditions, looking north

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area I.

4.1.10 Area J

Area J consists of level uplands located near the south end of the APE immediately east of TH 75 (see Figure 4). Whiskey Creek is situated approximately 900 to 950 feet east of Area J. Based on its topographic relationship and proximity to the creek, Area J was considered to hold moderate potential for containing precontact archaeological resources.

At the time of the survey, Area J was occupied by agricultural fields that had been tilled and harvested. These fields afforded approximately 75 percent ground surface visibility; therefore, pedestrian reconnaissance spaced at 15-meter (49-foot) intervals was utilized in this portion of the APE. No cultural materials were observed in Area J.

Recommendations

Based on the absence of cultural materials in this location, no further archaeological work is recommended for Area J.

4.1.11 Area K

Area K consists of level uplands located immediately west of TH 75 and Area J, with Whiskey Creek situated approximately 1,000 feet to the east (see Figure 4). Based on its topographic relationship and proximity to the creek, Area K was considered to hold moderate potential for containing precontact archaeological resources.

At the time of the survey, it was determined that Area K was located entirely within the existing road right-of-way, which had been previously disturbed during road construction (Figure 14). This area was, therefore, excluded from systematic survey.

Recommendations

Based on the degree of disturbance that has previously occurred within this portion of the project area, no further archaeological work is recommended for Area K.

Figure 14. Area K, view to the south

4.2 ARCHITECTURE-HISTORY

The APE for architecture-history was determined in consultation with the MnDOT CRU project manager and is described in Section 2.2.2. Andrew Schmidt served as Principal Investigator and Sara Nelson was project Architectural Historian. Phase I fieldwork was conducted on July 18, 2013. During the survey, all buildings, structures, and objects 45 years in age or older within the APE were recorded. The survey population consisted of eight properties: five farmsteads (or former farmsteads), one house, one railroad corridor, and one railroad bridge within the railroad corridor (Table 4 and Figure 15). Recorded buildings range in time period from circa 1900 to the 1960s. The railroad corridor dates to 1887. Two properties within the APE had been previously inventoried, but none is currently listed in the NRHP or previously determined eligible for listing. Figure 15 shows the locations of the properties inventoried.

Table 4. Inventoried Architecture-History Properties

Field Number and Address	SHPO No.	Construction Date	NRHP Recommendation
01. 1332 220th Street	WL-ROB-004	Ca. 1920s – 2000s	Not eligible
02. 2242 225th Street	WL-MCV-005	Ca. 1930s – 1990s	Not eligible
03. 1504 230th Street	WL-MCV-006	Ca. 1900 – 1980s	Not eligible
04. 1st Street SE, east of Harris Street	WL-KNC-011	Ca. 1900, 1940, moved	Not eligible
05. 235th Street, west of TH 75	WL-MCV-007	1968	Not eligible
06. 2368 TH 75	WL-MCV-008	Ca. 1920s – 1940s	Not eligible
07. Bridge 5185, RR Corridor over TH 75	WL-KNC-009	1932	Not eligible
08. Manitoba Railroad Corridor	WL-XXX-001	1887	Not eligible
09. Trunk Highway 75	WL-XXX-002		See Phase II evaluation

4.2.1 Inventoried Properties

1332 220th Street (Field No. 01, WL-ROB-004)

SE ¼ of the SE ¼ of the SW ¼ of Section 34, T135N, R48W

This farmstead is located at 1332 220th Street and includes a circa 1930 farmhouse, numerous early twentieth century outbuildings, and modern pole barn and Quonset-type buildings. The historic-period barn is not extant. The buildings are arranged in a courtyard pattern around a loop driveway. Although the courtyard pattern was established during the historic-period, most of the outbuildings appear to have been moved to their current locations since 1965 (Aerial Photographs 1965). A shelter belt of mature trees flanks the west side of the farmstead area and continues north along the west side of adjacent fields; a cluster of mature trees is located along the driveway. Cultivated fields are located to the north and east of the farmstead, and Whiskey Creek and a small tributary run along the west and south sides, respectively (see photographs below).

Map adapted from USDA FSA NAIP Orthophoto, 2012; Wilkin County, Minnesota

Legend

- Architecture History Surveyed Properties
- Architecture History APE

N
W E
S

Site Location

0 0.5 1 Miles

1 inch = 2,000 feet

Architecture History Results

New Roadway Realignment of TH 75 S.P. 8408-44
Kent, Wilkin County, Minnesota

Summit Envirosolutions

Figure 15

File: Project_Location
Summit Proj. No.: 1727-0042
Plot Date: 5-27-2014
Arc Operator: SJN
Reviewed by: LSHO

The house is a circa 1930, story-and-a-half, gambrel-roofed, wood-frame building that has been extensively altered. The siding is synthetic replacement, and although some three-over-one wood sash remain, most of the windows sash are replacement. A large shed-roofed addition extends from the north elevation, and a four-stall garage further extends from the addition.

There are numerous outbuildings north of the farmhouse:

- Clay tile silo with a metal conical cap
- Loafing barn with corrugated metal siding and roof
- Small-animal barn with a gable roof, L-plan layout, and corrugated metal siding
- Two gamble-roofed sheds
- Metal storage bins
- Hog house with a saltbox roof and board and batten siding (south of the farmhouse)

All of the outbuildings, except for the hog house, appear to have been built or moved into their current locations since 1965 (Aerial Photographs 1939, 1958, 1965). The farmstead is not known to be associated in a significant way with the context of Wilkin County. Although the farmstead includes a historic-period farmhouse, the barn has been demolished, and all but one of the extant outbuildings post-date 1965. Furthermore, the addition of the modern pole barn is an intrusion on the historic-period farmstead. These changes have compromised the materials, design, setting and feeling of the property. Furthermore, according to the statewide farmstead context, presence of the historic-period barn and a majority of the animal-husbandry buildings are necessary elements for a potentially historic farmstead to retain its historic integrity (Granger and Kelly 2005:7.15-7.18). For these reasons, the farmstead as a whole is recommended not eligible for listing in the NRHP with regard to any criteria.

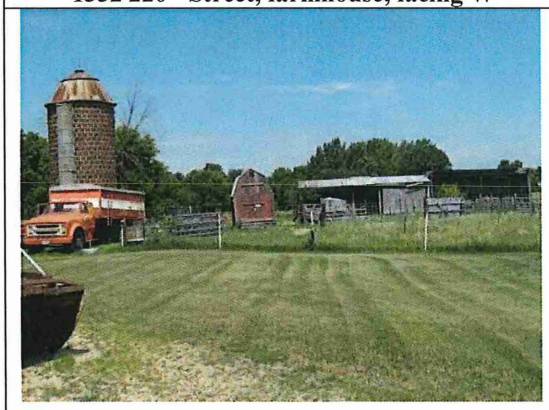
The farmhouse, as an individual element, has poor integrity due to replacement of historic materials and additions to the original building, and is recommended not eligible for listing in the NRHP.

List of Buildings and Structures

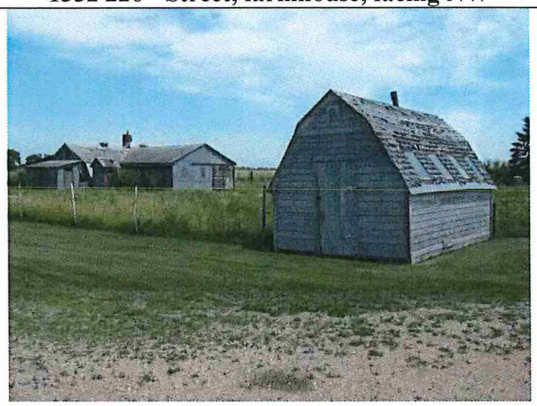
Number.	Type	Estimated age
1	House	Ca. 1930s
2	Silo	Ca. 1920s
3	6 various outbuildings	Post-1965
11	Hog House	Ca. 1920s
12	Modern Quonset and Pole Barn	Ca. 2000s

1332 220th Street, farmhouse, facing W

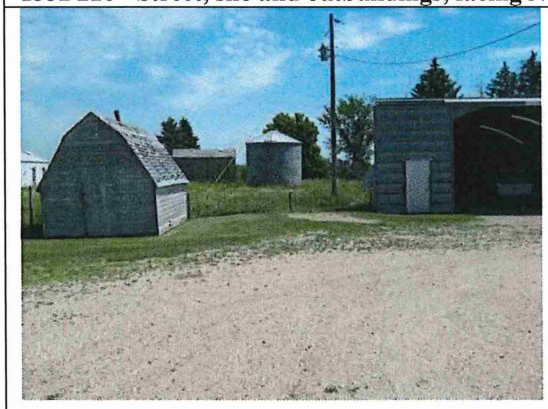
1332 220th Street, farmhouse, facing NW



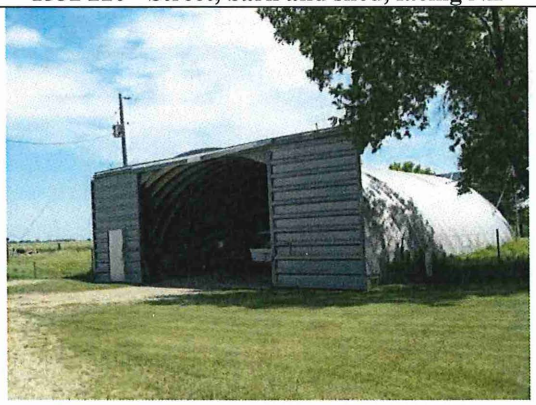
1332 220th Street, silo and outbuildings, facing N



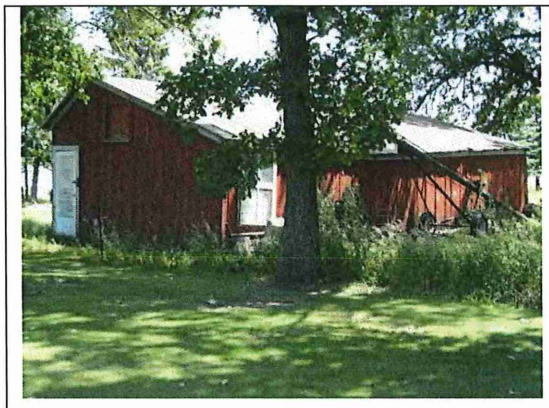
1332 220th Street, barn and shed, facing NE



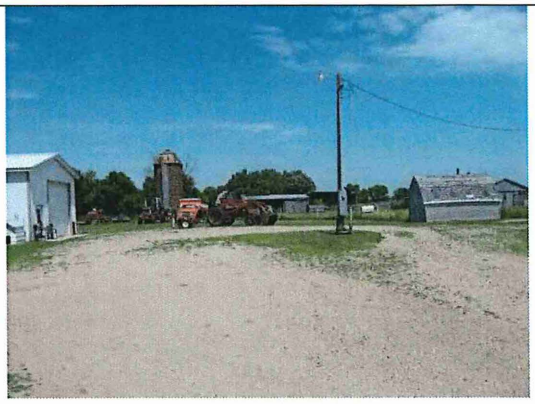
1332 220th Street, shed, bin, Quonset, facing E



1332 220th Street, Quonset, facing NE



1332 220th Street, hog house, facing SE



1332 220th Street, overview, facing N

2242 225th Street (Field No. 02, WL-MCV-005)
SW ¼ of the SW ¼ of the NW ¼ of Section 2, T134N, R48W

This farmstead is located at 2242 225th Street and includes a circa 1970 house, a circa 1930 barn, a circa 1960 garage, a modern pole barn, and two Butler bins. The farmstead is arranged in a courtyard pattern with a central driveway. Although the courtyard pattern was established during the historic-period, only the barn and garage remain from the historic period; the Butler bins, though likely over 50 years old, have been moved to their current location (Aerial Photographs 1965, 2010). A shelter belt of mature trees flanks the north, west, and south sides of the farmstead area. Cultivated fields are located on all sides of the farmstead (see photographs below).

On the east side of the farmstead, the barn is a circa 1930, gambrel-roofed, wood-frame building that measures approximately 30 feet by 36 feet. The barn rests on a poured concrete foundation, has modern corrugated overlay siding, and multiple four-light, fixed wood sash windows. A large shed-roofed addition extends from the north elevation. A metal ventilator is located on the ridge of the roof. Access to the interior of the barn was not gained.

On the west side of the farmstead a farmhouse from the 1970s appears to have replaced the historic-period farmhouse. A circa 1960 garage with corrugated metal siding is located north of the house. Two round, conical-roofed Butler bins are located south of 225th Street directly south of the farmstead.

Plat maps from 1903 and 1915 indicate that structures existed in the location of the current farmstead. During those years, the property was owned by Barney Nordick, who owned 270 acres in 1903 and 358 acres in 1915. By 1949, John B. Nordick owned over 600 acres including the farmstead. John Nordick owned the farmstead and much of the surrounding farmlands through at least the mid-1960s (North West Publishing Co. 1903; Webb Publishing Company 1915; Thomas O. Nelson Company 1949, 1955, 1964).

According to 1939 aerial photographs, the farmstead had a house, a barn, and a variety of outbuildings arranged around the farmyard. The shelterbelt around three sides of the farmstead was present by 1939. By 1965, the farmstead had changed little since 1939; there was a small cluster of buildings south of 225th Street (Aerial Photographs 1939, 1958, 1965).

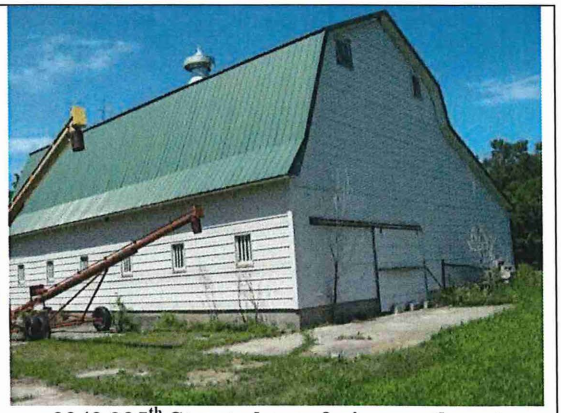
The farmstead is not known to be associated in a significant way with the context of Wilkin County. Although the farmstead includes a historic-period barn, the farmhouse has been replaced, and numerous outbuildings have been removed. Furthermore, the addition of the modern pole barn is an intrusion on the historic-period farmstead. These changes have compromised the materials, design, setting and feeling of the property. Furthermore, according to the statewide farmstead context, presence of the historic-period farmhouse is a necessary element for a potentially historic farmstead to retain its historic integrity (Granger and Kelly 2005:7.15-7.18). For these reasons, the farmstead as a whole is recommended not eligible for listing in the NRHP with regard to any criteria.

As an individual farm element, the barn is not known to be associated in a significant way with an event, pattern, trend, or person in history. Access was not gained to the interior to the barn; however, the barn does not appear to be an "especially distinctive" example of an individual farm element (Granger and Kelly 2005:7.20). It is a small gambrel-roofed barn that does not display outstanding craftsmanship; it is not a rare, transitional, or unusually well-developed example of a property type or use of materials; and it is unlikely to have utilized a significant innovation in its design. For these reasons, the barn is recommended not eligible for listing in the NRHP.

List of Buildings and Structures

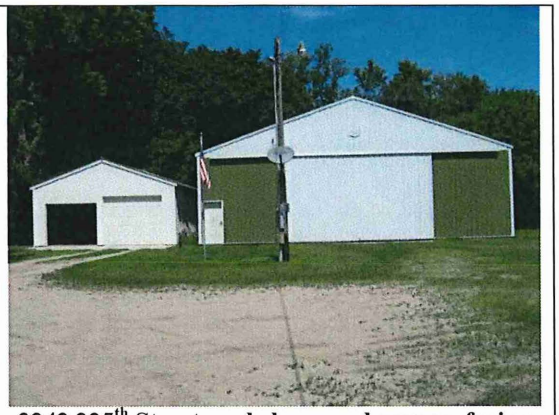
Number.	Type	Estimated age
1	Barn	Ca. 1930s
2	House	Ca. 1970s
3	Garage	Ca. 1960
4	Butler Bins	Ca. 1950
5	Pole Barn	Ca. 1990

2242 225th Street , barn, facing east

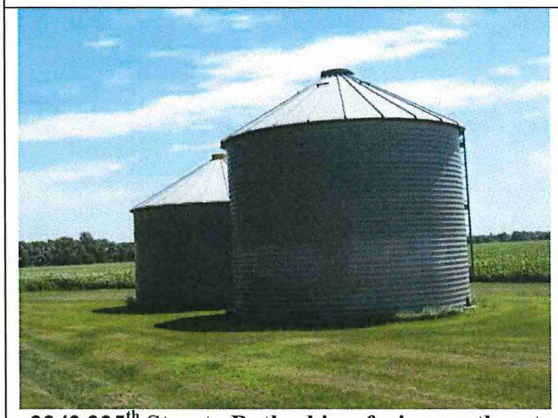


2242 225th Street , barn, facing northwest

2242 225th Street , house, facing northwest



2242 225th Street , pole barn and garage, facing north



2242 225th Street , Butler bins, facing southeast

1504 230th Street (Field No. 03, WL-MCV-006)
SW ¼ of the SW ¼ of the SW ¼ of Section 1, T134N, R48W

This farmstead is located at 1504 230th Street and includes a circa 1900 house, a circa 1950 garage, a circa 1970 garage, a modern Quonset-type building, and a round metal bin. The farmhouse is set back on a long driveway, and the outbuildings are scattered to the north of the house. Only the farmhouse and garage remain from the historic period; the bin, though likely over 50 years old, has been moved to its current location (Aerial Photographs 1939, 1958, 1965, 2010). A shelter belt of mature trees flanks the west and south sides of the farmstead area. Cultivated fields are located on all sides of the farmstead (see photographs below).

The circa 1900 farmhouse is a story-and-a-half, T-plan, gable-roofed building with synthetic replacement siding and replacement windows. A gable-roofed kitchen addition is attached to the north elevation.

A circa 1950 hip-roofed garage is located north of the farmhouse. A round metal bin is likely older than 50 years but has been moved to its current location. Other buildings on the property are all modern.

Plat maps from 1903 and 1915 indicate that structures existed in the location of the current farmstead. During those years, the property was owned by Peter Kautz, who owned 320 acres in 1903 and 560 acres in 1915. By 1949, John Kautz owned approximately 400 acres including the farmstead. John Kautz owned the farmstead and much of the surrounding farmlands through at least the mid-1960s (North West Publishing Co. 1903; Webb Publishing Company 1915; Thomas O. Nelson Company 1949, 1955, 1964).

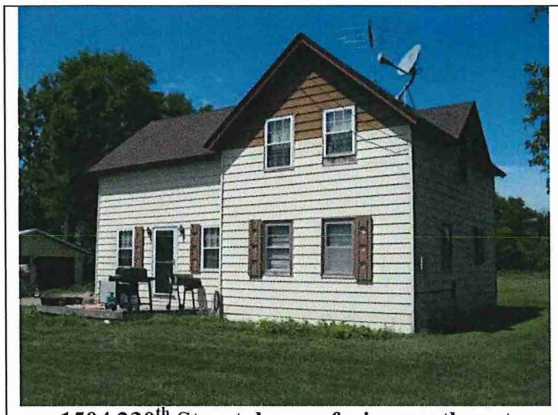
According to 1939 aerial photographs, the farmstead had a house, a barn, and a variety of outbuildings arranged around a farmyard to the north of the house. An additional outbuilding was located south of the farmstead near 230th Street. The shelterbelt to the west and south of the farmstead was present by 1939. By 1965, the barn had been demolished, but the other outbuildings were generally still present (Aerial Photographs 1939, 1958, 1965).

The farmstead is not known to be associated in a significant way with the context of Wilkin County. Although the farmstead includes a historic-period farmhouse, the barn has been demolished, and nearly all of the outbuildings have been removed. Furthermore, the addition of the modern buildings is an intrusion on the historic-period farmstead. These changes have compromised the materials, design, setting, feeling, and association of the property. Furthermore, according to the statewide farmstead context, presence of the historic-period barn and other animal-husbandry buildings are necessary elements for a potentially historic farmstead to retain its historic integrity (Granger and Kelly 2005:7.15-7.18). For these reasons, the farmstead as a whole is recommended not eligible for listing in the NRHP with regard to any criteria.

As an individual building, the farmhouse has no potential to be eligible due to poor historic integrity. Replacement windows and siding and a large addition have compromised its integrity of materials, design, workmanship, feeling, and association. For this reason, the farmhouse is recommended not eligible for listing in the NRHP.

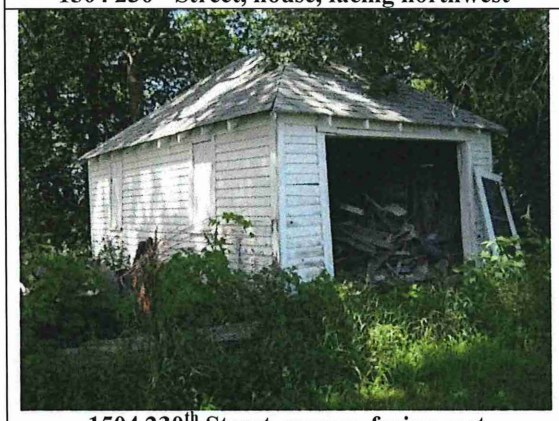
List of Buildings and Structures

Number.	Type	Estimated age
1	House	Ca. 1900
2	Garage	Ca. 1950
3	Garage	Ca. 1970
4	Storage Bin	Ca. 1950
5	Quonset Building	Ca. 1980

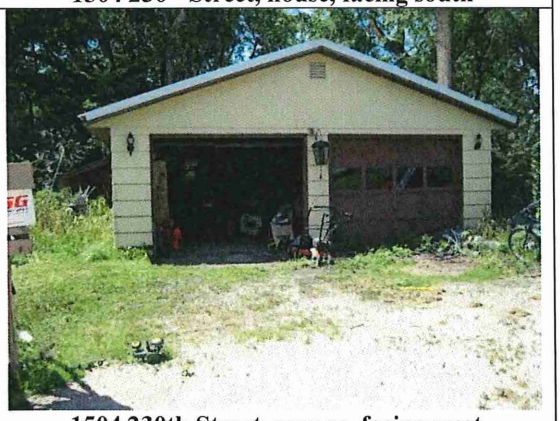


1504 230th Street, house, facing northwest

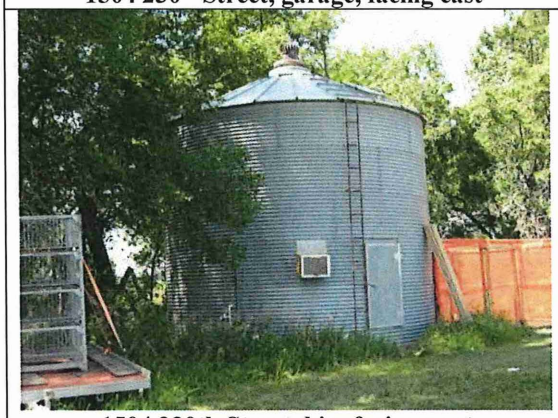
1504 230th Street, house, facing south



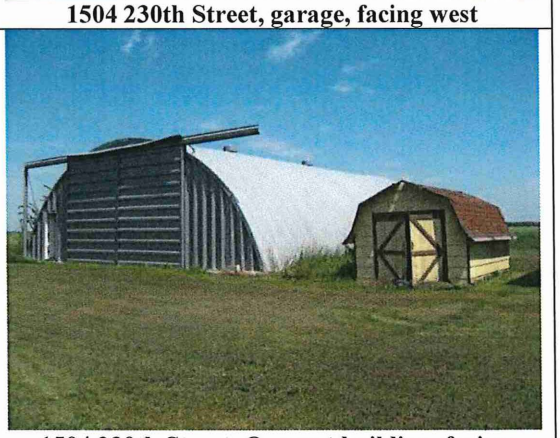
1504 230th Street, garage, facing east



1504 230th Street, garage, facing west



1504 230th Street, bin, facing west

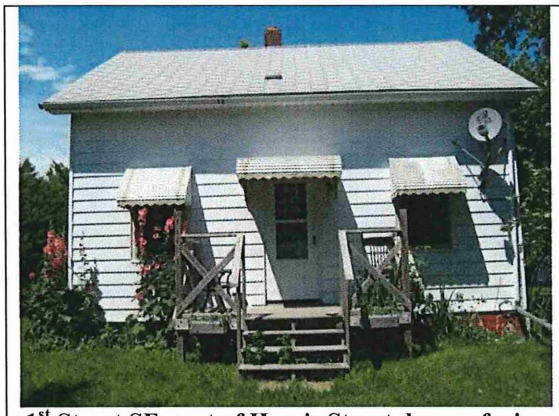


1504 230th Street, Quonset building, facing northeast

1st Street SE, east of Harris Street (Field No. 04, WL-KNC-011)
NW ¼ of the SE ¼ of the NW ¼ of Section 11, T134N, R48W

This residential property is located on 1st Street SE east of the Catholic Church and includes a house and garage. The house is a story-and-a-half, side-gabled building with synthetic replacement siding and six-over-six wood-sash windows. A shed-roofed addition extends from the north elevation. The gable-roofed, single-car garage has drop siding. Three small sheds are also located on the property.

All buildings appear to have been moved onto the property. The house was built circa 1900 and the garage was built circa 1940, but neither of them appears on aerial photographs until 1965. As a result they have lost integrity of location. Furthermore, due to alterations to the house, it has lost integrity of design, materials, workmanship, feeling, and association. Due to the loss of historic integrity, this property is recommended not eligible for listing in the NRHP.



1st Street SE, east of Harris Street, house, facing north

1st Street SE, east of Harris Street, garage, facing northeast

235th Street, west of TH 75 (Field No. 05, WL-MCV-007)
NE ¼ of the NE ¼ of the SE ¼ of Section 11, T134N, R48W

This former farmstead has been redeveloped, and currently the property includes a house and an outbuilding. According to the Wilkin County Assessor's Office, the house dates to 1968. It is a one-story, hip-roofed Ranch-style house with brick and vinyl cladding and casement windows. A hip-roofed garage is attached to the south elevation.

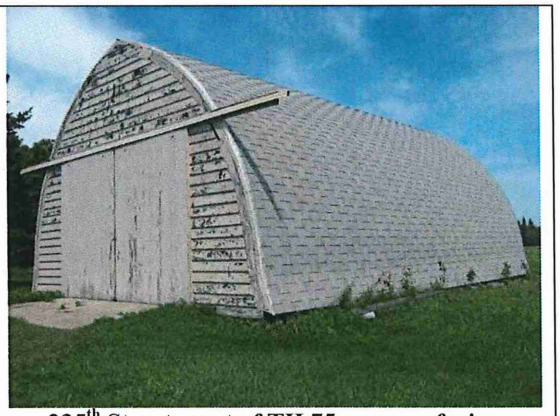
The outbuilding is similar to a Quonset building, but the roof is gothic arched rather than parabolic. The building has a concrete foundation, wood-lap siding, and a corrugated-metal roof. Based on aerial photographs, it appears to have been moved onto the property between 1965 and 1991, and based on its appearance, it may have been the loft of a former barn (Aerial Photographs 1965, 1991).

Plat maps from 1903 and 1915 do not indicate a farmstead in the location of the current property. Owned by Frank Marick in 1903, the property was part of an approximately 55-acre holding of Frank Andres by 1915. By 1949, the property was part of an approximately 154-acre holding by Delbert Tschakert, who owned the property through at least 1964 (North West Publishing Co. 1903; Webb Publishing Company 1915; Thomas O. Nelson Company 1949, 1955, 1964).

According to 1939 aerial photographs, the farmstead had a house, a barn, and a variety of outbuildings arranged around a farmyard. Between 1965 and 1991, all of the historic-period buildings were demolished, and the current house and outbuilding were built/moved (Aerial Photographs 1939, 1958, 1965).

Neither of the buildings on this property are associated with the historic-period farmstead, and with no extant buildings, the farmstead cannot convey any potentially historic associations. The house is approaching 50 years old. It is not known to be associated in a significant way with events, patterns, or persons significant in history. Furthermore, as a modest example of the Ranch style built in the late 1960s, the house is not architecturally distinctive.

235th Street, west of TH 75, house, facing east



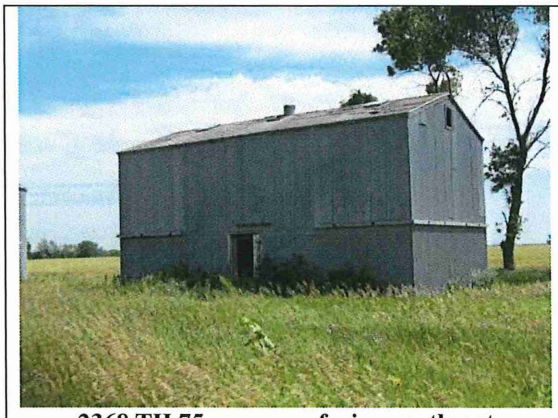
235th Street, west of TH 75, garage, facing northeast

2368 TH 75 (Field No. 06, WL-MCV-008)
NW ¼ of the NW ¼ of the SE ¼ of Section 11, T134N, R48W

This former farmstead has been abandoned, and currently the property includes a granary, a chicken house, and two round metal bins, dating from the 1920s to 1940s. According to aerial photographs, this was once a large farmstead complex, with a house, a barn, and multiple outbuildings. The gable-roofed granary has corrugated metal siding. The chicken coop has a saltbox roof, wood drop siding, and multiple windows and door on the south elevation. The bins are corrugated metal with conical caps. A cluster of mature trees stands north of the buildings, and the former farmstead area is surrounded by cultivated fields.

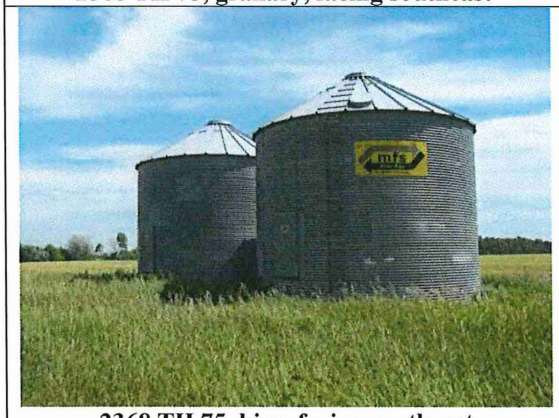
The farmstead is not known to be associated in a significant way with the context of Wilkin County. Although the farmstead includes several historic-period outbuildings, the farmhouse and barn have been demolished, and most of the other outbuildings have been removed. These changes have compromised the materials, design, setting, feeling, and association of the property. According to the statewide farmstead context, presence of the historic-period house, barn and other animal-husbandry buildings are necessary elements for a potentially historic farmstead to retain its historic integrity (Granger and Kelly 2005:7.15-7.18). For these reasons, the farmstead as a whole is recommended not eligible for listing in the NRHP with regard to any criteria.

None of the individual buildings is known to be associated in a significant way with an event, pattern, trend, or person in history. The buildings do not appear to be an "especially distinctive" example of an individual farm element (Granger and Kelly 2005:7.20). They are small typical outbuildings that do not display outstanding craftsmanship; they are not rare, transitional, or unusually well-developed examples of a property type or use of materials; and they do not appear to have utilized a significant innovation in design. For these reasons, the individual buildings are recommended not eligible for listing in the NRHP.



2368 TH 75, granary, facing southeast

2368 TH 75, chicken house, facing north



2368 TH 75, bins, facing southeast

St. Paul, Minneapolis and Manitoba Railroad Corridor (Field No. 07, WL-XXX-001)
Sections 2 and 11, T134N, R48W

Description
The Moorhead and Southeastern Railway Company corridor crosses the Red River into Wilkin County just south of Brushvale, then runs north through the county, roughly paralleling the river. Within the APE, the railroad corridor crosses agricultural lands, as well as through Kent, which formerly served as a rail stop along the line. The corridor is an active railroad line, operated by the BNSF Railway.

The railroad corridor within the APE includes a raised roadbed, varying in height from slightly above grade in Kent to approximately 6 feet above surrounding grade outside of town. Roughly 2 feet of crushed granite ballast rests atop the roadbed, and the track structure consists of wood ties and welded steel rails, which date-stamped 2004. Shallow ditches overgrown with tall grasses flank the roadway, and small trees grow along the edges of the right of way. An overhead telephone line with wood posts runs along the west edge of the right of way.

There is one railroad grade separation structure within the APE, a steel deck girder bridge crossing Whiskey Creek just north of Kent. The bridge is described in more detail below.

Historical Background

Moorhead and Southeastern Railway Company
As described in the historic contexts above, the Manitoba railroad dominated transportation in the Red River Valley during the 1880s, and company president James J. Hill intended to hold that dominance as long as he could. In 1884, the Fargo and Southern Railroad began building a rail line on the Dakota side of the Red River Valley between Fargo and the Chicago, Milwaukee and St. Paul Railway Company (CM&StP) main line. Concerned with competition from the CM&StP in the Red River Valley, Hill incorporated the Moorhead and Southeastern Railway Company in September of 1884 with plans to parallel the Fargo and Southern. The Moorhead and Southeastern line ran south from Moorhead along the river on the Minnesota side and crossed into Dakota just north of Wahpeton, where it connected with the Manitoba main line. The Manitoba furthermore matched the Fargo and Southern's rates for transportation of wheat from Fargo to Minneapolis (Luecke 1997; Mitchell 1982).

Faced with fierce competition from the Manitoba, reduced wheat traffic due to drought, and by 1887, the Moorhead and Southeastern's parallel route, the Fargo and Southern became primarily a passenger line. The Moorhead and Southeastern, thus, served its purpose of protecting the Manitoba's primacy in the Red River Valley. The line also provided a more direct connection between Moorhead and the Manitoba main line, and as a result, the Breckenridge to Barnesville branch line was taken up in 1889. On January 28, 1891, the Moorhead and Southeastern was acquired by the Manitoba (Prosser 1966:154, 162).

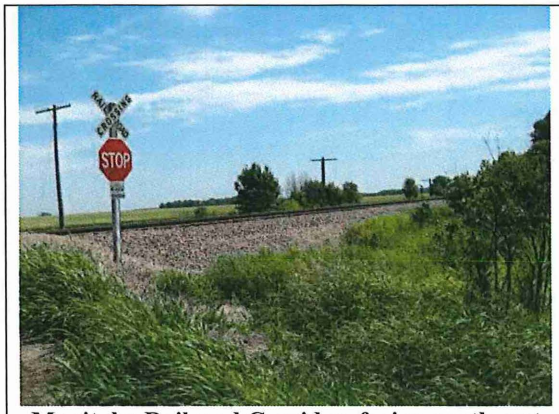
Evaluation

Following the guidelines in the Minnesota railroads MPDF, the Moorhead and Southeastern corridor within the project APE was evaluated for its potential to contribute to a railroad corridor historic district that is eligible for listing in the National Register. For a railroad corridor to be eligible for listing in the NRHP, it must meet at least one of the four registration requirements listed in the MPDF.

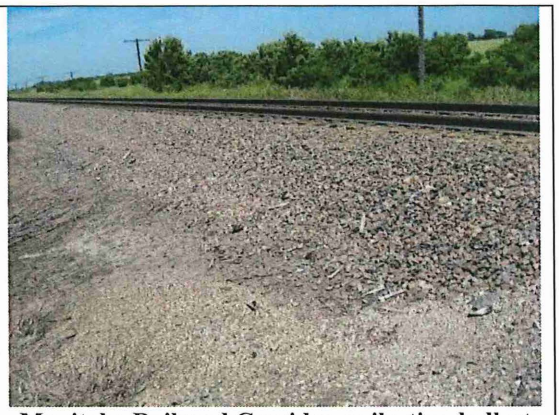
The Moorhead and Southeastern railroad was built during 1884 to 1887 to connect Moorhead with the Manitoba main line at Wahpeton, Dakota, primarily in competition with the CM&StP. More than a decade earlier, the St. Paul and Pacific railroad had reached Breckenridge from St. Paul in 1871, and the Northern Pacific railroad had reached Moorhead from Duluth in 1872. Therefore, the Moorhead and Southeastern was not an early railroad in the Red River Valley, and it did not open a region of the state to settlement. Furthermore, the Moorhead and Southeastern railroad did not provide a connection that did not previously exist between a significant class of resource and a terminal market or transfer point. By the mid 1880s, the Manitoba railroad had built multiple lines in the Red River Valley connecting with the Minneapolis flour mills, and the Northern Pacific connected the valley with Duluth. The Moorhead and Southeastern railroad provided the Manitoba railroad with additional connections within the Red River Valley and was a useful branch line. It was not, however, an influential component of the state's railroad network, and it did not make important connections or critical links within the state's railroad network. For these reasons, the Moorhead and Southeastern railroad corridor does not meet the registration requirements of the Minnesota railroads MPDF, and the corridor is recommended as not eligible for listing in the NRHP.

Manitoba Railroad Corridor, facing south

Manitoba Railroad Corridor, facing north



Manitoba Railroad Corridor, facing northwest



Manitoba Railroad Corridor, rails, ties, ballast

Bridge No. 5185, Railroad Bridge over TH 75 (Field No. 08, WL-KNC-009)
NW ¼ of the NW ¼ of the NE ¼ of Section 11, T134N, R48W

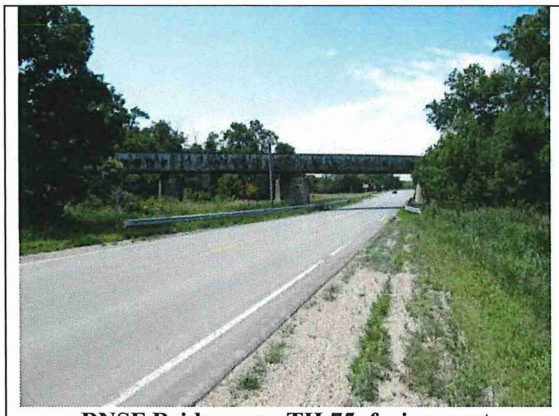
Description
This railroad bridge, No. 5185, crosses over TH 75 and Whiskey Creek just north of Kent. The bridge is a five-span steel through-plate girder that is 218 feet in length with a 13-foot wide deck. The main span crosses TH 75 and measures 74.4 feet in length. The pair of girders that support each span each consists of a series of rectangular panels joined by riveted flanges and cover plates positioned above and below the girder. The bridge has a timber ballasted deck. The spans are supported by poured-concrete piers and wingwall abutments. The ends of the girders rest on steel bed plates positioned on a deep ledge in the abutment.

Historical Background
Bridge No. 5185 over TH 75 was built in 1932. The bridge was built as part of improvements to TH 75 and accomplished a grade separated crossing for the railroad and highway. See TH 75 evaluation below for additional historical background regarding the highway planning and construction and evaluation of eligibility.

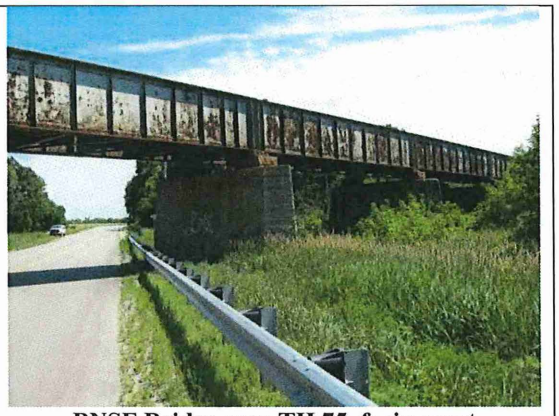
Evaluation
Because Bridge No. 5185 over HT 75 is not within a railroad corridor historic district it was evaluated individually as a grade separation structure according to the guidelines of the Minnesota railroads MPDF. Because it crosses TH 75, it was also evaluated as a potentially contributing element to the TH 75 corridor (see evaluation of TH 75 below).

According to the Minnesota railroads MPDF, railroad grade separation structures will not individually meet NRHP Criterion A or B (Schmidt et al. 2007:F-225). The MPDF furthermore describes 19 conditions under which a railroad grade separation structure may meet Criterion C (Schmidt et. al 2007:F-226). Bridge No. 5185 does not meet any of those conditions. The spans are not early for plate girders, are not long spans, and in crossing the highway and creek, required no unusual engineering considerations (see

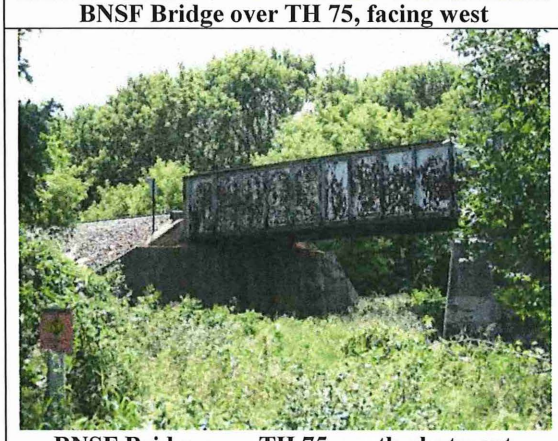
Section 3.2.6). For these reasons, the bridge does not meet Criterion C. Finally, because the bridge is a relatively common design, and because plate girders are a relatively well-documented property type, the bridge is not likely to provide significant new information and does not meet Criterion D. For these reasons, Bridge No. 5185 is recommended as not individually eligible for listing in the NRHP.



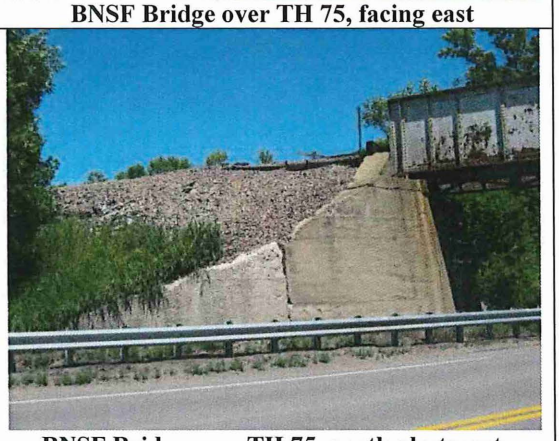
BNSF Bridge over TH 75, facing west



BNSF Bridge over TH 75, facing east



BNSF Bridge over TH 75, south abutment, facing southwest



BNSF Bridge over TH 75, north abutment, facing northeast

5.0 PHASE II EVALUATION OF TRUNK HIGHWAY 75

5.1 DESCRIPTION

The segment of TH 75 within the Project APE (Field No. 09, WL-XXX-002) is located in Sections 2, 3 and 11, T134N, R48W.

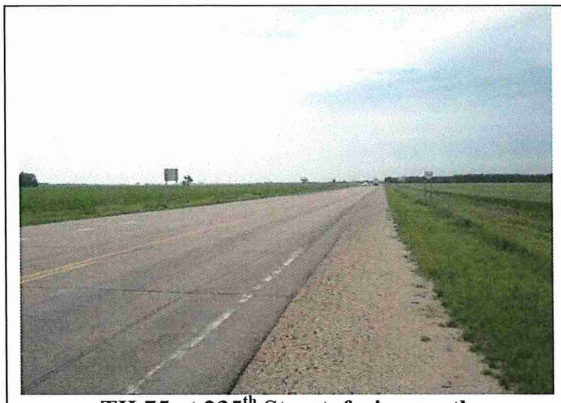
TH 75 was originally designated Trunk Highway 6 in 1920 and has been designated U.S. 75 since 1926. The U.S. 75 national route extends from the Canadian border at Noyes, Minnesota, south to Dallas, Texas. In Minnesota, TH 75 stays close to the state's western border and passes through the county seats of the western counties. TH 75 enters Minnesota south of Luverne near Ash Creek, and passes though Pipestone, Canby, and Breckenridge on a route generally north. It is the main north–south route through Moorhead, and north of Moorhead, the route turns northeast to pass through Crookston, then turns northwest toward its terminus at Noyes. Although once a border crossing into Canada, the Noyes port of entry is closed and border traffic is directed to Pembina, North Dakota (http://en.wikipedia.org/wiki/U.S._Route_75).

Within the Project APE, TH 75 is a two-lane paved highway. The roadway corridor consists of substantial ditches, varying between 5 and 10 feet deep, that flank a raised roadbed grade approximately 40 feet between shoulder edges. The roadway is paved with 24 feet of bituminous surface, and the 8-foot shoulders are graveled. The shoulders are utilized as paved turn lanes at intersections. There are some relatively sharp curves within this segment of TH 75 as the highway bypasses Kent. Although Kent is visible from the highway, particularly the grain elevators, due to the bypass, the immediate setting of TH 75 within the APE is entirely agricultural. Cultivated fields flank the highway, and farmsteads, which typically front on the cross streets, are visible.

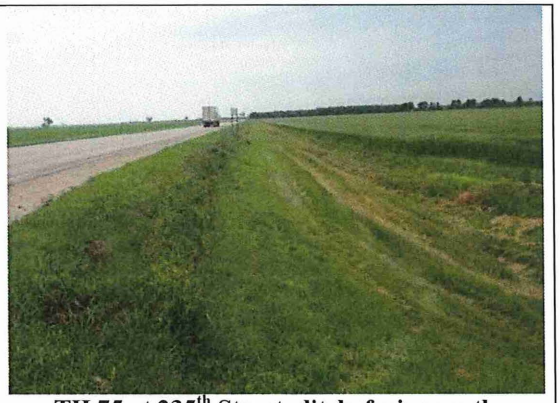
Two bridges are in the roadway corridor within the Project: Bridge 5185, carrying a railroad corridor over the highway, and Bridge 5186, carrying the highway over a stream. Although neither bridge is individually eligible, both were built in 1932 and are part of the highway infrastructure. As described in the Phase I section, Bridge No. 5185 is a steel through girder bridge that carries the BNSF railroad over TH 75. Bridge No. 5186 is a steel beam span that carries TH 75 over Whiskey Creek.

North of the Project APE, TH 75 continues as a two-lane highway with similar materials and configuration as the segment within the APE. The setting of the highway also remains rural/agrarian, with only occasional communications towers or modern buildings. As TH 75 approaches Moorhead, the highway and the setting change. There is a modern roundabout at Clay County Road 12, and the setting becomes suburban with modern housing and commercial properties. At the I-94 interchange, TH 75 transitions to a four-lane divided roadway, which continues into Moorhead. North of Moorhead, TH 75 reverts to a two-lane highway similar in materials and configuration as the segment within the APE.

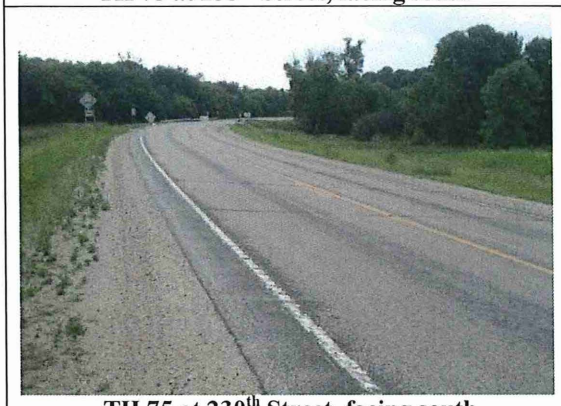
South of the Project APE, TH 75 continues as a two-lane highway with similar materials and configuration as the segment within the APE. The setting of the highway remains rural/agrarian. Just north of Breckenridge at TH 210, TH 75 transitions to a four-lane divided highway with a setting of modern commercial properties. Approaching downtown Breckenridge, the highway reverts to two lanes, with on-street parking, curbs, and sidewalks. South of Breckenridge, TH 75 continues as a two-lane highway with similar materials and configuration as the segment within the APE. The setting of the highway remains rural/agrarian, with only occasional communications towers or modern buildings. Between Breckenridge and Ortonville, TH 75 runs along the edges of towns rather than through the downtowns. In those areas, auto-related commercial properties were developed from the 1950s to the present.



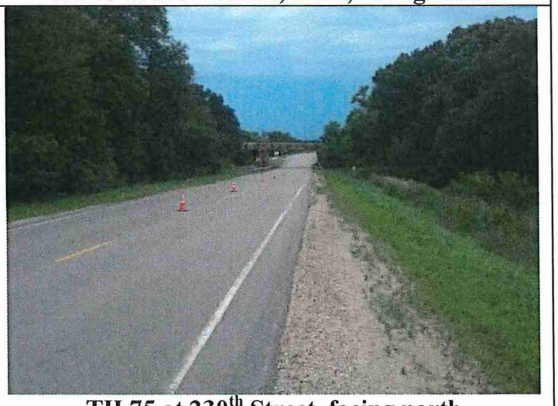
TH 75 at 235th Street, facing south



TH 75 at 235th Street, ditch, facing south

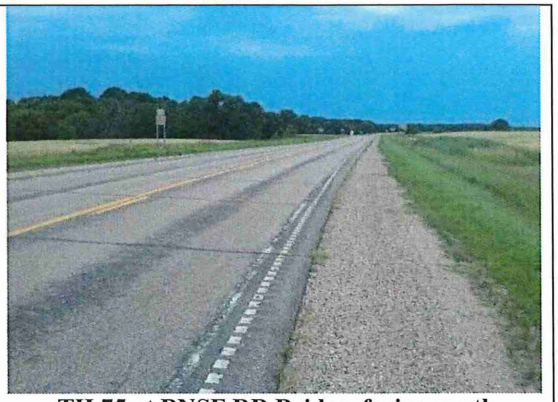


TH 75 at 230th Street, facing south



TH 75 at 230th Street, facing north

TH 75 at 230th Street, facing south



TH 75 at BNSF RR Bridge, facing north

5.2 HISTORICAL BACKGROUND

Highway Construction in Minnesota Prior to World War II

During the nineteenth century, the State of Minnesota's involvement in road building was extremely limited by the state constitution, and because nearly all long distance transportation was via railroads, roads were a local concern. Although the federal government funded some road building and counties could establish roads running in more than one township, nearly all of the roads were built and maintained by the townships. By the 1890s, a growing interest in improving roads brought changes in how they were financed, built, and maintained. This initial focus was on improving local roads. Bicycle enthusiasts were strong supports of road improvements and were early leaders in the good roads movement to improve roadways. Groups of merchants were also supporters of good roads, as they sought to expand their trade territories. As farmers diversified their products, particularly dairy products, they made more frequent trips to market centers, and with the establishment of Rural Free Delivery in Minnesota beginning in 1897, mail carriers needed access to rural residents. Thus, rural support for improvements in "farm to market" roads grew during the 1890s. Even railroad companies, who viewed roads as feeders to their railroads, supported local road building. In response to the growing demand for road improvements, an amendment to the state constitution was adopted in 1898 that allowed state participation in road building (Minnesota Highway Department [MHD] 1942:6-7).

By the early twentieth century, a broad based coalition was lobbying for federal and state funding for road improvements, and good roads supporters included a new constituency: automobile makers and users. Development of the automobile by the turn of the twentieth century and its mass production by the 1910s led to an unprecedented demand for improved roadways, both local and long distance. Although the first automobile was exhibited in Minnesota in 1895, the general public was slow to adopt the automobile over the next decade, and by 1909, there were only 7,065 motor vehicles registered in the state. As Ford Motor Company pioneered mass production and, thereby, reduced prices, and as roads were improved, automobiles grew increasingly popular after 1910. The number of vehicles registered in Minnesota increased to 200,000 in 1917, then to 330,516 in 1920, and to 744,271 in 1930 (MHD 1942:8).

Farmers had begun using motor vehicles in large numbers during the 1910s because the vehicles helped them haul products from farm to market and helped ease social isolation. By 1920 more than 30 percent of farmers owned at least one car or truck (Granger and Kelly 2005:3.44, 3.51). Although farmers were buying cars and trucks, rural roads and highways were not ready for the new traffic. A nationwide road census conducted in 1904 found that only about seven percent of roads were surfaced, typically with gravel (Flink 1970:203). The 93 percent of unsurfaced roads, particularly those in rural areas, could be travelled with consistency on a seasonal basis at best. Because the grades of unimproved dirt roads were not much different than the surrounding lands and in many areas were little more than rutted tracks, roads drained poorly and flooded regularly. Therefore, despite their general opposition to new taxes, farmers became supporters of road improvements (Granger and Kelly 2005:3.51).

The State of Minnesota's participation in road building during the nineteenth century was limited to distributing federal grants, and with growing public support for road improvements by the late 1890s, the State needed a means for funding road work. New Jersey led the way with the State Aid Highway Act in 1891, which was the first act authorizing state funding of road building (KSK 2011:59-60). Following an amendment to the Minnesota state constitution in 1898 and enabling legislation in 1906, the State began distributing state-aid funds to local governments and overseeing the use of those funds. From 1906 to 1917, this oversight was conducted by a three-member Highway Commission and engineering and administrative staff, which along with funding, increased over the years (MHD 1945:15-19).

Nineteenth-century roads in rural areas typically consisted of an eight-foot wide drive surface with a single lane, requiring vehicles to pull over for passing, a minimal grade, and packed earth or perhaps gravel surfacing. These roads, which typically followed the existing topography or curved around obstacles, were sufficient for the relatively light and slow-moving horse-drawn wagons and carriages of the nineteenth century. As automobiles grew in popularity during the first two decades of the twentieth century, the need for new roadway standards became apparent. For example, the heavier and faster moving cars and trucks stirred up dust from the packed dirt between the gravel stones, which caused a nuisance for surrounding properties and led to faster degradation of the road surfaces. In addition, the sharp curves and steep grades common to nineteenth century roads were more hazardous to traffic moving at higher speeds (KSK 2011:56-57).

By the late 1910s, improvements in cars and trucks increased their utility for long distance travel and for hauling freight. These new uses, combined with the growing number of motor vehicles, created a demand for roadway improvements to extend beyond local roads to include regional highways connecting principal centers of population. State funds were distributed to local governments for local road projects; however, there was no system for uniform improvement, maintenance, and marking of highways. One way to address this issue was the establishment of auto trails. Created by individual promoters or trails associations, the trails were routes marked by distinctive signs placed along the side of the road or highway that led travelers between towns, through a region of the state, or across multiple states. In addition to marking the trails,

the associations typically also issued maps of the routes. The best known of the auto trails was the Lincoln Highway, which dates to 1913 and was the first transcontinental highway. At a time when state and federal involvement in road building was modest, auto trails were an effort at establishing regional highways.

By the late 1910s, numerous trails associations had been established in Minnesota, including the Jefferson Highway, which ran north-south through the center of the state; the Mississippi River Scenic Highway, along the Mississippi River; and the King of Trails, which ran north-south in the western part of the state. In 1917, Minnesota began to require trails associations to register trails, and by the early 1920s, there were 32 registered trails in the state (Long 2004:5.3).

In 1917, a trail association, the King of Trails Highway Association, formed in order to establish a north-south auto trail in western Minnesota. After two years of debate, the King of Trails (KT) route was established. By 1920, the association had marked the KT route with yellow signs with big black letters. In addition, the KT route was one of the trunk highways identified in the 1920 constitutional amendment, designated as Route 6 (http://www.highway75.com/about.html).

Although the auto trails helped guide motorists, they offered no guarantee as to the condition of the roads, and because the associations were private organizations, they were limited in the physical improvements they could make to roads. In addition, the marked trails were not always the most efficient route, instead sending drivers through towns that had paid to be included in the trail. Touting the economic benefits, associations often charged a fee to towns and cities in the vicinity of the auto trail to be included on the route and the map. Nevertheless, the auto trails were a recognition that transportation patterns were shifting. Cars and trucks were not only used for "farm to market" trips but for long-distance travel and transport as well. The popularity of auto trails demonstrated the demand and utility of regional highways, and both federal and state governments would soon become more involved in their planning, design, and construction.

To address the shifting transportation patterns, in 1916, the federal government passed a highway bill that provided funding to states to improve their road networks, provided they had a state highway department to control the funding and development. To qualify for federal funds, the Minnesota legislature passed a highway bill in 1917 that abolished the old highway commission and replaced it with the Minnesota Highway Department (MHD), to be led by a single Commissioner of Highways. The new commissioner was Charles Babcock, a merchant from Elk River who was a long-time promoter of good roads and had been a member of the Highway Commission.

Limited federal funding and private efforts, however, were not enough to provide a system of highways that were consistently improved, maintained, and signed. In 1920, Minnesota adopted another constitutional amendment that created a trunk highway system of 70 designated state routes to be located, built, and maintained by the State. Because these routes were designated in the amendment, they were referred to as the "constitutional routes" (International Historic Highway 2005). This system of state

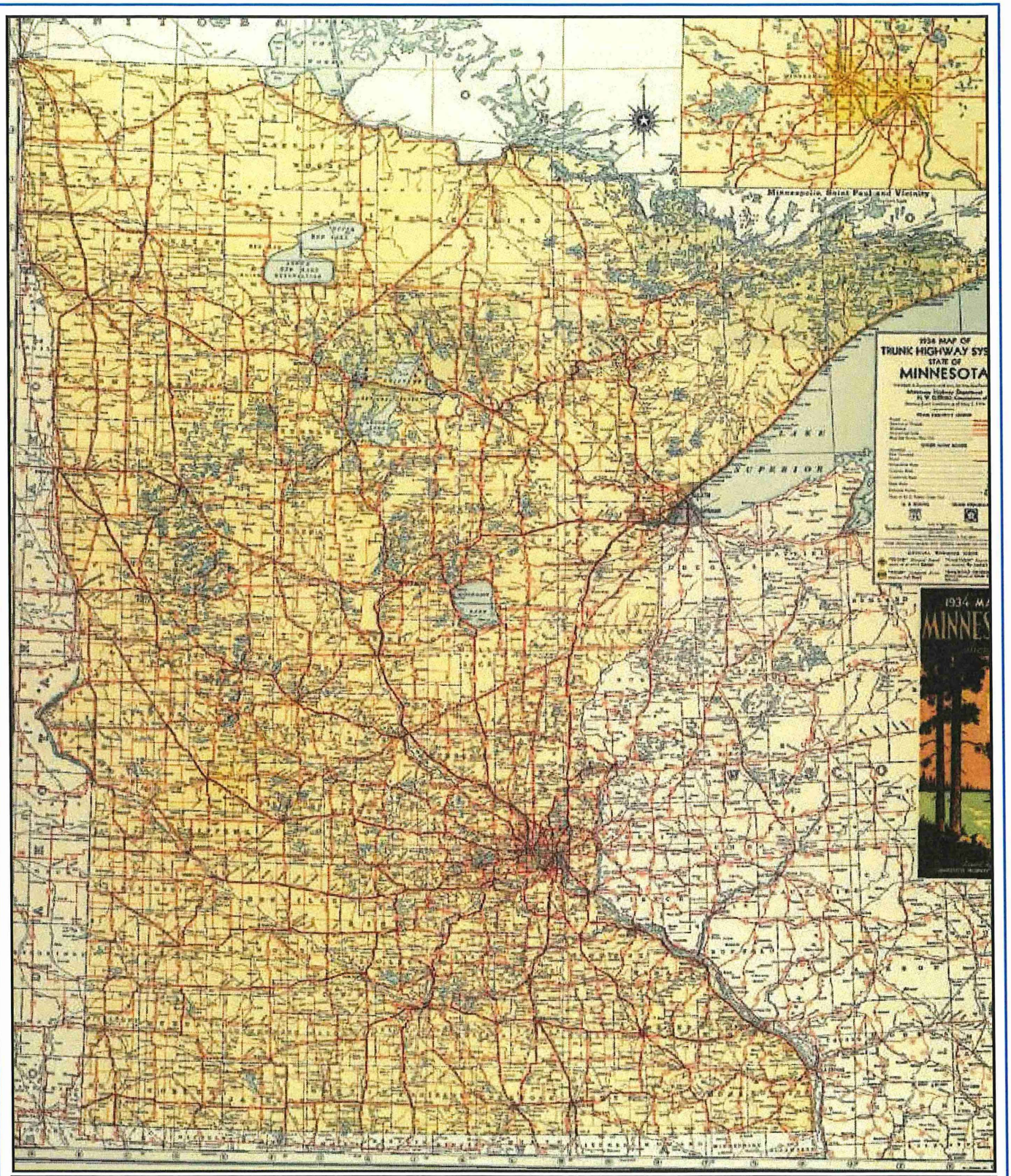
highways would consist of 6,877 miles and would connect all of the county seats and other population centers in a statewide network of roads and bridges (Long 2004:4.4) (Figure 16). The Commissioner and staff were charged with: the planning, construction, and maintenance of the trunk highways; distributing and overseeing funding to the counties for county and local roads; and distributing federal highway funds. In addition, to encourage improvement of the designated routes, the amendment required that 75 percent of those routes be built and permanently improved before new routes could be added (with the exception of providing connections for new county seats) (MHD 1945:30).

Passage of Minnesota's 1920 constitutional amendment presaged the requirements of the Federal Highway Act of 1921. This law provided federal highway funding and required that, in order to receive the federal highway funds, each state must designate a system of federal-aid highways representing at least 7 percent of the state's roadways. This Act confirmed the federal highways policy, which remains to this day, of providing funding to state agencies to build highways, rather than a federal agency managing road construction (Seely 1987:59-62). The federal aid, which required a match from the states, encouraged further investment by state highway departments in road building well beyond the level of funding from the federal government. Although federal funding remained steady between the early 1920s and 1930, the share of federal aid in the overall state roads budgets during this period declined from 20 percent to just over 8 percent (Seely 1987:73).

During the early 1920s, the MHD adopted standards of design and methods of road construction being promoted by the federal Bureau of Public Roads (BPR). The department was required to follow minimal federal standards on federal-aid highways, and like most state highway departments, used federal standards for state-funded roadwork as well. As stated in the following quotation, the subgrade was considered critical because, while driving surfaces might change over time, the subgrade provided the foundation.

> In the trunk highway design the department has considered that the subgrade is the foundation for future highway development. Acting on this principle an effort has been made both in location and design to secure a completed subgrade which would be adapted to the constantly increasing traffic, and upon which it would be consistent to construct in the future, the more permanent types of pavements. To this end locations have been chosen, first, to secure the shortest line possible commensurate with other governing factors, second, to provide easy grades, and third, to provide safety in operation of vehicles (MDH 1945:51).

The alignment of the roadway was given careful consideration. By shortening routes, drivers could save a considerable amount of money. For example, it was estimated that eight highway projects during 1923-1924 had improved alignments, and thereby sufficiently reduced the miles driven to save drivers statewide nearly half a million dollars (MHD 1945:51). Beyond the monetary savings, improved alignments also would



Minnesota Trunk Highways, 1934

N
W E
S

Miles
0 25 50 100

Summit Envirosolutions

Figure 16

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Plot Date: 07-31-2014
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improve safety. Highway improvement projects were intended to eliminate sharp curves, steep grades, blind intersections, narrow road surfaces and bridges, and unprotected embankments.

In addition to improved alignments, highway standards called for substantial grading, which could be obtained by excavating wide ditches and using the excavated soils to build up the grade. This construction method would result in, "raising the roadway above the general level of the surrounding ground, thereby minimizing the trouble from snow, raising the roadbed above flood stages, [and] providing ample ditches for drainage" (MDH 1945:52). Although some routes were paved with Portland cement concrete, typically the trunk highways were surfaced with gravel because this allowed for a greater number of miles to be surfaced, rather than focusing resources on paving a few high-traffic routes. This strategy continued through the first half of the 1920s, when the MDH paved fewer than 100 miles of highways per year through 1925, while surfacing over 300 miles with gravel per year (MDH 1945:59). Initially, the standard for highway drive surfaces was 18 feet wide, but this was widened to 20 feet in 1928. The improved highways generally had earthen shoulders flanking the drive surfaces.

By the mid 1920s, maintenance problems with gravel-surfaced highways were becoming apparent. With heavier traffic travelling at higher speeds, gravel highways were constantly losing their surface materials and often formed rhythmic corrugations or "chatter bumps." Dust was also a problem for surrounding landowners. Due to the cost of concrete paving, MDH began experimenting in 1925 with tars and asphaltic oils to bond gravel surfaces. Although MDH continued paving trunk highways with concrete through the 1930s, the department also began paving trunk highways with bituminous surfacing in 1930 (MDH 1945:52, 59).

In 1925 the American Association of State Highway Officials (AASHO) created the system of designating "U.S. highways" to provide consistent interstate routes that would facilitate interregional automobile travel. Although the marked auto trails had been intended to serve this role, the U.S. highway designations replaced the auto trails, often overlaid on the same routes. Generally, north-to-south highways were odd-numbered, with lowest numbers in the east and progressively higher numbers to the west. East-to-west highways were typically even-numbered, with the lowest numbers in the north and higher numbers toward the south. Major north–south routes have numbers ending in '1' while major east–west routes have numbers ending in '0'. (U.S. 2 was so designated to avoid a U.S. 0.) The north-south routes of considerable length but secondary importance were given numbers ending in 5" (Weingroff 1997). In Minnesota, the north-south routes ending in "1" are: U.S. 61 in the eastern part of the state and U.S. 71 (formerly known as Jefferson Highway) in the central part, and U.S. 81, just over the state line in North and South Dakota, connects Grand Forks, Fargo, and Sioux Falls.

When the U.S. routes were approved in 1926, U.S. highway markers were posted in Minnesota. The new U.S. routes were treated as a separate system from the already existing constitutional routes by MHD. Like with the auto trails, however, Minnesota's trunk highway system overlapped with the U.S. highways. For example, TH 75 was

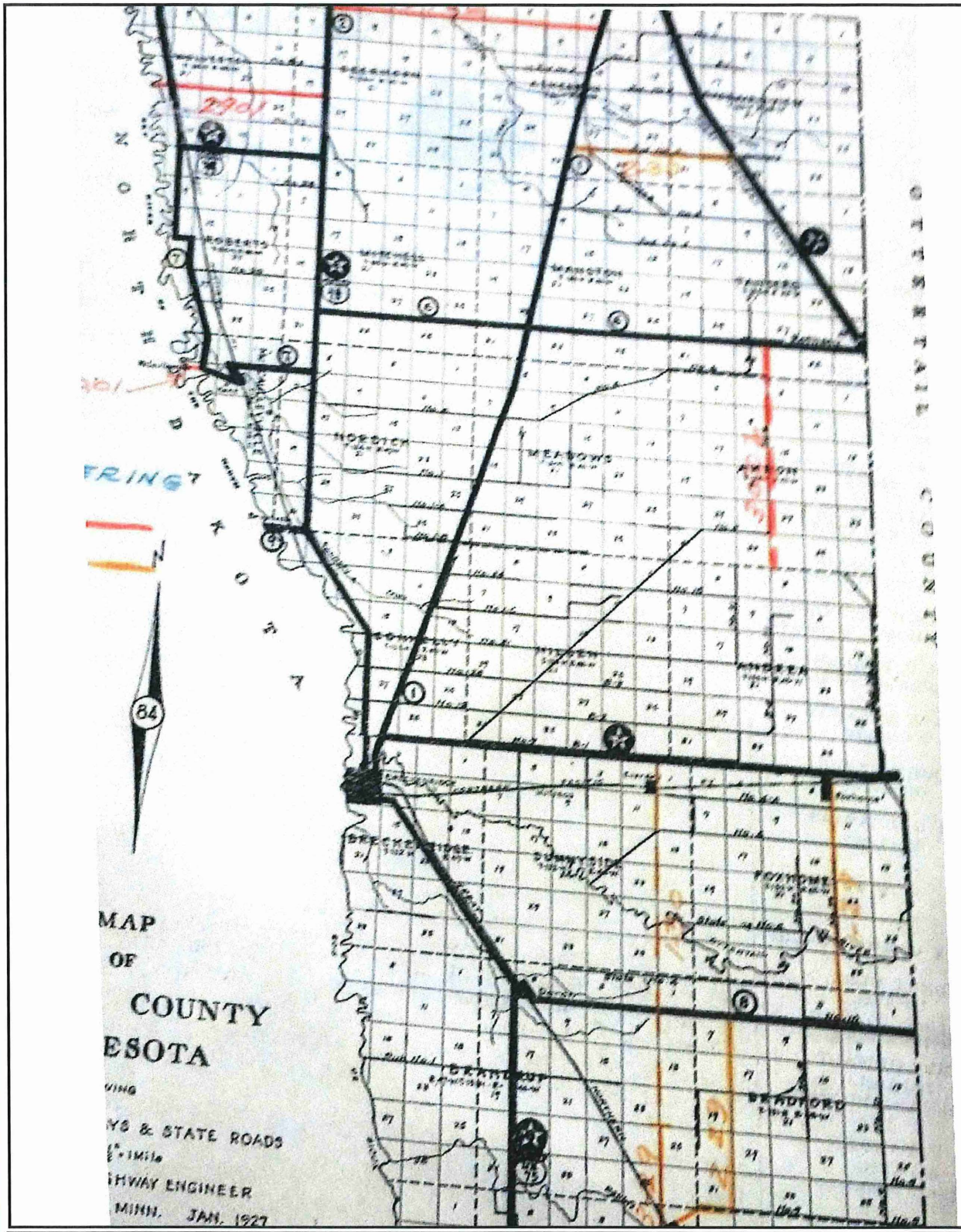
originally designated as Route 6 in 1920, largely following the King of Trails auto trail, and was designated U.S. 75 in 1926.

Between 1929 and 1932, MHD undertook a building campaign to increase the percentage of trunk highways that were permanently improved. Although demand for additional trunk highway routes grew during the 1920s as more and more people owned motor vehicles, this demand could not be met until the existing system was 75 percent improved. A legislative study in 1929 determined that only about 43 percent of the 6,735 trunk highway miles could be considered permanently improved. The miles of trunk highways that were graveled and paved each year increased from 407 miles in 1929, to 892 in 1930, to 1,048 in 1931, and then 1,665 in 1932. At the end of 1932, the Commissioner of Highways reported that 75 percent of the trunk highway mileage had been permanently improved, representing 5,093 miles compared to 2,797 miles in 1929 (MHD 1945:31-32, 59). Because the Depression had caused state revenues to drop sharply and the funding previously approved had been spent, the number of miles graveled and paved in 1933 dropped to 491 miles. The mileage of trunk highways improved increased in subsequent years due to the availability of federal relief funding to supplement the shortfall in funding at the state and local levels.

Development and Construction of Trunk Highway 75

TH 75 was initially known as Route 6 (one of the "constitutional routes" named in the 1920 amendment to the state constitution). When AASHO and the BPR developed the U.S. Highways naming system in the mid 1920s, Route 6 was designated U.S. 75. Route 6/U.S. 75 was constructed with a raised grade and ditches and was gravel surfaced through a series of projects funded by federal and state monies during 1919 to1927. In Wilkin County, construction of Route 6/U.S. 75 was completed during 1921 through 1926 (MHD 1919-1950). At that time, the Route 6/U.S. 75 was on a different alignment between Brushvale and Wolverton than the current TH 75. During the 1920s, the highway ran straight north of Brushvale to a point east of Wolverton, then ran west into Wolverton, and then north again (Wilkin County Highway Engineer 1927) (Figure 17). During 1931-1932, the segment of Route 6/U.S. 75 between Brushvale and Wolverton was realigned to run on a more direct, diagonal route, corresponding with the current alignment of the highway (Figure 18). This more direct alignment reduced the highway distance between Brushvale and Wolverton from approximately 17 to 13 miles. The new alignment was constructed with a raised grade and ditches and was gravel surfaced during 1932 and included new bridges, culverts and guard rails. Segments from Brushvale to Kent and Kent to Wolverton were paved and had shoulders added in 1937 and 1941-1942, respectively (MHD 1919-1950).

In addition to the segment between Brushvale and Wolverton, other segments of TH 75 have been rebuilt on completely new alignments. For example, between current TH 200 and U.S. 2, Route 6/U.S. 75 originally ran east to Ada, then north to Crookston but was rerouted along old *MN 81* in the mid-1950s along a more direct route (http://www.steve-riner.com/mnhighways/r51-75.htm#75). Comparison of a 1934 trunk highways map with the current route of TH 75 indicates that numerous other segments of the 1920s route have been realigned. Particularly in the southern Minnesota portion, Route 6/U.S. 75 had



Wilkin County Highways, 1927

N
W E
S

0 2.5 5 10 Miles

Summit Envirosolutions

Figure 17

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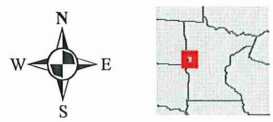
Plot Date: 07-31-2014
Arc Operator: SJN
Reviewed by: AS

Wilkin County Highways, 1934



Miles

0 2.5 5 10

Summit Envirosolutions

Figure 18

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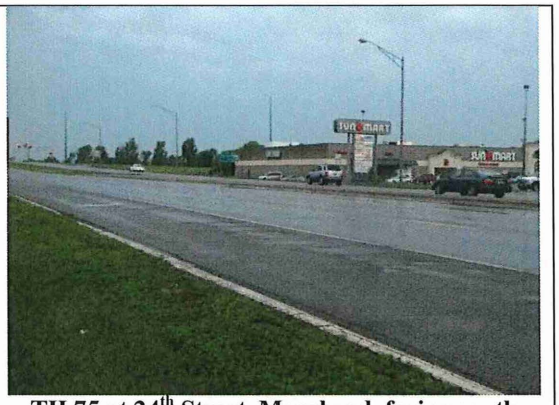
numerous 90-degree turns as the highway followed previous roadways. Those sharp turns were realigned to accommodate higher speeds during the post-World War II era. Realigned segments include the following:

- vicinity of Dumont (Figure 19)
- north of Canby
- north of Madison
- vicinity Ivanhoe
- south of Lake Benton
- south of Pipestone (Figure 20)

In addition, urban segments of TH 75 have been rebuilt in Breckenridge, Moorhead, and Crookston. In Breckenridge near TH 210 and in south Moorhead, the highway was expanded to four-lane divided roadway. In Crookston, the highway approaches the city from the south on a more curvilinear alignment than historically, and within the downtown is split into a one-way pair on Broadway and Main Street.

TH 75 north of Breckenridge, facing south



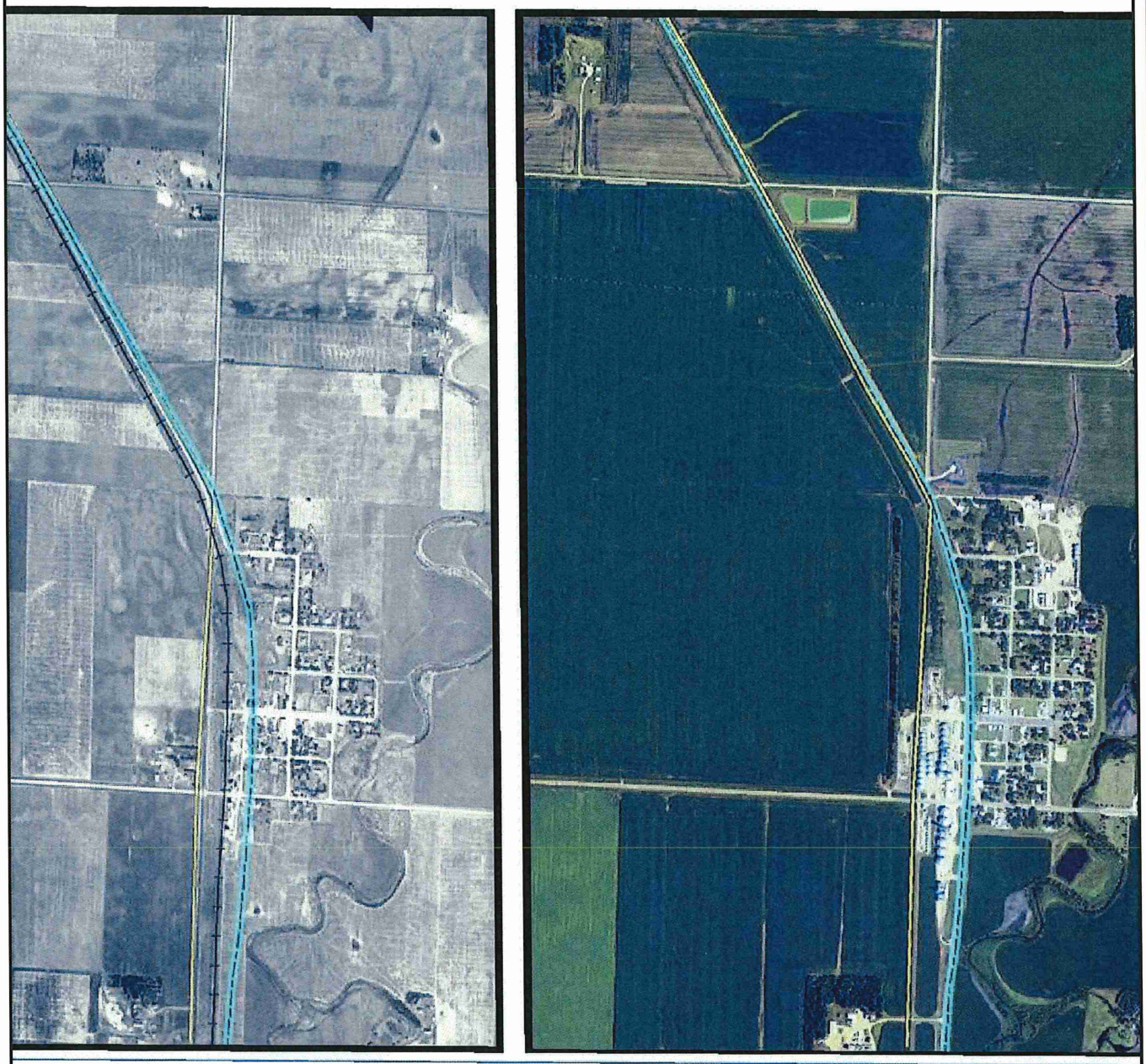
TH 75 at 24th Street, Moorhead, facing south

5.3 EVALUATION OF ELIGIBILITY

Previous Studies

Although no statewide historic contexts exist for highways in Minnesota prior to World War II, the statewide railroads study (Schmidt et al. 2007), the postwar (1955-1970) highway context (Mead & Hunt 2013) and several studies of historic highways in other states, including New Jersey (KSK 2011), Iowa (Ingalls 2009), and Colorado (ACRE 2002; Autobee and Dobson-Brown 2003) offered useful contexts and frameworks.

Because highways are linear, transportation resources, their potential significance is similar to railroads, and some aspects of the Minnesota railroads study are applicable to highway evaluations (Schmidt et al. 2007). This document introduced the concept of railroad corridor historic district. Although this concept is specific to railroads, it provides a framework for understanding linear property types, the elements that contribute to them, and requirements for historic integrity. The eligibility requirements from the railroads document were used as a starting point for a historic roads evaluation



Legend

- Trunk Highway 75 (current alignment)
- Trunk Highway 75 (1939 alignment)
- Chicago, Rock Island & Pacific RY (1939)

N
W E
S

Miles
0 0.125 0.25 0.5

TH 75 Vicinity of Dumont, 1939 and 2012

Summit Envirosolutions

Figure 19

File: FigX_SiteLocation
Summit Proj. No.: 1727-0042
Plot Date: 07-31-2014
Arc Operator: SJN
Reviewed by: AS

Legend

- Trunk Highway 75 (current alignment)
- Trunk Highway 75 (1939 alignment)
- Chicago, Rock Island & Pacific RY (1939)

N
W E
S

Miles
0 0.5 1 2

TH 75 South of Pipestone, 1939 and 2012

Summit Envirosolutions

Figure 20

File: FigX_SiteLocation
Summit Proj. No.: 1727-0042
Plot Date: 07-31-2014
Arc Operator: SJN
Reviewed by: AS

framework because both address linear transportation systems. In order to understand the historic significance of a railroad corridor, it must be established what geographic areas the railroad was connecting and how that connection influenced the development of those areas. This concept can be applied to highways, as well. Highways were important to every town they passed through, just like every railroad line was important to the towns it passed through. However, if the corridor is considered within the broader transportation network (railroad or automotive), its significance within that network can be established. Was a highway connecting major population centers, resource procurement areas, processing and manufacturing centers, or tourist destinations? If so, did establishment or improvement of the highway have a significant impact on the development and growth of the areas it served? Did the highway alter transportation patterns in a significant way?

The historic context in the document *Minnesota Bridges1955-1970* (Mead & Hunt 2013) focuses on bridges during the postwar era, and also provides evaluations of several trunk highways. Evaluations were conducted for six trunk highway routes that were upgraded to expressway standards and are significant in the area of transportation during the postwar period (TH 75 is not one of them). A road should be evaluated within the context of the broader transportation network, and the road's features, termini, and integrity should be considered. It also notes that individual structures, such as bridges, are not likely to convey this significant theme unless they stand out within the larger transportation network.

The New Jersey study includes development of historic contexts for the four main road building eras in the state, and establishment of significance criteria and integrity thresholds for each of the four contexts. Of those contexts, the most relevant to the TH 75 evaluation is the Highway Era (1891-1946). Although the context is specific to New Jersey, the national trends identified in the report could be applied to Minnesota, and many of the statewide trends are similar to trends in Minnesota. The New Jersey significance criteria for the Highway Era note that, while many routes were planned and developed during this era, the physical results and development patterns resulting from those roadways should be considered. The criteria state that for a roadway to meet NRHP Criterion A, it must demonstrate statewide, regional, or interregional importance; local importance does not connote significance (KSK 2011:93).

Although the primary consideration is for new routes planned on new alignments, consideration will be given to routes that incorporated existing roadways as well as new alignment if the roadway:

- is an early example of controlled access design;
- was designed with aesthetic/landscaping treatments;
- is associated with new types of major destinations; or
- demonstrated an important contribution to national defense.

For assessing integrity for roadways, the New Jersey study ranked Location and Association as aspects of integrity with high importance; Design, Materials, and Setting as medium importance; and Workmanship and Feeling as low importance. In other words, a historic roadway must retain its Location and Association from its period of

significance, but some changes to Design, Materials, or Setting are acceptable. Changes to Workmanship or Feeling are generally acceptable.

A study regarding historic highways in Iowa was completed in 2009 (Ingalls 2009). Although the study offers detailed historic contexts regarding road construction in Iowa during the nineteenth and twentieth centuries, it is of limited use for the current Phase II evaluation for several reasons. The Iowa study provides guidelines for Phase I survey of *potential* NRHP eligibility for historic highways, and therefore, the guidance is general and does not define specific eligibility requirements. In addition, the study focuses on highway cutoff segments, whereas the current Phase II evaluation addresses TH 75 as a whole corridor.

A study of Colorado's state roads and highways was prepared in 2002 and a related MPDF was prepared in 2003 (ACRE 2002; Autobee and Dobson-Brown 2003). The historic contexts generally are chronological, with the exception of a separate engineering context. State roads and highways in Colorado are divided into three property types, and TH 75 would be considered an Engineered Highway. To be eligible, an engineered highway must have been an early or prominent project; associated with a significant event; associated with a federal relief program; or exemplified a period and method of construction or an engineering achievement.

Regarding integrity, Location and Setting were judged to be essential for an engineered highway to be eligible, and in addition, for a highway to be eligible under Criterion C, Design, Materials, and Workmanship are critical. Although the studies do not use the term "corridor," they generally encourage highways to be evaluated as such. A highway may retain integrity as a whole even if individual elements or segments have lost integrity. Regarding period of significance, typically a highway's significance is related to its initial construction and early years of service because, during that time, the highway met the need for which it was built, and had "its most definable effects on the economy and culture of [its] service area" (ACRE 2002:10-8).

Trunk Highway 75 Evaluation

It is generally agreed in the literature that roads may meet NRHP Criterion A, but that they are unlikely to meet Criterion B or D. Although a road corridor could meet Criterion C, it is more likely that individual structures, such as bridges, will meet this criterion. Roads should be evaluated as corridors and may be eligible as historic districts encompassing all elements within the right of way. A district will extend between two termini based on the road's historic context and construction sequence. A road segment can then be evaluated as contributing or non-contributing to the larger corridor. Integrity should be assessed for the whole corridor, and if the integrity of individual elements or short segments is compromised, the whole corridor may still retain integrity.

The pre-cursor to TH 75 was the King of Trails auto trail, which was established in 1917 and utilized existing roads. The auto trail was short lived, however, because State Route 6 was established by the 1920 Minnesota state constitutional amendment, which mandated a state highway to be established that would run from Iowa to Manitoba and

connect a series of towns near the state's western border. Renamed U.S. 75 in 1926, virtually the entire route had been improved during the early to mid 1920s, following a dedicated alignment and being improved according to modern design standards, including a raised grade flanked by ditches, a surfaced roadbed (gravel or concrete paved) flanked by graveled shoulders, and modern (i.e. concrete) bridges and culverts at water features. Because TH 75 was improved to state and federal standards beginning in 1920 and was completed by 1927, the highway corridor has a significant association with the development of Minnesota's trunk highway system during the 1920s. It is an early example of using state funds to improve a large stretch of highway (beyond local or county jurisdiction) to the standards being promoted by the BPR, AASHO, and MHD. These improvements to Route 6/U.S. 75 rank among the early highway improvement efforts in Minnesota, and as late as 1929, the approximately 400 miles of Route 6/U.S. 75 represented roughly 15 percent of the permanently improved highway mileage in Minnesota. That the Route 6/U.S. 75 improvements were completed by 1927, indicates that this route was intended as a through-route and that it was given priority for funding and construction. For these reasons, the original Route6/U.S. 75 corridor is a significant early highway corridor during the development of the trunk highway system in the 1920s and meets NRHP Criterion A.

In addition to running the length of the state of Minnesota, the highway was also part of the national U.S. 75 that ran from Manitoba to Texas. With a number ending in a "5," U.S. 75 would have been considered a route of substantial length but secondary importance within the U.S. highways system. Although U.S. 75 connected the Midwestern cities of Omaha, Topeka, and Tulsa and terminated in Dallas, the northern portion of the highway was overshadowed by U.S. 81 (and later I-29), which connected Sioux Falls and Fargo with U.S. 75 in Sioux City. From an interstate perspective, U.S. 81 appears to be more significant in the highway network than the northern portion of U.S. 75.

In Minnesota, U.S. 75 connected county seats and small towns in the southwest corner of the state and the Red River Valley. In doing so, the highway facilitated automotive travel within and through the agricultural regions of western Minnesota. U.S. 75 connected with U.S. highways 2, 10, 12, and 14, which connected with Duluth, the Twin Cities, and Rochester. U.S. 75, however, did not connect directly with any of those cities; rather, it was part of the overall highway network. Therefore, although U.S. 75 ran through a resource procurement area, the highway did not make a direct connection to a major processing or shipping terminal. Furthermore, improvements to the highway did not spur new industries or growth in population in western Minnesota. Following World War II, highway planners focused on development of the interstate highways system (I-90, I-94, and I-29) and on expanding heavily travelled routes to expressway standards (four-lane divided roadway, limited access, grade separations). Although segments of TH 75 were realigned to improve curves, the volume of traffic did not dictate expanding the highway. Indeed, much of western Minnesota lost population during the 1960s and 1970s. For these reasons, TH 75 does not appear to have significant associations after the 1920s.

TH 75 was not built in difficult terrain, and required no special engineering – western Minnesota is flat land with some streams but no major water features. Furthermore, the highway did not include landscape designs or other aesthetic considerations. Although TH 75 is an example of a period and type of construction (an early example of a complete highway corridor improved to modern standards) and it does not appear to have incorporated those design elements in new or innovative ways. For these reasons, the highway is not significant for its engineering or design and does not meet NRHP Criterion C.

The significance of Route 6/U.S. 75 is related to its construction during the 1920s but does not extend beyond the initial improvements. Therefore, its period of significance is 1920 to 1927.

Although Route 6/U.S. 75 has significant associations, there are historic integrity issues, particularly within the Project APE. During 1932, the segment of highway between Brushvale and Wolverton was realigned on a more direct route, rather than straight north from Brushvale, then turning 90 degrees west to Wolverton (see Figures 17 and 18). Therefore, the segment of the current TH 75 within the Project APE is associated with the realignment and construction in 1932 and not with the significant period of 1920-1927. Furthermore, the reconstruction of this segment during 1932 is not associated with the established historic context Federal Relief Construction in Minnesota, which has a period of significance of 1933 to 1944. Because the segment within the Project APE was rebuilt on a different alignment with new materials, this segment has lost integrity of location, design, materials, workmanship, feeling, and association. This segment would not contribute to a Route 6/U.S. 75 highway corridor.

Other segments of TH 75 in addition to the Brushvale-Wolverton segment have been realigned since 1927. The segment between Ada and Crookston was realigned to follow a much more direct route, bypassing Ada altogether. As noted above, numerous segments of TH 75 south of Canby have been realigned. In addition, segments of TH 75 in Breckenridge and Moorhead have been reconstructed as four-lane divided highway. The realigned and rebuilt segments of TH 75 most likely would be non-contributing segments to the highway corridor historic district-. Additional analysis of the highway corridor would be necessary to determine which segments are contributing and non-contributing and whether the corridor as a whole has lost integrity due to the number of non-contributing segments.

6.0 SUMMARY OF RECOMMENDATIONS

One archaeological site and nine architecture-history properties were surveyed and inventoried during the course of the Phase I investigations for the Kent Bypass project, and one property was evaluated at the Phase II level.

6.1 ARCHAEOLOGY

The Phase I archaeological survey for the Kent Bypass project consisted of systematic pedestrian survey, shovel testing, and augering in those portions of the APE considered to have moderate to high potential for containing archaeological resources. During the survey, one precontact site, 21WL0055, was identified.

Site 21WL0055 cannot be associated with a specific historic context, has extremely low artifact density, is in a disturbed agricultural context, and did not exhibit evidence for potential features below the plowzone. This site is therefore recommended as not eligible for listing in the NRHP, and no further archaeological work is recommended for this site prior to or during project construction.

The remaining portions of the APE consist of locations that were negative for archaeological resources; existing roadways and/or slopes and ditches associated with the roadway and containing buried utility lines, all of which have been substantially disturbed and would be unlikely to contain intact archaeological resources. No further archaeological work is recommended for these remaining portions of the APE prior to or during construction.

6.2 ARCHITECTURE-HISTORY

The Phase I architecture-history survey included five farmsteads, one house, one bridge, a railroad corridor, and a highway corridor. One property, the TH 75 highway corridor, had potential to be eligible for listing in the NRHP and, therefore, was evaluated at the Phase II level. As a result of the Phase II evaluation, the TH 75 corridor is recommended as not eligible for listing in the NRHP.

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APPENDIX A: LIST OF PROJECT PERSONNEL

Project Manager and Principal Investigator, Architecture-History	Andrew J. Schmidt, M.A.
Principal Investigator, Archaeology	Michael Justin, M.A., RPA
Project Archaeologists	Laurie S. H. Ollila, M.A., RPA Forest Seaberg-Wood, B.A. Liesl Weber Darnell, B.A.
Project Architectural Historian	Sara J. Nelson, B.A.

APPLICATION FOR MINNESOTA
ANNUAL ARCHAEOLOGICAL RECONNAISSANCE SURVEY LICENSE

This license only applies to reconnaissance (Phase I) surveys conducted under Minnesota Statutes 138.31-.42 during calendar year 2013. Separate licenses must be obtained for site evaluation (Phase II) surveys, for major site investigations (Phase III), for burial site authentications under Minnesota statutes 307.08, and for survey work that will continue into another calendar year. Only the below listed individual is licensed as a Principal Investigator, not the institution/agency/company or others who work for that entity. The licensed individual is required to comply with all the conditions attached to this license form. Permission to enter land for the purposes of archaeological investigation must be obtained from the landowner or land manager.

Name: Michael Justin

Institution/Agency/Company Affiliation: Summit Envirosolutions

Title/Position: Senior Archaeologist

Address: 1217 Bandana Boulevard North, St Paul, MN 55108

Work Phone: 651-230-3479 E-Mail: mjustin@summite.com

Name of Advanced Degree Institution: University of Wisconsin-Milwaukee Year: 1983

Name of Department: Anthropology Degree: MA ✓MS PhD

Purpose: (check all that may apply)
CRM ✓ Academic Research ___ Institutional Field School ___

Type of Land: (check all that may apply)
State Owned ✓ County Owned ✓ Township/City Owned ✓
Other non-federal public ___ List: _____

MHS Repository Agreement # 589 Other Approved Curation Facility: _____

Previous License: Year 2012 Type annual phase I and phase II Number 12-009

Signed (applicant): [signature] Date: 02/19/2013

Required Attachments: *Curriculum Vita* ___ and Documentation of Appropriate Experience ___ for previously unlicensed individuals.

Submit one copy of this form and attachments to:
Office of the State Archaeologist, Ft. Snelling History Center, St. Paul, MN 55111
612-725-2411 612-725-2729 FAX 612-725-2427 email: mn.osa@state.mn.us

Minnesota Historical Society Approval: [signature] Date: 2-20-13
State Archaeologist Approval: [signature] Date: 2/19/13

License Number: 13-032

Form Date: 11/6/12