

Minatare US-385

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Draft Environmental Assessment

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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



10/25/2024

Date



for
Project Sponsor



10/22/2024

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L	Floodplains
M	Water Quality
N	Wetlands
O	Biological Assessment and Habitat Connectivity Analysis
P	Cumulative Impacts Assessment
Q	Public and Agency Outreach

Abbreviations

3R	Restoration, Rehabilitation, and Resurfacing
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ACM	Asbestos Containing Material
AJD	Approved Jurisdictional Determination
APE	Area of Potential Effects
AST	Aboveground Storage Tanks
BGS	Below Ground Surface
BIL	Bipartisan Infrastructure Law of 2021
BMP	Best Management Practice
BOR	Bureau of Reclamation
BNA	Building Nebraska Act of 2011
BUL	Biologically Unique Landscape
CAFO	Concentrated Animal Feed Operation
CAR	Closure Assessment Report
CDOT	Colorado Department of Transportation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CR	County Road
CUFC/CRFC	Critical Urban Freight Connector/ Critical Rural Freight Connector
CWA	Clean Water Act of 1972
dBA	A-weighted decibel
DHHS	Department of Health and Human Services
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	US Environmental Protection Agency
ETJ	Extra Territorial Jurisdiction
FAA	Federal Aviation Administration
FAST	Fixing America’s Surface Transportation Act of 2015
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
GPITC	Great Plains International Trade Corridor
GPR	Ground Penetrating Radar
HMR	Hazardous Materials Review
HPC	High Priority Corridor
HPM	Highway Project Manager
HRG	Historic Resource Group, Inc.
HSIS	Highway Safety Information Systems
HSPP	Highway Salvage Paleontology Program
IMS	Interactive Mapping System
INFRA	Infrastructure for Rebuilding America
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IWM	Integrated Waste management
LB	Legislative Bill
LEP	Limited English Proficiency
LST	Leaking Storage Tank
LWCF	Land and Water Conservation Fund
MAP-21	Moving Ahead for Progress in the 21 st Century Act
MM	Mile Marker
MSAT	Mobile Source Air Toxics
NAFTA	North American Free Trade Agreement
NDEE	Nebraska Department of Environment and Energy
NDOR	Nebraska Department of Roads
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
NFIP	National Flood Insurance Program
NGPC	Nebraska Game and Parks Commission
NHFN	National Highway Freight Network
NHPA	National Historic Preservation Act of 1966
NHS	National Highway System
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

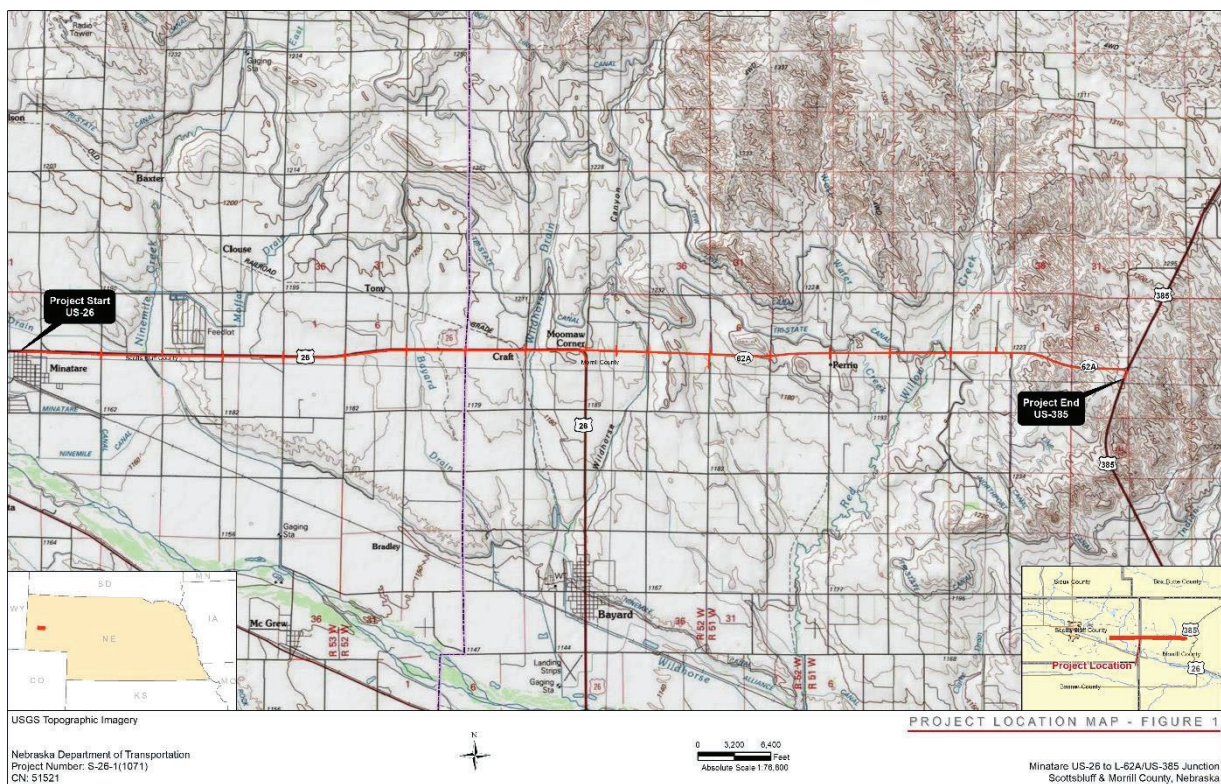
NTIP	Nebraska Transportation Information Portal
PCS	Priority Commercial System
PEM	Palustrine Emergent
PFO	Palustrine Forested
PM	Project Manager
PSS	Palustrine Scrub-Shrub
RA	Release Assessment
RBSL	Risk-based Screening Levels
RCRA	Resource Conservation and Recovery Act of 1976
RDM	NDOT Roadway Design Manual
ROW	Right-Of-Way
RRFB	Rectangular Rapid Flashing Beacons
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SFM	Nebraska State Fire Marshal
SH	State Highway
SHPO	Nebraska State Historic Preservation Office
SVE	Soil Vapor Extraction
SWPPP	Stormwater Pollution Prevention Plan
TEA-21	Transportation Equity Act for the 21 st Century
TMDL	Total Maximum Daily Load
TNM	Traffic Noise Model
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
US	United States
USACE	US Army Corps of Engineers
USC	United States Code
USDOT	United States Department of Transportation
USFWS	US Fish and Wildlife Service
USMCA	United States-Mexico-Canada Agreement
UST	Underground Storage Tank
UWAP	Unexpected Waste Action Plan
VMT	Vehicle Miles Traveled

Chapter 1 Introduction

1.1 Background

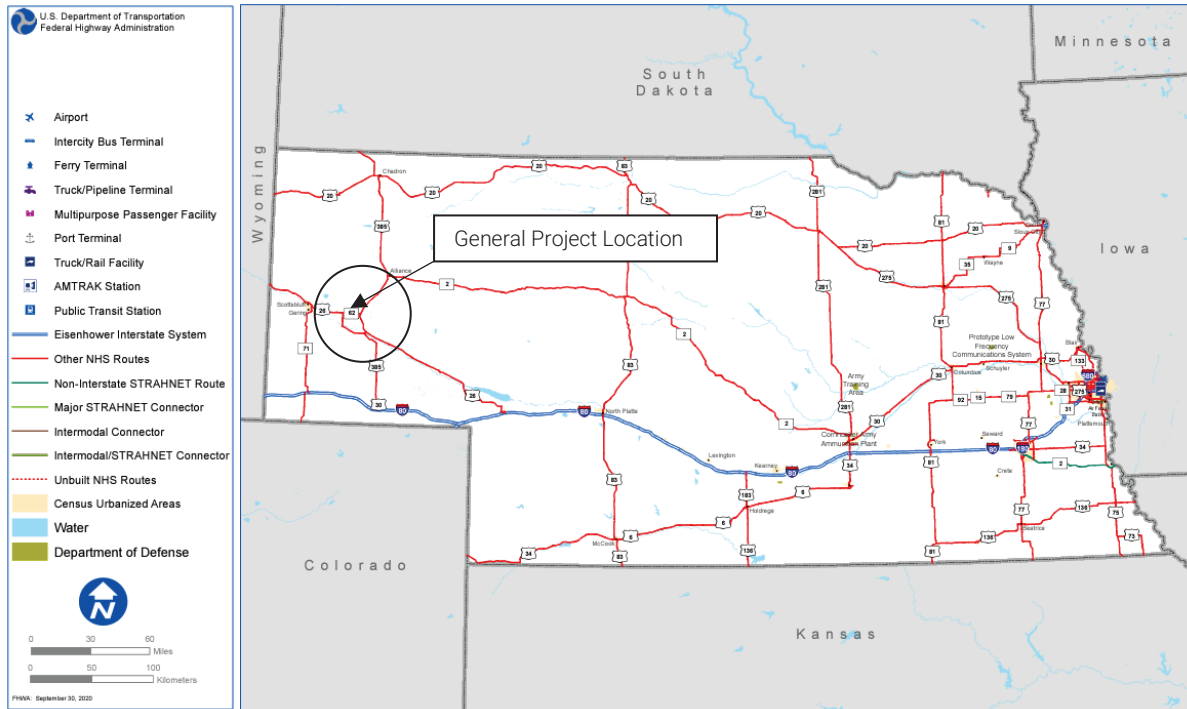
The Nebraska Department of Transportation (NDOT), in cooperation with the United States Department of Transportation’s (USDOT) Federal Highway Administration (FHWA), is proposing to improve an 18-mile-long segment of United States Highway 26 (US-26) and Nebraska Highway Link 62A (L62A), both of which are on the National Highway System (NHS), beginning at the City of Minatare, Nebraska, extending east to the junction of United States Highway 385 (US-385). This segment of highway, also known as “the Project”, is located within the Nebraska Panhandle, an elongated region extending west from the main portion of the state made up of eleven counties. **Figure 1.1** shows the project location.

Figure 1.1 Project Location



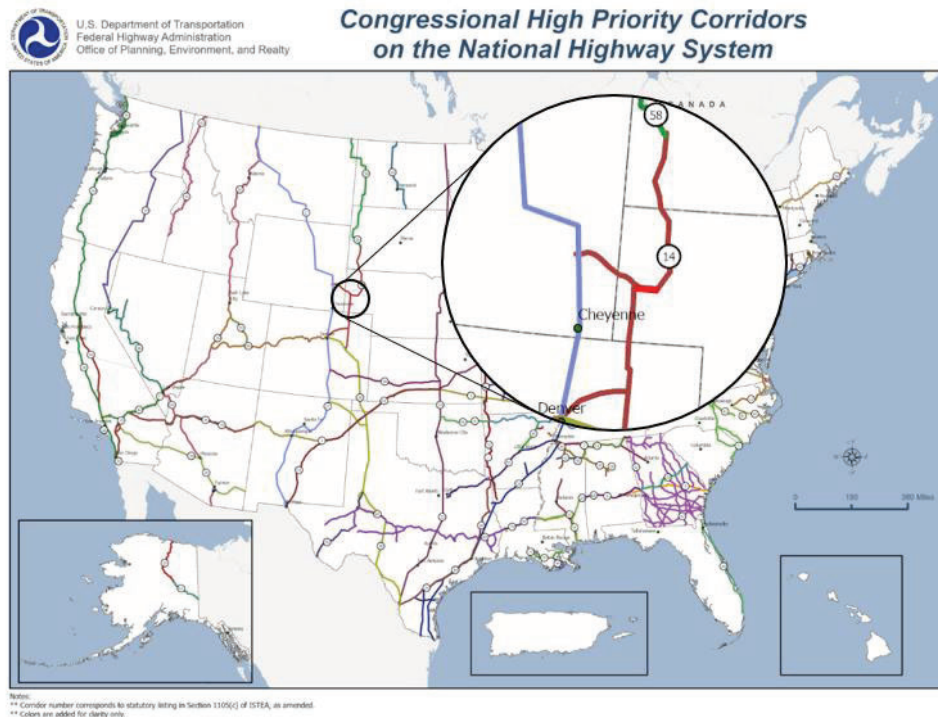
The NHS includes the Eisenhower Interstate Highway System as well as other roads considered to be important to the nation's economy, defense, and mobility. The NHS was developed by the USDOT in cooperation with states and local officials. **Figure 1.2** shows Nebraska’s NHS network of roadways. Within the NHS system, Congress has designated certain roads or corridors as being high priorities. This project is part of the Heartland Expressway which is one of the routes that has been designated as a High Priority Corridor (HPC). **Figure 1.3** shows the High Priority Corridors, including the Heartland Expressway (Corridor 14). Five first class Nebraska Panhandle cities (first class cities are those with populations ranging from 5,001 to 100,000), including Scottsbluff, Alliance, Gering, Sidney, and Chadron, are located along the Heartland Expressway route.

22 **Figure 1.2 National Highway System in Nebraska (2020)**



23
24 Source: https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/nebraska/

25 **Figure 1.3 Congressionally Designated High Priority Corridors on the NHS**



26
27 Source: https://www.fhwa.dot.gov/planning/national_highway_system/high_priority_corridors/hiprimap_lg.jpg

28 The Heartland Expressway connects the northern terminus of the Ports-to-Plains (P2P) Corridor with
29 the southern terminus of the Theodore Roosevelt Expressway, forming an essential link in the
30 transportation infrastructure for movement of goods and products between Mexico, the United States,
31 and Canada (**Figure 1.4**). It also serves as the central section of the federally designated Great Plains
32 International Trade Corridor (GPITC) connecting the four states of Colorado, Nebraska, Wyoming, and
33 South Dakota with other States, as well as Mexico and Canada. The Heartland Expressway traverses
34 some of the most agriculture and energy-productive rural regions in the United States and is a major
35 route to popular tourist destinations such as the Rocky Mountains, Black Hills, Scottsbluff National
36 Monument, and Fort Laramie.

37 The portion of the Heartland Expressway along US-26 and L62A between Minatare and the US-385
38 junction is currently a 2-lane rural highway. This segment links residents, businesses, and travelers
39 with Interstate 80 (I-80), the largest freight transportation corridor in the United States, at Kimball,
40 Nebraska, and with I-90 at Rapid City, South Dakota. In October 2022, according to then Nebraska
41 Governor, Pete Ricketts, and then NDOT Director, John Selmer, this connection was stated as being a
42 vital link for all sectors of the regional and national economy¹.

43 In addition to being a High Priority Corridor on the National Highway System and a vital link for
44 Panhandle communities, this segment of US-26/L62A is part of NDOT's Priority Commercial System, a
45 continuous network of routes within the state designed to carry higher traffic volumes, especially
46 larger volumes of commercial vehicles (**Figure 1.6**).

47 This Draft Environmental Assessment (DEA) was prepared in compliance with the requirements of the
48 *National Environmental Policy Act of 1969* (NEPA), the Council on Environmental Quality (CEQ)
49 regulations in the Code of Federal Regulations (CFR) (40 CFR 1500-1508), and guidelines in FHWA's
50 Technical Advisory T-6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f)*
51 *Documents*. The intent of these regulations and guidelines are to ensure that all factors are considered
52 in the transportation decision-making process, including a concern for the environment, and the
53 involvement of the public.



54
55 Typical view along US-26 and L62A showing rural 2-lane highway, shoulder, roadside ditches, and farmland.

¹ <https://aashtojournal.org/2022/10/21/nebraska-dot-completes-heartland-expressway-section/>

56 **Figure 1.4 Ports to Plains Alliance Corridor Map**



PORTS-TO-PLAINS ALLIANCE
 CORRIDOR MAP

PARKHILLSMITH&COOPER



Issuing Office: Lubbock
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 Sheet: 1 of 1

58 **1.2 Location**

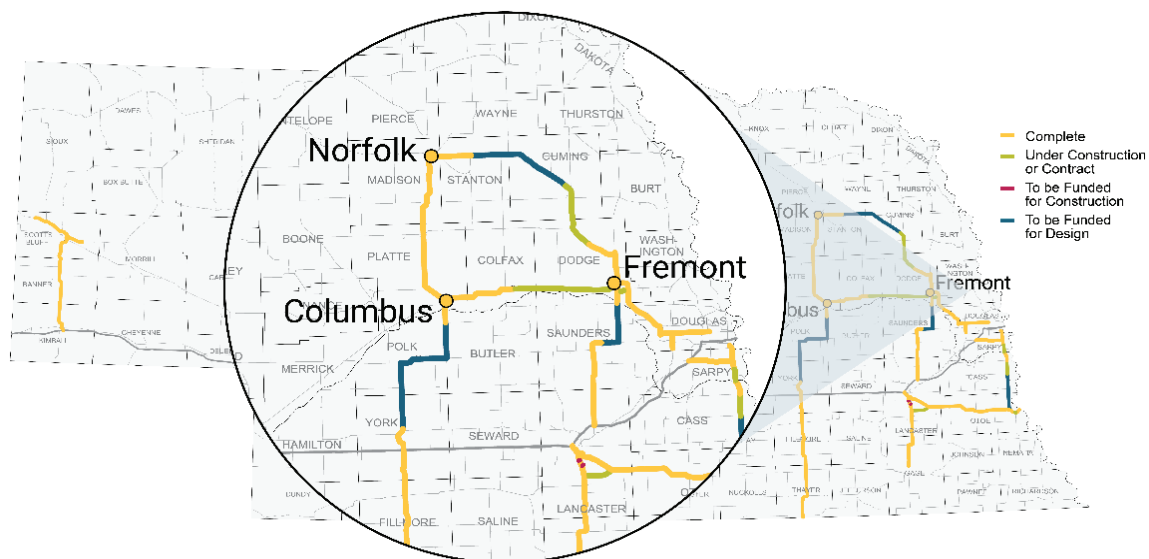
59 The proposed 18-mile-long project is located in the Panhandle region of western Nebraska (see
60 **Figure 1.1**), a rural area of the state. The project straddles Scotts Bluff and Morrill Counties and is
61 situated mostly along the upper terraces of the North Platte River Valley. The project begins at the
62 west end of the City of Minatare, essentially in line with C Ave, and extends eastward. The
63 easternmost portion of the project rises into the Nebraska Sandhills region where the project ends at
64 the junction of L62A and US-385. The project area includes residences, small businesses, feedlots,
65 and agricultural land uses. East of Minatare the project area is almost entirely in agricultural
66 production with widespread irrigation canals as well as center-pivot irrigation, with sugar beets,
67 potatoes, edible dry beans, corn, and wheat as the dominant crops. The cities of Scottsbluff (to the
68 west) and Alliance (to the east) are regional economic hubs, and centers for both truck and rail
69 transportation, manufacturing, and agricultural production and processing².

70 **1.3 Past Planning**

71 *Nebraska Expressway System, Priority Commercial System, and National Highway System*

72 In April 1988, the Nebraska Legislature, through the passage of LB 632 and LB 1041, among other
73 requirements, passed into law the creation of an Expressway System. It also required the Nebraska
74 Department of Roads (NDOR)³ to prepare an annual Needs Assessment that would lay out the
75 financial needs, priorities, and progress of construction of the system. The first Needs Assessment
76 was published in December 1988 and identified the highways to be designated. The expressway
77 system included 600 miles of highways along 16 corridors of the NHS, connecting urban centers of
78 populations greater than 15,000 to the Interstate System, adding those routes which had an average
79 daily traffic count of 500 or more heavy commercial vehicles, and additional segments as required for
80 continuity (see **Figure 1.5**).

81 **Figure 1.5 Original 1988 Nebraska Expressway System (completion as of 2022)**



82
83 Source: <https://dot.nebraska.gov/projects/tia/cap-improve/expressway-system/>

² Nebraska Panhandle Area Development District (<https://nepadd.com/ceds/> accessed October 2022)

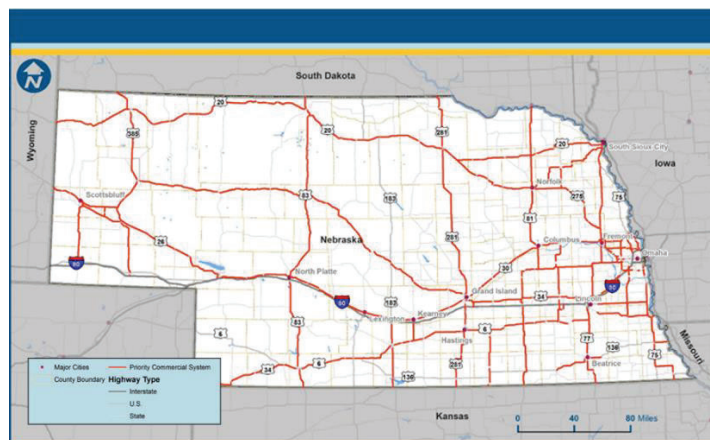
³ In 2017, the Nebraska Department of Aeronautics merged with the Nebraska Department of Roads to form the Nebraska Department of Transportation. For more history of NDOT see <https://dot.nebraska.gov/about/history/>

What is an Expressway in Nebraska?
Nebraska Revised Statute 39-1302
(14) "Expressway means a divided arterial highway for through traffic with full or partial control of access which may have grade separations at intersections;" (4) "Arterial highway means a highway primarily for through traffic, usually on a continuous route;" Source: https://nebraskalegislature.gov/laws/statutes.php?statute=39-1302
Nebraska Revised Statute 39-2103
(2) "Expressway, which shall consist of a group of highways following major traffic desires in Nebraska which rank next in importance to the National System of Interstate and Defense Highways. The expressway system is one which ultimately should be developed to multilane divided highway standards;" Source: https://nebraskalegislature.gov/laws/statutes.php?statute=39-2103
In Nebraska, this is understood to mean a 4-lane divided highway.

84 Also in 1988, NDOT (NDOR at the time) created and identified Nebraska’s Priority Commercial System
 85 (PCS), which was intended to provide a continuous network of routes designed to carry higher traffic
 86 volumes, especially larger volumes of commercial vehicles. The PCS also includes the rural
 87 expressway system and was designed to directly serve the first-class cities, and directly or indirectly
 88 serve most of the second-class cities in the State⁴. The PCS is composed primarily of NHS routes (see
 89 **Figure 1.6**).

90 Nebraska Highway 71 (N-71) between Kimball and Scottsbluff, and US-26 from Mitchell to Minatare
 91 were included in the original 1988 Nebraska Expressway System designation, and the rest of the
 92 adjacent corridors along US-26, L62A, and US-385 (among others) were designated on the Nebraska
 93 Priority Commercial System.

94 **Figure 1.6 Nebraska’s Designated Priority Commercial System Roadways**



95
 96 Source: NDOT Freight Plan 2017

⁴ First class cities are defined as having populations greater than 5,000 and less than 100,000. Second class cities are defined as having populations greater than 800, and less than 5,000. (<https://nebraskalegislature.gov/laws/laws-index/chap16-full.html>)

Heartland Expressway

In 1991, with the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) legislation, Congress identified the full extent of the Heartland Expressway as a High Priority Corridor (Corridor 14), extending from Denver through Scottsbluff to Rapid City (Figure 1.7). The Heartland Expressway Economic and Engineering Feasibility Study (Wilbur Smith Associates, 1993) (1993 Study) was subsequently commissioned by NDOR and South Dakota DOT to make recommendations on the feasibility and best routing of the corridor between Scottsbluff and Rapid City.

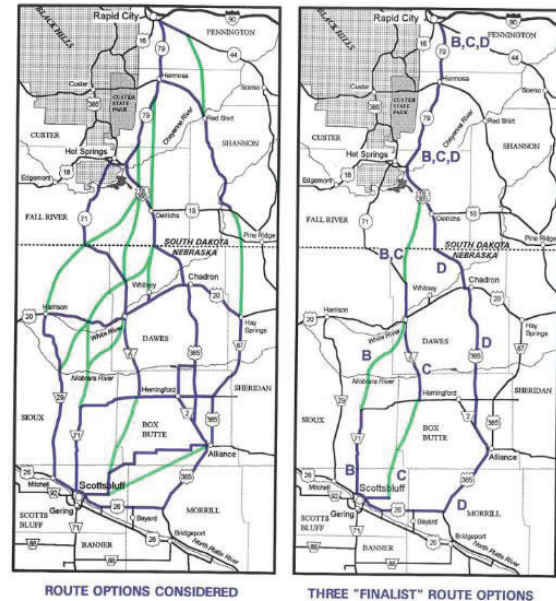
The 1993 Study evaluated:

- Over 50 route combinations generally located between Wyoming State Highway (SH) 29 on the west, and US-385 and Nebraska SH 87 on the east; screened them down to three finalist routes based on logic, cost, travel time, route length, accessibility, tourism, economic potential, and feasibility; and made a recommendation of a preferred alternative; and
- Three highway type alternatives: 4-lane freeway (i.e., expressway with full access control), 4-lane expressway (i.e., 4-lane divided highway with full or partial controlled access), and 2-lane highway with some 4-lane sections (i.e., passing/climbing/auxiliary lanes).

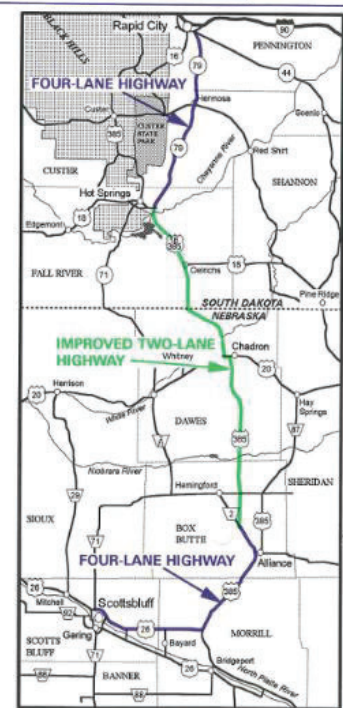
Feasibility was evaluated based on traffic, engineering, cost, environmental impact, travel efficiency, and economic development efficiency. Expressway improvements were considered feasible based on:

- Traffic warrants during peak times of year (summer tourist and fall harvest seasons).
- The corridor area would have a positive benefit/cost ratio between 1.15 and 1.52, and an internal rate of return between 9.3 and 13.5.
- The ability to avoid or mitigate environmental impacts.
- Economic feasibility supported by economic development feasibility (but not by travel efficiency since none of the alternatives had enough traffic).

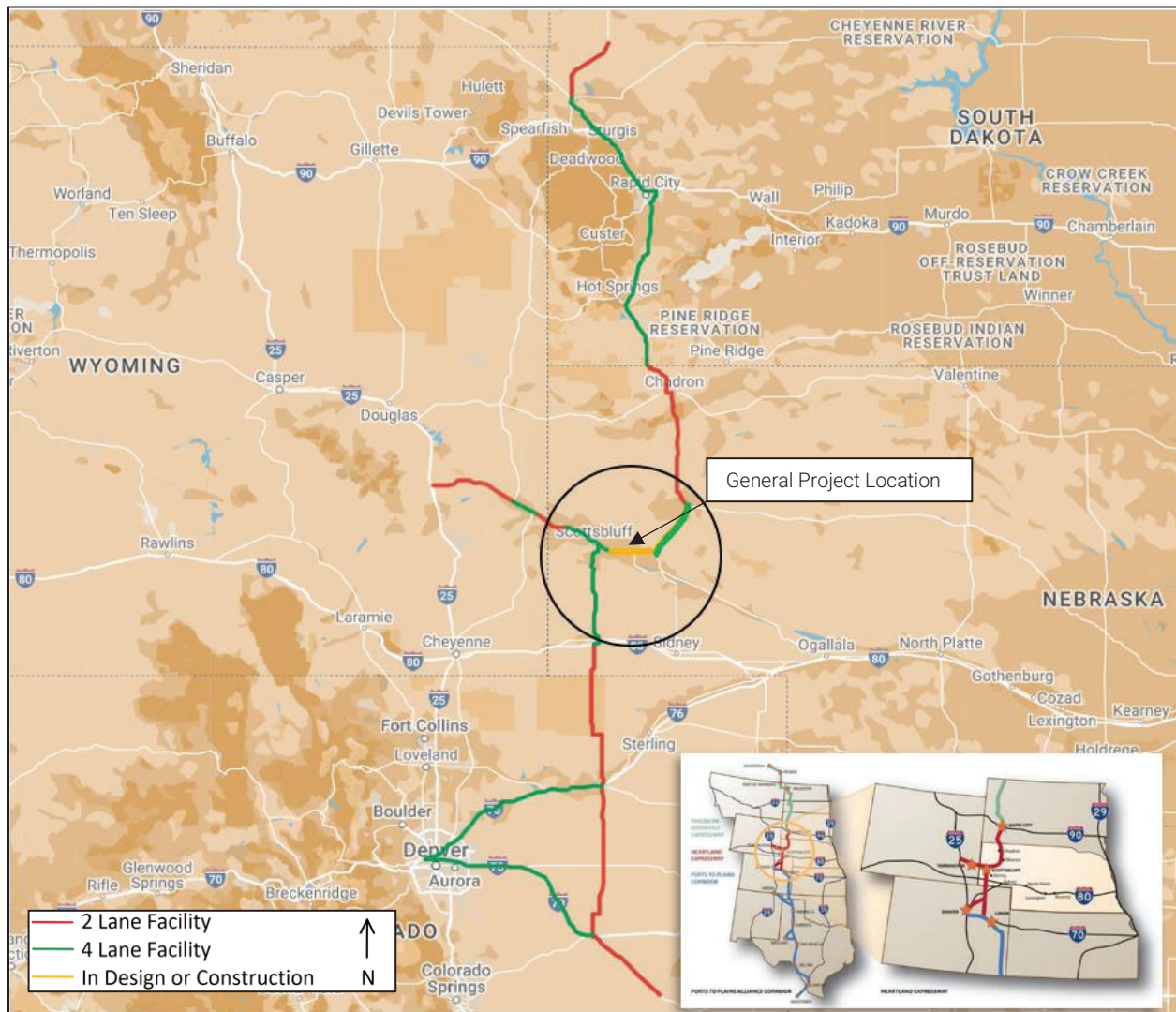
A recommended route was identified that would provide the greatest transportation and economic development benefit, while minimizing environmental impacts. The feasibility results indicated that a combination 4-lane/2-lane highway was feasible from the standpoint of Nebraska, South Dakota, and Wyoming, with the most feasible route connecting Scottsbluff/Gering to Rapid City via Alliance, Chadron, and Hot Springs utilizing existing highways, rather than constructing a new controlled access freeway on a new alignment. The segments from Scottsbluff/Gering to Alliance and from Hot Springs to Rapid City were considered feasible as 4-lane highways. The segment from Alliance to Hot Springs was deemed to be feasible as an improved 2-lane highway.



Existing Highway Alignment
New Highway Alignment



143 **Figure 1.7 Heartland Expressway, Colorado to South Dakota (completion as of 2022)**



144 Source: <https://heartlandexpressway.com/corridor-completion-status/> (red: 2-lane, green: 4-lane, yellow: in design or under
 145 construction for improvement to 4-lane)
 146

147 The 1993 Study was updated by NDOT in 2014 (*Heartland Expressway Corridor Development and*
 148 *Management Plan*). The Technical Memorandum that calculated economic benefits to support this
 149 report indicated that the Heartland Expressway was likely to result in even greater economic benefits
 150 (\$452.4M) than were identified in the 1993 Study, including construction jobs, operation and
 151 maintenance jobs and purchases, and economic development impacts such as attracting new
 152 roadside services and providing a more competitive low-cost location with proximity to larger urban
 153 areas especially for businesses taking advantage of the region’s significant agricultural assets and
 154 distribution facilities. The benefit/cost ratio of these improvements were calculated to be 1.88, which
 155 is an increase from the ratios calculated in the 1993 Study.

156 Since 1991, approximately 60 percent of the Heartland Expressway has been improved in some way,
 157 including segments in Colorado east of Denver, the entirety of the corridor within South Dakota from
 158 the Nebraska state line to Rapid City, in Nebraska from Kimball to east of Scottsbluff, and most
 159 recently, from the US-385 junction with L62A to Alliance.

160 Many community organizations and residents of western Nebraska and South Dakota have continued
161 to advocate for this four-lane highway to provide an improved connection to I-80 and I-90. In the
162 Nebraska Panhandle, the Heartland Expressway is regularly discussed as a needed stimulus for
163 economic development of the region⁵.

164 *Ports-to-Plains Alliance*

165 The Heartland Expressway is also a part of the Ports-to-Plains (P2P) Alliance, a collaboration of major
166 highway corridors covering ten rural states, as well as international corridors stretching from Mexico
167 to Canada. Initial members included the Ports to Plains Corridor in Texas, New Mexico, Oklahoma, and
168 Colorado; the Heartland Expressway in Colorado, Nebraska, Wyoming, and South Dakota; and the
169 Theodore Roosevelt Expressway in South Dakota and North Dakota. Additional corridors connected to
170 the P2P Alliance include the Camino Real Corridor in Montana; the Mexico Corridor; and the Eastern
171 Alberta Trade Corridor.

172 As of 2020, the combined efforts of the P2P Alliance have resulted in more than \$2 billion in Federal
173 and state funding⁶ to develop, build, and improve the Alliance's corridor.

174 The P2P Alliance is a non-profit, non-partisan, community-driven advocacy group led by mayors,
175 councilpersons, economic development officials, business and other opinion leaders from ten US
176 states served by a nine-state, 2,300-plus mile economic development corridor between Mexico and
177 Canada. In the US these communities reach from Texas on the south to North Dakota and Montana
178 on the north. The corridor extends into the energy and agriculture rich areas in Canada. The
179 Government of Alberta joins many communities in Alberta and Saskatchewan looking to expand
180 infrastructure serving the economic needs of their regions and the whole of the Ports-to-Plains
181 Corridor. In Mexico development is taking place connecting the Texas/Mexico border in communities
182 along the corridor stretching to the Ports of Mazatlán on the west coast of Mexico (**Figure 1.4**).

183 The corridor serves North America's energy heartland, including the oils sands in Alberta, Bakken,
184 Niobrara, Permian, Cline, Eagle Ford, and emerging Mexico energy plays⁷. At the same time, it
185 embraces America's new energy economy, and is capitalizing upon wind power, biofuels and other
186 innovation sectors to renew one of America's greatest legacies, the rural heartland.

187 As of 15 March 2022, the segment of the P2P Corridor from Laredo, Texas to Raton, New Mexico has
188 been designated by Congress as the future extension of I-27⁸. The designation was made possible by
189 the FY22 Omnibus Appropriations Bill, and further solidifies the planning and vision for a 4-lane divided
190 highway from Mexico to Canada along this route⁹.

191 *Great Plains International Trade Corridor (GPITC)*

192 The P2P Alliance is the US domestic portion of an even larger trade corridor, which would extend into
193 both Mexico and Canada. This trade corridor is known as the Great Plains International Trade Corridor
194 (GPITC).

195 The Heartland Expressway, along with two other High Priority Corridors (P2P, High Priority Corridor
196 No. 38 and the Theodore Roosevelt Expressway, High Priority Corridor No. 58), form the central part of

⁵ <https://heartlandexpressway.com/>

⁶ P2P Alliance - 2020 Ports to Plains Policy Paper "2020 Policy Priorities – Surface Transportation Reauthorization"
(<http://www.portstoplains.com> accessed October 2022).

⁷ <https://www.inboundlogistics.com/articles/ports-to-plains-trade-corridor-north-americas-energy-and-agricultural-heartland/> (accessed October 2022)

⁸ https://portstoplains.com/wp-content/uploads/2022/03/Future_Interstate_Designation_News_Release_031522.pdf

⁹ https://portstoplains.com/wp-content/uploads/2021/04/2021_ports-to-plains_policy_priorities_complete.pdf

197 the GPITC route connecting Monterrey, Nuevo Leon, Mexico, to Regina and Saskatoon, Saskatchewan,
 198 Canada.

199 The GPITC is the backbone of a north-south transportation system extending from Mexico to Canada,
 200 with direct connections to additional corridors, including:

- 201 • **SPIRIT** (High Priority Corridor No. 51, extending from Wichita, Kansas, south to El Paso,
 202 Texas),
- 203 • **La Entrada al Pacifico** (High Priority Corridor No. 56, extending from the Permian Basin in
 204 southwest Texas through Presidio, Texas, to Topolobampo, Mexico),
- 205 • **Route 50 High Plains** (High Priority Corridor No. 48, extending from Newton, Kansas to Pueblo,
 206 Colorado), and
- 207 • **Camino Real** (High Priority Corridor No. 27 which extends from El Paso, Texas to the US-
 208 Canada border south of Calgary).

By the Numbers: The Ports-to-Plains Alliance Corridor Serves:

- 5 of the top 15 wind generation states (2019)
- 27% of the nation's ethanol refineries (2018)
- 6 of the top 10 natural gas producing states (2019)
- 7 of the top 15 oil producing states (2019)
- 7 of the top 10 farm states for land in farms (2019)
- 3 of the top 10 farm states in state receipts for all farm commodities (2019)

209
 210 Source: <http://portstoplains.com/about>

211 The Great Plains International Trade Corridor Assessment (Cambridge Systematics, 2008) indicated
 212 the need for an improved north-south route including the Heartland Expressway. The study also
 213 showed that the project roadway carries a high volume of trucks, and that traffic on the project route
 214 was likely to increase in the range of 81 to 140 percent by the year 2030.

215 *Heartland Expressway Scottsbluff to US-385*

216 In 2000, an EA and Finding of No Significant Impact (FONSI) was prepared for a portion of the
 217 Heartland Expressway along US-26 and L62A, extending from Scottsbluff to US-385. The proposed
 218 action was to widen 26 miles of US-26 and L62A from a 2-lane roadway to a 4-lane divided
 219 expressway, from east of Scottsbluff to the intersection of L62A with US-385, south of Alliance. The
 220 US-26/L62A corridor was divided into two project segments. The western segment, Scottsbluff to
 221 Minatare, which was included in the NDOT's (then NDOR) five-year construction program. In contrast,
 222 the eastern segment, Minatare to US-385, did not receive funding from the five year construction
 223 program and did not proceed beyond the conceptual design and environmental phase.

224 The EA considered two alternatives, a No Build and Build-Alternative. The Build Alternative proposed
 225 improving the existing 2-lane roadway to a 4-lane divided expressway. The typical cross-sections for
 226 the 4-lane expressway varied by location, with the widening generally achieved by adding two lanes
 227 and median either to the north or south of the existing lanes. The decision on which side to widen was
 228 based on engineering factors and efforts to minimize environmental impacts. The build alternative
 229 was identified as the preferred alternative for the portion of the Heartland Expressway on US-26 and
 230 L62A. However, due to funding constraints, the eastern segment which included Minatare to US-385
 231 did not proceed to construction.

232 **1.4 Logical Termini**

233 The proposed project extends from the City of Minatare to the L62A junction with US-385. This
 234 segment is the next logical segment of the overall Heartland Expressway corridor based on the fact
 235 that it is a gap in the otherwise 4-lane highway system from Kimball to Alliance along the Heartland

236 Expressway. The start and end points of this project would connect to existing 4-lane segments on
237 either end of the project.

238 1.5 Summary

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

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

248 Chapter 2 Purpose and Need

249 This chapter discusses the purpose of and need for the Project. Chapter 1 identified the Project
250 location and background. Subsequent chapters address the alternatives considered (Chapter 3); the
251 affected environment and potential environmental consequences (Chapter 4); agency coordination
252 and public involvement efforts (Chapter 5); and mitigation measures (Chapter 6).

253 2.1 Purpose

254 This project is intended to **develop an improved transportation corridor connecting the junction of US-**
255 **385 and L62A, with the city of Minatare. This highway has been identified as part of the Heartland**
256 **Expressway, a Highway Priority Corridor on the National Highway System (NHS).**

257 The improved corridor is intended to address the following transportation purposes: *(These are all*
258 *explained in greater detail in the following sections)*

- 259 • To **provide an improved highway on a congressionally designated NHS High Priority Corridor**
260 **that increases the efficiency and safety of commerce and travel** as included in the Intermodal
261 Surface Transportation Efficiency Act of 1991 (ISTEA). ISTEA calls for the development of
262 High Priority Corridors on the NHS, including the Heartland Expressway.
- 263 • To **fulfill federal legislative intent** of the ISTEA; the Transportation Equity Act for the 21st
264 Century (TEA-21); the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy
265 for Users (SAFETEA-LU), which have provided federally “earmarked” or congressionally
266 directed funds for the development of the Heartland Expressway; and the Moving Ahead for
267 Progress in the 21st Century Act (MAP-21), which continued authorization of funding as
268 deemed necessary in SAFETEA-LU.
- 269 • To **fulfill state legislative intent of the Build Nebraska Act and the Transportation Innovation**
270 **Act**; the State of Nebraska has identified this project as one of the high priority projects to
271 receive funding under these acts. The bills themselves do not specify which projects are
272 funded, but they do allow NDOT to determine funding and priorities based on various needs
273 and safety concerns, as well as engineering performance and economic benefits. Using this
274 authority in 2016, NDOT utilized a new process to identify and prioritize projects for planning,
275 design, and construction; and this project was one of those advanced for construction.
- 276 • To **address roadway and operational challenges** along this segment of the Heartland
277 Expressway corridor that are currently reducing the efficiency and safety of this highway.

278 2.2 Need

279 2.2.1 Improved Highway Corridor

280 *National Highway System High Priority Corridor*

281 After adoption of the North American Free Trade Agreement (NAFTA) in 1994, the Heartland
282 Expressway HPC was designated in 1998 under the provisions of the Intermodal Surface
283 Transportation Efficiency Act (ISTEA) of 1991. The United States-Mexico-Canada Agreement (USMCA)
284 replaced NAFTA effective in July 2020.

285 Section 1105 of ISTEA, the original act in which the NHS High Priority Corridors, including the
286 Heartland Expressway, were identified, stated that the HPC highways were of national significance
287 and allowed the states to give priority to funding the construction of these corridors and to provide

288 increased funding for segments of the corridors that were identified for construction. In addition,
289 ISTEAs stated: "In approving programs of projects under this section, the Secretary may give priority of
290 approval to, and expedite construction of, projects to complete construction of such segments."

291 The focus of ISTEAs was on improving the efficiency and safety of the NHS network, which makes up 4
292 percent of the nation's roads, but carries 40 percent of the traffic and 75 percent of heavy truck
293 traffic¹⁰. The part of the National Highway System covered by this project is particularly important to
294 truck traffic; 2021 traffic numbers provided by the NDOT Interactive Statewide Traffic Flow Map
295 indicate that an average of 11-16 percent of the vehicles on the project route is a truck¹¹. Based on
296 local observations, truck traffic along this segment increases during the harvest season, typically July
297 to February.

298 Section 1105 of ISTEAs spelled out the need for High Priority Corridors on the NHS as follows:

- 299 • The construction of the Interstate Highway System connected the major population centers of
300 the Nation and greatly enhanced economic growth in the United States;
- 301 • Many regions of the nation are not now adequately served by the Interstate Highway System
302 or comparable highways and require further highway development to serve the travel and
303 economic development needs of the region; and
- 304 • The development of transportation corridors is the most efficient and effective way of
305 integrating regions and improving efficiency and safety of commerce and travel and further
306 promoting economic development.

307 In general, the number of central and western United States north-south highways proposed as High
308 Priority Corridors (see **Figure 1.3**) illustrates the need for improved north-south highways in these
309 regions, as existing ones are few and far between. In particular, this project's segment is vitally
310 important to the transportation network in the Panhandle region because this region has so few north-
311 south links in the NHS. Currently, although N-71 is a NHS highway south from Scottsbluff, there are no
312 NHS roads that cover the north-south extent of the Panhandle further west of US-385 in Nebraska
313 (**Figure 1.2**). The closest north-south NHS highway to the west is US-85 in Wyoming, approximately 65
314 miles from US-385. The closest north-south NHS roadway to the east is US-83, approximately 125
315 miles from US-385.

316 As discussed previously, the Heartland Expressway has been planned for nearly 35 years. Currently, it
317 is a 4-lane divided highway from the City of Minatare to the west, past Scottsbluff and south to I-80, as
318 well as along US-385 from the junction with L62A north to Alliance, and from the South Dakota line
319 northward (**Figure 1.7**). This leaves two separate 2-lane roadway gaps between the existing 4-lane
320 sections, extending from the Nebraska/South Dakota line to Alliance, and from Minatare to the US-385
321 junction. As funding has become available, and the transportation needs increase for the Heartland
322 Expressway route, these gaps are being addressed, which would provide an improved transportation
323 network that connects not only the cities within the Heartland Expressway corridor, but others
324 throughout the Great Plains.

325 *Minatare to US-385 Corridor Crash History*

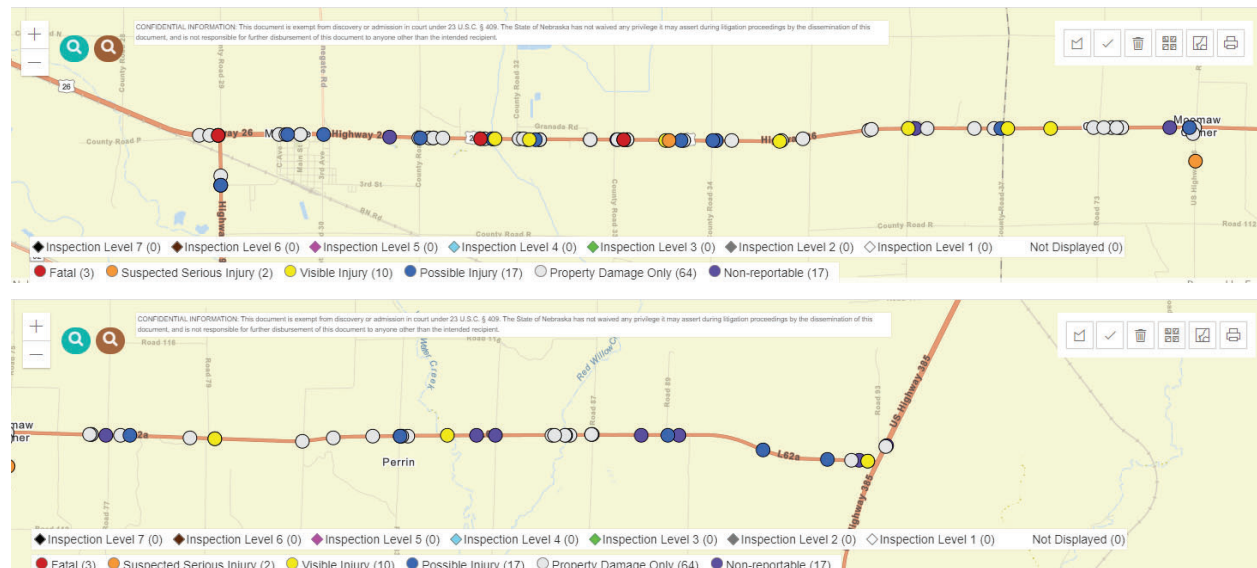
326 An analysis conducted in 2020 by NDOT for this project identified that in the four years between 2016
327 and 2019, this segment of rural 2-lane highway (US-26 and L62A between Minatare and US-385) had a
328 calculated crash rate between 1.12 and 1.19 (**Figure 2.1**). Compared to the average crash rate for
329 similar 2-lane highways in Nebraska over this same period (0.662), this is nearly double the average
330 rate. Further, the 4-lane section in Minatare, where the roadway transitions from 2 to 4 lanes, had a

¹⁰ FHWA (<http://www.fhwa.dot.gov/publications/publicroads/96spring/p96sp2.cfm> accessed October 2022)

¹¹ <https://dot.nebraska.gov/travel/map-library/> accessed March 2023

331 crash rate of 1.84, which was also much higher than the average of 1.221 for the same period for
332 similar 4-lane highways.

333 **Figure 2.1 Crash History along US-26 and L62A from Minatare to US-385 (2016-2019)**



Source: Nebraska Transportation Information Portal (NTIP) <https://ntip.nebraska.gov/Map>

337 The types of crashes are also notable, particularly in that the number of crashes that were injuries or
338 fatalities were between 24% and 38% of the total crashes in this period. There were 2 fatalities along
339 this segment of highway, one each in 2016 and 2017. On average, there were between 20 and 32
340 crashes per year in this segment of highway.

341 These numbers of crashes, injuries, and fatalities represent real lives affected and real damages to
342 property and wildlife. While no specific patterns of crashes were observed, these numbers are much
343 higher than the averages for similar roadways and support the need to address safety wherever
344 possible.

345 *The proposed project would fulfill the congressionally authorized directive to construct a High Priority*
346 *Corridor using National Highway System routes and would thereby increase the efficiency and safety of*
347 *travel and commerce as directed in ISTEA.*

348 2.2.2 Federal and State Legislative Intent

349 In keeping with the development of the High Priority Corridors and as a key part of the Heartland
350 Expressway, the federal government in the 2005 SAFETEA-LU legislation included funding to build the
351 section between Minatare and Alliance, which is further divided into three smaller projects with logical
352 termini: from Minatare to the Bayard turnoff (i.e. where US-26 turns south and L62A begins), from the
353 US-26/L62A junction to the L62A/US-385 junction, and from the L62A/US-385 junction to Alliance. The
354 L62A junction to Alliance segment was recently completed (fall 2022), leaving the two remaining
355 segments that make up this project as the only remaining gap in the intra-state portion of the
356 Heartland Expressway between the cities of Kimball, Scottsbluff, Gering, and Alliance.

357 Ongoing funding provided by the federal government and state governments represents a continued
358 effort to complete the Heartland Expressway. **Table 2.1** and **Table 2.2** present a history of these funds.
359 The following sections demonstrate more recent and ongoing funding commitments.

360 **Table 2.1 Nebraska Earmarks received for the Heartland Expressway**

Description	Amount	Year	Legislation	State	Comment
Heartland Expressway Corridor Development and Management Study	\$475,000	2009	Omnibus Appropriations Act	Nebraska	Sponsor - Congressman Adrian Smith
Construction of the Heartland Expressway between Alliance and Minatare	\$5,000,000	2005	SAFETEA-LU	Nebraska	NA
Construction of the Heartland Expressway between Alliance and Minatare	\$8,000,000	2005	SAFETEA-LU	Nebraska	NA
Construction of the Heartland Expressway between Alliance and Minatare	\$6,000,000	2005	SAFETEA-LU	Nebraska	NA
Construction of the Heartland Expressway between Alliance and Minatare	\$2,500,000	2005	SAFETEA-LU	Nebraska	NA
Heartland Expressway Nebraska	\$855,000	2005	SAFETEA-LU	Nebraska	NA
Heartland Expressway Nebraska	\$1,500,000	2003	TEA-21	Nebraska	NCPD program

361
362 Source: <http://earmarks.omb.gov/earmarks-public/> accessed 5 August 2014

363 **Table 2.2 Other State Earmarks received for the Heartland Expressway**

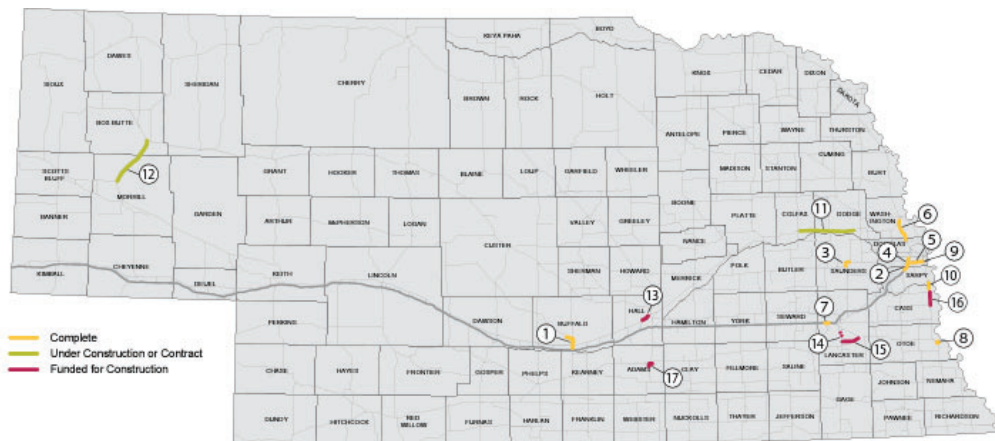
Description	Amount	Year	Legislation	State	Comment
Heartland Expressway South Dakota	\$1,968,000	2005	SAFETEA-LU	South Dakota	NA
Purchase critical conservation easements along the Heartland Expressway (Highway 79) adjacent to Custer State Park and Wind Cave National Park	\$2,000,000	2005	SAFETEA-LU	South Dakota	NA
Construct Exit 61 I-90 Rapid City (Heartland Expressway)	\$15,116,000	2005	SAFETEA-LU	South Dakota	NA
Heartland Expressway Improvements	\$5,000,000	2005	SAFETEA-LU	Colorado	NA

364
365 Source: <http://earmarks.omb.gov/earmarks-public/> accessed 5 August 2014

366 *Build Nebraska Act, Transportation Innovation Act, and StEEP Selection Process in 2016*

367 With the passage of the Build Nebraska Act (BNA) in 2011, the State of Nebraska embarked on a 20-
368 year plan to improve roadway infrastructure statewide. Funding was secured by a ¼ cent increase in
369 the gasoline tax, and the focus was placed on completing and expanding the Expressway System, the
370 High Priority Corridors, and preservation of the existing transportation system. In November 2011,
371 NDOT announced nearly \$600 million in investments to expand 17 expressways, interstate, or high
372 priority corridors across the state (Figure 2.2). One of these projects was the expansion of US-385 to 4
373 lanes, from L62A to Alliance.

374 **Figure 2.2 Build Nebraska Act and Transportation Innovation Act (2011 Progress)**



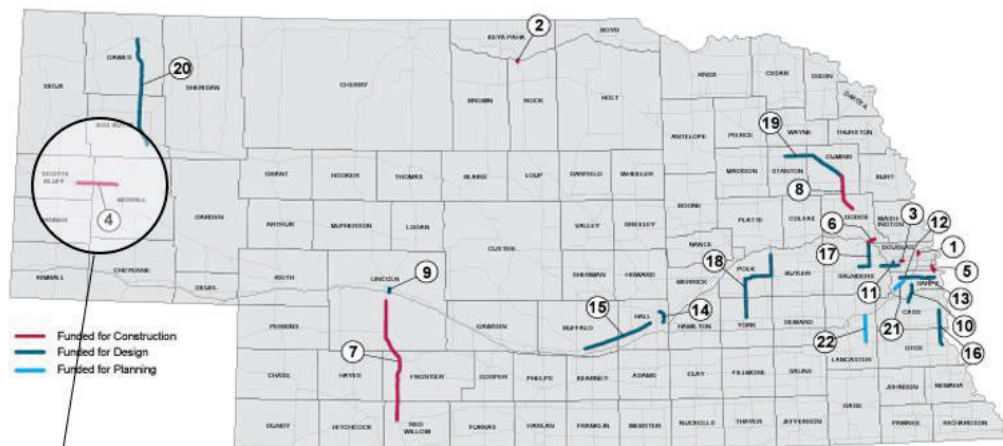
Complete	Estimate (millions)	Complete (cont'd.)	Estimate (millions)	Funded for Construction	Estimate (millions)
① N-10 Kearney East Bypass 4-Lane Divided Highway	\$50	⑧ US-75 Nebraska City Southeast Interchange Reconstruction	\$30	⑬ US-30/281 West Grand Island 4-Lane Divided Expressway	\$29
② I-80 126th to 96th, Omaha Additional Lane, EB	\$12	⑨ I-80 24th to 13th, Omaha Additional Lane, EB & WB	\$21	⑭ US-77 Lincoln West Beltway Interchanges at Warlick Blvd. & Pioneers Blvd.	\$35
③ US-77 Wahoo Bypass 4-Lane Divided Highway	\$22	⑩ US-75 Plattsmouth to Bellevue (North of Platte River) 4-Lane Divided Expressway	\$44	⑮ N-2 Lincoln South Beltway 4-Lane Divided Expressway on New Alignment	\$328
④ I-680 Center to Pacific St., Omaha, Additional Lane, NB	\$5			⑯ US-34\US-75 Murray to Plattsmouth 4-Lane Divided Expressway	\$48
⑤ I-80 60th to 24th, Omaha Additional Lane, WB	\$9	Under Construction or Contract	Estimate (millions)	⑰ US-6 Hastings Southeast 5-Lane Urban Highway	\$35
⑥ N-133 Blair to Omaha 4-Lane Divided Highway	\$36	⑪ US-30 Schuyler to Fremont 4-Lane Divided Expressway	\$172		
⑦ I-80 NW 56th to US-77, Lincoln 6-Lane Reconstruction	\$43	⑫ US-385 L62A to Alliance 4-Lane Divided Highway	\$68		

Source: 2019 BNA/TIA Status Update (<https://govdocs.nebraska.gov/epubs/R6000/Q008-2019.pdf>)

377 In the summer of 2016, NDOT rewrote the book on Capital Improvement selection. The new selection
 378 process was entitled “StEEP” (Stakeholder. Engineering. Economics. Priorities.) and incorporated a
 379 listening campaign that emphasized public input. StEEP was used to prioritize candidate projects that
 380 reflected the connection between transportation investments and the economy. More than 2,000
 381 Nebraskans participated in the process that identified more than \$8 billion in potential transportation
 382 projects for funding consideration. Candidate projects were evaluated for their economic and
 383 engineering performance and given an overall performance score. Projects were selected based on
 384 performance scores and other important considerations, such as geographic inclusion, progress on
 385 the Expressway System and High Priority Corridors, Interstate and Expressway connectivity, and
 386 available supplemental funding.

387 The StEEP selection process resulted in a \$300 million investment in eight construction projects
 388 (including this project), 12 design projects, and the planning of two more. These selections (**Figure 2.3**)
 389 were funded by a combination of the BNA Next 10 Years and the TIA projected revenues anticipated
 390 by 2033. The investments will improve safety on Nebraska highways, promote economic growth
 391 throughout the state and fulfill the 1988 vision to expand Nebraska’s Expressway System. To that
 392 end, in September 2016, NDOT announced that 100 percent of the Nebraska Expressway System was
 393 either complete, under construction, or funded for construction or design.

394 **Figure 2.3 Build Nebraska Act and Transportation Innovation Act (2016 Progress)**



Funding Status	Project ID	Project Description	Estimate (millions)
Funded for Construction	1	I-680 Fort St. to Irvington St. 6-Lane Reconstruction	\$30
	2	N-7 Bassett to Springview Modernization	\$10
	3	US-6 192nd & West Dodge Rd., Omaha Interchange Reconstruction	\$21
	4	US-26 Minatare to US-385 4-Lane Divided Highway	\$60
	5	US-75 Chandler Road, Northbound Additional Lane, NB	\$9
	6	US-77 Fremont Southeast Beltway 4-Lane Divided Expressway	\$54
	7	US-83 McCook to North Platte Super 2	\$60
	8	US-275 Scribner to West Point 4-Lane Divided Expressway	\$120
Funded for Design	9	I-80 Newberry Interchange & L56G to US-30 Modified interchange & 4-Lane Construction	
	10	N-50 Louisville to Springfield 4-Lane Divided Highway	
	11	N-92 Yutan East Corridor 4-Lane Divided Highway	
	12	N-370 Gretna East to I-80 6-Lane Reconstruction	
	13	N-370 I-80 to Bellevue 6-Lane Reconstruction	
	14	US-30 Grand Island East Bypass 4-Lane Divided Highway	
	15	US-30 Kearney to Grand Island Super 2	
	16	US-75 Nebraska City to Murray 4-Lane Divided Expressway	
Funded for Planning	17	US-77 Wahoo to Fremont 4-Lane Divided Expressway	
	18	US-81 York North 4-Lane Divided Expressway	
	19	US-275 West Point to West of Pilger 4-Lane Divided Expressway	
	20	US-385 Alliance to Chadron Super 2	
Funded for Planning	21	I-80 New Interchange(s), Omaha New Interchange(s)	
	22	New Lincoln East Beltway 4-Lane Divided Highway	

395
396

Source: 2019 BNA/TIA Status Update (<https://govdocs.nebraska.gov/epubs/R6000/Q008-2019.pdf>)

397 Minatare to US-385 (Project 4) was one of two Heartland Expressway projects selected along with
 398 Alliance North to Chadron (Project 20). This project was identified in the initial and final selection
 399 process as a 4-lane divided highway, while Alliance to Chadron was originally proposed as a 4-lane
 400 divided highway but was selected for design as a Super 2 highway due to funding limitations.

401 *Ongoing Federal Funding and Support*

402 There have also been several funding bills in the last decade that have been approved at the federal
 403 level, including annual appropriations, omnibus spending, and two major infrastructure bills passed by
 404 Congress that demonstrate federal support and intent for advancing the construction of the Heartland
 405 Expressway, among other major highway corridors.

406 In March 2024, Nebraska’s Senator Deb Fischer secured \$12.865M in funding to “Expand the
 407 Heartland Expressway to four lanes” from Minatare to US-385. This congressionally authorized
 408 funding was passed in the FY 2024 Transportation, Housing and Urban Development, and Related
 409 Agencies Appropriations Act¹².

410 *Since 2003, federal and state legislative actions have provided continued and on-going funding for the*
 411 *Heartland Expressway. These funds represent an obligation of resources toward the eventual completion*

¹² <https://www.fischer.senate.gov/public/index.cfm/2024/3/fischer-secures-key-nebraska-priorities-in-government-funding-bill>

412 *of the overall corridor; as such, this project fulfills this federal and state legislative intent to complete the*
413 *Heartland Expressway Corridor.*

414 2.2.3 Roadway and Operational Challenges

415 *Existing Conditions*

416 The existing segment of US-26 through Minatare consists of two 12-foot-wide composite lanes, a two-
417 way center turn-lane and 10-foot-wide shoulders, of which 8 feet is surfaced with asphalt. The existing
418 segments of US-26 and L62A, east of Minatare, consist of two 12-foot-wide asphalt lanes and 10-foot-
419 wide shoulders, of which 8 feet is surfaced with asphalt. Just west of the US-385 junction, there is
420 roughly one mile of climbing lane for eastbound traffic on L62A, consisting of a 12-foot-wide
421 composite lane and no surfaced shoulder. The roadway segments are generally in “good” condition.
422 There are four shorter stretches within the overall project limits that are characterized by different land
423 uses and terrain, resulting in different traffic and transportation issues. These are described below:

- 424 • In Minatare – This segment extends from approximately the intersection of US-26 and Main
425 Street to approximately 2,600 feet east of Stonegate Road, to the east corporate limits of
426 Minatare. The segment is urban in nature with multiple access points for residences and
427 businesses.
- 428 • Middle Section - This segment extends from approximately 2,600 feet east of Stonegate Road
429 to west of the existing junction of US-26 and L62A. The segment is rural in nature with level
430 terrain and multiple access points for farmsteads and businesses.
- 431 • L62A/US-26 Junction area – The junction of US-26 and L62A is approximately the mid-point of
432 the project. At the junction, US-26 turns south and L62A begins and continues east. The north
433 leg of the junction is County Road 75. This area is rural in nature.
- 434 • East Section – This segment begins east of the existing junction of US-26 and L62A and
435 continues east to the junction of L62A and US-385. This segment is rural in nature with level
436 to rolling terrain and multiple access points for farmsteads and businesses.

437 There are several issues that are relevant to the roadway and operational challenges seen along the
438 project alignment:

439 *High Volume of Truck Traffic*

440 This segment of the NHS is particularly important to truck traffic; 2021 traffic numbers provided by
441 the NDOT Interactive Statewide Traffic Flow Map, indicate that an average of 11-16 percent of the
442 vehicles on the project route is a truck. The current average daily volume of trucks on this segment of
443 roadway is approximately 914 per day according to recent NDOT counts. Based on local observations,
444 truck traffic along this segment increases during the harvest season, typically July to February.

445 *Longer and Heavier Trucks*

446 US-26 and L62A were originally built as 2-lane rural highways to connect smaller Nebraska towns to
447 the state highway system and to provide access for farm to market trucks, which were at the time,
448 much shorter and lighter. Changes in the agricultural industry have resulted in the use of longer and
449 heavier trucks, including tankers and semi-trailers often pulling pup trailers. According to the NDOT
450 permit division, there were between 465 and 775 trucks annually requiring oversize and/or overweight
451 permits on this highway segment between 2018 and 2022. It is worth noting that these figures
452 represent only the permits issued by NDOT, and it is estimated that several thousand more oversize
453 and/or overweight trucks utilize this stretch of highway but don't require permits under State Statutes.

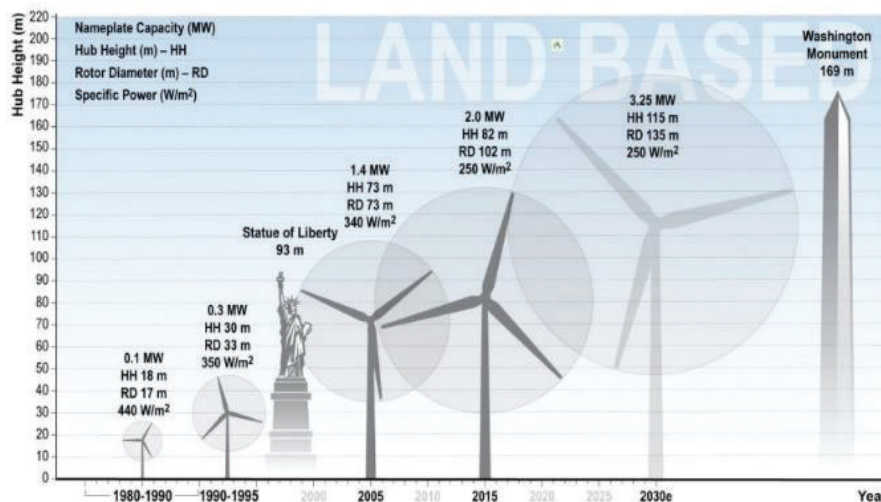
454 Furthermore, under Nebraska state law¹³, sugar beet trucks in this area are allowed by permit the
455 flexibility to exceed legal length and legal weight coming out of the fields. Improvements in agricultural
456 production have also increased the total volume of produce being transported from farm to market,
457 and to temporary storage areas.

458 The number of larger trucks with trailers primarily hauling sugar beets during harvest season can
459 create conflicts with other vehicles using these roadways. In the segment of US-26 and L62A from
460 Minatare to US-385, there are approximately 193 access points (field drives, driveways, and county
461 roads) where trucks may access the highway.

462 NDOT data shows an increase in the number of trucks utilizing this corridor to transport components
463 for wind turbines, including blades, tower sections, nacelles (i.e., generators), and construction
464 equipment. Many of these trucks are longer and/or heavier than those typically allowed on highways
465 and require oversize/overweight permits from NDOT. According to the NDOT permit division, between
466 2018 and 2022, there were over 165 permits issued for trucks longer than 145 feet, that were noted as
467 carrying “renewable energy components.” These trucks ranged from 145 feet to 240 feet.

468 According to Reuters, just a decade ago, wind turbine blades averaged approximately 120 feet;
469 however, as wind turbine technology has improved, the size of these components has continued to
470 increase (Figure 2.4), with future wind turbine blades expected to reach lengths of 200 feet or longer¹⁴.

471 **Figure 2.4 Expected increase in land-based wind turbine size in the U.S.**



Source: www.reutersevents.com

472
473
474 Larger and longer trucks accelerate slower and often travel at slower speeds, they often need to
475 encroach into oncoming traffic lanes when entering and exiting the highway, and they also require
476 longer passing lengths for faster moving vehicles to safely pass.

477 *Encroachment by Turning Trucks*

478 Turning vehicles currently encroach on opposing travel lanes to accomplish left and right turns. This is
479 a potential hazard as vehicles heading in the opposite direction may not be able to stop in time to

¹³ <https://statepatrol.nebraska.gov/divisions/field-services/carrier-enforcement>, and
<https://www.nebraskalegislature.gov/laws/statutes.php?statute=60-6,288>

¹⁴ <https://www.reutersevents.com/renewables/wind-energy-update/rising-wind-turbine-sizes-spur-new-hoisting-design-solutions>

480 avoid a slow-moving truck. The trucks that use US-26 and L62A are large and include tankers as well
481 as semi-trailers often pulling pup trailers. Turning without running off the pavement can be quite
482 challenging for these vehicles, and as described above, there are approximately 193 existing access
483 points on the project where this can happen.

484 *Longer Passing Distances*

485 The longer length of trucks can increase the required distance for a passenger vehicle to complete a
486 pass of the truck. In this case, the use of 120-foot long sugar beet trucks may warrant such
487 consideration. Based on *NCHRP Report 505*¹⁵, the length required to complete the pass of such a
488 sugar beet truck can be 400 to 500 feet longer than a standard pass. With the longer trucks noted
489 above for the renewables industry, these passing lengths can be extremely long, and in some cases,
490 trucks cannot be passed safely or at all.

491 *Seasonal Tourist Traffic*

492 Seasonal increases of vehicles with towed campers occur along the project alignment, as it is a direct
493 connection to many regional tourist destinations, including Mount Rushmore National Park,
494 Scottsbluff National Monument, Chimney Rock National Historic Site, Chadron and Fort Robinson
495 State Parks.

496 Other local recreation sites nearby also include Lake Minatare State Recreation Area, North Platte
497 National Wildlife Refuge, Lake Alice, and Nine Mile Creek State Wildlife Management Area, all of which
498 utilize Stonegate Road and US-26 for access. Further compounding these issues, is that the summer
499 tourist season overlaps with the local wheat harvest, and the corresponding increase in harvest
500 trucks.

501 *Crash History and Truck Collisions*

502 As described previously in **Section 2.2.1**, the calculated crash rate for this segment of rural 2-lane
503 highway is nearly double the average for similar roadways in Nebraska. The type of crashes are also
504 more often injury and fatality crashes, and the average number of crashes per year is consistently
505 greater than 20 per year. As it relates to truck collisions, there were 14 truck-involved collisions in the
506 same 2016-2019 period; therefore, the percentage of truck involved crashes along this roadway is
507 three times higher than statewide values¹⁶. The conditions described above (i.e., longer and heavier
508 trucks, longer passing distances, and seasonal traffic) contribute to these crashes.

509 Public comments have cited safety and roadway operation as a major need for the project. During the
510 public scoping process, 19 percent (10 out of 53) of commenters identified safety as a concern along
511 the project corridor. Many of the commenters expressed concerns with unsafe passing conditions,
512 movement of trucks and equipment, intersection safety, challenges with slow moving vehicles, and
513 hazards on the road. To address these safety concerns on US-26 and L62A, several commenters
514 suggested expanding the project roadway. These commenters felt that expansion of the roadway
515 would facilitate safer passing of slower vehicles, mitigate traffic congestion, and provide adequate
516 space for trucks, farm equipment, and other vehicles during harvest season.

517 ***Within this corridor there are several factors that present roadway and operational challenges on the***
518 ***existing facility, ranging from an increased number of trucks, longer and heavier trucks, slowing vehicles***
519 ***needing to turn and utilize the oncoming lanes to do so, longer required passing lengths, increased crash***
520 ***rates, and a greater number of seasonal tourist vehicles that result in sub-optimal operations.***

¹⁵ https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa1304/Resources3/27 - Review of Truck Characteristics as Factors in Roadway Design.pdf

¹⁶ State of Nebraska 2020 Annual Report, Traffic Crash Facts - <https://dot.nebraska.gov/media/115479/facts2020.pdf>

521 2.3 Purpose and Need Summary

522 The **purpose** of the proposed project is to develop an improved transportation corridor connecting the
523 junction of US-385 and L62A, with the city of Minatare.

524 The improved corridor is intended to address the following transportation related purposes:

- 525 • To provide an improved highway on a congressionally designated NHS High Priority Corridor
526 that increases the efficiency and safety of travel;
- 527 • To fulfill federal legislative intent of ISTEA, TEA-21, SAFETEA-LU, and MAP-21;
- 528 • To fulfill state legislative intent of the Build Nebraska Act and the Transportation Innovation
529 Act, and
- 530 • To address roadway and operational challenges of the existing facility.

531 An improved roadway for this section of US-26 and L62A has been planned and designated as part of
532 the Heartland Expressway, a High Priority Corridor on the NHS, for the past 35 years. The
533 implementation of this project is consistent with the planning for the completion of the Heartland
534 Expressway; the development and improvement of the Nebraska Priority Commercial System; is
535 consistent with Federal legislation, including ISTEA, TEA-21, SAFETEA-LU, and MAP-21; and is also
536 consistent with Nebraska legislation including the Build Nebraska Act and the Transportation
537 Innovation Act, including the highly stakeholder- and community-outreach-focused StEEP selection
538 process in 2016.

539 This project is **needed** because Congress has **designated this corridor** for completion; federal and
540 state government legislative actions have provided ongoing **funding and intent** to construct it; and
541 there are numerous **roadway and operational challenges** with the existing facility that reduce its
542 efficiency and safety.

543 Further, as stated in the 2016 StEEP selection process, additional reasons why this segment of
544 highway was selected for funding were that it completes a **gap in the system**; it has **broad regional**
545 **and local support**; and is a **federally designated High Priority Corridor**.

546 2.4 Goals

547 **Goals** and **objectives** are defined by FHWA under NEPA as desired project outcomes beyond the
548 transportation issues. In addition to addressing the transportation purpose and need above, the
549 following goals have been identified:

- 550 • To **improve the highway infrastructure to facilitate economic development** by enhancing the
551 efficiency and mobility of Nebraska Panhandle regional commerce for residents, businesses,
552 visitors, and interstate travel.
- 553 • To **efficiently use available funds, and maximize the use of existing infrastructure**, or in other
554 words, make the best use of available funds for construction.

555 2.4.1 Goal – Economic Development

556 The areas adjacent to the Heartland Expressway are currently served by relatively indirect, 2-lane
557 roadways that were originally constructed for local farm to market traffic rather than for regional or
558 interstate traffic, and there are no other improved corridors in this region. In keeping with the intent of
559 the High Priority Corridors on the NHS, this project is intended to facilitate economic development by
560 improving transportation infrastructure. The improved Heartland Expressway is seen as an
561 investment to stimulate the region's economy and to help the region's communities better compete
562 for new industries. The opportunity for economic development is directly linked to the accessibility of
563 the Panhandle region. As this is the primary north-south route in the Panhandle, and ultimately by
564 completing the Heartland Expressway and connecting to other HPCs, there would be improved access
565 between the rural Nebraska Panhandle and regional trade centers from Mexico to Canada, as well as
566 increased economic and tourism opportunities within Panhandle communities. This goal is supported
567 by the following key points:

568 *Heartland Expressway Economic and Engineering Feasibility Study*

569 The economic study conducted in 1993 was later superseded by an updated analysis in 2014 as part
570 of the *Heartland Expressway Corridor Development Management Plan*. The 2014 study showed that
571 improvements to the Heartland Expressway (as a whole) would have a benefit/cost ratio of at least
572 1.88, indicating a positive impact on the regional economy, and higher than originally estimated in the
573 1993 Study. These types of improvements typically provide benefits that include travel time savings
574 (which may occur as motorists experience reduced travel times), increased safety (which may occur
575 as the number of accidents that take place on the corridor are reduced); and operating cost savings
576 (that may occur as the distances driven by motorists are reduced).

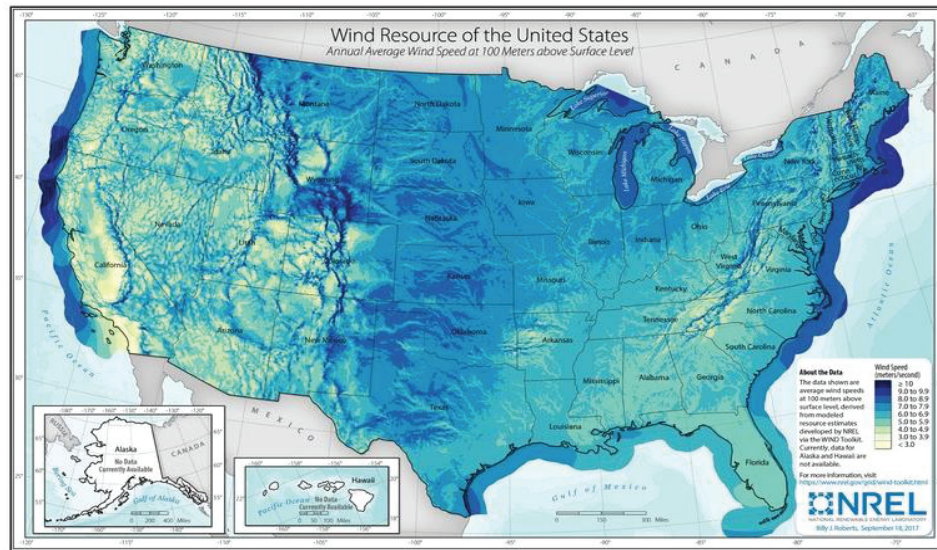
577 *Great Plains International Trade Corridor*

578 As mentioned earlier, the GPITC serves an energy- and agriculture-rich area. With the quickly
579 expanding renewable fuels, wind energy, and domestic energy independence industries, either outside
580 or within the study area, and the need to have a reliable transportation network to support the
581 development of these resources, an improved corridor would serve as a direct route to regional trade
582 centers further allowing Nebraska communities to gain economic benefits through the production and
583 trade of these resources and through highway commercial businesses along the route. Indirect
584 economic benefits would also be gained from the completion of the Heartland Expressway, through
585 lower transportation costs and increased tourism (1993 Study, Executive Summary p.9).

586 *Renewable Energy*

587 As mentioned previously, western Nebraska is in the middle of what is often referred to as America's
588 Wind Corridor, a swath of land in the middle of the country with the highest potential for wind power
589 generation, stretching from Texas to North Dakota (Figure 2.5).

590 **Figure 2.5 Wind Resources of the United States**



591
 592 Source: <https://www.nrel.gov/gis/wind-resource-maps.html>

593 The increase in wind power and investment in wind farms will continue to require workers to construct
 594 and maintain them, which will result in increased vehicular traffic, local spending, lodging, fuel
 595 consumption, and infrastructure improvements. According to the Heartland Expressway Association,
 596 a single wind turbine requires 126 trucks for major parts, 4-5 of which are super-loads¹⁷. This increase
 597 in truck traffic will continue to affect the condition of Nebraska’s roadways and will result in increased
 598 costs for maintenance and negative effects on safety and mobility.

599 **Natural Resources Tourism**

600 While the Nebraska Panhandle would benefit from construction of the Heartland Expressway, other
 601 entities in the larger region also depend on the Heartland Expressway for economic development.
 602 Some of the most popular tourism destinations in the region are the Black Hills National Forest, Jewel
 603 Cave National Monument, Badlands National Park, Mount Rushmore National Memorial, Crazy Horse
 604 Monument, Buffalo Gap National Grasslands, Minuteman Missile National Historic Site, Fort Robinson
 605 and Chadron State Parks, Wind Cave National Park, and the Wounded Knee National Historic Site.
 606 These resources are located within an area of northwest Nebraska and southwest South Dakota.

607 In addition, agencies such as FHWA, South Dakota Department of Transportation, Bureau of Indian
 608 Affairs, Oglala Sioux Tribe, US Forest Service, and National Park Service have developed plans that rely
 609 on the construction of the Heartland Expressway for their visitor and economic development
 610 assumptions, and to meet their stated missions (*General Management Plan / Environmental Impact
 611 Statement for Badlands National Park/North Unit in Jackson, Pennington, and Shannon Counties, South
 612 Dakota* [2006]¹⁸; “Transportation Investments and Tourism Development at the Pine Ridge Indian
 613 Reservation” [2003]¹⁹).

614 **Nebraska Freight Network**

615 The 2023 NDOT Freight Plan indicates Nebraska’s multimodal freight system consists of the
 616 statewide highway, freight rail, port & waterway, air cargo, and pipeline networks. **Figure 2.6** below

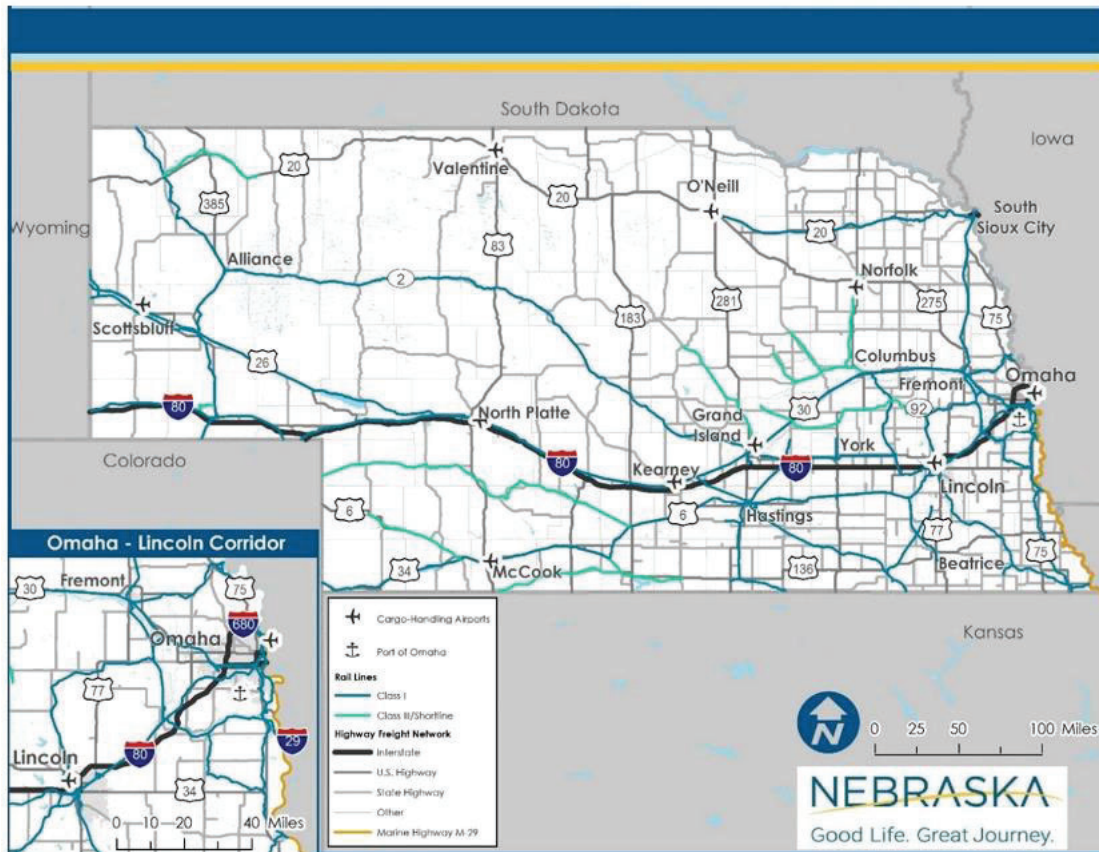
¹⁷ <https://heartlandexpressway.com/>

¹⁸ <http://npshistory.com/publications/badl/no-unit-gmp-eis-2006.pdf>

¹⁹ <https://www.readkong.com/page/transportation-investments-and-tourism-development-at-the-6754703>

617 identifies Nebraska's freight network and intermodal facilities. As the primary infrastructure
618 supporting truck traffic, Nebraska's highway network is the broad foundation of the statewide freight
619 transportation system. The Nebraska highway network covers every statewide community, including
620 rural hamlets and urban neighborhoods.

621 **Figure 2.6 Nebraska Freight Network & Intermodal Facilities**



622
623

Source: U.S. Department of Transportation; Nebraska DOT

624 To comply with the FAST Act, every State must designate a Critical Urban Freight Connector/ Critical
625 Rural Freight Connector (CUFC/CRFC) network as part of the National Highway Freight Network
626 (NHFN). The purpose of the CUFC/CRFC network is to provide connectivity between important urban
627 and rural freight generators and the NHFN (i.e., the interstate system). In this manner, Nebraska's
628 Panhandle CRFC network (**Figure 2.7**) works hand-in-hand with the highway freight network. While the
629 highway freight network facilitates statewide and interregional freight movements, the CRFC network
630 provides access and connection to freight transportation facilities. Improving this segment of US-26
631 and L62A would provide needed redundancy and reliability to Nebraska's freight network, thus
632 promoting economic development.

633 **Figure 2.7 Critical Freight Corridor Network in Nebraska**



634 Source: FHWA National Highway Freight Network Visualization Tool 2024

635
636 *The Panhandle region of Nebraska has potential for economic development that could be realized*
637 *through improvements to the roadway. Enhancing the roadway could better support seasonal tourist*
638 *traffic, the movement of large trucks in the renewable energy sector, and provide redundancy in regional*
639 *and rural freight traffic. Addressing these needs would help the roadway meet several economic cost-*
640 *benefit metrics and support growth within the region.*

641 2.4.2 Goal – Efficient use of Funds

642 *2018 AASHTO Green Book Updates and Flexible Performance Based Design*

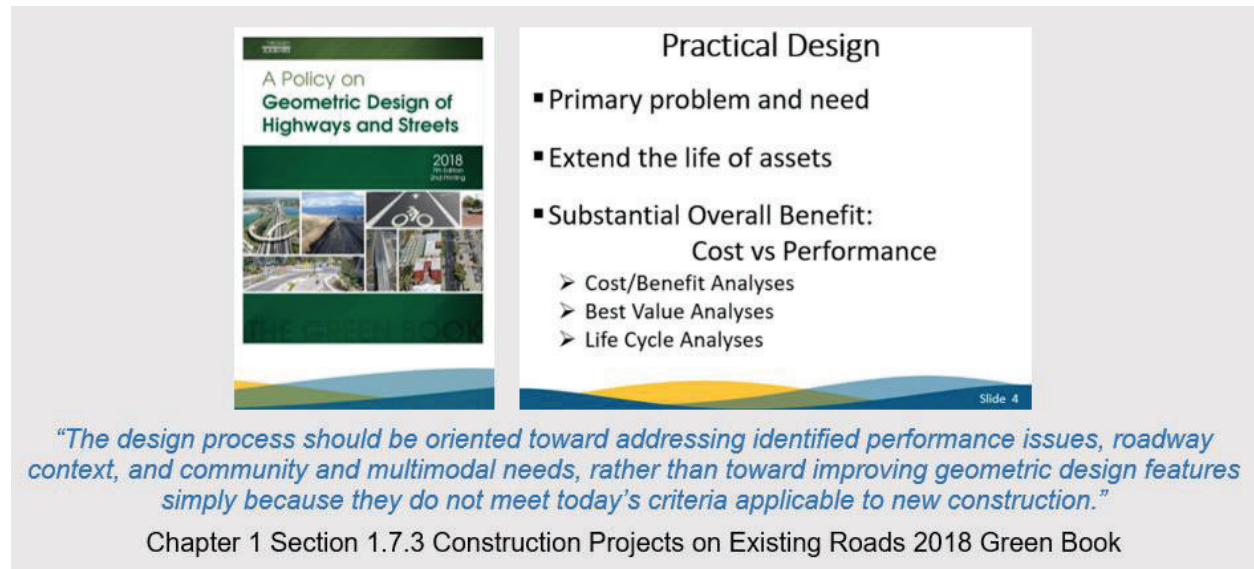
643 The American Association of State Highway and Transportation Officials' (AASHTO) "Green Book"
644 contains the most current design research and practices of highway and street geometric designs. It
645 provides guidance to roadway designers and engineers on how to meet the needs of highway and
646 street users on a project-by-project basis. It describes how geometric design elements affect multiple
647 transportation models and recognizes the relationship between geometric design and traffic
648 operations. The 7th Edition of the Green Book (2018), which supersedes the 6th Edition (2011),
649 presents an updated framework for geometric design that is more flexible, multimodal, and
650 performance based (**Figure 2.8**) than previous editions that focused more on standard minimum
651 design standards for geometric design²⁰.

652 Additionally, 23 CFR Part 625 (FHWA's Design Standards for Highways) was updated on February 2,
653 2022 to codify these changes into law²¹.

²⁰ <https://aashtojournal.org/2018/09/28/aashto-releases-7th-edition-of-its-highway-street-design-green-book/>

²¹ <https://www.federalregister.gov/documents/2022/01/03/2021-28236/design-standards-for-highways>

654 **Figure 2.8 AASHTO Green Book and Practical Design Concepts**



Source: NDOT

2020 NDOT Roadway Design Manual Updates

In Nebraska, the guiding document for roadway design is the NDOT Roadway Design Manual (RDM), last approved in May 2022. The RDM references state and federal standards, the primary of which is the AASHTO Green Book, as well as Minimum Design Standards and other research and publications from FHWA and the Access Board²². The RDM has been updated to align with the 2018 Green Book and includes the concepts of Practical Design as a matter of preference for Resurfacing, Restoration, and Rehabilitation (3R) projects on the NHS²³.

Incorporating practical design principles is a responsible and efficient use of public funds for this project. The updated framework provided by the 2018 AASHTO Green Book and the NDOT 2022 Roadway Design Manual emphasizes flexibility and performance-based decision-making, ensuring that design solutions meet the specific needs of each project while optimizing resources. By focusing on practical design, particularly for 3R projects, the project can address essential transportation needs without overdesigning or unnecessarily inflating costs. This approach ensures that public funds are allocated effectively, achieving functional, cost-efficient outcomes that serve the community's needs.

²² The Access Board is an independent federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards. (<https://www.access-board.gov/about/>)

²³ <https://dot.nebraska.gov/media/11481/d-chap-1-design-standards.pdf>

671 Chapter 3 Alternatives

672 3.1 Background

673 In accordance with NEPA requirements, this EA presents a preferred alternative and a No-Build
674 Alternative for evaluation. While other alternatives have been considered, detailed descriptions are not
675 provided throughout this document. This chapter outlines the process used to identify the range of
676 concepts and alternatives, offering a comprehensive overview. Additionally, it provides a detailed
677 description of the preferred alternative that is
678 carried forward in this EA.

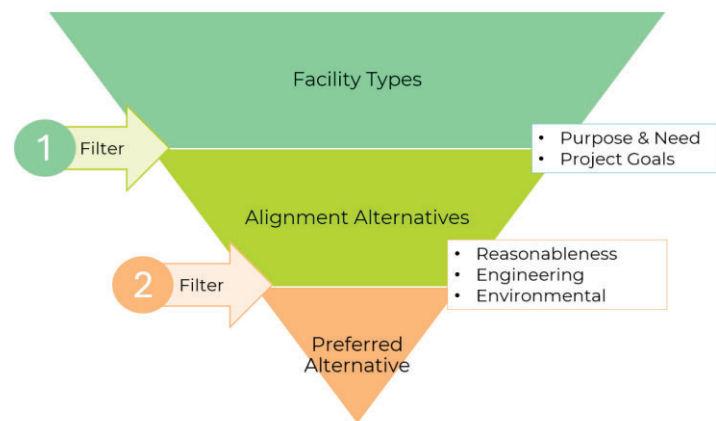
679 For the alternatives screening process, the
680 analysis first evaluated several types of
681 roadway facilities to determine if they
682 would meet the project purpose and need,
683 as well as project goals. Then, alignment
684 alternatives were assessed for
685 reasonableness, engineering feasibility,
686 and environmental impacts. Finally, a
687 preferred alternative was selected and
688 evaluated in greater detail. **Figure 3.1**
689 graphically shows how this process led to
690 a preferred alternative.

691 It should be noted that this corridor and
692 section of US-26 and L62A has been under
693 study and development since the 1990s.

694 More recently, FHWA approved a FONSI in 2000 for the US-26 from Scottsbluff to Minatare, and US-26
695 and L62A from Minatare to US-385 project which included a build alternative for this corridor (4-lane
696 divided highway, with full reconstruction). Due to funding constraints, the portion of that project which
697 included this corridor, did not proceed through construction.

698 Along with the 2000 selected alternative, NDOT reviewed two other alignment alternatives including a
699 center alignment and a 2+2 strategy. Descriptions of these three concepts are described below in
700 **Section 3.3, Alignment Alternatives.**

Figure 3.1 Alternative Selection Process



701 3.2 Facility Types

702 Several types of highway facilities with different configurations were evaluated regarding the project
703 purpose and need, as well as the project goals. These configurations included:

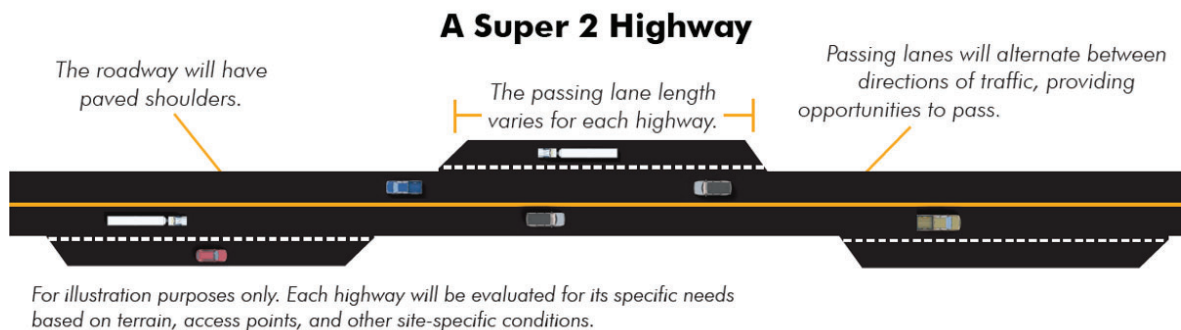
- 704 • Super 2 Highway
- 705 • 2-Lane Highway with Climbing Lanes
- 706 • 2-Lane Highway with Auxiliary Turning Lanes
- 707 • 4-Lane Undivided Highway
- 708 • 4-Lane Divided Highway

709 3.2.1 Super 2 Highway

710 A Super 2 roadway would provide passing lanes along the project corridor at strategic locations. The
711 purpose of passing lanes is to disperse platoons of vehicles behind slower moving vehicles such as
712 trucks and farm equipment. **Figure 3.2** shows a typical passing lane.

Figure 3.2 Typical Passing Lane Layout

713



714

715 Considerations for a Super 2 Facility:

- 716 • The legislative intent for this corridor is to establish an expressway with 4-lanes and controlled
717 access. However, a Super 2 facility falls short of meeting this legislative purpose.
- 718 • When designing a Super 2 facility it is desirable to minimize conflicts with driveways and
719 intersections throughout the entire length of the passing lanes. Along this corridor, there are
720 over 160 field entrances or driveways, as well as 19 county roads, for a total of 193 existing
721 access points where slow-moving vehicles may turn on or off the highway. To meet Super 2
722 standards, passing lanes must be free of any driveways or access points to ensure safe and
723 efficient use of the lane. This would likely require the construction of frontage roads to
724 maintain access to these driveways, further expanding the project footprint and increasing
725 costs. Additionally, careful consideration must be given to placing passing lanes near
726 horizontal and vertical curves to provide adequate sight distance and meet driver expectancy.
727 A preliminary review of the existing roadway's plan and profile reveals numerous conflicts
728 between driveways, intersections, and curves which would require resolution. This would likely
729 result in lengthening, shortening, and/or shifting of the passing lanes from their optimal
730 positions, compromising the intended functionality of a Super 2 facility.
- 731 • Vehicle conflict points at the ends of the passing lane increase without the added benefit of
732 median separation of opposing traffic that is present with a 4-lane roadway.

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- Concern along this stretch of roadway includes accommodating the spatial requirements for trucks, especially during the harvest season when they frequently enter and exit the highway facility. The trucks navigating this corridor are known for their use of "pup" trailers, necessitating an expanded turning radius for safe and complete maneuvers. Notably, a Super 2 facility fails to address this concern comprehensively, as it does not uniformly increase the required space for turning along the entire corridor. This becomes particularly pronounced in areas where an additional passing lane is not constructed.
- 740
- Trucks entering and exiting the highway cause delays and congestion, with issues exacerbated by trucks gaining speed upon entry. While additional lanes in specific areas can alleviate congestion, the absence of passing lanes at numerous access points along the facility remains a persistent challenge. A comprehensive approach is necessary to address congestion concerns across the entire corridor.
- 741
- 742
- 743
- 744

745 Results of Screening. The Super 2 alternative was eliminated primarily due to its failure to meet
746 legislative intent, as specified in ISTEA, TEA-21, and SAFETEA-LU, which prioritizes a 4-lane facility.
747 Despite incorporating passing lanes, the Super 2 configuration falls short in addressing operational
748 challenges and vehicle conflict points, spatial constraints for trucks, and congestion exacerbated by
749 truck traffic entering and exiting the roadway. Because this alternative does not meet the purpose and
750 need, it was eliminated from further consideration.

751 3.2.2 2-Lane Highway with Climbing Lanes

752 This alternative would provide passing lanes to disperse platoons of vehicles that build up behind
753 vehicles that are slowed due to steep grades. This type of passing lane is typically called a climbing
754 lane. Along this corridor, there is one existing east bound climbing line at the far eastern end of L62A,
755 starting where the roadway enters the hilly terrain of the project. The climbing lane is approximately
756 one mile in length and ends approximately 0.4 miles from the junction of L62A and US-385. Since the
757 remainder of this corridor does not include any steep grades, there are no other opportunities to
758 provide climbing lanes.

759 Results of Screening. This alternative would provide very little, if any, advantage to address the
760 roadway and operational challenges. This alternative would not meet the purpose and need of the
761 project, and was eliminated from further consideration.

762 3.2.3 2-Lane Highway with Auxiliary Turn Lanes

763 This alternative would construct auxiliary turn lanes at major intersections along the corridor. Turning
764 vehicles currently encroach on opposing lanes to accomplish left and right turns. If turn lanes are not
765 added at all of the facility access points, then large trucks would continue to encroach into oncoming
766 traffic lanes in order to make a right turn. This is a potential hazard as vehicles heading in the opposite
767 direction may not be able to stop in time to avoid a slow moving truck. The trucks that use US-26 and
768 L62A are large, and include tankers as well as semi-trailers often pulling pup trailers.

769 There are over 160 field entrances or driveways along the project, as well as 19 county roads, for a
770 total of nearly 193 existing access points, where slow-moving vehicles can turn on or off the highway.
771 Providing right and left turn lanes at all of these locations would result in a four- or five-lane highway
772 for large portions of the project alignment, and this alternative would need to be constructed and
773 maintained with lane closures.

774 Results of Screening. This alternative would provide very little, if any, advantage to address the
775 roadway and operational challenges. This alternative would not meet the purpose and need of the
776 project, and was eliminated from further consideration.

777 3.2.4 4-Lane Undivided Highway

778 This alternative would provide two through lanes for traffic in each direction which would not be
779 physically separated by a barrier or median. Passing would be internal to the thoroughfare and would
780 not require vehicles to cross over into oncoming traffic to pass a vehicle or slow-moving agricultural
781 equipment. There is little to no reduction in crashes per kilometer, based on the Highway Safety
782 Information Systems (HSIS) study on “Safety Effects of the Conversion of Rural Two-Lane Roadways
783 to Four-Lane Roadways,” because the opposing traffic is not separated²⁴.

784 This alternative would not provide for the development of left turn lanes at access breaks, which are
785 an important component of improving traffic flow, and decreasing potential for rear-end crashes. In
786 addition, construction of the new lanes would need to match the existing roadway geometry and
787 therefore, would not provide the improved geometry of a new divided roadway.

788 Results of Screening. This alternative was eliminated because it would not adequately address the
789 roadway and operational challenges of this highway segment. Without designated left-turn lanes, this
790 configuration increases the risk of rear-end collisions as left-turning traffic must slow or stop in the
791 through lanes, disrupting the flow of traffic. Additionally, this layout does not allow for improved road
792 geometry. This alternative would essentially be a lower performing version of the 4-lane divided
793 highway alternative and would provide very little advantage over that facility type. Therefore, it was
794 eliminated from further consideration.

795 3.2.5 4-Lane Divided Highway

796 This alternative would provide a 4-lane divided highway for the entire length of the project. The divided
797 median could be raised or depressed. As described in chapter 1 and 2, this segment of highway has
798 been proposed as a 4-lane divided highway since its inception and has also often been commonly
799 described as an expressway. These terms imply a limited or partially limited access-controlled
800 highway for high-speed traffic. During the initial proposals for the StEEP selection process in 2016, the
801 project was presented as a 4-lane divided highway.

802 Results of Screening. Based on the above information and evaluations against the other alternatives,
803 this alternative best addresses the need to correct roadway and operational challenges along this
804 segment of highway. It also fulfills project’s need to carry out the legislative intent to construct a 4-
805 lane facility. Therefore, the only facility type that meets purpose and need is the 4-lane divided
806 highway.

807 3.3 Alignment Alternatives

808 Once the 4-lane divided facility type was selected, NDOT evaluated the most appropriate cross section
809 strategy as well as the least impactful alignment location. The following cross section strategies were
810 considered:

- 811 • 2000 Selected Alternative: Additional Lanes to be located south of US-26 from Minatare to
812 County Road (CR) 36 and then along the north side of US-26 from CR 36 to US-385.
- 813 • Centered Alignment (Full Reconstruction): Removal of the existing lanes, and reconstructing a
814 4-lane facility centered on the old roadbed.
- 815 • 2+2 Strategy: This strategy would include utilizing the existing infrastructure and constructing
816 two new lanes on either the north or south side of US-26 and L62A.

²⁴<http://www.fhwa.dot.gov/publications/research/safety/humanfac/pdfs/99206.pdf>

817 Alignment alternatives were screened based on construction feasibility, operational impacts to the
818 highway during construction, cost, social impacts, and environmental impacts.

819 3.3.1 2000 Selected Alternative

820 This alternative, as proposed in the 2000 FONSI, involves expanding the existing 2-lane roadway to a
821 4-lane divided expressway by constructing additional lanes along the south side of US-26 from
822 Minatare to CR 36 and along the north side of US-26/L62A from CR 36 to US-385. This alternative
823 would also require constructing temporary crossovers along US-26 and L62A specifically for
824 managing traffic during construction, which would increase project's cost and cause traffic
825 disruptions. According to the 2000 FONSI, the alternating crossover alignment from south to north
826 was initially planned to minimize relocations and reduce impacts on historic properties, including the
827 Trinidad Bean Company and an abandoned school house, both of which no longer exist. The selected
828 alignment from the 2000 FONSI was anticipated to acquire 16 residential houses, which is the same
829 number that would be impacted if this alternative were built today. In addition to the relocations, the
830 extents of the permanent crossovers would have required complete reconstruction in those areas,
831 further increasing costs and causing greater impacts to the traveling public during
832 construction. Although impacts to other resources were not substantially different, this alternative
833 was not carried forward for any further analysis.

834 Results of Screening. Based on the screening criteria of cost and operational impacts during
835 construction, the 2000 Selected Alternative was not carried forward and was eliminated prior to the
836 first public meeting.

837 3.3.2 Centered Alignment (Full Reconstruction)

838 This alternative proposes constructing a 4-lane divided highway along the center of the existing
839 alignment. This approach would require the complete removal of the existing lanes, followed by the
840 reconstruction of a 4-lane divided highway in the same location. Implementing this alternative would
841 involve traffic disruptions, as existing lanes would need to be closed during the removal and
842 reconstruction phases. Additionally, this alternative would considerably increase project costs due to
843 the need to demolish the existing pavement and then construct the new lanes. According to other
844 recently constructed highways in the same region of Nebraska, a full reconstruction approach would
845 increase costs by approximately 55%.²⁶

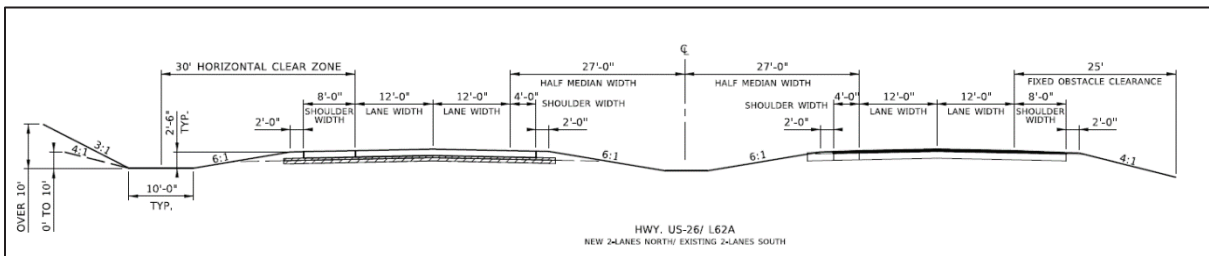
846 Results of Screening. Based on the screening criteria of cost and construction impacts, the Center
847 Alignment Alternative was not carried forward.

848 3.2.3 2+2 Strategy

849 This alternative would construct two new lanes and utilize the existing two lanes to provide a 4-lane
850 divided highway, using a 2+2 strategy as shown in **Figure 3.3**. In the interest of utilizing limited
851 available funds efficiently, and in response to reduced buying power compounded by increasing
852 construction costs, this method offers a substantial cost advantage. Other recently constructed
853 highways in the same region of Nebraska were estimated to save 36% by utilizing a 2+2 approach.³⁷

²⁶ <https://dot.nebraska.gov/media/ru2eu43g/july-meeting-handouts.pdf>

854 **Figure 3.3 Example of 2+2 Highway**



855
856 Cross section of 2+2 approach with new lanes on one (left) side of the existing lanes (right).



857
858 US-385 south of Alliance – Looking north near at MM 105.5 (2018 on left, 2022 on right)
859 Source: NDOT and Google Maps Streetview

860 The 2+2 strategy could also limit impacts primarily to one side of the roadway, and could reduce the
861 use of crossovers, which could maximize the use of existing infrastructure (i.e., by not having to
862 reconstruct segments of the existing roadway to cross the new lanes to the opposite side), as well as
863 minimize disruption to the traveling public during construction.

864 Results of Screening. By utilizing practical design concepts, the proposed project could meet the goal
865 of efficiently utilizing available funds and maximizing the use of existing infrastructure. Furthermore,
866 the 2+2 strategy could reduce impacts to the surrounding environment by reducing the number of
867 residences and businesses affected, reducing impacts to farmland and other natural resources, and
868 requiring a shorter duration for construction. Based on the screening criteria of cost, operational
869 impacts during construction, and environmental impacts, this is the preferred cross section carried
870 forward.

871 Once the 2+2 strategy was selected, NDOT evaluated whether the additional 2 lanes should be
872 constructed on either the north or south side of the existing highway.

- 873 • South Offset Alignment Alternative: Additional lanes to be located south of the existing
874 roadway.
- 875 • North Offset Alignment Alternative (Preferred): Additional lanes to be located north of the
876 existing roadway.

877 A table summarizing the preliminary impacts of the North and South Offset Alignments can be found
878 in **Table 3.1** below.

879 **3.3.4 South Offset Alignment**

880 This alternative would improve the current 2-lane roadway by transforming it into a 4-lane divided
881 expressway. It involves adding lanes to the south side of US-26 and L62A for the entire length of the
882 corridor. The south offset alternative is estimated to be six percent more expensive than the north
883 offset alternative. Additionally, this alternative would require the relocation of approximately six more
884 houses compared to other alternatives. Relocations can incur high monetary costs and are generally
885 not favored by the public.

886 Results of Screening. Based on the screening criteria of cost and the anticipated impacts to residential
887 houses, the South Offset Alternative was not carried forward.

888 3.3.5 North Offset Alignment

889 This alternative would improve the current 2-lane roadway by transforming it into a 4-lane divided
890 expressway. This alternative involves reconstruction within Minatare and adding lanes to the north
891 side of US-26 and L62A for the remainder of the corridor. By adding lanes to the north side of the
892 existing roadway, traffic disruptions during construction would be minimized, and the existing facility
893 can remain in use. Moreover, the North Offset Alignment alternative has been identified as the option
894 that would cause the least disruption to residential homes. This alternative also impacts the least
895 amount of supply canals, thus minimizing potential impact on the irrigation districts. These are
896 important considerations as displacement of residents can be costly and can negatively impact the
897 affected communities. Finally, the North Offset Alignment alternative would meet essential project
898 considerations as it would utilize funds efficiently, while achieving the desired outcome.

899 Results of Screening. The North Offset Alignment alternative best addresses the screening criteria of
900 cost and environmental impacts. This alignment would have the fewest impacts to residential and
901 outbuilding relocations and was therefore carried forward for further evaluation.

902 **Table 3.1 Preliminary Impacts of the North and South Alternative**

Considerations	North Alternative	South Alternative
Total Relocations	26	49
Houses	13	19
Major Outbuildings	8	11
Minor Outbuildings	5	19
Utilities	Similar Level of Impact	Similar Level of Impact
Irrigation Canal Impacts Linear Feet (LF)	700	1,200
Irrigation Conveyance (LF)	15,000	18,000
Estimated Cost (\$ Millions)	\$76.70	\$81.40
Farmland Acres (AC)	220	230
Wetlands (AC)	15	12
Streams (LF)	3,400	3,000
Hazardous Materials	Medium Potential to Encounter	Low Potential to Encounter
Section 4(f) Properties	No Properties Affected	No Properties Affected
Historic Properties	1 Potential, plus 3 Canals	1 Potential, plus 3 Canals

903 *Note that these numbers and values are preliminary and are shown as they were presented at the September 2022 Public Meeting.

904 3.4 Alternatives Carried Forward for Detailed Evaluation

905 3.4.1 No-Build Alternative

906 The No-Build Alternative would perpetuate the existing L62A and US-26 roadway alignments,
907 geometry, and cross sections. Although the No-Build Alternative would not meet the project Purpose
908 and Need, it is being carried forward for analysis and is discussed in subsequent sections to establish
909 a baseline for comparison of the build alternative.

910 3.4.2 Preferred Alternative (4-Lane Divided Highway, 2+2 Strategy with a 911 North Alignment)

912 As a result of the preliminary screening and location-specific alternatives analysis, the Preferred
913 Alternative consists of the 4-Lane Divided Highway, 2+2 Strategy with a North Offset Alignment. The
914 Preferred Alternative includes the following design components:

- 915 • Urban cross section (4 lanes with raised median), including left turn bays, with standard “T”
916 intersections at Main Street and 3rd Avenue/Stonegate Road
- 917 • Offset lanes to the north and relocate Minatare Drain to the south
- 918 • Realigned four-leg intersection at L62A and US-26 (with free right turn from eastbound to
919 southbound US-26)
- 920 • Standard “T” intersection at L62A and US 385 (with free right turn from southbound US-385 to
921 westbound L62A)

922 Generally, the Preferred Alternative would construct new westbound lanes north of the existing
923 alignments of US-26 and L62A, and then utilize the existing roadways for the eastbound lanes
924 following construction. This would allow the highway to remain open with minimal temporary closures
925 rather than full reconstruction which would require longer closures and more complicated traffic
926 control. Full reconstruction would be required for the urban cross section in Minatare and east of 3rd
927 Ave, but this modification would avoid impacts to the historic buildings and the historic district at
928 Harry’s Curve. The relocation of Minatare Drain would require new ROW and a new siphon to be
929 constructed at Ninemile Creek; however, these impacts would be minor or temporary and would avoid
930 long-term maintenance problems with placing an irrigation drain within the median of a 4-lane divided
931 highway. The intersections of US-26 & L62A would be realigned as four-leg intersection and L62A &
932 US-385 would be configured as standard “T” intersection with free-right turn maintaining driver
933 expectancy.

934 3.5 Proposed Project Description

935 This project is 18.47 miles in length and is located on Highways US-26 and L62A in Scotts Bluff and
936 Morrill Counties, starting 0.41 miles west of the west Minatare corporate limits at mile marker (MM)
937 32.63 and extending east to the junction of US-26 and L62A at MM 41.92. The project continues east
938 on L62A from the junction with US-26 at MM 0+00 to the junction of US-385 and L62A at MM 9.19.

939 Construction may begin and/or end approximately 1500 feet ahead of or beyond the actual project
940 limits to accommodate transitioning the pavement.

941 The existing roadway on US-26 from MM 32.63 to MM 32.98 consists of a transition section from a 4-
942 lane divided roadway with 12-foot-wide composite pavement lanes, a 14-foot flush median and 10-
943 foot shoulders, of which 8 feet is paved with asphalt to a 3-lane roadway. The existing roadway from
944 MM 32.98 to MM 33.45 consists of two 12-foot-wide composite pavement lanes and a 12-foot two-
945 way center turn lane with shoulders varying from 6 feet with curb and gutter to 10 feet, of which 8 feet
946 is paved with asphalt. The existing roadway on US-26 from MM 33.45 to MM 41.92 and on L62A from

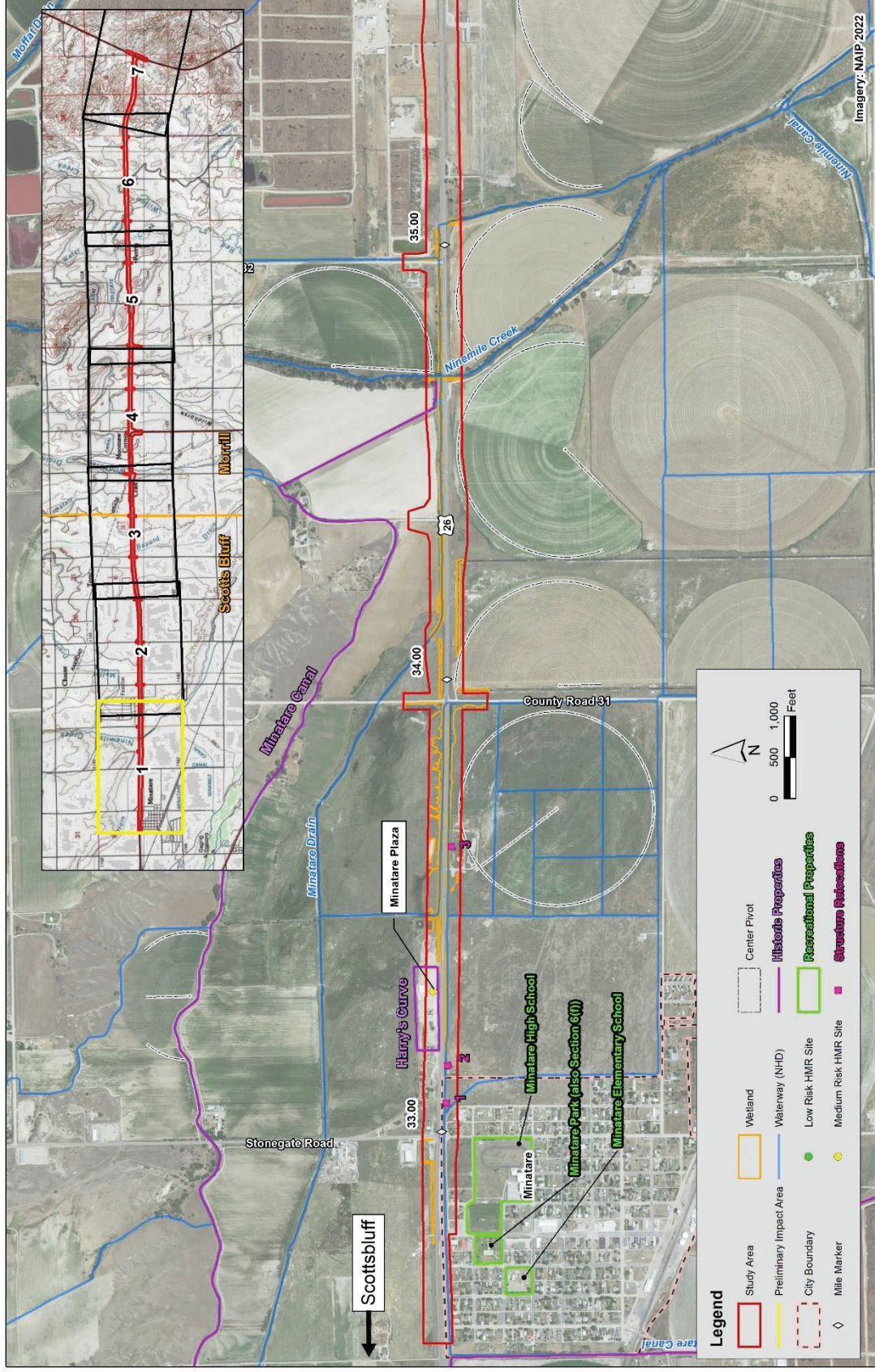
- 947 MM 0+00 to MM 9.19 consists of two 12-foot-wide composite pavement lanes and 10-foot shoulders,
948 of which 8 feet is paved with asphalt.
- 949 The improvements on this project consist of fully reconstructing US-26, on alignment, to a 4-lane
950 divided roadway with a raised median from the project beginning to the east corporate limits of
951 Minatare, and then widening US-26 and L62A from an existing 2-lane roadway to a 4-lane divided
952 roadway with a depressed median using the strategy of constructing new lanes on the north side of
953 the US-26/L62A corridor and milling and resurfacing the exiting lanes which would remain in place.
954 Improvements include new paving, milling and resurfacing, culvert and storm sewer work, new
955 guardrail, removing and replacing guardrail, a new bridge, new intersections, improved intersections,
956 access relocations (i.e. new frontage roads) and side road modifications.
- 957 Grading would be required for the entire length of this project.
- 958 The bridge over Ninemile Creek (Structure Number S026 03470) would be used in place and a new
959 bridge would be built with the new set of lanes. A grade raise of the entire structure is not anticipated.
960 Work would be required in the waterway. Guardrail would be built with the new bridge.
- 961 The following bridge-size box culverts would be extended: Structure Number S026 03505 (Minatare
962 Drain - Canal), S026 03916 (Irrigation Conveyance), S026 04114 (Wildhorse Creek), SL62A 00116
963 (Wildhorse Canyon), SL62A 00537 (Tri-State Canal), SL62A 00582 (Tri-State Canal), and SL62A 00613
964 (Tri-State Canal). The following bridge-size box culverts would be replaced: SL62A 00152 (Irrigation
965 Conveyance), SL62A 00463 (West Water Creek), SL62A 00595 (Red Willow Creek) and SL62A 00648
966 (Irrigation Conveyance).
- 967 This project would be constructed under traffic with lane closures controlled by appropriate traffic
968 control devices and practices.
- 969 Additional property rights would be required to build this project.
- 970 Access to adjacent properties would be maintained during construction but may be limited at times
971 due to phasing requirements.

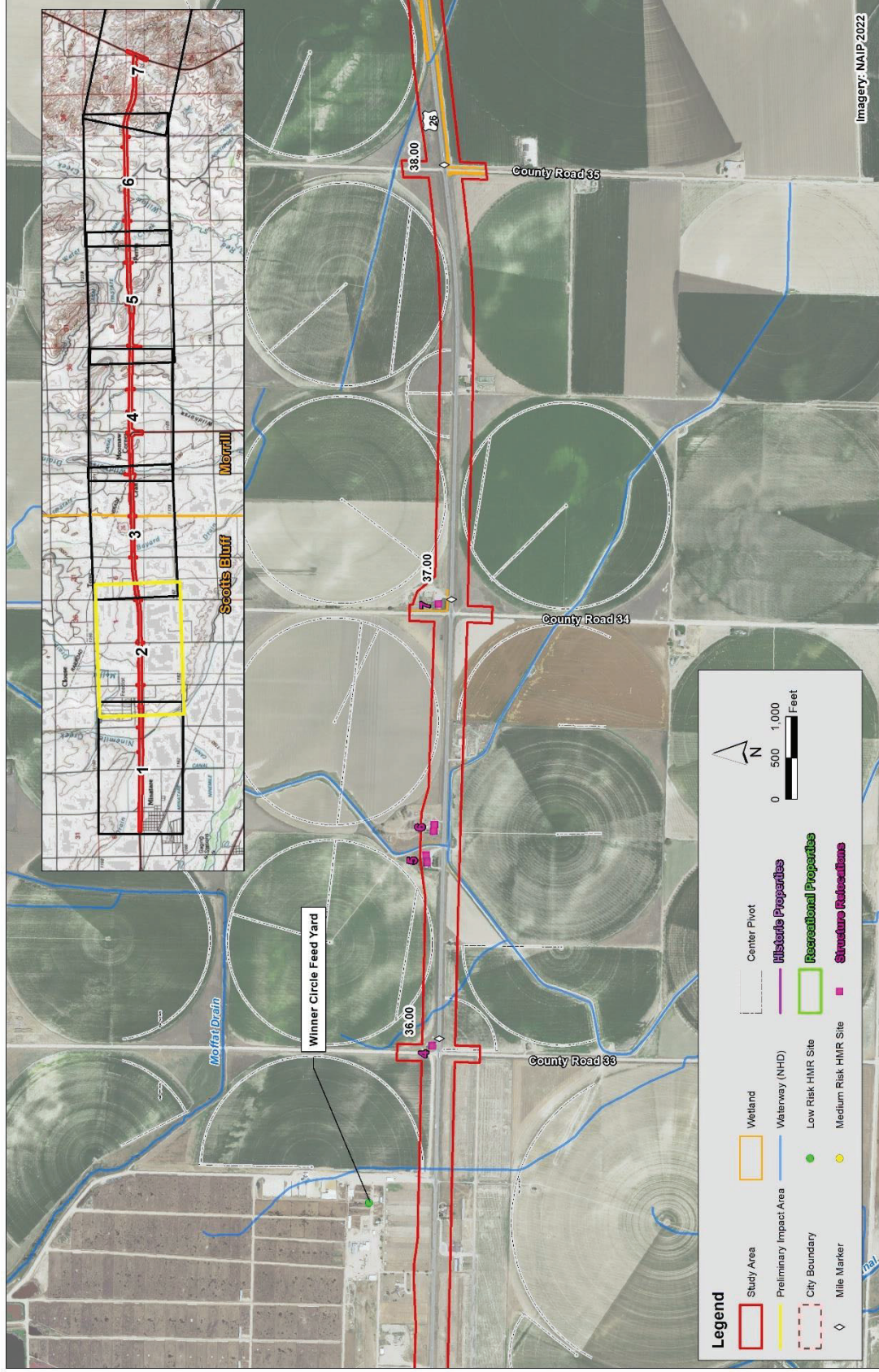
972 Chapter 4 Affected Environment and 973 Environmental Impacts

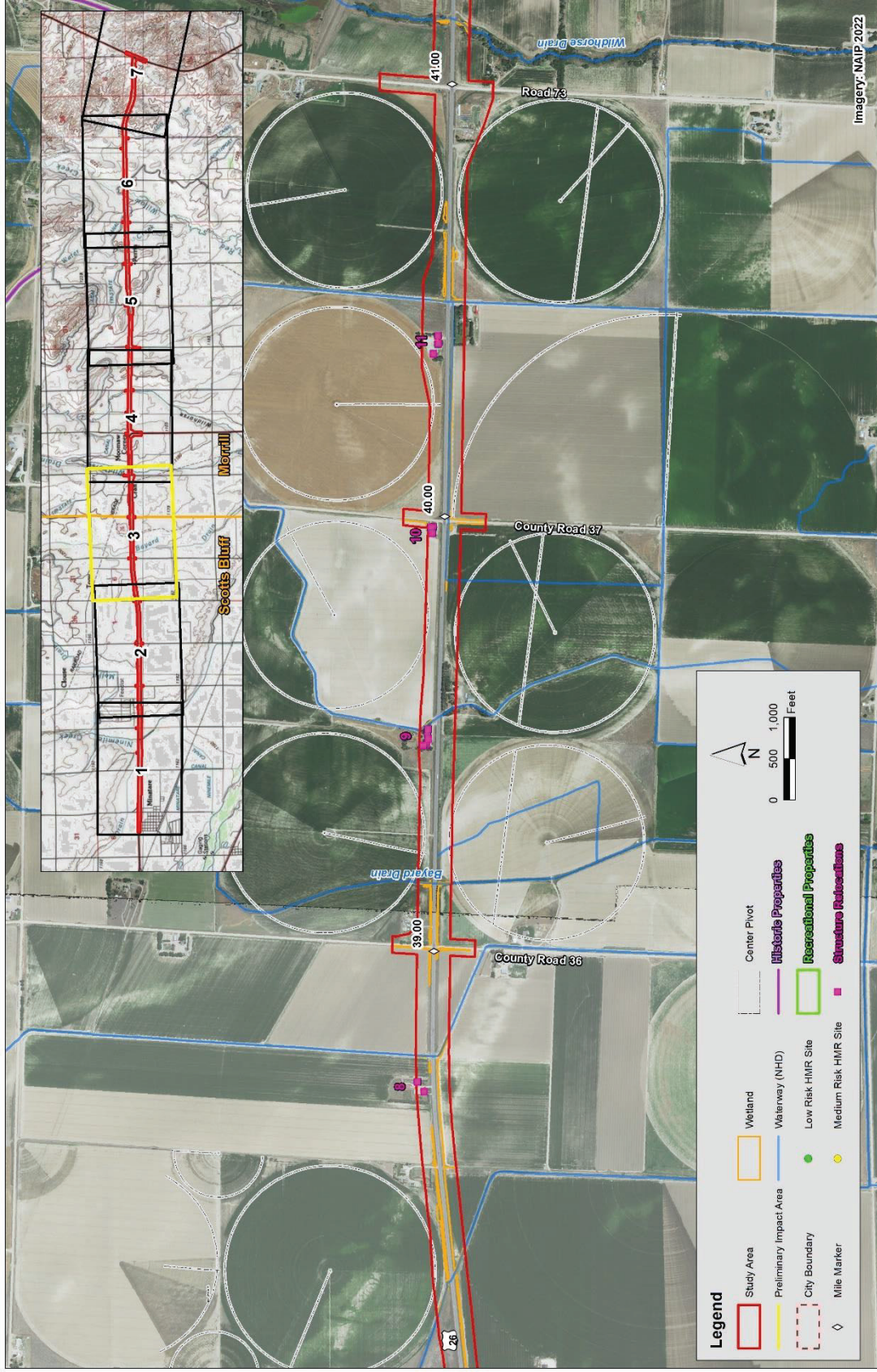
974 This chapter identifies environmental resources that would be affected by the proposed project and
975 the anticipated impacts on those resources. As described in further detail in this chapter, the Study
976 Area for the environmental analysis depends on the resource studied. In general, the Study Area
977 includes the area between the West corporate limits of Minatare, and the junction of L62A and US-385
978 (**Figure 4.1**). The Study Area for each resource is large enough to identify and address potential
979 concerns. Under NEPA, the context (the relationship between the project and its setting) and intensity
980 of impacts determine the significance of impacts from a project. CEQ guidance on preparing NEPA
981 analysis notes that environmental analysis should focus on significant issues and impacts should be
982 discussed in proportion to their significance (77 FR 14473, December 2012).

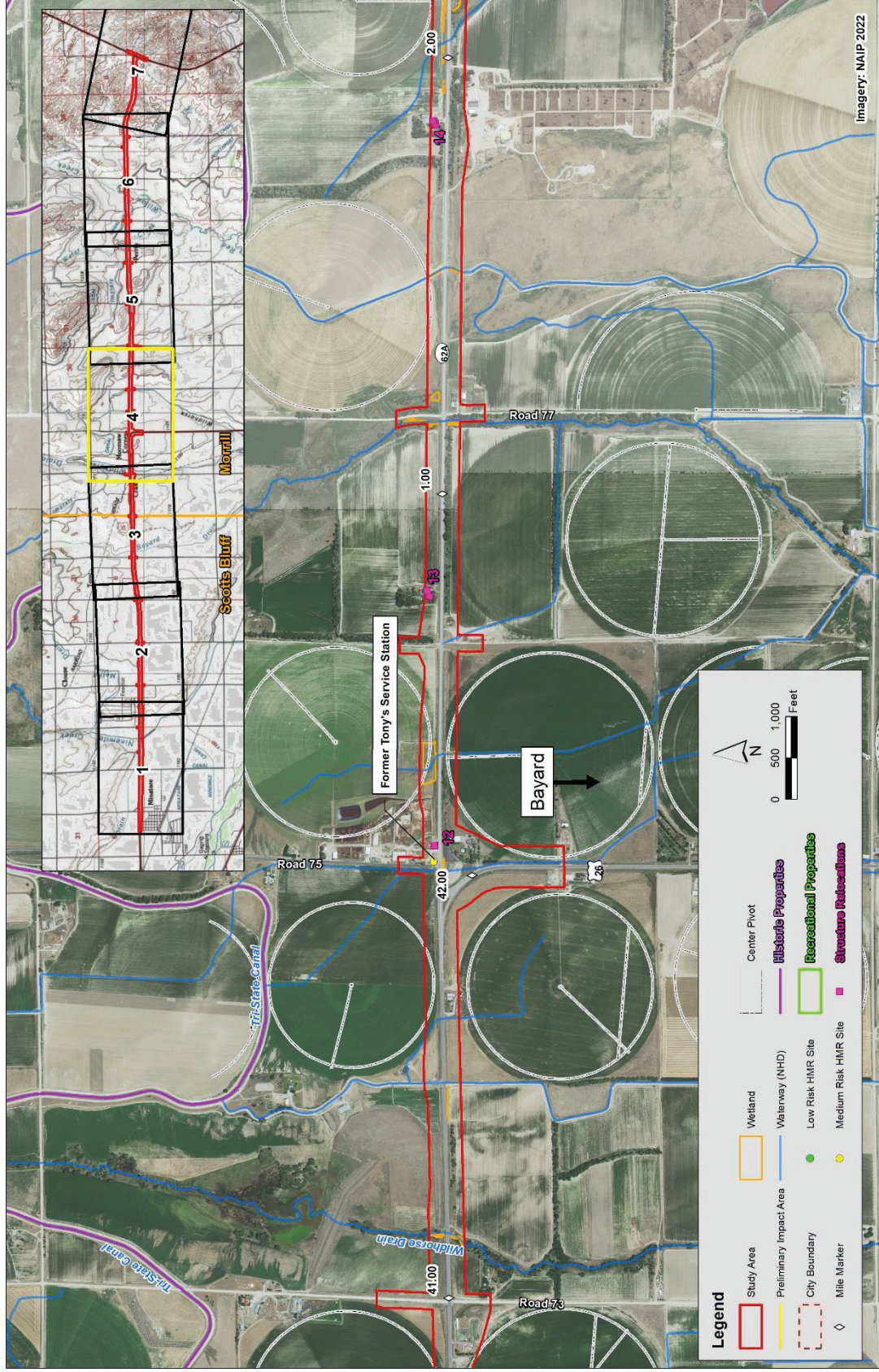
983 All resources considered for this project are described in the following sections. Several resources are
984 either not present in the Study Area or may not be impacted by either Alternative; however, they are all
985 included for completeness and thoroughness.

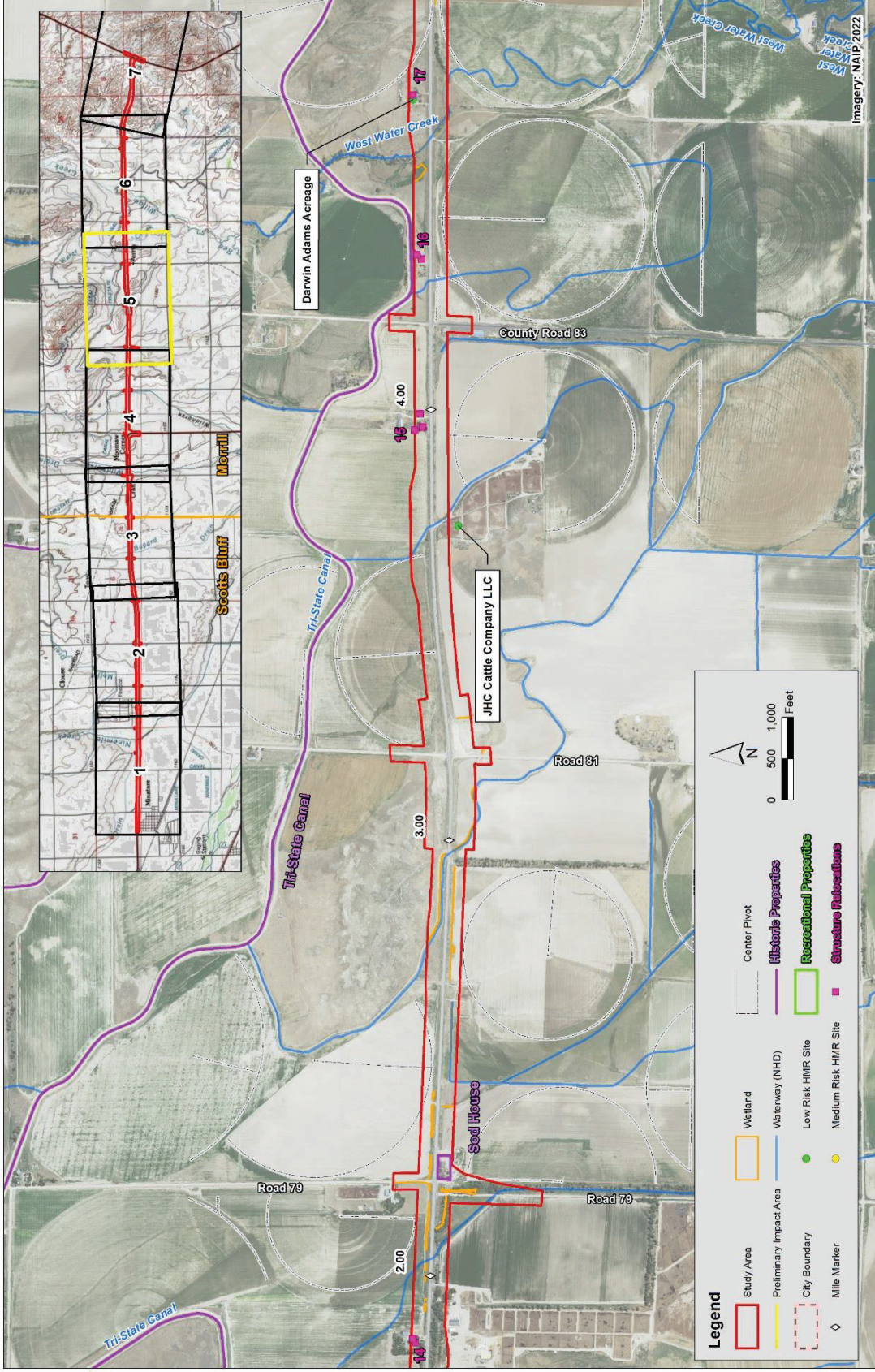
Figure 4.1 Affected Environment

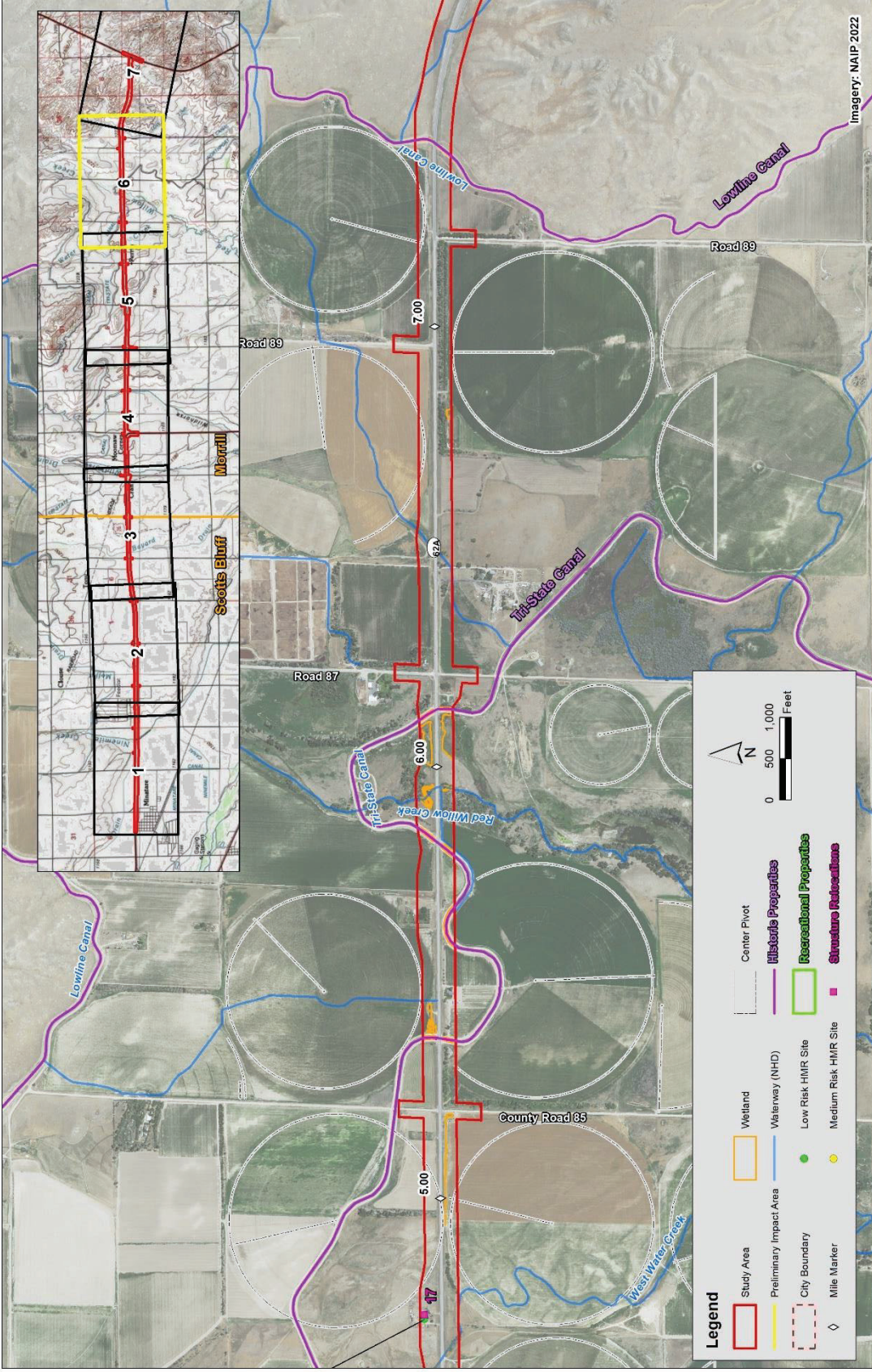


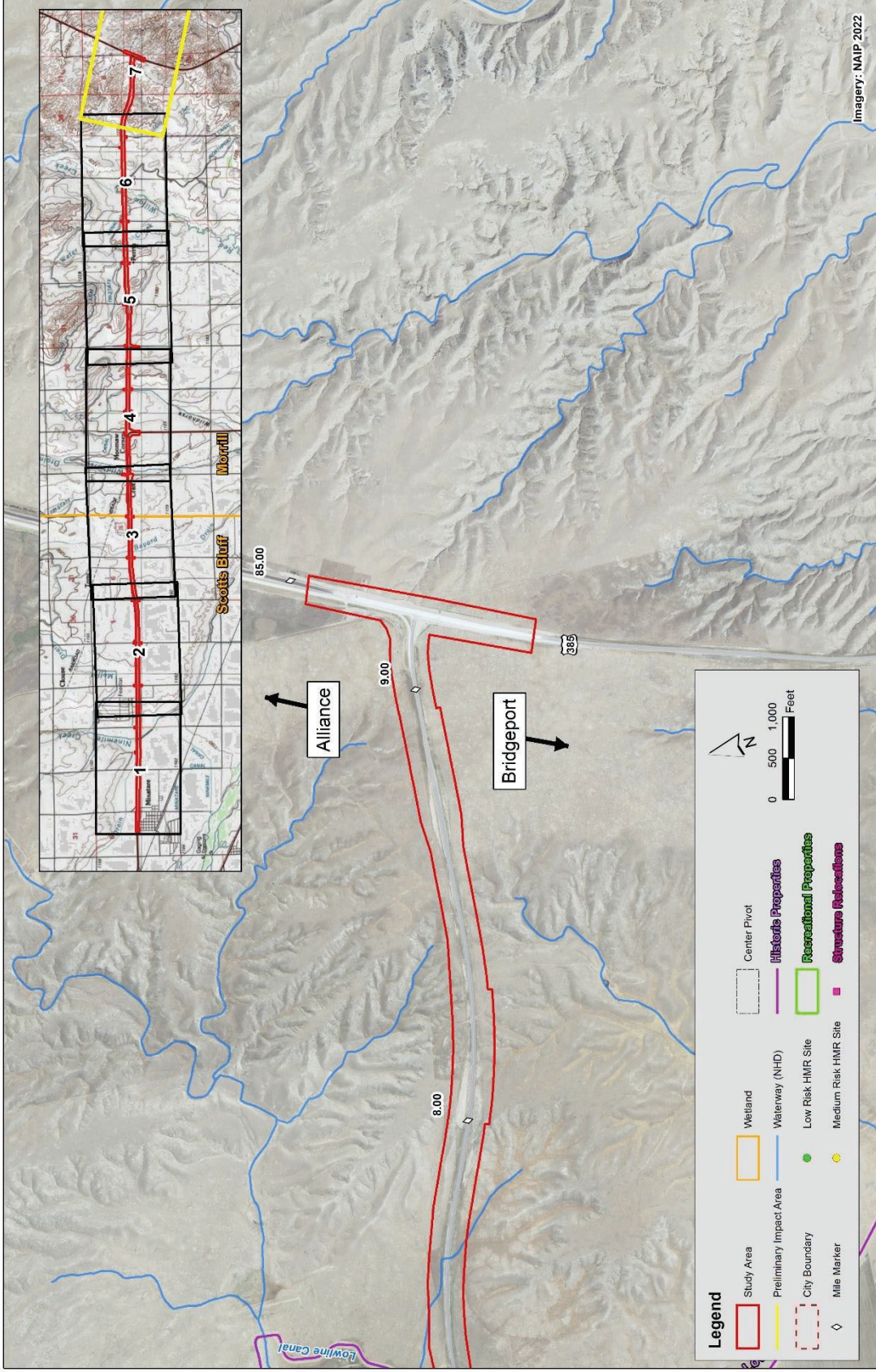












994 4.1 Land Use

995 Land use refers to the activities and purposes for which a particular piece of land is being utilized or
996 intended to be utilized. This can include residential, commercial, industrial, agricultural, recreational, or
997 other uses. Zoning refers to the legal method utilized by local governments to regulate land use by
998 dividing land into different zones and establishing rules and regulations for what activities and
999 structures are allowed in each zone.

1000 4.1.1 Affected Environment

1001 The study area for this analysis is approximately 0.25 miles wide along the project corridor. This study
1002 area would encompass all potentially affected properties. Current land ownership, jurisdiction, and use
1003 were determined through review of aerial photography, county assessor data, and zoning maps from
1004 Scotts Bluff and Morrill counties.

1005 Land ownership in the environmental study area is predominantly privately held, except for the right-
1006 of-way (ROW) for US-26, L62A, and US-385, which is owned by NDOT. The independent jurisdictional
1007 authorities governing within the environmental study area are Scotts Bluff County, Morrill County, and
1008 the City of Minatare. County roadways in the study area are governed by a presumed 66-foot-wide
1009 ROW owned by the respective county, per state statute. The City of Minatare, located on the western
1010 edge of the project, is a developed area that is also present within the study area. Minatare is primarily
1011 zoned for residential use, and has a one-mile extra territorial jurisdiction (ETJ) for zoning. The
1012 surrounding area heading east out of Minatare consists of agricultural land and undeveloped land,
1013 with scattered rural residences. Several cattle feedlots exist along US-26 and L62A. In general,
1014 cultivated fields and range lands dominate the land uses in the environmental study area.

1015 4.1.2 Impacts of the No Build Alternative

1016 Under the No-Build Alternative, the proposed project would not be built. Additional ROW would not be
1017 acquired. All current highway access points would remain as is, and there would be no impact on
1018 existing or future land uses. Typical growth and development patterns are anticipated to continue. The
1019 City of Minatare would continue to manage zoning in their ETJ, and new uses may be proposed within
1020 or around the City.

1021 4.1.3 Impacts of the Preferred Alternative

1022 The preferred Alternative would create two new lanes of highway along the existing US-26 and L62A
1023 corridors. These lanes would be constructed along the north side of the existing lanes and would
1024 require the acquisition of approximately 260 acres of land. See **Section 4.2, Agriculture and Farmland**
1025 for more information on Farmland impacts and **Section 4.3, Right-of-Way and Relocations**, for more
1026 information on ROW acquisition.

1027 The conversion of 260 acres from agricultural, farming, farmsteads, and residential uses would be a
1028 direct impact of the preferred alternative. However, this conversion would not accelerate or promote
1029 further conversion of land. Houses that are within the land acquired for new ROW could be relocated
1030 or reconstructed and farmsteads could continue to operate as before. Changes to irrigation patterns
1031 and field access would be modified but would still be compatible with existing land uses in the Study
1032 Area.

1033 Except for land purchased for the project, no additional changes in land use are expected. There would
1034 be a potential for residences that exist to the north of the highway to become displaced. These
1035 displacements are discussed more in **Section 4.3**. It should be noted that any property acquisition
1036 would be conducted by payment of fair market value for the property rights in conformance with the

1037 Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform
1038 Act), as amended (42 USC 4601 et seq.). Since this project would widen along the existing US-26 and
1039 L62A corridor, no changes to the existing land use or zoning requirements would be anticipated. The
1040 City of Minatare would still function as a residential hub and the rural agricultural area to the east of
1041 Minatare would be maintained.

1042 4.1.4 Avoidance, Minimization, and Mitigation

1043 Given that the project’s design adheres to engineering standards and best practices, the land required
1044 for construction was minimized to the necessary extent. Based on the information provided above, no
1045 additional mitigation measures for Land Use and Zoning are required.

1046 4.2 Agriculture and Farmland

1047 The Federal Farmland Protection Policy Act (FPPA) was enacted to minimize unnecessary conversion
1048 of farmland to other uses, resulting from federal decisions. In addition, the FPPA states that federal
1049 programs should be compatible with state and local policies or programs that protect farmland. The
1050 Natural Resources Conservation Service (NRCS) oversees FPPA compliance.

1051 Prime farmland is considered to be of national importance and is defined as land with the best
1052 characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these
1053 uses. Unique farmland is land other than prime farmland that is used for the production of specific
1054 high-value crops. Farmland of statewide or local importance is land, in addition to prime and unique
1055 farmland, that is of statewide or local importance for the production of food, feed, forage, fiber, and
1056 oilseed crops (7 CFR 657.5). Prime farmland does not have to be currently used for farming to be
1057 protected under the FPPA.

1058 4.2.1 Affected Environment

1059 According to the Soil Surveys of Scotts Bluff and Morrill Counties, most of the farmland within the
1060 Study Area is classified as prime farmland.

1061 Much of the study area is predominantly used for agricultural production, featuring widespread
1062 irrigation canals and center-pivot irrigation systems. The dominant crops are sugar beets, potatoes,
1063 edible dry beans, corn, and wheat. Irrigation districts supply most of the water used, with gravity flow
1064 irrigation systems commonly associated with the irrigation canals. Gates along the canal flow into
1065 lateral concrete or earthen channels on the upper edges of fields. Land leveling, terracing and contour
1066 farming are commonly used to promote efficient water flow and to prevent erosion. Tailwater
1067 recovery pits are used to conserve water by collecting and reusing excess runoff. Numerous small
1068 irrigation ditches are situated along the existing highway. Private wells are often used to supplement
1069 irrigation water from the irrigation districts. Wells are also used in conjunction with sprinkler irrigation
1070 systems. For additional information on irrigation canals and irrigation districts, see **Section 4.8**.

1071 Some other portions of the study area are used as dryland pasture, rangeland and hayland. Soils with
1072 low permeability and a high water table, highly alkaline soils and shallow/doughty soils are commonly
1073 included in this category. Areas which are too steep to farm are also used as rangeland. Smooth
1074 brome and orchard grass are the most common grasses used to establish irrigated pastures and
1075 haylands. Pasture on alkali sites includes native species such as alkali sacaton, saltgrass, wheatgrass
1076 and bluegrass.

1077 **4.2.2 Impacts of the No Build Alternative**

1078 The No Build Alternative would not affect farmlands because no construction would occur and no
1079 ROW would be required to construct the new highway lanes.

1080 **4.2.3 Impacts of the Preferred Alternative**

1081 The proposed project requires the acquisition of approximately 260 acres of land for ROW and
1082 roadway construction purposes. This represents 0.02 percent of the total farmland within the two
1083 counties. Of the 260 acres, approximately 188 acres are designated as prime farmland if irrigated or
1084 farmland of statewide importance. This represents 0.015 percent of the total acreage of prime
1085 farmland if irrigated within the two counties. Acquisition of ROW would primarily take place adjacent
1086 to the north of the existing ROW.

1087 The completed Farmland Conversion Impact Rating Forms (**Appendix B**) resulted in a corridor
1088 assessment of 139 points for the portion of the project in Scotts Bluff County, and 143 points for the
1089 portion in Morrill County. The NRCS confirmed these point totals on May 13, 2024, and indicated that
1090 no further coordination would be required. Coordination with the NRCS can be found in **Appendix B**.

1091 The Preferred Alternative also has the potential to impact 22 existing center pivot irrigation systems.
1092 Two center pivots may require relocation; the final determination on whether they would require
1093 relocation would be made during final design. These center pivots are located at approximately US-26
1094 MM 37.50 (halfway between County Road 34 and County Road 35 along US-26) and L62A MM 3.45
1095 (halfway between County Road 81 and County Road 82 along L62A). The remaining 20 center pivots
1096 would be shortened but would remain functional following construction of the Preferred Alternative.
1097 Landowners would be compensated for the removal or relocation of the center pivots and storage
1098 buildings as described in **Section 4.3, Right-of-Way and Relocations**.

1099 Temporary impacts during construction may occur in the form of temporary easements for access or
1100 modification of center pivots. Any farmland acquired for temporary easements would be returned to
1101 farmland following construction. Modifications to center pivots would be coordinated with the
1102 property owner or lessee prior to the modification.

1103 The acquisition of additional ROW would also affect approximately 9 acres of feedlot pens at two
1104 locations: 7 acres at Winner Circle Feed Yard, and 2 acres at the feedlot northeast of the intersection
1105 of US-26 and L62A. These impacts may result in the reconfiguration of the feedlot operations, but no
1106 buildings would be acquired.

1107 One tailwater reuse pit would be impacted along the north side of L62A near MM 5.45 (1/4 mile east
1108 of County Road 85). Reconfiguration or relocation of the pit may be necessary.

1109 None of the additional property rights acquisition involves the entire center-pivot system, feedlot, or an
1110 entire parcel of farmland. Therefore, the alterations would be minor in nature and have little effect on
1111 farming operations.

1112 **4.2.4 Avoidance, Minimization, and Mitigation**

1113 Although mitigation of farmland impacts is not required, measures would be used which could reduce
1114 impacts as much as practicable. Impacts would be mitigated on a case-by-case basis because of the
1115 uniqueness of each situation. Impacts to the flow of irrigation water in irrigation canals and lateral
1116 ditches would be minimized by completing construction of these areas during the off-season. Any
1117 impacted irrigation ditches would be surveyed and addressed during the final design phase of this
1118 project.

1119 **Commitments:**

1120 NDOT would compensate the landowners and/or current leaseholders for impacts on the center pivot
1121 irrigation systems. Compensation would include, but not be limited to, relocating the center pivot
1122 system, modifying the center pivot equipment, and/or relocating the well supplying the center pivot
1123 system. NDOT would coordinate with the landowner during the ROW process. (NDOT)

1124 **4.3 Right-of-Way and Relocations**

1125 The evaluation of existing highway ROW and property acquisitions from adjacent properties considers
1126 the current land use and ownership of a parcel. Any property acquisition would be conducted by
1127 payment of fair market value for the property rights in conformance with the Uniform Relocation
1128 Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (42 USC
1129 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act
1130 (Nebraska Revised Statutes Section 76-1214 et seq.).

1131 **4.3.1 Affected Environment**

1132 As discussed in **Section 4.1**, existing land use within the Study Area consists of rural, row crop
1133 agricultural land use and includes rural residences, farmsteads, and modern livestock production
1134 facilities. Commercial areas are located in Minatare. There are nearly 190 parcels within the Study
1135 Area, the majority of which are privately owned. Additional property owners include the State of
1136 Nebraska, NDOT, irrigation districts, and the Minatare School District.

1137 **4.3.2 Impacts of the No Build Alternative**

1138 There would be no construction of the Project with the No Build Alternative. ROW impacts may occur
1139 as part of other routine roadway and bridge maintenance activities; however, acquisitions for those
1140 projects would be evaluated on a project-by-project basis.

1141 **4.3.3 Impacts of the Preferred Alternative**

1142 The Preferred Alternative would require the acquisition of approximately 260 acres of new ROW and
1143 permanent easements, primarily north of US-26 and L62A, between the east side of Minatare and US-
1144 385. In the one-mile section of roadway that is being reconstructed in Minatare to the east side of
1145 town, ROW would be acquired primarily along the south side of US-26. The new ROW (on either side)
1146 would be needed to construct new traffic lanes, county road realignments, bridges, culverts, and
1147 access driveways. Most of the ROW acquisition would be minor, generally less than 10 percent of the
1148 total parcel. Existing land use of these parcels is predominantly irrigated cropland and farmsteads.
1149 More than minor ROW acquisition may be needed from farmsteads that are smaller parcels, as
1150 discussed in more detail below.

1151 Relocation and removal of structures and houses would be required. **Table 4.1** describes these
1152 properties and potential impacts. These impacts are based on conceptual design, and full or partial
1153 acquisitions would be determined during the final design and ROW phases. ROW acquisition and
1154 relocations would be conducted in accordance with the Uniform Act, Title VI of the Civil Rights Act of
1155 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et
1156 seq.). Additional information regarding the NDOT ROW and relocation procedures can be found on
1157 NDOT's website: <https://dot.nebraska.gov/business-center/row/>.

1158

Table 4.1 Structure Relocations for the Preferred Alternative

Site ID	MM	Property Description	Impact
1	33.05	Pasture with an outbuilding.	Relocation or removal of the outbuilding. The property would remain functional as a pasture.
2	33.13	Farmstead with a house and an unmaintained outbuilding.	Relocation or removal of the outbuilding. The property would remain functional as a farmstead following construction.
3	33.63	Confined animal feeding operation with an outbuilding and cropland.	Relocation or removal of the animal building. The property would remain functional as an animal feeding operation following construction.
4	36.00	Farmstead with an unmaintained house, two unmaintained sheds, and maintained cropland.	Relocation or removal of the unmaintained house. The property would remain functional as cropland. Driveway access would be moved north on County Road 33.
5	36.42	Maintained farmstead with a house and a large outbuilding.	Relocation or removal of the house and large outbuilding. The property may not remain functional as a farmstead following construction but would function as a farm storage area.
6	36.44	Farmstead with two unmaintained houses, maintained shed, and maintained cropland to the east.	Relocation or removal of the two houses. The property may remain functional as a farmstead following construction.
7	37.00	Farmstead with a house and six sheds.	Relocation or removal of the house. The property may not remain functional as a farmstead following construction but would function as a farm storage area. Driveway access would be moved north on County Road 34.
8	38.70	Farmstead with two houses, two sheds, a silo, and cropland.	Relocation or removal of both houses. The property would remain functional as a farmstead following construction.

Site ID	MM	Property Description	Impact
9	39.49	Farmstead with two homes, three sheds, and a coop.	Relocation or removal of the coop, the sheds, and both houses. The property may not remain functional as a farmstead following construction.
10	39.98	Farmstead with a house, two sheds, and cropland to the west.	Relocation or removal of the farmhouse and sheds. The property may not remain functional as a farmstead following construction but would still function for agricultural use.
11	40.40	Farmstead with a house, garage, shed, and a barn.	Relocation or removal of the farmhouse, garage, and shed. The property would remain functional as a farmstead following construction.
12	0.05	Outbuilding near livestock facility.	Relocation or removal of the outbuilding. The property would remain functional for agricultural use.
13	0.62	Wooded farmstead with house, garage, shed, and surrounding cropland.	Relocation or removal of the house and garage. The property would remain functional as a farmstead following construction.
14	1.70	Wooded farmstead with house, barn, silo, four sheds, and surrounding cropland.	Relocation or removal of the house and a small shed. The property would remain functional as a farmstead following construction.
15	3.80	Farmstead with a house, a barn, a silo, and two sheds.	Relocation or removal of the house, barn, and silo. The property would remain functional as a farmstead following construction.
16	4.19	Cattle operation, with a barn, and a shed with access to pasture.	Relocation or removal of the barn and shed. The property may not remain functional as a cattle operation nor farm storage.
17	4.57	A large farmhouse.	Relocation or removal of the farmhouse. The property may remain functional following construction.

1159 As part of the Preferred Alternative, access control would be purchased along the entire Project in
1160 accordance with NDOT's Access Control Policy, generally allowing no more than three accesses to
1161 adjacent properties per mile of roadway, typically between county roads. Existing field access drives
1162 and residential driveways would be relocated or realigned as needed throughout the Project to comply
1163 with the Access Control Policy.

1164 As noted in **Chapter 3**, there are over 160 private driveways and field access drives along the corridor.
1165 The Preferred Alternative would result in modifications or removal of approximately 100 of these
1166 drives. Additional access points would be added in some cases, other drives would be consolidated
1167 into frontage roads, accessible either from the highway or along County Roads. In some cases, access
1168 would be removed due to the removal of the structures as well. In most cases (approximately 50
1169 driveways) , the distance is less than 330 feet, or 1/16 mile. Approximately another 15 are between
1170 1/16 mile and 1/8 mile, another 15 are between 1/8 and 1/4 mile, and the remaining 10 are between
1171 1/4 mile and 1/2 mile. The longer distances correspond to field access points that would be relocated
1172 farther to align with other nearby access points, or where access would be provided from the adjacent
1173 County Roads. There are no access drive relocations greater than 1/2 mile. A table of these access
1174 changes is on file with the NDOT.

1175 ROW acquisition and relocations would be conducted in accordance with the Uniform Act, Title VI of
1176 the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act. Due to the nature of 2 to 4-
1177 lane highway expansions, uneconomic remnants may be possible. An uneconomic remnant is defined
1178 as "a parcel of real property in which the owner is left with an interest after the partial acquisition of
1179 the owner's property, and which the acquiring agency has determined has little or no value or utility to
1180 the owner" (49 CFR 24.2). If an uneconomic remnant is identified during the ROW acquisition process,
1181 per 49 CFR 24.102(k) NDOT would offer to purchase the remnant.

1182 Temporary impacts during construction may occur in the form of temporary easements or temporary
1183 access restrictions. Any parcel or portion of a parcel acquired for temporary easements would be
1184 returned to their original owner and condition following construction. Access to residential properties
1185 would be maintained throughout construction and would be coordinated with the property owner prior
1186 to any restrictions.

1187 4.3.4 Avoidance, Minimization, and Mitigation

1188 **Commitments:**

1189 ROW acquisitions, types, and amounts are based on conceptual design. Impacts on ROW and
1190 properties would be further refined and minimized to the extent possible during the final design phase
1191 of the Project. (NDOT)

1192 Access to adjacent properties would be maintained throughout construction. Access restrictions
1193 would be coordinated with the property owner prior to the restriction. (NDOT, Contractor)

1194 Property rights acquisition would be conducted by paying fair market value for the property rights and
1195 damages that may occur. ROW acquisition would be conducted in conformance with the Uniform Act
1196 (42 USC 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance
1197 Act (Nebraska Revised Statutes Section 76-1214 et seq.). (NDOT)

1198 4.4 Community Impact Assessment

1199 A Community Impact Assessment (CIA) is a component of the environmental review process that
1200 considers how a proposed project may affect the people, institutions, neighborhoods, communities,
1201 organizations, and larger social and economic systems in the project's vicinity. A CIA helps assess the

1202 impacts to local communities, their characteristics, and cohesion, including distinct populations,
1203 housing, income and tax base, access to public services, and community facilities and resources.

1204 **4.4.1 Affected Environment**

1205 A CIA for the proposed Study Area was conducted to a gain a better understanding of the surrounding
1206 communities, identify and evaluate potential impacts to residents or community resources as a result,
1207 and develop measures for mitigating impacts. The CIA process included developing a Community
1208 Profile of existing community facilities, resources, public services, and socioeconomic characteristics
1209 based on available GIS layers, online data sources, and demographic data from the US Census
1210 Bureau’s American Community Survey (ACS) 2022 5-Year Estimates at the Census Block Groups level
1211 of detail. Community resources within at least a half-mile from the proposed project were identified
1212 and evaluated for impacts, along with socioeconomic data for the six Block Groups comprising the
1213 Study Area for these purposes:

- 1214 • Census Tract 9532, Block Group 1
- 1215 • Census Tract 9529, Block Group 1
- 1216 • Census Tract 9529, Block Group 2
- 1217 • Census Tract 9525, Block Group 1
- 1218 • Census Tract 9525, Block Group 2
- 1219 • Census Tract 9525, Block Group 4

1220 A socioeconomic summary of the Study Area is shown in **Table 4.2** and the full Community Impact
1221 Assessment Technical Memorandum can be found in **Appendix C**.

1222 **Table 4.2 Demographics Summary of Community Characteristics**

Area	Population	Median Age	Minority Population	Households	Median Household Income
Study Area	7,099	40.9*	20.7%	2,798	\$65,032*
Census Tract 9532; Block Group 1 (Scotts Bluff County)	942	43.1	27.9%	349	\$68,125
Census Tract 9529; Block Group 1 (Scotts Bluff County)	975	45.5	45.0%	412	\$47,955
Census Tract 9529; Block Group 2 (Scotts Bluff County)	1,994	38.7	7.4%	750	\$73,684
Census Tract 9525; Block Group 1 (Morrill County)	760	57.7	13.3%	365	\$41,875
Census Tract 9525; Block Group 2 (Morrill County)	1,594	38.1	30.1%	593	\$68,125
Census Tract 9525; Block Group 4 (Morrill County)	834	37.5	5.3%	329	\$61,938

1223 *Represents the median value of the six Block Group estimates. The actual median age and income for the study area cannot be
1224 determined without the individual disaggregated data for each Block Group (Source: US Census Bureau, ACS 2022 5-Yr Estimates)

1225 4.4.2 Impacts of the No Build Alternative

1226 There would be no construction of the proposed project with the No Build Alternative. As a result,
1227 there would be no direct impacts, adverse or beneficial, to communities surrounding the study area.
1228 There may be long-term, indirect impacts associated with the No Build Alternative that adversely
1229 affect communities in the form of a lack of economic growth associated with improved freight and
1230 commuting opportunities.

1231 4.4.3 Impacts of the Preferred Alternative

1232 The proposed project would have both beneficial and adverse short-term and long-term impacts to
1233 local communities as discussed below:

1234 In the long-term, it would impact populations in the study area and surrounding communities
1235 beneficially by creating a more efficient roadway and reduced travel times. In the short-term, these
1236 populations and the transportation network would be impacted adversely by construction activities.
1237 The proposed project would have major, long-term, beneficial impacts on the transportation network
1238 in the study area and beyond. The improvements would result in increased roadway efficiency,
1239 reliability, safety, and travel conditions, and a more complete and connected freight network for
1240 moving produce and goods throughout the region. Local communities would also experience short-
1241 term beneficial economic impacts from construction-related jobs and increased business from
1242 construction workers patronizing local businesses and service establishments.

1243 Local property owners would experience long-term, adverse impacts resulting from the ROW
1244 acquisitions, relocations, and permanent easements required for its construction. Re-purposing this
1245 property for use as public ROW, however, is compatible with local land use plans, and would not have
1246 a significant financial impact on the community in terms of reducing local tax revenues or removing
1247 property that currently serves a better public use.

1248 Local community or seasonal events may incur minor, short-term, adverse impacts during
1249 construction activities, and moderate, long-term, beneficial impacts beyond that due to improved
1250 connectivity and cohesion resulting from a more efficient and reliable roadway. During public
1251 involvement for this project, several commenters expressed concerns about pedestrian access in
1252 Minatare, particularly regarding safe crossings to access businesses north of US-26, such as the
1253 Dollar General. NDOT has indicated it would explore design considerations for pedestrian access and
1254 crossing facilities to address these concerns.

1255 Access to community resources, area schools, and emergency response services would not be
1256 impacted by the proposed project because improvements would be constructed under traffic, with
1257 access maintained throughout, and any required detours would have limited effect and duration.
1258 Access to businesses, community resources, and residences would also be maintained, and
1259 disruptions to utility services are not anticipated. No communities would be isolated from or divided
1260 by the proposed project.

1261 4.4.4 Avoidance, Minimization, and Mitigation

1262 **Commitments:**

1263 The design and construction phases of the project would incorporate and follow the NDOT Roadway
1264 Design Manual's standards related to work zone traffic control plans, NDOT's Standard Specifications
1265 for Highway Construction, and adherence to all federal, state, and local laws and regulations.
1266 Construction activities would be coordinated with annual local events in an effort to minimize traffic
1267 delays and travel pattern disruptions, where possible. (NDOT Design)

1268 Efforts would be made during the final design phase to minimize necessary property acquisition and
1269 relocations, where feasible. Property rights acquisition would be conducted by paying fair market
1270 value for the property rights and damages that may occur. Right-of-way acquisition would be
1271 conducted in conformance with the Uniform Act (42 USC 4601 et seq.), Title VI of the Civil Rights Act
1272 of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et
1273 seq.). The design process will also take into consideration the community concern related to the need
1274 for pedestrian crossing facilities in the City of Minatare to maintain existing community connectivity
1275 and access to the City's only grocery store on the north side of US-26. Elements for enhancing non-
1276 motorized safety at this location would be considered and incorporated, where feasible. (NDOT
1277 Design)

1278 4.5 Environmental Justice

1279 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and
1280 Low-Income Populations (issued February 11, 1994) directs federal agencies to take the appropriate
1281 and necessary steps to identify and address "disproportionately high and adverse" effects of federal
1282 projects on the human health or environment of low-income and minority populations. Additionally,
1283 representatives of any low-income or minority populations in the community that may be affected by
1284 a project must be given the opportunity to be included in the impact assessment and public
1285 involvement process. Title VI of the Civil Rights Act of 1964 ensures that "no person in the United
1286 States shall, on the grounds of race, color, or national origin, be subjected to discrimination under any
1287 program or activity receiving Federal financial assistance". Title VI prevents discrimination, whether
1288 intentional or unintentional in any program or activity receiving Federal financial assistance.

1289 4.5.1 Affected Environment

1290 An environmental justice review was completed for the Project and can be found in **Appendix D**. The
1291 environmental justice study area spans multiple block groups within Census Tracts 9525 and 9529 in
1292 Scotts Bluff and Morrill counties, Nebraska, including parts of the city of Minatare. Recent data
1293 highlights that Block Group 1 of Census Tract 9529 contains meaningfully greater percentages of
1294 minority (primarily Hispanic/Latino) and low-income populations compared to statewide figures.
1295 However, the study area does not contain Limited English Proficiency (LEP) populations that meet or
1296 exceed the NDOT thresholds for translations or specialized LEP, which are either 5% of the population
1297 or 1,000 persons for any specific language.

1298 After review of the study area, the following businesses and agencies were identified as likely to serve
1299 a minority and/or low-income population and/or provide services:

- 1300 • Assembly of God Church
- 1301 • Minatare Park
- 1302 • Minatare High School Football Field
- 1303 • Minatare High School Track
- 1304 • Dollar General

1305 4.5.2 Impacts of the No Build Alternative

1306 There would be no construction of the Project with the No Build Alternative. As a result, there would be
1307 no effects to minority and/or low income populations identified in the study area.

1308 4.5.3 Impacts of the Preferred Alternative

1309 Minority populations and low-income populations were identified in the Study Area. However, there are
1310 no anticipated disproportionately high and adverse human health or environmental effects to these

1311 groups, as defined in FHWA Order 6640.23A. This is because the project would be constructed under
1312 traffic with lane closures controlled by appropriate traffic control devices and practices. Additionally,
1313 the project is not expected to result in temporary or permanent adverse effects to through-traffic
1314 dependent businesses, nor would it cause substantial permanent traffic pattern changes or
1315 disruptions. Access to adjacent properties and local businesses would be maintained throughout the
1316 construction period, although access may occasionally be limited. During public involvement for this
1317 project, several commenters expressed concerns about pedestrian access in Minatare, particularly
1318 regarding safe crossings to access businesses north of US-26, such as the Dollar General. NDOT has
1319 indicated it would explore design considerations for pedestrian access and crossing facilities to
1320 address these concerns. The project would not restrict access to emergency services, and all ROW
1321 acquisitions and property relocations required would not affect the block group associated with the
1322 identified Environmental Justice population. Moreover, there would be no isolation, exclusion, or
1323 separation of minority or low-income individuals within a given community or from the broader
1324 community. Lastly, although night-time work may occur, it would be planned to minimize overall
1325 disruption to the community

1326 4.5.4 Avoidance, Minimization, and Mitigation

1327 **Commitments:**

1328 The contractor shall maintain access for both vehicles and pedestrians during the construction phase
1329 to facilitate travel across US-26 to and from Minatare to the Dollar General store located at 130910
1330 Stonegate Rd, Minatare, NE 69356. (Contractor)

1331 The project design shall explore the creation of pedestrian refuge areas within the US-26 raised
1332 median while crossing the highway. (NDOT Design)

1333 NDOT shall ensure the businesses and organizations, identified in the following bullet points, are
1334 included on the distribution list for the pending project Public Hearing. (NDOT Public Involvement)

- 1335 • Assembly of God Church, located at 907 Main St, Minatare, NE 69356
- 1336 • Minatare Park, located at 909 Main St, Minatare, NE 69356
- 1337 • Minatare High School Football Field, located at 1107 7th St, Minatare, NE 69356
- 1338 • Minatare High School Track, located at 1107 7th St, Minatare, NE 69356
- 1339 • Dollar General, located at 130910 Stonegate Rd, Minatare, NE 69356

1340 4.6 Transportation

1341 A transportation network consists of all modes of transportation for goods and people including road,
1342 air, transit, trails, and rail. Access to and transport via these facilities are considered in evaluating
1343 impacts by the alternatives.

1344 4.6.1 Affected Environment

1345 There are two highways in the Study Area. The first, US-26, would be improved as part of the Project.
1346 US-26 is a major east-west transportation corridor in Nebraska, and in this corridor, is part of the
1347 Heartland Expressway. US-26 serves several communities in western Nebraska, including Scottsbluff,
1348 Minatare, Bayard, Bridgeport, and Ogallala. The second highway in the Study Area is L62A, which
1349 serves as a link between US-26 and US-385. L62A would also be improved as part of this project.

1350 There are numerous county roads in the Study Area, which cross the highways at perpendicular
1351 angles. Most of these roads are aligned directly across the highway, however, there are two that are
1352 not aligned, due to other physical constraints, such as streams. The intersection of US-26 and L62A is
1353 an offset "T" intersection, with a slip lane for eastbound traffic on US-26 to continue south toward

1354 Bayard, and the intersection of County Road 79 is offset to avoid a stream on the south side of the
1355 highway.

1356 The nearest public use airport to the Study Area is the Western Nebraska-Scottsbluff Regional Airport,
1357 approximately 5 miles northwest of the west end of the Project. There would be no impacts to the
1358 airport, its operations, or access changes for travelers going to or from the airport. For additional
1359 information regarding airspace and airport coordination, see **Appendix E**.

1360 There are no trails or railroads within the Study Area. Open Plains Transit, an intercity bus service in
1361 the Nebraska Panhandle does serve the region, stopping in Minatare at the junction of US-26 and Main
1362 Street. There are no physical transit facilities within the corridor.

1363 4.6.2 Impacts of the No Build Alternative

1364 There would be no construction of the Project with the No Build Alternative. As a result, there would be
1365 no impacts on the transportation network or access to properties beyond those needed to complete
1366 routine roadway and bridge maintenance activities.

1367 4.6.3 Impacts of the Preferred Alternative

1368 The Project is anticipated to have minor, short-term, adverse impacts on the transportation network
1369 during construction. Construction would be completed under traffic, allowing continuous movement
1370 through the Study Area. Traffic would remain open on the existing lanes while the new lanes are
1371 constructed. Traffic would shift to the new lanes while work is completed on the existing lanes.
1372 County roads would be detoured while being reconstructed to connect to the new lanes. The adverse
1373 out-of-direction travel would be approximately 1 to 5 miles in a rural setting. Adjacent county roads
1374 would not be closed at the same time.

1375 After construction, the Project would have major, long-term, beneficial impacts on the transportation
1376 network in the Study Area and in western Nebraska. The approximately 18 miles that would be
1377 improved represents the final piece of the Heartland Expressway from Kimball to Alliance.

1378 The offset "T" intersection at US-26 and L62A would be reconstructed with a 4-leg intersection and
1379 would focus the priority movement to the through movements for the eastbound and westbound
1380 lanes. Left-turning movements in both directions along US-26 would be provided with protected turn
1381 lanes. The US-26 eastbound to southbound movement (i.e., right turn) would remain as a free-flowing
1382 curve, providing drivers with a familiar movement. Northbound traffic on US-26 would stop at L62A
1383 before continuing east on L62A or west on US-26. This configuration would improve safety and
1384 operations.

1385 The offset intersection of County Road 79 would be realigned evenly across the highway (i.e., by
1386 shifting the south leg to the east), resulting in a standard intersection. This would improve safety and
1387 driver expectancy. Protected left-turn lanes would be provided at this and all other county roads.

1388 The intersection of L62A and US-385 would be reconstructed as a standard "T" intersection, similar to
1389 what exists currently, with a southbound to westbound slip lane for vehicles traveling from Alliance to
1390 Scottsbluff. This slip lane would be situated approximately 150 feet to the northwest of where the
1391 existing slip lane is currently situated. This would be to allow for safer movements at higher speeds.

1392 4.6.4 Avoidance, Minimization, and Mitigation

1393 **Commitments:**

1394 For county roadway realignments, county roads adjacent to the closed roadway would not be closed
1395 at the same time and would remain open to traffic. (NDOT, Contractor)

1396 Access to properties may be limited at times throughout construction but would remain open. The
 1397 Contractor would coordinate with property owners to maintain access to fields and residences.
 1398 (Contractor)

1399 Any contractor involved in the project shall file a 7460-1 Form with the FAA for all structures or
 1400 equipment over 200' tall, or that break a 100:1 slope from a public-use airport. This includes any
 1401 trucks, cranes, or any equipment used on the project. A 7460-1 form will need to be filed for each new
 1402 structure that may be part of this project, like bridges or overpasses or if an existing structure's
 1403 elevation would change. (Contractor)

1404 4.7 Utilities

1405 The potential of the Project to Affect utilities in the Study Area was considered by identifying utility
 1406 resources and their location and orientation in relation to the Project. These effects were evaluated
 1407 with respect to utilities crossed by or located within the Preliminary Impact Area.

1408 NDOT has the authority and responsibility to regulate utility occupancy on all state highway ROWs. In
 1409 exercising this responsibility, NDOT may enter into agreements with political subdivisions regarding
 1410 state highways located within their geographical boundaries. All other public roads and streets not
 1411 designated as state highways are under the jurisdiction of the local political subdivisions in
 1412 accordance with state statutes and local ordinances.

1413 4.7.1 Affected Environment

1414 The utilities listed in **Table 4.3** are located within the project corridor:

1415 **Table 4.3 Utilities in the Study Area**

Utility Type	Utility Companies/Providers
Gas	Black Hills Energy Tallgrass Energy
Power	Chimney Rock Public Power District Nebraska Public Power District
Telecommunication	Century Link (Lumen) Spectrum (Charter) Nebraska Link (OPTK) Viaero Wireless and Fiber Network
Municipal	City of Minatare City of Scottsbluff Nebraska Department of Energy and Environment Pathfinder Irrigation Minatare (Mutual) Irrigation Farmers Irrigation District

1416

1417 4.7.2 Impacts of the No Build Alternative

1418 There would be no construction of the Project with the No Build Alternative. Impacts on utilities may
1419 occur as part of other routine roadway and bridge maintenance activities; however, these impacts
1420 would be evaluated on a project-by-project basis.

1421 4.7.3 Impacts of the Preferred Alternative

1422 For the Preferred Alternative, several utilities within and adjacent to the ROW would require relocation
1423 to accommodate project developments. The primary utilities affected include power lines, gas lines,
1424 and telecommunications infrastructure, all of which are widespread along the project corridor. See
1425 **Section 4.8, Irrigation Canals and Districts** for additional information regarding irrigation canals.

1426 NDOT notified utility companies, via letter in June 2024, that the project construction is upcoming. In
1427 this letter, NDOT alerted utility companies that the Project would likely require utility relocations. NDOT
1428 would continue to coordinate with utility companies during final design to identify specific utility
1429 impacts and needed relocations.

1430 Utilities would be relocated in accordance with NDOT's utility relocation policy. Impacted utility
1431 companies would be responsible for relocating their own facilities within the highway ROW at their
1432 own cost. Utility relocation may be eligible for reimbursement in certain circumstances. All required
1433 utility adjustments would be coordinated through NDOT and the Contractor in accordance with
1434 NDOT's Standard Specifications for Highway Construction during the appropriate phase of
1435 construction. Additional environmental impacts are not anticipated. The utility owner is responsible for
1436 obtaining any environmental permits and approvals required for utility relocation.

1437 4.7.4 Avoidance, Minimization, and Mitigation

1438 **Commitments:**

1439 Impacts on utilities are not avoidable because several utilities are located near or within the existing
1440 ROW. The Contractor should follow the guidelines of NDOT's Utility Accommodation Policy (NDOT
1441 2024). It is NDOT's responsibility to notify utility companies of the need for relocation during the
1442 design stage of the Project. The NDOT Utility Section would coordinate utility agreements with the
1443 utility companies prior to construction. It is the Contractor's responsibility to notify utility companies of
1444 relocation needs during the construction phase of the Project for utilities that were not relocated
1445 before construction. (NDOT, Utility Provider(s))

1446 If utility relocation or replacement is required in a later phase of the Project, a re-evaluation would be
1447 required if (1) federal funds will be used for the utility work, or (2) the Project construction contractor
1448 will be responsible for the work.

1449 If this utility work is identified during final design, NDOT would initiate the re-evaluation prior to Project
1450 letting. If the work is identified during construction, NDOT would initiate the re-evaluation prior to
1451 commencing utility work. (NDOT Environmental, NDOT District)

1452 If either one of the above two conditions does not apply, later relocation or replacement of utilities
1453 would be coordinated through NDOT and the Contractor per NDOT's Standard Specifications for
1454 Highway Construction, Subsection 105.06. Any environmental permits required for these utility
1455 relocations or replacements would be the responsibility of the utility. (NDOT District, Utility Provider(s))

1456 4.8 Irrigation Canals and Districts

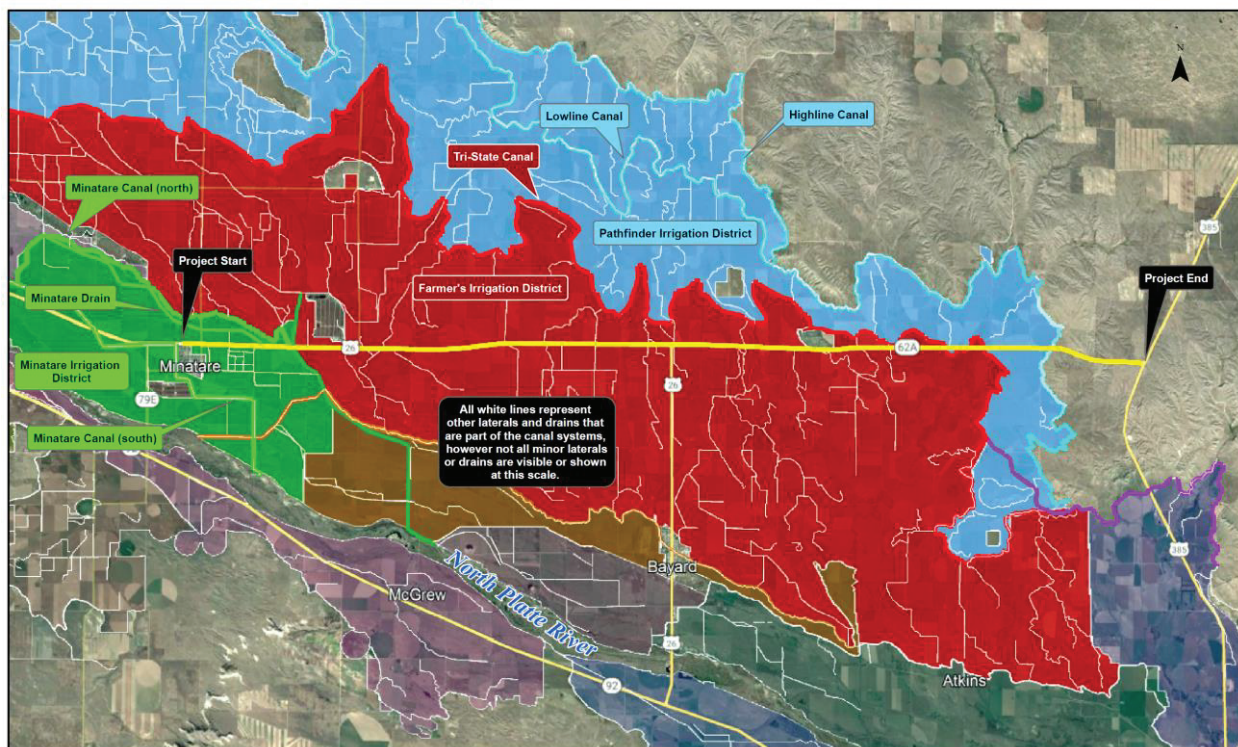
1457 Nebraska has a long history of supplementing cultivated fields with the assistance of irrigation.
1458 Extensive canal systems exist along the valley of the North Platte River. Within the vicinity for this

1459 undertaking, numerous canal features are present, including canal channels, conveyance systems or
 1460 laterals, and drains. The main intake structures (e.g. Platte River, Lake Alice and Lake Minatare) are at
 1461 the head to the system as a whole, and direct water from the source, the Platte River, into the irrigation
 1462 system. Irrigation systems are maintained by private irrigation companies, which have obtained water
 1463 rights from the State of Nebraska or the Federal Government (Bureau of Reclamation). Additional
 1464 water rights and regulations are in place through the Nebraska Department of Natural Resources
 1465 (NEDNR). Furthermore, the regional governmental organizations of the Natural Resources Districts
 1466 (NRDs), maintain maps and provide assistance to the irrigation districts.

1467 **4.8.1 Affected Environment**

1468 Three canal systems, the Minatare Canal, the Tri-State Canal, and the Interstate Canal cross the study
 1469 area (**Figure 4.2**). Canals represent significant planning and structural systems necessary for
 1470 successful farming in the semi-arid conditions of the Great Plains. Irrigation systems are comprised of
 1471 multiple components that together create a functional system serving miles of rural landscape, often
 1472 crossing state lines. The three irrigation canals in this study area were established more than 100
 1473 years ago and remain in operation today. The North Platte Project was built under direction of the U.S.
 1474 Bureau of Reclamation, and was the first major publicly financed irrigation project constructed on the
 1475 Platte River. The Pathfinder Dam in south-central Wyoming is the principal feature of the North Platte
 1476 Project and was completed in 1909. It stores water to supply other irrigation projects, including the
 1477 Interstate Canal, Tri-State Canal, Minatare Canal, among others, with lands in Nebraska.

1478 **Figure 4.2 Irrigation Canals and Districts**



1479
 1480 Source: North Platte Natural Resources District (annotated for clarity and emphasis)

1481 The Minatare Canal Company was formed by a group of local residents in 1887. Company organizers
 1482 included George W. Fairfield and Thomas Harshman along with several others. They obtained a water
 1483 right dated January 14, 1888, to divert water from the left bank of the North Platte River at a point
 1484 about 3.5 miles southeast of Scottsbluff, Nebraska. Approximately eight miles of what would become

1485 the **Minatare Canal** were built, and water diverted to irrigate lands during the late summer of 1888.
1486 This was widely considered the first canal in the upper valley of the North Platte River that diverted
1487 water for crop irrigation. The canal was constructed using a horse-drawn slip scraper, and lumber for
1488 bridges and headgates was hauled from the Wildcat Hills and sawed lumber from the Pine Ridge. The
1489 first water started flowing on August 15, 1888. During 1889, the canal was extended with both a high-
1490 line (north) and low-line (south) segment, each approximately 9 miles long. In 1895 the company was
1491 reorganized to the Minatare Mutual Canal & Irrigation Company. Part of the original system has since
1492 been abandoned (i.e. the south segment), and in the 1970s the Minatare Canal (i.e. the north segment)
1493 was approximately 9.7 miles long. Further modifications were made to the north canal segment since
1494 that time, shortening its overall length to approximately 9.1 miles. It is used to irrigate approximately
1495 9,000 acres near the town of Minatare. The Minatare Canal terminates along the north side of US-26
1496 at MM 34.64, where it enters the Minatare Drain.

1497 The **Minatare Drain** is a return water feature that was dug to relieve groundwater ponding caused by
1498 the Minatare Canal in the fields north of Minatare in the 1920's. The Minatare Drain runs along the
1499 north side of US-26, essentially serving as a roadside ditch, from MM 34.12 to MM 34.67, siphons
1500 under Ninemile Creek and continues along the north side of US-26 to MM 35.03, where it crosses
1501 under the roadway, before reentering Ninemile Creek farther downstream.

1502 The **Tri-State Canal** began in 1887 when a group of local farmers formed the Farmers Canal Company
1503 and by 1890, had constructed approximately ten miles of canal. William H. Wright took leadership of
1504 Farmers Canal Company in 1891 and by June 1893, approximately twenty total miles of canal had
1505 been constructed. In 1901 the Farmers Canal Company and its water rights were sold to Robert
1506 Walker under foreclosure. The Tri-State Land Company acquired the Canal in 1904 and by 1905
1507 extended the canal 96 miles, with an additional 28-mile extension called the Northport Canal. The
1508 canal carries water released from Pathfinder Reservoir and return flow from the Pathfinder Irrigation
1509 District to Northport Project lands. By 1907 it reached a point north of Minatare. Landowners voted
1510 bonds to purchase the canal system in 1912. The main canal is 96 miles long with 285 miles of
1511 laterals and 80 miles of drainage ditches to accommodate seepage and floodwaters.¹³ Tri-State Canal
1512 is part of the North Platte Project located in Nebraska and Wyoming. The project extends 111 miles
1513 along the North Platte River Valley from Guernsey, Wyoming to Bridgeport, Nebraska. The project
1514 provides irrigation for approximately 226,000 acres which are divided into four irrigation districts.
1515 Project features include five storage dams, four diversion dams, one pumping plant, one powerplant
1516 and about 2,000 miles of canals, laterals, and drains. Electric power is generated at Guernsey Power
1517 Plant and supplied to the Study Area by four substations and about 160 miles of transmission lines.
1518 The Tri-State Canal crosses L62A at several points along the corridor, at MMs 5.37, 5.81, and 6.13.

1519 The **Interstate Canal** was built under the Reclamation Act of 1902 with the North Platte Project
1520 authorized in 1903 and constructed between 1905 and 1915. Localized irrigation was possible in 1908
1521 through canal features that followed land contours for 95 miles to Lake Alice and Lake Minatare
1522 Reservoirs northeast of Scotts Bluff. The 35-mile long **High-Line Canal** (north branch of Interstate)
1523 extends from Lake Alice to the southwest while the **Low-Line Canal** (south branch of the Interstate)
1524 extends from Lake Minatare southwest. It is 43 miles long. The canal totals 179 miles in length and in
1525 addition to the canal there are 670 miles of laterals and 115 miles of drains. The canal extends east
1526 from the point of diversion to Lake Alice (completed 1913) and then into Lake Minatare (completed
1527 1915). The High Line Canal then continues east to a point about six miles north of Bayard and the Low
1528 Line Canal from Lake Minatare east to a point about eight miles northeast of Bridgeport. The Low Line
1529 Canal crosses L62A near MM 7.42.

1530 Irrigation Districts

1531 The three main irrigation canals are managed by three separate irrigation districts; the Minatare
1532 Mutual Canal & Drainage District (Minatare Canal and Minatare Drain), the Farmers Irrigation District
1533 (Tri State Canal), and the Pathfinder Irrigation District (Interstate Canal, High Line and Low Line

1534 Canals). There are additional irrigation districts in the project vicinity, including the Winter's Creek
1535 Irrigation District, Northport Irrigation District, and the Ninemile Creek Irrigation District. These districts
1536 receive overflow or return water from upstream districts, or may pass water downstream for re-use
1537 and eventual return to the North Platte River.

1538 In addition to the main supply canals described above, there exist hundreds of miles of laterals and
1539 drains that branch off from the supply canals, deliver water to fields, and then collect runoff before
1540 returning it to the system. These laterals and drains can be open or closed features, and are often re-
1541 built, re-aligned, or modified over time, even in the course of an irrigation season. Laterals and drains
1542 are essentially service lines (i.e., utility features) and are the responsibility of the irrigation districts and
1543 landowners to maintain and modify. Laterals and drains also have gates, valves, pumps, or meters
1544 that are used to maintain operations and to gauge water use throughout the system.

1545 There are also numerous maintenance roads and access roads along the irrigation canals, or from the
1546 highway to reach them. These 'ditch roads' need to be maintained and kept clear so that the irrigation
1547 district staff can use them to maintain the canals, assess damage, or make repairs.

1548 4.8.2 Impacts of the No Build Alternative

1549 There would be no construction of the Project with the No Build Alternative. As a result, there would be
1550 no impacts on the irrigation canals or districts listed above beyond those needed to complete routine
1551 maintenance activities, for both the irrigation canals themselves, or for roadway and bridge activities.
1552 The irrigation districts would continue to maintain and improve the canals, laterals, and drains, which
1553 may involve enclosing them in pipes or moving them to improve operations.

1554 4.8.3 Impacts of the Preferred Alternative

1555 The Preferred Alternative would impact all three irrigation canals in some fashion. These impacts are
1556 described further in the following narrative. Additional information concerning the impact lengths can
1557 be found in Section 4.20.

1558 The **Minatare Canal** does not cross US-26, but it does empty into the **Minatare Drain** on the north side
1559 of US-26 at MM 34.65. Minatare Drain flows along the north side of the corridor for approximately 1.0
1560 mile, from approximately MM 34.09 to MM 35.05. The Minatare Drain would be relocated to the south
1561 side of the roadway prior to crossing Ninemile Creek at MM 34.09. A new siphon structure would need
1562 to be constructed to cross under Ninemile Creek. The relocated Minatare Drain would continue along
1563 the south side of US-26 until it would re-enter the existing Minatare Drain at MM 35.05. The
1564 termination point of the Minatare Canal would be extended under the highway at MM 34.65 to empty
1565 into the Minatare Drain on the south side of the highway. Coordination has occurred with the Minatare
1566 Mutual Canal & Drainage District and they are in favor of relocating the Minatare Drain to the south
1567 side of the roadway. A formal agreement between the Minatare Mutual Canal & Drainage District and
1568 the NDOT would be completed prior to construction.

1569 The **Tri-State Canal** crosses L62A three times (MM 5.37, MM 5.81, MM 6.13), and at each location, the
1570 box culvert through which the canal flows would be extended. Work would be required in the canal to
1571 extend the box culverts. This work would be performed when the irrigation facilities are not in
1572 operation, generally from October through April. Maintenance access points from L62A would be
1573 provided, and existing access from adjacent County Road 85 and County Road 87 would remain in
1574 place. Coordination has occurred with the Farmers Irrigation District and they are in agreement that
1575 extending the box culverts to accommodate roadway widening is feasible. A formal agreement
1576 between the Farmers Irrigation District and the NDOT would be completed prior to construction.

1577 The **Low Line (Interstate) Canal** crosses L62A once (MM 7.42), and the box culvert through which the
1578 canal flows would be extended. Work would be required in the canal to extend the box culvert. This

1579 work would be performed when the irrigation facilities are not in operation, generally from October
1580 through April. Maintenance access points from L62A would be provided, and the existing access from
1581 County Road 89 would remain in place. Coordination has occurred with the Pathfinder Irrigation
1582 District and they are in agreement that extending the box culvert to accommodate roadway widening
1583 is feasible. A formal agreement between the Pathfinder Irrigation District and the NDOT would be
1584 completed prior to construction.

1585 4.8.4 Avoidance, Minimization, and Mitigation

1586 Mitigation measures would be added once adequate coordination with the districts has been
1587 completed.

1588 4.9 Historic Properties

1589 An evaluation of the potential for cultural resources was completed in support of the Project. Cultural
1590 resources include a broad pattern of tangible and/or intangible evidence of past or present human
1591 lifeways and/or practices. Section 106 of the National Historic Preservation Act of 1966, as amended,
1592 (NHPA) and implementing regulations at 36 CFR 800(1)(a), requires projects using federal land, funds,
1593 or permitting to consider any effects a proposed action may have on historic properties. A historic
1594 property is a property listed on or eligible for listing on the National Register of Historic Places (NRHP).
1595 Historic property types include buildings, structures, objects, archeological sites, and districts. A
1596 cultural resource is a historic property if the property is 50 years old or older and possesses
1597 significance in one or more of these criteria:

- 1598 • **Criterion A:** Is associated with events that have made a significant contribution to the broad
1599 pattern of history.
- 1600 • **Criterion B:** Is associated with the lives of persons significant in the past.
- 1601 • **Criterion C:** Embodies the distinctive characteristics of a type, period, or method of
1602 construction, or represents the work of a master, or that possesses high artistic values, or
1603 represents a significant and distinguishable entity whose components may lack individual
1604 distinction.
- 1605 • **Criterion D:** Has yielded, or may be likely to yield, information important in history or pre-
1606 history.

1607 A historic property must also retain sufficient integrity to convey its NRHP significance. For the NRHP,
1608 there are seven aspects of integrity: location; design; setting; materials; workmanship; feeling; and
1609 association.

1610 4.9.1 Affected Environment

1611 The historic properties study area is known as the Area of Potential Effects (APE). The APE for
1612 Section 106 purposes is defined at 36 CFR 800.16(d) as the geographic area or areas within which an
1613 action may directly or indirectly cause alterations in the character or use of historic properties, if any
1614 such properties exist. The APE for this project was identified in consultation with FHWA and NDOT. A
1615 narrative of the APE and maps depicting the APE are included in **Appendix F**.

1616 An evaluation of the potential for archeological resources within the APE was completed in 2022 by
1617 John R. Bozell. An evaluation of the potential for architectural and structural resources within the APE
1618 was completed by Historic Resources Group, Inc. (HRG) in 2022. The evaluation for cultural resources
1619 did not identify any archeological historic properties present within the APE. The evaluation for cultural
1620 resources identified five architectural historic properties present within the APE:

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- **Harry’s Curve Historic District** is a grouping of automotive resources at the northeast corner of US-26 and Stonegate Rd. in Minatare. The property consists of a restaurant/café, motel, and service station. Constructed between 1955-1970, this historic district is NRHP eligible under Criterion A as a significant example of a related complex associated with transportation services in the area of Commerce. This property represents the definition of a district where each individual component may not be significant but taken collectively and as a whole the components combined tell a story that is expressed through the physical relationship of the buildings, the signage, and their function. The boundary for this property is roughly defined by the concrete parking and driving areas connecting the buildings.
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- **The Minatare Canal:** The Minatare Canal enters into the Study Area from the north just east of County Road 31 and crosses the northern boundary of the APE three times before terminating at the north side of US-26 between County Roads 31 and 32. The canal is recommended NRHP eligible under Criterion A for its significant association with Agriculture/Subsistence as an irrigation facility. This canal is among the oldest and smallest in the area. The boundaries are defined as the canal itself. Associated with the canals are contemporary canal access roads typically established for repairs and maintenance. These are not considered contributing features to the canal system. This resource has been identified as eligible for listing in the NRHP under Criterion A for a significant association with Agriculture/Subsistence as an irrigation facility.
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- **M000-073, Sod House-7943 L62A, Bayard.** Constructed c. 1910, this sod house has been previously surveyed and recommended NRHP eligible. The exterior has been clad with stucco, but the depth of the walls because of the sod construction is evidence of its underlying materials. There are no other historic outbuildings associated with this property. This building is eligible because of its exceedingly rare and significant property type. Sod house construction is important to the development of agriculture and settlement in Morrill County and despite the alterations this is a good example of early 20th century vernacular building styles on the western edge of the Sandhills. It retains the general form and design intent of the historic building. Sod buildings are routinely clad with an alternate material as soon as possible after their construction, to diminish deterioration common among the building form, from the elements, pest infestation, and structural issues. It was more typical for the sod structures to be torn down or converted to storage and not maintained. They are therefore becoming rare resources in the built environment. This building is eligible under Criterion C for its significant association with Architecture and as a representative example of a building type. The boundary of this property includes the lot associated with the residence and no other acreage. Historic out buildings are no longer present to contribute to an expanded farmyard.
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- **The Tri-State Canal:** This is a linear resource that crosses through the APE. The boundaries include the entirety of the linear resource. The canal dips into the APE beginning on the north side just east of Road 81 and continues to dip in and out of the APE until it crosses Highway 62A east of Road 85. Between Road 85 and Road 87 the canal crosses the highway three times. It has a broad dirt shoulder with graded access drive that follows the contour of the canal. The width of the boundary includes these features. The canal is eligible under Criterion A for its significant association with Agriculture/Subsistence as an irrigation facility. Associated with the canals are contemporary canal access roads typically established for repairs and maintenance. These are not considered contributing features to the canal system.
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- **SX00-060 The Interstate Canal:** The canal crosses the APE at the east end, entering from the north and crossing just east of Road 89 in Morrill County. Associated with the canals are contemporary canal access roads typically established for repairs and maintenance. These are not considered contributing features to the canal system. The canal is eligible under Criterion A for its significant association with Agriculture/Subsistence as an irrigation facility.

1670 The Nebraska State Historic Preservation Office (SHPO) concurred with the NRHP eligibility
1671 determinations, the level of effort, and the project effects determination on June 6, 2024. This
1672 coordination can be found in **Appendix F**).

1673 In addition to the SHPO, NDOT invited local organizations, municipalities, counties, and tribes to
1674 participate in consultation under Section 106 as part of a Stakeholder Meeting held on September 8,
1675 2022 held in Minatare and through a comment period from May 23, 2024 through June 22, 2024. No
1676 substantive comment was received. Consulting parties and their comments are shown in **Table 4.4**.

1677 **Table 4.4 Consulting Parties**

Consulting Party	Response
Apache Tribe of Oklahoma	None
Arapaho Tribe of the Wind River Reservation, Wyoming	None
Cheyenne and Arapaho Tribes, Oklahoma	None
Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota	None
Comanche Nation of Oklahoma	On June 5, 2024, the Commanche Nation indicated that the project location was cross referenced with Comanche Nation site file and an indication of "No Properties" have been identified.
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana	On May 22, 2023, the Northern Cheyenne Tribe asked FHWA clarifying questions. FHWA responded on May 25, 2023.
Pawnee Nation of Oklahoma	On September 9, 2022, the Pawnee Nation responded that the proposed project should not affect the cultural landscape of the Pawnee Nation On May 16, 2023, the Pawnee Nation responded that the project should not adversely affect the cultural landscape of the Pawnee Nation.
Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota	None
Yankton Sioux Tribe of South Dakota	None
Pathfinder Irrigation District	On May 30, 2024, Dennis Strauch of the Pathfinder Irrigation District agreed with the "finding of no historical impact to the Interstate Canal properties".
Farmers Irrigation District	None
Minatare Mutual Canal & Irrigation	None

Consulting Party	Response
Winters Creek Canal Company	None
Bureau of Reclamation (BOR)	On April 28, 2023, the BOR Wyoming Area Office concurred with NRHP eligibility recommendations for the Tri-State Canal and the Interstate Canal.
Scotts Bluff County	None
Morrill County	None
City of Minatare	None
Legacy of the Plains Museum	On August 26, 2022, Jack Preston with Legacy of the Plains Museum telephoned and indicated that he would be the project contact. He is interested in the project, but not overly concerned. He did attend the stakeholder meeting. On May 23, 2024, Legacy of the Plains Museum presented their concurrence.
KAJO Management, Inc. (property owner)	On September 7, 2022, Robert with KAJO Management, who owns the sod house responded. He lives in Florida and appreciates the invitation but did not attend the meeting. He did not know that the house was made of sod and was interested.
Mr. and Mrs. Skinner (property owner)	None
Nebraska SHPO (concurring party)	None

1678 The 30-day comment period expired on June 22, 2024 without receiving responses from the
1679 remaining consulting parties. This coordination can be found in **Appendix F**.

1680 4.9.2 Impacts of the No Build Alternative

1681 There would be no construction of the Project, or use of temporary detours, with the No Build
1682 Alternative. As a result, there would be no impacts on the properties listed above beyond those needed
1683 to complete routine roadway and bridge maintenance activities.

1684 4.9.3 Impacts of the Preferred Alternative

1685 The Preferred Alternative would have **no effect** on the **Harry's Curve Historic District**. Construction
1686 activity would not occur within the boundaries of the historic property. There is no proposed ROW
1687 acquisition, though some temporary easements may be required to access the property. There are
1688 multiple entrances onto the property from US-26, and the redesign would retain one access point to
1689 the highway from the property. Culverts in the area would be removed and replaced. Historic signs
1690 would remain and would not be affected. The collection of buildings and their relationship to the
1691 highway are the key character defining features of this property that convey NRHP significance. These
1692 would not be impacted by the project.

1693 The preferred alternative would have **no effect** on the **Minatare Canal & Irrigation system**. Unlike the
1694 other two canals, this canal terminates near the project corridor and the end of the canal would be
1695 shifted north where a new pipe may be added that extends to the Minatare drain. All connectivity of
1696 the canal and its connection to the larger system would be maintained.

1697 The preferred alternative would **not adversely affect** the **sod house M000-073**. Work at this
1698 intersection would realign the south leg of Co Rd 79 to line up with the north intersection. ROW would
1699 be required. The realignment of the county road will bring it closer to the historic property. However,
1700 the creation of new highway lanes to the north of the historic property will divert much of the traffic
1701 away, leading to an expected reduction in noise at the property. Given the low traffic volumes on the
1702 county road, no significant change in noise levels is anticipated. This activity and ROW acquisition do
1703 not impact the characteristics that make this property NRHP eligible.

1704 The preferred alternative would have **no effect** on the **Tri-State Canal system**. This canal crosses the
1705 road three times and there would be construction activity in those places. The significance of the
1706 canal remains in its connectivity to provide water to the area. These changes are examples of ongoing
1707 maintenance and have no impact on the characteristics that make this canal eligible.

1708 The preferred alternative would have **no effect** on the **Interstate Canal system (SX00-060)**. One single
1709 barrel culvert would be extended where the system crosses the highway. This construction activity
1710 would have no impact on the characteristics that make the system eligible, which includes system
1711 connectivity to deliver water to the area.

1712 4.9.4 Avoidance, Minimization, and Mitigation

1713 **Commitments:**

1714 Five Sensitive Areas have been identified along this project. These Sensitive Area(s) shall be indicated
1715 on project plans. (Design)

1716 Five Sensitive Areas have been identified along this project.

1717 1) Harry's Curve, US-26, MM 33.19 – 33.38, north side (STA 113+27 R to 123+00 L). No grading
1718 or project activities, including but not limited to, working, staging, borrowing, stockpiling, or
1719 storing material and/or equipment, shall occur beyond the temporary easement. (Contractor)

1720 2) Sod House, US-26, MM 1.19 – 1.21, south side & an area along CR 77 (see stationing) (STA
1721 635+00 – 636+21 R & STA 5601+00 – 5602+65 R). No grading or project activities, including
1722 but not limited to, working, staging, borrowing, stockpiling, or storing material and/or
1723 equipment, shall occur beyond the newly acquired ROW. (Contractor)

1724 3) Tri-State Canal (3 locations), L62A, MM 5.37, north & south side (STA 854+77 L&R); L62A, MM
1725 5.81, north & south side (STA 879+74 L&R); L62A, MM 6.13, north & south side (STA 894+36
1726 L&R). No grading or project activities, including but not limited to, working, staging, borrowing,
1727 stockpiling, or storing material and/or equipment, shall occur beyond the temporary or
1728 permanent easement. (Contractor)

1729 4) Interstate Canal, L62A, MM 7.43, north & south side (STA 963+52 L&R). No grading or project
1730 activities, including but not limited to, working, staging, borrowing, stockpiling, or storing
1731 material and/or equipment, shall occur beyond the temporary or permanent easement.
1732 (Contractor)

1733 5) Minatare Canal, US-26, MM 34.64, north side (STA 191+57 R). No grading or project activities,
1734 including but not limited to, working, staging, borrowing, stockpiling, or storing material and/or
1735 equipment, shall occur beyond the temporary or permanent easement required to move the
1736 end point of the canal north. (Contractor)

1737 4.10 Paleontology

1738 In 1959, Nebraska’s Legislature passed a law authorizing NDOT to enter into agreements with the
1739 appropriate state agencies to remove and preserve paleontological remains when such remains were
1740 to be disturbed by highway construction. This legislation also authorized the use of highway funds for
1741 this specific purpose. This was the country’s first paleontological salvage program, the Highway
1742 Salvage Paleontology Program (HSPP), which is based on close cooperation among Contractors,
1743 NDOT, and the University of Nebraska State Museum. In areas where new construction threatens
1744 paleontologically sensitive areas, museum paleontologists follow a basic three-phase strategy of
1745 salvage preconstruction, during construction, and post construction to recover the maximum amount
1746 of scientific information without causing construction delays.

1747 4.10.1 Affected Environment

1748 The University of Nebraska State Museum has no vertebrate paleontology localities within the study
1749 area of the project. There are noted rhino bones within 3 miles of the eastern end of the project, as
1750 well as some quarries in the same vicinity. The canyons in the eastern part of the project were walked
1751 in 2008 or 2009, without any major discoveries. Shane Tucker from the museum was present at the
1752 Agency Scoping Meeting in February 2023, and indicated that they are not anticipating any great
1753 accumulations of fossils, and if any were found, they would likely be isolated and able to be dealt with
1754 during construction.

1755 4.10.2 Impacts of the No Build Alternative

1756 There would be no construction of the Project, including grading, with the No Build Alternative. As a
1757 result, there would be no impacts on paleontological resources beyond those needed to complete
1758 routine roadway and bridge maintenance activities.

1759 4.10.3 Impacts of the Preferred Alternative

1760 The Preferred Alternative has moderate potential to impact previously unidentified paleontological
1761 resources during construction because it would impact areas that have been previously disturbed only
1762 at the surface level for agricultural production. Previous deep grading (greater than 3 feet) in these
1763 areas is not evident on aerial imagery. Additionally, if there is gravel mined for aggregate from the
1764 floodplain, there may be Pleistocene fossil remains encountered. Because paleontological resource
1765 locations are difficult to locate due to the vegetative cover and/or the nature of preservation, these
1766 resources could be identified during construction, and appropriate coordination protocols with the
1767 HSPP would occur if resources were discovered.

1768 4.10.4 Avoidance, Minimization, and Mitigation

1769 **Commitments:**

1770 For paleontological resources, additional field surveys and test excavations would be conducted prior
1771 to construction by the HSPP. The HSPP would be informed throughout the planning process with
1772 regard to alignment choice, grading details, and borrow pit locations. On-site monitoring and the fossil
1773 mitigation plan would be implemented throughout all phases of construction. (NDOT, Contractor)

1774 In the event of a discovery of paleontological materials during construction, NDOT Standard
1775 Specifications for Highway Construction, Subsection 107.10 (2017, pg. 64) states, “The Engineer
1776 should be immediately notified when any such articles are uncovered, and the Contractor should
1777 immediately suspend operations in the area involved until such time that arrangements are made for
1778 their removal and preservation.” (Contractor)

1779 4.11 Visual Effects

1780 Visual resources are those physical features that make up the visible landscape, including land, water,
1781 vegetative, and man-made elements (FHWA 1986). Visual considerations are given for general
1782 resources (public) and specific sensitive resources (including some parks, landscapes, and historic
1783 properties).

1784 4.11.1 Affected Environment

1785 Visual impacts and aesthetics refer to the way the project may affect the visual quality of the
1786 surrounding environment, and the overall aesthetic experience of the project for users and observers.
1787 Visual impacts can include any changes to the landscape or viewshed caused by the project.
1788 Aesthetics refer to the visual qualities and design elements of the highway construction project itself.
1789 The highway alignment, bridges, and intersection configurations could be considered aesthetics of the
1790 corridor. When evaluating this corridor for any visual or aesthetic impacts, the surrounding area that
1791 can be viewed by visual reconnaissance becomes the study area.

1792 The Study Area contains one sensitive visual resource, Chimney Rock National Historic Site located
1793 near Bayard in Morrill County, south of the corridor. At approximately 500 feet tall, this formation
1794 served as a signpost for settlers traveling the Oregon Trail.

1795 4.11.2 Impacts of the No Build Alternative

1796 The No Build Alternative would not change the current visual or aesthetic landscape of the Study Area.

1797 4.11.3 Impacts of the Preferred Alternative

1798 The preferred alternative for the corridor would result in visual changes, with the most significant
1799 being the addition of extra lanes to the north of the existing 2-lane facility. These new lanes would be
1800 separated from the existing lanes by a depressed median, and intersections would be redesigned to
1801 standard "T" intersections. Specifically, the intersection of US-26 and L62A would be realigned with CR
1802 75 to the north, resulting in an improvement in aesthetics and alignment with driver expectations. In
1803 Minatare, raised medians would be added for traffic control, which is a departure from the current
1804 road design.

1805 The preferred alternative would have no impact to the Chimney Rock National Historic Site as this site
1806 is nearly 8 miles south of the project, and the view of the site would not be obstructed.

1807 4.11.4 Avoidance, Minimization, and Mitigation

1808 Based on the information provided above, no mitigation measures for visual and aesthetic impacts
1809 would be required for the project.

1810 4.12 Section 4(f) Properties

1811 Section 4(f) of the US Department of Transportation Act of 1966 (49 USC 303) provides special
1812 protection for **publicly owned parks and recreational lands, wildlife and waterfowl refuges, and**
1813 **significant public or private historic properties**. An impact, either direct or indirect, on one of these
1814 resources is considered a "use." A "use" of a Section 4(f) resource, as defined in 23 CFR 774.17,
1815 occurs: (1) when land is permanently incorporated into a transportation facility, (2) when there is a
1816 temporary occupancy of land that is adverse in terms of the statute's preservationist purpose, or (3)
1817 when there is a "constructive" (that is, indirect) use of land. The Project alternatives were evaluated
1818 based on impacts on Section 4(f) resources identified within the Study Area.

1819 **4.12.1 Affected Environment**

1820 Eight resources were studied as part of the Section 4(f) review. These include the Minatare Canal, the
1821 Tri-State Canal, the Lowline Canal (Interstate Canal), Sod House (M000-073), Harry’s Curve Historic
1822 District, Minatare Park, Minatare Elementary School, and Minatare High School (**Figure 4.1**).

1823 As discussed in **Section 4.4, Community Impact Assessment**, there are three recreational properties
1824 within the Study Area: Minatare Elementary School, Minatare High School, and Minatare City Park.
1825 Minatare High School, including the track, football field, and practice field, is located one block south
1826 of US-26 between Main Street and 3rd Avenue in Minatare. Minatare High School is a multi-use
1827 property. The buildings located on the north side of the parcel are not intended for recreational use
1828 and are not open to the public. The track, football field, and practice field are always open for public
1829 use when not in use by the school and fall under Section 4(f) protection. Minatare Elementary School
1830 is located two blocks south of US-26 between Avenue A and Avenue B in Minatare. Minatare
1831 Elementary School is a multi-use property. The buildings located on the west side of the parcel are not
1832 intended for recreational use and are not open to the public. The playground is always open for public
1833 use when not in use by the school and falls under Section 4(f) protection. Minatare Park is located one
1834 block south of US-26 between Avenue A and Main Street in Minatare. Minatare Park is a recreational
1835 property and is always open for public use and falls under Section 4(f) protection.

1836 As discussed in **Section 4.9, Historic Properties**, there are five NRHP-eligible properties within the
1837 Study Area: Harry’s Curve Historic District, Sod House (M000-073), Minatare Canal, Tri-State Canal,
1838 and Interstate Canal Lowline Canal. Harry’s Curve Historic District, the Tri-State Canal, the Minatare
1839 Canal, and the Interstate Canal are eligible for listing in the NRHP under Criteria A. The Sod House
1840 (M000-073) is eligible for listing in the NRHP under Criterion C. The Nebraska SHPO concurred with
1841 this finding on June 6, 2024. Historic properties are also protected under Section 4(f) and require
1842 consideration of potential use separately from the determination effects under Section 106.

1843 The NDOT Section 4(f) Initial Assessment Form, which describes the potential Section 4(f) resources
1844 in the area and how they were identified and evaluated, is provided in **Appendix G**.

1845 **4.12.2 Impacts of the No Build Alternative**

1846 There would be no construction of the Project with the No Build Alternative. As a result, there would be
1847 no impacts on the properties listed above beyond those needed to complete routine roadway and
1848 bridge maintenance activities.

1849 **4.12.3 Impacts of the Preferred Alternative**

1850 As discussed in **Section 4.9, Historic Properties**, the Preferred Alternative would impact the **Sod**
1851 **House**, including removal of a windbreak and acquisition of ROW on the west side of the NRHP site
1852 boundary. The Preferred Alternative would impact approximately 0.029 acres of this 0.25-acre NRHP
1853 boundary. The Nebraska SHPO concurred with the “No Adverse Effect” determination on June 6, 2024.
1854 A Section 4(f) de minimis for Historic Sites (23 CFR 774.3(b)) applies and can be found in **Appendix G**.

1855 Approximately 6,430 square feet of temporary easement would be required to construct the new
1856 westbound lanes of US-26 along the south side of the **Harry’s Curve Historic District** property. There
1857 are multiple driveways onto the property from US-26, and the construction of the new lanes and new
1858 access control would result in the retention of one driveway. Existing culverts parallel and adjacent to
1859 the property would be removed and replaced. The historic signs would remain and would not be
1860 affected. Overall, there would be no effect to Harry’s Curve Historic District. The Nebraska SHPO
1861 concurred with the “No Historic Properties Affected” determination on June 6, 2024. A Section 4(f) de
1862 minimis for Historic Sites (23 CFR 774.3(b)) applies and can be found in **Appendix G**.

1863 Construction activities at the Minatare Canal, Tri-State Canal, and Interstate Canal would involve
1864 extension of the box culverts as described in **Section 4.8 Irrigation Canals and Districts**. These
1865 impacts would not affect the historic properties, as described in **Section 4.9 Historic Properties**, but
1866 would require further consideration under Section 4(f).

1867 **Minatare Canal**

1868 As part of the project, the endpoint of the Minatare Canal (US-26 MM 34.64) would be shifted slightly
1869 north, with a new pipe installation to connect to the Minatare drain. All connectivity with the larger
1870 canal system would be maintained, ensuring no adverse effects on historic properties. NDOT may
1871 acquire additional property rights, such as temporary or permanent easements, or new ROW, but
1872 these acquisitions would not impact the canal's historic significance. Visual, noise, and vibratory
1873 effects during construction would be minimal and temporary. No long-term or cumulative effects are
1874 expected, and the Minatare Canal & Irrigation Company would retain its NRHP significance under
1875 Criterion A. A Section 4(f) de minimis for Historic Sites (23 CFR 774.3(b)) applies and can be found in
1876 **Appendix G**.

1877 **Tri-State Canal**

1878 The Tri-State Canal crosses L62A three times (MM 5.37, MM 5.81, MM 6.13), with construction
1879 planned at each crossing to extend culverts. The project would not disrupt the canal's connectivity or
1880 its NRHP significance, as the system's function will remain intact. NDOT would acquire additional
1881 permanent easements, generally extending about 20 feet beyond construction limits, but these would
1882 not impact the canal's historic characteristics. Any visual, noise, or vibratory effects during
1883 construction would be minimal and temporary. No long-term or cumulative effects are expected, and
1884 the Tri-State Canal will continue to retain its NRHP significance under Criterion A. A Section 4(f) de
1885 minimis for Historic Sites (23 CFR 774.3(b)) applies and can be found in **Appendix G**.

1886 **Interstate Canal**

1887 At approximately MM 7.43 along L62A, a single-barrel culvert would be extended to the north. This
1888 improvement would maintain the system's functionality, without impacting historic properties. NDOT
1889 would acquire an additional permanent easement extending about 20 feet beyond the current limits of
1890 construction (LOCs) to maintain highway assets. The new easement would not affect the canal's
1891 historic characteristics. Visual, noise, and vibratory effects during construction would be minimal and
1892 temporary, with no long-term or cumulative impacts anticipated. The Interstate Canal would retain its
1893 NRHP significance under Criterion A. A Section 4(f) de minimis for Historic Sites (23 CFR 774.3(b))
1894 applies and can be found in **Appendix G**.

1895

1896 No temporary easements or other property acquisitions are proposed for Minatare Elementary School,
1897 Minatare High School, or Minatare City Park. Access to all three properties would be maintained at all
1898 times, and access to US-26 would remain open at one of the intersections, either Main Street or 3rd
1899 Street, during the closure of the other.

1900 **4.12.4 Avoidance, Minimization, and Mitigation**

1901 ROW acquisition is proposed at Sod House (M000-073). Other alternatives considered earlier in
1902 project development involved removing most or all of the historic property. The current alignment
1903 reduced the impacts to ROW acquisition and tree removal only. The limits of construction are being
1904 kept outside the NRHP boundary for the site.

1905 Temporary easements would be required for the construction along Harry's Curve. No construction
1906 would occur within the boundary of this NRHP eligible property. There are three access drives to
1907 Harry's Curve that would be consolidated into one access drive. There would be no impacts to the
1908 property or the character defining features that protect it for Section 4(f).

1909 The design at canal locations has been minimized to the extent practicable to construct the new box
1910 culverts while maintaining the integrity of the irrigation system. Construction activities will be
1911 scheduled and managed to ensure that irrigation water flow is not disrupted during periods of required
1912 use.

1913 There would be no use of the remaining Section 4(f) properties as they are outside of the limits of
1914 construction and have no potential to be impacted. Specifically, construction would not impact these
1915 properties, property rights would not be required, and access would not be restricted.

1916 **Commitments**

1917 The contractor shall not complete work, stage, stockpile or store materials within the boundaries of
1918 the following Section 4(f) properties: Minatare Elementary School, Minatare High School, and Minatare
1919 City Park. If it is determined that temporary or permanent right-of-way is required from or access is
1920 restricted to a Section 4(f) property, coordination shall occur with NDOT Environmental. (Contractor)

1921 The following properties shall be marked on the project plans as sensitive areas: Minatare Elementary
1922 School, Minatare High School, and Minatare City Park. (Design)

1923 **4.13 Section 6(f) Properties**

1924 Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 (54 USC 200301–2000310)
1925 restricts the conversion of recreational land to non-recreational land if the land was acquired with
1926 money from the LWCF. The Nebraska Game and Parks Commission (NGPC) reviewed the project for
1927 LWCF Act encumbered lands on June 14, 2024. The review found that there was one property within
1928 the Study Area, Minatare City Park. As described in **Section 4.12, Section 4(f) Properties**, there would
1929 be no direct impacts to this park, and there would also be no restriction of access to the park.
1930 Therefore, no further action is needed. Coordination with NGPC can be found in **Appendix H**.

1931 **4.14 Hazardous Materials**

1932 Hazardous materials, defined as substances that, because of their quantity, concentration, or physical,
1933 chemical, or infectious characteristics, may present a threat to public health or the environment.

1934 Hazardous materials are regulated by EPA and other federal and state agencies under the Toxic
1935 Substances Control Act of 1976 (15 USC 2601 et seq.); the Comprehensive Environmental Response,
1936 Compensation, and Liability Act of 1980 (42 USC 9601 et seq.); the Resource Conservation and
1937 Recovery Act of 1976 (RCRA; 42 USC 6901 et seq.); the Superfund Amendments and Reauthorization
1938 Act of 1986; and the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 355).
1939 RCRA gives EPA the authority to control hazardous waste from “cradle to grave.” This includes the
1940 generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a
1941 framework for the management of non-hazardous solid waste. The 1986 amendments to RCRA
1942 enabled EPA to address environmental problems that could result from underground tanks storing
1943 petroleum and other hazardous substances. Nebraska Administrative Code Title 128, Nebraska
1944 Hazardous Waste Regulations regulates hazardous wastes in the state.

1945 **4.14.1 Affected Environment**

1946 An initial Hazardous Materials Review (HMR) was prepared in 2021 by Benesch to identify
1947 environmental concerns associated with hazardous materials and petroleum products which could
1948 potentially be encountered during the construction project. The HMR included the review of the
1949 Nebraska Department of Environment & Energy (NDEE) Interactive Mapping System (IMS),
1950 Environmental Protection Agency (EPA) Enviromapper website, Nebraska State Fire Marshal (SFM)
1951 underground storage tank (UST) database, review of historical records, reviewing US Geological

- 1952 Survey topographic maps and historic aerial photography, an inquiry to the Minatare-Melbeta Fire
1953 Department, a visual reconnaissance, and a subsurface investigation.
- 1954 A visual reconnaissance was conducted on July 29, 2021 to assess the Study Area for potential
1955 hazardous materials concerns associated with current land use and observable site activities. The
1956 visual reconnaissance identified several current and historical cattle feedlots (CAFOs) and are located
1957 adjoining the project corridor. Two farmsteads with aboveground storage tanks (ASTs) were also
1958 observed. It was noted that the One Stop gasoline service station is located approximately ¼ mile east
1959 of Minatare, and is located adjacent to the project alignment. The visual reconnaissance also
1960 identified a natural gas pipeline that intersects the project corridor.
- 1961 Upon review of the HMR, NDOT found that two medium potential sites, Minatare Plaza (aka Harry's
1962 Curve or Harry's One Stop) and Tony's Service Station, required further investigation due to the
1963 potential for petroleum contamination. As both sites were former gas stations, a subsurface
1964 investigation was deemed necessary to accurately locate any potential underground storage tanks
1965 (USTs). Thus, Benesch and NDOT conducted a subsurface investigation on December 3, 2022, using
1966 Ground Penetrating Radar (GPR) at the two sites. The investigation revealed that no USTs were
1967 present at Harry's One Stop, while Tony's Service Station had one UST identified and a potential
1968 second.
- 1969 In 2024, NDOT prepared an updated HMR utilizing their latest guidance and the current project
1970 description. The results of this HMR (**Appendix I**) are considered the final report and are presented
1971 below.
- 1972 **Medium potential sites:**
- 1973 Minatare Plaza (Harry's One Stop) is a facility located near the City of Minatare, adjacent to the project
1974 limits, with active Leaking Storage Tank (LST) and Release Assessment (RA) designations, as well as
1975 an inactive Integrated Waste Management (IWM) designation. Petroleum contamination related to
1976 releases occurring at this service station is currently being monitored. Groundwater is impacted with
1977 two groundwater wells having benzene sampled above Risk-based Screening Levels (RBSLs) near the
1978 project. However, remedial excavation has removed a significant amount of source area
1979 contamination from the soil. With a depth of groundwater at 5ft below ground surface (bgs) and
1980 grading for the north alignment running through the monitoring area, this facility has a medium
1981 potential to impact human health or the environment, requiring contamination and monitoring well
1982 commitments.
- 1983 Former Tony's Service Station is an abandoned gasoline station located on the NE corner of the
1984 intersection at US-26 and L62A, east side of CR 75. Ground Penetrating Radar (GPR) revealed one
1985 underground storage tank (UST), and a possible second UST, which need to be excavated before
1986 construction can proceed. It is unclear if there is contamination on the site. Due to the discovery of the
1987 USTs and uncertainty regarding the presence of contamination, the property has a medium potential
1988 to impact human health or the environment, and a medium potential contamination commitment
1989 would be required.
- 1990 **Low potential sites:**
- 1991 The JHC Cattle Company LLC, Darwin Adams Acreage, and Winner Circle Feedyard are facilities with a
1992 low potential to impact human health or the environment. JHC Cattle Company LLC had a 400-gallon
1993 fertilizer leak, but the case closed with no further action anticipated. Darwin Adams Acreage has an
1994 inactive IWM designation, but no documentation is available to determine if there are any persisting
1995 hazardous materials of concern. Winner Circle Feedyard had contamination during the removal of fuel
1996 tanks, over-excavation was performed during clean-up, and no groundwater was found during
1997 excavation. Therefore, due to the scope of work, distance to the project, and findings reported; these
1998 facilities have a low potential to impact human health or the environment.

1999 **Table 4.5** identifies these sites and anticipated impacts to the project. **Figure 4.1** shows the locations
2000 of the sites.

2001 **Table 4.5 Hazardous Materials Sites in the Study Area**

Facility name	Location	Facility Status	Potential to Impact	Distance Relative to Project
Minatare Plaza (Harry's One Stop)	300294 Highway 26, Minatare, NE	IWM (I), LST (A), RA	Medium	Adjacent
Former Tony's Service Station	NE corner of the intersection at US-26 and L62A, east side of County Road 75.	UST (unknown if active/inactive)	Medium	Adjacent
JHC Cattle Company LLC	L62A MM 3.74	IWM (I)	Low	100ft south
Darwin Adams Acreage	8527 L62A, Bayard, NE	IWM (I)	Low	200ft north
Winner Circle Feedyard	320094 Granada Rd, Bayard, NE	LST (I)	Low	500ft north

2002 ¹ IWM = Integrated Waste Management; LST = Leaking Storage Tanks; UST = Underground Storage Tank.
2003 ² (A) = Active; (I) = Inactive.

2004 4.14.2 Impacts of the No Build Alternative

2005 The No Build Alternative does not involve any new ROW or construction activities other than general
2006 maintenance to existing roadways. As a result, the No Build Alternative does not have any effect to or
2007 from any known hazardous materials sites.

2008 4.14.3 Impacts of the Preferred Alternative

2009 Two hazardous material sites were identified that could impact the project. The Preferred Alternative
2010 and associated new ROW and construction activities would intersect the Minatare Plaza (Harry's One
2011 Stop) and Tony's Service Station locations. Based on the database search, aerial photography review,
2012 site reconnaissance, and the Preferred Alternative alignment, both of these sites are identified as
2013 having a medium potential to affect construction or cause a material management or worker health
2014 and safety concern, or both, related to construction of the Preferred Alternative.

2015 Due to the findings of hazardous material impacts, there is a medium potential of encountering
2016 contamination during project excavations. It is recommended that no further investigation is
2017 necessary. A Medium Potential Commitment would be required. Any building structures to be
2018 demolished would require inspections for asbestos and there is the potential need for toxic metal/lead
2019 paint disposal.

2020 4.14.4 Avoidance, Minimization, and Mitigation

2021 Commitments:

2022 The following commitments are needed for the preferred alternative. It should be noted that the
2023 specific “Contractor Commitments” are those that would be included in the contract documents and
2024 provide more basic information for field personnel. All commitments below are included in **Chapter 6**.

2025 Unexpected Waste:

2026 If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all
2027 work within the immediate area. The Contractor shall secure the area of the discovery and notify the
2028 Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by
2029 the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste
2030 Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are
2031 (but not limited to): verification that the Contractor has suspended construction activities in the area
2032 of the discovery, contact the Roadside Development & Compliance Unit (RDCU) hazmat representative
2033 and make an entry into AASHTOware Project that an unexpected waste discovery was made. The
2034 HPM shall then utilize the UWAP Notification Form (NDOT Form 691) to properly document the extent
2035 and type of waste. The HPM will ensure that proper disposal of the waste and any required health and
2036 safety mitigation is implemented by the Contractor. The Contractor is required by NDOT's Standard
2037 Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated
2038 material in accordance with applicable laws.

2039 Contractor Commitment: If contaminated soils/groundwater or unexpected wastes are discovered,
2040 The Contractor shall stop all work within the immediate area. The Contractor shall limit access to
2041 authorized personnel within the area of the discovery and notify the Highway Project Manager (HPM).
2042 The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery,
2043 the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate
2044 appropriate actions. The Contractor is required by NDOT's Standard Specification section 107.11
2045 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with
2046 applicable laws.

2047 Encountering Contamination:

2048 There is a medium potential for petroleum contamination to be present in the soils/groundwater at
2049 project Minatare-US-385 (CN 51521), as well as at least one confirmed UST that will require
2050 excavation. Two locations identified below will have a medium potential for contamination to impact
2051 the project:

2052 **Minatare Plaza:** North side of US-26 from MM 33.30 to 33.40. Potential to encounter existing
2053 petroleum contamination in active monitoring area during grading.

2054 **Former Tony's Service Station:** NE corner of US-26 and L62A intersection from L62A MM 0.15
2055 to 0.20. Existence of at least one underground storage tank in the SW corner of this parcel
2056 was confirmed with ground penetrating radar. Potential for a second tank exists adjacent to
2057 the north of the first tank.

2058 The Contractor shall be aware of the possibility of encountering contamination in this area during
2059 construction activities and look for signs such as odor and/or discolored soil. The Highway Project
2060 Manager shall be notified seven days prior to when construction is expected to begin in the suspect
2061 area. If contamination is discovered, all work in the immediate area shall be stopped until the
2062 Nebraska Department of Environment & Energy (NDEE) and NDOT RDCU hazmat representative are
2063 notified, and a materials management plan has been developed and approved. The Contractor shall
2064 manage the waste in accordance with Title 128, Nebraska Hazardous Waste Regulations and/or Title
2065 132 Integrated Solid Waste Management Regulations. The Contractor is required by Standard

2066 Specification Section 107, Legal Relations and Responsibilities To The Public, to handle and dispose
2067 of contaminated material in accordance with applicable laws.

2068 A licensed contractor will be required to remove the tank/s at the former Tony's Service Station
2069 location. The licensed contractor shall provide Closure Assessment Report (CAR) services, including
2070 excavation pit field samples, for submittal to the Nebraska State Fire Marshal. The CAR will be
2071 conducted in accordance with NDEE regulations detailed in Petroleum Underground Storage Tanks:
2072 Closure Assessment Sample Collection and Over-Excavation, Revised September 2022.

2073 Remediation of hazardous materials at the Minatare Plaza located between MM 33.30 and 33.40 on
2074 US-26, if any, will be paid for as extra work according to Subsection 104.02, paragraph 5 and
2075 Subsection 109.05 of the Standard Specifications. Removal of the tank(s) at the former Tony's Service
2076 Station located at MM 0.18 on L62A will be paid for as "Clear Tract" in accordance with the Special
2077 Provision titled "Clear Tract at MM 0.18 on L62A".

2078 **Monitoring/Remediation Wells:**

2079 There are one or more monitoring wells and/or soil vapor extraction (SVE) wells at Minatare Plaza
2080 located on US-26 between MM 33.30 to 33.40 at the Minatare Plaza facility. The monitoring/SVE wells
2081 will be located and marked by the Highway Project Manager (HPM) in the field. Construction activities
2082 near the wells will be performed as to avoid damage to the wells. In the event that a monitoring/SVE
2083 well is damaged, the Contractor shall notify the HPM immediately. The NDOT HPM will coordinate
2084 with the NDOT RDCU hazmat representative for guidance regarding remediation of the damage. The
2085 Contractor shall remediate any damaged monitoring/SVE wells as directed by the Engineer. The HPM
2086 will upload documentation of the Contractor's remediation to OnBase (NDOT Dist. Environmental,
2087 description: monitoring well remediation).

2088 Contractor Commitment: The Contractor shall avoid damaging any monitoring or SVE well as marked
2089 in plans or in the field. In the event that a monitoring well/SVE well is damaged, the Contractor shall
2090 stop work at that location and notify the Highway Project Manager immediately. The Contractor shall
2091 comply with the Engineer's direction concerning remediation of damaged monitoring/SVE wells and
2092 shall not continue construction activities in the vicinity of the damaged well until notified by the
2093 Engineer.

2094 **Asbestos:**

2095 The Contractor shall survey any building structures acquired for demolition for the presence or
2096 absence of asbestos containing material (ACM). The inspector must be certified in accordance with
2097 the Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control
2098 Program Regulations, Title 178. A list of Licensed Asbestos Inspectors can be found at:
2099 <http://dhhs.ne.gov/Pages/Asbestos.aspx>. Documentation of the survey shall be provided to the
2100 Highway Project Manager by the Contractor prior to structure demolition. The Highway Project
2101 Manager will record survey documentation in OnBase.

2102 If ACM is found to be present, removal and disposal of the ACM shall be in accordance with DHHS
2103 Nebraska Asbestos Control Program Regulations, Title 178 and will occur prior to any bridge
2104 demolition or renovation activities. The Contractor shall develop a removal and disposal plan in
2105 coordination with a licensed asbestos removal contractor and NDOT. A list of licensed asbestos
2106 removal contractors can be found at: <http://dhhs.ne.gov/Pages/Asbestos.aspx>

2107 Contractor Commitment: The Contractor shall survey any building structures acquired for demolition
2108 for the presence or absence of asbestos containing material (ACM). The Contractor's inspector must
2109 be certified in accordance with the Nebraska Department of Health and Human Services (DHHS)
2110 Nebraska Asbestos Control Program Regulations, Title 178. If ACM is found to be present, the
2111 Contractor shall develop a removal and disposal plan in coordination with a licensed asbestos
2112 removal contractor.

2113 **Building Removal:**

2114 (Standard Specifications for Highway Construction 2017 Section 203.01; paragraph 4.)

2115 a. It shall be the responsibility of the Contractor to determine if any of the buildings to be
2116 removed have materials containing asbestos. If it is determined that some or all of the
2117 buildings contain asbestos, the asbestos shall be removed prior to the building removal. All
2118 asbestos shall be removed in accordance with State of Nebraska Health and Human Services
2119 Department, Environmental Protection Agency, and the Nebraska Department of Environment
2120 and Energy regulations. A Contractor trained and certified in asbestos handling shall perform
2121 all asbestos removal and handling operations.

2122 b. The work of determining if any of the buildings contain asbestos shall be considered
2123 subsidiary to the item "Remove Building at ____."

2124 c. The work of asbestos abatement will be paid for as "Extra Work" as described in Subsection
2125 104.04.

2126 Contractor Commitment: The Contractor shall submit a written National Emissions Standards for
2127 Hazardous Air Pollutants (NESHAP) notification to the Nebraska Department of Environment and
2128 Energy (NDEE) and a Department of Health and Human Services (DHHS) Form 5 at least 10 business
2129 days prior to demolition/renovation. The 10-day clock starts when the NESHAP and Form 5
2130 notifications are post marked, hand delivered, or picked up by a commercial delivery service. Faxing
2131 documents is prohibited. The Contractor shall provide the Highway Project Manager copies of the
2132 notifications and their submittal date prior to demolition/renovation activities. The Highway Project
2133 Manager will upload NDEE NESHAP and DHHS Form 5 documentation to OnBase.

2134 **Toxic Metal-Based Paint/Lead-Based Paint:**

2135 There is potential for lead or toxic metal-based paint to be found on the structures to be demolished or
2136 repaired. Regardless of toxicity, extreme caution shall be taken to minimize the amount of painted
2137 material or debris from causing or threatening to cause pollution of the air, land, and waters of the
2138 State. The Contractor shall create an implementation plan to dispose of paint waste in accordance
2139 with NDOT's Standard Specification for Highway Construction Section 732 (Lead-based Paint
2140 Removal) and Title 128 Nebraska Hazardous Waste Regulations. The Contractor's implementation
2141 plan shall be provided to the HPM and documented in OnBase.

2142 **4.15 Air Quality**

2143 The Clean Air Act Amendments of 1990 (42 USC 7401 et seq.) control air toxic emissions in the United
2144 States and regulate 188 air toxics, including Mobile Source Air Toxics (MSAT). FHWA has developed a
2145 tiered approach with the following three categories for analyzing MSATs in NEPA documents,
2146 depending on specific project circumstances:

- 2147
- 2148 • MSAT I – No analysis for projects with no potential for meaningful MSAT effects
 - 2149 • MSAT II – Qualitative analysis for projects with low potential MSAT effects
 - 2150 • MSAT III – Qualitative analysis to differentiate alternatives for projects with higher potential MSAT effects

2151 In addition to MSAT concerns, FHWA has developed mitigation strategies to reduce transportation
2152 greenhouse gas emissions. NDOT and the Nebraska Department of Environment and Energy (NDEE)
2153 entered into a Memorandum of Understanding in 2021 where NDOT adheres to the MSAT guidance
2154 and NDEE monitors National Ambient Air Quality Standards (NDOT and NDEE 2021). Under the
2155 Memorandum of Understanding, NDOT and NDEE commit to future exchanges of information
2156 regarding non-attainment determinations, future highway projects, potential environmental issues, and
2157 other issues of common interest.

2158 **4.15.1 Affected Environment**

2159 The US Environmental Protection Agency (EPA) publishes a list of the annual nonattainment and
2160 maintenance status for each county by state under the National Ambient Air Quality Standards (EPA
2161 2023). Any county not listed has been designated in attainment since 1992. Scotts Bluff and Morrill
2162 Counties are currently in attainment for all criteria pollutants. In consideration of the scope of the
2163 Project, an MSAT II Qualitative Memo was developed and is located in **Appendix J**. For each
2164 alternative of the EA, the amount of MSAT emitted was assessed in relation to vehicle miles traveled
2165 (VMT).

2166 **4.15.2 Impacts of the No Build Alternative**

2167 There would be no construction of the Project with the No Build Alternative. As a result, there would be
2168 no new ROW or construction activities beyond those needed to complete routine roadway and bridge
2169 maintenance activities. The amount of MSATs emitted would be proportional to the VMT, assuming
2170 that other variables such as fleet mix are the same. Therefore, there would be no impacts on air
2171 quality.

2172 **4.15.3 Impacts of the Preferred Alternative**

2173 The VMT estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative
2174 because the additional capacity would increase the efficiency of the roadway and would attract
2175 rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher
2176 MSAT emissions along the highway corridor, along with a corresponding decrease in MSAT emissions
2177 along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates
2178 due to increased speeds. According to EPA's MOVES2014 model, emissions of all priority MSATs
2179 decrease as speed increases. Because the estimated cumulative VMT is nearly the same, it is
2180 expected that there would be no appreciable difference in overall MSAT emissions. The annual
2181 average daily traffic (AADT) for this Project through 2045 is forecast to be no more than 4,665 in any
2182 given year; this is well below the threshold of 140,000 to 150,000 AADT that would require MSAT III
2183 analysis.

2184 Emissions would likely be lower than present levels in the design year because of EPA's national
2185 control programs that are projected to reduce annual MSAT emissions by over 90 percent between
2186 2010 and 2050 (FHWA 2016). Local conditions may differ from these national projections in terms of
2187 fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the
2188 EPA-projected reductions is so great, even after accounting for VMT growth, that MSAT emissions of
2189 the Preferred Alternative are likely to be lower in the future.

2190 Temporary impacts on air quality during construction may occur due to emissions and dust from
2191 construction equipment. These impacts would be temporary and would not create a non-attainment
2192 status within the Study Area.

2193 **4.15.4 Avoidance, Minimization, and Mitigation**

2194 Short-term adverse effects on air quality resulting from construction would be addressed or
2195 minimized through NDOT's Standard Specifications for Highway Construction. Since Scotts Bluff and
2196 Morrill Counties are currently in attainment, and the Preferred Alternative would result in no
2197 appreciable difference in overall MSAT emissions, no project-specific mitigation is proposed.

2198 **4.16 Noise**

2199 Automobile noise primarily comprises sounds from engine exhaust, drive train, and tire/roadway
2200 interaction. This Draft EA is supported by an analysis of noise that is presented in the Traffic Noise
2201 Technical Memorandum found in **Appendix K**, which has been prepared in accordance with 23 CFR
2202 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*; the FHWA *Highway*
2203 *Traffic Noise Analysis and Abatement Policy and Guidance* (FHWA 1995), and NDOT *Noise Analysis and*
2204 *Abatement Policy* (NDOT 2024).

2205 FHWA’s *Procedures for Abatement of Highway Traffic Noise* (23 CFR 772) state that a noise impact
2206 occurs when the predicted traffic noise levels for a project approach²⁷ or exceed noise abatement
2207 criteria for the land use activity categories shown in **Table 4.6**.

2208 **Table 4.6 Noise Abatement Criteria per Land Use Activity**

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

2209 Leq(h) = 1-hour equivalent sound level

2210 ¹ The Leq(h) Activity Criteria values are for impact determination only and are not design standards for noise abatement.

2211 ² Includes undeveloped lands permitted for this activity category.

2212 **4.16.1 Affected Environment**

2213 NDOT conducted a noise study for the proposed project (**Appendix K**). The primary tasks for the study
2214 were to identify receivers that approached or exceeded the Noise Abatement Criteria determined for
2215 different types of receivers and to determine the relative change in traffic noise levels anticipated due
2216 to the changes in alignment. Noise levels were predicted for 2021 Existing, 2045 No-Build conditions,
2217 and 2045 Build conditions. The Traffic Noise Model (TNM) was applied using the appropriate roadway,
2218 traffic, and sensitive receiver information to predict the noise levels for each scenario.

2219 Much of the project alignment is in a rural environment with ranching and farming land uses. Highway
2220 traffic influences ambient noise levels in these rural areas. The west end of the project alignment is
2221 located within the City of Minatare and has a variety of land uses that influence ambient noise;
2222 including highway traffic, industrial, and residential uses.

²⁷ Approach is defined as noise levels within 1 A-weighted decibel (dBA) of the Noise Abatement Criteria for the activity category.

2223 In the Study Area, noise levels were measured at seventy-four (74) noise-sensitive receptors
2224 representing sixty (60) residences, four receivers were identified to represent businesses along the
2225 corridor and one receiver each was placed to represent a church and an agricultural shed. Additional
2226 information on noise levels within the Study Area is in **Appendix K**.

2227 4.16.2 Impacts of the No Build Alternative

2228 Its anticipated that traffic would increase throughout this corridor, therefore even with a no build
2229 alternative, there would be minimal noise impacts associated with this alternative.

2230 4.16.3 Impacts of the Preferred Alternative

2231 The predicted noise levels indicated that there are no instances of build condition noise levels
2232 substantially exceeding no-build condition noise levels in the study area (increase of 15 dBA [A
2233 weighted decibels] over the existing levels).

2234 Results of the analysis showed that:

2235 No receivers experienced noise levels approaching or exceeding the Noise Abatement Criteria for the
2236 future build scenario.

2237 2045 no-build noise levels increased between one (1) and two (2) dBA compared to existing levels
2238 (2021). Note that in general, a 1 dBA change is the smallest change in noise level a person can hear in
2239 a quiet environment, and changes in traffic noise levels of one or two dBA typically cannot be detected
2240 by humans (**Appendix K**, Noise Study).

2241 Noise levels typically increased by 1 or 2 dBA when comparing the 2045 No-Build and 2045 Build
2242 scenarios.

2243 The noise analysis indicates that no receivers analyzed would have a noise impact in the year 2045
2244 Build scenario due to noise levels approaching or exceeding the Noise Abatement Criteria. Six (6)
2245 receptors are anticipated to have noise impacts resulting from the build alternative, however, the
2246 residential structures represented by these receptors are all planned for relocation or removal as part
2247 of the planned construction activities within the build alternative.

2248 4.16.4 Avoidance, Minimization, and Mitigation

2249 **Commitments:**

2250 Exhaust and muffler systems on construction equipment would be in good working order.
2251 Construction equipment would be maintained on a regular basis, and equipment may be subject to
2252 inspection by the construction project manager to ensure maintenance. (Contractor, NDOT Project
2253 Manager [PM])

2254 The Contractor would locate noise-emitting stationary equipment (for example, compressors, and
2255 generators) to avoid unnecessary impacts on residents and businesses. (Contractor, NDOT PM)

2256 Noise impacts are based on conceptual design. Additional design refinement and coordination
2257 regarding noise abatement would occur during the final design stages per NDOT's Noise Analysis and
2258 Abatement Policy. (NDOT Environmental)

2259 4.17 Wild and Scenic Rivers

2260 The National Wild and Scenic Rivers System preserves certain rivers with outstanding natural, cultural,
2261 and recreational values. Two rivers within Nebraska are designated as part of the National Wild and
2262 Scenic Rivers System, the Missouri River and Niobrara River (Interagency Wild and Scenic Rivers
2263 Coordinating Council 2019). The Project is not located within the Missouri River or Niobrara River
2264 reaches. No Nationwide Rivers Inventory resources were identified in the Study Area (National Park
2265 Service 2017).

2266 4.18 Floodplains

2267 A floodplain is any land area susceptible to being inundated by floodwaters from any source. A flood
2268 zone is a defined geographic area with a specific flood hazard risk based on the probability and
2269 impact of flooding on that area and is used to determine insurance requirements and costs. The
2270 Federal Emergency Management Agency (FEMA) classifies flood zones among five categories: low
2271 risk, moderate risk, high risk, coastal high risk, and undetermined risk. FEMA defines high risk areas as
2272 Zone A (or AE, AH, AO, AR, and A99), which are subject to inundation by the 1 percent annual chance
2273 exceedance event, also known as the 100-year or base flood event. A floodway is defined by FEMA as
2274 the channel of a river or other watercourse and the adjacent land areas that must be reserved in order
2275 to discharge the base flood without cumulatively increasing the water surface elevation more than a
2276 designated height. Executive Order 11988, *Floodplain Management*, directs federal agencies to avoid
2277 long- and short-term adverse impacts associated with modifying floodplains. FHWA regulations
2278 governing encroachments in floodplains are found in 23 CFR 650. FEMA administers the National
2279 Flood Insurance Program (NFIP), which also establishes standards for compliance.

2280 Local jurisdictions (counties and cities) enforce the federal requirements to maintain participation in
2281 the FEMA NFIP. In Nebraska, floodplain regulations require a floodplain permit for any project that
2282 could affect a mapped, regulated 100-year floodplain or floodway.

2283 4.18.1 Affected Environment

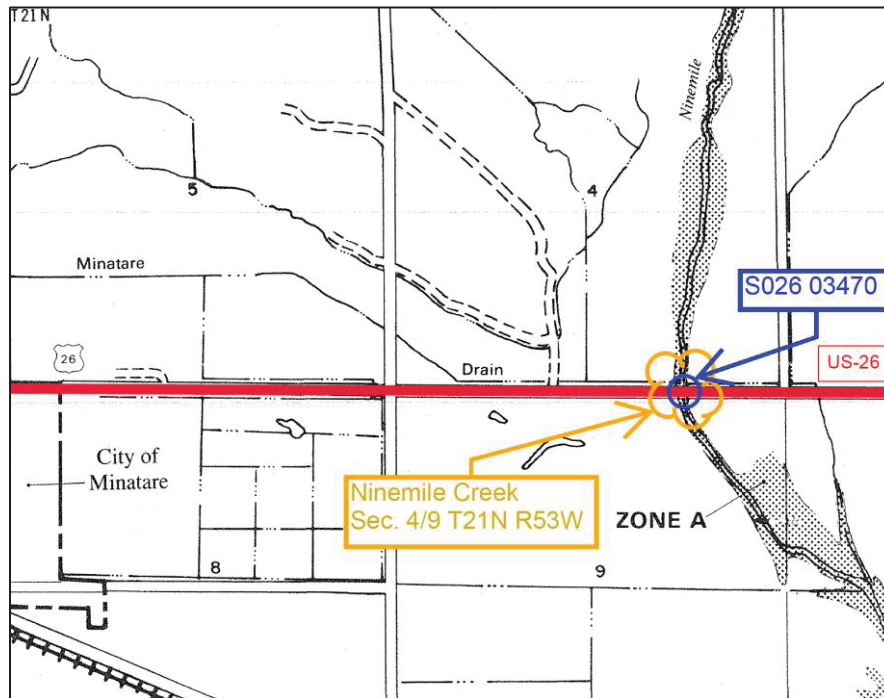
2284 The project was reviewed for its impact to floodplains within the State of Nebraska. The following
2285 floodplains communities are located within the Study Area: City of Minatare, County of Scotts Bluff,
2286 and County of Morrill.

2287 In Scottsbluff County, FEMA's Flood Insurance Rate Maps have designated the Ninemile Creek (US-26
2288 MM 34.70) floodplain as Zone A, located within the study area as shown in **Figure 4.3**. This
2289 designation is based on the Flood Insurance Study dated June 18, 1990, and signifies areas inundated
2290 by the 100-year flood where no base flood elevations are determined. See **Appendix L** for more
2291 information.

2292 The unincorporated areas of Morrill County do not currently participate in the FEMA National Flood
2293 Insurance Program (NFIP), and thus, have no Special Flood Hazard Areas identified. This absence
2294 does not imply a lack of flood hazard areas but indicates areas yet to be assessed. Although these
2295 communities are considered non-participating, state minimum standards would apply. A review of
2296 topographic and flood awareness mapping shows the project overlaps upon one or more Potential
2297 Base Floodplains within the non-participating community. The following floodplain encroachments
2298 were identified in Morrill County:

- 2299 - Wildhorse Drain (US-26 MM 41.15)
- 2300 - Wildhorse Canyon (L62A MM 1.17)
- 2301 - West Water Creek (L62A MM 4.63)
- 2302 - Red Willow Creek (L62A MM 5.95)

2303 **Figure 4.3 Ninemile Creek Zone A Floodplain**



2304 Source: <https://msc.fema.gov/portal/home>

2305

2306 4.18.2 Impacts of the No Build Alternative

2307 There would be no construction of the Project with the No Build Alternative. Floodplain and floodway
2308 impacts may occur as part of other routine roadway and bridge maintenance activities; however,
2309 these impacts would be evaluated on a project-by-project basis.

2310 4.18.3 Impacts of the Preferred Alternative

2311 Based on FEMA Flood Insurance Rate Maps, topographic maps, and flood awareness mapping the
2312 Preferred Alternative encroaches on the following floodplains: Ninemile Creek, Wildhorse Drain,
2313 Wildhorse Creek, West Water Creek and Red Willow Creek. However, the Preferred Alternative is not
2314 anticipated to cause greater than 1 foot of rise in the base flood elevation of the floodplains it crosses,
2315 nor increase the potential for property loss and hazard of life.

2316 Per 23 CFR 650.111; the Preferred Alternative would result in functionally dependent floodplain uses. A
2317 functionally dependent use is one that involves water conveyance at structures such as bridges and
2318 culverts. There would be limited impacts on the natural and beneficial floodplain values of the
2319 floodplains along this Project. Because there would be temporary soil disturbance during construction
2320 activities, sediment and erosion control best management practices (BMP) would be used during
2321 construction, and disturbed areas would be seeded following construction.

2322 There would be no significant encroachment to a base floodplain. The Preferred Alternative would not
2323 result in a base flood causing significant potential interruption or termination of this transportation
2324 facility, which is needed for emergency vehicles or a community's only evacuation route. It also would
2325 not result in a significant risk or potential for loss of life or property due to the base flood. This Project
2326 would not result in a substantial adverse impact on natural and beneficial floodplain values. An
2327 alternatives analysis related to the significance of encroachment into a base floodplain is not
2328 warranted based on the above rationale. This highway improvement project would maintain existing

2329 local and regional access to municipal, rural, and agricultural areas, and would not support
2330 incompatible floodplain development. Therefore, an alternatives analysis related to incompatible
2331 floodplain development is not warranted. A review of floodplain impacts can be found in the NDOT
2332 Floodplain PQS memo found in **Appendix L**.

2333 Temporary impacts on floodplains during construction may occur in the form of construction access
2334 and temporary structures. Floodplain development permits would be obtained prior to construction,
2335 and the Preferred Alternative would comply with local floodplain regulations.

2336 4.18.4 Avoidance, Minimization, and Mitigation

2337 The US-26 and L62A roadway and bridges would be designed to adequately convey flood flows along
2338 existing drainage patterns. Construction of the Project would have floodplain encroachments, but
2339 Project impacts would be certified that federal, state, and local floodplain regulations are met, and a
2340 Floodplain Development Permit would be obtained from the appropriate jurisdictions prior to
2341 construction. All conditions of the permit would be adhered to during construction. (NDOT
2342 Environmental, Contractor)

2343 4.19 Water Quality

2344 Surface Waters (Streams and Lakes)

2345 Nebraska’s surface water resources are surprisingly extensive, including approximately 18,000 miles
2346 of continuously flowing rivers and streams and about 430 square miles of lakes. Wildlife, including
2347 many native fish species, rely on Nebraska’s streams for survival and prosperity. The Nebraska
2348 Department of Environment and Energy (NDEE) develops water quality standards that designate the
2349 beneficial uses to be made of surface waters and the water quality criteria to protect the assigned
2350 uses. Title 117 - Nebraska Surface Water Quality Standards forms the basis of water quality protection
2351 for all surface water quality programs conducted by the department.

2352 Impaired Waters

2353 Section 303(d) of the Clean Water Act (CWA) (33 USC 1251 et seq.) requires states, territories, and
2354 authorized tribes (states) to identify and establish a priority ranking for all waterbodies to determine
2355 which ones are impaired. Once identified, states are to establish total maximum daily loads (TMDL)
2356 for the pollutants causing impairment in those waterbodies and to submit the list of impaired or
2357 unique waterbodies and TMDLs biannually to EPA.

2358 In Nebraska, the 303(d) List of Waters are identified through programs administered by NDEE and
2359 documented in the 2022 Water Quality Integrated Report (NDEE 2023). The 303(d) List of Waters
2360 reports on streams and lakes identified as impaired for one or more pollutants and that do not meet
2361 one or more water quality standards. It also identifies streams and lakes characterized as unique and
2362 sensitive. Impaired and unique waters are identified through assessment and monitoring programs
2363 administered by NDEE and other federal, state, and local agencies.

2364 Groundwater

2365 Groundwater is defined as “water occurring beneath the surface of the ground that fills available
2366 openings in rock or soil materials such that they may be considered saturated” (Nebraska
2367 Administrative Code Title 118). Nebraska Administrative Code Title 118, Ground Water Quality
2368 Standards and Use Classification, is the foundation of the regulatory programs in Nebraska that
2369 protect groundwater quality and prevent contamination in designated areas. Administered by NeDNR,
2370 it provides numerical standards for many parameters and requires that any substance introduced to
2371 groundwater, directly or indirectly, not cause the groundwater to exceed those standards. The NeDNR

2372 is responsible for permitting and maintaining records related to groundwater wells throughout the
2373 state.

2374 **Water Supply and Wellhead Protection Areas**

2375 The Wellhead Protection Area Act (Nebraska Revised Statutes Section 46-1501 et seq.) regulates
2376 potential sources of contamination near municipal and other public wells used to provide drinking
2377 water. The program is managed and enforced by NDEE, which also manages residential, irrigation,
2378 and monitoring wells in Nebraska.

2379 **Stormwater**

2380 Stormwater runoff is regulated through Section 402 of the CWA, and the National Pollution Discharge
2381 Elimination System (NPDES) permit procedures (40 CFR Part 122) . NDEE administers this permit
2382 program and has specific requirements for the control of storm water runoff. NPDES permits are
2383 required for projects involving more than one acre of land disturbance.

2384 **4.19.1 Affected Environment**

2385 **Surface Water (Streams and Lakes)**

2386 There are numerous surface water features along the corridor in the form of irrigation canals, drains,
2387 and streams. No lakes were identified in the study area, with the closest large body of water being the
2388 Minatare Reservoir, approximately 7 miles north. While the irrigation systems are quite complex, a
2389 discussion of their impacts on the corridor can be found in **Section 4.8, Irrigation Canals and Districts**.
2390 The natural surface water streams that intersect the project include Ninemile Creek (US-26 MM
2391 34.70), Wild Horse Drain (US-26 MM 41.15), Wild Horse Canyon (L62A MM 1.17), West Water Creek
2392 (L62A MM 4.63), and Red Willow Creek (L62A MM 5.95) (**Figure 4.1**).

2393 **Impaired Waters**

2394 The 2022 Water Quality Integrated Report was reviewed for the project (**Appendix M**). Ninemile Creek
2395 (US-26 MM 34.70) and Wildhorse Drain (US-26 MM 41.15) are both impaired waterbodies identified in
2396 the Study Area. Ninemile Creek (NP3-11800) and Wildhorse Drain (NP3-10920) were determined to be
2397 recreationally impaired due to *Escherichia coli* (E. coli), but their Aquatic Life and Agricultural Water
2398 Supply uses are supported. These waterbodies are considered Category 5, meaning one or more
2399 beneficial uses are determined to be impaired by one or more pollutants (**Figure 4.1**).

2400 **Groundwater**

2401 The High Plains Aquifer underlies most of Nebraska with much of the geological unit identified as the
2402 Ogallala Formation. In the Study Area from Minatare to the US-26/L62A intersection, alluvium (sand
2403 and gravel) is present which is a good groundwater source. From the US-26/L62A intersection turnoff
2404 to US-385 the Brule Formation is present. It is difficult to find groundwater in this formation. There are
2405 approximately sixteen (16) registered active groundwater wells within the environmental study area:
2406 six (6) irrigation wells, four (4) groundwater quality monitoring wells, three (3) domestic drinking water
2407 wells, two (2) commercial wells, and one (1) livestock drinking water well (NeDNR, 2024).

2408 Because wells in place before 1993 are not required by law to be registered with NeDNR, an unknown
2409 number of unregistered wells may be located within and along the Study Area.

2410 **Water Supply and Wellhead Protection Areas**

2411 The City of Minatare obtains its municipal water supply from the City of Scottsbluff. Residential and
2412 agricultural buildings throughout the rest of the corridor obtain water from groundwater wells, as
2413 explained above.

2414 There was previously one wellhead protection area along the project corridor for the City of Minatare,
2415 but as described above, the City now receives its municipal water supply from the City of Scottsbluff,
2416 and the wellhead protection area has been removed.

2417 **Stormwater**

2418 The entire corridor is currently a 2-lane roadway, with paved shoulders and no curbs or gutters.
2419 Therefore, for most of the corridor, there is no stormwater collection system and runoff flows directly
2420 into roadside ditches; however, there are a few places where there are stormwater inlets to direct flow
2421 into the ditches. Some of the ditches (as explained in **Section 4.8 Irrigation Canals and Districts**) are
2422 both irrigation drains and roadside ditches. Otherwise, there are no stormwater management facilities
2423 along the corridor.

2424 **4.19.2 Impacts of the No Build Alternative**

2425 There would be no construction of the Project with the No Build Alternative. As a result, there would be
2426 no impacts on water quality, current groundwater levels, groundwater quality, or wells beyond those
2427 needed to complete routine roadway and bridge maintenance activities.

2428 **4.19.3 Impacts of the Preferred Alternative**

2429 **Surface Water (Streams and Lakes)**

2430 Impacts on streams, irrigation canals, and drains would be limited to lengthening box culverts or
2431 bridges. Additional information on these impacts can be found in **Section 4.8, Irrigation Canals and**
2432 **Districts** and **Section 4.20, Wetlands and Water Resources**. Information regarding the improvements
2433 at each of the following surface water resources is below.

- 2434 • Ninemile Creek (US26 MM 34.70)
 - 2435 ○ No work on the existing bridge
 - 2436 ○ New bridge to be constructed upstream of the existing to accommodate the proposed
 - 2437 WB lanes
- 2438 • Wild Horse Drain (US26 MM 41.15)
 - 2439 ○ Twin 12' x 12' CBC Bridge to be extended to the north to accommodate the proposed
 - 2440 WB lanes
- 2441 • Wild Horse Canyon (L62A MM 1.17)
 - 2442 ○ MM 1.16 Twin 10' x 10' concrete box culvert. Remove and Build Twin 10' x 10' CBC.
- 2443 • West Water Creek (L62A MM 4.65)
 - 2444 ○ MM 4.63 Twin 10' x 4' concrete box culvert. Remove and Build Twin 10' x 4' CBC.
- 2445 • Red Willow Creek (L62A MM 5.95)
 - 2446 ○ MM 5.95 Quad 13' x 8' concrete box culvert. Remove and Build Quad 13' x 8' CBC.

2447 **Impaired Waters**

2448 According to the NDOT Water Quality PQS Memo prepared on March 29, 2024 (**Appendix M**), the
2449 Preferred Alternative, would not negatively affect Ninemile Creek or Wildhorse Drain because, as a
2450 roadway project, it would not result in the release of E. coli, and, therefore, would not contribute to
2451 additional impairment. While manure is not specified for this project, the preferred alternative would
2452 encounter several feedlots. The Manure Topdressing Special Provisions would identify these locations
2453 and accommodate possible re-use of these stockpiled soils.

2454 **Groundwater**

2455 Due to the inconsistent precision of the well locations in the NeDNR groundwater wells dataset, wells
2456 were buffered 100 feet when calculating impacts to account for potential error in well location. The
2457 Preliminary Impact Area would affect 12 wells: six (6) irrigation wells, three (3) groundwater quality

2458 monitoring wells, two (2) domestic drinking water wells, and one (1) commercial well. Impacts on
2459 active listed wells would be determined during final design. Any registered wells within the ROW would
2460 be properly decommissioned. NDOT would coordinate with the owners of any wells directly affected
2461 by the Preferred Alternative.

2462 **Stormwater**

2463 This project exceeds the one (1) acre threshold; therefore, this project would require a NPDES permit
2464 to ensure that the runoff impacts are addressed. Temporary construction impacts on water quality are
2465 anticipated but would be mitigated through the acquisition of the permit and implementation of an
2466 associated Stormwater Pollution Prevention Plan (SWPPP). Appropriate erosion control plans would
2467 be included with construction documents in the final design process. There are no permanent
2468 stormwater quality control measures proposed.

2469 **4.19.4 Avoidance, Minimization, and Mitigation**

2470 **Commitments:**

2471 NDOT would coordinate with the owners of wells that would be directly impacted by the Project during
2472 the ROW process. If the well is actively used, NDOT would have the well relocated and replaced. If a
2473 well is not currently in use, the Contractor would decommission the well, as needed, during
2474 construction in accordance with Nebraska Administrative Code Title 178, Chapter 13. (NDOT Right-of-
2475 Way, Contractor)

2476 A licensed Water Well Contractor will decommission any wells in accordance with the Department of
2477 Health and Human Services (DHHS) regulations under Nebraska Administrative Code Title 178, Water
2478 Well Standards, Chapter 12, Water Well Construction, Pump Installation, and Water Well
2479 Decommissioning Standards (Nebraska DHHS 2005). (NDOT, Contractor)

2480 This project requires a Construction Stormwater Permit and that a Storm Water Pollution Prevention
2481 Plan (SWPPP) be maintained for the project. The Contractor shall understand the terms and
2482 conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that
2483 authorizes the storm water discharges associated with activity from the construction site. For
2484 reference, the general permit is posted on the Department's website. (Contractor)

2485 Manure has not been specified for this project, however, existing soil material from former feedlot
2486 pens may be encountered during grading operations. Stockpiled material from the locations identified
2487 in the Special Provision will be utilized on the project as prescribed by the Manure Topdressing Special
2488 Provision. (NDOT Roadway Design)

2489 **4.20 Wetlands and Water Resources**

2490 Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency
2491 and duration sufficient to support, and that under normal circumstances do support, a prevalence of
2492 vegetation typically adapted for life in saturated soil conditions" (33 CFR 328). A water resource in the
2493 context of this Project includes waterways (rivers, streams, and intermittent and ephemeral
2494 drainageways) or open water areas.

2495 Wetlands and water resources are defined as waters of the US or waters of the State. A water of the
2496 US is defined as "the territorial seas, and waters which are currently used, or were used in the past, or
2497 may be susceptible to use in interstate or foreign commerce, including waters which are subject to the
2498 ebb and flow of the tide; tributaries, lakes and ponds, and impoundments of jurisdictional waters; and
2499 adjacent wetlands" (33 CFR 328.3(a)). Waters of the State are defined as "all waters within the
2500 jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes,
2501 wetlands, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other

2502 bodies or accumulations of water, surface or underground, natural or artificial, public or private,
2503 situated wholly or partly within or bordering upon the state” (Nebraska Administrative Code Title 126,
2504 Chapter 1).

2505 The US Army Corps of Engineers (USACE) is the agency charged with administering and enforcing
2506 federal laws related to wetlands under CWA Section 404 (33 USC 1344). The USACE Omaha District
2507 has jurisdiction over wetlands affected by the Project. NDEE is responsible for Section 401 Water
2508 Quality Certification for any project requiring a federal permit or license that includes a discharge into
2509 a water of the State. In addition, NDEE determines whether projects comply with Nebraska
2510 Administrative Code Title 117, Nebraska Surface Water Quality Standards.

2511 Executive Order 11990, *Protection of Wetlands*, requires federal agencies (including FHWA) to
2512 implement “no net loss” measures for wetlands (42 FR 26961). These measures include a phased
2513 approach to implement wetland impact avoidance, then minimization of impacts if wetlands cannot
2514 be avoided, and finally mitigation. In Nebraska, “no net loss” is tracked and applied on an annual,
2515 program-wide basis for federally funded projects rather than on an individual-project basis.

2516 4.20.1 Affected Environment

2517 Wetlands and other waters of the US were identified within the Study Area during wetland and water
2518 resource delineations conducted on July 26 – July 29, 2021. The findings of the delineation can be
2519 found in **Appendix N**.

2520 Wetlands:

2521 One hundred and fifteen (115) wetlands were identified within the Study Area. All delineated wetlands
2522 were classified as either palustrine emergent (PEM), palustrine scrub-shrub (PSS), or palustrine
2523 forested (PFO) and total of 20.594 acres. Refer to **Table 4.7** for a summary of wetland and waterway
2524 types and acreage/linear feet. Locations of wetlands in the Study Area are shown in **Figure 4.1** and
2525 **Appendix N**.

2526 **Table 4.7 Wetland and Water Resources Identified in the Study Area**

Wetlands		Waterways		
Wetland Type ¹	Acreage	Waterway Type	Linear Feet	
PEMA/C	19.298	Streams	Ephemeral	600
PEMF	1.065		Intermittent	3,081
PFOA	0.174		Perennial	1,622
PSSA	0.057	Streams Subtotal		5,303
Reuse Pit	0.239 [^]	Irrigation	Drain	5,150
			Canal	17,066
			Conveyance	6,498
		Irrigation Subtotal		28,714
Total	20.594	Total		34,017

2527 1 PEM/C = palustrine emergent temporarily / seasonally flooded; PEMF = Palustrine emergent semi-permanently flooded;
2528 PFOA = palustrine forested temporarily flooded; PSSA = palustrine scrub-shrub temporarily flooded;
2529 2 ^ - Not calculated in total, other water features were exempt.

2530 **Waterways:**

2531 Ten (10) waterways were documented within the Study Area: three (3) unnamed intermittent
2532 channels, two (2) unnamed ephemeral channels, Wildhorse Creek, Ninemile Creek, Wildhorse Canyon,
2533 Red Willow Creek, and West Water Creek. Sixty-two canals, drains, and irrigation conveyance
2534 structures were also observed. Of these 62 features, those named included the Tri-State Canal,
2535 Lowline Canal, Branch Canal, Minatare Canal, Bayard Drain, and Minatare Drain. Waterways, canals,
2536 drains and irrigation conveyance structures are shown in **Figure 4.1** and **Appendix N**.

2537 **4.20.2 Impacts of the No Build Alternative**

2538 There would be no construction of the Project with the No Build Alternative. Wetland and water
2539 resources impacts may occur as part of other routine roadway and bridge maintenance activities;
2540 however, these impacts would be evaluated on a project-by-project basis.

2541 **4.20.3 Impacts of the Preferred Alternative**

2542 The Preferred Alternative would permanently affect approximately 13.452 acres of wetlands and
2543 approximately 7,253 linear feet (1.571 acres) of waterways including Ninemile Creek, Wildhorse Creek,
2544 Wildhorse Creek, Red Willow Creek, West Water Creek, Minatare Canal, Minatare Drain, Bayard Drain;
2545 other unnamed perennial, intermittent, and ephemeral channels; and several unnamed drains, canals
2546 and irrigation conveyance structures, as shown in **Table 4.8**. Construction of the Preferred Alternative
2547 would require a CWA Section 404 Individual Permit from USACE.

2548 **Table 4.8 Wetland and Water Resource Impacts**

Wetland Impacts		Waterway Impacts	
Wetland Type ¹	Acreage	Waterway Type	Linear Feet / Acreage
PEMA/C	13.198	Streams	Ephemeral 239 / 0.04
PFOA	0.209		Intermittent 1,703 / 0.31
PSSA	0.045		Perennial 601 / 0.33
		Streams Subtotal 2,543/0.68	
		Irrigation	Drain 4,130 /0.856
			Canal 80 / 0.003
			Irrigation Conveyance 500 / 0.061
		Irrigation Subtotal 4,710/0.92	
Total	13.452	Total	7,253 / 1.571

2549 ¹ PEMA/C = palustrine emergent temporarily / seasonally flooded; PFOA = palustrine forested temporarily flooded; PSSA =
2550 palustrine scrub-shrub temporarily flooded.

2551 Temporary impacts to wetlands and water resources during construction are anticipated. These
2552 impacts would be included in the Section 404 permitting process. Any resources that would be
2553 temporarily impacted would be restored to pre-construction condition or better and planted with an
2554 appropriate seed mix.

2555 4.20.4 Avoidance, Minimization, and Mitigation

2556 Based on the preliminary impacts, wetland and stream mitigation is anticipated. Where wetland
2557 impacts could not be avoided or minimized, mitigation would occur at ratios determined by USACE
2558 and at locations approved by USACE. Mitigation ratios are determined based on the type and location
2559 of mitigation proposed for the affected wetlands. Required mitigation would be completed at a
2560 minimum 1:1 ratio. All impacts are expected to be mitigated at a permittee-responsible mitigation site.

2561 The Scottsbluff Mitigation Bank is located near the Project. If the bank is not capable of handling the
2562 mitigation needs, other mitigation sites would be identified. Once a mitigation site (or combination of
2563 sites) is determined, NDOT would reinitiate consultation with USACE. A Nebraska Stream Condition
2564 Assessment Procedure would be completed as part of the CWA Section 404 permitting process to
2565 determine stream mitigation needs.

2566 **Commitments:**

2567 All wetlands within the Project limits that are not permitted for impact would be marked on the Project
2568 plans and the E Sheet as avoidance areas. (NDOT Roadway Design, NDOT Environmental)

2569 The Contractor shall not stage, store, waste, or stockpile materials and equipment in undisturbed
2570 locations or in known/potential wetlands and/or known/potential streams that exhibit a clear “bed
2571 and Bank” channel. Potential wetland areas consist of any area that is known to pond water,
2572 swampy areas, or areas supporting known wetland vegetation or areas where there is a distinct
2573 difference in vegetation (at lower elevations) from the surrounding upland areas. (Contractor)

2574 The Project will require an Individual Permit for impacts to waters of the US. The Contractor shall
2575 adhere to all permit conditions, including regional and general conditions, during construction. All
2576 wetlands/waters within the project area that are not permitted for impacts shall be marked on the
2577 project plan aerial sheets for the Contractor as avoidance areas. (NDOT Design, NDOT
2578 Environmental, Contractor)

2579 Avoidance and minimization measures would be further refined during the preliminary and final design
2580 processes as appropriate. The design would comply with the policy of Executive Order 11990 (42 FR
2581 26961) regarding impacts on wetlands. Additionally, any project using federal transportation funds
2582 must adhere to the net gain of wetland policy (23 CFR 777.11(g)), where there would be no net loss of
2583 wetlands across the program in a given year. (NDOT Roadway Design, NDOT Environmental)

2584 4.21 Threatened and Endangered Species

2585 The Endangered Species Act of 1973, as amended (16 USC 1531–1544), protects federally listed
2586 endangered and threatened species, and the Nebraska Nongame and Endangered Species
2587 Conservation Act of 1975 (Nebraska Revised Statutes Section 37-801 to 37-811) provides protection
2588 for State-listed species. Other species with special protection are bald eagles (*Haliaeetus*
2589 *leucocephalus*) and golden eagles (*Aquila chrysaetos*) under the Bald and Golden Eagle Protection Act
2590 of 1940, as amended (16 USC 668–668d) and migratory birds under the Migratory Bird Treaty Act of
2591 1918, as amended (16 USC 703–712). Violation of these laws can be charged as misdemeanors or
2592 felonies, and conviction can result in fines of more than \$100,000 and/or imprisonment.

2593 USFWS, FHWA, NDOT, and NGPC have developed a programmatic biological assessment protocol for
2594 all federally and state-listed species in Nebraska to streamline the Section 7 coordination process. The
2595 2023 Nebraska Biological Evaluation Programmatic Agreement was signed by all parties on March 8,
2596 2023, with USFWS concurrence on March 14, 2023, and NGPC concurrence on March 20, 2023. The
2597 agencies have developed a list of construction activities that occur as part of transportation projects
2598 and have reviewed the potential for impacts on the federally and state-listed species in Nebraska. The

2599 Programmatic process includes the following steps; only the first four steps are required for projects
2600 that would not affect listed species or are not likely to adversely affect species with the
2601 implementation of standard conservation conditions:

- 2602 • Complete a Biological Evaluation Form to document the habitat characteristics of a project’s
2603 Action Area.
- 2604 • Identify species or critical habitat potentially present in a project’s Action Area.
- 2605 • Screen species and critical habitat based on characteristics of the Action Area.
- 2606 • Identify the potential for impact on individual species and/or critical habitat based on the
2607 construction activities that would be conducted for the project.
- 2608 • Complete an Individual Project Level Evaluation if a project may have an effect on a listed
2609 species or if conservation conditions are recommended for a species not likely to be present.
- 2610 • Complete a biological evaluation, which may be required if adverse effects on a species are
2611 anticipated even with the implementation of conservation conditions.

2612 **4.21.1 Affected Environment**

2613 The data for federally listed and state-listed threatened and endangered species in Scotts Bluff and
2614 Morrill Counties were reviewed, and each species was assessed individually to determine the potential
2615 presence or absence of suitable habitat within the Study Area, as described in the following
2616 paragraphs.

2617 For the Project Action Area, USFWS lists 12 federally protected species and NGPC lists 12 state
2618 protected species. **Table 4.9** lists federally and state-listed threatened and endangered species with
2619 potential for occurrence in the Project Action Area, as well as a brief description of suitable habitat for
2620 the listed species.

2621 **Table 4.9 Federally and State Listed Threatened and Endangered Species in the Project**
2622 **Action Area**

Status ¹	Common Name	Scientific Name	Habitat Description
FE, SE	Black-footed ferret	<i>Mustela nigripes</i>	Prairie dog town or complexes 1,000 acres or more in size.
FE, SE	Blowout Penstemon	<i>Penstemon haydenii</i>	Open areas of bare sands, or blowouts, in the Sandhills of north-central Nebraska
FT, ST	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	Eskimo curlew	<i>Numenius borealis</i>	Wet meadows, burned over prairies, or newly plowed fields.
FE, SE	Gray wolf	<i>Canus lupus</i>	Wide range of habitats including prairie, mountains, temperate forests, wetlands, tundra, and taiga. Areas where they are accepted by people.
FE, SE	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.

Status ¹	Common Name	Scientific Name	Habitat Description
FE, SE	Pallid sturgeon	<i>Scaphirhynchus albus</i>	Large river systems such as the Platte River or lower tributaries. Preferred habitat has a diversity of depths and velocities formed by braided channels, sand bars, islands, sand flats and gravel bars.
FT, ST	Piping plover	<i>Charadrius melodus</i>	Barren to sparsely vegetated sandbars along rivers, sand and gravel pits, and lake and reservoir shorelines.
FT, ST	Rufa red knot	<i>Calidris canutus rufa</i>	Open mud flats and/or mud and sandy shorelines free of vegetation.
Proposed FE ²	Tri-colored bat	<i>Perimyotis subflavus</i>	Hibernates in caves and mines. Swarms in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in woodland.
SE	Swift Fox	<i>Vulpes velox</i>	Open short-grass prairies that contain vegetation <6 inches in height, including gently rolling to level intact upland grasslands and field borders that are outside of densely populated areas
FT, ST	Western prairie fringed orchid	<i>Platanthera praeclara</i>	Wet prairies and sedge meadows.
FE, SE	Whooping crane	<i>Grus americana</i>	Sub-irrigated grasslands, meadows, shallow wetland habitat, farm ponds, major rivers, agricultural land outside of densely populated residential, commercial, or industrial areas.

Sources: USFWS 2024; NGPC 2024.

Note:

¹ FT=Federally Threatened; FE = Federally Endangered; ST=State Threatened; SE=State Endangered

² Tri-colored bat is proposed to be federally listed as endangered; an official federal listing opinion is anticipated in 2024. All species federally listed as threatened or endangered are also listed by the state of Nebraska under State Statute 37-802(1).

2623
2624
2625
2626
2627
2628 According to Natural Heritage Records, there are documented occurrences of swift fox and whooping
2629 crane within 5 miles of the Project Action Area within the last 30 years, and the swift fox has been
2630 identified within 1 mile of the Project Action Area. There is no critical habitat present within the Project
2631 Action Area.

2632 While there is a documented occurrence of whooping crane within 5 miles of the Project Action Area,
2633 the NGPC-estimated primary occurrence area for the species is approximately 60 miles southeast of
2634 the Project Action Area, near Lake McConaughy. Furthermore, the Project Action Area lacks the
2635 suitable habitat required for this avian species.

2636 Of the species identified within **Table 4.9**, suitable habitat exists within the Project Action Area for the
2637 black-footed ferret, eskimo curlew, swift fox, northern long-eared bat, and the tricolored bat.

2638 Eskimo curlew may use a portion of the Project Action Area for foraging habitat. Agricultural fields,
2639 grassland/pasture, emergent wetlands, and open water areas provide suitable habitat for the species.
2640 However, there are no known recent records or extant populations that currently exist in Nebraska.

2641 Along the eastern edge of the project alignment, within the escarpment landscape, prairie dog
2642 colonies exist on both sides of L62A and east US-385. This area, part of the shortgrass prairie
2643 ecosystem would provide suitable habitat for both the black-footed ferret and swift fox. However, it
2644 should be noted that native populations of black-footed ferret have been extirpated from Nebraska
2645 and no known populations exist.

2646 Waterways in the form of creeks, canals, and drainages exist throughout the project alignment. The
2647 major waterways include: Ninemile Creek, Wildhorse Drain, Wildhorse Canyon, Red Willow Creek,
2648 Minatare Drain, Tri State Canal, and Interstate Canal. These waterways have associated drainage
2649 ditches that feed the irrigated farmland throughout the corridor. Several of these waterways support
2650 wooded riparian corridors that may be suitable for the northern long-eared bat and tri-colored bat.
2651 Beyond the riparian corridors associated with waterways, wooded areas across the Project Action
2652 Area include farmsteads and windbreaks. However, most of the woodland areas along the project
2653 alignment are isolated, and are not well connected to other suitable habitat. It's likely that the northern
2654 long-eared bat and tricolored bat would utilize the larger woodland tracts associated with the riparian
2655 corridors, although either species may use any of these habitats for summer roosting and foraging
2656 activities.

2657 Northern long-eared bat and tri-colored bat have been known to use human-made structures for
2658 occasionally roosting, such as barns and sheds. The bats may also use bridge and large culvert
2659 structures for summer roosting. There are approximately sixteen bridge or bridge-sized culverts in the
2660 Project Action Area. The NDOT conducted a survey in April of 2024 to inspect these structures along
2661 US-26 and L62A for evidence of bats. After assessment, no bats or evidence of bat usage was
2662 detected.

2663 The federally endangered and threatened species review was conducted according to the
2664 Programmatic Agreement for the Nebraska Federal Aid Transportation Program. **Appendix O** contains
2665 the forms completed for the Project based on this Programmatic Agreement.

2666 4.21.2 Impacts of the No Build Alternative

2667 There would be no construction of the Project with the No Build Alternative. As a result, there would be
2668 no impacts on protected species beyond those needed to complete routine roadway and bridge
2669 maintenance activities.

2670 4.21.3 Impacts of the Preferred Alternative

2671 Based on the analysis conducted using the Programmatic Agreement review process, the preferred
2672 alternative may affect, but is not likely to adversely affect, swift fox, black footed ferret, northern long-
2673 eared bat, and tricolored bat with the conservation conditions listed below in **Section 4.21.4**. These
2674 species are the only listed species identified through the programmatic process that may potentially
2675 be impacted by the Preferred Alternative.

2676 The USFWS has reviewed the draft biological assessment for this project and has provided
2677 "Reasonable Assurance" that their requirements can be met. Upon completion of the consultation with
2678 the USFWS, a summary of the findings will be incorporated into this document, and supporting
2679 documentation would be added to **Appendix O**.

2680 **Swift Fox**

2681 Potentially suitable habitat for Swift Fox is present, and there are historical records for this species
2682 within the Project Action Area. When reviewing the project's activities and effects, it was determined
2683 that construction activities, including the installation of fencing, could impact the species by directly
2684 harming animals, disturb breeding or foraging behaviors, and affect occupied or suitable unoccupied
2685 dens, or indirectly modifying habitat. However, with the implementation of conservation conditions
2686 listed in **Section 4.21.4**, potential impacts would be minimized; therefore, these activities may affect,
2687 but are not likely to adversely affect the species, Swift fox.

2688 **Black Footed Ferret**

2689 Potentially suitable habitat for the black-footed ferret exists along the project, particularly within the
2690 prairie dog complex near the L-62A and US-385 intersection; however, there are no historical records
2691 of black-footed ferrets in the area. Given the absence of ferrets in Nebraska and that re-introductions
2692 are not planned for this site, NDOT has determined that the project may affect, but is not likely to
2693 adversely affect, the black-footed ferret or its habitat.

2694 **Northern Long-eared Bat and Tri-colored Bat**

2695 Potentially suitable habitat for northern long-eared bat and tri-colored bat is present, but there are no
2696 historic records for either species within the Project Action Area and there are no identified
2697 hibernacula or maternity roosts within 1 mile of the Preferred Alternative. Tree clearing, wood
2698 vegetation removal, and structure removal activities associated with the Preferred Alternative have the
2699 potential to impact both bat species. Based on NDOT's commitment to implement the avoidance and
2700 minimization measures listed in **Section 4.21.4**, the Preferred Alternative may affect, but is not likely to
2701 adversely affect, northern long-eared bat or tri-colored bat.

2702 **4.21.4 Avoidance, Minimization, and Mitigation**

2703 To minimize any potential impacts on protected species, specific conservation conditions would be
2704 implemented during design and construction (see **Appendix O**).

2705 **A-1 Changes in Project Scope.** If there is a change in the project scope, the project limits, or
2706 environmental commitments, the Highway Project Manager shall coordinate with the NDOT
2707 Environmental Section to evaluate potential impacts prior to implementation. Environmental
2708 commitments are not subject to change without prior written approval from the NDOT Environmental
2709 Section. (*District Construction*)

2710 **A-2 Conservation Conditions.** Conservation conditions are to be fully implemented within the project
2711 limits as shown on the plans. (*District Construction, Contractor*)

2712 **A-3 Early Construction Starts.** Contractor request for early construction starts must be coordinated
2713 by the Project Construction Engineer with NDOT Environmental for approval of early start to ensure
2714 avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes could require
2715 consultation with the USFWS and NGPC. (*District Construction, Contractor*)

2716 **A-4 T&E Species.** If federal or state listed species are observed during construction, the Highway
2717 Project Manager will contact NDOT Environmental Section to determine if additional species
2718 conservation conditions would be required prior to continuing project construction activities. Contact
2719 NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS
2720 and NGPC may be required depending on the species identified and construction activities. (*NDOT
2721 Environmental, District Construction, Contractor*)

2722 **A-5 Refueling.** Refueling will be conducted outside of those sensitive areas identified on the plans, in
2723 the contract, and/or marked in the field. (*Contractor*)

2724 **A-6 Restricted Activities.** The following project activities shall, to the extent possible, be restricted to
2725 between the beginning and ending points (stationing, reference posts, mile markers, and/or section-
2726 township-range references) of the project, within the right-of-way designated on the project plans:
2727 borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul
2728 roads, stockpiling areas, staging areas, and material storage sites.

2729 For activities outside the project limits, the contractor should refer to the Nebraska Game and Park
2730 Commission website to determine which species ranges occur within the off-site area. The contractor
2731 should plan accordingly for any species surveys that may be required to approve the use of a borrow

2732 site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT's
2733 website), where species survey protocols can be found, to estimate the level of effort and timing
2734 requirements for surveys.

2735 Any project related activities that occur outside of the project limits must be environmentally
2736 cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate
2737 agencies by the contractor and those clearances/permits submitted to the District Construction
2738 Project Manager prior to the start of the above listed project activities. The contractor shall submit
2739 information such as an aerial photo showing the proposed activity site, a soil survey map with the
2740 location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a
2741 minimum of 4 different ground photos showing the existing conditions at the proposed activity site,
2742 depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The
2743 contractor must receive notice of acceptance from NDOT environmental, prior to starting the above
2744 listed project activities. These project activities cannot adversely affect state and/or federally listed
2745 species or designated critical habitat. (*NDOT Environmental, District Construction, Contractor*).

2746 **A-7 Waste/Debris.** Construction waste/debris will be disposed of in areas or a manner which will not
2747 adversely affect state and/or federally listed species and/or designated critical habitat. (*Contractor*)

2748 **A-8 Post Construction Erosion Control.** Erosion control activities carried out by NDOT Maintenance or
2749 others after construction is complete, but prior to project close-out, shall adhere to any standard
2750 conservation conditions for species designated for the project limits during construction. (*NDOT*
2751 *Maintenance, District Construction, Contractor*)

2752 **S-1 Fencing.** When project-related fence construction/relocation work is required to be done prior to
2753 the start of construction, and if the fence work occurs outside urban or cropland areas that are not
2754 within swift fox range, then fencing can be installed/relocated at any time using the following criteria:

- 2755 a. the fencing is temporary in nature and/or consists of only hand-driven posts
2756 b. the work does not compact the soils (ex. through the use of heavy equipment) or
2757 cause soil disturbance beyond the driving of posts

2758 If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with
2759 NDOT Environmental Section prior to the completion of Right-of-way negotiations.

2760 **S-2 Platte River Depletions** To the maximum extent practical, efforts will be made to design the project
2761 and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a
2762 depletion, NDOT (during design) and the Contractor (for borrow sites) shall follow the current Platte
2763 River depletion protocols for coordination, minimization, and mitigation. In general, the following are
2764 considered de minimis depletions, but may still require agency coordination; a project which: a)
2765 creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for
2766 less than 72 hours, c) diverted water that will be returned to its natural basin within 30 days, or d)
2767 creates a one-time depletion of less than 10 acre feet. (*NDOT Roadway Design, Contractor*)

2768 **S-3 Revegetation.** All permanent seeding and plantings (excluding managed landscaped areas) shall
2769 use species and composition native to the project vicinity as shown in the Plan for the Roadside
2770 Environment. However, within the first 16 feet of the road shoulder or within high erosion prone
2771 locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover
2772 to prevent erosion, unless state or federally listed threatened or endangered plants were identified in
2773 the project area during surveys. If listed **plants** were identified, any seed mix requirements identified
2774 during resource agency consultations shall be used for the project. (*NDOT Environmental*)

2775 **S-4 Sensitive Areas.** Environmentally Sensitive Areas will be marked on the plans, in the field, or in the
2776 contract by NDOT Environmental for avoidance. (*NDOT Environmental, NDOT Roadway Design, District*
2777 *Construction*)

2778 **S-5 Species Surveys.** If species surveys are required during the construction phase of the project
2779 (including pre-construction surveys), results will be sent by NDOT Environmental Section to the
2780 USFWS, NGPC, and if applicable the USACE. (*NDOT Environmental, District Construction*)

2781 **S-6 Permanent LED Lighting (NDOT Design Commitment):** Only LED roadway luminaries listed on the
2782 NDOT “Nebraska Qualified Material Vendors List” will be considered for use on Nebraska highway
2783 lighting projects. Proposed changes to the following LED lighting requirements would require
2784 resource agency (USFWS and/or NGPC) coordination and approval prior to installation:

- 2785 • Nominal CCT – 3000 +/- 300 K
- 2786 • BUG Ratings – Maximum nominal Backlight (N/A), Uplight (0), Glare (N/A)
- 2787 • Lumen Output – N/A

2788 Any proposed changes to the listed requirement(s) must be presented to the NDOT Environmental
2789 Section for Agency Coordination and approval.

2790 **Swift Fox:**

2791 **SF-1** Two weeks prior to the start of construction, a qualified biologist shall survey the environmental
2792 study area according to protocol to determine if active swift fox den sites are present. If an active den
2793 with young is located and it is outside the project limits, then a buffer zone shall be established around
2794 the den and all construction activities shall avoid the buffer until the den is abandoned. If an occupied
2795 den with or without young is identified within the project limits or staging areas, NDOT shall
2796 immediately coordinate with the NGPC to determine how to proceed. A buffer zone shall be
2797 established around the den and all construction activities shall avoid the buffer until NDOT gives
2798 approval to enter the buffer area. Between April 1 and August 31, the buffer zone shall be 250 yards
2799 around the active den site; other times of the year, the buffer shall be 100 yards around the active den
2800 site. (*NDOT Environmental*)

2801 **SF-2** Fencing shall be designed for wildlife safety and wildlife friendly passage with a bottom wire at
2802 least 16” from the ground. If different fencing design is required for safety or access control,
2803 additional coordination with resource agencies shall be required. (*NDOT Design, NDOT Environmental*)

2804 **SF-3** Fence posts shall not be placed within potential den sites that appear to have animal activity. If
2805 fence posts cannot avoid potential den sites that appear to have animal activity, NDOT Environmental
2806 will be notified and will re-initiate consultation with resource agencies. Work will not commence until
2807 agency concurrence is received. (*Contractor*)

2808 **SF-A** NDOT shall coordinate with the NGPC regarding the installation of artificial escape dens in
2809 suitable locations along the L62A corridor. Swift Fox Escape Den Installation protocols shall be
2810 utilized. (*NDOT Environmental, NDOT Design*)

2811 **Northern long-eared Bat / Tri-colored Bat**

2812 **NLEB / TCB -3:** All phases and aspects of the project shall be modified, to the extent practicable, to
2813 avoid tree removal in excess of what is required to implement the project safely. Tree removal shall be
2814 limited to removals specified in the project plans, which will be clearly marked in the field. (*Design,*
2815 *Contractor*)

2816 **NLEB / TCB CM-2:** No removal of suitable trees or roosting structures between May 15 and July 31
2817 (maternity roosting season) (*Contractor*)

2818 4.22 Fish, Wildlife, and Vegetation

2819 This section describes the fish and wildlife species that inhabit the Study Area as well as the
2820 vegetation in the Study Area. Threatened or endangered species and their associated habitat are
2821 discussed in **Section 4.21**. Applicable federal and state legislation is summarized below.

2822 The Migratory Bird Treaty Act of 1918, as amended (16 USC 703–712), states that construction
2823 activities in grassland, wetland, stream, and woodland habitats, and those that occur on bridges (for
2824 example, that may affect swallow nests on bridge girders) that would otherwise result in the taking of
2825 migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of
2826 Migratory Bird Treaty Act are applicable year-round, most migratory bird nesting activity in Nebraska
2827 occurs from April 1 to September 1.

2828 The Nebraska Nongame and Endangered Species Conservation Act of 1975 (Nebraska Revised
2829 Statutes Section 37-801 et seq.) specifies that the state should conserve non-game species, as well
2830 as species determined to be endangered or threatened, for human enjoyment, for scientific purposes,
2831 and to ensure their continued existence as a part of our natural world.

2832 Noxious weeds are typically invasive species that harm natural ecosystems. Several regulations and
2833 guidelines have been issued to help limit the spread of noxious weeds, including Executive Order
2834 13112, *Invasive Species*; the Nebraska Noxious Weed Control Act (Nebraska Revised Statutes
2835 Sections 2-945.01 to 2-970); and the Nebraska Noxious Weeds Regulations (Nebraska Administrative
2836 Code Title 25, Chapter 10).

2837 4.22.1 Affected Environment

2838 This project is located within the topographic Region of the Valleys and Valley-Side Slopes, which
2839 consists of flat-lying land along major streams (North Platte River) and moderately sloping land
2840 between the escarpments (rock outcrops) located on the eastern edge of the project. According to the
2841 Nebraska Natural Legacy Project, the project is located within the Shortgrass Prairie Ecoregion of
2842 Nebraska. Although referred to as the Shortgrass Prairie Ecoregion, much of western Nebraska
2843 supports dry mixed-grass prairie in addition to the area of short grass. The predominant vegetation
2844 type in this ecoregion is the threadleaf sedge western mixed grass prairie, while true short-grass
2845 prairie is limited to dry knobs and areas with very clayey soils. The ecoregion features diverse
2846 topography, including several areas of rocky escarpments and soils ranging from sand to clay.

2847 The North Platte River, just southwest of this project, bisects the ecoregion and has wet meadows,
2848 deciduous woodlands, and numerous tributary streams, many of which are coldwater. Natural
2849 wetlands are somewhat limited in this ecoregion, but playa wetlands are abundant in areas of the
2850 southwest, and are scattered northward. Five large reservoirs exist within this ecoregion with the
2851 closest reservoir to this project being Lake Minatare State Recreation area, located approximately 7
2852 miles north of the project. This ecoregion contains numerous small streams, many of which are
2853 ephemeral.

2854 The Panhandle Mixedgrass Prairies Biologically Unique Landscape (BUL) intersects the project just
2855 east of the US-26 and L62A intersection. This landscape occupies the plains and rolling hills of the
2856 northern Panhandle from the Pine Ridge south to the North Platte River valley. This BUL supports
2857 extensive, intact native prairie inhabited by swift fox, prairie dogs, and grassland birds.

2858 More than 300 species of resident and migratory birds have been recorded in the short-grass prairie
2859 ecoregion. Common short-grass prairie species include McCown's and chestnut-collared longspurs,
2860 brewer's sparrow, horned lark, burrowing owl and the state threatened mountain plover. Species
2861 commonly found in the mixed-grass prairie community include western meadowlark, grasshopper
2862 sparrow, and lark bunting. The region's wetlands support many species of waterfowl including Canada

2863 goose, mallard, and northern pintail, and shorebirds such as western sandpiper and greater
2864 yellowlegs.

2865 A variety of mammals are known to occur in the ecoregion. Ungulates include both white-tailed and
2866 mule deer, elk, pronghorn, and bighorn sheep. Coyotes and bobcats are the most common large
2867 predators but in recent years, mountain lions have also been recorded in the Panhandle. The
2868 ecoregion serves as one of the remaining strongholds for the diminutive swift fox, a state endangered
2869 species. Prairie dogs are locally abundant, and the endangered black-footed ferret was once present in
2870 the ecoregion. Other mammals include the black-tailed jackrabbit, American badger, plains pocket
2871 gopher, and northern grasshopper mouse.

2872 The lesser-known lakes, river backwaters, side-channels, and oxbows are frequently occupied by
2873 brook trout and rainbow trout have been stocked in cold water streams in the ecoregion.

2874 In the study area, natural vegetation remains confined to small pockets due to the agricultural
2875 character of the corridor, with much of the existing vegetation along the alignment having been
2876 previously disturbed by road construction grading or farming activities. The grassland cover
2877 encompasses various land uses, including the existing ROW, which consists of mowed areas, irrigated
2878 pastureland, hayland, and rangeland. Rangeland vegetation is predominantly composed of native
2879 species such as bluestem, grama switchgrass, Indiangrass, buffalograss, and sedges, while
2880 vegetation in the ROW, irrigated pasture, and hayland may consist of both native and introduced
2881 species.

2882 Project-specific wetland and waters of the US delineations were conducted in the Study Area in 2021.
2883 The delineation documented vegetation found within and beyond US-26 and L62A ROW and areas
2884 surrounding waterways. The land in the Study Area, including the existing riparian areas near streams,
2885 is highly disturbed due to agricultural practices, and road construction. Vegetative species commonly
2886 occurring in upland areas include smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*),
2887 intermediate wheatgrass (*Thinopyrum intermedium*), and kochia (*Brassica kochia*). Reed canary grass
2888 (*Phalaris arundinacea*), narrowleaf cattail (*Typha latifolia*), and prairie cordgrass (*Spartina pectinate*)
2889 were common species identified in wetland areas. Trees and shrubs documented were associated
2890 with waterways and included black willow (*Salix nigra*), sandbar willow (*Salix interior*) and cottonwood
2891 shrubs (*Populus deltoides*).

2892 Habitat connectivity and fragmentation was evaluated for the Project, and detailed findings can be
2893 found in **Appendix O** Intensive agriculture has fragmented and reduced the amount of habitat available
2894 for wildlife and has decreased the quality of wildlife habitat that remains within and adjacent to the
2895 Study Area. Through this habitat connectivity analysis, three wildlife corridors, or areas that wildlife
2896 regularly traverse, were identified within the Study Area (**Table 4.10**). These wildlife corridors were
2897 identified using wildlife strike data in conjunction with structural features (culverts and bridges), and
2898 habitat availability in the surrounding area.

2899 **Table 4.10 Wildlife Corridors**

Wildlife Corridor (Mile Markers)	Crash Locations (Mile Marker)	Habitat Description	Structure that could be used for Movement	Appendix, Sheet No.
US-26 41.00 – 41.35	41.11 41.13 41.17 41.20	<p>The Wildhorse Drain intersects US-26 within this designated wildlife corridor. The riparian zone along the drain is lined with deciduous trees, creating a forested buffer along the waterway's banks. Adjacent to this riparian habitat, Palustrine Emergent Wetlands provide aquatic and semi-aquatic environments that support a variety of wetland-dependent species. Beyond the riparian boundaries, the landscape transitions into extensive areas of row crop agriculture on both sides of the creek. Westward from the creek, a linear stand of deciduous trees runs parallel to the highway, providing additional ecological connectivity and habitat structure. The roadway ditches, vegetated with herbaceous grasses, serve as ecological linkages that facilitate wildlife movement into the surrounding agricultural fields.</p>	MM 41.15 – 8 foot by 12 foot concrete box culvert	8
L62A 0.65 – 1.35	1.00 1.00 1.25 1.15	<p>The Wildhorse Canyon intersects L62A within this designated wildlife corridor. The canyon's riparian zone features an established forest of deciduous trees along its banks, providing habitat and ecological connectivity. Adjacent to this, Palustrine Emergent and Palustrine Forested wetlands complement the creek's riparian environment. Beyond the riparian boundaries, deciduous woodland habitats dominate the southern landscape parallel to the roadway, offering additional ecological connectivity. A small farmstead located on the southeast side introduces a modified landscape element to the corridor. The surrounding area predominantly consists of cropland interspersed with pockets of grassland, which contribute to the mosaic of habitats.</p>	MM 1.17 – 10 foot by 10 foot concrete box culvert	9,10

Wildlife Corridor (Mile Markers)	Crash Locations (Mile Marker)	Habitat Description	Structure that could be used for Movement	Appendix, Sheet No.
L62A 5.60 – 6.30	5.67 5.78 5.81 5.92 5.99 6.20 6.20	This wildlife corridor intersects the Tri-State Canal at two separate points and crosses Red Willow Creek directly at the corridor's center. Adjacent to these water bodies, wetland habitats, classified as Palustrine Emergent, Palustrine Forested, and Palustrine Forested Open Water, are prevalent, providing aquatic environments. These wetlands, coupled with abundant forested habitats along both sides of the highway, enhance the corridor's biodiversity and ecological functionality. The outer edges of the corridor transition into agricultural landscapes, predominantly cropland interspersed with small pockets of grassland.	MM 5.81 - - 10 foot by 10 foot concrete box culvert MM 5.96 – 13 foot by 8 foot concrete box culvert MM 6.13 – 10 foot by 10 foot concrete box culvert	14

2900 The common habitat features shared among the three wildlife corridors include their proximity to
 2901 waterways, the presence of wooded areas, and a diverse mix of habitat types such as wetlands. This
 2902 habitat diversity adjacent to the corridors is associated with increased species diversity, enhancing the
 2903 ecological richness of these areas. Each corridor encompasses a waterway paired with a structural
 2904 feature, such as a culvert that spans at least 12 square feet and is flanked by forested habitats
 2905 adjacent to the roadway.

2906 The Director of the Nebraska Department of Agriculture has identified 12 species as noxious weeds
 2907 throughout Nebraska (Nebraska Invasive Species Program 2024), as shown in **Table 4.11**.

2908 **Table 4.11. State Noxious Weeds**

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

Source: Nebraska Invasive Species Program 2024.

2909

2910 The Nebraska Invasive Species Program has developed Nebraska’s Invasive Plants Watch List, which
2911 is an ecoregion-based list of invasive plants to monitor. The listed plants are separated into three
2912 categories. Category 1 species are future invasive species that are not known to exist in an ecoregion
2913 but would pose a significant threat if introduced. Category 2 species are those considered a top
2914 priority for eradication for new and existing populations, while Category 3 species are established and
2915 prevention of spread to new areas is a top priority (Nebraska Invasive Species Program 2023). Note
2916 that no Category 3 Terrestrial Plant Species occur in the shortgrass prairie ecoregion. The Invasive
2917 Plants Watch List species occurring in the Shortgrass Prairie Ecoregion, which includes Scotts bluff
2918 and Morrill Counties, are shown in **Table 4.12**.

2919 **Table 4.12 Nebraska’s Invasive Plants Watch List for Shortgrass Prairie Ecoregion**

Common Name	Scientific Name
<i>Category 1</i>	
Giant Reed	<i>Arundo donax</i> L.
Ripgut Brome	<i>Bromus diandrus</i>
Flowering Rush	<i>Butomus umbellatus</i>
Oriental Bittersweet	<i>Celastrus orbiculatus</i>
Yellow Starthistle	<i>Centaurea solstitialis</i>
Medusahead	<i>Taeniatherum caput-medusae</i>
Ventenata	<i>Ventenata dubia</i>
<i>Category 2</i>	
Russian knapweed	<i>Acroptilon repens</i>
Absinth wormwood	<i>Artemisia absinthium</i> L.
Caucasian bluestem	<i>Bothriochloa bladhii</i>
Yellow bluestem	<i>Bothriochloa ischaemum</i>
Houndstongue	<i>Cynoglossum officinale</i>
Henbane	<i>Hyoscyamus niger</i>
Yellow flag iris	<i>Iris pseudacorus</i>
Dalmatian Toadflax	<i>Linaria dalmatica</i>
Common buckthorn	<i>Rhamnus cathartica</i>

2920 Source: Nebraska Invasive Species Program 2024

2921 **4.22.2 Impacts of the No Build Alternative**

2922 There would be no construction of the Project with the No Build Alternative. Impacts on fish, wildlife,
2923 and vegetation may occur as part of other routine roadway and bridge maintenance activities.
2924 Impacts on fish, wildlife, and vegetation for those projects would be evaluated on a project-by-project
2925 basis.

2926 In addition, the No Build Alternative would result in neither disturbance nor improvement of the area's
2927 vegetation composition. There would be no new disturbances to vegetation beyond those needed to
2928 complete routine roadway and bridge maintenance activities.

2929 4.22.3 Impacts of the Preferred Alternative

2930 The increased distance for wildlife to cross the expanded highway may pose additional challenges.
2931 However, the depressed median that would be constructed could serve as a refuge for wildlife
2932 attempting to cross the highway. Improved driver visibility with the 4-lane divided roadway
2933 configuration is expected to reduce wildlife-vehicle crashes by allowing earlier detection of wildlife.
2934 Additionally, the project includes maintaining existing drainage systems and integrating new box
2935 culverts and bridges where crossings currently exist, which facilitate wildlife mobility. These measures
2936 ensure that the wildlife corridors would continue to function effectively. While the expansion increases
2937 the crossing distance, the overall connectivity for wildlife movement is expected to be preserved, and
2938 the risk of wildlife-vehicle crashes is likely to be maintained or minimized.

2939 The project's expansion area would primarily impact cropland and grassland cover types, which are
2940 abundant in Scotts Bluff and Morrill Counties, resulting in minimal impacts relative to the overall area
2941 of the two counties. Based on the wetlands and waters of the US delineation report, the species
2942 documented in the Study Area are typical of vegetation associated with much of the state highway
2943 ROW in western Nebraska. Vegetation disturbed during Project construction would consist mainly of
2944 introduced species, such as smooth brome and reed canary grass, found commonly throughout the
2945 area. Some disturbance to riparian vegetation near identified waterways would occur during
2946 bridge/culvert construction activities. However, revegetation in all disturbed areas would use native
2947 seed mixes that would improve plant species composition. Furthermore, roadside ditches and other
2948 disturbed areas may naturally re-establish wetland vegetation post-construction.

2949 Temporary construction impacts on adjacent vegetation are expected. Areas disturbed during
2950 construction would be planted with an NDOT-approved seed mix following construction. Temporary
2951 construction impacts on fish and wildlife are not anticipated. Waterways disturbed during
2952 construction would require having flow maintained through temporary means identified during final
2953 design or by the Project Contractor.

2954 4.22.4 Avoidance, Minimization, and Mitigation

2955 In accordance with NDOT's Avian Protection Plan (NDOT 2018), NDOT would make every effort to
2956 schedule clearing and grubbing, large tree removal, or other work activities that may impact migratory
2957 bird nests, outside of the primary Nebraska nesting season of April 1 to September 1. If any of the
2958 aforementioned activities would be required during this period, a nesting survey would be completed
2959 by a qualified biologist prior to work commencing. Specific to bridge and culvert work, the required
2960 survey period extends through September 30. (NDOT Environmental, Contractor)

2961 In efforts to maintain aquatic wildlife connectivity, the Preferred Alternative may use temporary
2962 structures during construction. The use of temporary structures would facilitate aquatic life
2963 movements during construction in accordance with CWA Section 404 Nationwide Permit General
2964 Condition No. 2: Aquatic Life Movements. Proposed structures would be constructed at appropriate
2965 sizes and elevations so as not to impede aquatic life movements. (NDOT Environmental, Contractor)

2966 To avoid impacts on fish and other aquatic organisms, an erosion control plan and a SWPPP would be
2967 developed and implemented. In accordance with the SWPPP and the requirements in the General
2968 Construction Storm Water Permit, NDOT would inspect all erosion and sediment control BMPs every
2969 14 days and after every precipitation event of 0.5 inch or greater. Any BMP adjustments and repairs
2970 would occur within 7 days of the inspection to ensure that water quality is being protected to the

2971 maximum extent practicable. The SWPPP would be maintained, and discharge points would be
2972 monitored by NDOT until the site is 70 percent revegetated. (NDOT Environmental, Contractor)

2973 According to NDOT’s Standard Specifications for Highway Construction, Subsection 202.01(2)(b), the
2974 Contractor would be responsible for disposal of all vegetation for NDOT ROW and the limits of
2975 construction. Disturbed areas would be seeded in accordance with NDOT’s Standard Specifications,
2976 Subsection 803.02. Revegetation of the area following construction would occur using seed mixtures
2977 containing native grasses, legumes, and forbs to appropriately landscape the region, as specified in
2978 NDOT’s Plan for the Roadside Environment for a rural highway corridor (NDOT 2008). (NDOT
2979 Environmental, Contractor)

2980 As stated in NDOT’s Standard Specifications for Highway Construction, Subsection 107.12, “The
2981 Contractor should prevent the transfer of invasive plant and animal species and should wash all
2982 equipment at the Contractor’s storage facility prior to entering the construction site. The Contractor
2983 should inspect all construction equipment and remove all attached vegetation and animal prior to
2984 leaving the construction site.” (NDOT Environmental, Contractor)

2985 Appropriate mulching materials, as defined in NDOT’s Standard Specifications for Highway
2986 Construction, Subsection 806.02(1), should be applied and should not include brome hay, rushes,
2987 cattails, reed canary grass, wide-bladed grass, or invasive species. All sod, if required, to be applied to
2988 the Project should be free from noxious weeds and all other weeds. (NDOT Environmental, Contractor)

2989 4.23 Cumulative Impacts

2990 Assessing cumulative impacts considers whether adding “one more project” to what is already going
2991 on in the Study Area would be the tipping point into making the overall impact significant. Indirect
2992 impacts are from actions, often taken by others, at a later time, as a result of the Project.

2993 The following definitions apply to this section and are based on 40 CFR 1500–1508:

- 2994 • **Direct effect** – caused by the Project and occurs at the same time and place. [Note: The direct
2995 effects of the Preferred Alternative were described in the previous sections of this Draft EA].
- 2996 • **Indirect effects** – caused by the Project but occur later in time or are farther removed in
2997 distance but are still reasonably foreseeable. Indirect effects may include growth-inducing
2998 effects and other effects related to induced changes in the pattern of land use, population
2999 density or growth rate, and related effects on air and water and other natural systems.
- 3000 • **Cumulative impact** – change in the environment resulting from the incremental impact of the
3001 project when added to other past, present, and reasonably foreseeable future actions in the
3002 Study Area.

3003 4.23.1 Affected Environment

3004 The methodology used to address cumulative impacts involves identifying **past, present, and**
3005 **reasonably foreseeable future** projects; reviewing resources that would be affected by the Project;
3006 determining the approximate time frames and locations of impacts; considering the types of impacts
3007 likely; and selecting the resources requiring detailed evaluation of cumulative impacts.

3008 Past and present projects can include those that are currently under construction and would be
3009 completed prior to the analyzed project. Reasonably foreseeable future projects can include ongoing
3010 projects, such as transportation and commercial or industrial development, that are not expected to
3011 be completed by the time the analyzed project would begin construction or are planned projects that
3012 are included in planning documents for the area.

3013 The following projects were identified as past, present and reasonably foreseeable:

- 3014 • EACNH-26-1(146) CN 50826, US-26 from Scottsbluff to Minatare (past)
- 3015 • Private development, construction of a Dollar General, at US-26 and Stonegate Road, Minatare
- 3016 (past)
- 3017 • NDOT CN 51432, TCSP-71-2(112), Heartland Expressway, US-385 from Highway L62A to
- 3018 Alliance (past)
- 3019 • John McLellan Jr Expressway, N-71 from US-26 to Scotts Bluff County/Banner County line
- 3020 (past)
- 3021 • NDOT CN 51665, MISC-385-3(1025), US-385 South of Bridgeport (present)
- 3022 • NDOT CN 51654, NH-71-2(116), Heartland Expressway, N-71 from I-80 to US-26 (future)
- 3023 • NDOT CN 51642, NH-STP-25-1(17), US-26 and US-385 in Bridgeport; and N-88 south of
- 3024 Bridgeport (future)
- 3025 • NDOT CN 51637, STP-L79E(113), L79E over the North Platter River between Melbeta and
- 3026 Minatare (future)
- 3027 • Western Nebraska Regional Airport taxiway (future)

3028 See **Appendix P Cumulative Impacts Technical Memo** for further discussion on these actions.

3029 Resources Considered for Impacts Analysis

3030 Based on the impacts from the Project and the nature of the above-identified projects, no resources
3031 were carried forward for a detailed cumulative impacts evaluation. The cumulative impact analysis
3032 can be found in Appendix P.

3033 4.23.2 Impacts of the No Build Alternative

3034 Direct impacts associated with the No Build Alternative are evaluated in this Draft EA. Additionally, all
3035 past, present, and reasonably foreseeable actions have been or would be permitted based on federal,
3036 state, and local resource requirements prior to construction. There would be no cumulative impacts
3037 associated with the No Build Alternative and the projects listed above.

3038 4.23.3 Impacts of the Preferred Alternative

3039 Direct impacts associated with the Preferred Alternative are evaluated in this Draft EA. According to
3040 the 2014 Heartland Expressway Corridor Development and Management Plan, indirect effects of the
3041 project could include economic expansion in select locations along the corridor. The improved
3042 infrastructure is expected to attract new long-distance users, likely increasing demand for roadside
3043 services such as lodging, food, fuel, and retail. Additionally, the enhancements may encourage growth
3044 in sectors like food processing and manufacturing, which could leverage the area's agricultural
3045 strengths, as well as in distribution facilities that benefit from low costs and proximity to larger urban
3046 centers. However, it would be presumptive to expect consistent development along the entire route.
3047 Large portions, including the segment from Minatare to US-385, are likely to retain their rural
3048 character. Nonetheless, some development near Minatare would be a reasonable expectation, as the
3049 area could support increased traffic and economic opportunities brought by the project.

3050 No adverse cumulative impacts are anticipated for any resources discussed due to the Preferred
3051 Alternative or past actions, as these actions were permitted under federal, state, and local
3052 requirements. Likewise, no adverse cumulative impacts are expected from present or future actions
3053 associated with the Preferred Alternative. Identified projects are expected to have only minor impacts
3054 on adjacent resources, as they will be permitted according to all relevant federal, state, and local
3055 requirements before construction.

3056 4.23.4 Avoidance, Minimization, and Mitigation

3057 No mitigation with respect to cumulative impacts would be required or is proposed for this project.

3058 **4.24 Summary of Impacts**

3059 A summary of the impacts resulting from the Preferred Alternative is provided in **Table 4.13**.

3060 **Table 4.13 Summary of Impacts**

Resource	Impacts
Land Use	The Preferred Alternative would convert approximately 260 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 188 acres of farmland to an expressway system. The NRCS-CPA-106 forms show that the point total for Part VI, Corridor Assessment Criteria, for Scotts Bluff County is 139 and Morrill County is 143. The NRCS confirmed these point totals on May 13, 2024, and indicated that no further coordination would be required. Coordination with the NRCS can be found in Appendix B.</p> <p>The Preferred Alternative has the potential to impact 22 existing center pivots. Two (2) center pivots may require relocation with the remaining 20 center pivots would be shortened but would remain functional following construction of the Preferred Alternative. Temporary impacts during construction may occur in the form of temporary easements for access of modification of center pivots.</p>
Right-of-Way and Relocations	The Preferred Alternative would require the acquisition of approximately 260 acres of new ROW and permanent easements. Most of the ROW acquisition would be minor, generally less than then (10) percent of the total parcel. The Preferred Alternative is anticipated to relocate fifteen (15) houses, eight (8) sheds, four (4) outbuildings, two (2) detached garages, two (2) barns, one (1) silo, one (1) coop, and one (1) animal building. Approximately 100 existing field access drives and residential driveways would be relocated or realigned as needed throughout the Project.
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-26 and L62A to a 4-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-26 and L62A.</p>
Environmental Justice	Minority and low-income populations were identified in the Study Area based on NDOT's Environmental Justice methodology developed in coordination with FHWA. However, there are no anticipated disproportionately high and adverse human health or environmental effects to these groups, as defined in FHWA Order 6640.23A. No translations or specialized outreach for limited English proficiency persons are 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.

Resource	Impacts
Transportation	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 Study Area. After construction, the Project would have major, long-term, beneficial impacts on the transportation network in the Study Area and in western Nebraska.
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.
Irrigation Canals and Districts	Three (3) canal systems, the Interstate Canal, the Tri-State Canal, and the Minatare Canal cross the study area. The Preferred Alternative would impact all three irrigation canals in some capacity. The Pathfinder Irrigation District and Farmers Irrigation District agree that extending box culverts to accommodate the roadway widening is feasible. The Minatare Mutual Canal and Drainage District is in favor of relocating the Minatare Drain to the south side of the roadway and reconnecting the terminus of the Minatare Canal. A formal agreement between each canal's irrigation district and the Nebraska Department of Transportation would be completed prior to construction.
Historic Properties	The Preferred Alternative would have no effect on Harry's Curve Historic District, the Tri-State Canal system, the Interstate Canal system (SX00-060), or the Minatare Canal and Irrigation system. The Preferred Alternative would not adversely affect the sod house M000-073.
Paleontology	The Preferred Alternative has moderate 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.
Visual	The Preferred Alternative for the corridor would not result in adverse impacts on the aesthetic value of the area. The intersection of US-26 and L62A would be realigned with CR 75 to the north, resulting in an improvement in aesthetics and alignment with driver expectations.
Section 4(f)	<p>The Preferred Alternative would impact the Sod House, including the removal of a windbreak and acquisition of ROW on the west side of the NRHP site boundary. Approximately 0.0029 acres of the NRHP boundary would be impacted. A Section 4(f) de minimis was applied to this impact.</p> <p>The Preferred Alternative would require a temporary easement of 6,340 square feet from the Harry's Curve Historic District. No work would occur within the boundary of this property; however, the three access drives would be consolidated into one drive. A Section 4(f) de minimis was applied to this impact.</p> <p>The Preferred Alternative would require minor impacts to the Minatare Canal, the Tri-State Canal, and the Interstate Canal to extend box culverts. A Section 4(f) de minimis was applied to these impacts.</p>
Section 6(f)	The 2024 Nebraska Game and Parks Commission review found that there is one (1) Land and Water Conservation Fund Act encumbered property within the Study Area, Minatare City Park. Impacts on Minatare Park would be avoided, and no further action is needed.

Resource	Impacts
Hazardous Materials	<p>Minatare Plaza (aka Harry’s Curve or Harry’s One Stop) and Tony’s Service Station have a medium potential to affect construction of the Preferred Alternative or to cause a materials management or work health and safety concern, or both, related to construction of the Preferred Alternative.</p> <p>Any building structures to be demolished would require inspections for asbestos and there is the potential need for toxic metal/lead paint disposal.</p>
Air Quality	<p>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.</p>
Noise	<p>In the Study Area, noise levels were measured at seventy-four (74) noise-sensitive receptors representing sixty (60) residences, four receivers were identified to represent businesses along the corridor and one receiver each was placed to represent a church and an agricultural shed. The noise analysis indicates that no receivers analyzed would have a noise impact in the year 2045 Build scenario due to noise levels approaching or exceeding the Noise Abatement Criteria. Six (6) receptors are anticipated to have noise impacts resulting from the build alternative, however, the residential structures represented by these receptors are all planned for relocation or removal as part of the planned construction activities within the build alternative.</p>
Wild and Scenic Rivers	<p>There are no Wild and Scenic Rivers present, and there would be no impacts.</p>
Floodplains	<p>The Preferred Alternative would encroach on five (5) creeks and drains in Scotts Bluff and Morrill County. In the Study Area, Ninemile Creek is located in Scotts Bluff County while Wildhorse Drain, Wildhorse Creek, West Water Creek, and Red Willow Creek are all in Morrill County. The Preferred Alternative is not anticipated to cause greater than one (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 functionally dependent floodplain uses. 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 and certifications would be obtained prior to construction, and the Project would comply with local floodplain regulations.</p>

Resource	Impacts
Water Quality	<p>Impacts on streams, irrigation canals, and drains would be limited to lengthening box culverts or bridges. The Preferred Alternative would not impair waters of Ninemile Creek or Wildhorse Drain.</p> <p>The Preliminary Impact Area would affect twelve (12) 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 permanently affect approximately 13.452 acres of wetlands and 7,253 linear feet (1.571 acre) of nine (9) waterways and other unnamed channels, drains, canals and irrigation conveyance structures. Construction of the Preferred Alternative would require a CWA Section 404 Individual Permit from the US Army Corps of Engineers. In addition, temporary impacts to wetlands and water resources during construction are anticipated. These impacts would also be included in the Section 404 permitting process.</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 swift fox, black footed ferret, northern long-eared bat, and tricolored bat. Avoidance and minimization measures for the bat species and conservation conditions for the swift fox to prevent an adverse effect would be utilized during construction.</p>
Fish, Wildlife, and Vegetation	<p>The increased distance for wildlife to cross the expanded highway may pose additional challenges. However, the depressed median that would be constructed would serve as a refuge for wildlife attempting to cross the highway. While the expansion increases the crossing distance, the overall connectivity for wildlife movement is expected to be preserved, and the risk of wildlife-vehicle crashes is likely to be maintained or minimized.</p> <p>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>
Cumulative Impacts	<p>No adverse, cumulative impacts are anticipated for any of the resources discussed above due to the Preferred Alternative and past, present, and reasonably foreseeable actions. These projects would be permitted based on federal, state, and local resource requirements prior to construction.</p>

3061

3062 4.25 Permits and Approvals

3063 Permits and approvals that would be required to implement the Project are listed in **Table 4.14**.

3064 **Table 4.14 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	Scotts Bluff County	As a participating party in FEMA's National Flood Insurance Program, Scotts Bluff County regulate activities that encroach within their FEMA-designated Zone A 100-year floodplains.
Section 106 consultation, National Historic Preservation Act	Nebraska SHPO	The Nebraska SHPO concurred with the No Adverse Effect finding on June 6, 2024.
Section 4(f) of the US Department of Transportation Act	FHWA	FHWA must approve the use of properties protected by Section 4(f). <i>De minimis</i> uses are expected at Harry's Curve Historic District, Sod House, Minatare Canal, Tri-State Canal, and the Interstate Canal. Section 4(f) documentation and coordination would occur following the public hearing.
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 2023 NDOT Programmatic Agreement for Biological Assessment with USFWS, FHWA, and NGPC has indicated a "May Affect, Not Likely to Adversely Affect" determination for the swift fox, northern long-eared bat, and tri-colored bat with implementation of conservation conditions and avoidance and minimization measures.

Permit or Approval	Granting Agency(ies)	Reason
Nebraska Nongame and Endangered Species Conservation Act	NGPC	Consultation with NGPC must occur regarding potential impacts on state-listed threatened and endangered species and their habitat. Evaluation according to the 2023 NDOT Programmatic Agreement for Biological Assessment with USFWS, FHWA, and NGPC has indicated a "May Affect, Not Likely to Adversely Affect" determination for the swift fox, northern long-eared bat, and tri-colored bat with implementation of conservation conditions and avoidance and minimization measures.

3065

3066 Chapter 5 Agency and Public Coordination

3067 This chapter summarizes agency coordination and public involvement that have taken place during
3068 the development of this EA. NDOT used a variety of methods for providing information to and getting
3069 input from stakeholders. A project stakeholder is anyone who has an interest in or may be affected by
3070 the proposed Project, either directly or indirectly, including businesses, resource agencies, elected
3071 officials, and public officials. **Appendix Q** contains agency coordination including coordination letters,
3072 scoping meeting materials, and comments received. **Appendix Q** also contains public meeting
3073 materials and comments received from the public as well as stakeholder input.

3074 5.1 Resource Agency Coordination

3075 A resource agency is a division of government with a specific regulatory role and technical expertise
3076 that can provide knowledge or assistance. Involving agencies early and throughout development of
3077 the Project can help identify potential issues and streamline permitting processes. Agencies have had
3078 the opportunity to comment on the Project three times during Project development.

3079 5.1.1 Pre-Application Meeting

3080 A Section 404 pre-application meeting was held on August 26, 2022, via a conference call. The
3081 purpose of the meeting was to present to USACE the two preliminary Build Alternatives, their potential
3082 impacts, and the potential wetland mitigation sites that NDOT had identified.

3083 USACE was in attendance. During the meeting, NDOT presented a project overview, sharing the
3084 wetland details as well as the impact summary for the north and south options. USACE also shared a
3085 Jurisdictional Determination update as well as discussed alternatives that were being considered.
3086 NDOT shared mitigation options which include the Scottsbluff Wetland Mitigation Bank. Additional
3087 topics discussed during the meeting are summarized in the meeting minutes in **Appendix Q**.

3088 5.1.2 Agency Scoping Meeting

3089 An agency scoping meeting was held on February 15, 2023, at NDOT Headquarters in Lincoln,
3090 Nebraska. Nine local, state and federal agencies were in attendance. The purpose of the meeting was
3091 to present the Project to the agencies and to seek input on the Project purpose and need, preliminary
3092 alternatives, potential resources of concern, and schedule. Topics discussed during the meeting are
3093 summarized in the meeting minutes in **Appendix Q**.

3094 5.1.3 Jurisdictional Determination Meeting

3095 A Jurisdictional Determination meeting was held on May 24, 2024, via a conference call. The purpose
3096 of the meeting was to discuss the AJD map and wetland delineations. USACE was in attendance.
3097 USACE discussed updates that needed to be applied to the AJD map to increase wetland boundaries
3098 in three locations. Wetlands discussed included S-40, S-42/S-44, S-52/S-54, Tri-State Canal, S-9, S-15
3099 and S-83. Additional topics discussed during the meeting are summarized in the meeting minutes in
3100 **Appendix Q**.

3101 5.2 Public and Stakeholder Coordination

3102 The purpose of public involvement during the NEPA process is two-fold: (1) it provides stakeholders
3103 with information about the proposed Project and its status; and (2) it allows NDOT to get input on the
3104 proposed Project or Project Study Area. Ideally, public involvement builds agreement about a project
3105 solution by determining benefits and impacts while addressing concerns that have been identified.

3106 5.2.1 Stakeholder Meeting with City of Minatare

3107 A meeting was held with the City of Minatare on November 3, 2021, at the Minatare Head Start Center.
3108 NDOT, NDOT District 5 representatives, City of Minatare representatives, and the City Engineer were in
3109 attendance. The purpose of the meeting was to update the City of Minatare regarding the project
3110 status, tentative project schedule, relevant issues and concerns from Minatare and NDOT District 5,
3111 and access points through Minatare. During the discussion, concerns were shared regarding the
3112 project schedule and if there is ample time for right-of-way acquisitions, relocations and
3113 condemnations, and utility relocations. The City of Minatare also expressed their concerns regarding
3114 the project impacting new development and new infrastructure including a new water line, a new
3115 sanitary force main, a Dollar General under construction, and the potential construction of a new fuel
3116 station and convenience store. NDOT requested contact information for Dollar General to analyze their
3117 site plan. NDOT also requested plans and files for recent water and sewer improvements. Notes from
3118 the meeting are included in **Appendix Q**.

3119 5.2.2 Irrigation Districts Meeting

3120 A stakeholder meeting was held with the irrigation districts on November 3, 2021, at the Minatare
3121 Head Start Center. NDOT, NDOT District 5 representatives, Farmers Irrigation District, Minatare
3122 Drainage, Minatare Mutual Canal, and Pathfinder Irrigation District were in attendance. The purpose of
3123 the meeting was to update the irrigation districts regarding the project status, tentative project
3124 schedule, Section 106 National Register Eligible Properties, relevant issues and concerns for the
3125 irrigation districts as well as mitigation and timing. The discussion covered the historical summary of
3126 each of the canals, including the Interstate Canal, the Tri-State Canal, Minatare Mutual Canal and
3127 Irrigation. Regarding relevant issues and concerns, NDOT clarified nomenclature regarding the
3128 irrigation facilities and the districts shared concerns regarding the proposed project. The districts
3129 prefer all canal and drainage work to be completed prior to commencement of the roadway
3130 construction. Notes from the meeting are included in **Appendix Q**.

3131 5.2.3 Stakeholder Meeting

3132 NDOT identified 6 stakeholders as having an interest in the Project, including local irrigation districts,
3133 the City of Minatare, Scotts Bluff County Public Works and Morrill County Highway Superintendent.
3134 The list of attendees is included in **Appendix Q**. A stakeholder meeting was held on September 8, 2022,
3135 at Minatare High School, in Minatare, Nebraska. The purpose of the meeting was to present the
3136 Project to the stakeholders, to receive feedback, and to address any concerns that the stakeholders
3137 had. Questions and comments that the stakeholders had are summarized in Appendix Q. Discussions
3138 with stakeholders involved the feasibility of a potential irrigation siphon at a canal conveyance
3139 structure, concerns about the impacts to canal conveyance and a request that Minatare Drain be tied
3140 into Nine Mile Creek to eliminate the remaining drain and its crossing. Notes from the meeting are
3141 included in **Appendix Q**.

3142 5.2.4 Public Meeting

3143 A public information open house meeting was held on September 8, 2022, at Minatare High School, in
3144 Minatare, Nebraska. Approximately 103 people were in attendance. At the meeting, NDOT presented
3145 the purpose and need and the two alternatives developed for the proposed Project, and allowed
3146 feedback from the public. NDOT received 53 comments during the specified comment period (August
3147 17 through September 23, 2022). Several comments were regarding if a super two concept was
3148 considered and questions regarding potential project impacts. The comments and corresponding
3149 responses are summarized in **Table 5.1** and are detailed in the public meeting summary in **Appendix**
3150 **Q**.

3151 Table of public comments and responses (Comments from the same person were merged):

3152 **Table 5.15 Comments and Responses**

Comment	Response Summary
Does not like the "Super Two" suggested by Senator Steve Erdman. Thinks majority of people would like a four lane highway with 70 m.p.h. speed.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
North alternative best logical route to choose. If the south route were chosen, cause hardship for the county road department. Mechanic would close business rather than rebuild.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Liked the process. Thinks staff have done through research.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; if share address, can add to project distribution list.
Public meeting informative. State individuals knowledgeable in answering questions. Project needed. Currently has farms that will be affected but project worth the sacrifice.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Do not put a 4-lane from Hwy 385 to Minatare. Concerned re: impacts. Wants a Super 2 Highway.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.

Comment	Response Summary
<p>4-lane will bring more businesses to the area. Hoping project gets going soon. Let District 5 help with informing people; thinks a lot of people didn't hear about project. Pedestrian Refuge by Stonegate for future sidewalks from town to business on north side. Wants Stonegate intersection big enough to handle trucks & equipment turning.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Concern about impact on the people and environment. Would like to know more about Super Two.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW and environmental impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Provide utility companies with road move prints at lease year in advance.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Concern about property impacts. This would only be effected by the south route. Impact to crop production when construction occurs.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Concern about Hwys 26 and Link 62 travel with farm equipment and winter. Expansion of lanes appreciated.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Believes 4 lane will help travel safer.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Requests a Super 2 Way Highway to be put in, instead of a 4 lane.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>

Comment	Response Summary
<p>Wants consideration for affects like shortened pivots. Wants an alternate route going northeast for Scottsbluff considered. Thinks super 2 highway a better option.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Wants 2 lane super highway instead of a 4 lane highway. Concerned regarding ROW impacts to house currently building.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Wants 2 lane super highway instead of a 4 lane highway. Concerned regarding ROW impacts to property.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Concerns regarding possible ROW impacts to acreage.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Believes project great benefit for the City of Minatare. Wonders if going be lights/crossing to the Dollar Store.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Wants Super 2 Highway instead. Unethical to take homes.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>No build option should be considered; second choice is Super 2.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>
<p>Owner of "Harry's" Truck Stop on the north side of the US 26; looking into potentially adding the property to Federal Historical Register. Concern regarding ROW impacts.</p>	<p>Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.</p>

Comment	Response Summary
Prefer the south way.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Crosswalk at Dollar General; Speed of vehicles; prefers Super 2 Highway instead of the 4 lane highway.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Money wasted; wants US 26 from I-25 to Ogallala 4 lanes.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
In favor of 4 lanes – either north route or south.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
North alternative preferred if only 2 options; super 2 a possibility?	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Wants Super 2 Highway rather than a 4 lane; concerned will disrupt homes.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Wants cattle underpass.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Concerned regarding ROW impacts to property; not for project.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Wants to be contacted regarding project updates; likes Super 2.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.

Comment	Response Summary
No strong opinion of north or south route. Concerned regarding impacts to irrigation districts.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Supports project.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Better communication & notification on meeting times. Decisions need to be made soon.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
For a Super 2 highway. Concerned regarding possible ROW impacts to farms and access.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Concerned property at County Road 36 and US HWY 26 a historical homestead. Concerned about ice buildup at location.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Concerned regarding ROW impacts to property if north side decided. Concern with the increase in traffic and higher speeds. Wants south side or no build option. Ok with "super-two" if no ROW impact to property. Concern regarding drainage.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Thank you; looks forward to project moving forward.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Ensure adequate ingress and egress at Stonegate Road as well as Main Street.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.

Comment	Response Summary
Prefers north side. Ok with impacts to Harry's Truck Stop.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Wants 62A and Hwy 385 intersection reconfigured to prioritize through traffic. Does not want stop sign on expressway.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Supports north option. Maybe a 4-lane highway with a center turn lane. A Super 2 highway from Angora to Minatare makes no sense.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Does not want project built. Concern regarding impacts. Wants super 2 considered. Why all North or all South route instead of older zig-zagging plan. Concern regarding impacts to property and business.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Possible historic fountain at Moomaw's corner. Concerned regarding impacts to fountain and Harry's truck stop.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW and environmental impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Scotts Bluff County Road Department prefers north side of Highway 26.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
(N/A) (Two emails with no content)	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Thinks 4 lane highway unnecessary; thinks super 2 highway better.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.

Comment	Response Summary
Wants super 2 highway. Thinks super 2 has less impacts.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Thinks Super Highway logical solution.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Supports four lane route. Drives route frequently.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
City attorney, including Minatare city limits map. Concern regarding impacts to Harry's truck stop. Concerned regarding north impacts and pedestrians crossing. City of Minatare would like to meet with NDOT.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; additional public meeting planned in future. NDOT District 5 staff met with of Minatare November 10, 2022. Can subscribe for updates on project website; will add to project distribution list.
Does not believe 4 lane highway should be built. Concerned regarding ROW impacts. Wants only to be built with passing lanes.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.
Thinks expressway does not require a 4 lane highway. Thinks only needs passing lanes. Concerned regarding impacts.	Appreciated input. Project in the very early stages of preliminary engineering and plan development; ROW impacts unknown. additional public meeting planned in future. Committed to working with project stakeholders as advance. Can subscribe for updates on project website; will add to project distribution list.

3153 **5.2.5 Irrigation Districts & Stakeholder Meeting**

3154 A stakeholder meeting was held on April 19, 2023, at NDOT Headquarters in Lincoln, Nebraska, with
 3155 NDOT, FHWA, NDOT District 5 representatives, City of Minatare city engineer, Farmers Irrigation
 3156 District and Minatare Mutual Canal and Drainage District in attendance. The purpose of the meeting
 3157 was to provide an overview of the project and schedule. NDOT also discussed concerns with the City
 3158 of Minatare City Engineer, Minatare Mutual Canal and Drainage District and Farmers Irrigation District.
 3159 The City of Minatare shared that are several utilities within the Minatare corporate limits not currently
 3160 shown in the topographic survey and Century Link intends to install fiber nearby the project. NDOT will
 3161 coordinate with Century Link regarding their proposed fiber installation. Minatare Mutual Canal District
 3162 and NDOT had a discussion regarding the desire to move the Minatare Drain off state right-of-way

3163 with this project. Farmers Irrigation District shared they were creating maps of their underground
3164 systems to provide the project team and stated the majority of irrigation districts upstream from their
3165 facilities have contracts through the federal government. The design team shared plans to digitize
3166 maps provided by the irrigation districts and then send plans back to the irrigation district for
3167 confirmation. Notes from the meeting are included in **Appendix Q**.

3168 5.2.6 Irrigation Districts Meeting

3169 An additional stakeholder meeting was held with the irrigation districts on July 28, 2023, at NDOT
3170 Headquarters in Lincoln, Nebraska. NDOT, NDOT District 5 representatives, Farmers Irrigation District
3171 and Minatare Drainage were in attendance. The purpose of the meeting was to share an update from
3172 Farmers Irrigation, an overview of the NDOT relocation process, the feasibility of design alternatives
3173 and project next steps. Farmers Irrigation shared they were working to finalize mapping facilities with
3174 sizes, depths, and flows, from the Scotts Bluff/Morrill County line to US 385. NDOT shared regarding
3175 the relocation process and discussed two examples of past agreements. NDOT also discussed design
3176 alternatives for Minatare Drain relocation, the twin Box Culvert near L62A MM 1.52, and culvert
3177 sedimentation. Notes from the meeting are included in **Appendix Q**.

3178 5.3 Public Hearing

3179 Following the approval and publication of the Draft EA by FHWA, a public hearing will be held to seek
3180 comments on the Draft EA and present the Preferred Alternative. The hearing will also provide a public
3181 forum to allow members of the public to comment on the Project. A public notice advertising the
3182 hearing time and location will be provided in newspapers and targeted mailers as was done for the
3183 public information open house.

3184 The Public Hearing is scheduled for November 21, 2024, at Minatare Elementary School, Minatare, NE
3185 from 5:30pm until 7:30. Materials and staff will be available for questions, and a presentation will be
3186 given at 6:05pm, with a public forum to be held immediately following.

3187 5.4 Availability of Draft EA for Review

3188 An electronic version of the Draft EA is available for review on the NDOT website at:

3189

- <https://dot.nebraska.gov/projects/environment/pubs/project-docs/>

3190 Hard copies of the Draft EA are available for review at the following locations:

- 3191
 - NDOT Headquarters (1500 Nebraska Parkway, Lincoln, NE)
- 3192
 - FHWA Nebraska Division (100 Centennial Mall N., Lincoln, NE)
- 3193
 - NDOT District 5 Headquarters (140375 Rundell Rd, Gering, NE)
- 3194
 - Minatare Public Library (309 Main St, Minatare, NE)

3195 Chapter 6 Commitments and Mitigation

3196 This chapter summarizes the commitments and mitigation measures identified in **Chapter 4** of this
3197 Environmental Assessment. The mitigation measures include resource-specific strategies and special
3198 provisions that have been identified through the NEPA process to address potential environmental
3199 impacts. These commitments are designed to avoid, minimize, or compensate for the effects of the
3200 proposed project on the environment.

3201 6.1 Land Use

3202 No mitigation with respect to land use will be required for the project.

3203 6.2 Agriculture and Farmland

3204 NDOT would compensate the landowners and/or current leaseholders for impacts on the center pivot
3205 irrigation systems. Compensation would include, but not be limited to, relocating the center pivot
3206 system, modifying the center pivot equipment, and/or relocating the well supplying the center pivot
3207 system. NDOT would coordinate with the landowner during the ROW process. (NDOT)

3208 6.3 Right-of-Way and Relocations

3209 ROW acquisitions, types, and amounts are based on conceptual design. Impacts on ROW and
3210 properties would be further refined and minimized to the extent possible during the final design phase
3211 of the Project. (NDOT)

3212 Access to adjacent properties would be maintained throughout construction. Access restrictions
3213 would be coordinated with the property owner prior to the restriction. (NDOT, Contractor)

3214 Property rights acquisition would be conducted by paying fair market value for the property rights and
3215 damages that may occur. ROW acquisition would be conducted in conformance with the Uniform Act
3216 (42 USC 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance
3217 Act (Nebraska Revised Statutes Section 76-1214 et seq.). (NDOT)

3218 6.4 Community Cohesion and Community Facilities

3219 The design and construction phases of the project would incorporate and follow the NDOT Roadway
3220 Design Manual's standards related to work zone traffic control plans, NDOT's Standard Specifications
3221 for Highway Construction, and adherence to all federal, state, and local laws and regulations.

3222 Construction activities would be coordinated with annual local events in an effort to minimize traffic
3223 delays and travel pattern disruptions, where possible. (NDOT Design)

3224 Efforts would be made during the design phase to minimize necessary property acquisition and
3225 relocations, where feasible. Property rights acquisition would be conducted by paying fair market
3226 value for the property rights and damages that may occur. Right-of-way acquisition would be
3227 conducted in conformance with the Uniform Act (42 USC 4601 et seq.), Title VI of the Civil Rights Act
3228 of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et
3229 seq.). The design process will also take into consideration the community concern related to the need
3230 for pedestrian crossing facilities in the City of Minatare to maintain existing community connectivity
3231 and access to the City's only grocery store on the north side of US-26. Elements for enhancing non-
3232 motorized safety at this location would be considered and incorporated, where feasible. (NDOT
3233 Design)

3234 6.5 Environmental Justice

3235 The contractor shall maintain access for both vehicles and pedestrians during the construction phase
3236 to facilitate travel across US-26 to and from Minatare to the Dollar General store located at 130910
3237 Stonegate Rd, Minatare, NE 69356. (Contractor)

3238 The project design shall explore the creation of pedestrian refuge areas within the US-26 raised
3239 median while crossing the highway. (NDOT Design)

3240 NDOT shall ensure the businesses and organizations, identified in the following bullet points, are
3241 included on the distribution list for the pending project Public Hearing. (NDOT Public Involvement)

- 3242 • Assembly of God Church, located at 907 Main St, Minatare, NE 69356
- 3243 • Minatare Park, located at 909 Main St, Minatare, NE 69356
- 3244 • Minatare High School Football Field, located at 1107 7th St, Minatare, NE 69356
- 3245 • Minatare High School Track, located at 1107 7th St, Minatare, NE 69356
- 3246 • Dollar General, located at 130910 Stonegate Rd, Minatare, NE 69356

3247 6.6 Transportation

3248 For county roadway realignments, county roads adjacent to the closed roadway would not be closed
3249 at the same time and would remain open to traffic. (NDOT, Contractor)

3250 Access to properties may be limited at times throughout construction but would remain open. The
3251 Contractor would coordinate with property owners to maintain access to fields and residences.
3252 (Contractor)

3253 Any contractor involved in the project shall file a 7460-1 Form with the FAA for all structures or
3254 equipment over 200' tall, or that break a 100:1 slope from a public-use airport. This includes any
3255 trucks, cranes, or any equipment used on the project. A 7460-1 form would need to be filed for each
3256 new structure that may be part of this project, like bridges or overpasses or if an existing structure's
3257 elevation would change. (Contractor)

3258 6.7 Utilities

3259 Impacts on utilities are not avoidable because several utilities are located near or within the existing
3260 ROW. The Contractor should follow the guidelines of NDOT's Utility Accommodation Policy (NDOT
3261 2024). It is NDOT's responsibility to notify utility companies of the need for relocation during the
3262 design stage of the Project. The NDOT Utility Section would coordinate utility agreements with the
3263 utility companies prior to construction. It is the Contractor's responsibility to notify utility companies of
3264 relocation needs during the construction phase of the Project for utilities that were not relocated
3265 before construction. (NDOT, Utility Provider(s))

3266 If utility relocation or replacement is required in a later phase of the Project, a re-evaluation would be
3267 required if (1) federal funds will be used for the utility work, or (2) the Project construction contractor
3268 will be responsible for the work.

3269 If this utility work is identified during final design, NDOT would initiate the re-evaluation prior to Project
3270 letting. If the work is identified during construction, NDOT would initiate the re-evaluation prior to
3271 commencing utility work. (NDOT Environmental, NDOT District)

3272 If either one of the above two conditions does not apply, later relocation or replacement of utilities
3273 would be coordinated through NDOT and the Contractor per NDOT's Standard Specifications for

3274 Highway Construction, Subsection 105.06. Any environmental permits required for these utility
3275 relocations or replacements would be the responsibility of the utility. (NDOT District, Utility Provider(s))

3276 6.8 Irrigation Canals and Districts

3277 Mitigation measures would be added once adequate coordination with the districts has been
3278 completed.

3279 6.9 Historic Properties

3280 Five Sensitive Areas have been identified along this project. These Sensitive Area(s) shall be indicated
3281 on project plans. (Design)

3282 Five Sensitive Areas have been identified along this project.

3283 6) Harry's Curve, US-26, MM 33.19 – 33.38, north side (STA 113+27 R to 123+00 L). No grading
3284 or project activities, including but not limited to, working, staging, borrowing, stockpiling, or
3285 storing material and/or equipment, shall occur beyond the temporary easement. (Contractor)

3286 7) Sod House, US-26, MM 1.19 – 1.21, south side & an area along CR 77 (see stationing) (STA
3287 635+00 – 636+21 R & STA 5601+00 – 5602+65 R). No grading or project activities, including
3288 but not limited to, working, staging, borrowing, stockpiling, or storing material and/or
3289 equipment, shall occur beyond the newly acquired ROW. (Contractor)

3290 8) Tri-State Canal (3 locations), L62A, MM 5.37, north & south side (STA 854+77 L&R); L62A, MM
3291 5.81, north & south side (STA 879+74 L&R); L62A, MM 6.13, north & south side (STA 894+36
3292 L&R). No grading or project activities, including but not limited to, working, staging, borrowing,
3293 stockpiling, or storing material and/or equipment, shall occur beyond the temporary or
3294 permanent easement. (Contractor)

3295 9) Interstate Canal, L62A, MM 7.43, north & south side (STA 963+52 L&R). No grading or project
3296 activities, including but not limited to, working, staging, borrowing, stockpiling, or storing
3297 material and/or equipment, shall occur beyond the temporary or permanent easement.
3298 (Contractor)

3299 10) Minatare Canal, US-26, MM 34.64, north side (STA 191+57 R). No grading or project activities,
3300 including but not limited to, working, staging, borrowing, stockpiling, or storing material and/or
3301 equipment, shall occur beyond the temporary or permanent easement required to move the
3302 end point of the canal north. (Contractor)

3303 6.10 Paleontology

3304 For paleontological resources, additional field surveys and test excavations would be conducted prior
3305 to construction by the HSPP. The HSPP would be informed throughout the planning process with
3306 regard to alignment choice, grading details, and borrow pit locations. On-site monitoring and the fossil
3307 mitigation plan would be implemented throughout all phases of construction. (NDOT, Contractor)

3308 In the event of a discovery of paleontological materials during construction, NDOT Standard
3309 Specifications for Highway Construction, Subsection 107.10 (2017, pg. 64) states, "The Engineer
3310 should be immediately notified when any such articles are uncovered, and the Contractor should
3311 immediately suspend operations in the area involved until such time that arrangements are made for
3312 their removal and preservation." (Contractor)

3313 6.11 Visual Effects

3314 No mitigation measures for visual and aesthetic impacts will be required for the project.

3315 6.12 Section 4(f) Properties

3316 The contractor shall not complete work, stage, stockpile or store materials within the boundaries of
3317 the following Section 4(f) properties: Minatare Elementary School, Minatare High School, and Minatare
3318 City Park. If it is determined that temporary or permanent right-of-way is required from or access is
3319 restricted to a Section 4(f) property, coordination shall occur with NDOT Environmental. (Contractor)

3320 The following properties shall be marked on the project plans as sensitive areas: Minatare Elementary
3321 School, Minatare High School, and Minatare City Park. (Design)

3322 6.13 Section 6(f) Properties

3323 No mitigation measures for Section 6(f) properties will be required for the project.

3324 6.14 Hazardous Materials

3325 The following commitments are needed for the preferred alternative. It should be noted that the
3326 specific “Contractor Commitments” are those that would be included in the contract documents and
3327 provide more basic information for field personnel. All commitments below are included in Chapter 6.

3328 **Unexpected Waste:**

3329 If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all
3330 work within the immediate area. The Contractor shall secure the area of the discovery and notify the
3331 Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by
3332 the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste
3333 Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are
3334 (but not limited to): verification that the Contractor has suspended construction activities in the area
3335 of the discovery, contact the Roadside Development & Compliance Unit (RDCU) hazmat representative
3336 and make an entry into AASHTOware Project that an unexpected waste discovery was made. The
3337 HPM shall then utilize the UWAP Notification Form (NDOT Form 691) to properly document the extent
3338 and type of waste. The HPM will ensure that proper disposal of the waste and any required health and
3339 safety mitigation is implemented by the Contractor. The Contractor is required by NDOT's Standard
3340 Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated
3341 material in accordance with applicable laws.

3342 Contractor Commitment: If contaminated soils/groundwater or unexpected wastes are discovered,
3343 The Contractor shall stop all work within the immediate area. The Contractor shall limit access to
3344 authorized personnel within the area of the discovery and notify the Highway Project Manager (HPM).
3345 The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery,
3346 the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate
3347 appropriate actions. The Contractor is required by NDOT's Standard Specification section 107.11
3348 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with
3349 applicable laws.

3350 **Encountering Contamination:**

3351 There is a medium potential for petroleum contamination to be present in the soils/groundwater at
3352 project Minatare-US-385 (CN 51521), as well as at least one confirmed UST that will require

3353 excavation. Two locations identified below will have a medium potential for contamination to impact
3354 the project:

3355 **Minatare Plaza:** North side of US-26 from MM 33.30 to 33.40. Potential to encounter existing
3356 petroleum contamination in active monitoring area during grading.

3357 **Former Tony's Service Station:** NE corner of US-26 and L62A intersection from L62A MM 0.15
3358 to 0.20. Existence of at least one underground storage tank in the SW corner of this parcel
3359 was confirmed with ground penetrating radar. Potential for a second tank exists adjacent to
3360 the north of the first tank.

3361 The Contractor shall be aware of the possibility of encountering contamination in this area during
3362 construction activities and look for signs such as odor and/or discolored soil. The Highway Project
3363 Manager shall be notified seven days prior to when construction is expected to begin in the suspect
3364 area. If contamination is discovered, all work in the immediate area shall be stopped until the
3365 Nebraska Department of Environment & Energy (NDEE) and NDOT RDCU hazmat representative are
3366 notified, and a materials management plan has been developed and approved. The Contractor shall
3367 manage the waste in accordance with Title 128, Nebraska Hazardous Waste Regulations and/or Title
3368 132 Integrated Solid Waste Management Regulations. The Contractor is required by Standard
3369 Specification Section 107, Legal Relations and Responsibilities To The Public, to handle and dispose
3370 of contaminated material in accordance with applicable laws.

3371 A licensed contractor will be required to remove the tank/s at the former Tony's Service Station
3372 location. The licensed contractor shall provide Closure Assessment Report (CAR) services, including
3373 excavation pit field samples, for submittal to the Nebraska State Fire Marshal. The CAR will be
3374 conducted in accordance with NDEE regulations detailed in Petroleum Underground Storage Tanks:
3375 Closure Assessment Sample Collection and Over-Excavation, Revised September 2022.

3376 Remediation of hazardous materials at the Minatare Plaza located between MM 33.30 and 33.40 on
3377 US-26, if any, will be paid for as extra work according to Subsection 104.02, paragraph 5 and
3378 Subsection 109.05 of the Standard Specifications. Removal of the tank(s) at the former Tony's Service
3379 Station located at MM 0.18 on L62A will be paid for as "Clear Tract" in accordance with the Special
3380 Provision titled "Clear Tract at MM 0.18 on L62A".

3381 **Monitoring/Remediation Wells:**

3382 There are one or more monitoring wells and/or soil vapor extraction (SVE) wells at Minatare Plaza
3383 located on US-26 between MM 33.30 to 33.40 at the Minatare Plaza facility. The monitoring/SVE wells
3384 will be located and marked by the Highway Project Manager (HPM) in the field. Construction activities
3385 near the wells will be performed as to avoid damage to the wells. In the event that a monitoring/SVE
3386 well is damaged, the Contractor shall notify the HPM immediately. The NDOT HPM will coordinate
3387 with the NDOT RDCU hazmat representative for guidance regarding remediation of the damage. The
3388 Contractor shall remediate any damaged monitoring/SVE wells as directed by the Engineer. The HPM
3389 will upload documentation of the Contractor's remediation to OnBase (NDOT Dist. Environmental,
3390 description: monitoring well remediation).

3391 Contractor Commitment: The Contractor shall avoid damaging any monitoring or SVE well as marked
3392 in plans or in the field. In the event that a monitoring well/SVE well is damaged, the Contractor shall
3393 stop work at that location and notify the Highway Project Manager immediately. The Contractor shall
3394 comply with the Engineer's direction concerning remediation of damaged monitoring/SVE wells and
3395 shall not continue construction activities in the vicinity of the damaged well until notified by the
3396 Engineer.

3397 **Asbestos:**

3398 The Contractor shall survey any building structures acquired for demolition for the presence or
3399 absence of asbestos containing material (ACM). The inspector must be certified in accordance with
3400 the Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control
3401 Program Regulations, Title 178. A list of Licensed Asbestos Inspectors can be found at:
3402 <http://dhhs.ne.gov/Pages/Asbestos.aspx>. Documentation of the survey shall be provided to the
3403 Highway Project Manager by the Contractor prior to structure demolition. The Highway Project
3404 Manager will record survey documentation in OnBase.

3405 If ACM is found to be present, removal and disposal of the ACM shall be in accordance with DHHS
3406 Nebraska Asbestos Control Program Regulations, Title 178 and will occur prior to any bridge
3407 demolition or renovation activities. The Contractor shall develop a removal and disposal plan in
3408 coordination with a licensed asbestos removal contractor and NDOT. A list of licensed asbestos
3409 removal contractors can be found at: <http://dhhs.ne.gov/Pages/Asbestos.aspx>

3410 Contractor Commitment: The Contractor shall survey any building structures acquired for demolition
3411 for the presence or absence of asbestos containing material (ACM). The Contractor's inspector must
3412 be certified in accordance with the Nebraska Department of Health and Human Services (DHHS)
3413 Nebraska Asbestos Control Program Regulations, Title 178. If ACM is found to be present, the
3414 Contractor shall develop a removal and disposal plan in coordination with a licensed asbestos
3415 removal contractor.

3416 **Building Removal:**

3417 (Standard Specifications for Highway Construction 2017 Section 203.01; paragraph 4.)

3418 a. It shall be the responsibility of the Contractor to determine if any of the buildings to be
3419 removed have materials containing asbestos. If it is determined that some or all of the
3420 buildings contain asbestos, the asbestos shall be removed prior to the building removal. All
3421 asbestos shall be removed in accordance with State of Nebraska Health and Human Services
3422 Department, Environmental Protection Agency, and the Nebraska Department of Environment
3423 and Energy regulations. A Contractor trained and certified in asbestos handling shall perform
3424 all asbestos removal and handling operations.

3425 b. The work of determining if any of the buildings contain asbestos shall be considered
3426 subsidiary to the item "Remove Building at ____."

3427 c. The work of asbestos abatement will be paid for as "Extra Work" as described in Subsection
3428 104.04.

3429 Contractor Commitment: The Contractor shall submit a written National Emissions Standards for
3430 Hazardous Air Pollutants (NESHAP) notification to the Nebraska Department of Environment and
3431 Energy (NDEE) and a Department of Health and Human Services (DHHS) Form 5 at least 10 business
3432 days prior to demolition/renovation. The 10-day clock starts when the NESHAP and Form 5
3433 notifications are post marked, hand delivered, or picked up by a commercial delivery service. Faxing
3434 documents is prohibited. The Contractor shall provide the Highway Project Manager copies of the
3435 notifications and their submittal date prior to demolition/renovation activities. The Highway Project
3436 Manager will upload NDEE NESHAP and DHHS Form 5 documentation to OnBase.

3437 **Toxic Metal-Based Paint/Lead-Based Paint:**

3438 There is potential for lead or toxic metal-based paint to be found on the structures to be demolished or
3439 repaired. Regardless of toxicity, extreme caution shall be taken to minimize the amount of painted
3440 material or debris from causing or threatening to cause pollution of the air, land, and waters of the
3441 State. The Contractor shall create an implementation plan to dispose of paint waste in accordance
3442 with NDOT's Standard Specification for Highway Construction Section 732 (Lead-based Paint

3443 Removal) and Title 128 Nebraska Hazardous Waste Regulations. The Contractors implementation
3444 plan shall be provided to the HPM and documented in OnBase.

3445 6.15 Air Quality

3446 No mitigation measures for air quality will be required for the project.

3447 6.16 Noise

3448 Exhaust and muffler systems on construction equipment would be in good working order.
3449 Construction equipment would be maintained on a regular basis, and equipment may be subject to
3450 inspection by the construction project manager to ensure maintenance. (Contractor, NDOT Project
3451 Manager [PM])
3452 The Contractor would locate noise-emitting stationary equipment (for example, compressors, and
3453 generators) to avoid unnecessary impacts on residents and businesses. (Contractor, NDOT PM)
3454 Noise impacts are based on conceptual design. Additional design refinement and coordination
3455 regarding noise abatement would occur during the final design stages per NDOT's Noise Analysis and
3456 Abatement Policy. (NDOT Environmental)

3457 6.17 Wild and Scenic Rivers

3458 No mitigation measures for wild and scenic rivers will be required for the project.

3459 6.18 Floodplains

3460 The US-26 and L62A roadway and bridges would be designed to adequately convey flood flows along
3461 existing drainage patterns. Construction of the Project would have floodplain encroachments, but
3462 Project impacts would be certified that federal, state, and local floodplain regulations are met, and a
3463 Floodplain Development Permit would be obtained from the appropriate jurisdictions prior to
3464 construction. All conditions of the permit would be adhered to during construction. (NDOT
3465 Environmental, Contractor)

3466 6.19 Water Quality

3467 NDOT would coordinate with the owners of wells that would be directly impacted by the Project during
3468 the ROW process. If the well is actively used, NDOT would have the well relocated and replaced. If a
3469 well is not currently in use, the Contractor would decommission the well, as needed, during
3470 construction in accordance with Nebraska Administrative Code Title 178, Chapter 13. (NDOT Right-of-
3471 Way, Contractor)
3472 A licensed Water Well Contractor will decommission any wells in accordance with the Department of
3473 Health and Human Services (DHHS) regulations under Nebraska Administrative Code Title 178, Water
3474 Well Standards, Chapter 12, Water Well Construction, Pump Installation, and Water Well
3475 Decommissioning Standards (Nebraska DHHS 2005). (NDOT, Contractor)
3476 This project requires a Construction Stormwater Permit and that a Storm Water Pollution Prevention
3477 Plan (SWPPP) be maintained for the project. The Contractor shall understand the terms and
3478 conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that
3479 authorizes the storm water discharges associated with activity from the construction site. For
3480 reference, the general permit is posted on the Department's website. (Contractor)

3481 Manure has not been specified for this project, however, existing soil material from former feedlot
3482 pens may be encountered during grading operations. Stockpiled material from the locations identified
3483 in the Special Provision will be utilized on the project as prescribed by the Manure Topdressing Special
3484 Provision. (NDOT Roadway Design)

3485 6.20 Wetlands and Water Resources

3486 All wetlands within the Project limits that are not permitted for impact would be marked on the Project
3487 plans and the E Sheet as avoidance areas. (NDOT Roadway Design, NDOT Environmental)

3488 The Contractor shall not stage, store, waste, or stockpile materials and equipment in undisturbed
3489 locations or in known/potential wetlands and/or known/potential streams that exhibit a clear “bed and
3490 Bank” channel. Potential wetland areas consist of any area that is known to pond water, swampy
3491 areas, or areas supporting known wetland vegetation or areas where there is a distinct difference in
3492 vegetation (at lower elevations) from the surrounding upland areas. (Contractor)

3493 The Project will require an Individual Permit for impacts to waters of the US. The Contractor shall
3494 adhere to all permit conditions, including regional and general conditions, during construction. All
3495 wetlands/waters within the project area that are not permitted for impacts shall be marked on the
3496 project plan aerial sheets for the Contractor as avoidance areas. (NDOT Design, NDOT Environmental,
3497 Contractor)

3498 Avoidance and minimization measures would be further refined during the preliminary and final design
3499 processes as appropriate. The design would comply with the policy of Executive Order 11990 (42 FR
3500 26961) regarding impacts on wetlands. Additionally, any project using federal transportation funds
3501 must adhere to the net gain of wetland policy (23 CFR 777.11(g)), where there would be no net loss of
3502 wetlands across the program in a given year. (NDOT Roadway Design, NDOT Environmental)

3503 6.21 Threatened and Endangered Species

3504 **A-1 Changes in Project Scope.** If there is a change in the project scope, the project limits, or
3505 environmental commitments, the Highway Project Manager shall coordinate with the NDOT
3506 Environmental Section to evaluate potential impacts prior to implementation. Environmental
3507 commitments are not subject to change without prior written approval from the NDOT Environmental
3508 Section. (*District Construction*)

3509 **A-2 Conservation Conditions.** Conservation conditions are to be fully implemented within the project
3510 limits as shown on the plans. (*District Construction, Contractor*)

3511 **A-3 Early Construction Starts.** Contractor request for early construction starts must be coordinated
3512 by the Project Construction Engineer with NDOT Environmental for approval of early start to ensure
3513 avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes could require
3514 consultation with the USFWS and NGPC. (*District Construction, Contractor*)

3515 **A-4 T&E Species.** If federal or state listed species are observed during construction, the Highway
3516 Project Manager will contact NDOT Environmental Section to determine if additional species
3517 conservation conditions would be required prior to continuing project construction activities. Contact
3518 NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS
3519 and NGPC may be required depending on the species identified and construction activities. (*NDOT
3520 Environmental, District Construction, Contractor*)

3521 **A-5 Refueling.** Refueling will be conducted outside of those sensitive areas identified on the plans, in
3522 the contract, and/or marked in the field. (*Contractor*)

3523 **A-6 Restricted Activities.** The following project activities shall, to the extent possible, be restricted to
3524 between the beginning and ending points (stationing, reference posts, mile markers, and/or section-
3525 township-range references) of the project, within the right-of-way designated on the project plans:
3526 borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul
3527 roads, stockpiling areas, staging areas, and material storage sites.

3528 For activities outside the project limits, the contractor should refer to the Nebraska Game and Park
3529 Commission website to determine which species ranges occur within the off-site area. The contractor
3530 should plan accordingly for any species surveys that may be required to approve the use of a borrow
3531 site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT's
3532 website), where species survey protocols can be found, to estimate the level of effort and timing
3533 requirements for surveys.

3534 Any project related activities that occur outside of the project limits must be environmentally
3535 cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate
3536 agencies by the contractor and those clearances/permits submitted to the District Construction
3537 Project Manager prior to the start of the above listed project activities. The contractor shall submit
3538 information such as an aerial photo showing the proposed activity site, a soil survey map with the
3539 location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a
3540 minimum of 4 different ground photos showing the existing conditions at the proposed activity site,
3541 depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The
3542 contractor must receive notice of acceptance from NDOT environmental, prior to starting the above
3543 listed project activities. These project activities cannot adversely affect state and/or federally listed
3544 species or designated critical habitat. (*NDOT Environmental, District Construction, Contractor*).

3545 **A-7 Waste/Debris.** Construction waste/debris will be disposed of in areas or a manner which will not
3546 adversely affect state and/or federally listed species and/or designated critical habitat. (*Contractor*)

3547 **A-8 Post Construction Erosion Control.** Erosion control activities carried out by NDOT Maintenance or
3548 others after construction is complete, but prior to project close-out, shall adhere to any standard
3549 conservation conditions for species designated for the project limits during construction. (*NDOT*
3550 *Maintenance, District Construction, Contractor*)

3551 **S-1 Fencing.** When project-related fence construction/relocation work is required to be done prior to
3552 the start of construction, and if the fence work occurs outside urban or cropland areas that are not
3553 within swift fox range, then fencing can be installed/relocated at any time using the following criteria:

- 3554 c. the fencing is temporary in nature and/or consists of only hand-driven posts
3555 d. the work does not compact the soils (ex. through the use of heavy equipment) or
3556 cause soil disturbance beyond the driving of posts

3557 If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with
3558 NDOT Environmental Section prior to the completion of Right-of-way negotiations.

3559 **S-2 Platte River Depletions** To the maximum extent practical, efforts will be made to design the project
3560 and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a
3561 depletion, NDOT (during design) and the Contractor (for borrow sites) shall follow the current Platte
3562 River depletion protocols for coordination, minimization, and mitigation. In general, the following are
3563 considered de minimis depletions, but may still require agency coordination; a project which: a)
3564 creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for
3565 less than 72 hours, c) diverted water that will be returned to its natural basin within 30 days, or d)
3566 creates a one-time depletion of less than 10 acre feet. (*NDOT Roadway Design, Contractor*)

3567 **S-3 Revegetation.** All permanent seeding and plantings (excluding managed landscaped areas) shall
3568 use species and composition native to the project vicinity as shown in the Plan for the Roadside

3569 Environment. However, within the first 16 feet of the road shoulder or within high erosion prone
3570 locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover
3571 to prevent erosion, unless state or federally listed threatened or endangered plants were identified in
3572 the project area during surveys. If listed **plants** were identified, any seed mix requirements identified
3573 during resource agency consultations shall be used for the project. (*NDOT Environmental*)

3574 **S-4 Sensitive Areas.** Environmentally Sensitive Areas will be marked on the plans, in the field, or in the
3575 contract by NDOT Environmental for avoidance. (*NDOT Environmental, NDOT Roadway Design, District*
3576 *Construction*)

3577 **S-5 Species Surveys.** If species surveys are required during the construction phase of the project
3578 (including pre-construction surveys), results will be sent by NDOT Environmental Section to the
3579 USFWS, NGPC, and if applicable the USACE. (*NDOT Environmental, District Construction*)

3580 **S-6 Permanent LED Lighting (NDOT Design Commitment):** Only LED roadway luminaries listed on the
3581 NDOT “Nebraska Qualified Material Vendors List” will be considered for use on Nebraska highway
3582 lighting projects. Proposed changes to the following LED lighting requirements would require
3583 resource agency (USFWS and/or NGPC) coordination and approval prior to installation:

- 3584 • Nominal CCT – 3000 +/- 300 K
- 3585 • BUG Ratings – Maximum nominal Backlight (N/A), Uplight (0), Glare (N/A)
- 3586 • Lumen Output – N/A

3587 Any proposed changes to the listed requirement(s) must be presented to the NDOT Environmental
3588 Section for Agency Coordination and approval.

3589 **Swift Fox:**

3590 **SF-1** Two weeks prior to the start of construction, a qualified biologist shall survey the environmental
3591 study area according to protocol to determine if active swift fox den sites are present. If an active den
3592 with young is located and it is outside the project limits, then a buffer zone shall be established around
3593 the den and all construction activities shall avoid the buffer until the den is abandoned. If an occupied
3594 den with or without young is identified within the project limits or staging areas, NDOT shall
3595 immediately coordinate with the NGPC to determine how to proceed. A buffer zone shall be
3596 established around the den and all construction activities shall avoid the buffer until NDOT gives
3597 approval to enter the buffer area. Between April 1 and August 31, the buffer zone shall be 250 yards
3598 around the active den site; other times of the year, the buffer shall be 100 yards around the active den
3599 site. (*NDOT Environmental*)

3600 **SF-2** Fencing shall be designed for wildlife safety and wildlife friendly passage with a bottom wire at
3601 least 16” from the ground. If different fencing design is required for safety or access control,
3602 additional coordination with resource agencies shall be required. (*NDOT Design, NDOT Environmental*)

3603 **SF-3** Fence posts shall not be placed within potential den sites that appear to have animal activity. If
3604 fence posts cannot avoid potential den sites that appear to have animal activity, NDOT Environmental
3605 will be notified and will re-initiate consultation with resource agencies. Work will not commence until
3606 agency concurrence is received. (*Contractor*)

3607 **SF-A** NDOT shall coordinate with the NGPC regarding the installation of artificial escape dens in
3608 suitable locations along the L62A corridor. Swift Fox Escape Den Installation protocols shall be
3609 utilized. (*NDOT Environmental, NDOT Design*)

3610 **Northern long-eared Bat / Tri-colored Bat**

3611 **NLEB / TCB -3:** All phases and aspects of the project shall be modified, to the extent practicable, to
3612 avoid tree removal in excess of what is required to implement the project safely. Tree removal shall be

3613 limited to removals specified in the project plans, which will be clearly marked in the field. (Design,
3614 Contractor)

3615 **NLEB / TCB CM-2:** No removal of suitable trees or roosting structures between May 15 and July 31
3616 (maternity roosting season) (Contractor)

3617 6.22 Fish, Wildlife, and Vegetation

3618 In accordance with NDOT's Avian Protection Plan (NDOT 2018), NDOT would make every effort to
3619 schedule clearing and grubbing, large tree removal, or other work activities that may impact migratory
3620 bird nests, outside of the primary Nebraska nesting season of April 1 to September 1. If any of the
3621 aforementioned activities would be required during this period, a nesting survey would be completed
3622 by a qualified biologist prior to work commencing. Specific to bridge and culvert work, the required
3623 survey period extends through September 30. (NDOT Environmental, Contractor)

3624 In efforts to maintain aquatic wildlife connectivity, the Preferred Alternative may use temporary
3625 structures during construction. The use of temporary structures would facilitate aquatic life
3626 movements during construction in accordance with CWA Section 404 Nationwide Permit General
3627 Condition No. 2: Aquatic Life Movements. Proposed structures would be constructed at appropriate
3628 sizes and elevations so as not to impede aquatic life movements. (NDOT Environmental, Contractor)

3629 To avoid impacts on fish and other aquatic organisms, an erosion control plan and a SWPPP would be
3630 developed and implemented. In accordance with the SWPPP and the requirements in the General
3631 Construction Storm Water Permit, NDOT would inspect all erosion and sediment control BMPs every
3632 14 days and after every precipitation event of 0.5 inch or greater. Any BMP adjustments and repairs
3633 would occur within 7 days of the inspection to ensure that water quality is being protected to the
3634 maximum extent practicable. The SWPPP would be maintained, and discharge points would be
3635 monitored by NDOT until the site is 70 percent revegetated. (NDOT Environmental, Contractor)

3636 According to NDOT's Standard Specifications for Highway Construction, Subsection 202.01(2)(b), the
3637 Contractor would be responsible for disposal of all vegetation for NDOT ROW and the limits of
3638 construction. Disturbed areas would be seeded in accordance with NDOT's Standard Specifications,
3639 Subsection 803.02. Revegetation of the area following construction would occur using seed mixtures
3640 containing native grasses, legumes, and forbs to appropriately landscape the region, as specified in
3641 NDOT's Plan for the Roadside Environment for a rural highway corridor (NDOT 2008). (NDOT
3642 Environmental, Contractor)

3643 As stated in NDOT's Standard Specifications for Highway Construction, Subsection 107.12, "The
3644 Contractor should prevent the transfer of invasive plant and animal species and should wash all
3645 equipment at the Contractor's storage facility prior to entering the construction site. The Contractor
3646 should inspect all construction equipment and remove all attached vegetation and animal prior to
3647 leaving the construction site." (NDOT Environmental, Contractor)

3648 Appropriate mulching materials, as defined in NDOT's Standard Specifications for Highway
3649 Construction, Subsection 806.02(1), should be applied and should not include brome hay, rushes,
3650 cattails, reed canary grass, wide-bladed grass, or invasive species. All sod, if required, to be applied to
3651 the Project should be free from noxious weeds and all other weeds. (NDOT Environmental, Contractor)

3652 6.23 Cumulative Impacts

3653 No mitigation with respect to cumulative impacts will be required for the project.