

Norfolk - Wisner

Project Number: S-275-6(1052)

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DRAFT ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to 42 USC 4332(2)(c) and 23 CFR 771, 772 & 774
to the US Department of Transportation, Federal Highway Administration
by the Nebraska Department of Transportation

Project Sponsor signature indicates verification that the content of this document and the scope of the project are accurate. FHWA signature gives approval to distribute this information for public and agency review and comment. Such approval does not commit to approve any future grant requests to fund the Preferred Alternative.


_____ for



11/30/2023
_____ Date


_____ for
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DEPARTMENT OF TRANSPORTATION

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Q Cumulative Impacts

R Agency Involvement

S Public and Stakeholder Involvement

Abbreviations

3R	Restoration, Rehabilitation, and Resurfacing
AADT	annual average daily traffic
ACM	asbestos containing material
AJD	Approved Jurisdictional Determination
APE	Area of Potential Effects
BMP	best management practice
CFR	Code of Federal Regulations
CIA	community impact assessment
CWA	Clean Water Act of 1972
dBA	A-weighted decibel
DHHS	Department of Health and Human Services
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	US Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act of 1981
FR	Federal Register
HPM	Highway Project Manager
HSPP	Highway Salvage Paleontology Program
I-	Interstate
LB	Legislative Bill
LWCF	Land and Water Conservation Fund
MM	mile marker
mph	miles per hour
MSAT	Mobile Source Air Toxics
N-	Nebraska Highway
NAC	Noise Abatement Criteria
NDEE	Nebraska Department of Environment and Energy
NDOT	Nebraska Department of Transportation
NeDNR	Nebraska Department of Natural Resources
NEPA	National Environmental Policy Act of 1969

NESHAP	National Emissions Standards for Hazardous Air Pollutants
NeSHPO	Nebraska State Historic Preservation Office
NFIP	National Flood Insurance Program
NGPC	Nebraska Game and Parks Commission
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PEM	palustrine emergent
PFO	palustrine forested
PM	Project Manager
PSS	palustrine scrub-shrub
RCRA	Resource Conservation and Recovery Act of 1976
ROW	right-of-way
SVE	soil vapor extraction
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TMDL	total maximum daily load
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
US-	US Highway
USACE	US Army Corps of Engineers
USC	United States Code
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UWAP	Unexpected Waste Action Plan
VMT	vehicle miles traveled
WMA	Wildlife Management Area

Chapter 1 Project Purpose and Need

1.1 Introduction

The Nebraska Department of Transportation (NDOT) is proposing to expand existing US Highway 275 (US-275) from a two-lane highway to a four-lane expressway¹ between Nebraska Highway 57 (N-57) and the city of Wisner, Nebraska, also known as the Norfolk - Wisner project (the Project), shown in Figure 1-1. This segment of US-275 is one of three remaining segments of US-275 that are still two lanes between Norfolk and Omaha, Nebraska. The expressway would be developed as a federal-aid project with the Federal Highway Administration (FHWA) as the lead federal agency. NDOT is the Project sponsor.

As a federal undertaking, the proposed action, or Project, must satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA)² (42 United States Code [USC] 4321 et seq.). To comply with NEPA, this Draft Environmental Assessment (EA) was prepared and is consistent with requirements implemented by the following regulations and guidelines:

- 23 Code of Federal Regulations (CFR) 771
- 23 CFR 772
- 23 CFR 774
- FHWA's Technical Advisory T-6640.8a

The purpose of this EA is to identify and evaluate the potential adverse and beneficial effects, or impacts, that the Project would have on the environment and to provide an opportunity for public and resource agency input in the decision-making process. FHWA considers the context (the relationship between a proposed project and the local environment) and the intensity of impacts to determine the significance of impacts.

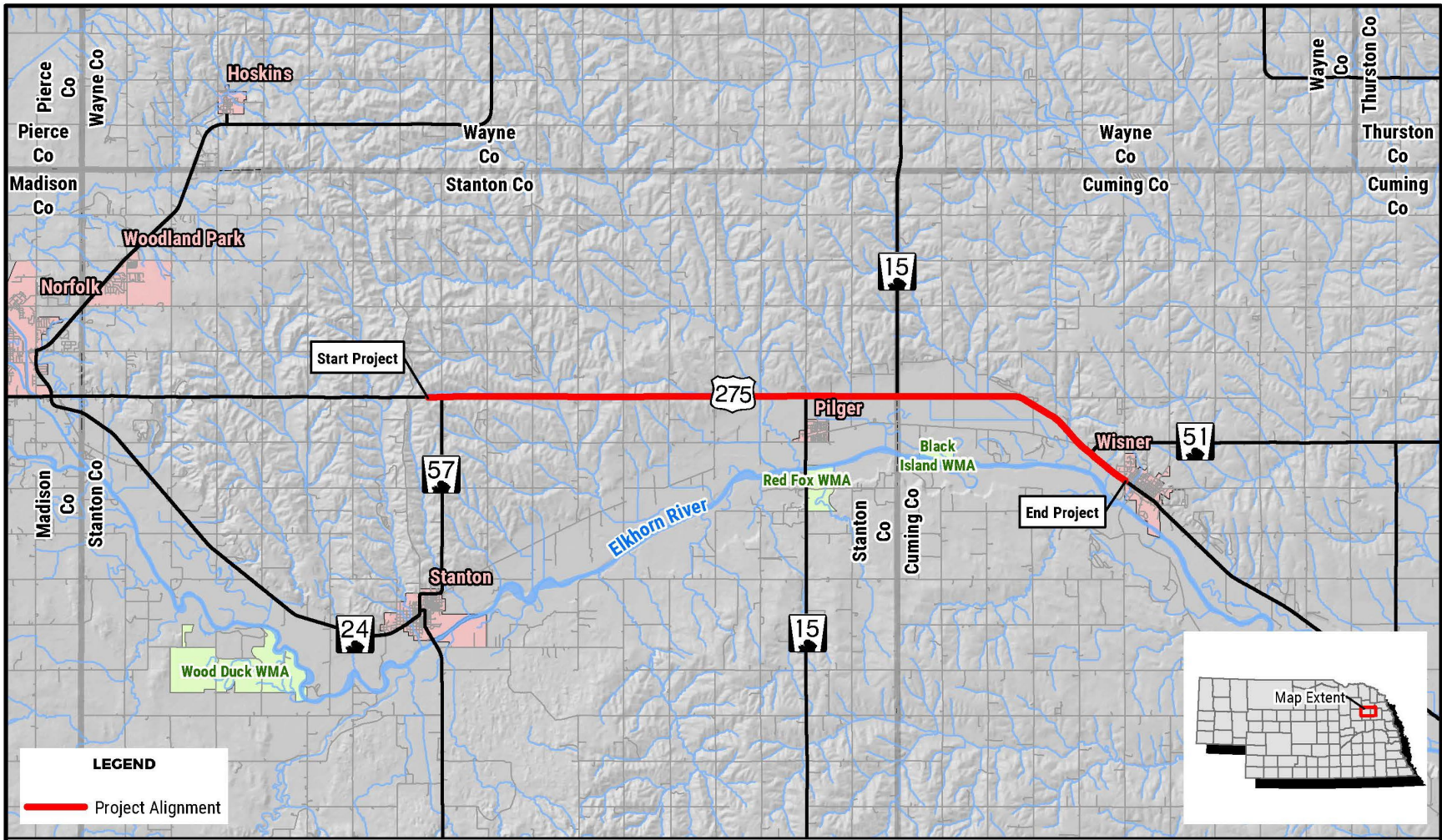
If, based on the EA, FHWA determines that no significant impacts have been identified or that significant impacts can be minimized or mitigated, FHWA would prepare a Finding of No Significant Impact (FONSI). If significant environmental impacts are identified and cannot be minimized or mitigated, NEPA requires the preparation of a more detailed Environmental Impact Statement (EIS).

This chapter discusses the purpose of and need for the Project, and identifies the Project location and study area. Subsequent chapters address the alternatives considered (Chapter 2); the affected environment and potential environmental consequences (Chapter 3); agency coordination and public involvement efforts (Chapter 4); and mitigation measures (Chapter 5).

¹ An expressway is a divided highway for through traffic, with full or partial control of access with interchanges at major intersections and at-grade intersections at designated minor public road intersections.

² NEPA (42 United States Code [USC] 4321–4347) is the foundation of environmental policy making in the United States. The NEPA process includes an environmental review early in the planning for proposed actions. The process is intended to help public officials make decisions based on an understanding of environmental consequences and take actions that protect, restore, and enhance the environment.

32 Figure 1-1. Project Location



33

34 1.2 Project Purpose

35 The primary purposes of the Project are as follows:

- 36 • Fulfill legislative intent to continue development of the expressway system identified in the
37 *1988 Nebraska Highway Needs Study*.
- 38 • Improve regional connectivity for vehicles in northeast Nebraska, including commercial
39 vehicles, by providing important expressway connections with N-57, Nebraska Highway 15
40 (N-15), and Nebraska Highway 51 (N-51), while maintaining convenient highway access for
41 communities in the area.
- 42 • Maximize use of existing transportation infrastructure, including connecting highways, and
43 existing right-of-way (ROW); improve the condition of the existing infrastructure; and maximize
44 the cost-effectiveness of the Project.

45 These purposes will be used to evaluate the range of alternatives under NEPA. In addition to satisfying
46 the above purposes, the goals of the Project are to meet current NDOT arterial and expressway
47 standards,³ apply a 2+2 construction methodology,⁴ update highway and county road intersection
48 geometrics, and minimize traffic disruption during construction. The ability to meet these goals will be
49 used to evaluate alternatives that meet the Project purpose.

50 1.3 Project Need

51 The needs for the Project are as follows:

- 52 • Advancement of the Norfolk to Fremont expressway
- 53 • Improved connectivity in northeast Nebraska

54 1.3.1 Norfolk to Fremont Expressway

55 The Project is needed to advance the Norfolk to Fremont expressway and to address the mandate
56 from the Nebraska Legislature. In 1988, the Nebraska Legislature mandated construction of an
57 expressway system with Legislative Bill (LB) 632, stating that “The Legislature finds and declares that
58 the highways of the state are of the utmost importance to future development within the state and
59 that the following actions are necessary for such development....the development of a system of
60 expressways....” As envisioned by the Nebraska Legislature, the expressway system is intended to
61 handle large volumes of traffic at higher speeds (design speed of 70 miles per hour [mph]) with limited
62 access,⁵ which in turn limits the potential conflicts with cross traffic.

63 Also in 1988, as part of LB 1041, the Nebraska Legislature mandated that NDOT prepare a
64 comprehensive report on the needs of the state highway system. The resulting report, the *1988*
65 *Nebraska Highway Needs Study*, identified a system of 602 miles of expressway intended to
66 accomplish the following:

- 67 • Connect urban centers with a population of 15,000 or greater to the interstate system

³ Expressway standards are contained in the Board of Public Roads Classifications and Standards (Nebraska Administrative Code, Title 428)

⁴ NDOT defines 2+2 construction as designing and constructing two new lanes adjacent to an existing two-lane highway facility to create a four-lane corridor (NDOT 2022a).

⁵ NDOT’s Access Control Policy to the State Highway System identifies the number of access points allowed on expressways (NDOT 2006).

- 68 • Convey routes that have an average daily traffic of 500 or more heavy commercial vehicles
- 69 • Provide regional roadway continuity

70 As a result of this legislation and the expressway recommendations set forth in the *1988 Nebraska*
71 *Highway Needs Study*, NDOT began designing and constructing the expressway system. This system
72 includes the following major corridors in northeast Nebraska (north of Interstate 80 [I-80]):

- 73 • US-275, Norfolk to Fremont
- 74 • US-275, Fremont to Omaha
- 75 • US Highway 30 (US-30), Columbus to Fremont
- 76 • US Highway 77 (US-77), Fremont to Lincoln
- 77 • US Highway 81 (US-81), Norfolk to York/I-80

78 The need to complete the expressway system was reiterated in 2011 when the Nebraska Legislature
79 passed LB 84, which established the State Highway Capital Improvement Fund and allocated
80 0.25 percent of sales tax revenue to this fund. Additionally, LB 84 mandated that at least 25 percent of
81 the money credited to the fund each fiscal year shall be used for construction of the expressway
82 system and federally designated high-priority corridors.

83 Today, more than 30 years since LB 632 became law, vital segments of the expressway system
84 remain incomplete. Approximately 102 of the plan's original 602 miles are unfinished. The expressway
85 segments that are completed, uncompleted, and under construction in eastern Nebraska are shown in
86 Figure 1-2.

87 Segments of the US-275 expressway that have been completed to date include Norfolk to N-57 and
88 Hooper (north of Fremont) to Omaha. Additionally, the segment of US-275 between Scribner and West
89 Point (approximately 20 miles) is under construction. The proposed Project is needed to fulfill the
90 legislative intent of the expressway system identified in the *1988 Nebraska Highway Needs Study* and
91 mandated by the Nebraska Legislature in LB 632 and LB 84.

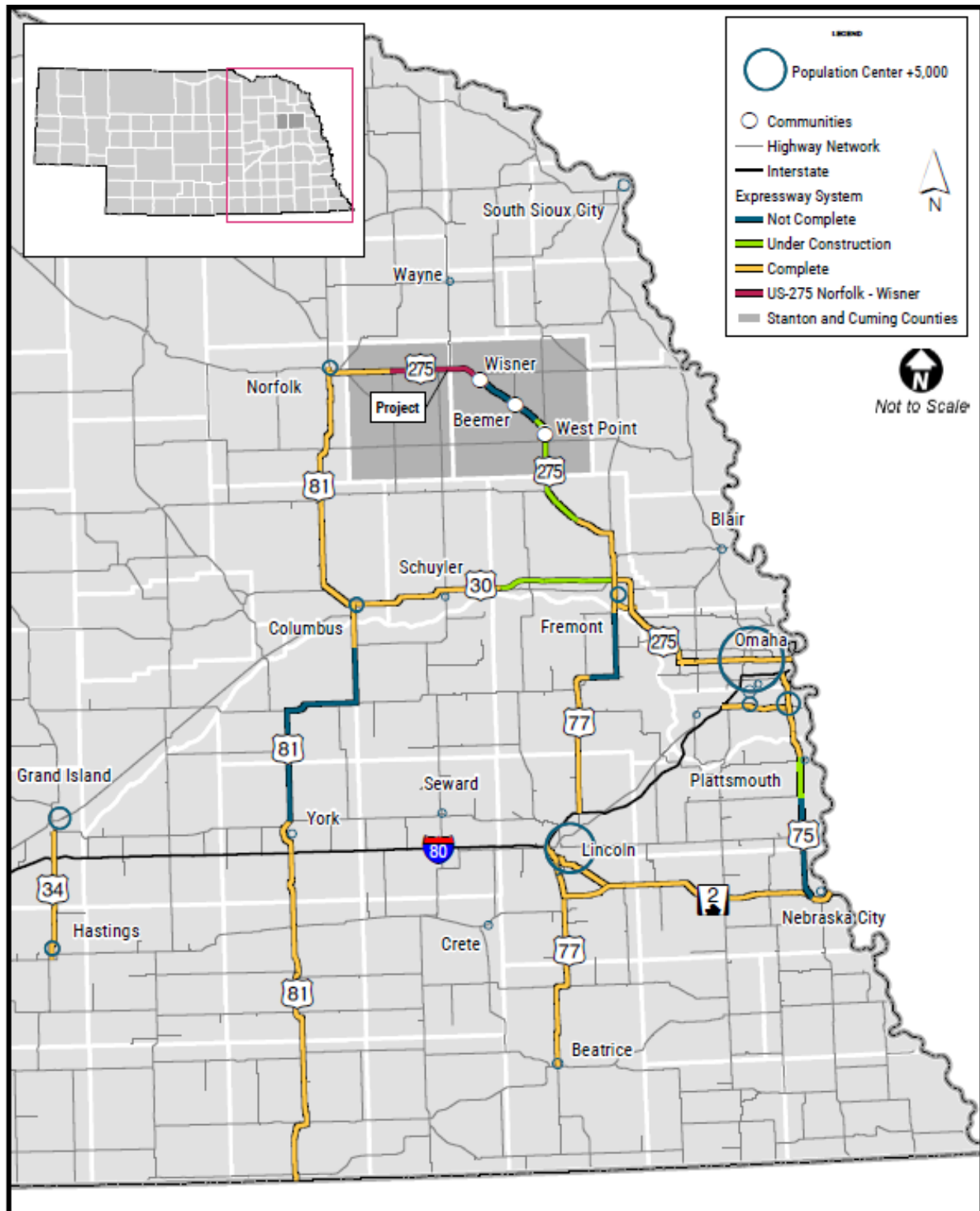
92 Construction of the Project would also address the two primary intents of the expressway system
93 through the following:

- 94 • Completing another segment of the US-275 expressway that connects Norfolk, Fremont, and
95 Omaha, which are Nebraska's 8th, 6th, and 1st largest cities, respectively, each with a
96 population of more than 15,000 people and large service and trade centers (US Census Bureau
97 2022).
- 98 • Improving an important section of highway that supports commerce and industry and carries
99 high volumes of commercial traffic (projected to increase to more than 1,000 heavy
100 commercial vehicles per day by the year 2045). Table 1-1 shows the current and future traffic
101 volumes on US-275 from N-57 to Wisner along with the current and projected number of
102 heavy commercial vehicles. See Appendix A for additional details.

103

104

Figure 1-2. Nebraska Expressway System



105

106 **Table 1-1. Current and Projected Traffic Volumes on US-275 from N-57 to Wisner**

US-275 Roadway Segment	2022 AADT ¹	2022 Percent HCV ²	2022 HCV	2045 No Build AADT	2045 Percent HCV ³	2045 HCV
N-57 to N-15 West Jct	4,350	19	820	5,780	19	1,110
N-15 West Jct to N-15 East Jct	5,310	19	1,000	7,060	19	1,360
N-15 East Jct to N-51	5,080	16	800	6,830	17	1,160
N-51 to 18th Street in Wisner	5,650	16	890	7,590	17	1,290

107 ¹ AADT = annual average daily traffic, vehicles per day.108 ² HCV = heavy commercial vehicles.109 ³ Percent HCV equals HCV divided by No Build AADT.110 **1.3.2 Regional Connectivity**

111 The Project is needed to improve connectivity within the region. US-275 is a major transportation
 112 corridor in northeast Nebraska, as shown in Figure 1-3, and serves high volumes of commercial and
 113 non-commercial traffic when compared to other highways in the region. Upgrading the Norfolk to
 114 Wisner segment would connect three rural highways to the improved expressway system:

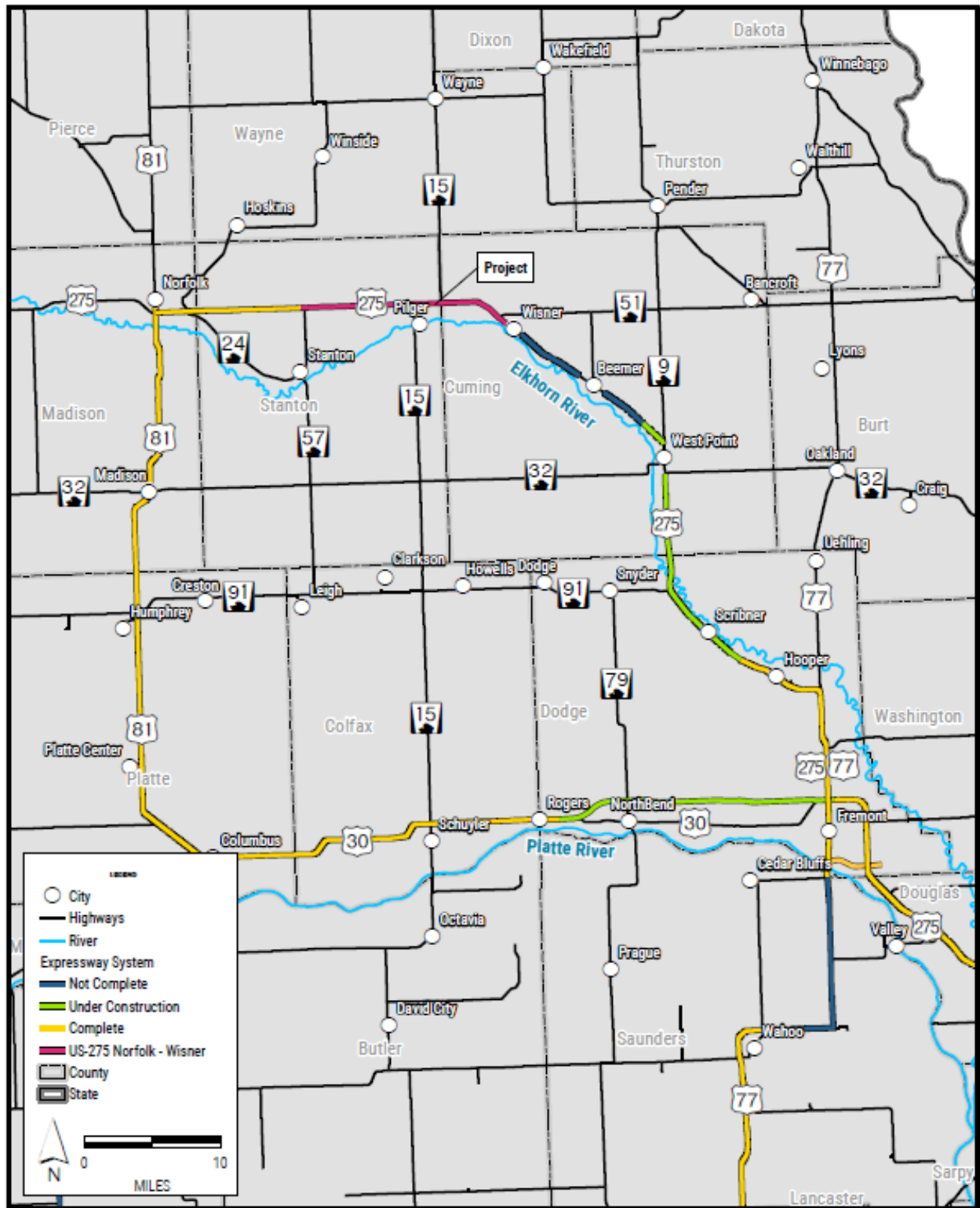
- 115 • N-57 is a north-south highway approximately 22 miles long that connects Nebraska
 116 Highway 91, northeast of Leigh, Nebraska, with US-275.
- 117 • N-15 is a north-south highway approximately 210 miles long that spans Nebraska from
 118 Kansas to South Dakota. N-15 has two junctions in the Project area: just north of Pilger,
 119 Nebraska, and approximately 6 miles west of Wisner.
- 120 • N-51 is an east-west highway beginning just north of Wisner at US-275 and extending
 121 approximately 37 miles east to Decatur, Nebraska.

122 US-275 is an important part of the regional roadway network in northeast Nebraska and has been
 123 designated as part of Nebraska's Priority Commercial System⁶ that serves commercial and industrial
 124 traffic across Nebraska. Additionally, US-275 serves one of Nebraska's key freight corridors and is
 125 designated as a Critical Rural Freight Corridor in the Nebraska Freight Plan. Completing the four-lane
 126 expressway between Norfolk and Wisner would provide communities in northeast Nebraska an
 127 expanded and free-flowing four-lane connection to Norfolk, one of the largest service and trade
 128 centers in Nebraska, as well as allow for increased opportunities to pass slow-moving and heavy
 129 commercial vehicles.

130

⁶ The Priority Commercial System, initiated in 1988 by NDOT, provides a continuous network of routes that are designed to carry higher traffic volumes, especially larger volumes of commercial vehicles.

131 **Figure 1-3. Regional Roadway Network**



132

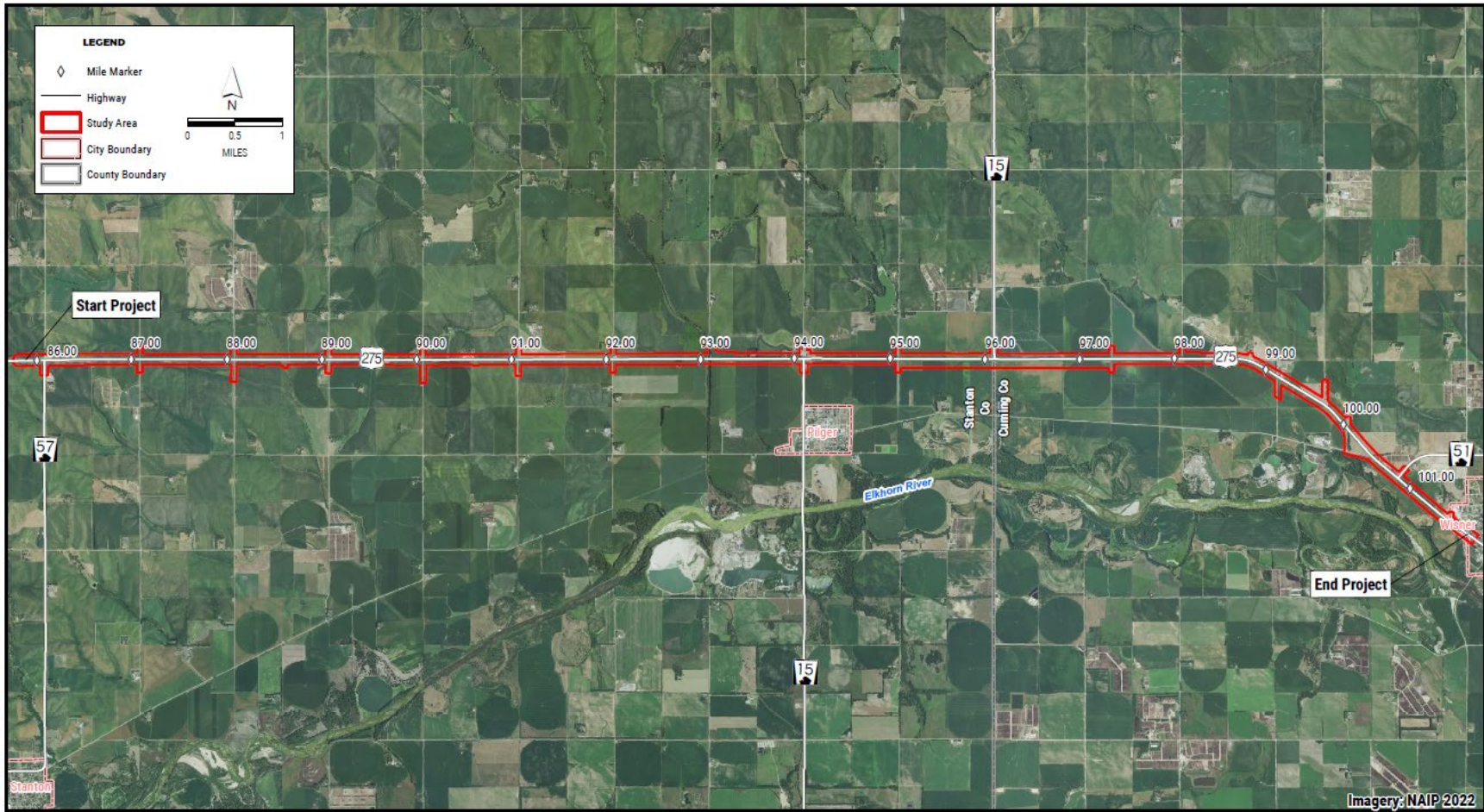
1.4 Project Location and Study Area

134 The Project is located along the US-275 corridor between N-57, where the existing divided, rural, four-
135 lane expressway ends, and Wisner, where it would tie into the existing US-275 undivided, urban, four-
136 lane roadway, in Stanton and Cuming Counties, Nebraska. The project limits, or logical termini, for the
137 Project are based on connecting the existing four-lane segment of US-275 at the N-57 intersection to
138 the four-lane segment of US-275 in Wisner. Expanding this segment to four lanes would connect two
139 existing four-lane segments of US-275 while also connecting two communities (Norfolk and Wisner)
140 and three state highways (N-57, N-15, and N-51) to the expressway system. Because the Project
141 would be between two existing four-lane segments, it would be independent from other segments of
142 US-275 not yet completed.

143 The general study area for the proposed Project (Project Study Area), shown in Figure 1-4, is large
144 enough to identify and address environmental concerns while not restricting the alternatives to be
145 considered. The Project Study Area generally extends approximately 300 feet on either side of US-275
146 and includes 400-foot-wide corridors extending approximately 700 feet along N-15 at two locations
147 (south toward Pilger and north toward Wayne along the Stanton County and Cuming County line) and
148 N-51 northwest of Wisner, as well as a 300-foot-wide corridor extending approximately 700 feet along
149 intersecting county roads. Resource-specific study areas differing from the Project Study Area are
150 defined, as needed, in their respective sections in Chapter 3: Affected Environment and Environmental
151 Impacts. The Project Study Area is typical of rural irrigated agricultural land use and includes the Elkhorn
152 River floodplain, rural residences and farmsteads, and a small portion of Wisner at the east end of the
153 Project.

154

155 **Figure 1-4. Project Study Area**



156

Chapter 2 Alternatives Analysis

NEPA requires the identification and review of reasonable alternatives, including the No Build Alternative. This chapter presents the range of concepts and alternatives evaluated and the screening process used in identifying the preferred alternative for the proposed action. Planning level concepts were first considered against the purpose and needs of the Project. Those concepts that best satisfied purpose and need were deemed reasonable and moved forward to be developed into alternatives.

2.1 Concept Development

The proposed action would expand US-275 from a two-lane highway to a four-lane divided expressway. Three concepts were identified to potentially meet the need to complete the Norfolk - Wisner US-275 expressway expansion.

2.1.1 No Build Concept

The No Build Concept would not improve US-275 to a four-lane expressway but instead it would remain a two-lane highway. The No Build Concept does not meet the Project purpose and need; however, it will be carried forward as an alternative to serve as a baseline for comparison of impacts of the build alternative(s).

2.1.2 Major Construction Avoidance Concept

The Major Construction Avoidance Concept would consider other strategies such as Transportation Systems Management and Travel Demand Management, or would consider alternative modes of transportation such as rideshare, transit, biking, and walking (US Department of Transportation 2010) that could be implemented to solve the identified needs of the Project. The Major Construction Avoidance Concept would not address the Project purpose to fulfill the legislative mandate for expressway construction identified in the *1988 Nebraska Highway Needs Study*. Therefore, it was eliminated from further consideration.

2.1.3 Off-Alignment Concept

The Off-Alignment Concept would construct four lanes on new alignment. US-275 is an established transportation corridor that serves an established area and population (primarily Omaha, Fremont, and Norfolk). Alternatives farther removed from the existing US-275 alignment would result in greater impacts on the natural and human environment by converting existing land uses to a major transportation corridor. These impacts include large amounts of new ROW, conversion of farmland, and potential isolation of communities on the existing corridor. Additionally, the Off-Alignment Concept would not meet the Project purpose to maximize the use of existing transportation infrastructure and maximize cost-effectiveness of the Project. Therefore, it was eliminated from further consideration.

2.1.4 2+2 Construction Concept

The 2+2 Construction Concept would construct two new lanes adjacent to the existing two-lanes of US-275 to create a four-lane corridor. This concept would meet the Project purpose and need by maximizing use of existing transportation infrastructure, including connecting highways, and existing ROW; improving the condition of the existing infrastructure; and maximizing the cost-effectiveness of the Project.

Since the 2+2 Construction Concept is the only concept that would meet the Project purpose and need, it is the only concept used to develop construction alternatives.

2.2 Alternatives Development

Five 2+2 Construction alternatives were developed based on information obtained from public input and meetings with federal and state resource agencies.

2.2.1 Widen North

The Widen North Alternative would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway north of the existing US-275, including ancillary construction such as drainage structures. A Restoration, Rehabilitation, and Resurfacing (3R) strategy would also be applied to the existing two lanes. In addition to mainline US-275 construction, the Widen North Alternative would improve two N-15 intersections with US-275, the N-51 intersection with US-275 northwest of Wisner, and various county road intersections. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices, thereby precluding the need for a detour.

2.2.2 Widen South

The Widen South Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes south of the existing lanes. All other aspects of this alternative would be as described for the Widen North Alternative.

2.2.3 On-Structure

The On-Structure Alternative would use bridges to avoid and minimize impacts on waters of the U.S. in areas where potential wetland impacts greater than 0.1 acre were identified. The 0.1-acre threshold was identified as it is the threshold for mitigation under Section 404 of the Clean Water Act (CWA) of 1972. The On-Structure Alternative could be deployed with construction of new lanes on either side of the existing lanes. The existing lanes would use the existing configuration of bridges and culverts with replacements or reconstruction as needed based on structure condition and hydraulic analysis. A preliminary review of spanning all wetlands greater than 0.1 acre for the new lanes, indicates that approximately 12 new bridges with a total length of approximately 2.5 miles would be required. New bridges are estimated to range in length from 200 feet to 6,900 feet.

2.2.4 Combined Alternative

The Combined Alternative is a combination of the Widen North and Widen South Alternatives and was developed to avoid an intermittent channel feature in the south ditch of the existing roadway. The Widen South corridor would be used for most of the project alignment except between 575th Avenue and approximately 4th Road where the lanes would shift to the Widen North Alternative corridor.

2.2.5 Widen South + Shift Alternative

The Widen South + Shift Alternative would follow the same alignment as the Widen South Alternative except between 575th Avenue in Stanton County and 2nd Road in Cuming County. The eastbound lanes would shift 150 feet to the south to avoid an intermittent channel feature in the south ditch of the existing roadway.

2.3 Alternatives Analysis and Alternatives Eliminated from Further Consideration

The alternatives were analyzed by developing a standard width corridor for each alternative based on the terrain and typical cross section of the proposed improvements (see Figure 2-1, Typical Expressway Cross Section). The analysis corridor was established as 280 feet wide west of 573rd Avenue (where there are more hills) and 240 feet wide east of 573rd Avenue (where the terrain is flatter). The wider corridor allows for higher fills and deeper cuts along the new lanes in the hillier section at the west end of the Project. Each alternative also considered possible improvements needed for side road connections to US-275 and bridge and culvert work on both sides of US-275. The side road extensions included 200-foot-wide corridors at intersecting state highways and 120-foot-wide corridors at intersecting county roads. Localized variations to these widths are included where special features, such as right-turn lanes, may be warranted. At bridges, the corridor width was expanded to the width of the corresponding corridor, 240 to 280 feet, for a length of 500 feet along US-275. At bridge sized culverts, the corridors were expanded an additional 100 feet on the north side and 125 feet on the south side for a total length of 200 feet east and west of the culvert inlet/outlet. On the west and east ends of the Project, the alternative corridors overlap due to connection to the existing four-lane expressway west of the N-57 intersection.

The Widen South + Shift Alternative includes an area where the corridor is off alignment. This corridor is 150 feet wider than the Widen South corridor to accommodate the southern shift of the eastbound lanes. Due to the nature of this off-alignment segment, there is a hole in the corridor that extends 0.5 mile west of N-15 (east leg) and 0.90 mile east of N-15 (east leg). Figure 2-1 shows the corridors for all of the 2+2 Construction alternatives.

The alternative corridors were then analyzed using the following screening criteria: satisfaction of the overall Project purpose and need; practicability (technology, logistics, and cost); potential resource impacts relative to other alternatives; and public input. Resources considered in the alternative screening are wetlands, channels, floodplains, threatened and endangered species, structures, cultural resources, schools, Section 4(f) properties, hazardous materials, wells, center pivots, and other notable impacts such as feedlots and sewage lagoons. Those resources with regulatory requirements or agency interest, such as waters of the US, were given higher weight than others. Historic resources were given a higher weight unless an alternative involved a full residential take near the resource. During the 2019 public meeting, the public was able to review and comment on the proposed alternatives. Overall, the public was supportive of the Project, with preference for widening to the south. A comparison of the impacts across all the 2+2 Construction alternatives, except On-Structure, is detailed in Table 2-1.

Construction of additional bridges with the On-Structure Alternative to span wetlands would more than double the Project cost. The significantly higher costs associated with bridging all wetlands would make the On-Structure Alternative unreasonable nor would it meet the Project purpose and need to maximize the cost effectiveness of the Project; therefore, ***the On-Structure Alternative was eliminated from further consideration.***

The Widen North Alternative would impact more structures than the other Alternatives, including a cell tower and electrical substation, more wetlands, and more acres of floodplain, as well as a greater impact on properties protected under Section 4(f)¹ (the former rest area east of 570th Avenue and the school track and fields in Wisner). Public input indicated that the Widen North alternative was not

¹ Section 4(f) of the US Department of Transportation Act of 1966, codified at 23 USC 138 and 49 USC 303, declares that it is national policy "that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites" and requires that impacts on these sites be avoided and/or minimized to the greatest extent possible.

supported due to the anticipated impacts. Therefore, *the Widen North Alternative was eliminated from further evaluation.*

Public input indicated support for an alternative that would place the lanes on the south side. The Widen South, Combined, and Widen South + Shift alternatives would be compatible with this support. Comparing the Widen South, Combined, and Widen South + Shift alternatives, the majority of impacts would be the same for all alternatives. The only difference in impact between the three alternatives is the impact on aquatic resources. Of these three alternatives, the Widen South Alternative would have the greatest impact on aquatic resources. Due to these impacts when compared to the Combined and Widen South + Shift Alternatives, *the Widen South Alternative was eliminated from further evaluation.*

The Combined Alternative would have the fewest channel impacts due to the avoidance of the intermittent channel feature in the south ditch of the existing roadway in the vicinity of the N-15 east junction (see Figure 2-2, Alternative Corridors). The Widen South + Shift Alternative would have approximately 0.02 acre (131 linear feet) more channel impacts than the Combined Alternative resulting from two additional crossings. The Widen South + Shift Alternative would have the fewest wetland impacts, almost 3 acres lower than the Combined Alternative (see Table 1). Because the Combined Alternative would have substantially more wetland impacts and relatively similar channel impacts as the Widen South + Shift Alternative, *the Combined Alternative was eliminated from further evaluation.*

2.4 Alternatives Carried Forward

2.4.1 No Build Alternative

Under the No Build Alternative, the segment of US-275 between approximately N-57 and Wisner would not be improved to a four-lane expressway but would instead remain a two-lane highway. Normal maintenance and minor rehabilitation activities would occur along this segment of US-275 to support continued operation of the existing transportation corridor. The No Build Alternative would also include ongoing minor construction projects and maintenance activities for transportation facilities throughout Stanton and Cuming Counties. The No Build Alternative does not meet the Project purpose and need; however, it will be carried forward for further analysis under NEPA to serve as a baseline for comparison of impacts of the build alternative(s) carried forward for additional analysis.

2.4.2 2+2 Construction Widen South + Shift Alternative

The Widen South + Shift Alternative was carried forward for development of additional engineering design to allow detailed analysis in the Environmental Assessment. The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway south of the existing US-275, including ancillary construction such as drainage structures. A 3R strategy would also be applied to the existing two lanes. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve N-15 intersections with US-275 at two locations east of N-57, the N-51 intersection with US-275 northwest of Wisner, and various county road intersections.

Table 2-1. Corridor Impact Comparison

Alternative (Cost)	Aquatic Resource Screening						Channel (acres/linear feet)	Floodplain		Threatened and Endangered Species	Environmental Justice ³	Buildings and Other Structures	Cultural Resources		School Property Impact (acres)	Potential Section 4(f) Property Impacts	Hazardous Materials	Wells	Center Pivots	Other Notable Impacts
	Wetlands ¹ (acres)							Acres	Crossings ²				Former Rest Area (acres)	Sharpe Site (acres)						
	Open Water	PEMA/C	PEMF	PSSA	WIAS	Total														
Widen South	0	10.77	0.08	0.007	5.01	15.87	1.07 7,939	67.8	11	"May affect, not likely to adversely affect" the Northern Long-Eared Bat and Eastern Black Rail	No populations present. No impacts on populations.	3 structures: - Grain bin and outbuilding - Gas station fuel island	0	1.92	1.05	- Sharpe Site - School track & fields	- Pilger Milling Company - Prime Stop Gas Station	- 1 irrigation - 1 monitoring	12 (11 shorten 1 total)	- None
Widen South + Shift	0	8.58	0.09	0.007	5.49	14.17	0.53 3,880	80.5	11	"May affect, not likely to adversely affect" the Northern Long-Eared Bat and Eastern Black Rail	No populations present. No impacts on populations.	3 structures: - Grain bin and outbuilding - Gas station fuel island	0	1.92	1.05	- Sharpe Site - School track & fields	- Pilger Milling Company - Prime Stop Gas Station	- 1 irrigation - 1 monitoring	12 (11 shorten 1 total)	- None
Widen North	1.24	8.10	0.42	0.004	11.13	20.89	0.57 4,745	78.6	10	"May affect, not likely to adversely affect" the Northern Long-Eared Bat and Eastern Black Rail	No populations present. No impacts on populations.	13 structures: - Electric substation - Farmstead house & grain bin - Cell tower - Farmstead house & barn - Farmstead House - Farmstead house and barn - Farmstead house and barn - Farmstead house (@ feedlot) - Gas station fuel island	3.2	1.00	1.67	- Former Rest Area - Sharpe Site - School track & fields	- Pilger Milling Company - Prime Stop Gas Station	- 2 irrigation - 1 monitoring	3 (2 shorten 1 total)	- 2 sewage lagoons @ feedlot - 2 pens & 1 sewage lagoon @ feedlot
Combined	0	11.90	0.09	0	4.89	16.88	0.51 3,749	73.3	11	"May affect, not likely to adversely affect" the Northern Long-Eared Bat and Eastern Black Rail	No populations present. No impacts on populations.	3 structures: - Grain bin and outbuilding - Gas station fuel island	0	1.92	1.05	- Sharpe Site - School track & fields	- Pilger Milling Company - Prime Stop Gas Station	- 1 irrigation - 1 monitoring	13 (11 shorten 2 total)	- None

¹ PEMA/PEMC = Palustrine Emergent Temporarily/Seasonally Flooded; PEMF = Palustrine Emergent Semi-Permanently Flooded; PSSA = Palustrine Scrub-Shrub Temporarily Flooded; WIAS = Wetland in an Agricultural Setting

² Includes anywhere alternative corridor intersects a floodplain

³ No populations present based on NDOT's Environmental Justice methodology developed in coordination with FHWA.

Figure 2-1. Typical Expressway Cross Section

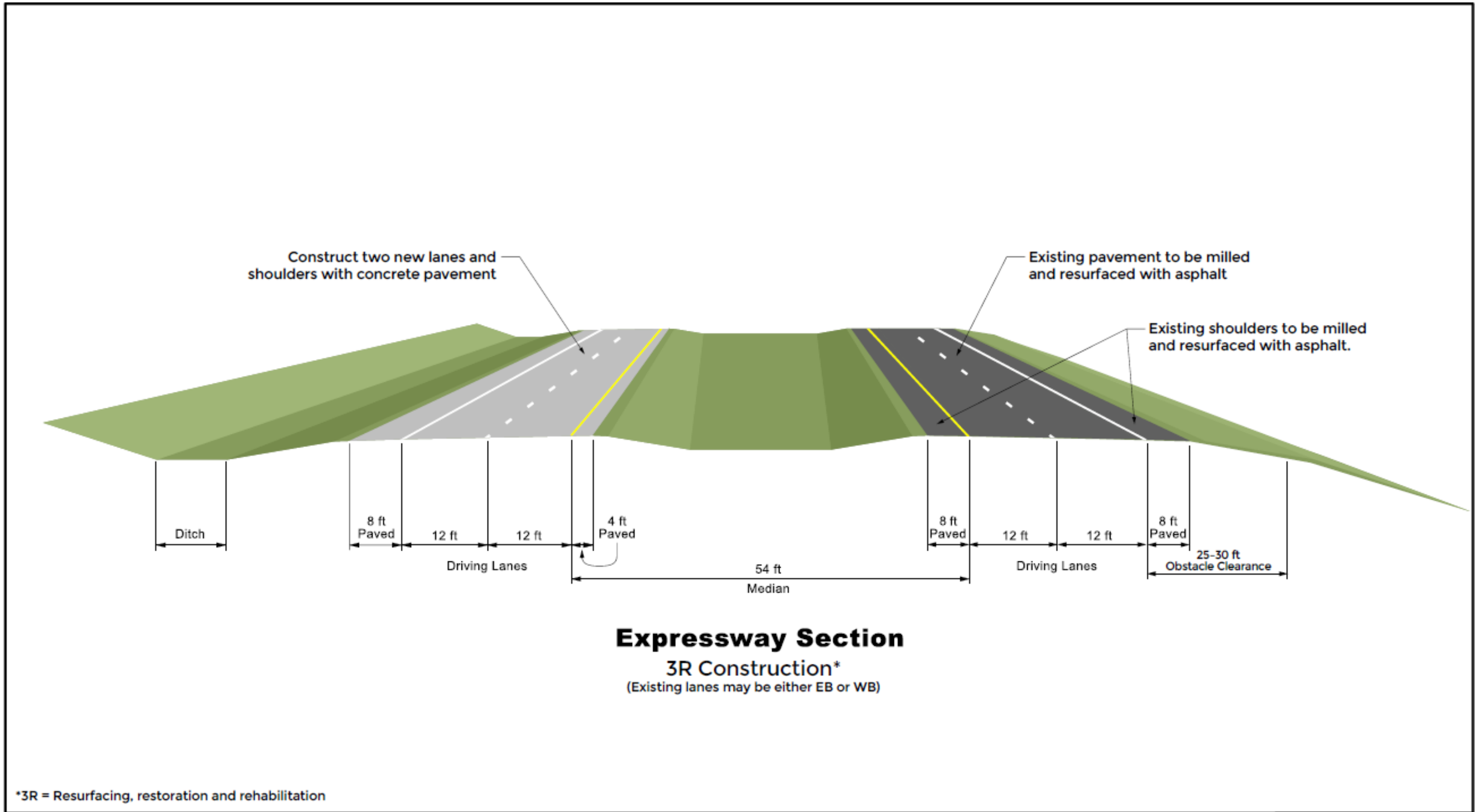


Figure 2-2. Alternative Corridors (page 1 of 4)

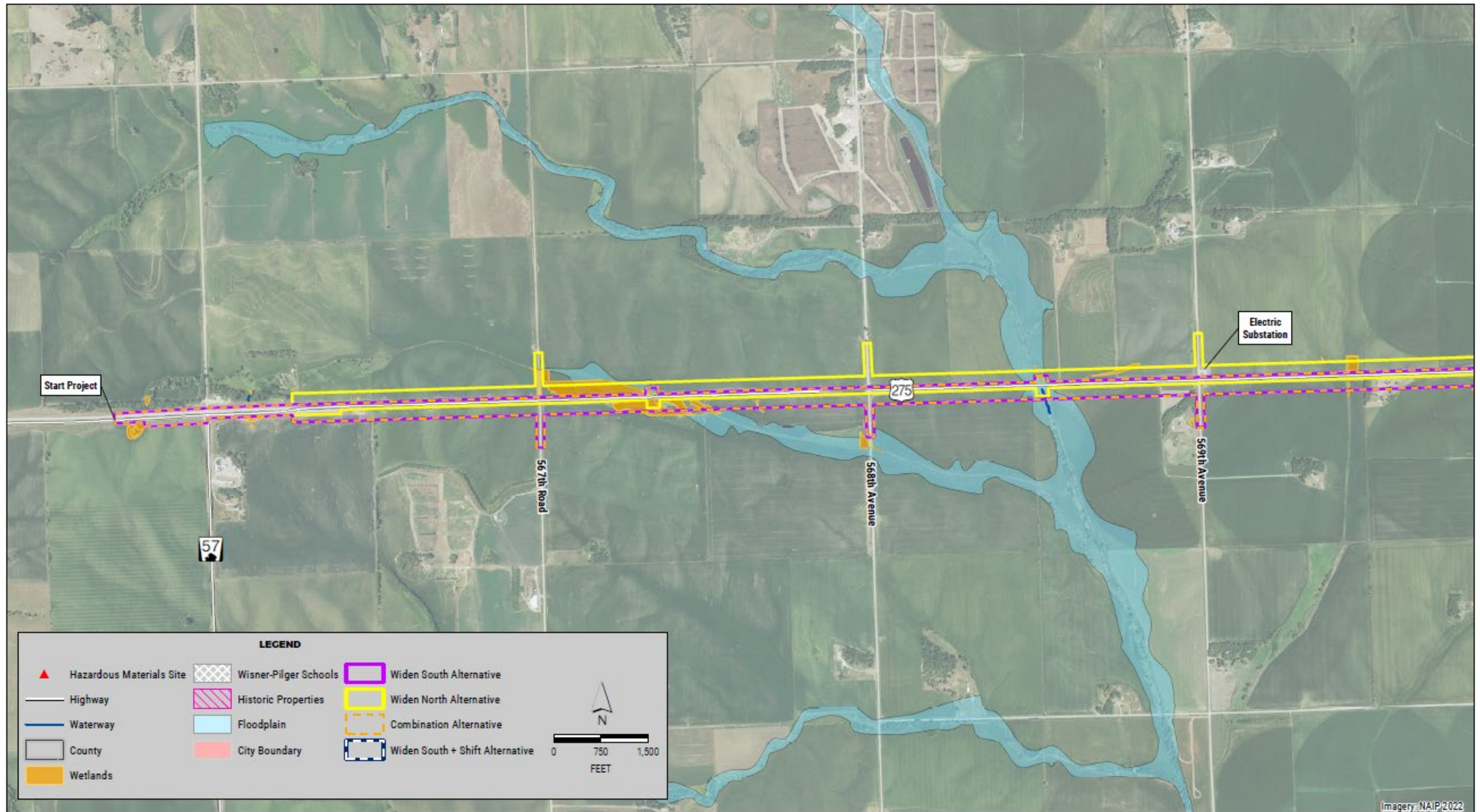


Figure 2-2. Alternative Corridors (page 2 of 4)

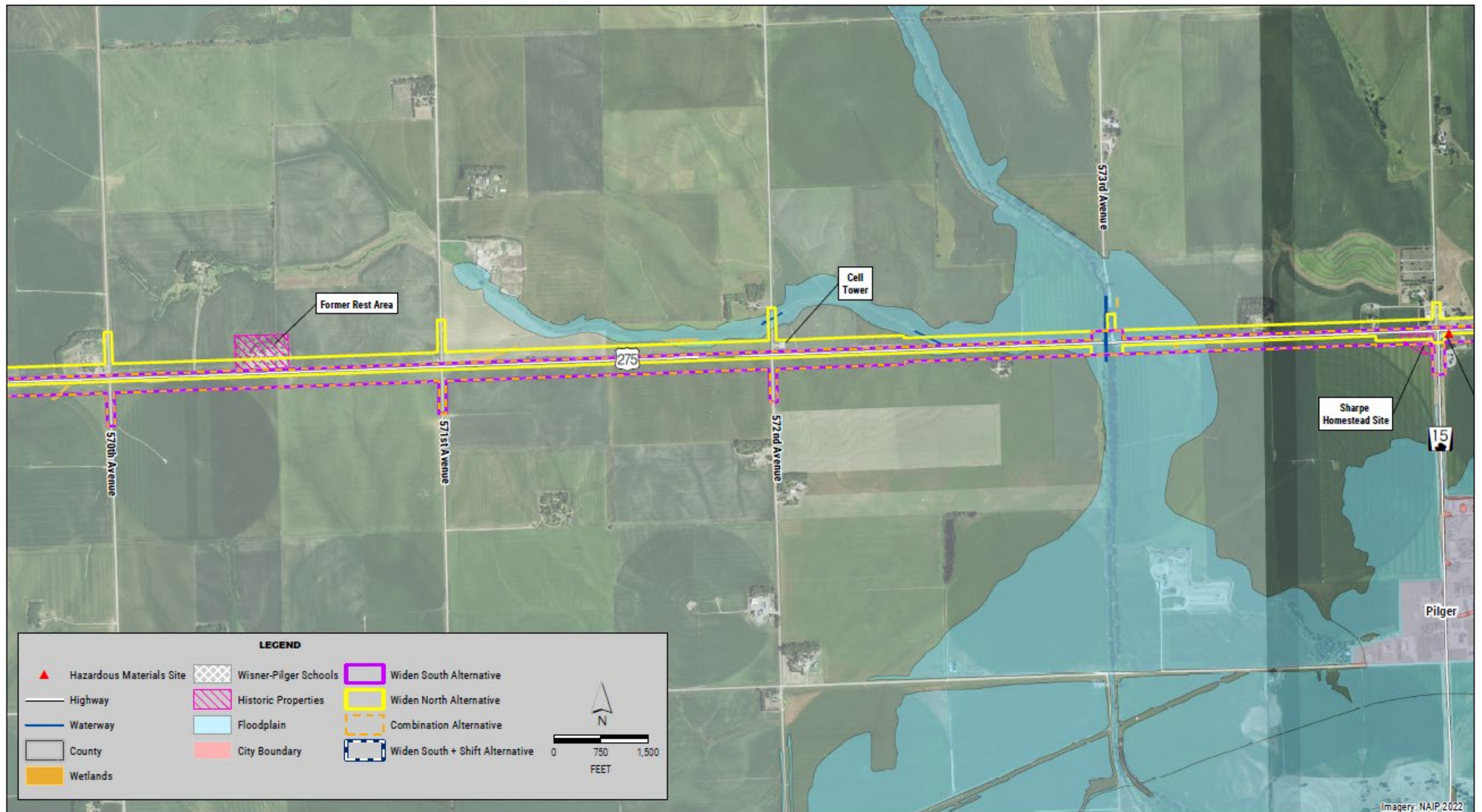


Figure 2-2. Alternative Corridors (page 3 of 4)

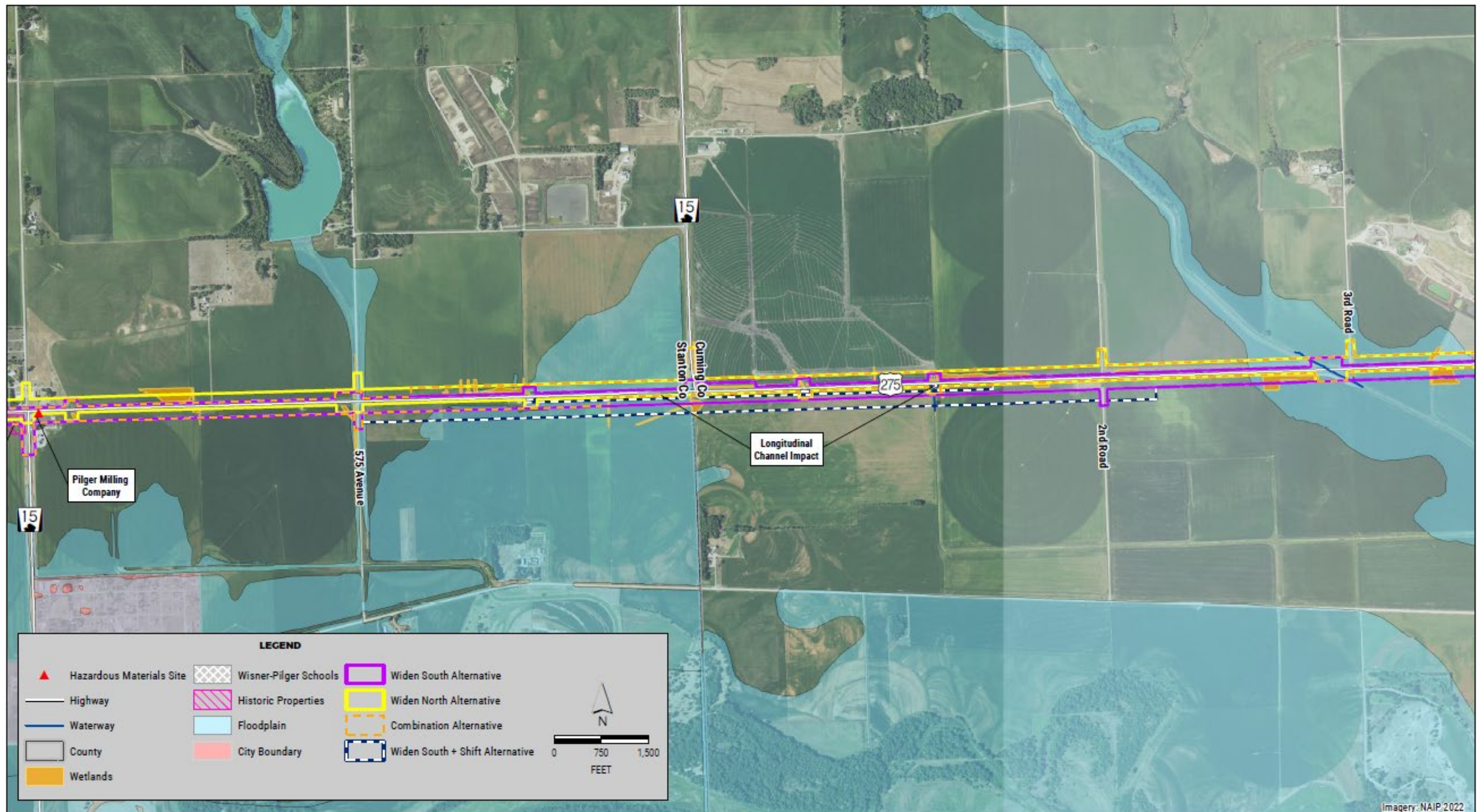
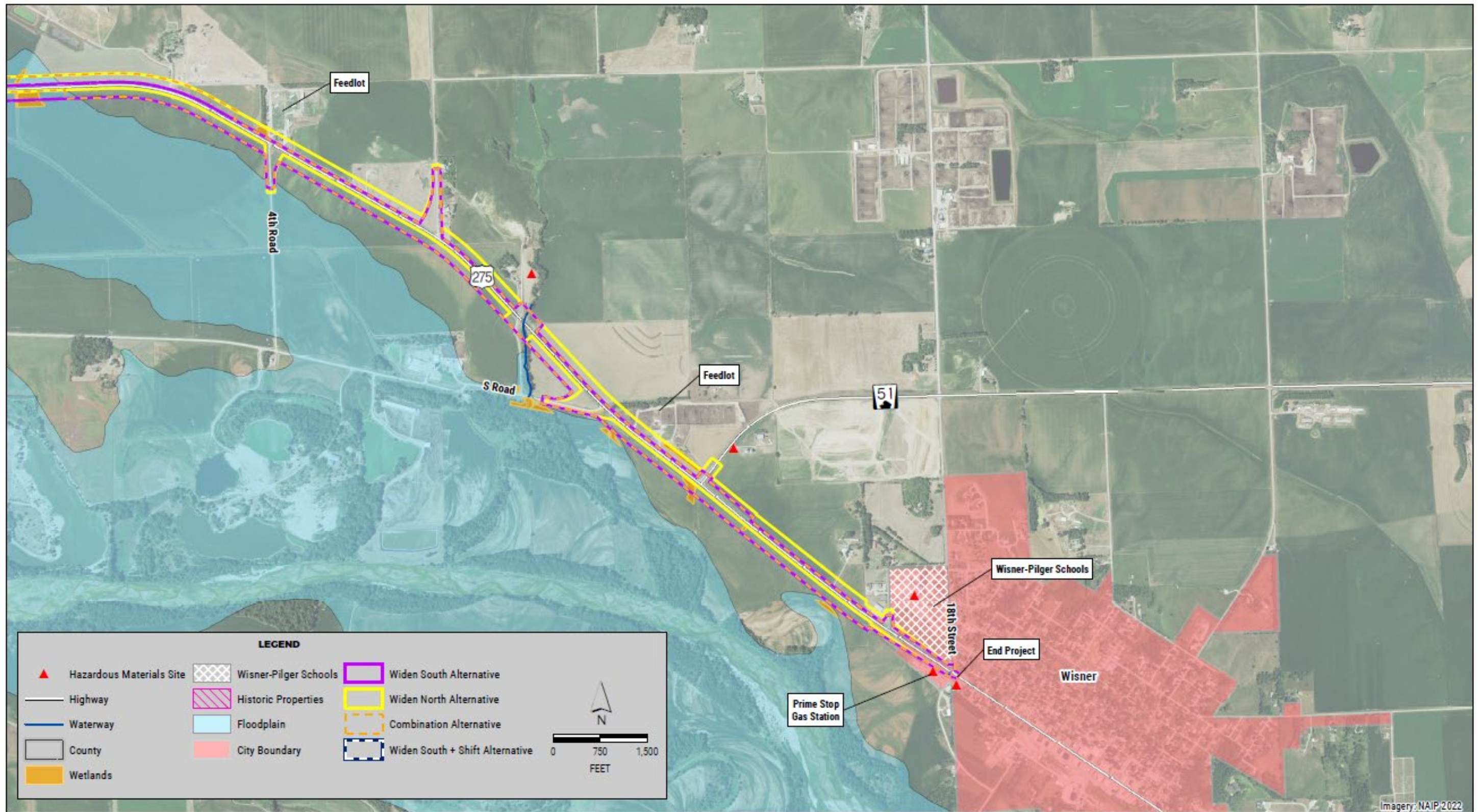


Figure 2-2. Alternative Corridors (page 4 of 4)



2.5 Preferred Alternative

For this proposed Project, the preferred alternative is the one that best fits the purpose and need, considering any potential environmental, social, and economic impacts. The 2+2 Construction Widen South + Shift Alternative, hereafter referred to as the Preferred Alternative, was carried forward for further analysis because it meets the Project purpose and need and also balances the broader goals of infrastructure improvement while minimizing environmental and community impacts. As discussed in Section 2.3, Alternatives Analysis and Alternatives Eliminated from Further Consideration, the Preferred Alternative would impact fewer aquatic resources (wetlands and channels). The Preferred Alternative would be constructed in two segments along US-275: from N-57 to the N-15 east junction and from the N-15 east junction to Wisner.

2.6 Summary of Environmental Impacts from the Preferred Alternative

A summary of the impacts resulting from the Preferred Alternative are detailed in Table 2-2. All impacts are discussed in detail in Chapter 3: Affected Environment and Environmental Impacts.

Table 2-2. Summary of Environmental Impacts

Resource	Impacts
Land Use	The Preferred Alternative would convert approximately 333 acres of land, predominantly farmland, to NDOT ROW. Conversion of this land would be compatible with land use plans. Temporary impacts during construction may occur in the form of temporary easements for access.
Farmland	<p>The Preferred Alternative would convert 324 acres of farmland to an expressway system. The NRCS-CPA-106 forms show that the point total for Part VI, Corridor Assessment Criteria, for Stanton County is 57 and Cuming County is 59. No coordination with the Natural Resources Conservation Service is required.</p> <p>The Preferred Alternative has the potential to impact 12 existing center pivot irrigation systems and two storage buildings. Temporary impacts during construction may occur in the form of temporary easements for access or modification of center pivots.</p>
Right-of-Way and Relocations	<p>The Preferred Alternative would require the acquisition of approximately 333 acres of new ROW and permanent easements from approximately 90 parcels. Minor acquisitions, generally less than 10 percent of the total parcel, would be needed. Some acquisitions from small parcels may be moderate, with acquisition of up to 35 percent of the total parcel.</p> <p>No residential or business acquisitions or relocations would be required. Two storage buildings—a small grain bin and a metal outbuilding used for storage of farm equipment—would be needed. Existing field access drives and residential driveways would be relocated or realigned as needed throughout the Project.</p>

Resource	Impacts
Community Impact Assessment	<p>The Project would have minor, short- and long-term, beneficial impacts on the populations in and near the Community Impact Assessment (CIA) Study Area. Long-term beneficial population and economic impacts would result from expanding US-275 to a four-lane facility. Access to community resources and community facilities, cohesion between communities, and quality of life for residents along the Project would benefit from the moderate, long-term impacts.</p> <p>Minor, short-term, adverse impacts on the tax base would occur in and near the CIA Study Area as portions of property parcels are acquired for expansion of US-275.</p>
Environmental Justice	<p>Minority and low-income populations were not identified in the Project Study Area based on NDOT's Environmental Justice methodology developed in coordination with FHWA. No translations or specialized outreach for limited English proficiency is required for this Project because a population with limited English proficiency was not identified for the total population affected by the Project. NDOT would provide language assistance if requested.</p>
Transportation	<p>The Project is anticipated to have minor, short-term, adverse impacts on the transportation network during construction. Construction would be completed under traffic, allowing continuous movement through the Project Study Area. After construction, the Project would have major, long-term, beneficial impacts on the transportation network in the Project Study Area and in northeast Nebraska.</p>
Recreation Facilities	<p>The Project would require acquisition of approximately 0.22 acre from the Wisner-Pilger Public Schools for construction of an offset right-turn lane at 21st Street and realignment of 18th Street to improve sight distance at the US-275 intersection. Temporary impacts during construction may occur in the form of temporary easements or temporary access restrictions.</p>
Historic Properties	<p>The Preferred Alternative would have no impact on the Former Pilger Rest Area but would impact the Sharpe Homestead Site. Approximately 1.53 acres of the 3.5-acre Sharpe Homestead Site would be impacted as part of the Project, resulting in an adverse effect under Section 106. Adverse effects would be resolved through a Memorandum of Agreement with the Nebraska State Historic Preservation Office.</p>
Visual	<p>There would be no beneficial or adverse permanent impact on the aesthetic value of the area.</p>
Section 4(f)	<p>The Preferred Alternative would impact the Wisner-Pilger Public Schools. Approximately 0.22 acre of ROW would be acquired from the Wisner-Pilger Public Schools property at the 21st and 18th Street intersections for intersection improvements. Impacts on the property would be considered a "use" under Section 4(f) but these actions would not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection.</p>
Section 6(f)	<p>The 2020 Nebraska Game and Parks Commission review found that there were no Land and Water Conservation Fund Act encumbered properties within the Project Study Area and no further action is needed.</p>

Resource	Impacts
Utilities	Utilities would need to be relocated for the Preferred Alternative. The utilities located within the ROW would be responsible for relocating their own facilities at their own cost. Utilities outside of the ROW may be eligible for compensation as determined by NDOT; federal funding would not be used for utility relocations.
Air Quality	The vehicle miles traveled estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative. The emissions increase would be offset by lower Mobile Source Air Toxic emission rates due to increased speeds.
Noise	The noise analysis completed for the Project determined that in general, noise levels within the Preferred Alternative corridor are predicted to increase from the existing scenario to the build scenario by 2 to 4 A-weighted decibels (dBA). Noise abatement was analyzed at four residential receiver locations. Noise barriers either did not meet the noise reduction design goal or were not considered cost effective. Therefore, noise barriers are not proposed as part of the Preferred Alternative.
Hazardous Materials	<p>The Preferred Alternative would intersect the Pilger Milling Company, Wisner West (Prime Stop), and Cattleman's Lodge & Suites. Pilger Milling Company and Wisner West (Prime Stop) were determined to have a low potential to encounter contamination while the Cattleman's Lodge & Suites was identified as having a medium potential to affect construction or cause a material management or worker health and safety concern, or both.</p> <p>An asbestos summary was completed for all existing bridge structures along the Preferred Alternative alignment. Asbestos survey results on existing bridges were negative except on Structure S275 08742. Lead is suspected within the paint on painted components of all bridges.</p>
Paleontology	The Preferred Alternative has the potential to impact previously unidentified paleontological resources. Resources would be identified during construction, and appropriate coordination protocols with the Highway Salvage Paleontology Program would occur if resources were discovered.
Wild and Scenic Rivers	There are no Wild and Scenic Rivers present, and there would be no impacts.
Floodplains	<p>The Preferred Alternative would encroach on approximately 87 acres of Zone A (100-year floodplains), of which approximately 60 acres are in Stanton County and 27 acres are in Cuming County. The Preferred Alternative is not anticipated to cause greater than 1 foot of rise in the Base Flood Elevation of any of the floodplains it crosses, nor increase the potential for property loss and hazard to life.</p> <p>Per 23 CFR 650.111, the Preferred Alternative would result in a non-functionally dependent floodplain use at two locations; however, there would be no significant encroachment to a base floodplain. The Preferred Alternative would not result in a base flood causing significant potential interruption or termination of the transportation facility, which is needed for emergency vehicles or a community's only evacuation route. It also would not result in a significant risk or potential for loss of life or property due to the base flood. This Project would not result in a substantial adverse impact on natural and beneficial floodplain values.</p> <p>A floodplain development permit would be obtained prior to construction, and the Project would comply with local floodplain regulations.</p>

Resource	Impacts
Water Quality	<p>The Preferred Alternative would intersect three tributaries to the Elkhorn River, Payne Creek, Humbug Creek, and Sand Creek. Roadway construction would not impact the cattle sewage lagoons, which could contribute to increased levels of E. coli if disturbed. Project construction activities, located up-gradient from the river, would not contribute to or exacerbate E. coli levels within the Elkhorn River. The Project would result in no additional impairment to the aforementioned waterways, including the downstream Elkhorn River.</p> <p>The Preferred Alternative would cross two Wellhead Protection Areas: one associated with the Village of Pilger and one associated with the City of Wisner. Because no public drinking water sources or wells occur within the Preliminary Impact Area, no impacts are anticipated. The Preliminary Impact Area would affect 13 wells. Any registered wells within the ROW would be properly decommissioned. NDOT would coordinate with the owners of any wells directly affected by the Preferred Alternative.</p> <p>Temporary construction impacts on water quality are anticipated but would be mitigated through the acquisition of a National Pollutant Discharge Elimination System permit and implementation of an associated Stormwater Pollution Prevention Plan.</p>
Wetlands and Water Resources	<p>The Preferred Alternative would affect approximately 13.15 acres of wetlands and 4,359 linear feet (0.61 acre) of 15 waterways. Construction of the Preferred Alternative would require a CWA Section 404 Individual Permit from the US Army Corps of Engineers. Temporary impacts on wetlands and water resources during construction are anticipated. These impacts would be included in the Section 404 permitting process.</p>
Fish, Wildlife, and Vegetation	<p>The animal-related crash rate along this portion of US-275 (16 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (56 percent). Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at three of the five wildlife corridor locations, adverse impacts on fish and wildlife are not anticipated.</p> <p>Native at-risk vegetative species and biologically unique landscapes are not present within the Project Study Area. Vegetation disturbed during Project construction would consist mainly of introduced species found commonly throughout the area. Revegetation in all disturbed areas would use native seed mixes that would improve plant species composition.</p>
Threatened and Endangered Species	<p>NDOT determined that the proposed Project may affect, but is not likely to temporarily or permanently adversely affect, the northern long-eared bat with the implementation of conservation conditions and would have no effect on all other listed species.</p>
Cumulative Impacts	<p>The Project would not result in long-term adverse cumulative impacts on farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable projects. The Project would result in long-term beneficial cumulative impacts on the communities and transportation network surrounding the US-275 corridor. Temporary impacts associated with construction are expected with the Project but would not result in cumulative impacts with the other projects because the projects occur in different timeframes and locations.</p>

Chapter 3 Affected Environment and Environmental Impacts

This chapter identifies environmental resources that would be affected by the proposed Project and the anticipated direct and indirect impacts on those resources. As described in further detail in this chapter, the study area for the environmental analysis depends on the resource (human or natural). It should be noted, however, that the environmental study area for each resource is large enough to identify and address potential impacts. Under NEPA, the context (that is, the relationship between the Project and its setting) and the intensity of the impacts determine the significance of impacts from the Project. Council on Environmental Quality guidance on preparing NEPA analysis notes that environmental analysis should focus on significant issues and that impacts should be discussed in proportion to their significance (77 Federal Register [FR] 14473).

To describe the analysis of how the proposed Project affects environmental resources, this chapter considers two groups of resources:

- **Environmental resources not in the study area.** Section 3.1 identifies environmental resources that are typically studied as part of NEPA but are not within the Project Study Area.
- **Environmental resources requiring detailed analysis.** Sections 3.2 through 3.23 review environmental resources that required detailed technical studies or analysis to determine the context and intensity of potential impacts.

The Project Study Area, as defined in Chapter 1, is shown in Figure 3-1, Affected Environment, along with various resources requiring detailed analysis. Figure 3-1 also shows the preliminary impact area of the Preferred Alternative (Preliminary Impact Area). The Preliminary Impact Area was developed based on preliminary design information and is the area where construction activities are anticipated to occur. The final limits of construction would be determined during final design and are generally expected to be wholly contained within the Preliminary Impact Area.

Figure 3-1. Affected Environment (page 1 of 4)

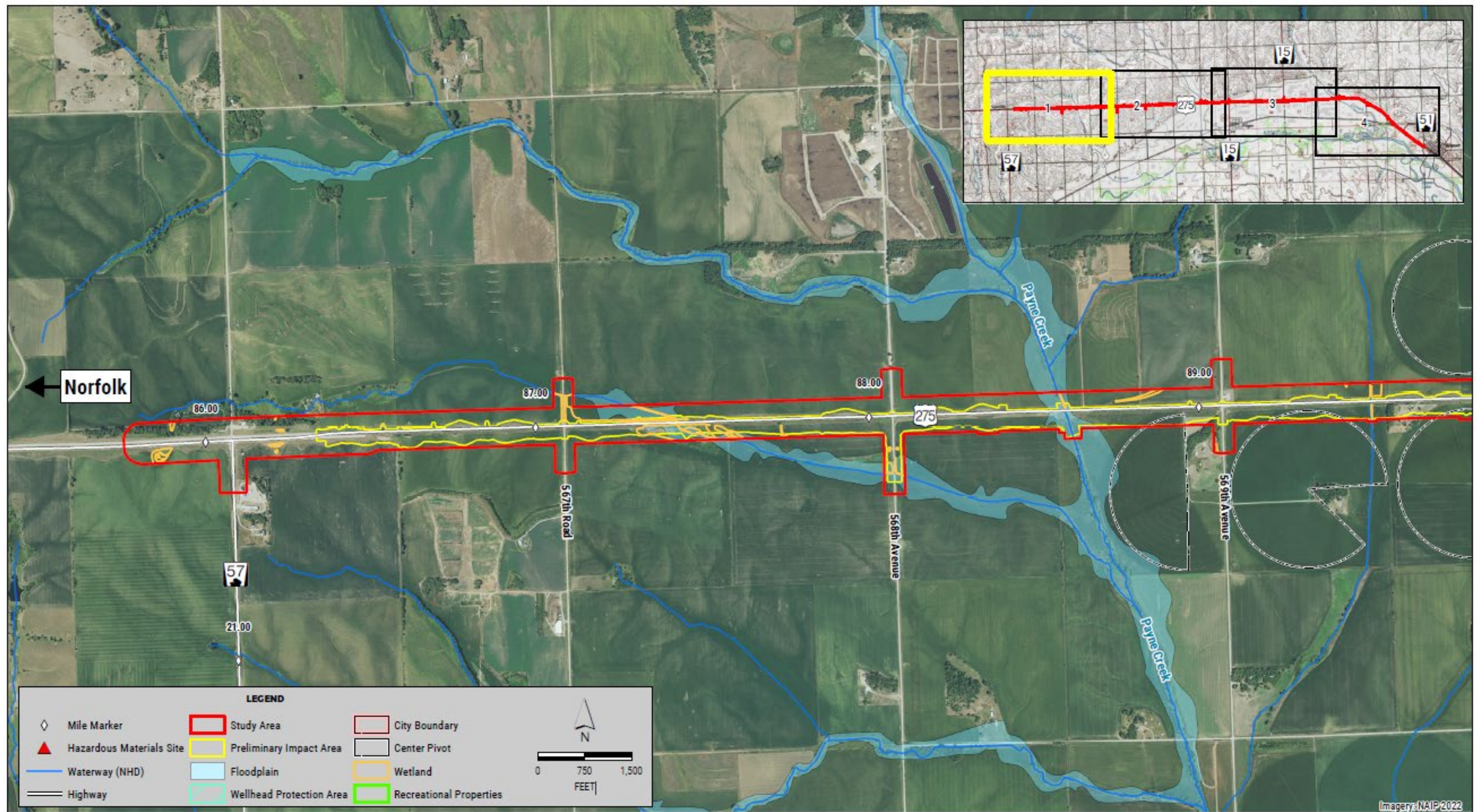


Figure 3-1. Affected Environment (page 2 of 4)

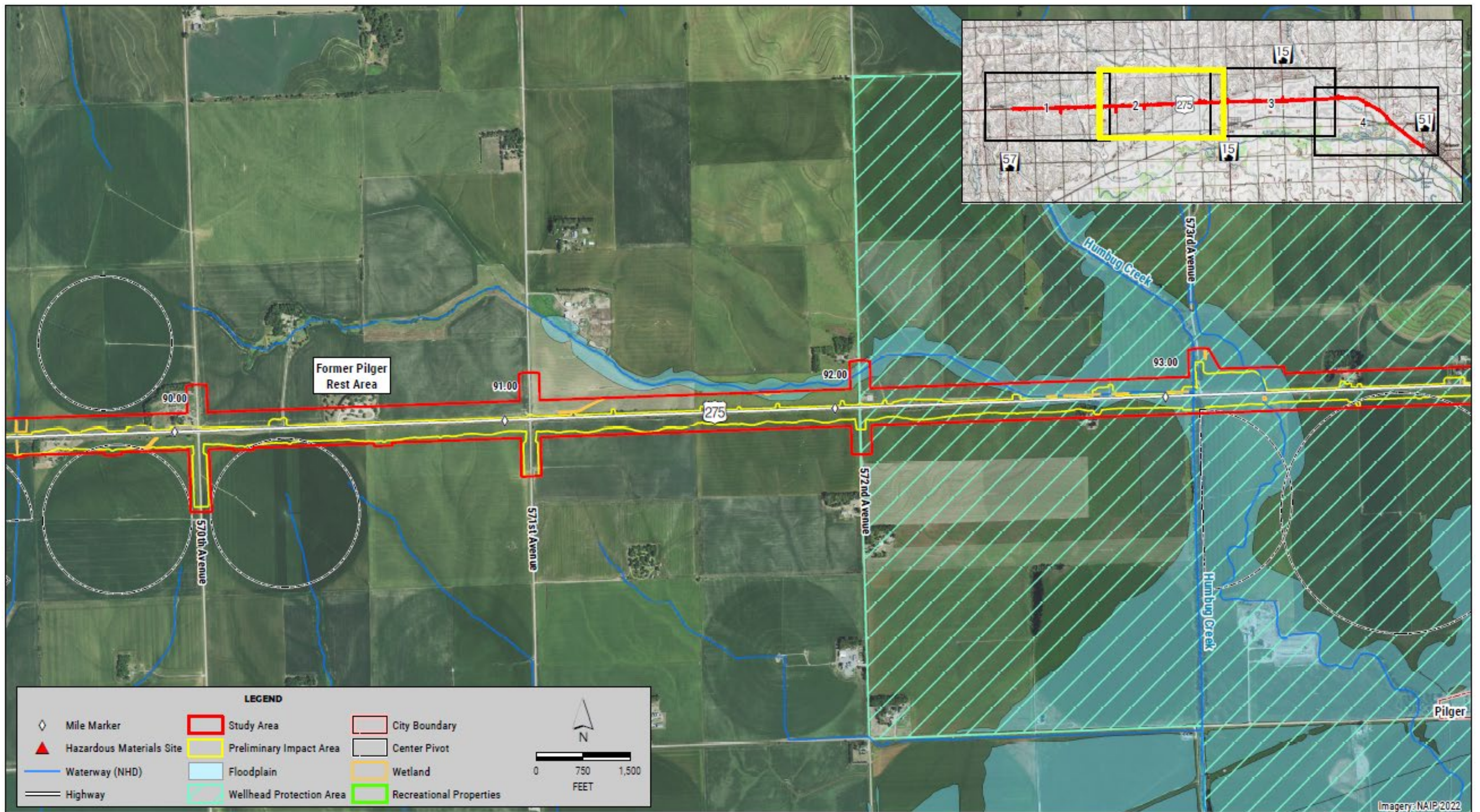


Figure 3-1. Affected Environment (page 3 of 4)

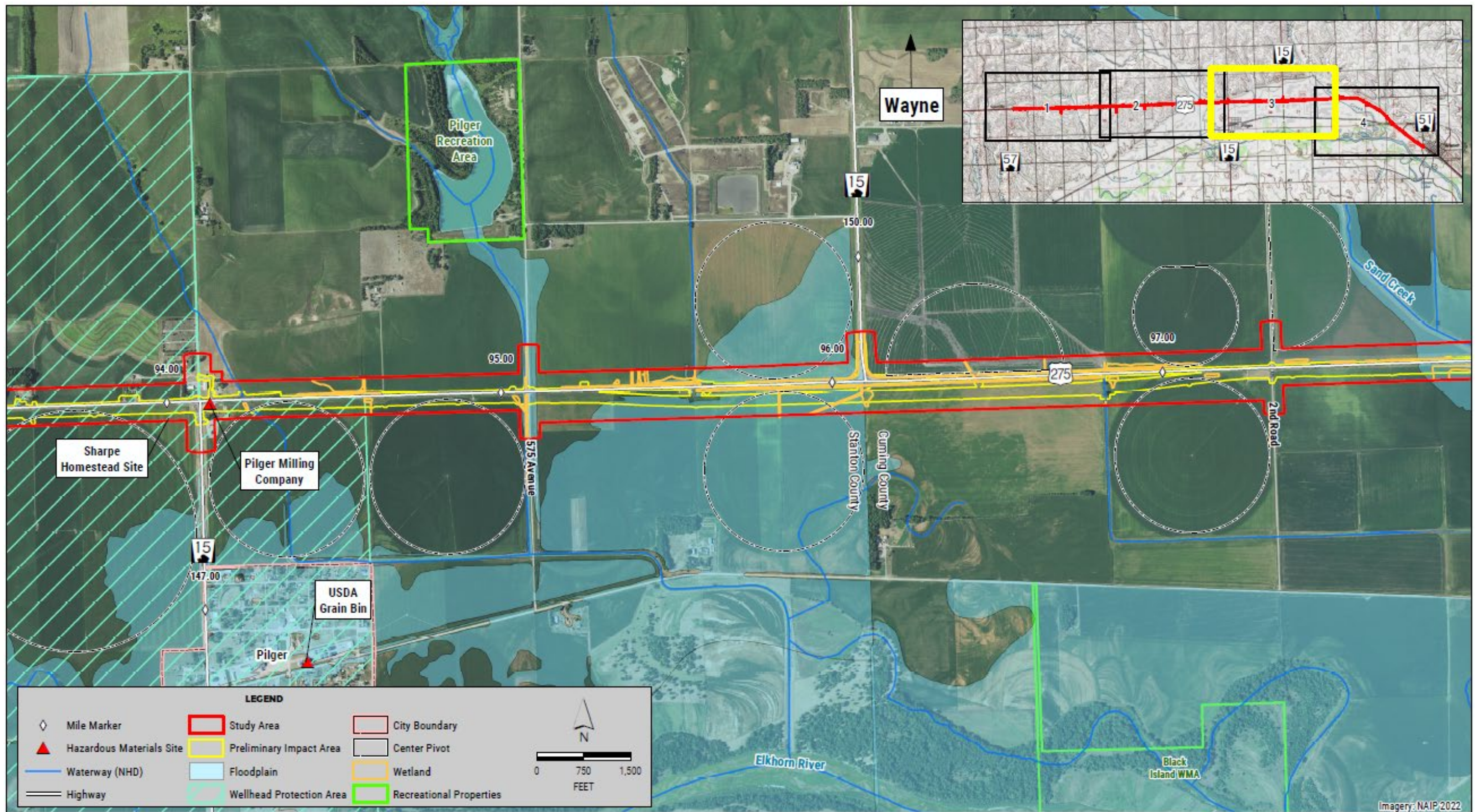
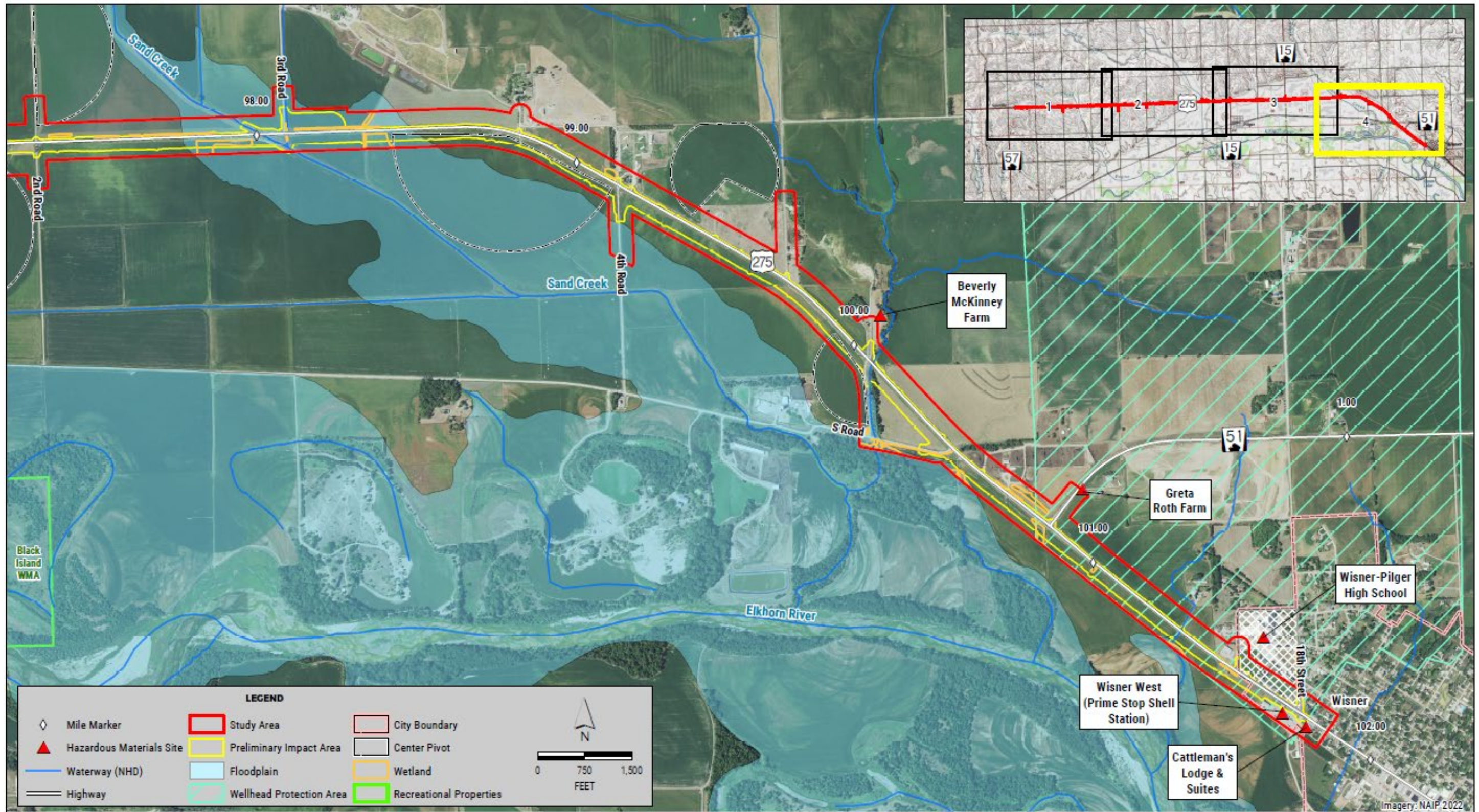


Figure 3-1. Affected Environment (page 4 of 4)



3.1 Environmental Resources Not in the Study Area

For this proposed Project, three resources do not require discussion in the Draft EA because they do not occur within the Project Study Area.

3.1.1 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (issued February 11, 1994) directs federal agencies to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal projects on the human health or environment of low-income and minority populations. Additionally, representatives of any low-income or minority populations in the community that may be affected by a project must be given the opportunity to be included in the impact assessment and public involvement process. Under Title VI of the Civil Rights Act of 1964, federal agencies are required to ensure that no person, on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance. Title VI prevents discrimination, whether intentional or unintentional in any program or activity receiving Federal financial assistance from FHWA.

An environmental justice review was completed for the Project and can be found in Appendix B. The environmental justice study area includes three block groups: Census Tract 9622, Block Group 1 and Census Tract 9621, Block Group 1 in Stanton County; and Census Tract 9727, Block Group 1 in Cuming County (see Figure 3-2).

Minority and low-income populations were not identified in the Project Study Area based on NDOT’s environmental justice methodology developed in coordination with FHWA (see Appendix B). No translations or specialized outreach for limited English proficiency is required for this Project because there was not an LEP language group affected by the Project that met NDOT’s methodology requiring advance language accommodations. NDOT would provide language assistance should it be requested.

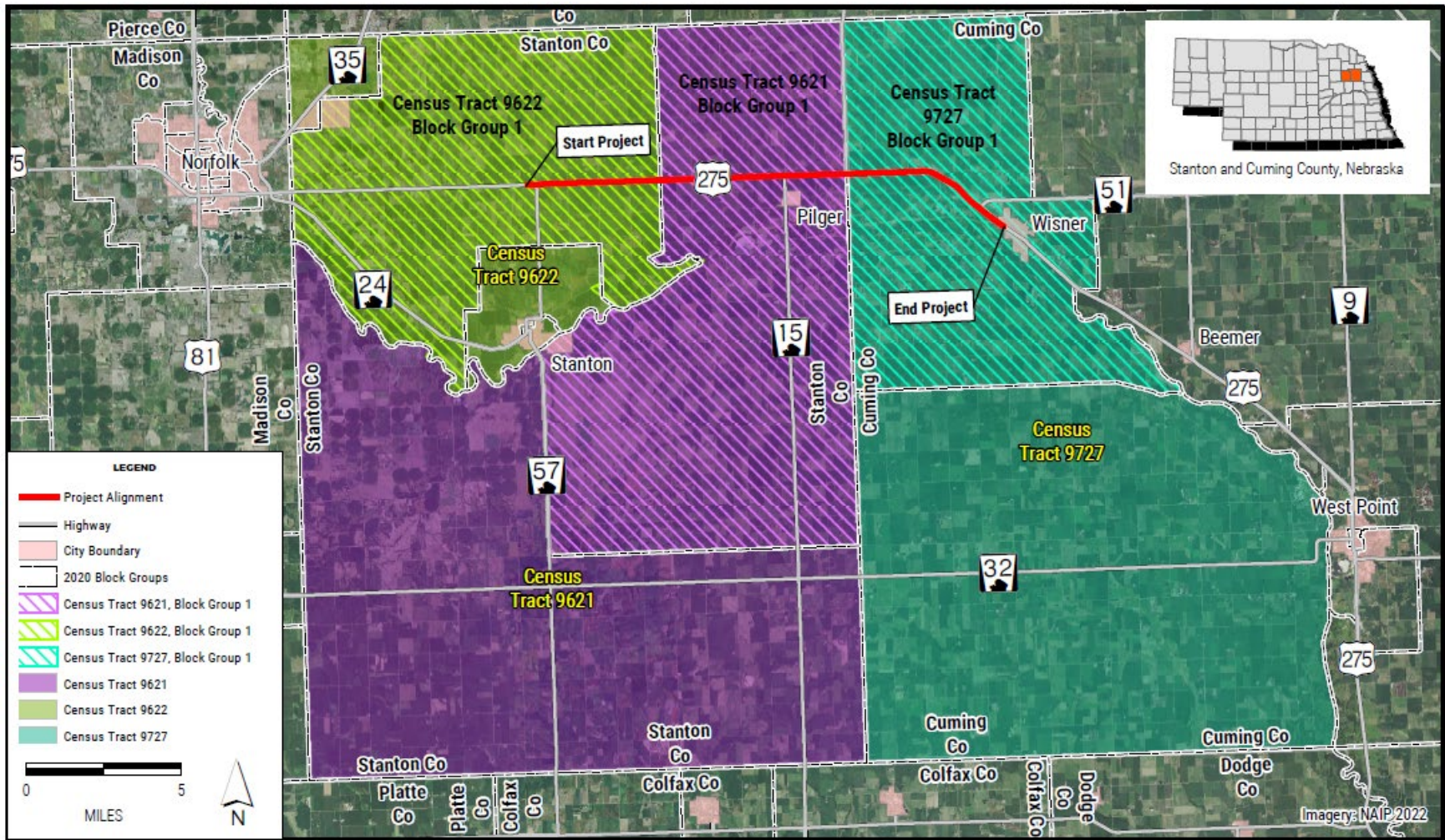
3.1.2 Section 6(f)

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 (54 USC 200301–2000310) restricts the conversion of recreational land to non-recreational land if the land was acquired with money from the LWCF. The Nebraska Game and Parks Commission (NGPC) reviewed the project for LWCF Act encumbered lands on February 14, 2020. The review found that there were no properties within the Project Study Area and no further action is needed. Coordination with NGPC can be found in Appendix C. Since the NGPC review, a desktop review of Section 6(f) properties was completed and confirmed there are no new LWCF Act encumbered properties.

3.1.3 Wild and Scenic Rivers

The National Wild and Scenic Rivers System preserves certain rivers with outstanding natural, cultural, and recreational values. Two rivers within Nebraska are designated as part of the National Wild and Scenic Rivers System, the Missouri River and Niobrara River (Interagency Wild and Scenic Rivers Coordinating Council 2019). The Project is not located within the Missouri River or Niobrara River reaches. No Nationwide Rivers Inventory resources were identified in the Project Study Area (National Park Service 2017).

Figure 3-2. Project Census Tracts and Block Groups



Environmental Resources Requiring Detailed Analysis

For this proposed Project, the following resources require detailed discussion in the Draft EA because they occur within the Project Study Area and may have impacts resulting from the Preferred Alternative.

3.2 Land Use

The evaluation of land use considers impacts on existing and future land uses as well as consistency with regional development and land use planning. Most impacts on existing land use result from the acquisition of ROW and easements.

3.2.1 Affected Environment

Land use in the Project Study Area is typical of rural, row crop agricultural land use with some irrigation and includes the Elkhorn River floodplain, rural residences, farmsteads, and modern livestock production facilities. Commercial areas exist within Pilger and Wisner. Future land use within the Project Study Area is planned as predominantly agricultural with urban residential areas near Wisner. Commercial and industrial development is not currently planned in the Project Study Area. The *Stanton County, Nebraska Comprehensive Development Plan* (Stanton County 2016) and the *Cuming County Comprehensive Plan* (Cuming County 2020a) indicate that any development would be centered around the existing highway corridors due to access opportunities.

3.2.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on land use because no land would be converted into an expressway system.

3.2.3 Impacts of the Preferred Alternative

The Preferred Alternative would convert approximately 333 acres of private property to NDOT ROW. Acquired land would primarily consist of agricultural land with some land acquisition from residential farmsteads. Conversion of this land would be compatible with land use plans, and adjacent land use is expected to remain in agriculture.

Temporary impacts during construction may occur in the form of temporary easements for access. Any land acquired for temporary easements would be returned to its original land use following construction.

3.2.4 Avoidance, Minimization, and Mitigation

The design of the Project was based on engineering design standards and best practices and impact minimization for all resources while minimizing the use of additional land. The Preferred Alternative is consistent with land use plans in the Project Study Area. No mitigation with respect to land use would be required or is proposed for the Project.

3.3 Farmland

The federal Farmland Protection Policy Act of 1981 (FPPA; 7 CFR 658) was enacted to minimize unnecessary conversion of farmland to other uses as a result of federal decisions. In addition, the FPPA states that federal programs should be compatible with state and local policies or programs that protect farmland. The Natural Resources Conservation Service (NRCS) oversees FPPA compliance.

Prime farmland is considered to be of national importance and is defined as land with the best characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these uses. Unique farmland is land other than prime farmland that is used for the production of specific high-value crops. Farmland of statewide or local importance is land, in addition to prime and unique farmland, that is of statewide or local importance for the production of food, feed, forage, fiber, and oilseed crops (7 CFR 657.5).

3.3.1 Affected Environment

There are approximately 987 acres of farmed land, such as row crop and pasture, within the Project Study Area. Of that land, approximately 710 acres are listed as prime or unique farmland. Farmed areas generally consist of large parcels of 50 to 320 acres.

The NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form is used to evaluate impacts on federal projects. The NRCS-CPA-106 forms were completed for Stanton and Cuming Counties and are found in Appendix D.

3.3.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on farmland because no land would be converted to an expressway system.

3.3.3 Impacts of the Preferred Alternative

The Preferred Alternative would convert 324 acres of farmland to highway ROW. Due to the large size of farmed parcels, conversion of this farmland would not substantially affect farming operations on individual farms. Approximately 216 acres of this farmland are listed as prime or unique. The NRCS-CPA-106 forms show that the Part VI score for Stanton and Cuming Counties is 57 and 59 for each county, respectively. Combined with an assumed maximum Part V score of 100, the 160-point site assessment threshold for additional site consideration and protection is not reached. Therefore, no coordination with NRCS is required.

The Preferred Alternative has the potential to impact 12 existing center pivot irrigation systems and two storage buildings on one farmstead approximately 5 miles west of Pilger. Three center pivots may require relocation; the final determination on whether they would require relocation would be made during final design. These center pivots are located 0.35 mile east of the N-15 east junction, 0.35 mile west of 4th Road, and 0.35 mile west of S Road. Nine center pivots would be shortened but would remain functional following construction of the Preferred Alternative. Landowners would be compensated for the removal or relocation of the center pivots and storage buildings as described in Section 3.4, Right-of-Way and Relocations.

Temporary impacts during construction may occur in the form of temporary easements for access or modification of center pivots. Any farmland acquired for temporary easements would be returned to farmland following construction. Modifications to center pivots would be coordinated with the property owner or lessee prior to the modification.

3.3.4 Avoidance, Minimization, and Mitigation

NDOT would compensate the landowners and/or current leaseholders for impacts on the center pivot irrigation systems. Compensation would include, but not be limited to, relocating the center pivot system, modifying the center pivot equipment, and/or relocating the well supplying the center pivot system. NDOT would coordinate with the landowner during the ROW process. (NDOT)

No other mitigation with respect to farmland would be required or is proposed.

3.4 Right-of-Way and Relocations

The evaluation of existing highway ROW and property acquisitions from adjacent properties considers the current land use and ownership of a parcel. Any property acquisition would be conducted by payment of fair market value for the property rights in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (42 USC 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et seq.).

3.4.1 Affected Environment

As discussed in Section 3.2, existing land use within the Project Study Area consists of rural, row crop agricultural land use with some irrigation and includes the Elkhorn River floodplain, rural residences, farmsteads, and modern livestock production facilities. There are 224 parcels within the Project Study Area, with approximately 59 percent of parcels privately owned. Additional property owners include NDOT, Wisner-Pilger Public Schools, and Stanton County Public Power District.

3.4.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no ROW or land acquisitions beyond those needed to complete routine roadway and bridge maintenance activities.

3.4.3 Impacts of the Preferred Alternative

The Preferred Alternative would require the acquisition of approximately 333 acres of new ROW and permanent easements from approximately 90 parcels, primarily south of the existing roadway with a minor amount of ROW required from a few parcels north of the existing roadway. Minor acquisitions, generally less than 10 percent of the total parcel, would be needed. Some acquisitions from small parcels may be moderate, with acquisition of up to 35 percent of the total parcel. Existing land use of these parcels is predominantly irrigated and dry cropland. Acquisitions from a few rural farmsteads as well as Wisner-Pilger Public Schools practice fields would also be needed but would be minor. This new ROW would be needed to construct the two new traffic lanes, county road realignments, bridges, culverts, snow drift mitigation, and access driveways.

No residential or business acquisitions or relocations would be required. Impacts would result from the acquisition of land from adjacent landowners but are expected to be minor because acquisitions are expected to be less than 10 percent of each property. As discussed in Section 3.3, acquisition or relocation of two storage buildings—a small grain bin and a metal outbuilding used for storage of farm equipment—would be needed. Relocation or acquisition of these structures would be determined during the final design and the ROW phases of the Project.

As part of the Preferred Alternative, access control would be purchased along the entire Project in accordance with NDOT's Access Control Policy, generally allowing no more than three accesses to adjacent properties per mile of roadway, typically between county roads. Existing field access drives and residential driveways would be relocated or realigned as needed throughout the Project to comply with the Access Control Policy.

ROW acquisition and relocations would be conducted in accordance with the Uniform Act, Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act. Due to the nature of two- to four-lane highway expansions, uneconomic remnants may be possible. An uneconomic remnant is defined as "a parcel of real property in which the owner is left with an interest after the partial acquisition of the owner's property, and which the acquiring agency has determined has little or no value or utility to the owner" (49 CFR 24.2). If an uneconomic remnant is identified during the ROW acquisition process, per 49 CFR 24.102(k) NDOT would offer to purchase the remnant.

Temporary impacts during construction may occur in the form of temporary easements or temporary access restrictions. Any parcel or portion of a parcel acquired for temporary easements would be returned to their original owner and condition following construction. Access to residential properties would be maintained throughout construction and would be coordinated with the property owner prior to any restrictions.

3.4.4 Avoidance, Minimization, and Mitigation

ROW acquisitions, types, and amounts would be further refined and minimized to the extent possible during the final design phase of the Project. (NDOT)

Access to adjacent properties would be maintained throughout construction. Access restrictions would be coordinated with the property owner prior to the restriction. (NDOT, Contractor)

Property rights acquisition would be conducted by paying fair market value for the property rights and damages that may occur. ROW acquisition would be conducted in conformance with the Uniform Act (42 USC 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et seq.). (NDOT)

Relocation or removal of the small grain bin and a metal outbuilding would be determined during final design and the ROW phase. NDOT would coordinate with the property owner(s) to determine whether the buildings would be relocated or removed and compensated for. (NDOT)

3.5 Community Impact Assessment

Transportation provides mobility and access to the daily activities of a community. A community impact assessment (CIA) considers changes to or impacts on population, housing, income and employment, the tax base, and community resources and cohesion, such as accessibility to neighborhoods or communities, schools, emergency services, and community facilities.

3.5.1 Affected Environment

A CIA was completed for the Project and can be found in Appendix E. The study area for the CIA (CIA Study Area) includes Census Tract 9622, Block Group 1 and Census Tract 9621, Block Group 1 in Stanton County; and Census Tract 9727, Block Group 1 in Cuming County. The CIA Study Area also includes two communities: the village of Pilger in Stanton County (wholly contained within Block Group 1, Census Tract 9621) and the city of Wisner in Cuming County (wholly contained within Block Group 1, Census Tract 9727). Additional detail regarding the CIA can be found in Appendix E.

Population

The population in the CIA Study Area is 3,840 and decreased by 2.6 percent between 2010 and 2020, reflecting the population migration from rural to urban areas in Nebraska and across the country. The average (median) age of the population in the CIA Study Area is 40.5 years (US Census Bureau 2020a). This is higher than the average age for the state of Nebraska (36.6) and the nearby city of Norfolk (35.6). The population in the CIA study area is primarily white, with small populations of other races spread across the CIA Study Area (US Census Bureau 2020b).

Housing

From 2016 to 2020, there were 3,406 households in Census Tracts 9622 and 9621 in Stanton County and Census Tract 9727 in Cuming County¹ (CIA Census Tracts). The average household size in these census tracts ranged from 2.23 to 2.44 people, indicating homes with families present. This is consistent with the Nebraska average household size of 2.44 people but is lower than the US average household size of 2.6 people. From 2016 to 2020, the median property value for the CIA Census Tracts ranged from \$125,600 to \$141,700. Most homes in the CIA Census Tracts are single family structures. Multi-family structures and mobile homes make up less than 10 percent of the available housing inventory. Tenancy within the area is reflective of an established cohesive rural community; between 89 and 97 percent of those surveyed had lived in their existing home for at least 1 year. Of those who had moved, most were relocating to homes within the same county.

Income and Employment

The median income in the CIA Census Tracts was approximately \$64,723, which is consistent with the US median household income of \$64,994 and higher than the Nebraska median household income of \$63,015. Of the population 16 years of age and older in the CIA Census Tracts between 68 and 74 percent were employed and between 25 and 30 percent were not. Leading industries for the employed civilian population in the CIA Census Tracts are agriculture, educational services, healthcare, social services, manufacturing, and retail trade. Most workers near the Project drove to work alone from 2016 to 2020, and between 5.4 and 9.8 percent carpooled. For those who commuted to work, it took an average of between 16.3 and 23.0 minutes to get to work, indicating that most workers in the area commute outside of the area in which they reside using the highway system.

Tax Base

The predominant land type in the CIA Study Area is agricultural, accounting for over half the assessed value in Stanton and Cuming Counties. A total of 256,368 acres of agricultural land was assessed at an average value of \$6,200 per acre in Stanton County, and a total of 340,895 acres of agricultural land was assessed at an average value of \$8,000 per acre in Cuming County (Nebraska Department of Revenue 2022).

Community Resources and Cohesion

As discussed in Section 3.2, land use in the CIA Study Area is typical of rural, row crop agricultural land use with some irrigation and includes the Elkhorn River floodplain, rural residences, farmsteads, and modern livestock production facilities. There are three communities along US-275 that would be influenced by the Project: Norfolk in Madison County, Pilger, and Wisner. Those living and working directly in the CIA Study Area rely on these communities for sustainability and social support services like schools, emergency services, and community facilities.

¹ Data regarding housing, income and employment, and the tax base are available at only the census tract level, not the block group level. Additional explanation is provided in the CIA in Appendix E.

There are two school systems in the CIA Study Area: Stanton Community Schools and Wisner-Pilger Public Schools. Stanton Community Schools in Stanton serves central and north-central Stanton County. Wisner-Pilger Public Schools in Wisner serves northeast Stanton County and northwest Cuming County (Erickson 2019). Both school systems consist of an elementary school and a junior/senior high school, and both provide public school buses to transport students within the CIA Study Area (Stanton Community Schools 2023; Wisner-Pilger Public Schools 2023).

Emergency services in the CIA Study Area include fire, police, and medical services. Stanton County emergency services in the CIA Study Area are dispatched from the Norfolk 911 Communication Center in Norfolk (City of Norfolk 2023). Emergency services in Cuming County, including the Cuming County Sheriff's office outside of business hours, are dispatched through an E-911 service located in West Point, Nebraska (City of Wisner 2023a; Cuming County 2021).

Two volunteer fire departments serve the CIA Study Area. The Pilger Volunteer Fire Department is located at 240 North Main Street (about one block west of Main Street) in Pilger (Village of Pilger 2019). The Wisner Volunteer Fire Department is located at 1055 Avenue D in Wisner and serves approximately 151.5 square miles (City of Wisner 2023a). In the event of multiple emergencies, the Wisner Volunteer Fire Department has mutual aid agreements with nearby communities of Bancroft, Beemer, Pilger, and West Point.

Police services in the CIA Study Area are provided at the local, county, and state levels. Local service is provided to the city of Wisner by the Wisner Police Department located on US-275 at 1111 Avenue E in Wisner. County services are provided by the Stanton and Cuming County Sheriffs. The Stanton County Sheriff is headquartered in Stanton, and the Cuming County Sheriff is headquartered in West Point. State police services are provided by the Nebraska Highway Patrol Troop B headquartered in Norfolk (Nebraska State Patrol 2023).

Medical services in the CIA Study Area consist of two clinics in Wisner. Emergency medical services are not located in the CIA Study Area and are provided by four hospitals in surrounding communities:

- Pender Community Hospital located 20 miles northeast of Wisner in Pender, Nebraska
- St. Francis Memorial Hospital located 15 miles southeast of Wisner in West Point
- Faith Regional Health Services located 12 miles west of N-57 in Norfolk
- Providence Medical Center located 15 miles north of Pilger in Wayne, Nebraska

Two senior centers are in or near the CIA Study Area: Stanton Health Center Westside Regency Assisted Living at 301 17th Street in Stanton and Wisner Community Senior Center at 1006 Avenue E in Wisner. Both centers provide services to senior citizens, and the Wisner Community Senior Center provides on-site meals and home-delivered meals (Nebraska Resource and Referral System 2023a, 2023b).

Two local special events are held in the CIA Study Area. The first is the Thunder by the River Truck and Tractor Pull located at River Park in Wisner. The event is a truck and tractor pull that occurs annually during the third week of August. The event has been hosted in Wisner since 2005 (City of Wisner 2023b; Thunder by the River 2023). The second event is the Lions Club Rodeo and Junior Livestock Show at River Park in Wisner. This event occurs in late June or early July and includes rodeos, poker runs, eating competitions, and livestock showings (City of Wisner 2023b).

As noted in the discussion of housing, the area along US-275 is a well-established, cohesive rural community with most people being long-time residents of the area.

3.5.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no work beyond what is needed to complete routine roadway and bridge maintenance activities on US-275 between N-57 and Wisner. The No Build Alternative would result in long-term adverse impacts on the communities surrounding the Project. Connectivity along the US-275 corridor would remain fragmented, and traffic delays between Norfolk and Fremont would increase as traffic volumes increase.

3.5.3 Impacts of the Preferred Alternative

The Project would have both beneficial and adverse short-term and long-term impacts as discussed below.

Population

The Project would have minor, short- and long-term, beneficial impacts on the populations in and near the CIA Study Area. Over the last 50 years, the rural communities in the CIA Study Area have seen decreases in population while the larger communities, such as Norfolk, have seen increases in population. This trend is consistent with rural communities nationwide (Economic Research Service 2022). In the long term, the Project would beneficially impact populations in the CIA Study Area and surrounding communities by reducing travel times and creating a more efficient roadway. In the short term, these populations would be impacted by construction activities.

Housing, Income, and Employment

Short-term beneficial impacts on income and employment would include an increase in construction-related jobs and increased business of construction workers patronizing local businesses and service establishments. A projected long-term increase in employment, discussed below, would generate additional spending in communities, stimulating business growth and local housing markets. Housing inventory exists in the surrounding communities to accommodate an increase in temporary workers.

Long-term beneficial economic impacts would result from expanding US-275 to a four-lane facility; expansion would increase connectivity in the CIA Study Area for local commuting traffic and would provide more efficient movement of local products to larger markets. The Project would also decrease travel times and improve travel time reliability. The Project would have moderate, long-term, beneficial impacts on industry in the region. Manufacturing and retail are important industries in the region and rely on movement of goods for sale throughout Nebraska and the United States. Metal manufacturing and farm output per highway mile along US-275 in the counties adjacent to (Madison) and within the CIA Study Area (Stanton and Cuming) are higher than in any other Nebraska location (Goss and Associates 2015). Currently, the movement of steel and other manufactured goods produced in Norfolk and nearby communities, and agricultural products, including the cattle produced in feedlots along US-275, are impeded by traffic delays. With the existing density of manufacturing jobs, especially in Norfolk, and agricultural industries in the area between Norfolk and Wisner, construction of the 16-mile segment from Norfolk to Wisner and improved travel times would provide an unknown increase in economic benefit to the region.

Public input was received during a stakeholder meeting and a public meeting in September 2019. Several comments received were concerns about the economic impact of a bypass around Wisner. NDOT responded to these comments noting that a Wisner bypass is not being considered for the Project and as a result, the Project would not have negative, long-term economic impacts on the residents and businesses in Wisner.

Tax Base

Minor, short-term, adverse impacts on the tax base would occur in and near the CIA Study Area as portions of property parcels are acquired for expansion of US-275. As discussed in Section 3.4, the Preferred Alternative would require acquisition of approximately 333 acres of land. These acquisitions generally represent less than 10 percent of the respective parcels and 1 percent of the total assessed value in these counties. As design progresses, impacts on adjacent properties in both Stanton and Cuming Counties would be minimized or eliminated to the extent practicable. Increased development along US-275 and in adjacent communities would increase the tax base in Nebraska, in both Stanton and Cuming Counties, and in local communities such as Pilger and Wisner.

Community Resources and Cohesion

Access to community resources, including area schools, fire and police services, and community facilities; cohesion between communities, such as Norfolk, Pilger, and Wisner; and quality of life for residents along the Project would benefit from the moderate, long-term impacts that would include those previously described, such as a more efficient and reliable roadway. The reduced travel time between communities would be particularly beneficial for emergency services and schools. During construction, the CIA Study Area would experience minor, short-term disruptions from noise and dust. During construction, access to community resources would not be adversely affected by expansion of US-275 because improvements would be constructed under traffic. Any required closures of county roads would be of limited effect and duration. Access to businesses, community resources, and residences would be maintained but may be temporarily disrupted by construction phasing. Senior centers would not be adversely affected by expansion of US-275. Utility service disruptions are not anticipated due to the project. Local events, like the Thunder by the River Truck and Tractor Pull, are expected to incur minor, short-term, adverse impacts during construction and moderate, long-term, beneficial impacts due to the Project, such as increased attendance due to better accessibility, benefiting local tourism and commerce.

3.5.4 Avoidance, Minimization, and Mitigation

As design progresses, impacts on adjacent properties in both Stanton and Cuming Counties would be minimized or eliminated to the extent practicable. Short-term adverse effects on the community resulting from construction (e.g., traffic, noise, dust) would be addressed or minimized through NDOT's Standard Specifications for Highway Construction. No project-specific mitigation with respect to the community would be required or is proposed for the Project.

3.6 Environmental Justice

The presence or absence of environmental justice populations and populations with limited English proficiency are discussed in Section 3.1.1.

3.7 Transportation

A transportation network consists of all modes of transportation for goods and people including road, air, transit, trails, and rail. Access to and transport via these facilities are considered in evaluating impacts by the alternatives.

3.7.1 Affected Environment

There are four highways in the Project Study Area (see Figure 1-4). The first, US-275, would be improved as part of the Project. US-275 is a major east-west transportation corridor in Nebraska. It is also the only direct connection between the cities of Norfolk, Fremont, and Omaha, three of the largest

service and trade centers in the state. According to the 2020 US Census population estimates, Norfolk is Nebraska's 8th largest city, Fremont is Nebraska's 6th largest city, and the Omaha-Council Bluffs Metropolitan Area is Nebraska's largest urban area (US Census Bureau 2022). The second highway in the project Study Area is N-57. N-57 is a north-south highway approximately 22 miles long. N-57 connects N-91, northeast of Leigh, Nebraska, with US-275. The third highway in the Project Study Area is N-15. N-15 is a north-south highway extending the length of Nebraska, approximately 210 miles from Kansas to South Dakota. In the Project Study Area, N-15 has two junctions: one north of Pilger and one approximately 5.5 miles west of Wisner. The fourth highway in the Project Study Area is N-51. N-51 is an east-west highway beginning just north of Wisner at US-275 and extending 37 miles east to Decatur, Nebraska.

The Wisner-Pilger Public Schools is on the north side of US-275 between 21st Street and 18th Street in Wisner, approximately mile marker (MM) 101.55 to MM 101.78. The Wisner-Pilger Public Schools has indicated through stakeholder coordination (Section 4.2) that there are currently turning and congestion issues along 21st and 18th Streets during peak drop-off and pick-up times.

The nearest public use airports to the Project Study Area are the Norfolk Regional Airport, 13 miles south and west of the Project, and Wayne Municipal Airport, 16 miles north of the Project (NDOT 2022b). These airports service smaller non-commercial aircraft. The nearest commercial airports are the Sioux Gateway Airport in Sioux City, Iowa; Eppley Airfield in Omaha; and the Lincoln Municipal Airport in Lincoln.

There are no transit facilities, trails, or railroads within the Project Study Area.

3.7.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on the transportation network or access to properties beyond those needed to complete routine roadway and bridge maintenance activities. The traffic volumes and delays throughout the corridor, including at the Wisner-Pilger Public Schools, would continue to increase under the No Build Alternative.

3.7.3 Impacts of the Preferred Alternative

The Project is anticipated to have minor, short-term, adverse impacts on the transportation network during construction. Construction would be completed under traffic, allowing continuous movement through the Project Study Area. Traffic would remain open on the existing lanes while the new lanes are constructed. Traffic would shift to the new lanes while work is completed on the existing lanes. County roads would be detoured while being reconstructed to connect to the new lanes. The adverse out-of-direction travel would be approximately 1 to 5 miles in a rural setting. Adjacent county roads would not be closed at the same time.

After construction, the Project would have major, long-term, beneficial impacts on the transportation network in the Project Study Area and in northeast Nebraska. The approximately 16 miles that the Project would improve represent more than half of the remaining 27 miles to complete the US-275 expressway identified in the *1988 Nebraska Highway Needs Study* linking Norfolk, Omaha, and the surrounding communities. In the Project Study Area, the Project would provide a direct four-lane connection between Norfolk, N-57, N-15, N-51, and Wisner. The Project would also include construction of an offset right-turn lane at 21st Street and realignment of 18th Street to improve sight distance at the US-275 intersection. This would improve traffic flow and congestion at the Wisner-Pilger Public Schools during peak drop-off and pick-up times. Additionally, widening US-275 from N-57 to Wisner is expected to decrease the annual vehicle delay by 74,000 to 191,000 vehicle hours between 2025 and 2045 (HDR 2021). The decrease in delay would increase the efficiency and reliability of the roadway.

Four county roads would have restricted R-cut intersections: 568th Avenue, 569th Avenue, 570th Avenue, and 571st Avenue. R-cut intersections are used on divided highways and require approaching motorists on side roads to “turn right onto the highway and then make a U-turn at a designated median opening” (NDOT, n.d.). The addition of this type of intersection would result in negligible out-of-direction travel for motorists but would provide greater safety benefits due to fewer conflict points.

3.7.4 Avoidance, Minimization, and Mitigation

For county roadway realignments, county roads adjacent to the closed roadway would not be closed at the same time and would remain open to traffic. (NDOT, Contractor)

Access to properties may be limited at times throughout construction but would remain open. The Contractor would coordinate with property owners to maintain access to fields and residences. (Contractor)

3.8 Recreation Facilities

Recreation facilities include parks, trails, schools, fairgrounds, and other places where people can enjoy leisurely activities. These facilities are open to the public and can be used for recreational activities. Existing recreation facilities were identified, and the Stanton and Cuming County comprehensive plans discussed in Section 3.2.1 were reviewed to identify future facilities. The Preferred Alternative was analyzed for potential impacts on existing and planned facilities in the Project Study Area.

3.8.1 Affected Environment

There is one recreational resource, Wisner-Pilger Public Schools, within 0.25 mile of the Project and three resources with access from US-275 (see Figure 3-1). The Wisner-Pilger Public Schools, including the track, football field, and practice fields, is on the north side of US-275 between 21st Street and 18th Street in Wisner, approximately MM 101.55 to MM 101.78. Amenities that are open to the public include two playgrounds, a walking path, track, football field, grassed area north of the track, and practice field. The junior/senior high school and elementary school buildings are not considered recreational amenities because they are not open to the public. The track/football field is adjacent to 18th Street and is fenced. Inside the fenced area immediately adjacent to 18th Street is a shot put/discus pad that school representatives have indicated is no longer used. A grass practice field is adjacent to 21st Street. This grassed area also includes three shot put/discus pads that are currently used (including one pad in the northeast corner of the US-275 and 21st Street intersection). School representatives have indicated that their facilities are always open for public use when not in use by the school.

The three resources with access from US-275 include the Red Fox Wildlife Management Area (WMA), Pilger Recreation Area, and Black Island WMA. The Red Fox WMA is approximately 1.7 miles south of US-275 along N-15 (west leg). The Pilger Recreation Area is approximately 0.5 mile north of US-275 along 575th Avenue. The Black Island WMA is approximately 1 mile south of US-275 along South Road and is accessed via US-275 at either 575th Avenue or 2nd Road.

3.8.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on the Wisner-Pilger Public Schools or the three recreation resources beyond what is needed to complete routine roadway and bridge maintenance activities.

3.8.3 Impacts of the Preferred Alternative

The Project would require acquisition of approximately 0.22 acre from the Wisner-Pilger Public Schools (see Figure 3-3) for construction of an offset right-turn lane at 21st Street and realignment of 18th Street to improve sight distance at the US-275 intersection. A portion of the practice field in the southwest corner of the property would be acquired and would require relocation of a shot put/discus pad. The relocation of the pad would be determined through coordination with Wisner-Pilger Public Schools. This acquisition would not affect the continued use of the field for practice. The school track and football field adjacent to US-275 would be unaffected. During the stakeholder involvement process (see Section 4.2), the Wisner-Pilger Public Schools requested that 18th Street be realigned to improve sight distance and geometrics at the intersection with US-275. As a result, the shot put/discus pad in the southeast corner of the property would be removed. This pad is no longer used by the school.

Impacts on access to the Red Fox WMA, Pilger Recreation Area, and Black Island WMA are not expected from the Preferred Alternative. The Project would be constructed under traffic, using the existing lanes while the new lanes are constructed and then using the new lanes while the existing lanes are resurfaced. N-15, 575th Avenue, and 2nd Road may be temporarily closed during construction due to phasing, but access to the recreation areas via other county roads would remain open. The additional out-of-direction travel would be less than 5 miles.

Temporary impacts during construction may occur in the form of temporary easements or temporary access restrictions. Portions of the school acquired for temporary easements would be returned to pre-construction conditions following construction. Access to the Wisner-Pilger Public Schools would remain open at one of the intersections, either 21st or 18th Street, during the closure of the other.

3.8.4 Avoidance, Minimization, and Mitigation

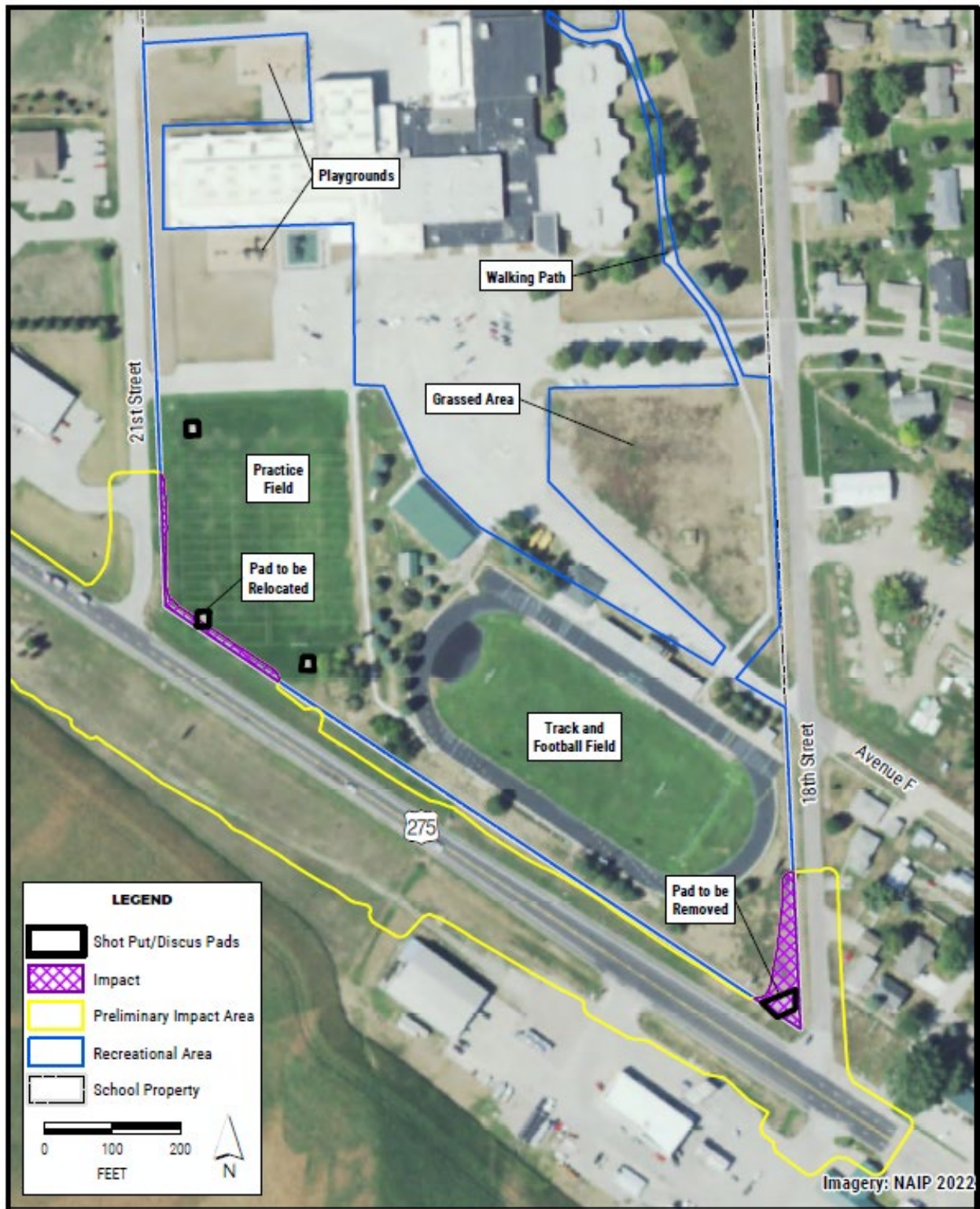
The work occurring adjacent to the Wisner-Pilger Public Schools may be minimized further during the final design process. If changes occur within the property, the impacts would be re-evaluated, and additional coordination with the school would be conducted.

The Contractor would not complete work or stage, stockpile, or store materials outside of the boundaries of the acquired ROW and temporary easements at the Wisner-Pilger Public Schools. If it is determined that additional temporary or permanent ROW is required outside of the designated boundaries or if access is restricted to a Section 4(f) property, coordination would occur with NDOT Environmental. (Contractor)

Access to the Wisner-Pilger Public Schools would remain open at one of the intersections, either 21st Street or 18th Street, during the closure of the other. The Contractor and the NDOT District would coordinate with the Wisner-Pilger Public Schools prior to affecting traffic near the school. (NDOT, Contractor)

The shot put/discus pad in the northeast corner of the US-275 and 21st Street intersection would be relocated within the practice field in coordination with the Wisner-Pilger Public Schools during the ROW process. (NDOT)

Figure 3-3. Wisner-Pilger Public Schools Impacts



3.9 Historic Properties

Historic properties include any archeological site, historic structure, or other property listed in or eligible for listing in the National Register of Historic Places (NRHP), which is the official list of United States historic buildings, districts, sites, structures, and objects worthy of preservation. A property is considered eligible if it meets one or more of these criteria:

- Criterion A: Is associated with events that have made a significant contribution to the broad pattern of our history.
- Criterion B: Is associated with the lives of persons significant in our past.
- Criterion C: Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: Has yielded, or may be likely to yield, information important in history or pre-history.

Section 106 of the National Historic Preservation Act of 1966 (NHPA; 36 CFR 800) requires that federal agencies consider the impacts of a project on historic properties.

3.9.1 Affected Environment

The historic properties study area is known as the Area of Potential Effects (APE) and was chosen to identify any resource listed in or eligible for listing in the NRHP that may be directly or indirectly affected by the Project.

Based on historical mapping and reviews completed by NDOT, the following two historic resources in or near the APE were studied (see Figure 3-1):

- The Former Pilger Rest Area is located at MM 90.05 between 570th Avenue and 571st Avenue. The former rest area was constructed in 1969 as part of the Highway Beautification Act of 1965 and features a mid-century one-story red brick building. Other amenities include large green spaces and picnic pavilions. The property is eligible for listing in the NRHP under Criterion A for a significant association with Transportation and Criterion C for Architecture and Landscape Design.
- The Sharpe Homestead Site (25ST16) is located near the N-15 west junction and is considered the first homestead in Stanton County. The archeological site retains a high degree of physical integrity and is eligible for listing in the NRHP under Criterion D for Information Potential.

The Nebraska State Historic Preservation Office (NeSHPO) was contacted regarding the eligibility determination and concurred with the findings detailed above and in Appendix F on February 26, 2020.

In addition to NeSHPO, the 2019 coordination package identified 19 consulting parties as having an interest in the two identified properties as well as the Project in general. These parties included the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County Nebraska, Stanton County Museum – Pilger Location, Village of Pilger, Wisner Heritage Museum, History Nebraska, Iowa Tribe of Kansas and Nebraska, Omaha Tribe of Nebraska, Otoe-Missouria Tribe of Indians Oklahoma, Pawnee Nation of Oklahoma, Ponca Tribe of Nebraska, Ponca Tribe of Oklahoma, Santee Sioux Nation, Winnebago Tribe of Nebraska, and four private property owners. The Pawnee Nation of Oklahoma Tribal Historic Preservation Officer (THPO) responded on September 16, 2019, that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee

Nation" and indicated that the Project may proceed as planned. The Pawnee Nation THPO also indicated that if undiscovered properties are encountered, consultation with his office should be re-initiated.

In 2023, the Project effects determination was sent to the consulting parties for comment. Under Nebraska's 2023 statewide Section 106 Programmatic Agreement, several additional tribes have been identified as consulting parties. These parties, in addition to those listed above, include the Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma; Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe; Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota; Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota; and the Yankton Sioux Tribe of South Dakota. The Pawnee Nation of Oklahoma THPO responded on July 20, 2023, that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the Project may proceed as planned. The City of Wisner responded on June 28, 2023, indicating that they are not aware of any known historical sites. No other consulting parties have responded to date.

FHWA notified the Advisory Council on Historic Preservation (ACHP) of the potential adverse effect resulting from the Project on August 9, 2023. The ACHP notified FHWA of their intention not to consult on the Project on August 16, 2023.

The coordination among NDOT, FHWA, NeSHPO, THPOs, and consulting parties is found in Appendix F. The coordination describes how historic resources were identified and evaluated for the Project.

3.9.2 Impacts of the No Build Alternative

There would be no construction of the Project, or use of temporary detours, with the No Build Alternative. As a result, there would be no impacts on the properties listed above beyond those needed to complete routine roadway and bridge maintenance activities.

3.9.3 Impacts of the Preferred Alternative

The Preferred Alternative would have no impact on the Former Pilger Rest Area but would adversely impact the Sharpe Homestead Site. Approximately 1.53 acres of the 3.5-acre Sharpe Homestead Site would be impacted as part of the Project. Unavoidable impacts on the site would include grading for the roadway and ditches. These impacts would be minimized through the use of special shallower ditches. Despite minimization, the Preferred Alternative would result in an Adverse Effect on the Sharpe Homestead Site. NeSHPO concurred with the Adverse Effect finding on June 22, 2023. Adverse effects would be resolved through a Memorandum of Agreement with the NeSHPO.

3.9.4 Avoidance, Minimization, and Mitigation

The former Pilger Rest Area has been identified as a Sensitive Area on the north side of existing US-275 from MM 90.43 to MM 90.59. This Sensitive Area would be indicated on Project plans. (NDOT Design)

A Sensitive Area (the former Pilger Rest Area) has been identified on the north side of existing US-275 from MM 90.43 to MM 90.59. No grading or Project activities, including, but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, would occur within the boundary of the Sensitive Area(s). (Contractor)

A Memorandum of Agreement would be drafted and executed to implement the Data Recovery Plan approved by FHWA and concurred upon by NeSHPO to mitigate the adverse effect on the Sharpe Homestead Site. (NDOT Environmental)

A Project-level Programmatic Agreement would be drafted to ensure geoscientific investigations are completed. (NDOT Environmental)

3.10 Visual

Visual resources are those physical features that make up the visible landscape, including land, water, vegetation, and human-made elements (FHWA 1986). Visual considerations are given for general resources (public) and specific sensitive resources (including some parks, landscapes, and historic properties).

3.10.1 Affected Environment

The viewshed of the Project Study Area consists of mostly rural cropland with some urban portions adjacent to the N-15 west junction by Pilger and along the eastern terminus in Wisner. As discussed in Section 3.2.1, the land use is predominantly rural and is planned to be continually used as such.

3.10.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on the existing visual environment. Current land uses would remain the same, and the visual environment would remain the same.

3.10.3 Impacts of the Preferred Alternative

The Preferred Alternative would involve construction of transportation infrastructure adjacent to the existing roadway with structures visually similar to the existing structures. Construction of the Project would result in a roadway that would be visually similar to adjacent segments of four-lane expressway along US-275. There would be no beneficial or adverse permanent impact on the aesthetic value of the area. Construction of the Project would result in temporary visual impacts such as visibility of construction equipment and supplies, and disturbance of vegetation exposing bare ground. The presence of construction equipment and disturbed ground would result in minor adverse visual effects. There are no unique viewsheds, such as wilderness areas or scenic areas, within or immediately adjacent to the Project Study Area. Impacts would cease when construction is complete. Disturbed areas would be revegetated by the Contractor following construction.

3.10.4 Avoidance, Minimization, and Mitigation

Impacts resulting from the Preferred Alternative would be temporary construction impacts, and no mitigation is proposed.

3.11 Section 4(f)

Section 4(f) of the US Department of Transportation Act of 1966 (49 USC 303) provides special protection for publicly owned parks and recreational lands, wildlife and waterfowl refuges, and significant public or private historic properties. An impact, either direct or indirect, on one of these resources is considered a "use." A "use" of a Section 4(f) resource, as defined in 23 CFR 774.17, occurs: (1) when land is permanently incorporated into a transportation facility, (2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purpose, or

(3) when there is a “constructive” (that is, indirect) use of land. The Project alternatives were evaluated based on impacts on Section 4(f) resources identified within the Project Study Area.

3.11.1 Affected Environment

Three resources were studied as part of the Section 4(f) review. These include the Wisner-Pilger Public Schools, the Former Pilger Rest Area, and the Sharpe Homestead Site (see Figure 3-1).

As discussed in Section 3.8.1, the Wisner-Pilger Public Schools, including the track, football field, and practice field, is on the north side of US-275 between 21st Street and 18th Street in Wisner, approximately MM 101.55 to MM 101.78. The Wisner-Pilger Public Schools is a multi-use property. The buildings and parking areas located on the north side of the parcel are not intended for recreational use and are not open to the public. The playgrounds, walking path, track, football field, and practice field are always open for public use when not in use by the school and fall under Section 4(f) protection.

As discussed in Section 3.9.1, there are two NRHP-eligible properties within the Project Study Area: the Former Pilger Rest Area and the Sharpe Homestead Site. The Former Pilger Rest Area is eligible for listing in the NRHP under Criteria A and C and is protected under Section 4(f). The Sharpe Homestead Site is an archeological resource that is eligible for listing in the NRHP under Criterion D. NeSHPO concurred with this finding on February 26, 2020, and that the site does not warrant preservation in place on August 2, 2023. Per the FHWA Section 4(f) policy paper, the Sharpe Homestead Site is not protected under Section 4(f) because it does not warrant preservation in place (FHWA 2012).

The NDOT Section 4(f) Initial Assessment Form, which describes the potential Section 4(f) resources in the area and how they were identified and evaluated, is provided in Appendix G.

3.11.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on the properties listed above beyond those needed to complete routine roadway and bridge maintenance activities.

3.11.3 Impacts of the Preferred Alternative

As discussed in Sections 3.8 and 3.9, the Preferred Alternative would impact the Wisner-Pilger Public Schools and Sharpe Homestead Site but would not impact the Former Pilger Rest Area.

The Preferred Alternative would impact approximately 1.53 acres of the 3.5-acre Sharpe Homestead Site. NeSHPO concurred with the Adverse Effect and data recovery plan on June 22, 2023. A Section 4(f) Exception for Archeological Sites (23 CFR 774.13(b)) applies and can be found in Appendix G.

Approximately 0.22 acre of ROW would be acquired from the Wisner-Pilger Public Schools property at the 21st and 18th Street intersections for intersection improvements. A portion of the practice field in the southwest corner of the property would be acquired, and the shot put/discus pad would be relocated within the practice field. The location would be determined through coordination with Wisner-Pilger Public Schools. The field would still be useable for practice activities. The shot put/discus pad in the southeast corner of the property would be removed. Based on coordination with school representatives, this pad is not a significant feature of the practice fields and is no longer used. Impacts on the property would be considered a “use” under Section 4(f). The ROW acquisition represents less than 2 percent of the entire 14.16-acre recreational property. These actions would not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection and would improve access to the school and thus to the recreation facilities. Coordination

with the Official with Jurisdiction, the Wisner-Pilger Public Schools superintendent, has occurred regarding the potential impacts on the Wisner-Pilger Public Schools, as discussed in Chapter 4, and would continue throughout the NEPA process. As such, the impact is considered to be a *de minimis* under 23 CFR 774.5(b)(2)(ii). Concurrence from the official with jurisdiction would be obtained after receiving public input during the public comment period for the Draft EA.

Temporary impacts during construction may occur in the form of temporary easements or temporary access restrictions. Portions of the school property acquired for temporary easements would be evaluated under Section 4(f) prior to construction and returned to pre-construction conditions following construction. Access to the Wisner-Pilger Public Schools would remain open at one of the intersections, either 21st Street or 18th Street, during the closure of the other.

3.11.4 Avoidance, Minimization, and Mitigation

Following the public comment period for the Draft EA, NDOT would request concurrence from the Wisner-Pilger Public Schools superintendent on the *de minimis* impact determination for the use of the Wisner-Pilger Public Schools property. (NDOT Environmental).

Avoidance, minimization, and mitigation for impacts on the Wisner-Pilger Public Schools is discussed in Section 3.8.4.

3.12 Section 6(f)

Potential LWCF lands (Section 6(f) properties) are discussed in Section 3.1.2.

3.13 Utilities

The potential of the Project to affect utilities in the Project Study Area was considered by identifying these resources and their location and orientation in relation to the Project. These effects were evaluated with respect to utilities crossed by or located within the Preliminary Impact Area.

3.13.1 Affected Environment

The following utilities are located within the Project Study Area:

- Lumen
- Stanton County Public Power District
- Cuming County Public Power District
- Stanton Telecom
- Great Plains Communication
- Nebraska Public Power District
- Black Hills Energy
- Frontier Communication
- Cuming County Telephone
- City of Wisner

There are four major utility facilities in the Project Study Area: two buried gas lines, one that runs north-south along 568th Avenue and a second that parallels US-275 from S Road into Wisner; a substation and associated transmission lines in the northeast quadrant of the intersection of US-275 and 569th Avenue; and a cellular tower in the northeast quadrant of the intersection of US-275 and 572nd Avenue.

3.13.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on utilities beyond those needed to complete routine roadway and bridge maintenance activities.

3.13.3 Impacts of the Preferred Alternative

Utilities would need to be relocated for the Preferred Alternative. Most utilities in the Project Study Area are minor service lines, several of which would require relocation. Additionally, the two gas lines and the transmission lines from the substation may require relocation. At this time, impacts on utilities are anticipated to be minor and routine for roadway projects. No impacts are anticipated on the cellular tower.

NDOT notified utility companies at the District 3 utility coordination meeting on October 10, 2023, that Project construction is upcoming. At this meeting, NDOT alerted utility companies that the Project would likely require utility relocations. NDOT would coordinate with utility companies during final design to identify specific utility impacts and needed relocations.

Utilities would be relocated in accordance with NDOT's utility relocation policy. Impacted utility companies would be responsible for relocating their own facilities within the highway ROW at their own cost. Utility relocation may be eligible for reimbursement in certain circumstances. Federal funds would not be used to relocate utilities. All required utility adjustments would be coordinated through NDOT and the Contractor in accordance with NDOT's Standard Specifications for Highway Construction during the appropriate phase of construction. Additional environmental impacts are not anticipated. The utility owner is responsible for obtaining any environmental permits and approvals required for utility relocation.

3.13.4 Avoidance, Minimization, and Mitigation

Impacts on utilities are not avoidable because several utilities are located near or within the existing ROW. The Contractor should follow the guidelines of NDOT's Policy for Accommodating Utilities on State Highway ROW (NDOT 2001). It is NDOT's responsibility to notify utility companies of the need for relocation during the design stage of the Project. The NDOT Utility Section would coordinate utility agreements with the utility companies prior to construction. It is the Contractor's responsibility to notify utility companies of relocation needs during the construction phase of the Project for utilities that were not relocated before construction. (NDOT, Utility Provider(s))

If utility relocation or replacement is required in a later phase of the Project, a re-evaluation would be required if (1) federal funds will be used for the utility work, or (2) the Project construction contractor will be responsible for the work.

If this utility work is identified during final design, NDOT would initiate the re-evaluation prior to Project letting. If the work is identified during construction, NDOT would initiate the re-evaluation prior to commencing utility work. (NDOT Environmental, NDOT District)

If either one of the above two conditions does not apply, later relocation or replacement of utilities would be coordinated through NDOT and the Contractor per NDOT's Standard Specifications for Highway Construction, Subsection 105.06. Any environmental permits required for these utility relocations or replacements would be the responsibility of the Utility. (NDOT District, Utility Provider(s))

3.14 Air Quality

The Clean Air Act Amendments of 1990 (42 USC 7401 et seq.) control air toxic emissions in the United States and regulate 188 air toxics, including Mobile Source Air Toxics (MSAT). FHWA has developed a tiered approach with the following three categories for analyzing MSATs in NEPA documents, depending on specific project circumstances:

- MSAT I – No analysis for projects with no potential for meaningful MSAT effects
- MSAT II – Qualitative analysis for projects with low potential MSAT effects
- MSAT III – Qualitative analysis to differentiate alternatives for projects with higher potential MSAT effects

In addition to MSAT concerns, FHWA has developed mitigation strategies to reduce transportation greenhouse gas emissions.

NDOT and the Nebraska Department of Environment and Energy (NDEE) entered into a Memorandum of Understanding in 2021 where NDOT adheres to the MSAT guidance and NDEE monitors National Ambient Air Quality Standards (NDOT and NDEE 2021). Under the Memorandum of Understanding, NDOT and NDEE commit to future exchanges of information regarding non-attainment determinations, future highway projects, potential environmental issues, and other issues of common interest.

3.14.1 Affected Environment

The US Environmental Protection Agency (EPA) publishes a list of the annual nonattainment and maintenance status for each county by state under the National Ambient Air Quality Standards (EPA 2023). Any county not listed has been designated in attainment since 1992. Stanton and Cuming Counties are currently in attainment for all criteria pollutants.

In consideration of the scope of the Project, an MSAT II Qualitative Memo was developed and is located in Appendix H. For each alternative of the EA, the amount of MSAT emitted was assessed in relation to vehicle miles traveled (VMT).

3.14.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no new ROW or construction activities beyond those needed to complete routine roadway and bridge maintenance activities. The amount of MSATs emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same. Therefore, there would be no impacts on air quality.

3.14.3 Impacts of the Preferred Alternative

The VMT estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative because the additional capacity would increase the efficiency of the roadway and would attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions along the highway corridor, along with a corresponding decrease in MSAT emissions

along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds. According to EPA's MOVES2014 model, emissions of all priority MSATs decrease as speed increases. Because the estimated cumulative VMT is nearly the same, it is expected that there would be no appreciable difference in overall MSAT emissions. The annual average daily traffic (AADT) for this Project through 2045 is forecast to be no more than 9,000 in any given year; this is well below the threshold of 140,000 to 150,000 AADT that would require MSAT III analysis.

Emissions would likely be lower than present levels in the design year because of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (FHWA 2016). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great, even after accounting for VMT growth, that MSAT emissions of the Preferred Alternative are likely to be lower in the future.

Temporary impacts on air quality during construction may occur due to emissions and dust from construction equipment. These impacts would be temporary and would not create a non-attainment status within the Project Study Area.

3.14.4 Avoidance, Minimization, and Mitigation

Short-term adverse effects on air quality resulting from construction would be addressed or minimized through NDOT's Standard Specifications for Highway Construction. Since Stanton and Cuming Counties are currently in attainment, and the Preferred Alternative would result in no appreciable difference in overall MSAT emissions, no project-specific mitigation is proposed.

3.15 Noise

Automobile noise primarily comprises sounds from engine exhaust, drive train, and tire/roadway interaction. This Draft EA is supported by an analysis of noise that is presented in a Traffic Noise Technical Memorandum found in Appendix I, which has been prepared in accordance with 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*; the FHWA *Highway Traffic Noise Analysis and Abatement Policy and Guidance* (FHWA 1995), and NDOT *Noise Analysis and Abatement Policy* (NDOT 2022c).

FHWA's *Procedures for Abatement of Highway Traffic Noise* (23 CFR 772) state that a noise impact occurs when the predicted traffic noise levels for a project approach² or exceed Noise Abatement Criteria (NAC) for the land use activity categories shown in Table 3-1.

² Approach is defined as noise levels within 1 A-weighted decibel (dBA) of the Noise Abatement Criteria for the activity category.

Table 3-1. Noise Abatement Criteria per Land Use Activity Category

Activity Category	Activity ¹ Leq(h)	Activity Description
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need.
B ²	67 (exterior)	Exterior residential (single-family and multi-family dwellings)
C ²	67 (exterior)	Exterior non-residential lands (schools, parks, cemeteries, etc.)
D	52 (interior)	Interiors of Category C facilities
E ²	72 (exterior)	Exterior developed land less sensitive to highway noise
F	---	Land uses not sensitive to highway traffic noise (agriculture)
G	---	Undeveloped lands

¹ The Leq(h) Activity Criteria values are for impacted determination only and are not design standards for noise abatement.

² Includes undeveloped lands permitted for this activity category.

3.15.1 Affected Environment

In the Project Study Area, noise levels were measured at 32 noise-sensitive receptors representing 22 residences, 3 land use Category C areas (rest area, medical facility, school sports area), and 3 businesses. Measured noise levels and modeled noise levels are presented in Table 3-2. Additional information on noise levels within the Study Area is presented in Appendix I.

Table 3-2. Noise Levels

Receptor Number ¹	Activity Category	NAC ²	Predicted Noise Levels			Difference Existing vs. Build (dBA)
			Existing (2018)	No Build (2044)	Build (2044)	
R1	B	66	50	52	54	4
R2	B	66	60	62	62	2
R3	B	66	47	49	51	4
R4	B	66	57	59	63	6
R5	B	66	64	66	66	2
R6	B	66	60	62	63	3
R7	B	66	67	69	70	3
R8	B	66	63	66	66	3
R9	B	66	47	50	52	5
R10	B	66	63	65	65	2
R11	B	66	53	56	57	4
R12	B	66	53	55	56	3
R13	B	66	55	57	58	3
R14	B	66	47	50	50	3
R15	B	66	48	51	52	4
R16	B	66	58	61	61	3
R17	B	66	55	58	58	3
R18	B	66	58	61	61	3
R19	B	66	64	67	67	3
R20	B	66	60	63	63	3
R21	B	66	60	63	63	3
R22	B	66	62	65	65	3
C1	C – rest area	66	56	57	58	2
C2	C – rest area	66	56	58	58	2
C3	C – medical facility	66	52	55	55	3
C4	C – medical facility	66	50	53	54	4
C5	C – school sports area	66	65	67	65	0
C6	C – school sports area	66	62	64	63	1
C7	C – school sports area	66	62	65	64	2
E1	E – restaurant	71	61	64	63	2
E2	E – motel	71	64	67	66	2
E3	E – vet health	71	65	68	68	3

dBA = A-weighted decibel; NAC = Noise Abatement Criteria

¹ The locations of the noise-sensitive receptors modeled are found in Appendix I.

² Category B and C NAC is 66 dBA; Category E NAC is 71 dBA.

3.15.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. For the No Build Alternative, 5 of the 32 noise receptors are predicted to approach or exceed the NAC for Category B or C land uses, as shown above in Table 3-2.

3.15.3 Impacts of the Preferred Alternative

The noise analysis completed for the Project determined that in general, noise levels within the Preferred Alternative corridor are predicted to increase from the existing scenario to the build scenario by 2 to 4 A-weighted decibels (dBA) due to future traffic growth and an increase in the speed limit. As US-275 approaches Wisner, the speed limits are not proposed to change as a result of the Preferred Alternative. Therefore, there is less increase in noise levels (1 to 2 dBA) near Wisner. The noise analysis identified four residential receivers impacted by traffic noise associated with the Preferred Alternative that approaches or exceeds the NAC. The largest difference in noise levels between existing conditions and build conditions under the Preferred Alternative is 6 dBA, which does not rise to the level of substantially exceeding³ existing conditions. Noise abatement was analyzed at the four residential receiver locations (see Appendix I for locations). The acoustic feasibility criteria were met for all receivers (5 dBA reduction in noise levels). However, noise barrier locations 1 and 3 did not meet the noise reduction design goal of 7 dBA at 50 percent of benefited receptors. Noise barrier 2, which included two residential receivers, met the noise reduction design goal but was not considered cost effective because the cost per benefited receiver would be greater than \$40,000. Therefore, noise barriers are not proposed as part of the Preferred Alternative.

Temporary impacts due to noise during construction would occur from construction equipment. These impacts would be temporary, and work would be completed during the daytime hours.

3.15.4 Avoidance, Minimization, and Mitigation

Exhaust and muffler systems on construction equipment would be in good working order. Construction equipment would be maintained on a regular basis, and equipment may be subject to inspection by the construction project manager to ensure maintenance. (Contractor, NDOT Project Manager [PM])

The Contractor would locate noise-emitting stationary equipment (for example, compressors, generators) to avoid unnecessary impacts on residents and businesses. (Contractor, NDOT PM)

3.16 Hazardous Materials

Hazardous materials, defined as substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present a threat to public health or the environment.

Hazardous materials are regulated by EPA and other federal and state agencies under the Toxic Substances Control Act of 1976 (15 USC 2601 et seq.); the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9601 et seq.); the Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC 6901 et seq.); the Superfund Amendments and Reauthorization Act of 1986; and the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 355). RCRA gives EPA the authority to control hazardous waste from “cradle to grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid waste. The 1986 amendments to RCRA

³ NDOT’s Noise Analysis and Abatement Policy defines “substantially exceeding” existing noise levels as an increase in 15 dBA or more over existing conditions.

enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations, regulates hazardous wastes in the state.

3.16.1 Affected Environment

A Hazardous Materials Review was conducted to investigate regulated materials within the Hazardous Materials Study Area and can be found in Appendix J. The Hazardous Materials Study Area encompasses a 0.1-mile radius surrounding the construction centerline. However, sites outside the Hazardous Materials Study Area were evaluated to determine if a release could affect the Project due to groundwater migration or other criteria. The Hazardous Materials Review included the following:

- Conducting a study of federal, state, and local environmental database records for the Hazardous Materials Study Area
- Reviewing aerial photographs available for free public viewing on the Internet
- Reviewing US Geological Survey (USGS) topographic maps
- Conducting a study of Nebraska Department of Natural Resources (NeDNR) records for well completion and static water level information
- Conducting a windshield reconnaissance survey

Table 3-3 lists the regulated sites identified during the records review and/or the windshield reconnaissance survey. The regulated sites were assessed for their potential impact on the Project. Figure 3-1 shows the locations of the identified sites in relation to the Project Study Area.

Table 3-3. Hazardous Materials Sites

Facility	Site Address	Regulatory Database ¹ and Facility Status ²	Distance Relative to Project	Risk
Beverly McKinney Farm (NDEE ID – 85470)	412 Road Wisner, NE 68791	IWM(I)	180 feet northeast	Low
Cattleman's Lodge & Suites (NDEE ID – 65219)	1621 Avenue E Wisner, NE 68791	TL3(I), LST(A), PRR(A)	30 feet southeast	Medium
Greta Roth Farm (NDEE ID – 76305)	Highway 51 Wisner, NE 68791	LST(I), OWT(A)	630 feet northeast	Low
Pilger Milling Company (NDEE ID – 45744)	84096 Highway 15 Wisner, NE 68791	AIR(A), PCS(A), LST(I)	20 feet south	Low
US Department of Agriculture (USDA) Grain Bin (NDEE ID – 86922)	Pilger, NE 68768	SF(A)	4,000 feet south	Low
Wisner-Pilger High School (NDEE ID – 6776)	801 18th Street Wisner, NE 68791	LST(I), RCR(A)	500 feet northeast	Low
Wisner West (NDEE ID – 60040)	1801 Avenue E Wisner, NE 68791	TL3(I), UST(A)	90 feet southwest	Low

¹ AIR = Clean Air Act; LST = Leaking Storage Tanks; PCS = National Pollutant Discharge Elimination System Permits and Compliance; PRR = Petroleum Release Remediation; UST = Underground Storage Tank; IWM = Integrated Waste Management; RCR = Resource Conservation Recovery; TL3 = Superfund Amendments and Reauthorization Act Title III; OWT = On-site Wastewater Treatment; SF = Superfund.

² Active = (A); Inactive = (I)

Cattleman's Lodge & Suites was determined to have a medium potential to impact construction activities. The site is listed in the Superfund Amendments and Reauthorization Act Title II, Leaking Storage Tanks, and Petroleum Release Remediation databases. When the Cattleman's Lodge & Suites (formerly 275 Gas Mart) changed owners, fuel tanks were removed from the site. A Tier 1 NDEE investigation of the site in 2016 indicated that fuel tanks had been removed from the site, but the removal action was not documented. Five monitoring wells were installed, and soil and groundwater samples were collected. Soil samples indicated the presence of petroleum contamination at two monitoring wells, and groundwater samples contained petroleum at each of the five monitoring well locations. Groundwater was found to range from 10.6 to 12.3 feet below ground surface and migrating toward the northwest. A Tier 2 drilling program was initiated during spring 2022, and the plan is to complete groundwater gauging, install an additional five monitoring wells, conduct groundwater sampling, and complete a soil vapor survey at the site in spring 2023 (RDG 2022). Due to the contamination present at the site, construction activities near this property are proposed to be limited to preparing the subgrade to a maximum depth of 2 feet below grade, with the lateral limits of construction remaining close to the current curb. The streetlight on the northwest corner of 18th Street and US-275 would need to be moved and conduit installed; however, conduit would be installed using a boring machine, not an open trench. The Tier 1 and Tier 2 investigations determined that contamination is located within the Preliminary Impact Area. Based on the proposed construction activities and the presence of known soil and groundwater contamination, the site is considered to have a medium potential to encounter contamination based on proposed construction activities.

3.16.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no new ROW or construction activities beyond those needed to complete routine roadway and bridge maintenance activities. Therefore, there would be no impacts on hazardous materials sites.

3.16.3 Impacts of the Preferred Alternative

The Preferred Alternative and associated new ROW and construction activities would intersect the following hazardous materials locations: Pilger Milling Company, Wisner West (Prime Stop), and Cattleman's Lodge & Suites. Based on the database search, aerial photography review, site reconnaissance, and the Preferred Alternative alignment, the Cattleman's Lodge & Suites was identified as having a medium potential to affect construction or cause a material management or worker health and safety concern, or both, related to construction of the Preferred Alternative.

An asbestos summary was completed for all existing bridge structures along the Preferred Alternative alignment. All results were negative for asbestos except on Structure S275 08742. This structure was positive within the black expansion joint material found at the center of the deck. Lead is suspected within the paint on painted components of the bridges. Requirements for mitigation measures at the Pilger Milling Company site, for asbestos, and for lead-based paint are provided in Section 3.16.4.

3.16.4 Avoidance, Minimization, and Mitigation

If contaminated soils/groundwater or unexpected wastes are discovered, the Contractor would stop all work within the immediate area. The Contractor would secure the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor would not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor would use the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are, but are not limited to, verification that the Contractor has suspended construction activities in the area of the discovery, contacting the Environmental Section Manager, and making an entry into Site Manager that an unexpected waste discovery was made. The HPM would then use the

UWAP Notification Form (NDOT Form 691) to properly document the extent and type of waste. The HPM would ensure that proper disposal of the waste and any required health and safety mitigation is implemented by the Contractor. The Contractor would handle and dispose of regulated material in accordance with NDOT's Standard Specification Section 107.11 (Hazardous Material Discoveries) and applicable laws.

If contaminated soils/groundwater or unexpected wastes are discovered, the Contractor would stop all work within the immediate area. The Contractor would limit access to authorized personnel within the area of the discovery and would notify the NDOT HPM. The Contractor would not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor would use the NDOT Unexpected Waste Action Plan to coordinate appropriate actions. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Subsection 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws. (Contractor)

There is a medium potential for petroleum contamination to be present in the soils/groundwater southwest of the intersection of 17th Street North and US-275. The Contractor would be aware of the possibility of encountering contamination in this area during construction activities and would look for signs such as odor and/or discolored soil. The NDOT HPM would be notified when construction occurs in the suspect area. If contamination is discovered, all work in the immediate area would be stopped until NDEE and NDOT are notified, and a materials and management plan has been developed and approved. The Contractor would manage the waste in accordance with Nebraska Administrative Code Title 132, Integrated Solid Waste Management Regulations. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Section 107 (legal relations and responsibilities to the public) to handle and dispose of contaminated material in accordance with applicable laws. (Contractor)

There are one or more monitoring wells and/or soil vapor extraction (SVE) wells located near the Cattleman's Lodge and Suites in Wisner around RP 121+80. The monitoring/SVE wells would be located and marked by the HPM / State Representative in the field. Construction activities near the wells would be performed as to avoid damage to the wells. In the event that a monitoring/SVE well is damaged, the Contractor would notify the HPM / State Representative immediately. The NDOT HPM / State Representative would coordinate with the NDOT Environmental Section for guidance regarding remediation of the damage. The Contractor would remediate any damaged monitoring/SVE wells as directed by the Engineer. The HPM would upload documentation of the Contractor's remediation to OnBase. (NDOT Dist. Environmental)

The Contractor would avoid damaging any monitoring or SVE well as marked in plans or in the field. In the event that a monitoring/SVE well is damaged, the Contractor would stop work at that location and notify the HPM immediately. The Contractor would comply with the Engineer's direction concerning remediation of damaged monitoring/SVE wells and would not continue construction activities near the damaged well until notified by the Engineer. (Contractor)

The following bridge structure(s) tested positive for asbestos containing material (ACM): S275 08742 black expansion joint at the center of concrete deck (45 square feet). Removal and disposal of the ACM would be in accordance with Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control Program Regulations in Nebraska Administrative Code Title 178. The Contractor would develop a removal and disposal plan in coordination with a licensed asbestos removal contractor and NDOT. The Contractor would contact DHHS no later than 10 business days prior to removal of the ACM for guidelines on disposal. If the asbestos cannot be kept in a non-friable condition upon removal, the Contractor would use a licensed asbestos removal contractor. A list of licensed asbestos removal contractors can be found at <http://dhhs.ne.gov/Pages/Asbestos.aspx>. ACM would be disposed of at a landfill approved for handling asbestos. The Contractor would provide landfill receipts to the NDOT HPM within 10 working days of disposal. (Contractor)

The HPM would upload disposal documentation (that is, landfill receipts or other documentation provided by the Contactor) to OnBase. (NDOT District)

The Contractor would submit a written National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification to NDEE and a DHHS Form 5 at least 10 business days prior to demolition/renovation. The 10-day clock starts when the NESHAP and Form 5 notifications are postmarked, hand delivered, or picked up by a commercial delivery service. Faxing documents is prohibited. The Contractor would provide the NDOT HPM copies of the notifications and their submittal date prior to demolition/renovation activities.

The HPM would upload NDEE NESHAP and DHHS Form 5 documentation to OnBase.

There is potential for lead or toxic metal-based paint to be found on the structures to be demolished or repaired. Extreme caution would be taken to minimize the amount of painted material or debris from causing or threatening to cause pollution of the air, land, and waters of the State. The Contractor would create an implementation plan to dispose of paint waste in accordance with NDOT's Standard Specifications for Highway Construction, Section 732 (Lead-based Paint Removal) and Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. The Contractor's implementation plan would be provided to the HPM and documented in OnBase. (NDOT District, Contractor)

The bridge structures S275 08742, S275 09309, S275 09423, and S275 09644 would be replaced or repaired. The Contractor would create an implementation plan to recycle any lead-bearing plates and/or lead shims at a legitimate recycling facility as found in paragraph 3 (lead plate recycling) in the Standard Specifications for Highway Construction, Section 203.01, and in accordance with Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. The Contractor's implementation plan would be provided to the HPM and documented in OnBase. (NDOT District, Contractor)

3.17 Paleontology

In 1959, Nebraska's Legislature passed a law authorizing NDOT to enter into agreements with the appropriate state agencies to remove and preserve paleontological remains when such remains were to be disturbed by highway construction. This legislation also authorized the use of highway funds for this specific purpose. This was the country's first paleontological salvage program, the Highway Salvage Paleontology Program (HSPP), which is based on close cooperation among Contractors, NDOT, and the University of Nebraska State Museum. In areas where new construction threatens paleontologically sensitive areas, museum paleontologists follow a basic three-phase strategy of salvage preconstruction, during construction, and post construction to recover the maximum amount of scientific information without causing construction delays.

3.17.1 Affected Environment

The University of Nebraska State Museum has five vertebrate paleontology localities within 1 mile (north or south) of the Project. There are three additional sites within 2 miles (north or south) of the Project. Most of these sites are from ancient sand and gravel layers exposed in the bluffs above the floodplain. Additional fossils were recovered from commercially mined gravel operations on the floodplain of the Elkhorn River. Coordination with the University of Nebraska State Museum can be found in Appendix K.

Fossil abundance in any given rock unit throughout this corridor is directly tied to the origin of the rock units. Wind-blown loess deposits (Peoria loess and Loveland loess) have moderate potential whereas fluvial sand and gravels (Pleistocene and Holocene in age) have a moderate to high potential yield for paleontological resources. Both lithologies are present within the limits of the Project.

3.17.2 Impacts of the No Build Alternative

There would be no construction of the Project, including grading, with the No Build Alternative. As a result, there would be no impacts on paleontological resources beyond those needed to complete routine roadway and bridge maintenance activities.

3.17.3 Impacts of the Preferred Alternative

The Preferred Alternative has the potential to impact previously unidentified paleontological resources during construction because it would impact areas that have been previously disturbed only at the surface level for agricultural production. Previous deep grading (greater than 3 feet) in these areas is not evident on aerial imagery. Because paleontological resource locations are difficult to identify due to the vegetative cover and/or the nature of preservation, these resources would be identified during construction, and appropriate coordination protocols with the HSPP would occur if resources were discovered.

3.17.4 Avoidance, Minimization, and Mitigation

For paleontological resources, additional field surveys and test excavations would be conducted prior to construction by the HSPP. The HSPP would be informed throughout the planning process with regard to alignment choice, grading details, and borrow pit locations. On-site monitoring and the fossil mitigation plan would be implemented throughout all phases of construction. (NDOT, Contractor)

In the event of a discovery of paleontological materials during construction, NDOT Standard Specifications for Highway Construction, Subsection 107.10 (2017, pg. 64) states, "The Engineer should be immediately notified when any such articles are uncovered, and the Contractor should immediately suspend operations in the area involved until such time that arrangements are made for their removal and preservation." (Contractor)

3.18 Wild and Scenic Rivers

Wild and scenic rivers and Nationwide Rivers Inventory rivers are discussed in Section 3.1.3.

3.19 Floodplains

A floodplain is any area with at least a 1 percent chance of flooding in a given year. A floodway is the part of the floodplain that carries the flow of water and must be protected to minimize potential flood damage. Executive Order 11988 directs federal agencies to avoid long- and short-term adverse impacts associated with modifying floodplains. FHWA regulations governing encroachments in floodplains are found in 23 CFR 650. The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which also establishes standards for compliance.

Local jurisdictions (counties and cities) enforce the federal requirements to maintain participation in the FEMA NFIP.

In Nebraska, floodplain regulations require a floodplain permit for any project that could affect a mapped, regulated 100-year floodplain or floodway.

3.19.1 Affected Environment

Stanton and Cuming Counties, the Village of Pilger, and the City of Wisner participate in the FEMA NFIP. Floodplains in the Project Study Area associated with Payne Creek, an unnamed tributary to Payne Creek, Humbug Creek, Sand Creek, an unnamed tributary to Sand Creek, three unnamed

tributaries to the Elkhorn River, and the Elkhorn River are designated as Zone A (see Figure 3-1). Zone A indicates that elevations for the base (100-year) flood have not been determined for the area. From approximately Pilger to the Cuming County line, the Elkhorn River floodplain on the east side of Stanton County is designated as Zone AE, meaning that a detailed flood study has been completed that provides base flood elevations for the Elkhorn River in this area. The base flood elevation is the water surface elevation of the 100-year flood (that is, 1 percent annual chance). No floodways are present within the Project Study Area.

3.19.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on floodplains because there would be no new disturbances beyond those needed to complete routine roadway and bridge maintenance activities.

3.19.3 Impacts of the Preferred Alternative

Based on FEMA Flood Insurance Rate Maps, the Preferred Alternative would encroach on approximately 87 acres of 100-year floodplain, of which approximately 60 acres are in Stanton County and 27 acres are in Cuming County. Floodplains intersected by the Preferred Alternative are associated with an unnamed tributary to Payne Creek, Payne Creek, Humbug Creek, three unnamed tributaries to the Elkhorn River, an unnamed tributary to Sand Creek, Sand Creek, and the Elkhorn River (see Figure 3-1). The Preferred Alternative is not anticipated to cause greater than 1 foot of rise in the Base Flood Elevation of any of the floodplains it crosses, nor increase the potential for property loss and hazard to life.

Per 23 CFR 650.111, the Preferred Alternative would result in a non-functionally dependent floodplain use at two locations: west of the N-15 east junction (approximately 2,500 feet) and just southeast of S Road (approximately 280 feet). A functionally dependent use is one that involves water conveyance structures such as bridges and culverts. There would be limited impacts on the natural and beneficial floodplain values of the floodplains along this Project. Because there would be temporary soil disturbance during construction activities, sediment and erosion control best management practices (BMP) would be used during construction, and disturbed areas would be seeded following construction.

There would be no significant encroachment to a base floodplain. The Preferred Alternative would not result in a base flood causing significant potential interruption or termination of this transportation facility, which is needed for emergency vehicles or a community's only evacuation route. It also would not result in a significant risk or potential for loss of life or property due to the base flood. This Project would not result in a substantial adverse impact on natural and beneficial floodplain values. An alternatives analysis related to the significance of encroachment into a base floodplain is not warranted based on the above rationale. This highway improvement project would maintain existing local and regional access to municipal, rural, and agricultural areas, and would not support incompatible floodplain development. Therefore, an alternatives analysis related to incompatible floodplain development is not warranted. A review of floodplain impacts can be found in the NDOT Floodplain PQS memo found in Appendix L.

Temporary impacts on floodplains during construction are not anticipated. A floodplain development permit would be obtained prior to construction, and the Project would comply with local floodplain regulations.

3.19.4 Avoidance, Minimization, and Mitigation

The US-275 roadway and bridges would be designed to adequately convey flood flows along existing drainage patterns. Construction of the Project would have floodplain encroachment, but Project impacts would be certified that floodplain regulations are met, and a Floodplain Development Permit would be obtained from Stanton and Cuming Counties prior to construction to certify that the proposed Project would not raise the base flood elevation more than 1 foot. All conditions of the permit would be adhered to during construction. (NDOT Environmental, Contractor)

3.20 Water Quality

Section 303(d) of the CWA (33 USC 1251 et seq.) requires states, territories, and authorized tribes (states) to identify and establish a priority ranking for all waterbodies to determine which ones are impaired. Once identified, states are to establish total maximum daily loads (TMDL) for the pollutants causing impairment in those waterbodies and to submit the list of impaired or unique waterbodies and TMDLs biannually to EPA.

In Nebraska, the 303(d) List of Waters are identified through programs administered by NDEE and documented in the *2020 Water Quality Integrated Report* (NDEE 2021). The 303(d) List of Waters reports on streams and lakes identified as impaired for one or more pollutants and that do not meet one or more water quality standards. It also identifies streams and lakes characterized as unique and sensitive. Impaired and unique waters are identified through assessment and monitoring programs administered by NDEE and other federal, state, and local agencies.

Groundwater is defined as “water occurring beneath the surface of the ground that fills available openings in rock or soil materials such that they may be considered saturated” (Nebraska Administrative Code Title 118). Nebraska Administrative Code Title 118, Ground Water Quality Standards and Use Classification, is the foundation of the regulatory programs in Nebraska that protect groundwater quality and prevent contamination in designated areas. Administered by NeDNR, it provides numerical standards for many parameters and requires that any substance introduced to groundwater, directly or indirectly, not cause the groundwater to exceed those standards. The NeDNR is responsible for permitting and maintaining records related to groundwater wells throughout the state.

The Wellhead Protection Area Act (Nebraska Revised Statutes Section 46-1501 et seq.) regulates potential sources of contamination near municipal and other public wells used to provide drinking water. The program is managed and enforced by NDEE, which also manages residential, irrigation, and monitoring wells in Nebraska.

3.20.1 Affected Environment

The NDOT water quality PQS reviewed the Project for impaired waters, groundwater, wells, and wellhead protection areas. Those findings are summarized in Appendix M and detailed below.

The 303(d) List of Waters, included in the *2020 Water Quality Integrated Report* generated by NDEE and approved by EPA (NDEE 2021), was reviewed for the Project. As discussed in the report, waters are classified based on the following five categories:

- “Category 1 – Waterbodies where all designated uses are met.
- Category 2 – Waterbodies where some of the designated uses are met but there is insufficient information to determine if all uses are being met.
- Category 3 – Waterbody where there is insufficient data to determine if any beneficial uses are being met.

- Category 4 – Waterbody is impaired, but a TMDL is not needed.
- Category 5 – Waterbody where one or more beneficial uses are determined to be impaired by one or more pollutants and all of the TMDLs have not been developed.”

Based on NDEE's *2020 Water Quality Integrated Report*, there are no impaired streams or waterbodies within the Project Study Area (NDEE 2021). Three perennial waterways flow through the Project Study Area and are included in the *2020 Water Quality Integrated Report*: Payne Creek (EL1-21500), Humberg Creek (EL1-21300), and Sand Creek (EL1-21200). Payne Creek and Sand Creek are classified as Category 3 waterbodies, meaning there is insufficient data available to determine if any beneficial uses for the waterbodies are being met (NDEE 2021). Humberg Creek is classified as a Category 2 waterbody, which means that some of the designated uses are currently being met but there is insufficient information available to determine if all uses are being met (NDEE 2021).

The impaired waterway nearest to the Project Study Area is the Elkhorn River (EL1-20000), which ranges between 0.40 mile to 5 miles south of the Project Study Area. The Elkhorn River was listed as a Category 4a waterbody in the *2020 Water Quality Integrated Report*, with its recreational use listed as impaired for *E. coli* (NDEE 2021). A Category 4a waterbody is defined as a waterbody that is considered impaired, but all of the required TMDLs have already been completed (NDEE 2021).

The Project is in the Elkhorn River drainage basin, with the Elkhorn River and its tributaries within the Project Study Area generally flowing to the south and east. Regional geology is Carlile Shale intermixed with the Niobrara and Ogallala Formation (USGS 1986). These geologic resources consist of shale, limestone, sand, sandstone, and gravel with a maximum thickness between 300 to 570 feet (USGS 1986). The High Plains Aquifer extends across much of Nebraska. The aquifer system consists of unconsolidated to consolidated sand and gravel that were deposited by a broad network of branching streams millions of years ago (USGS 1997). The Project Study Area is within a secondary aquifer system of the larger High Plains Aquifer, known as the Maha Aquifer. The Maha Aquifer is characterized as a sandstone aquifer separated and confined by shale (USGS 1997). The Maha Aquifer is the largest and most used secondary aquifer within the High Plains system, supplying water to more than 3,400 wells in eastern Nebraska (UNL 2017). In Stanton and Cuming Counties, the aquifer is approximately 400 feet thick and is buried to depths of 1,000 feet or less below the land surface (USGS 1997). Groundwater in the Project Study Area generally moves east to northeast. Groundwater flow direction may be affected by changes in water table elevations, which may or may not be consistent with surface water flow.

A records review was conducted of the NeDNR Registered Groundwater Wells Database, a list of domestic water supply, irrigation, and monitoring wells. There are 16 active registered wells within the Project Study Area (NeDNR 2020). Seven of the wells, consisting of 3 domestic wells, 3 irrigation wells, and 1 groundwater quality monitoring well, are north of US-275. South of US-275, there are 1 livestock well, 2 domestic wells, and 6 groundwater quality monitoring wells. Five of the groundwater quality monitoring wells are in Wisner. The monitoring wells are part of an NDEE site plan for spill or underground storage. All identified wells are within 250 feet of US-275.

The Project Study Area crosses through two Wellhead Protection Areas. A 2.5-mile-long roadway section of the Project would be located within the Pilger Wellhead Protection Area, with another 1-mile-long section of the Project within the Wisner Wellhead Protection Area (NDEE 2020). Figure 3-1 shows the location of the Wellhead Protection Areas in relation to the Project Study Area.

3.20.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on water quality, current groundwater levels, groundwater quality, or wells beyond those needed to complete routine roadway and bridge maintenance activities.

3.20.3 Impacts of the Preferred Alternative

The Preferred Alternative would intersect three tributaries to the Elkhorn River, Payne Creek, Humbug Creek, and Sand Creek. Roadway construction would not impact the cattle sewage lagoons, which could contribute to increased levels of *E. coli* if disturbed. Project construction activities, located up-gradient from the river, would not contribute to or exacerbate *E. coli* levels within the Elkhorn River. Work at Payne Creek, Humbug Creek, and Sand Creek includes construction of a new structure (culvert or bridge) for the new lanes, repair or replacement of the existing structures on the existing lanes, and grading along the entire Project alignment. BMPs would be implemented during construction of the Preferred Alternative to prevent water quality degradation. Therefore, the Project would result in no additional impairment to the aforementioned waterways, including the downstream Elkhorn River.

The Preferred Alternative would cross two Wellhead Protection Areas: one associated with the Village of Pilger and one associated with the City of Wisner. Because no public drinking water sources or wells occur within the Preliminary Impact Area, no impacts are anticipated.

Due to the inconsistent precision of the well locations in the NeDNR groundwater wells dataset, wells were buffered 100 feet when calculating impacts to account for potential error in well location. The Preliminary Impact Area would affect 13 wells, consisting of 7 active monitoring (groundwater quality) wells, 2 active irrigation wells, 2 unregistered decommissioned domestic wells, 1 active domestic well, and 1 active livestock well. Impacts on active listed wells would be determined during final design. Any registered wells within the ROW would be properly decommissioned. NDOT would coordinate with the owners of any wells directly affected by the Preferred Alternative.

A Tier 1 and Tier 2 investigation at the Cattleman's Lodge & Suites, located at 1621 Avenue E in Wisner, determined that groundwater contamination (petroleum) is located within the Preliminary Impact Area (see Section 3.16). A Tier 2 drilling program was initiated during spring 2022 and a plan developed to complete groundwater gauging, install an additional five monitoring wells, conduct groundwater sampling, and complete a soil vapor survey at the site in spring 2023. The locations of the proposed five new well locations are not currently available.

Temporary construction impacts on water quality are anticipated but would be mitigated through the acquisition of a National Pollutant Discharge Elimination System (NPDES) permit and implementation of an associated Stormwater Pollution Prevention Plan (SWPPP).

3.20.4 Avoidance, Minimization, and Mitigation

With the implementation of BMPs, no mitigation is required. The following permits would be obtained prior to construction: (1) CWA Section 404 permit; (2) CWA Section 401 Water Quality Certification; and (3) NPDES permit, with implementation of a SWPPP, to address impacts resulting from disturbance of more than 1 acre of land during construction.

The Project spans through the Pilger Wellhead Protection Area and the Wisner Wellhead Protection Area. NDOT's Standard Specifications for Highway Construction, Subsections 107.01, 107.09, and 107.16, address the Contractor's responsibility to keep fully informed of, observe, and comply with all federal, state, and local laws and ordinances that affect the conduct of the work. (Contractor)

NDOT would coordinate with the owners of wells that would be directly impacted by the Project during the ROW process. If the well is actively used, NDOT would have the well relocated and replaced. If a well is not currently in use, the Contractor would decommission the well, as needed, during construction in accordance with Nebraska Administrative Code Title 178, Chapter 13. (NDOT Right-of-Way, Contractor)

3.21 Wetlands and Water Resources

Wetlands are “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328). A water resource can include waterways (rivers, streams, and intermittent and ephemeral drainageways) or open water areas and are defined as waters of the US or waters of the State. A water of the US is defined as “the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; tributaries, lakes and ponds, and impoundments of jurisdictional waters; and adjacent wetlands” (33 CFR 328.3(a)). Waters of the State are defined as “all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, wetlands, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state” (Nebraska Administrative Code Title 126, Chapter 1).

The US Army Corps of Engineers (USACE) is the agency charged with administering and enforcing federal laws related to wetlands under CWA Section 404 (33 USC 1344). The USACE Omaha District has jurisdiction over wetlands affected by the Project. NDEE is responsible for Section 401 Water Quality Certification for any project requiring a federal permit or license that includes a discharge into a water of the State. In addition, NDEE determines whether projects comply with Nebraska Administrative Code Title 117, Nebraska Surface Water Quality Standards.

Executive Order 11990, *Protection of Wetlands*, requires federal agencies (including FHWA) to implement “no net loss” measures for wetlands (42 FR 26961). These measures include a phased approach to implement wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation. In Nebraska, “no net loss” is tracked and applied on an annual, program-wide basis for federally funded projects rather than on an individual-project basis.

3.21.1 Affected Environment

Wetlands and other waters of the US were identified within the Project Study Area during wetland and water resource delineations occurring on May 6–10, 2019; August 15, 2019; July 8, 2019; and October 13, 2022. The findings of the delineations can be found in Appendix N.

3.21.1.1 Wetlands

Ninety-seven (97) wetlands, including 37 wetlands in an agricultural setting, and 2 sewage lagoons were identified within the Project Study Area. All delineated wetlands were classified as either palustrine emergent (PEM), palustrine scrub-shrub (PSS), or palustrine forested (PFO). A total of 18.94 acres of PEM wetland, 24.75 acres of wetland in an agricultural setting (classified as PEM wetland), 0.47 acre of PSS wetland, 0.98 acre of PFO wetland, and 1.42 acres of open water were identified. Locations of wetlands in the Project Study Area are shown in Figure 3-1 and Appendix N.

3.21.1.2 Waterways

Three unnamed ephemeral channels, ten unnamed intermittent channels, and four perennial channels, including an unnamed channel, Payne Creek, Humbug Creek, and Sand Creek, were documented within the Project Study Area. These waterways are shown in Figure 3-1 and Appendix N.

3.21.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on wetlands or waters of the US beyond those needed to complete routine roadway and bridge maintenance activities.

3.21.3 Impacts of the Preferred Alternative

The Preferred Alternative would affect approximately 13.15 acres of wetlands and approximately 4,359 linear feet (0.61 acre) of 15 waterways, as shown in Table 3-4. As discussed in Chapter 2, the Preferred Alternative would shift the eastbound lanes to the south to minimize impacts on the unnamed intermittent waterway south of the N-15 east junction. Construction of the Preferred Alternative would require a CWA Section 404 Individual Permit from USACE.

Table 3-4. Wetland and Water Resource Impacts

Wetland Impacts		Waterway Impacts	
Wetland Type ¹	Acreage	Waterway Type	Linear Feet / Acreage
PEMA/C	7.59	Ephemeral	248 / 0.01
PEMF	0.06	Intermittent	1,887 / 0.18
PSSA	0.007	Perennial	2,224 / 0.42
WIAS (PEMA/C)	5.49		
Total	13.15	Total	4,359 / 0.61

¹ PEMA/C = Palustrine Emergent Temporarily / Seasonally Flooded; PEMF = Palustrine Emergent Semi-Permanently Flooded; PSSA = Palustrine Scrub-Shrub Temporarily Flooded; WIAS = Wetland in an Agricultural Setting.

Temporary impacts on wetlands and water resources during construction are anticipated. These impacts would be included in the Section 404 permitting process. Any resources that would be temporarily impacted would be restored to pre-construction condition or better and planted with an appropriate seed mix.

3.21.4 Avoidance, Minimization, and Mitigation

Throughout the preliminary design process, efforts were made to minimize impacts on wetlands and other waters of the US. Avoidance and minimization measures would be further refined during the final design process as appropriate. The design would comply with the policy of Executive Order 11990 (42 FR 26961) regarding impacts on wetlands. Additionally, any project using federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)), where there would be no net loss of wetlands across the program in a given year. (NDOT Roadway Design, NDOT Environmental)

Based on the preliminary impacts, wetland and stream mitigation would be necessary. Where wetland impacts could not be avoided or minimized, mitigation would occur at ratios determined by USACE and at locations approved by USACE. Mitigation ratios are determined based on the type and location of mitigation proposed for the affected wetlands. Required mitigation would be completed at a minimum 1:1 ratio. Wetland mitigation is proposed to be at an off-site mitigation area. The mitigation site would be designed and constructed as part of a separate project. A Nebraska Stream Condition Assessment Procedure would be completed as part of the CWA Section 404 permitting process to determine stream mitigation needs.

Prior to construction activities, a CWA Section 404 permit would be obtained. An Individual Permit would likely be the mechanism for authorization of permanent and temporary impacts related to construction access. All terms and conditions of the permit would be implemented, and no work would occur prior to obtaining the permit. (NDOT Environmental)

All wetlands within the Project limits that are not permitted for impacts would be marked on the Project plans and on the E Sheet as avoidance areas. (NDOT Roadway Design, NDOT Environmental)

The Contractor should not stage, store, waste, or stockpile materials and equipment in undisturbed locations, or in known/potential wetlands and/or known/potential streams that exhibit a clear “bed and bank” channel. Potential wetland areas consist of any area that is known to pond water, swampy areas or areas supporting known wetland vegetation, or areas where there is a distinct difference in vegetation (at lower elevations) from the surrounding upland areas. (Contractor)

3.22 Fish, Wildlife, and Vegetation

This section describes the fish and wildlife species that inhabit the Project Study Area as well as the vegetation. Threatened or endangered species and their associated habitat are discussed in Section 2.23. Applicable federal and state legislation is summarized below.

The Migratory Bird Treaty Act of 1918, as amended (16 USC 703–712), states that construction activities in grassland, wetland, stream, and woodland habitats, and those that occur on bridges (for example, that may affect swallow nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of Migratory Bird Treaty Act are applicable year round, most migratory bird nesting activity in Nebraska occurs from April 1 to September 1.

The Bald and Golden Eagle Protection Act of 1940, as amended (16 USC 668–668c), provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commercial use of such birds, except under certain specific conditions.

The Fish and Wildlife Coordination Act of 1934, as amended (16 USC 661–667e), requires consultation with the US Fish and Wildlife Service (USFWS) and the state fish and wildlife agency (that is, NGPC) for the purpose of giving equal consideration to fish and wildlife resources in the planning, implementation, and operation of federal and federally funded, permitted, or licensed water resource development projects. The Fish and Wildlife Coordination Act requires that federal agencies take into consideration the effect that water-related projects may have on fish and wildlife resources, to take action to avoid impact on these resources, and to provide for the enhancement of these resources.

The Nebraska Nongame and Endangered Species Conservation Act of 1975 (Nebraska Revised Statutes Section 37-801 et seq.) specifies that the state should conserve non-game species, as well as species determined to be endangered or threatened, for human enjoyment, for scientific purposes, and to ensure their continued existence as a part of our natural world.

Noxious weeds are usually invasive species that harm natural ecosystems. Several regulations and guidelines have been issued to help limit the spread of these noxious weeds, including Executive Order 13112, Invasive Species; the Nebraska Noxious Weed Control Act (Nebraska Revised Statutes Sections 2-945.01 to 2-970); and the Nebraska Noxious Weeds Regulations (Nebraska Administrative Code Title 25, Chapter 10).

The US Secretary of Agriculture has identified 12 species as noxious weeds throughout Nebraska (Nebraska Invasive Species Council 2023a):

- Canada thistle (*Cirsium arvense*)
- Japanese (*Fallopia japonica*)
- Leafy spurge (*Euphorbia esula*)
- Musk thistle (*Carduus nutans*)
- Phragmites / Common reed (*Phragmites australis*)
- Plumless thistle (*Carduus acanthoides*)
- Purple loosestrife (*Lythrum salicaria*, *L. virgatum*)
- Giant knotweed (*Fallopia sachalinensis*)
- Saltcedar (*Tamarix ramosissima*)
- Sericea lespedeza (*Lespedeza cuneata*)
- Spotted knapweed (*Centaurea biebersteinii*)
- Diffuse knapweed (*Centaurea diffusa*)

The Nebraska Invasive Species Council has developed Nebraska's Invasive Plants Watch List, which is a region-based list of invasive plants to monitor (Nebraska Invasive Species Council 2023b). The listed plants are separated into three categories. Category 1 are future invasive species that are not known to exist in an ecoregion but would pose a significant threat if introduced. Category 2 species are those considered a top priority for eradication for new and existing populations, while Category 3 species are established and prevention of spread to new areas is a top priority (Nebraska Invasive Species Council 2023b). The Invasive Plants Watch List includes the following invasive species as occurring in the Tallgrass Prairie Ecoregion, which includes Stanton and Cuming Counties (Nebraska Invasive Species Council 2023b):

Category 1

- Yellow bedstraw (*Galium verum*)
- Perennial sow thistle (*Sonchus arvensis*)

Category 2

- Russian knapweed (*Acroptilon repens*)
- Absinth wormwood (*Artemisia absinthium* L.)
- Giant reed (*Arundo donax* L.)
- Caucasian bluestem (*Bothriochloa bladhi*)
- Yellow bluestem (*Bothriochloa ischaemum*)
- Flowering rush (*Butomus umbellatus*)
- Oriental bittersweet (*Celastrus orbiculatus*)
- Black knapweed (*Centaurea moncktonii*)
- Houndstongue (*Cynoglossum officinale*)
- Queen Anne's lace (*Daucus carota*)
- Common teasel (*Dipsacus fullonum*)
- Cutleaf teasel (*Dipsacus laciniatus*)
- Wintercreeper (*Euonymus fortunei*)
- Sickleweed (*Falcaria vulgaris*)
- Yellow flag iris (*Iris pseudacorus*)
- Japanese honeysuckle (*Lonierca japonica*)
- Morrow honeysuckle (*Lonierca morrowii*)
- Showy fly honeysuckle (*Lonierca tatarica*)
- Amur honeysuckle (*Lonierca macckii*)
- Wild parsnip (*Pastinaca sativa*)
- Common buckthorn (*Rhamnus cathartica*)

Category 3

- Garlic mustard (*Allaria petiolata*)
- Callery pear (*Pyrus calleryana*)
- Crown vetch (*Securigera varia*)

3.2.2.1 Affected Environment

Habitat connectivity and fragmentation was evaluated for the Project and detailed findings can be found in Appendix O. Intensive agriculture has fragmented and reduced the amount of woodland and prairie habitat available for wildlife and has decreased the quality of wildlife habitat that remains within and adjacent to the Project Study Area. The Project Study Area is concentrated around the existing US-275 transportation corridor. Beyond the existing highway, the majority of the Project Study Area consists of agricultural fields and developed land use (urban development and roadways) (HDR 2023). Wetlands and riparian woodlands associated with waterways are less prominent features within the Project Study Area. Identified waterways include Payne Creek, Humbug Creek, Sand Creek, and 14 unnamed perennial, intermittent, and ephemeral waterways. Forested areas in the Project Study Area are associated with waterways. Identified tree species within the riparian corridors include cottonwood, elm, ash, mulberry, and willow. There are no NGPC nature preserves or wildlife management areas within or adjacent to the Project Study Area (NGPC 2020a).

Agricultural fields provide a food source for several avian and terrestrial species, including turkey, pheasant, mice, raccoons, opossums, and deer. Riparian corridors provide suitable foraging habitat for an array of mammals, as well as nesting and roosting habitat for migratory birds. The Project Study Area is in the north-south trending bird migration route through Nebraska known as the Central Flyway, which is used yearly by land birds, shore birds, and waterfowl. The trees in the Project Study Area are insufficient in size and maturity to provide suitable habitat for bald or golden eagles. The waterways in the Project Study Area serve as tributaries to the Elkhorn River, paralleling the Project Study Area to the south. Waterways in the Project Study Area primarily serve as agricultural runoff drainageways that are severely channelized and lack any natural meanders or variable habitat characteristics. The larger, perennial waterways in the Project Study Area provide habitat for fish and mussels, as well as small mammals, birds, and insects. Narrow bands of wetlands parallel the banks of many of the waterways but provide minimal habitat due to the channelized nature of the waterways' banks.

Wildlife corridors are areas that wildlife regularly traverse to find food, escape predators, and find refuge. There are five locations in the Project Study Area where wildlife-vehicle collisions are concentrated. These areas have non-agricultural habitat in or adjacent to the Project Study Area or are along drainages connecting wetland and water resources to the Elkhorn River. This combination of factors suggests that the areas are being used as wildlife corridors. Table 3-5 lists the potential wildlife corridors present within the Project Study Area as well as animal strike crashes that occurred in each wildlife corridor.

Table 3-5. Wildlife Corridors

Wildlife Corridor (Mile Marker)	Crash Locations (Mile Marker)	Habitat Description	Features that Could Be Used for Movement
90.1 to 92.5	90.10 90.32 91.14 92.50	Hilly agricultural area with Conservation Reserve Program land with a defined channel transitioning to emergent wetlands; drainage area parallels corridor 0.25 mile or less to the north.	No bridges or culverts with openings greater than 12 square feet
95.0 to 95.1	95.01 95.07	Narrow emergent wetlands associated with outfall path from Pilger Reservoir 1-B; drainage path connects the reservoir to the Elkhorn River.	Quad 48-inch culvert pipes (MM 95.04) Quad 72-inch culvert pipes (MM 95.08)
95.9 to 97.4	95.95 96.10 96.14 96.60 96.89 97.31	Linear ditch wetlands paralleling US-275.	31.5-foot-long Structure Number S275 09644 (MM 96.44)
98.0 to 98.5	98.38 98.42 98.49	Sand Creek. Emergent and agricultural wetlands.	103-foot-long single span steel girder bridge over Sand Creek (MM 98.03) Single 48-inch culvert pipe (MM 98.09) Twin 6-foot-tall by 5-foot-wide, 76-foot-long concrete box culvert (MM 98.32)
99.9 to 101.0	99.93 100.01 100.13 100.35 100.53 100.94	Riparian area of the tributary of Sand Creek with large, wooded area south of the Project Study Area that connects with the Elkhorn River.	66-foot-long Structure Number S27510009 (MM 100.09)

¹ Crashes occurring between January 1, 2014, and December 31, 2020.

² Only culverts with a minimum 12-square-foot opening were included.

The common habitat characteristics of the areas outlined in Table 3-5 are the proximity to a waterway and a combination of habitat types, including wetlands. Increased habitat diversity likely equates to increased wildlife diversity. While Payne Creek and Humbug Creek cross US-275, these waterways are deeply incised with riparian vegetation present on only the immediate channel banks. The lack of recorded accidents in these areas suggests that either wildlife can successfully cross US-275 using the existing structures or wildlife are not using these areas to cross US-275.

Although not an all-inclusive list, some of the most common wildlife species that can be seen inhabiting the Project Study Area and surrounding region include the following:

- Mammals – whitetail deer, raccoon, coyote, masked shrew, eastern mole, white jackrabbit, eastern cottontail, opossum, red fox, gray squirrel, plains pocket gopher, plains pocket mouse, deer mouse, meadow vole, muskrat

- Birds – cardinal, robin, blue jay, purple martin, wild turkey, ruffed grouse, quail, pheasant, mallard duck, Canada goose, red tailed hawk
- Insects – stag beetle, acorn weevil, Nebraska conehead grasshopper, deer fly, honeybee, yellow jacket (hornet), silver-spotted skipper, and green lacewing
- Reptiles – common garter snake, plains garter snake, bull snake, painted turtle, ornate box turtle
- Amphibians – American bullfrog, northern leopard frog, great plains toad, plains spadefoot toad (UNL 2020)
- Snails – brown garden snail, decollate snail, tadpole physa, marsh rams-horn (Stephen 2018)
- Fish – green sunfish, smallmouth bass, channel catfish, flathead catfish, various minnow species
- Mussels, Crayfish – Giant floater, northern crayfish, calico crayfish (NGPC 2020b)

The Project is in the north central portion of the Tallgrass Prairie Ecoregion, as defined by the Nebraska Natural Legacy Project. Historically, much of the Tallgrass Prairie Ecoregion was dominated by grasses, wildflowers, and forbs, with wetlands found near waterways and forested areas found near waterways and on elevated bluffs. There are no Biologically Unique Landscapes within the Project Study Area (NGPC, n.d.). As a result of modern agricultural and land management practices altering this native ecosystem, non-native species including eastern red cedar (*Juniperus virginiana*) and cool season grasses can be found within the Project Study Area. The Project Study Area consists of upland and wetland, native and non-native vegetation. In addition, the following noxious weeds identified by the US Secretary of Agriculture have documented occurrences in Stanton and Cuming Counties (Stanton County 2020; Cuming County 2020b):

Stanton County

- Canada thistle (*Cirsium arvense*)
- Leafy spurge (*Euphorbia esula*)
- Musk thistle (*Carduus nutans*)
- Phragmites / Common reed (*Phragmites australis*)

Cuming County

- Canada thistle (*Cirsium arvense*)
- Leafy spurge (*Euphorbia esula*)
- Musk thistle (*Carduus nutans*)
- Phragmites / Common reed (*Phragmites australis*)
- Plumeless thistle (*Carduus acanthoides*)
- Purple loosestrife (*Lythrum salicaria*)

Project-specific wetland and waters of the US delineations were conducted in the Project Study Area between 2019 and 2022. The delineation documented vegetation found within and beyond US-275 ROW and areas surrounding creeks and waterways. The land within the Project Study Area is highly disturbed due to agricultural practices, as well as land existing in the riparian areas near creeks and streams. Vegetative species commonly occurring in US-275 ROW in upland areas include smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*). Great ragweed (*Ambrosia trifida*), stinging nettle (*Urtica dioica*), yellow nutsedge (*Cyperus esculentus*), reed canarygrass (*Phalaris arundinacea*), and cattail (*Typha spp.*) were the species common in wetland areas. While many of these species are not listed on the Invasive Plants Watch List, they are introduced species and

considered invasive. Trees documented were associated with waterways and included eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), and green ash (*Fraxinus pennsylvanica*). The delineation did identify the noxious weeds Canada thistle (*Cirsium arvense*) and common reed (*Phragmites australis*) within the Project Study Area.

Wisner is on the eastern end of the Project Study Area and includes commercial development, residences, paved streets, parking areas, and mowed and maintained tall fescue (*Schedonorus arundinaceus*) and Kentucky bluegrass lawns. Trees and shrubs are dispersed throughout the city and are mainly the result of residential plantings.

3.22.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no new disturbances to fish and wildlife beyond those needed to complete routine roadway and bridge maintenance activities.

In addition, the No Build Alternative would result in neither disturbance nor improvement of the area's vegetation composition. There would be no new disturbances to vegetation beyond those needed to complete routine roadway and bridge maintenance activities.

3.22.3 Impacts of the Preferred Alternative

The animal-related crash rate along this portion of US-275 (16 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (56 percent). That may mean that wildlife are already successfully using structures to cross under US-275, that wildlife are not frequently crossing US-275 in the Project Study Area, that drivers are able to avoid those animals that cross the road, or that there is sufficient habitat on either side of US-275 so that wildlife does not need to cross the road. Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at three of the five wildlife corridor locations, adverse impacts on fish and wildlife are not anticipated (see Appendix O).

Based on the wetlands and waters of the US delineation report prepared for the Project (see Appendix O), the species documented in the Project Study Area are typical of vegetation associated with much of the state highway ROW in northeast Nebraska. Native at-risk vegetative species and biologically unique landscapes are not present within the Project Study Area. Vegetation disturbed during Project construction would consist mainly of introduced species (for example, smooth brome and reed canarygrass) found commonly throughout the area. Some disturbance to riparian vegetation near identified waterways would occur during bridge/culvert construction activities. However, revegetation in all disturbed areas would use native seed mixes that would improve plant species composition.

Temporary construction impacts on adjacent vegetation are expected. Areas disturbed during construction would be planted with an NDOT-approved seed mix following construction. Temporary construction impacts on fish and wildlife are not anticipated. Waterways disturbed during construction would require having flow maintained through temporary means identified during final design or by the Project Contractor.

3.22.4 Avoidance, Minimization, and Mitigation

In accordance with NDOT's Avian Protection Plan (NDOT 2018), NDOT would make every effort to schedule clearing and grubbing, large tree removal, or other work activities that may impact migratory bird nests, outside of the primary Nebraska nesting season of April 1 to September 1. If any of the aforementioned activities would be required during this period, a nesting survey would be completed

by a qualified biologist prior to work commencing. Specific to bridge and culvert work, the required survey period extends through September 30.

NDOT would use the Bald Eagle Survey Protocol to determine when a survey for nests and/or roosts should be conducted. If construction would begin between February 1 and April 15, a nest survey must be completed at least 1 day but not more than 14 days prior to construction. If construction would begin between April 15 and October 1, a nest survey completed in March is sufficient because nests would likely already be constructed if nesting were to occur that year. However, a nest survey may be completed any time during this timeframe as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS would be required, and construction would not commence prior to agency approval. Eagle roosting surveys would be conducted if construction would occur between October 1 and January 31.

In efforts to maintain aquatic wildlife connectivity, the Preferred Alternative may use temporary structures during construction. The use of temporary structures would facilitate aquatic life movements during construction in accordance with CWA Section 404 Nationwide Permit General Condition No. 2: Aquatic Life Movements. Proposed structures would be constructed at appropriate sizes and elevations so as not to impede aquatic life movements.

To avoid impacts on fish and other aquatic organisms, an erosion control plan and a SWPPP would be developed and implemented. In accordance with the SWPPP and the requirements in the General Construction Storm Water Permit, NDOT would inspect all erosion and sediment control BMPs every 14 days and after every precipitation event of 0.5 inch or greater. Any BMP adjustments and repairs would occur within 7 days of the inspection to ensure that water quality is being protected to the maximum extent practicable. The SWPPP would be maintained, and discharge points would be monitored by NDOT until the site is 70 percent revegetated.

According to NDOT's Standard Specifications for Highway Construction, Subsection 202.01(2)(b), the Contractor would be responsible for disposal of all vegetation for NDOT ROW and the limits of construction. Disturbed areas would be seeded in accordance with NDOT's Standard Specifications, Subsection 803.02. Revegetation of the area following construction would occur using seed mixtures containing native grasses, legumes, and forbs to appropriately landscape the region, as specified in NDOT's *Plan for the Roadside Environment* for a rural highway corridor (NDOT 2008).

As stated in NDOT's Standard Specifications for Highway Construction, Subsection 107.12, "The Contractor should prevent the transfer of invasive plant and animal species and should wash all equipment at the Contractor's storage facility prior to entering the construction site. The Contractor should inspect all construction equipment and remove all attached vegetation and animal prior to leaving the construction site."

As stated in NDOT's Standard Specifications for Highway Construction, Subsection 809.02, "Appropriate mulching materials, as defined in Subsection 806.02(1) of NDOT's Standard Specifications, should be applied and should not include brome hay or reed canarygrass. All sod, if required, to be applied to the Project should be free from noxious weeds and all other weeds.

3.23 Threatened and Endangered Species

The Endangered Species Act of 1973, as amended (16 USC 1531–1544), protects federally listed endangered and threatened species, and the Nebraska Nongame and Endangered Species Conservation Act of 1975 (Nebraska Revised Statutes Section 37-801 to 37-811) provides protection for State-listed species. Other species with special protection are bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended (16 USC 668–668d) and migratory birds under the Migratory Bird Treaty Act of 1918, as amended (16 USC 703–712). Violation of these laws can be

charged as misdemeanors or felonies, and conviction can result in fines of more than \$100,000 and/or imprisonment.

USFWS, FHWA, NDOT, and NGPC have developed a programmatic biological assessment protocol for all federally and state-listed species in Nebraska to streamline the Section 7 coordination process. The 2023 Nebraska Biological Evaluation Programmatic Agreement was signed by all parties on March 8, 2023, with USFWS concurrence on March 14, 2023, and NGPC concurrence on March 20, 2023. The agencies have developed a list of construction activities that occur as part of transportation projects and have reviewed the potential for impacts on the federally and state-listed species in Nebraska. The Programmatic process includes the following steps; only the first four steps are required for projects that would not affect listed species or are not likely to adversely affect species with the implementation of standard conservation conditions:

- Complete a Biological Evaluation Form to document the habitat characteristics of a project's study area.
- Identify species or critical habitat potentially present in a project's study area.
- Screen species and critical habitat based on characteristics of the study area.
- Identify the potential for impact on individual species and/or critical habitat based on the construction activities that would be conducted for the project.
- Complete an Individual Project Level Evaluation if a project may have an effect on a listed species or if conservation conditions are recommended for a species not likely to be present.
- Complete a biological evaluation, which may be required if adverse effects on a species are anticipated even with the implementation of conservation conditions.

3.23.1 Affected Environment

The data for federally listed and state-listed threatened and endangered species in Stanton and Cuming Counties were reviewed, and each species was assessed individually to determine the potential presence or absence of suitable habitat within the Project Study Area, as described in the following paragraphs.

For both Stanton and Cuming Counties, USFWS lists the same six federally protected species. NGPC lists seven state protected species for Stanton County and four state protected species for Cuming County. Table 3-6 lists federally and state-listed endangered and threatened species for Stanton and Cuming Counties, as well as a brief description of suitable habitat for the listed species.

Table 3-6. Federally Listed and State-listed Endangered and Threatened Species in the Project Study Area, Stanton and Cuming Counties, Nebraska

Status	County	Common Name	Scientific Name	Habitat Description
FT	Stanton Cuming	Eastern black rail	<i>Laterallus jamaicensis</i>	Wetlands containing herbaceous, persistent, emergent wetland plant cover, dense overhead cover, soils that are moist to saturated, and interspersed with, or adjacent to, very shallow water.
FE, SE	Stanton Cuming	Interior least tern	<i>Sternula antillarum athalassos</i>	Barren to sparsely vegetated sandbars along rivers, sand and gravel pits, and lake and reservoir shorelines.
FE, ST	Stanton Cuming	Northern long-eared bat	<i>Myotis septentrionalis</i>	Hibernates in caves and mines. Swarms in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in upland forests.
FT, ST	Stanton Cuming	Piping plover	<i>Charadrius melodus</i>	Barren to sparsely vegetated sandbars along rivers, sand and gravel pits, and lake and reservoir shorelines.
ST	Stanton	Small white lady's slipper	<i>Cypripedium candidum</i>	Wet meadows and moist prairies.
SE	Stanton	Topeka shiner	<i>Notropis topeka</i>	Slow-moving creeks or spring-fed pools. Requires gravel or sand-bottomed substrates with clear water.
FT, ST	Stanton Cuming	Western prairie fringed orchid	<i>Platanthera praeclara</i>	Wet prairies and sedge meadows.

Sources: USFWS 2015; NGPC 2017.

Note: FT=Federally Threatened; FE = Federally Endangered; ST=State Threatened; SE=State Endangered

According to Natural Heritage Records, there are documented occurrences of interior least tern and piping plover within 5 miles of the Project Study Area within the last 30 years, but there are no documented occurrences of any of the aforementioned species within 1 mile of the Project Study Area. There are no critical habitats present within the Project Study Area.

The waterways present within the Project Study Area are narrow and incised and lack sandbars or sparsely vegetated banks suitable for interior least tern or piping plover. Additionally, there are no sand or gravel pits or lake and reservoir shorelines within the Project Study Area that would provide attractive habitat for the two avian species.

Trees are present within the Project Study Area in areas with farmsteads and along the riparian corridors of Payne Creek, Humbug Creek, and a tributary of Sand Creek. The northern long-eared bat has been known to use human-made structures for occasionally roosting, such as barns and sheds. The bat may also use bridge and large culvert structures for summer roosting. Trees within the Project Study Area surrounding waterways, as well as the bridges at these locations, would be considered suitable for summer roosting habitat for northern long-eared bat. There are no known northern long-eared bat hibernacula or maternity roosts within 1 mile of the Project Study Area.

The small white lady's slipper and western prairie fringed orchid require wet prairies and meadows that have no history of grazing or tilling. There are no prairie or meadow areas within the Project Study Area that have not historically been subject to agricultural practices. In 2016, surveys were conducted

for the two plant species within the Project Study Area. Marginally suitable habitat was identified, but no individuals were found.

In Nebraska, the Topeka shiner is generally found in Cherry County wetlands and in streams associated with the North Loup River system (NGPC 2020c). Suitable habitat for the species consists of quiet, clear creeks or pools with gravel or sand-bottomed substrate. They are often identified in pools or slow-moving areas outside the main channel of the creek. The waterways within the Project Study Area collect agricultural runoff and are generally turbid with substrates consisting of mud or sediment. The incised nature of the waterways fails to create variable depths and velocities suitable for the fish species. Additionally, the Project Study Area is outside the NGPC-designated range for the species (Panella 2012).

The federally endangered and threatened species review was conducted according to the Programmatic Agreement for the Nebraska Federal Aid Transportation Program. Appendix P contains the forms completed for the Project based on this Programmatic Agreement.

3.23.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impacts on protected species beyond those needed to complete routine roadway and bridge maintenance activities.

3.23.3 Impacts of the Preferred Alternative

The northern long-eared bat was the only listed species identified through the Programmatic process that may potentially be impacted by the Preferred Alternative.

Potentially suitable habitat for northern long-eared bat is present, but no hibernacula or maternity roosts have been identified within 1 mile of the Preferred Alternative. Tree clearing and other woody vegetation removal activities associated with the Preferred Alternative have the potential to impact the bat species. To avoid potential impacts, tree clearing and woody vegetation removal activities would not occur between June 1 and July 31 in adherence to the primary pup season. With adoption of clearing and grubbing timing restrictions, impacts on northern long-eared bat can be avoided.

Northern long-eared bat was evaluated through the FHWA, Federal Railroad Administration, and Federal Transit Administration *Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat* using the USFWS Information for Planning and Consultation (IPaC) tool. This Project received a consistency letter from USFWS for the northern long-eared bat on June 15, 2023. NDOT determined, on June 23, 2023, that the proposed Project may affect, but is not likely to temporarily or permanently adversely affect, the northern long-eared bat with the implementation of conservation conditions and would have no effect on all other listed species (Appendix P). USFWS and NGPC concurred with this finding on July 21, 2023.

3.23.4 Avoidance, Minimization, and Mitigation

To minimize any potential impacts on protected species, specific conservation conditions would be implemented during design and construction (see Appendix P):

- A-1 Changes in Project Scope. If there is a change in the project scope, the project limits, or environmental commitments, the Highway Project Manager shall coordinate with the NDOT Environmental Section to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the NDOT Environmental Section. (District Construction)

- A-2 Conservation Conditions. Conservation conditions are to be fully implemented within the project limits as shown on the plans. (District Construction, Contractor)
- A-3 Early Construction Starts. Contractor requests for early construction starts must be coordinated by the Project Construction Engineer with the NDOT Environmental Section for approval to ensure avoidance of listed species sensitive lifecycle timeframes. Early start requests may require consultation with the USFWS and NGPC. Agency coordination time will vary depending on species and project location. (District Construction, Contractor)
- A-4 T&E Species. If federal or state listed species are observed during construction, the Highway Project Manager will contact NDOT Environmental Section to determine if additional species conservation conditions would be required prior to continuing project construction activities. Contact NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS and NGPC may be required depending on the species identified and construction activities. (NDOT Environmental, District Construction, Contractor)
- A-5 Refueling. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. (Contractor)
- A-6 Restricted Activities. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT's website), where species survey protocols can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The contractor must receive notice of acceptance from NDOT environmental, prior to starting the above-listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. (NDOT Environmental, District Construction, Contractor).

- A-7 Waste/Debris. Construction waste/debris will be disposed of in areas or a manner that will not adversely affect state and/or federally listed species and/or designated critical habitat. (Contractor)
- A-8 Post Construction Erosion Control. Erosion control activities carried out by NDOT Maintenance or others after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project limits during construction. (NDOT Maintenance, District Construction, Contractor)

- S-1 Fencing. When project-related fence construction/relocation work is required to be done prior to the start of construction and if the fence work occurs outside urban or cropland areas not within swift fox or mountain plover range, then fencing can be installed/relocated at any time using the following criteria:
 - a. the fencing is temporary in nature and/or consists of only hand-driven posts
 - b. the work does not compact the soils (ex. through the use of heavy equipment) or cause soil disturbance beyond the driving of posts
 - c. within the whooping crane migration corridor, work occurring within a half of a mile of wetlands or perennial waters will occur between the hours of 10:00 am to 4:00pm when the work is between March 6 – April 29 or October 9 – November 15

If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with NDOT environmental prior to the completion of Right-of-way negotiations.

- S-2 Platte River Depletions. All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general the following are considered de minimis depletions, but may still require agency coordination; a project which:
 - a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) any diverted water will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet. (NDOT Roadway Design, Contractor)
- S-3 Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed plants were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (NDOT Environmental)
- S-4 Sensitive Areas. Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOT Environmental for avoidance. (NDOT Environmental, District Construction)
- S-5 Species Surveys. If species surveys are required for this project, results will be sent by NDOT to the USFWS, NGPC, and if applicable COE. (NDOT Environmental, District Construction)
- Northern Long-Eared Bat

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

TREE REMOVAL AMM 1

Modify all phases/aspects of the Project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE REMOVAL AMM 2

Apply time of year (TOY) restrictions for tree removal (when bats are not likely to be present (November 1- March 31)), or Limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of the existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season (April 1- October 31).

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

- Suitable Bald Eagle nesting and/or roosting habitat exists within 0.5 miles of the Environmental Study Area. If construction will begin between February 1 and April 15, a nest survey must be completed at least 1 but not more than 14 days prior to construction. If construction will begin between April 15 and October 1, a nest survey completed in March is sufficient, as nests will likely already be constructed if nesting will occur that year. However, a nest survey may be completed anytime during this timeframe, as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS will be required prior to beginning construction activities. Eagle roosting surveys will be conducted if construction occurs between October 1 and January 31. (NDOT Environmental, Contractor)

3.24 Cumulative Impacts

Assessing cumulative impacts considers whether adding "one more project" to what is already going on in the Project Study Area would be the tipping point into making the overall impact significant. Indirect impacts are from actions, often taken by others, at a later time because of the Project.

The following definitions apply to this section and are based on 40 CFR 1500–1508:

- **Direct effect** – caused by the Project and occurs at the same time and place. [Note: The direct effects of the Preferred Alternative were described in the previous sections of this Draft EA].
- **Indirect effects** – caused by the Project but occur later in time or are farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems.
- **Cumulative impact** – change in the environment resulting from the incremental impact of the project when added to other past, present, and reasonably foreseeable future actions in the Project Study Area.

3.24.1 Affected Environment

The methodology used to address cumulative impacts involves identifying past, present, and reasonably foreseeable future projects, reviewing resources that would be affected by the Project, determining the approximate time frames and locations of impacts, considering the types of impacts likely for reasonably foreseeable future projects, and selecting the resources requiring detailed evaluation of cumulative impacts. Past projects can include those that are currently under construction and would be completed prior to the analyzed project or those that could change the functionality of a region, such as traffic patterns or induced growth. Reasonably foreseeable future projects can include ongoing projects, such as transportation and commercial or industrial development, that are not expected to be completed by the time the analyzed project would begin construction, or are planned projects that are included in planning documents for the area. The following projects were identified as past, present, and reasonably foreseeable:

- One cattle operation approximately 0.60 mile north of US-275 on 568th Avenue (past)
- NDOT Control Number (CN) 32376, S-275-6(1061), Wisner to West Point (past)
- NDOT CN 32021, F-275-6(1020), US-275 Norfolk East (past)
- NDOT CN 21492, F-275-6(1027), US-275 Hooper East & West (past)
- NDOT CN 32302, S-275-6(1050), US-275 Scribner to West Point (present)
- NDOT CN 32359, STP-7-3(111), In Stanton & North (future)
- NDOT CN 32406, STP-15-3(120), US-275 North (future)
- NDOT CN 32024A, S-275-6(1062), Wisner – West Point North (future)

These actions are discussed further in the cumulative impacts memorandum located in Appendix Q.

Resources Considered for Impacts Analysis

Based on the impacts from the Project and the above identified projects, farmland, CIA, transportation, and wetlands and waters of the US were carried forward for a detailed cumulative impacts evaluation. All other resources are discussed further in Appendix Q.

3.24.2 Impacts of the No Build Alternative

Although the Project would not be constructed under the No Build Alternative, the other projects, including the Scribner – West Point and Wisner – West Point North projects, are presumed to occur. As a result, there would be no work beyond what is needed to complete routine roadway and bridge maintenance activities on US-275 between N-57 and Wisner. The Project would not result in long-term adverse cumulative impacts on farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable projects. Farmland impacts associated with the above projects have been or would be evaluated during project development, and additional coordination with NRCS would be completed as needed. Impacts on wetlands and waters of the US from each project have been or would be permitted in compliance with Section 404 and mitigated according to the permit.

The No Build Alternative would result in long-term adverse cumulative impacts on the communities and transportation network surrounding the US-275 corridor. While each project would improve the condition and reliability of the transportation network and increase connectivity to essential services within the region, connectivity along the US-275 corridor would remain fragmented, and traffic delays between Norfolk and Fremont would increase as traffic volumes increase. The fragmented roadway and traffic delays could adversely affect economic opportunities along the entire corridor. Additional detail regarding project-specific cumulative impacts can be found in Appendix Q.

3.24.3 Impacts of the Preferred Alternative

The Project would not result in long-term adverse cumulative impacts on farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable projects. Cumulative impacts on farmland from construction of the Preferred Alternative with the other projects are expected to be minor and beneficial because the projects would improve the transportation network and would benefit agriculture in the Project Study Area. The Project would have beneficial cumulative impacts on wetlands and water resources in conjunction with the Norfolk East, Hooper East & West, Scribner to West Point, and Wisner – West Point North projects. With consideration to permitting and mitigation requirements, cumulative impacts on wetlands and water resources are expected to be minor to moderate and beneficial by converting low-quality ditch wetlands dominated by invasive species (such as reed canary grass and Kentucky blue grass) into high-quality wetland mitigation sites dominated by native wetland species (such as rushes and sedges). The Project would result in long-term beneficial cumulative impacts on the communities and transportation network surrounding the US-275 corridor. Each project would improve the condition and reliability of the transportation network and would increase connectivity to essential services within the region, resulting in cumulative beneficial impact. Temporary impacts associated with construction are expected with the Project but would not result in cumulative impacts with the other projects because the projects occur in different timeframes and locations. Additional detail regarding project-specific cumulative impacts can be found in Appendix Q.

3.24.4 Avoidance, Minimization, and Mitigation

No mitigation with respect to cumulative impacts would be required or is proposed for the Project.

3.25 Permits and Approvals

Permits and approvals that would be required to implement the Build Alternative are listed in Table 3-7.

Table 3-7. Permits and Approvals

Permit or Approval	Granting Agency(ies)	Reason
Clean Water Act Section 404 permit	USACE	Authorization is required for placement of dredged or fill material in wetlands or other waters of the US. An Individual Permit with mitigation is anticipated.
Clean Water Act Section 401 Water Quality Certification	NDEE	This certification is required as part of the Section 404 permit issuance.
National Pollutant Discharge Elimination System (NPDES) general stormwater discharge permit for construction activities, Clean Water Act, including a Stormwater Pollution Prevention Plan (SWPPP)	NDEE	The NPDES permit, required for construction sites greater than 1 acre in size, authorizes (with the implementation of permit-specified mitigation) the discharge of stormwater associated with activities from a construction site. A SWPPP is required under the general permit to help prevent stormwater pollution, and control erosion and sedimentation.
Floodplain Development Permit	Stanton and Cuming Counties	As a participating party in FEMA's National Flood Insurance Program, Stanton and Cuming Counties regulate activities that encroach within their FEMA-designated Zone A 100-year floodplains.
Section 106 consultation, National Historic Preservation Act	NeSHPO Advisory Council on Historic Preservation	Section 106 consultation must occur to resolve adverse effects on the Sharpe Homestead Site. A Memorandum of Agreement is expected with a data recovery plan.
Section 4(f) of the US Department of Transportation Act	FHWA	FHWA must approve the use of properties protected by Section 4(f). A <i>de minimis</i> use of the Wisner-Pilger Public Schools is expected.
Air Quality Construction Permit	NDEE	This permit would be required if a new emission unit (such as a portable batch plant for paving applications) were needed for construction. It has not yet been determined if a portable plant would be needed for the Project. Acquisition of this permit, if needed, would be the responsibility of the roadway construction Contractor.
Section 7 of the Endangered Species Act	USFWS	Section 7 consultation with USFWS must occur regarding potential impacts on threatened and endangered species and their habitat. Evaluation according to the 2022 NDOT Programmatic Agreement for Biological Assessment with USFWS, FHWA, and NGPC has indicated a "May Affect, Not Likely to Adversely Affect" the northern long-eared bat within implementation of conservation conditions.

Chapter 4 Comments and Coordination

This chapter summarizes agency coordination and public involvement that have taken place during the development of this EA. NDOT used a variety of methods for providing information to and getting input from stakeholders. A project stakeholder is anyone who has an interest in or may be affected by the proposed Project, either directly or indirectly, including businesses, resource agencies, elected officials, and public officials. Appendix R contains agency coordination including coordination letters, scoping meeting materials, and comments received. Appendix S contains public meeting materials and comments received from the public as well as stakeholder input.

4.1 Resource Agency Coordination

A resource agency is a division of government with a specific regulatory role and technical expertise that can provide knowledge or assistance. Involving agencies early and throughout development of the Project can help identify potential issues and streamline permitting processes. Agencies have had the opportunity to comment on the Project three times during Project development.

4.1.1 Agency Scoping Meeting

An agency scoping meeting was held on July 31, 2019, at NDOT Headquarters in Lincoln, Nebraska. Seven state and federal agencies were in attendance. The purpose of the meeting was to present the Project to the agencies and to seek input on the Project purpose and need, preliminary alternatives, potential resources of concern, and schedule. At this meeting, NDOT indicated that the Section 404 / NEPA Merge process would not be used for the Project. Topics discussed during the meeting are summarized in the meeting minutes in Appendix R. Following the meeting, USACE requested to be a cooperating agency. Further discussion about USACE involvement in the Project is in Section 4.1.2.

4.1.2 Pre-Application Meeting

A Section 404 pre-application meeting was held on November 20, 2019, at NDOT Headquarters in Lincoln. The purpose of the meeting was to present to USACE the two preliminary Build Alternatives, their potential impacts, and the six potential wetland mitigation sites that NDOT had identified. USFWS, EPA, NGPC, and NDEE were also in attendance. Preliminary impacts indicate that an individual permit would be needed with a Section 404(b)(1) analysis. USACE reiterated their request to be a cooperating agency on the EA. NDOT noted during the meeting that EAs do not have cooperating agencies per regulation. FHWA and NDOT submitted a letter to USACE on January 28, 2020, outlining USACE involvement in the EA development process (Appendix R). USACE also indicated that the scope of the alternatives analysis was narrow and suggested adding alternatives, such as shifting the alignment as well as possibly spanning aquatic resources. Additional topics discussed during the meeting are summarized in the meeting minutes in Appendix R.

4.1.3 2020 Agency Coordination Meeting

An agency coordination meeting was held on February 27, 2020, at NDOT Headquarters in Lincoln. The purpose of the meeting was to discuss the status of the Project, to share the information gathered to date, and to look for opportunities to meet both FHWA NEPA and USACE Section 404(b)(1) guidelines to the extent possible during the NEPA process. USACE, USFWS, EPA, NGPC, and NDEE were in attendance. During the meeting, the agencies discussed the purpose and need and alternatives selection criteria in detail, and NDOT gave an update on post-flooding conditions of the six potential mitigation sites. Concerns from the meeting centered on the number of alternatives and the

impacts on an unnamed channel parallel to US-275 at the N-15 east junction. Additional topics discussed during the meeting are summarized in the meeting minutes in Appendix R.

4.1.4 2021 Agency Coordination Meeting

An agency coordination meeting was held on March 10, 2021, via Webex. The purpose of the meeting was to discuss the status of the Project, to share the information gathered to date, and to present NDOT's request for a USACE Approved Jurisdictional Determination (AJD). USACE, EPA, FHWA, and NDEE were in attendance. During the meeting, NDOT provided background information on the Project, discussed the interpretation of the 2020 Navigable Waters Protection Rule: Definition of "Waters of the United States" with regard to the AJD, and set out the schedule and next steps. Concerns from the meeting were the AJD interpretations and future NDEE and EPA involvement in the AJD process. Additional topics discussed during the meeting are summarized in the meeting minutes in Appendix R.

4.1.5 2023 Pre-Application Meeting

A site visit was conducted with USACE, FHWA, and NDOT on January 6, 2023, in preparation for a Section 404 pre-application meeting. The purpose of the site visit was to review the channel parallel to US-275 at N-15. The Section 404 pre-application meeting was held on May 30, 2023, via Webex. The purpose of the meeting was to discuss past agency coordination, the current status of the Project, the Wisner mitigation site, and permitting strategies. USACE and NDOT were in attendance. USACE requested an opportunity to review the Project purpose and need and alternatives analysis prior to issuance of the Draft EA because those items will be used for permitting. NDOT also presented the idea of using the Wisner mitigation site as an Advanced Permittee Responsible Mitigation site for the adjacent US-275 expansion project. NDOT and USACE agreed to conduct a joint site visit to the mitigation site. Additional topics discussed during the meeting are summarized in the meeting minutes in Appendix R.

4.1.6 USACE Review of Purpose and Need and Alternatives Chapters

NDOT provided Chapter 1: Project Purpose and Need and Chapter 2: Alternatives Analysis of this DEA to USACE on September 12, 2023, for their review and comment in relation to suitability of the chapters for use in the Section 404(b)(1) analysis needed for the Clean Water Act Section 404 permit. USACE responded on October 12, 2023, indicating the agency had no comments on the chapters.

4.1.7 Site Visit of Proposed Mitigation Site

NDOT and USACE conducted a site visit of NDOT's proposed permittee responsible mitigation site on October 27, 2023, to discuss mitigation site considerations and the general permitting approach for the Project.

4.2 Public and Stakeholder Coordination

The purpose of public involvement during the NEPA process is two-fold: (1) it provides stakeholders with information about the proposed Project and its status; and (2) it allows NDOT to get input on the proposed Project or Project Study Area. Ideally, public involvement builds agreement about a project solution by determining benefits and impacts while addressing concerns that have been identified.

4.2.1 2019 Stakeholder Meeting

NDOT identified 31 stakeholders as having an interest in the Project, including local businesses, interest groups, and elected officials. The list of attendees is included in Appendix S.

A stakeholder meeting was held on August 27, 2019, at the Wisner-Pilger Public Schools, in Wisner. Twenty stakeholders attended the meeting. The purpose of the meeting was to present the Project to the stakeholders, to receive feedback, and to address any concerns that the stakeholders had. Questions and comments that the stakeholders had are summarized in Appendix S. Most of the questions from stakeholders were regarding a bypass around Wisner, the construction schedule, and the alternatives.

Because of the proximity to and potential impacts of the Project on the Wisner-Pilger Public Schools property, NDOT met with the Wisner-Pilger Public Schools superintendent and two principals following the stakeholder meeting to discuss additional concerns. The discussion included concerns with existing traffic congestion during drop-off and pick-up, access to the property from US-275, and what design elements could be added to the Project to help with these issues. Notes from the meeting are included in Appendix S.

4.2.2 2023 Wisner-Pilger Public Schools Meeting

A meeting was held with the Wisner-Pilger Public Schools on June 14, 2023, via Webex. NDOT and the superintendent of the Wisner-Pilger Public Schools were in attendance. The purpose of the meeting was to update the school superintendent on the Project, discuss preliminary impacts on the school property, and discuss traffic operations both during and after construction. Overall, Wisner-Pilger Public Schools was in support of the Project. Wisner-Pilger Public Schools requested consideration of an eastbound left-turn lane at 18th Street and provided information on eastbound vehicles queueing to turn left onto 21st Street for school activities. NDOT investigated adding an offset left-turn lane at 18th Street and found that the addition was not feasible as part of the Project. Notes from the meeting are included in Appendix S.

4.2.3 Public Meeting

Based on an analysis of the Project scope and a civil rights analysis, a public information open house meeting, a targeted mailer in the form of a public notification, a legal notice, a news release, temporary highway signs, a website, social media, and a 30-day comment period were used as outreach tools for public involvement on this Project. The public notification involved mailing a postcard with a Project location map to a compiled distribution list of 190 residents and businesses adjacent to the Project location. The distribution list consisted of property owners within 500 feet north and south of US-275 and extending 1,000 feet west of N-57 and east to 13th Street in Wisner. Additionally, 115 public and private agencies with potential interest in the Project were also included in the distribution list, including the Nebraska Trucking Association. A legal notice was placed in the *West Point News* and *Norfolk Daily News*, both Nebraska Press Association recognized newspapers, on August 21, 2019, and August 26, 2019, respectively. Temporary highway signs advertising the meeting were placed near the Project location. Project information was placed on the NDOT website.

A public information open house was held on September 10, 2019, at the Wisner-Pilger Public Schools, in Wisner. Approximately 129 people were in attendance. At the meeting, NDOT presented the purpose and need and the two alternative corridors developed for the proposed Project, and allowed feedback from the public.

NDOT received 14 comments during the specified comment period (August 26 through September 25, 2019). Comments centered on support for the Project in general, for and against a Wisner bypass, and preference for a south alternative. The comments and corresponding responses are summarized in Table 4-1, and are detailed in the public meeting summary in Appendix S.

Table 4-1. Public Comments

Comment Number	Comment	Response
1	<p>Commentor is concerned that lowering 569th Avenue will move the location of the road closer to their house and will affect the shelter belt and pond on their property.</p> <p>Commentor is concerned about the visibility of the traffic on the east if the substation entrance were to be on that side. Commentor believes the best location for the substation entrance is on the north.</p>	<p>Appreciates input. Stated that in regard to commentor's concerns about their shelter belt and pond, the Project footprint is still being determined.</p> <p>Stated that NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different resources that are considered. Informed commentor that further coordination would be required.</p> <p>Informed commentor that the analysis considers impacts on landowners and their property. NDOT takes steps in avoiding and minimizing impacts on property owners as part of the design process.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
2	<p>Business owner is concerned the impacts on Main Street and Wisner will result in being unable to continue their business.</p>	<p>Appreciates input. Stated that in regard to business owner's concern about negative impacts on their business if a bypass were constructed, a bypass around Wisner is not within the scope of this Project.</p> <p>Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project's purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
3	<p>Business owner is aware that this segment of the Project does not impact Wisner, but wants to emphasize that the health of many downtown businesses depends on this highway. Commentor mentions that there are many examples in northeast Nebraska where a bypass is not helpful to downtown businesses.</p>	<p>Appreciates input. Stated that in regard to business owner's concern about negative impacts on their business if a bypass were constructed, a bypass around Wisner is not within the scope of this Project.</p> <p>Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project's purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
4	<p>Commentor recommends adding lanes on the south side of the highway, citing obstacles on the north side like cell towers, substations,</p>	<p>Appreciates input. Stated that in regard to commentor's statement about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different</p>

Comment Number	Comment	Response
	and homes. Commentor also states that it would save taxpayer dollars if lanes were added to the south side of US-275.	resources that are considered. Informed commentor that further coordination would be required. Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020, and that NDOT would like to continue this conversation in more detail as design will be available. Appreciates participation.
5	Business owner is content with the highway going through town, citing its economic benefits. The business owner is also concerned about traffic, and recommends the addition of stop lights to facilitate safer crossings.	Appreciates input. Stated that in regard to business owner's concern about negative impacts on their business if a bypass were constructed, a bypass around Wisner is not within the scope of this Project. Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project's purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available. Stated that as part of this Project, NDOT is analyzing the highway-to-highway intersections for improvements and modifications for the expansion to four lanes. Informed commentor that improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of Wisner are outside of the scope of the Project. NDOT assured commentor that NDOT regularly reviews the need for traffic signals and will take the comment into consideration. Appreciates participation.
6	Commentor is supportive of the Project and looks forward to it moving forward.	Appreciates input. Stated that NDOT will continue to work toward completing the expressway system on US-275. Informed commentor that design alternatives would be developed and shared at the public hearing in 2020. NDOT looks forward to sharing this information and to commentor's continued support. Appreciates participation.
7	Commentor would like free right access for vehicles entering from Highway 15 from the south at the Pilger corner, and from the north on Highway 15 at the Wayne corner in addition to the 51/275 junction (west of Wisner). The commentor is also concerned that residents would be displaced during the Project.	Appreciates input. Informed commentor that in regard to their comment about wanting free rights, NDOT is evaluating traffic warrants for all possible turn lanes, including free rights at the junctions and intersections. Stated that in response to their concern about limiting impacts on the north side of US-275 and adding new lanes on the south side, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different resources that are considered. Informed commentor that further coordination would be required. Informed commentor that the analysis considers impacts on landowners and their property. NDOT takes steps in avoiding and minimizing impacts on property owners as part of the design process. Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.

Comment Number	Comment	Response
8	<p>Commentor loves the current 275 highway from Stanton to Norfolk and is looking forward to the expansion but is concerned that it will be slowed down by going through too many towns.</p> <p>Commentor is also concerned about the intersection of US-275 and Stanton County Road 573 Avenue.</p> <p>Commentor is worried about how drivers will be able to access the highway during construction, especially for overlooked populations like senior citizens and farmers.</p>	<p>Appreciates input. Informed commentor that safety is the number one concern and consideration for NDOT regarding the Nebraska State Highway System. As part of this Project, known safety issues will be addressed, and NDOT will incorporate safety improvements.</p> <p>Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project's purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available.</p> <p>In regard to commentor's concern about access at the intersection of US-275 and County Road 573 Avenue, the Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Access to adjacent properties will be maintained during construction but may be limited at times due to construction phasing requirements. A US-275 detour would not be required.</p> <p>Stated that NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different resources that are considered. Informed commentor that further coordination would be required.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
9	<p>Commentor stated that their land may be available for wetlands and asked NDOT to contact them.</p>	<p>Appreciates input. Informed commentor that offsetting unavoidable wetland impacts is an important component of the delivery of a project. A representative from NDOT will be in contact with commentor in regard to the property referenced.</p> <p>Stated that the property would first undergo preliminary evaluation for viability as a wetland site. Additional field survey and examination may be required. Any steps toward acquisition of the property would follow state and federal regulations.</p> <p>Appreciates opportunity to discuss wetland mitigation and participation.</p>
10	<p>Commentor does not want US-275 to pass through Wisner, citing the heightened truck traffic. For safety reasons, the commentor would like traffic to slow down at the junction of US-275 and N-51 by creating turning lanes, visual impairment aids, and a two-way stop light at 10th Street.</p> <p>Commentor also recommends that, to slow down traffic, three stop lights should be added in Wisner: (1) 17th and 18th Street</p>	<p>Appreciates input. Informed commentor that a bypass around Wisner is not within the scope of this Project.</p> <p>Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project's purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available.</p> <p>Informed commentor that safety is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this Project, known safety issues will be addressed, and NDOT will incorporate safety improvements. Stated that the majority of the Project would be designed and posted for expressway</p>

Comment Number	Comment	Response
	<p>intersection; (2) 13th Street from US-275; (3) 9th Street from US-275.</p> <p>Commentor is concerned that parking availability and congestion along Main Street will be worsened by the creation of a four-lane highway extension. This may also impact safety and increase collisions.</p> <p>Lastly, commentor recommends creating a new road to Scribner or extending Highways 15/30 south of Pilger in order to avoid the flooding that occurs along the wetlands near Highway 275. This concern stems from the flooding that occurs to the bridges along the Elkhorn River.</p>	<p>speeds of 70 miles per hour. The speed limit would be reduced as traffic approaches Wisner. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed Project.</p> <p>Stated that in regard to commentor’s concern about the safety and operation of the 21st Street and 17th/18th Street intersections along US-275, NDOT is coordinating with Wisner-Pilger Public Schools and is evaluating options to improve these intersections, such as dedicated turn lanes, for school operations and other US-275 traffic. Improving this area near the school is another reason NDOT is continuing the expansion to four lanes east of N-51. The additional through lanes and dedicated turn lanes would reduce the potential for accidents related to turning movements in this area.</p> <p>Informed commentor that improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of Wisner are outside of the scope of the Project. NDOT assured commentor that NDOT regularly reviews the need for traffic signals and will take the comment into consideration.</p> <p>Stated that in regard to commentor’s statement about bridge washouts, NDOT would analyze the existing and proposed drainage conditions to verify that the Project would not negatively impact the existing drainage conditions in the area. NDOT is evaluating river flows and bridge conditions along the Project to determine appropriate improvements.</p> <p>Appreciates participation.</p>
<p>11</p>	<p>Commentor is excited about the Project including Omaha, Wisner, and Hooper but is concerned about how it will impact the access onto US-275 from N-15. The commentor recommends using yield signs there instead of hard stops.</p> <p>Commentor also recommends that traffic should not go down Main Street or Avenue E in Wisner because of the area’s speed limit issues.</p>	<p>Appreciates input. Stated that NDOT will continue to work toward completing the expressway system on US-275.</p> <p>Informed commentor that in regard to the 21st Street intersection, NDOT is coordinating with Wisner-Pilger Public Schools and is evaluating options to improve this intersection, such as dedicated turn lanes, for the school operations and US-275 traffic.</p> <p>In regard to access to US-275 from N-15, stated that NDOT is analyzing the highway-to-highway intersections for improvements, such as turn lanes, traffic control devices, and additional modifications for the expansion to four lanes.</p> <p>Informed commentor that this Project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity, and provide convenient highway access for communities in the area. A new alignment off the existing US-275 alignment would not meet the Project’s purpose. A bypass around Wisner is not within the Project scope, and the funding required for this is not available.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
<p>12</p>	<p>Commentor owns land at US-275 and N-15 and would like the two new lanes on the south side.</p>	<p>Appreciates input. In response to commentor’s statement about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different resources that are considered. Informed commentor that further coordination would be required.</p>

Comment Number	Comment	Response
		<p>Informed commentator that the analysis considers impacts on landowners and their property. NDOT takes steps in avoiding and minimizing impacts on property owners as part of the design process.</p> <p>Informed commentator that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
13	<p>Commentor is a landowner in Cuming County. Their land is located on US-275 and N-15 and would prefer to see the two new lanes on the south side.</p>	<p>Appreciates input. In response to commentor's statement about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts on many different resources that are considered. Informed commentor that further coordination would be required.</p> <p>Informed commentor that the analysis considers impacts on landowners and their property. NDOT takes steps in avoiding and minimizing impacts on property owners as part of the design process.</p> <p>Informed commentor that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020.</p> <p>Appreciates participation.</p>
14	<p>Commentor is concerned about speed limits by the second (west) entrance to Wisner-Pilger Public Schools. Commentor suggests that speed limits be 40 mph instead of 50 mph for safety reasons.</p>	<p>Appreciates input. Informed commentor that safety is the number one concern and consideration for NDOT regarding the Nebraska State Highway System. As part of this Project, known safety issues will be addressed, and NDOT will incorporate safety improvements.</p> <p>Stated that in regard to the speed limit at the west entrance to Wisner-Pilger Public Schools, NDOT, in coordination with the City of Wisner, conducted speed studies in November 2014 along US-275. As a result of the studies, a 50 mile per hour speed limit was established, and a vehicle-activated speed indicator was installed near the west entrance. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed Project.</p> <p>Appreciates participation.</p>

4.3 Public Hearing

Following the approval and publication of the Draft EA by FHWA, a public hearing will be held to seek comments on the Draft EA and present the Preferred Alternative. The hearing will also provide a public forum to allow members of the public to comment on the Project. A public notice advertising the hearing time and location will be provided in newspapers and targeted mailers as was done for the public information open house.

4.4 Availability of Draft EA for Review

An electronic version of the Draft EA is available for review on the NDOT website at: <https://dot.nebraska.gov/projects/environment/pubs/project-docs/>

Hard copies of the Draft EA are available for review at the following locations:

- NDOT Headquarters (1500 Nebraska Parkway, Lincoln, NE)
- FHWA Nebraska Division (100 Centennial Mall N., Lincoln, NE)
- NDOT District 3 Headquarters (408 N. 13th Street, Norfolk, NE)

- Wisner Public Library (1015 Avenue E, Wisner, NE)
- Pilger Public Library (120 N. Main Street, Pilger, NE)

Chapter 5 Environmental Commitments and Mitigation

The project sponsors have considered avoidance, minimization, and mitigation of impacts throughout the development of the proposed project. The refinement of minimization and mitigation strategies would continue through final design. The project sponsors have developed specific mitigation measures in response to the Preferred Alternative.

5.1 [Section Not Used]

5.2 Land Use

No mitigation with respect to land use would be required or is proposed for the Project.

5.3 Farmland

NDOT would compensate the landowners and/or current leaseholders for impacts on the center pivot irrigation systems. Compensation would include, but not be limited to, relocating the center pivot system, modifying the center pivot equipment, and/or relocating the well supplying the center pivot system. NDOT would coordinate with the landowner during the ROW process. (NDOT)

5.4 Right-of-Way and Relocations

ROW acquisitions, types, and amounts would be further refined and minimized to the extent possible during the final design phase of the Project. (NDOT)

Access to adjacent properties would be maintained throughout construction. Access restrictions would be coordinated with the property owner prior to the restriction. (NDOT, Contractor)

Property rights acquisition would be conducted by paying fair market value for the property rights and damages that may occur. ROW acquisition would be conducted in conformance with the Uniform Act (42 USC 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et seq.). (NDOT)

Relocation or removal of the small grain bin and a metal outbuilding would be determined during final design and the ROW phase. NDOT would coordinate with the property owner(s) to determine whether the buildings would be relocated or removed and compensated for. (NDOT)

5.5 Community Impact Assessment

Short-term adverse effects on the community resulting from construction (e.g., traffic, noise, dust) would be addressed or minimized through NDOT's Standard Specifications for Highway Construction. No project-specific mitigation with respect to the community would be required or is proposed for the Project.

5.6 Environmental Justice

No mitigation with respect to environmental justice would be required for the Project.

5.7 Transportation

For county roadway realignments, county roads adjacent to the closed roadway would not be closed at the same time and would remain open to traffic. (NDOT, Contractor)

Access to properties may be limited at times throughout construction but would remain open. The Contractor would coordinate with property owners to maintain access to fields and residences. (Contractor)

5.8 Recreation Facilities

The work occurring adjacent to the Wisner-Pilger Public Schools may be minimized further during the final design process. If changes occur within the property, the impacts would be re-evaluated, and additional coordination with the school would be conducted. (NDOT)

The Contractor would not complete work or stage, stockpile, or store materials beyond the boundaries of the acquired ROW and temporary easements at the Wisner-Pilger Public Schools. If it is determined that additional temporary or permanent ROW is required outside of the designated boundaries or if access is restricted to a Section 4(f) property, coordination would occur with NDOT Environmental. (Contractor)

Access to the Wisner-Pilger Public Schools would remain open at one of the intersections, either 21st Street or 18th Street, during the closure of the other. The Contractor and the NDOT District would coordinate with the Wisner-Pilger Public Schools prior to affecting traffic near the school. (NDOT, Contractor)

The shot put/discus pad in the northeast corner of the US-275 and 21st Street intersection would be relocated within the practice field in coordination with the Wisner-Pilger Public Schools during the ROW process. (NDOT)

5.9 Historic Properties

The former Pilger Rest Area has been identified as a Sensitive Area on the north side of existing US-275 from MM 90.43 to MM 90.59. This Sensitive Area would be indicated on Project plans. (NDOT Design)

A Sensitive Area (the former Pilger Rest Area) has been identified on the north side of existing US-275 from MM 90.43 to MM 90.59. No grading or Project activities, including, but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, would occur within the boundary of the Sensitive Area(s). (Contractor)

A Memorandum of Agreement would be drafted and executed to implement the Data Recovery Plan approved by FHWA and concurred upon by NeSHPO to mitigate the adverse effect on the Sharpe Homestead Site. (NDOT Environmental)

A Project-level Programmatic Agreement would be drafted to ensure geoarcheological investigations are completed. (NDOT Environmental)

5.10 Visual

No mitigation with respect to visual would be required or is proposed for the Project.

5.11 Section 4(f)

Following the public comment period for the Draft EA, NDOT would request concurrence from the Wisner-Pilger Public Schools superintendent on the *de minimis* impact determination for the use of the Wisner-Pilger Public Schools property. (NDOT Environmental)

Avoidance, minimization, and mitigation for impacts on the Wisner-Pilger Public Schools are discussed in Section 5.8.

5.12 Section 6(f)

No mitigation with respect to Section 6(f) would be required for the Project.

5.13 Utilities

The Contractor should follow the guidelines of NDOT's Policy for Accommodating Utilities on State Highway ROW (NDOT 2001). It is NDOT's responsibility to notify utility companies of the need for relocation during the design stage of the Project. The NDOT Utility Section would coordinate utility agreements with the utility companies prior to construction. It is the Contractor's responsibility to notify utility companies of relocation needs during the construction phase of the Project for utilities that were not relocated before construction. (NDOT, Utility Provider(s))

If utility relocation or replacement is required in a later phase of the Project, a re-evaluation would be required if (1) federal funds will be used for the utility work, or (2) the Project construction contractor will be responsible for the work.

If this utility work is identified during final design, NDOT would initiate the re-evaluation prior to Project letting. If the work is identified during construction, NDOT would initiate the re-evaluation prior to commencing utility work. (NDOT Environmental, NDOT District)

If either one of the above two conditions does not apply, later relocation or replacement of utilities would be coordinated through NDOT and the Contractor per NDOT's Standard Specifications for Highway Construction, Subsection 105.06. Any environmental permits required for these utility relocations or replacements would be the responsibility of the Utility. (NDOT District, Utility Provider(s))

5.14 Air Quality

Short-term adverse effects on air quality resulting from construction would be addressed or minimized through NDOT's Standard Specifications for Highway Construction. No project-specific mitigation with respect to air quality would be required or is proposed for the Project.

5.15 Noise

Exhaust and muffler systems on construction equipment would be in good working order. Construction equipment would be maintained on a regular basis, and equipment may be subject to inspection by the construction project manager to ensure maintenance. (Contractor, NDOT Project Manager [PM])

The Contractor would locate noise-emitting stationary equipment (for example, compressors, generators) to avoid unnecessary impacts on residents and businesses. (Contractor, NDOT PM)

5.16 Hazardous Materials

If contaminated soils/groundwater or unexpected wastes are discovered, the Contractor would stop all work within the immediate area. The Contractor would secure the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor would not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor would use the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are, but are not limited to, verification that the Contractor has suspended construction activities in the area of the discovery, contacting the Environmental Section Manager, and making an entry into Site Manager that an unexpected waste discovery was made. The HPM would then use the UWAP Notification Form (NDOT Form 691) to properly document the extent and type of waste. The HPM would ensure that proper disposal of the waste and any required health and safety mitigation is implemented by the Contractor. The Contractor would handle and dispose of regulated material in accordance with NDOT's Standard Specification Section 107.11 (Hazardous Material Discoveries) and applicable laws.

If contaminated soils/groundwater or unexpected wastes are discovered, the Contractor would stop all work within the immediate area. The Contractor would limit access to authorized personnel within the area of the discovery and would notify the NDOT HPM. The Contractor would not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor would use the NDOT Unexpected Waste Action Plan to coordinate appropriate actions. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Subsection 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws. (Contractor)

There is a medium potential for petroleum contamination to be present in the soils/groundwater southwest of the intersection of 17th Street North and US-275. The Contractor would be aware of the possibility of encountering contamination in this area during construction activities and would look for signs such as odor and/or discolored soil. The NDOT HPM would be notified when construction occurs in the suspect area. If contamination is discovered, all work in the immediate area would be stopped until NDEE and NDOT are notified, and a materials and management plan has been developed and approved. The Contractor would manage the waste in accordance with Nebraska Administrative Code Title 132, Integrated Solid Waste Management Regulations. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Section 107 (legal relations and responsibilities to the public) to handle and dispose of contaminated material in accordance with applicable laws. (Contractor)

There are one or more monitoring wells and/or soil vapor extraction (SVE) wells located near the Cattleman's Lodge and Suites in Wisner around RP 121+80. The monitoring/SVE wells would be located and marked by the HPM / State Representative in the field. Construction activities near the wells would be performed as to avoid damage to the wells. In the event that a monitoring/SVE well is damaged, the Contractor would notify the HPM / State Representative immediately. The NDOT HPM / State Representative would coordinate with the NDOT Environmental Section for guidance regarding remediation of the damage. The Contractor would remediate any damaged monitoring/SVE wells as directed by the Engineer. The HPM would upload documentation of the Contractor's remediation to OnBase (NDOT Dist. Environmental).

The Contractor would avoid damaging any monitoring or SVE well as marked in plans or in the field. In the event that a monitoring/SVE well is damaged, the Contractor would stop work at that location and notify the HPM immediately. The Contractor would comply with the Engineer's direction concerning remediation of damaged monitoring/SVE wells and would not continue construction activities near the damaged well until notified by the Engineer. (Contractor)

The following bridge structure(s) tested positive for asbestos containing material (ACM): S275 08742 black expansion joint at the center of concrete deck (45 square feet). Removal and disposal of the ACM would be in accordance with Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control Program Regulations in Nebraska Administrative Code Title 178. The Contractor would develop a removal and disposal plan in coordination with a licensed asbestos removal contractor and NDOT. The Contractor would contact DHHS no later than 10 business days prior to removal of the ACM for guidelines on disposal. If the asbestos cannot be kept in a non-friable condition upon removal, the Contractor would use a licensed asbestos removal contractor. A list of licensed asbestos removal contractors can be found at <http://dhhs.ne.gov/Pages/Asbestos.aspx>. ACM would be disposed of at a landfill approved for handling asbestos. The Contractor would provide landfill receipts to the NDOT HPM within 10 working days of disposal. (Contractor)

The HPM would upload disposal documentation (that is, landfill receipts or other documentation provided by the Contractor) to OnBase. (NDOT District)

The Contractor would submit a written National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification to NDEE and a DHHS Form 5 at least 10 business days prior to demolition/renovation. The 10-day clock starts when the NESHAP and Form 5 notifications are postmarked, hand delivered, or picked up by a commercial delivery service. Faxing documents is prohibited. The Contractor would provide the NDOT HPM copies of the notifications and their submittal date prior to demolition/renovation activities.

The HPM would upload NDEE NESHAP and DHHS Form 5 documentation to OnBase.

There is potential for lead or toxic metal-based paint to be found on the structures to be demolished or repaired. Extreme caution would be taken to minimize the amount of painted material or debris from causing or threatening to cause pollution of the air, land, and waters of the State. The Contractor would create an implementation plan to dispose of paint waste in accordance with NDOT's Standard Specifications for Highway Construction, Section 732 (Lead-based Paint Removal) and Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. The Contractor's implementation plan would be provided to the HPM and documented in OnBase. (NDOT District, Contractor)

The bridge structures S275 08742, S275 09309, S275 09423, and S275 09644 would be replaced or repaired. The Contractor would create an implementation plan to recycle any lead-bearing plates and/or lead shims at a legitimate recycling facility as found in paragraph 3 (lead plate recycling) in the Standard Specifications for Highway Construction, Section 203.01, and in accordance with Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. The Contractor's implementation plan would be provided to the HPM and documented in OnBase. (NDOT District, Contractor)

5.17 Paleontology

For paleontological resources, additional field surveys and test excavations would be conducted prior to construction by the Highway Salvage Paleontology Program (HSPP). The HSPP would be informed throughout the planning process with regard to alignment choice, grading details, and borrow pit locations. On-site monitoring and the fossil mitigation plan would be implemented throughout all phases of construction. (NDOT, Contractor)

In the event of a discovery of paleontological materials during construction, NDOT Standard Specifications for Highway Construction, Subsection 107.10 (2017, pg. 64) states, "The Engineer should be immediately notified when any such articles are uncovered, and the Contractor should immediately suspend operations in the area involved until such time that arrangements are made for their removal and preservation." (Contractor)

5.18 Wild and Scenic Rivers

No mitigation with respect to wild and scenic rivers would be required for the Project.

5.19 Floodplains

The US-275 roadway and bridges would be designed to adequately convey flood flows along existing drainage patterns. Construction of the Project would have floodplain encroachment, but Project impacts would be certified that floodplain regulations are met, and a Floodplain Development Permit would be obtained from Stanton and Cuming Counties prior to construction to certify that the proposed Project would not raise the base flood elevation more than 1 foot. All conditions of the permit would be adhered to during construction. (NDOT Environmental, Contractor)

5.20 Water Quality

With the implementation of BMPs, no mitigation is required. The following permits would be obtained prior to construction: (1) CWA Section 404 permit; (2) CWA Section 401 Water Quality Certification; and (3) NPDES permit, with implementation of a SWPPP, to address impacts resulting from disturbance of more than 1 acre of land during construction.

The Project spans through the Pilger Wellhead Protection Area and the Wisner Wellhead Protection Area. NDOT's Standard Specifications for Highway Construction, Subsections 107.01, 107.09, and 107.16, address the Contractor's responsibility to keep fully informed of, observe, and comply with all federal, state, and local laws and ordinances that affect the conduct of the work. (Contractor)

NDOT would coordinate with the owners of wells that would be directly impacted by the Project during the ROW process. If the well is actively used, NDOT would have the well relocated and replaced. If a well is not currently in use, the Contractor would decommission the well, as needed, during construction in accordance with Nebraska Administrative Code Title 178, Chapter 13. (NDOT Right-of-Way, Contractor)

5.21 Wetlands and Water Resources

Throughout the preliminary design process, efforts were made to minimize impacts on wetlands and other waters of the US. Avoidance and minimization measures would be further refined during the final design process as appropriate. The design would comply with the policy of Executive Order 11990 (42 FR 26961) regarding impacts on wetlands. Additionally, any project using federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)), where there would be no net loss of wetlands across the program in a given year. (NDOT Roadway Design, NDOT Environmental)

Based on the preliminary impacts, wetland and stream mitigation would be necessary. Where wetland impacts could not be avoided or minimized, mitigation would occur at ratios determined by USACE and at locations approved by USACE. Mitigation ratios are determined based on the type and location of mitigation proposed for the affected wetlands. Required mitigation would be completed at a minimum 1:1 ratio. Wetland mitigation is proposed to be at an off-site mitigation area. The mitigation site would be designed and constructed as part of a separate project. A Nebraska Stream Condition Assessment Procedure would be completed as part of the CWA Section 404 permitting process to determine stream mitigation needs.

Prior to construction activities, a CWA Section 404 permit would be obtained. An Individual Permit would likely be the mechanism for authorization of permanent and temporary impacts related to

construction access. All terms and conditions of the permit would be implemented, and no work would occur prior to obtaining the permit. (NDOT Environmental)

All wetlands within the Project limits that are not permitted for impacts would be marked on the Project plans and on the E Sheet as avoidance areas. (NDOT Roadway Design, NDOT Environmental)

The Contractor should not stage, store, waste, or stockpile materials and equipment in undisturbed locations, or in known/potential wetlands and/or known/potential streams that exhibit a clear “bed and bank” channel. Potential wetland areas consist of any area that is known to pond water, swampy areas or areas supporting known wetland vegetation, or areas where there is a distinct difference in vegetation (at lower elevations) from the surrounding upland areas. (Contractor)

5.22 Fish, Wildlife, and Vegetation

In accordance with NDOT’s Avian Protection Plan (NDOT 2018), NDOT would make every effort to schedule clearing and grubbing, large tree removal, or other work activities that may impact migratory bird nests, outside of the primary Nebraska nesting season of April 1 to September 1. If any of the aforementioned activities would be required during this period, a nesting survey would be completed by a qualified biologist prior to work commencing. Specific to bridge and culvert work, the required survey period extends through September 30.

NDOT would use the Bald Eagle Survey Protocol to determine when a survey for nests and/or roosts should be conducted. If construction would begin between February 1 and April 15, a nest survey must be completed at least 1 day but not more than 14 days prior to construction. If construction would begin between April 15 and October 1, a nest survey completed in March is sufficient because nests would likely already be constructed if nesting were to occur that year. However, a nest survey may be completed any time during this timeframe as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS would be required, and construction would not commence prior to agency approval. Eagle roosting surveys would be conducted if construction would occur between October 1 and January 31.

In efforts to maintain aquatic wildlife connectivity, the Preferred Alternative may use temporary structures during construction. The use of temporary structures would facilitate aquatic life movements during construction in accordance with CWA Section 404 Nationwide Permit General Condition No. 2: Aquatic Life Movements. Proposed structures would be constructed at appropriate sizes and elevations so as not to impede aquatic life movements.

To avoid impacts on fish and other aquatic organisms, an erosion control plan and a SWPPP would be developed and implemented. In accordance with the SWPPP and the requirements in the General Construction Storm Water Permit, NDOT would inspect all erosion and sediment control BMPs every 14 days and after every precipitation event of 0.5 inch or greater. Any BMP adjustments and repairs would occur within 7 days of the inspection to ensure that water quality is being protected to the maximum extent practicable. The SWPPP would be maintained, and discharge points would be monitored by NDOT until the site is 70 percent revegetated.

According to NDOT’s Standard Specifications for Highway Construction, Subsection 202.01(2)(b), the Contractor would be responsible for disposal of all vegetation for NDOT ROW and the limits of construction. Disturbed areas would be seeded in accordance with NDOT’s Standard Specifications, Subsection 803.02. Revegetation of the area following construction would occur using seed mixtures containing native grasses, legumes, and forbs to appropriately landscape the region, as specified in NDOT’s *Plan for the Roadside Environment* for a rural highway corridor (NDOT 2008).

As stated in NDOT’s Standard Specifications for Highway Construction, Subsection 107.12, “The Contractor should prevent the transfer of invasive plant and animal species and should wash all equipment at the Contractor’s storage facility prior to entering the construction site. The Contractor

should inspect all construction equipment and remove all attached vegetation and animal prior to leaving the construction site.”

As stated in NDOT’s Standard Specifications for Highway Construction, Subsection 809.02, “Appropriate mulching materials, as defined in Subsection 806.02(1) of NDOT’s Standard Specifications, should be applied and should not include brome hay or reed canarygrass. All sod, if required, to be applied to the Project should be free from noxious weeds and all other weeds.

5.23 Threatened and Endangered Species

To minimize any potential impacts on protected species, specific conservation conditions would be implemented during design and construction (see Appendix P):

- A-1 Changes in Project Scope. If there is a change in the project scope, the project limits, or environmental commitments, the Highway Project Manager shall coordinate with the NDOT Environmental Section to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the NDOT Environmental Section. (District Construction)
- A-2 Conservation Conditions. Conservation conditions are to be fully implemented within the project limits as shown on the plans. (District Construction, Contractor)
- A-3 Early Construction Starts. Contractor requests for early construction starts must be coordinated by the Project Construction Engineer with the NDOT Environmental Section for approval to ensure avoidance of listed species sensitive lifecycle timeframes. Early start requests may require consultation with the USFWS and NGPC. Agency coordination time will vary depending on species and project location. (District Construction, Contractor)
- A-4 T&E Species. If federal or state listed species are observed during construction, the Highway Project Manager will contact NDOT Environmental Section to determine if additional species conservation conditions would be required prior to continuing project construction activities. Contact NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS and NGPC may be required depending on the species identified and construction activities. (NDOT Environmental, District Construction, Contractor)
- A-5 Refueling. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. (Contractor)
- A-6 Restricted Activities. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT’s website), where species survey protocols can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District

Construction Project Manager prior to the start of the above-listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The contractor must receive notice of acceptance from NDOT environmental, prior to starting the above-listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. (NDOT Environmental, District Construction, Contractor).

- A-7 Waste/Debris. Construction waste/debris will be disposed of in areas or a manner that will not adversely affect state and/or federally listed species and/or designated critical habitat. (Contractor)
- A-8 Post Construction Erosion Control. Erosion control activities carried out by NDOT Maintenance or others after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project limits during construction. (NDOT Maintenance, District Construction, Contractor)
- S-1 Fencing. When project-related fence construction/relocation work is required to be done prior to the start of construction and if the fence work occurs outside urban or cropland areas not within swift fox or mountain plover range, then fencing can be installed/relocated at any time using the following criteria:
 - a. the fencing is temporary in nature and/or consists of only hand-driven posts
 - b. the work does not compact the soils (ex. through the use of heavy equipment) or cause soil disturbance beyond the driving of posts
 - c. within the whooping crane migration corridor, work occurring within a half of a mile of wetlands or perennial waters will occur between the hours of 10:00 am to 4:00pm when the work is between March 6 – April 29 or October 9 – November 15

If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with NDOT environmental prior to the completion of Right-of-way negotiations.

- S-2 Platte River Depletions. All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general the following are considered de minimis depletions, but may still require agency coordination; a project which:
 - a) creates an annual depletion less than 0.1 acre feet,
 - b) creates a detention basin that detains water for less than 72 hours,
 - c) any diverted water will be returned to its natural basin within 30 days, or
 - d) creates a one-time depletion of less than 10 acre feet. (NDOT Roadway Design, Contractor)
- S-3 Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed plants were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (NDOT Environmental)

- S-4 Sensitive Areas. Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOT Environmental for avoidance. (NDOT Environmental, District Construction)
- S-5 Species Surveys. If species surveys are required for this project, results will be sent by NDOT to the USFWS, NGPC, and if applicable COE. (NDOT Environmental, District Construction)

- Northern Long-Eared Bat

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

TREE REMOVAL AMM 1

Modify all phases/aspects of the Project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE REMOVAL AMM 2

Apply time of year (TOY) restrictions for tree removal (when bats are not likely to be present (November 1- March 31)), or Limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of the existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season (April 1- October 31).

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

- Suitable Bald Eagle nesting and/or roosting habitat exists within 0.5 miles of the Environmental Study Area. If construction will begin between February 1 and April 15, a nest survey must be completed at least 1 but not more than 14 days prior to construction. If construction will begin between April 15 and October 1, a nest survey completed in March is sufficient, as nests will likely already be constructed if nesting will occur that year. However, a nest survey may be completed anytime during this timeframe, as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS will be required prior to beginning construction activities. Eagle roosting surveys will be conducted if construction occurs between October 1 and January 31. (NDOT Environmental, Contractor)

5.24 Cumulative Impacts

No mitigation with respect to cumulative impacts would be required or is proposed for the Project.

Chapter 6 References

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