US-81 York - Columbus

Project Number: S-81-2(1051)

Control Number: 42967

DRAFT ENVIRONMENTAL ASSESSMENT

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

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

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NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

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Abbreviations

APE	Area of Potential Effects
BMP	best management practice
CFR	Code of Federal Regulations
CIA	community impact assessment
CWA	Clean Water Act of 1972
EA	Environmental Assessment
EDR	Environmental Data Resources
EPA	US Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
HPM	Highway Project Manager
LB	Legislative Bill
LWCF	Land and Water Conservation Fund
MM	mile marker
mph	miles per hour
MSAT	Mobile Source Air Toxics
N-	Nebraska Highway
NCRC	Nebraska Central Railroad Company
NDEE	Nebraska Department of Environment and Energy
NDOT	Nebraska Department of Transportation
NeDNR	Nebraska Department of Natural Resources
NEPA	National Environmental Policy Act of 1969
NGPC	Nebraska Game and Parks Commission
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
Project	York - Columbus project
RCRA	Resource Conservation and Recovery Act of 1976
RCUT	restricted crossing U-turn intersection
ROW	right-of-way
S-	State Spur
SHPO	Nebraska State Historic Preservation Office
STA	Station

SWPPP	Stormwater Pollution Prevention Plan
TMDL	total maximum daily load
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
US-	US Highway
USACE	US Army Corps of Engineers
USC	United States Code
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VMT	vehicle miles traveled

Chapter 1 Project Purpose and Need

1.1 Introduction

The Nebraska Department of Transportation (NDOT) is proposing to expand existing US Highway 81 (US-81) from a two-lane highway to a four-lane expressway[1] along an approximately 41-mile segment in York, Polk, and Butler Counties, Nebraska, referred to as the York - Columbus project (the Project), shown in Figure 1-1. The segment between York and Columbus, Nebraska, is the lone segment of US-81 between the Kansas-Nebraska border and Norfolk, Nebraska, that remains to be upgraded to a four-lane expressway. The expressway would be developed as a federal-aid project with the Federal Highway Administration (FHWA) as the lead federal agency. NDOT is the Project sponsor.

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

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

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

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

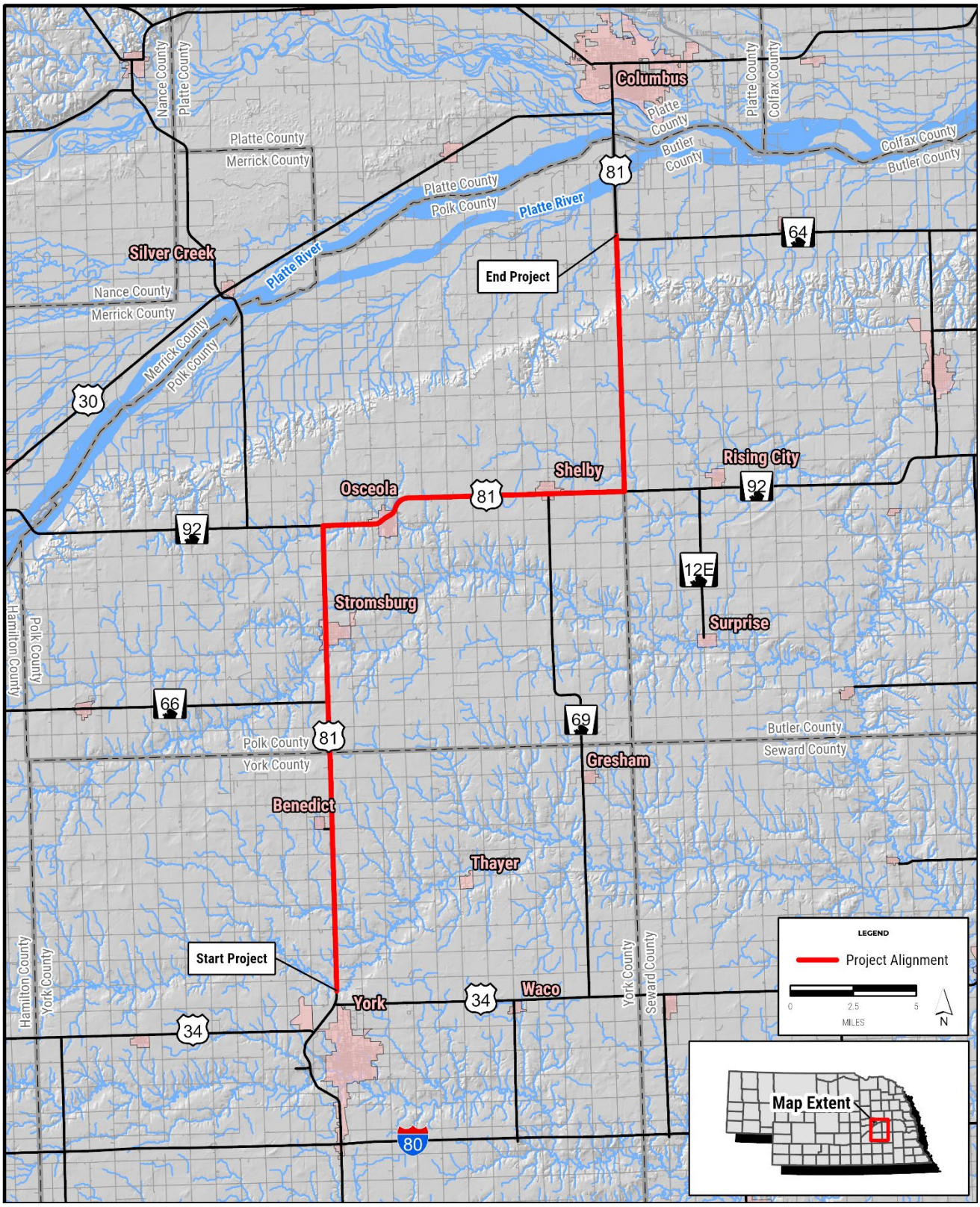
This chapter discusses the purpose of and need for the Project, and identifies the Project location and study area. Subsequent chapters address the alternatives considered (Chapter 2); the affected environment and potential environmental consequences (Chapter 3); and agency coordination and public involvement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

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

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

Figure 1-1. Project Location



1.2 Project Location and History

1.2.1 Project Location

The Project is located along US-81 in York, Polk, and Butler Counties. The Project would begin approximately 0.4 mile north of the US-81 intersection with US Highway 34 (US-34) at the end of the existing four-lane York Bypass and would extend north for approximately 41 miles to approximately 0.3 mile north of the intersection of US-81 with Nebraska Highway 64 (N-64). The project limits, or logical termini for the Project, are based on connecting the existing four-lane segment of US-81 at the north end of the four-lane York Bypass to the four-lane segment of US-81 north of the intersection of N-64 and U-81, which would connect the first-class cities of Norfolk and Columbus to I-80. This would complete the expansion of US-81 between the Kansas-Nebraska border and Norfolk.

1.2.2 Project History

In 1995, NDOT evaluated the US-81 corridor from I-80 to N-64 south of Columbus in an EA and corridor study. In these documents, the Build Alternative included seven segments, which NDOT evaluated individually, including a four-lane section through towns and bypass options at York, Stromsburg, Osceola, and Shelby, Nebraska. The Preferred Alternative included the following options for the seven segments:

- In York: A west bypass.
- York North: Widening to the west for 0.6 mile and shifting to the east side from York to Benedict, Nebraska.
- Stromsburg South: Widening to the east between Benedict and Stromsburg with a bypass around Stromsburg on the west. A short 0.6-mile crossover to the west was identified just north of Benedict.
- Stromsburg North: Widening to the west between Stromsburg and the Nebraska Highway 92 (N-92) west intersection.
- Osceola East and West: Widening to the north between N-92 and Osceola with a north Osceola bypass and widening to the north from Osceola to 3 miles west of Shelby.
- Shelby East and West: Widening to the south from approximately 3 miles west of Shelby to the N-92 east intersection with a south Shelby bypass.
- East Intersection N-92 North: Widening to the west between the N-92 east intersection and N-64.

A Finding of No Significant Impact was issued for the US-81 from I-80 to Columbus Corridor Study EA on April 17, 1997. Because of limited funding and prioritization of higher trafficked corridors, US-81 did not immediately progress to construction. Since that time, the In York segment was constructed between 2004 and 2006, but the remainder of US-81 between US-34 and N-64 has remained a rural two-lane highway. NDOT restarted review of this corridor in 2021, and a corridor study was developed in 2024 in conjunction with this EA to evaluate the remaining segments of the I-80 to Columbus corridor.

1.3 Project Purpose

The primary purposes of the Project are as follows:

- Fulfill legislative intent to continue development of the expressway system identified in the *1988 Nebraska Highway Needs Study*.
- Improve regional connectivity for vehicles in east-central Nebraska, including commercial vehicles, by providing important expressway connections with US-34, Nebraska Highway 66 (N-66), N-92, Nebraska Highway 69 (N-69), and N-64, while maintaining convenient highway access for communities in the area.
- Improve the condition of the existing infrastructure.

These purposes will be used to evaluate the range of alternatives under NEPA.

1.4 Project Goals

In addition to satisfying the above purposes, the goals of the Project are to meet current NDOT arterial and expressway standards;[3] apply a 2+2 construction methodology;[4] maximize the use of existing transportation infrastructure, including connecting highways and existing right-of-way (ROW); update highway and county road intersection geometrics; minimize traffic disruption during construction; and maximize the cost-effectiveness of the Project. The ability to meet these goals will be used to evaluate alternatives that meet the Project purpose.

1.5 Project Need

The needs for the Project are as follows:

- Gap in the US-81 Expressway from the Kansas-Nebraska border to Norfolk
- Lack of connectivity in east-central Nebraska
- Existing infrastructure deficiencies

1.5.1 Nebraska Expressway System

The Project is needed to advance the US-81 expressway and to address the mandate from the Nebraska Legislature. In 1988, the Nebraska Legislature mandated construction of an expressway system with Legislative Bill (LB) 632, stating that "The Legislature finds and declares that the highways of the state are of the utmost importance to future development within the state and that the following actions are necessary for such development….the development of a system of expressways…." As envisioned by the Nebraska Legislature, the expressway system is intended to handle large volumes of traffic at higher speeds (design speed of 70 miles per hour [mph]) with limited access,[5] which in turn limits the potential conflicts with cross traffic.

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

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

[5] NDOT's Access Control Policy to the State Highway System identifies the number of access points allowed on expressways (NDOT 2024a).

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

- Connect urban centers with a population of 15,000 or greater to the interstate system
- Convey routes that have an average daily traffic of 500 or more heavy commercial vehicles
- Provide regional roadway continuity

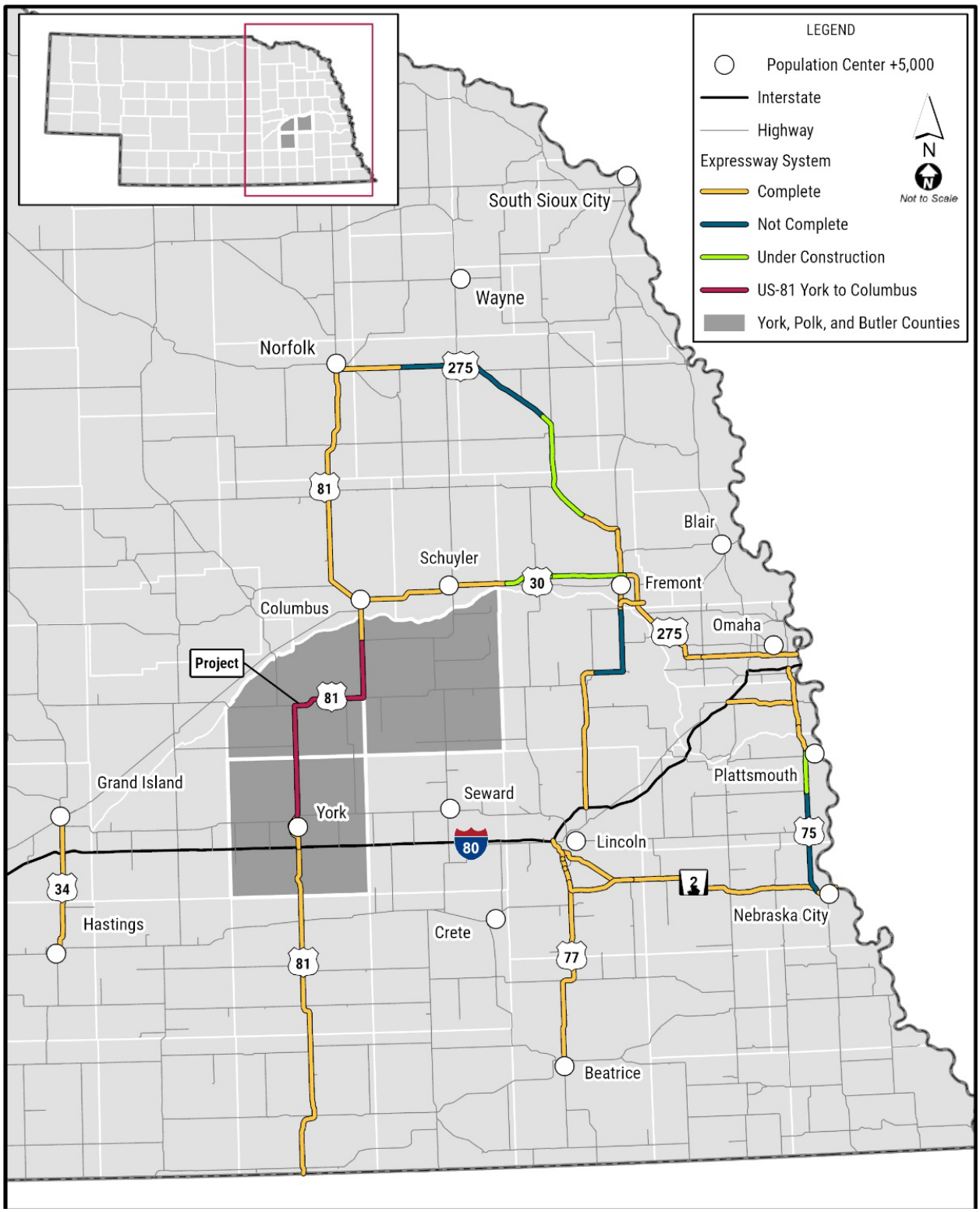
As a result of this legislation and the expressway recommendations set forth in the *1988 Nebraska Highway Needs Study*, NDOT began designing and constructing the expressway system. This system includes the following major corridors in Nebraska:

- US-81, Kansas-Nebraska border to Norfolk
- US Highway 275 (US-275), Norfolk to Omaha
- US Highway 30 (US-30), Columbus to Fremont
- US Highway 77 (US-77), Beatrice to Lincoln
- US Highway 75 (US-75), Nebraska City to Omaha
- Nebraska Highway 2 (N-2), Lincoln to Nebraska City
- US-34, Hastings to Grand Island

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

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

Figure 1-2. Nebraska Expressway System



1.5.2 Regional Connectivity

The Project is needed to improve connectivity in the region. US-81 is a major transportation corridor in east-central Nebraska, as shown in Figure 1-3, and serves high volumes of commercial and non-commercial traffic when compared to other highways in the region. The York to Columbus segment is a gap in the expressway corridor between the Kansas-Nebraska border and Norfolk and includes five highways not connected to the expressway system, as follows:

- US-34 is an east-west highway approximately 1,122 miles long beginning in Granby, Colorado, and ending in Chicago, Illinois. US-34 crosses the southern portion of Nebraska.
- N-66 is an east-west highway that connects Nebraska Highway 14 (N-14), south of Central City, Nebraska, with US-81.
- N-92 is an east-west highway approximately 490 miles long and traverses the entire length of Nebraska north of I-80 between Scottsbluff and Omaha, Nebraska. N-92 is co-located with US--81 along the east-west segment and has intersections with US-81 at each end of the segment.
- N-69 is a north-south highway that connects US-34 and US-81.
- N-64 is an east-west highway that connects Nebraska Highway 15 (N-15) with US-81.

US-81 is an important part of the regional roadway network in east-central Nebraska and has been designated as part of Nebraska's Priority Commercial System[6] that serves commercial and industrial traffic across Nebraska. Additionally, US-81 serves one of Nebraska's key freight corridors and is designated as a Critical Rural Freight Corridor in the Nebraska Freight Plan. The existing gap in the four-lane expressway between the Kansas-Nebraska border and Norfolk lacks expressway access for the communities in east-central Nebraska between Columbus and Norfolk, two of the largest service and trade centers in Nebraska. In addition, opportunities to pass slow-moving and heavy commercial vehicles are limited by the existing two-lane highway. Table 1-1 shows the current and future traffic volumes on US-81 from US-34 to N-64 along with the current and projected number of heavy commercial vehicles. See Appendix A for the detailed traffic memo.

Table 1-1. Current and Projected Traffic Volumes on US-81 from US-34 to N-64

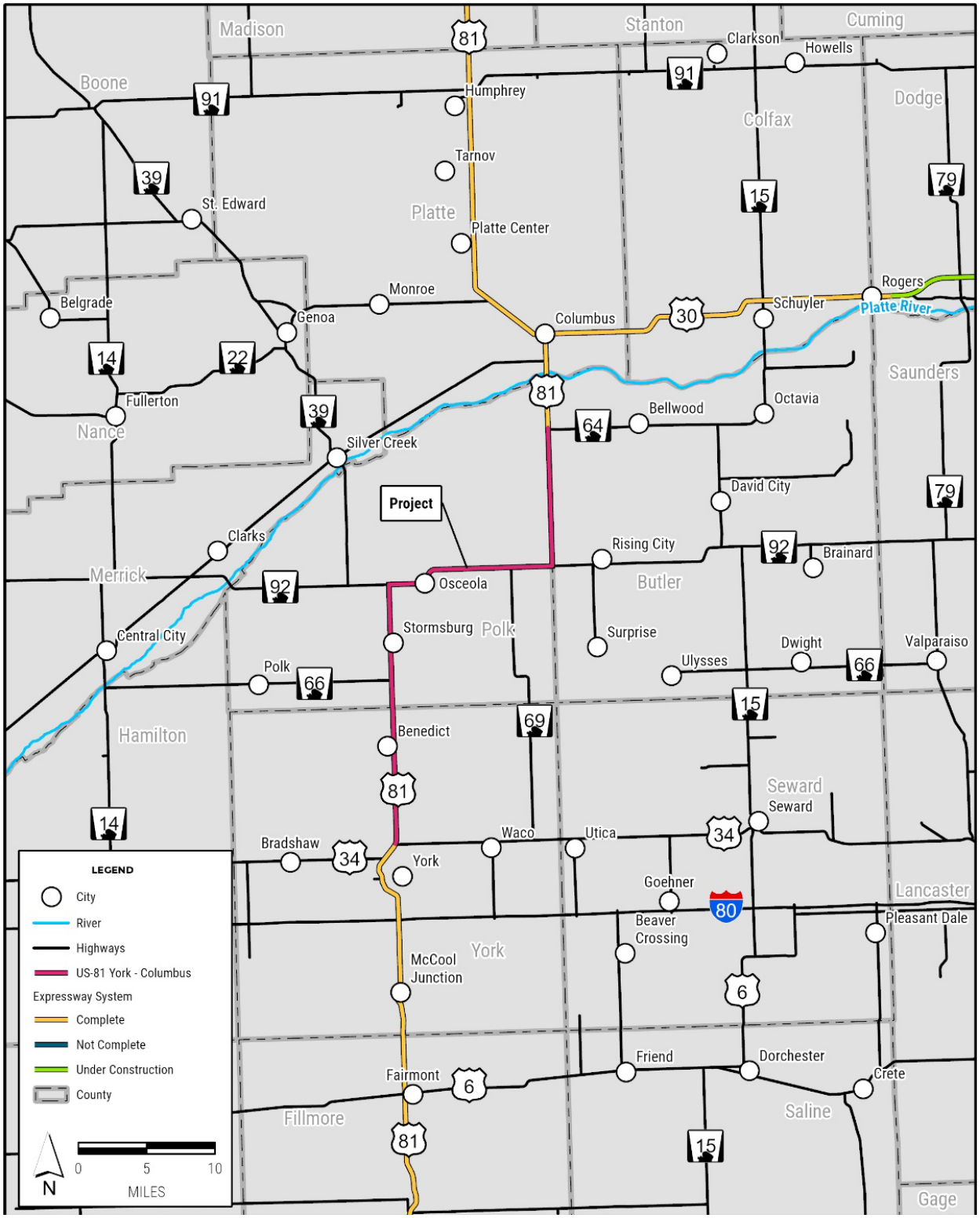
US-81 Roadway Segment	2022 AADT	2022 Percent HCV	2022 HCV	2055 No Build AADT	2055 Percent HCV[1]	2055 HCV
US-34 to N-92 west intersection	4,355	22	960	6,310	22	1,390
N-92 west intersection to N-92 east intersection	4,850	24	1,165	6,445	24	1,550
N-92 east intersection to N-64	4,640	17	790	5,450	17	930

AADT = annual average daily traffic, vehicles per day; HCV = heavy commercial vehicles.

[1] Percent HCV equals HCV divided by No Build AADT.

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

Figure 1-3. Regional Roadway Network



1.5.3 Existing Infrastructure Deficiencies

Infrastructure deficiencies along the US-81 corridor include the following:

- Poor pavement condition: Nearly 20 miles of US-81 pavement between York and N-64 are deteriorated and in need of rehabilitation.[7]
- Undersized drainage structures: Several existing drainage structures along US-81 are hydraulically deficient and produce localized flooding adjacent to the Project, including near Lincoln Creek, Coon Branch, Big Blue River, Prairie Creek, Davis Creek, and North Branch Big Blue River. Additionally, US-81 experiences roadway overtopping west of Osceola.
- Crash rates above the statewide average: Several roadway segments and intersections along US-81 have crash rates higher than the statewide average as a result of intersection skew, poor geometrics, density of access points, and lack of turn lanes.

1.6 Project Study Area

The general study area for the proposed Project (Project Study Area), shown in Figure 1-4, is large enough to identify and address environmental concerns while not restricting the alternatives to be considered. The Project Study Area generally extends approximately 175 feet on either side of US-81 (350 feet total). The following areas differ from the general Project Study Area:

- N-92 west intersection: The 350-foot-wide Project Study Area continues 1,300 feet north of the intersection and west of the intersection. The Project Study Area widens on an arc of variable width from approximately 0.4 mile south of the intersection to 0.5 mile east of the intersection before it narrows back to a 350-foot-wide corridor. (see Figure 1-4, page 2).
- Osceola: The Project Study Area narrows on the north side of US-81 to the Nebraska Central Railroad Company (NCRC) rail line beginning at Nance Street and ending at O Road due to the NCRC rail line. After O Road, the Project Study Area is back to the general width of 350 feet until the N-92 east intersection (see Figure 1-4, page 2).
- N-92 east intersection: The 350-foot-wide Project Study Area extends 4,000 feet east of the intersection and 1,300 feet south of the intersection. To the north, the Project Study Area widens on an arc or variable width from approximately County Road W north to approximately County Road 132/32 Road before it narrows back to a 350-foot-wide corridor and continues north to N-64 (see Figure 1-4, page 3).
- State Spur 93C (S-93C), N-66, and N-64: The Project Study Area is a 400-foot-wide corridor extending approximately 1,300 feet along each respective highway (see Figure 1-4, pages 1–3).
- County road intersections: The Project Study Area is a 400-foot-wide corridor extending approximately 730 feet along intersecting county roads (see Figure 1-4, pages 1–3).
- The Project Study Area has been extended in select areas along the alignment to accommodate anticipated design needs due to topography.

Resource-specific study areas differing from the Project Study Area are defined, as needed, in their respective sections in Chapter 3: Affected Environment and Environmental Impacts. The Project Study Area is typical of rural irrigated agricultural land use, and rural residences and farmsteads in between typically small, rural communities (York, Benedict, Stromsburg, Osceola, and Shelby).

[7] The condition of the rest of the US-81 pavement along the Project is planned for improvement via the projects discussed in Section 3.24.

Figure 1-4. Project Study Area (page 1 of 3)

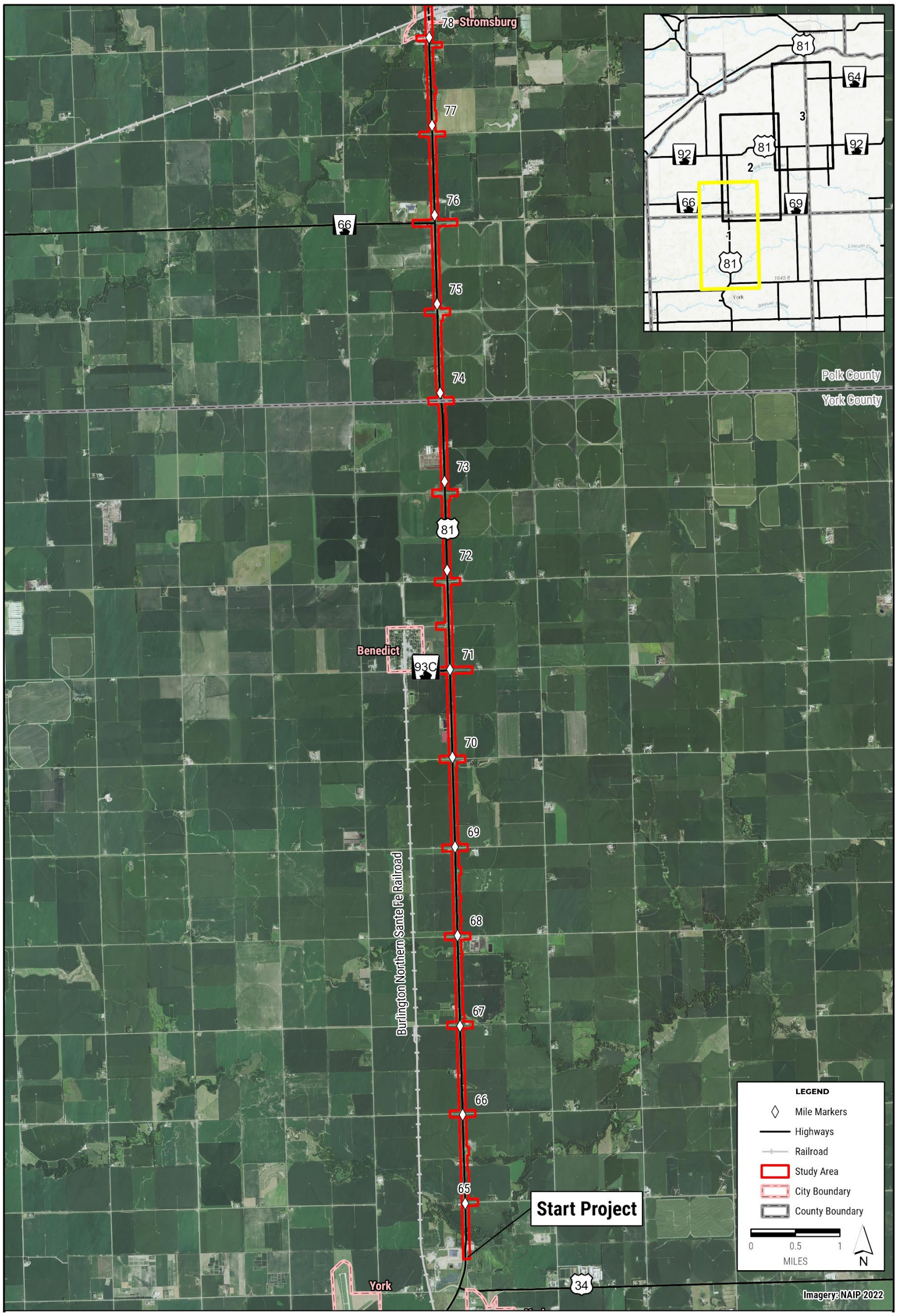


Figure 1-4. Project Study Area (page 2 of 3)

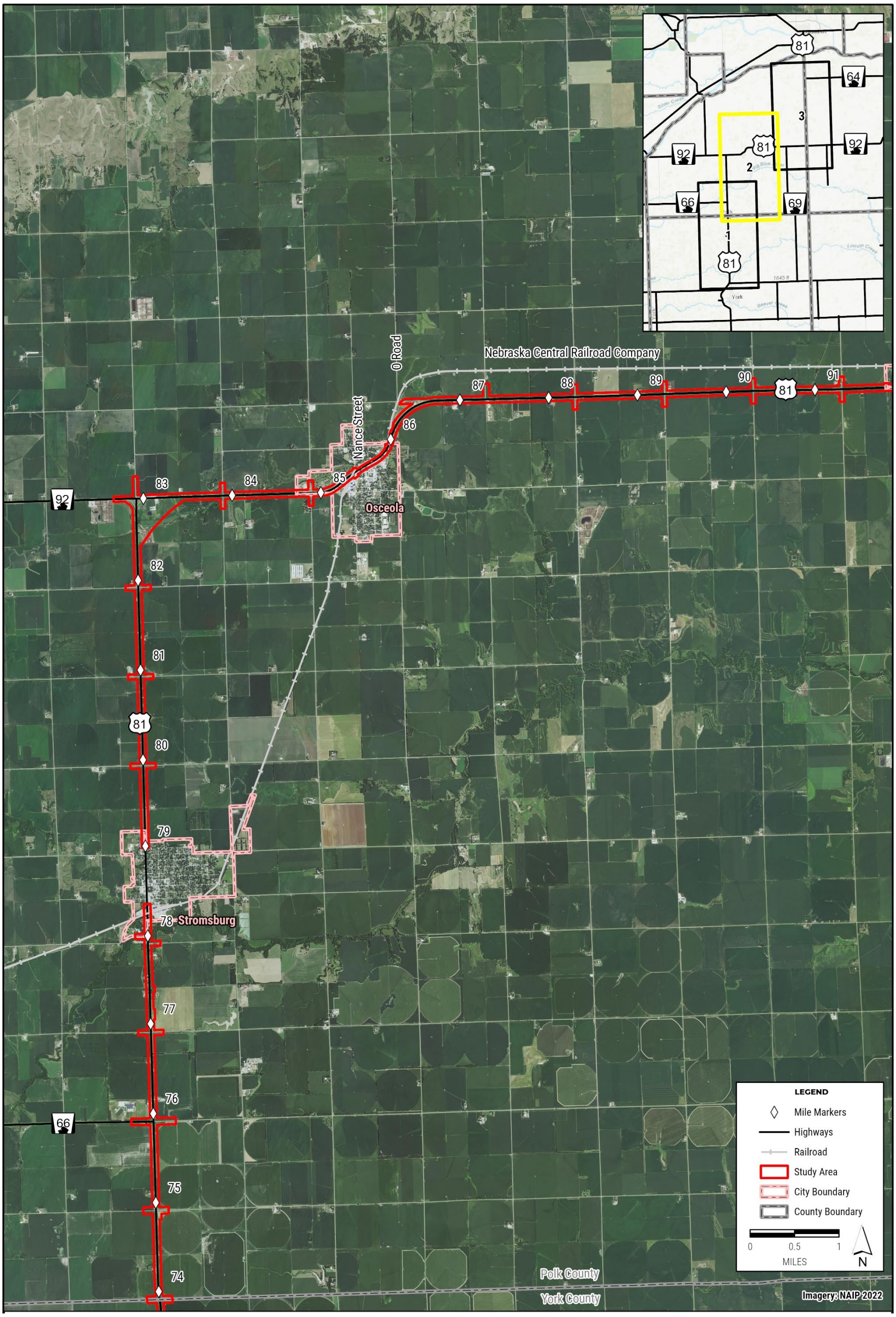
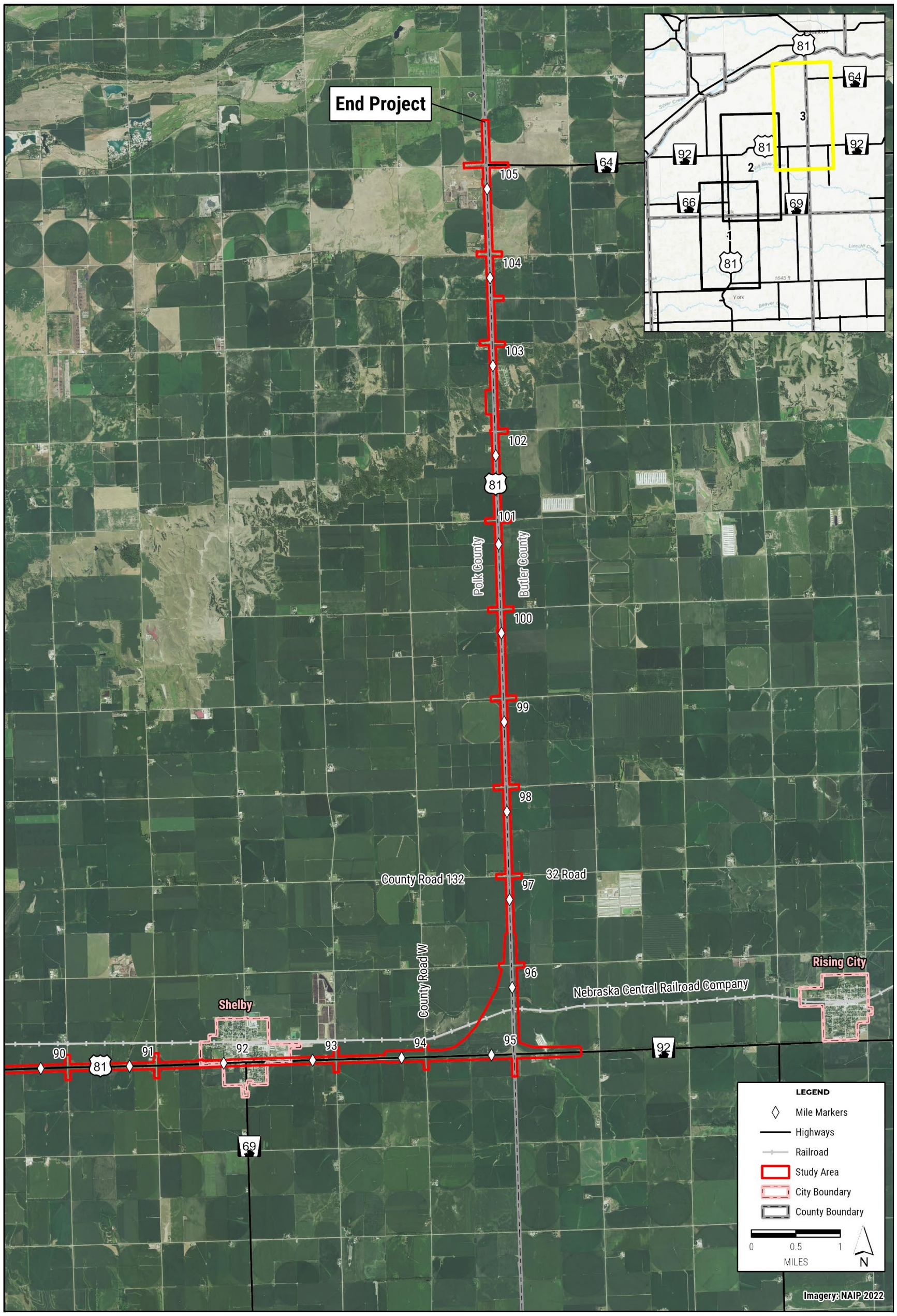


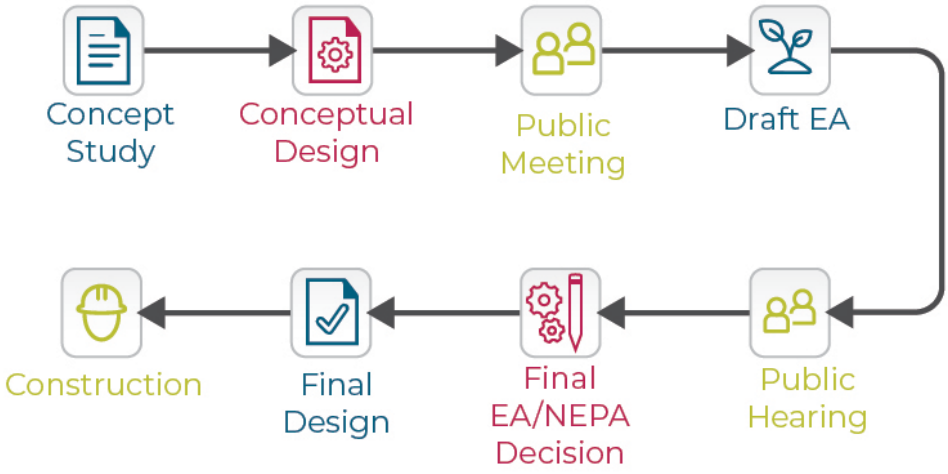
Figure 1-4. Project Study Area (page 3 of 3)



Chapter 2 Alternatives Analysis

NEPA requires the identification and review of reasonable alternatives, including the No Build Alternative. Additionally, an EA is required to "identify alternatives and measures that might mitigate adverse environmental impacts" (23 CFR 771.119(b)). A two-stage screening process was used to identify a preferred alternative. The development process for the Project is shown in Figure 2-1. Potential high-level planning concepts were developed, including a no build concept. These concepts were first considered against the purpose and need for the Project as well as the Project goals. Those concepts that best satisfied the purpose and need and the goals were deemed reasonable and moved forward to be developed into alternatives. Alternatives were developed using conceptual-level design, and impacts of each alternative were compared. This chapter presents the range of concepts and alternatives evaluated as well as the screening process used in identifying the preferred alternative for the proposed action.

Figure 2-1. Project Development Process



2.1 1997 Preferred Alternative

A preferred alternative was selected in the 1997 EA as discussed in Section 1.2.2. This alternative involved a combination of widening east/west and north/south on the existing US-81 alignment with bypasses around York, Stromsburg, Osceola, and Shelby. Because of the time elapsed and changes along the US-81 corridor since the 1997 preferred alternative was selected, this Draft EA does not evaluate the 1997 preferred alternative on its own, but rather it evaluates a new range of alternatives that incorporate the elements of the 1997 preferred alternative.

2.2 Concept Development

The proposed action would expand US-81 from a two-lane highway to a four-lane divided expressway. Seven concepts were identified to potentially meet the need to complete the US-81 expressway expansion.

2.2.1 No Build Concept

The No Build Concept would not improve US-81 to a four-lane expressway, but instead US-81 would remain a two-lane highway. The No Build Concept does not meet the Project purpose and need; however, it will be carried forward as an alternative to serve as a baseline for comparison of impacts of the build alternative(s).

2.2.2 Major Construction Avoidance Concept

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

2.2.3 Bypass Concept

The Bypass Concept would construct four lanes with bypasses around Stromsburg, Osceola, and Shelby. US-81 is an established transportation corridor that serves an established area and population (primarily York, Stromsburg, Osceola, Shelby, and Columbus). Bypasses were identified as part of the preferred alternative in the 1997 EA. NDOT is no longer considering bypasses for this Project because of cost and schedule constraints. In addition, bypasses are farther removed from the existing US-81 alignment and would result in greater impacts on the natural and human environment by converting existing land uses to a major transportation corridor. These impacts include large amounts of new ROW, conversion of farmland, and potential isolation of communities on the existing corridor. Therefore, the Bypass Concept was eliminated from further consideration.

2.2.4 On-Alignment Concept

The on-alignment concept would construct four lanes on the existing US-81 alignment. The preferred alternative for the 1997 EA involved a combination of east/west and north/south widening on alignment. Two options were considered for this analysis.

New Construction Option

The New Construction Option would remove the existing US-81 lanes and construct four new lanes centered within the existing ROW. New bridge and culvert structures would also be constructed with this option. While the New Construction Option would meet the Project purpose and need, it would not satisfy the Project goals of maximizing the use of existing transportation infrastructure and cost-effectiveness of the Project. The cost of the New Construction Option would be nearly double that of the other options and was eliminated from further consideration.

2+2 Construction Option

The 2+2 Construction Option would construct two new lanes adjacent to the existing two lanes of US-81 to create a four-lane corridor in rural areas, as shown in Figure 2-2. This option would meet the Project purpose and need and satisfy the Project goals. The On-Alignment 2+2 Construction Option is carried forward to alternatives analysis.

2.2.5 Through-Town Concept

The Through-Town Concept considered two options for US-81 through Osceola and Shelby: five lanes and three lanes. US-81 in Stromsburg is being improved as part of the In Stromsburg project (Control Number 42782B) and was not included in this analysis.

Five-Lane Option

The Five-Lane Option would construct four new driving lanes plus a dedicated center turn lane, five lanes total, in Osceola and Shelby. Existing ROW in Osceola and Shelby is approximately 65 to 95 feet wide. Due to limited space for five lanes, the Five-Lane Option would result in substantial impacts on homes and businesses. Therefore, it was eliminated from further consideration.

Three-Lane Option

The Three-Lane Option would reconstruct the existing two driving lanes and add a new dedicated center turn lane, three lanes total, as shown in Figure 2-3. This option would be located predominantly within the existing ROW footprint with some ROW acquisition required for widening and road realignment. The Through-Town Concept Three-Lane Option is carried forward to alternatives analysis.

Figure 2-2. Typical Rural Cross Section

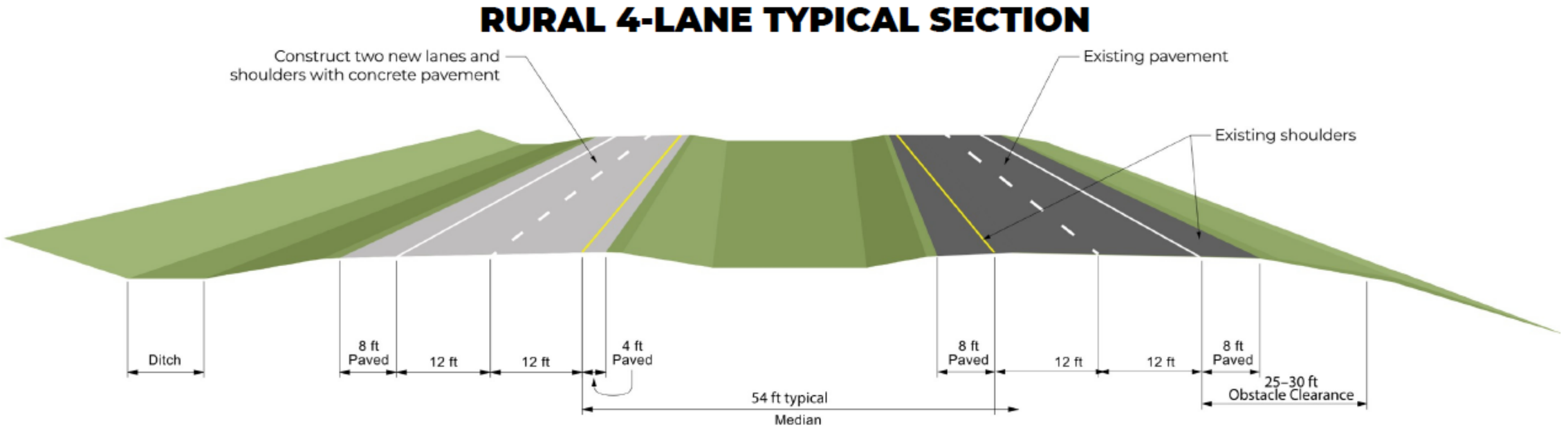
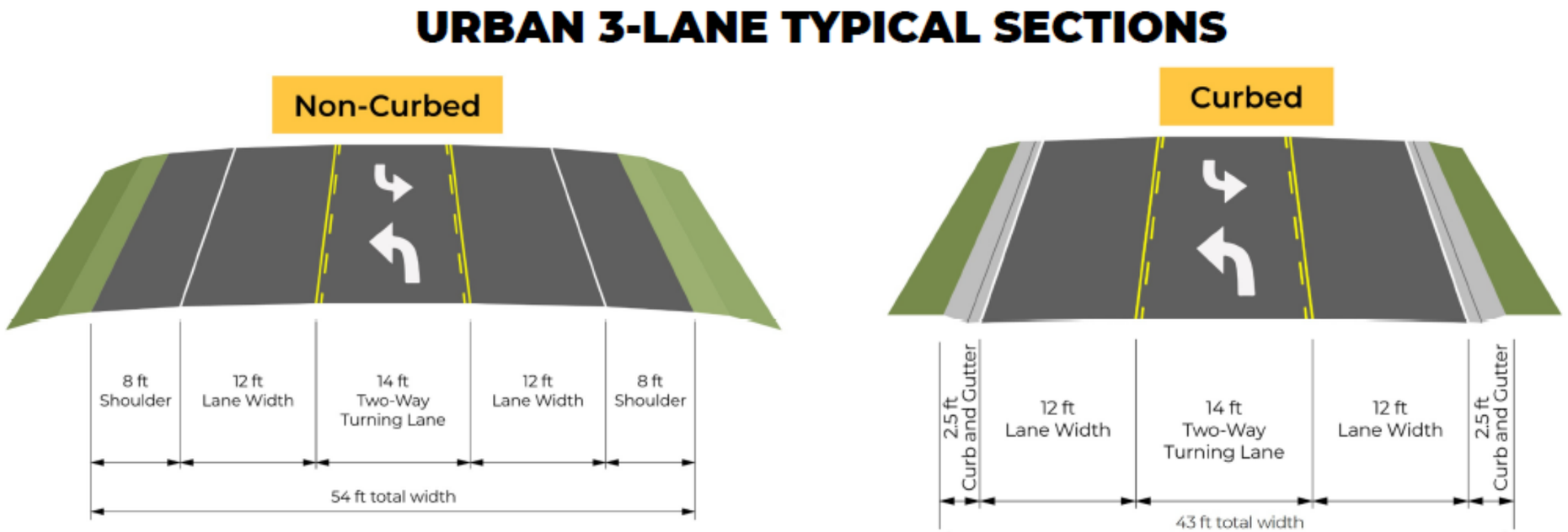


Figure 2-3. Typical Urban Cross Section



2.3 Alternatives Development and Screening

Typically, NDOT's 2+2 construction method entails building new lanes on one side or the other of the existing lanes for the entire length of a project. However, the 41-mile York to Columbus corridor provides opportunities to switch from one side of existing US-81 to the other without requiring substantial reconstruction of the existing lanes. These potential transition points include Stromsburg, Osceola, Shelby, and the major rural highway intersections along US-81 at N-92 west, N-92 east, and N-64. As a result, the US-81 corridor has been broken into the following segments for purposes of alternatives evaluation:

- York to Stromsburg: currently a two-lane, north-south, rural highway with 12-foot-wide asphalt driving lanes with 8-foot-wide asphalt shoulders
- In Stromsburg: currently a two-lane, north-south, curbed urban highway with 12-foot-wide asphalt driving lanes with 8-foot-wide asphalt shoulders with 2-foot-wide curbs. This segment is not evaluated in this EA because by the time of Project construction, a new three-lane section within Stromsburg will be built via the In Stromsburg project (Control Number 42782B).
- Stromsburg to N-92 West Intersection: currently a two-lane, north-south, rural highway with 12-foot-wide asphalt driving lanes with 8-foot-wide asphalt shoulders
- N-92 West Intersection to Osceola: currently a two-lane, east-west, rural highway with 12-foot-wide asphalt driving lanes with 8-foot-wide asphalt shoulders
- In Osceola: currently a two-lane, non-curbed urban highway with 12-foot-wide driving lanes with 8-foot-wide asphalt shoulders
- Osceola to Shelby: currently a two-lane, east-west, rural highway with 12-foot-wide asphalt driving lanes with 8-foot-wide asphalt shoulders
- In Shelby: currently varies from a two-lane, non-curbed urban highway with 12-foot-wide asphalt driving lanes to a 43-foot-wide asphalt curbed section
- Shelby to N-92 East Intersection: currently a two-lane, east-west, rural highway with 12-foot-wide composite (concrete overlain with asphalt) driving lanes with 8-foot-wide asphalt shoulders
- N-92 East Intersection to N-64: currently a two-lane, north-south, rural highway with 12-foot-wide composite driving lanes with 8-foot-wide asphalt shoulders

The following sections describe the alternatives evaluation for the segments listed above and for the major rural highway intersections along US-81 (N-92 west, N-92 east, and N-64).

2.4 Alternatives Analysis and Alternatives Eliminated from Further Consideration

For north-south US-81 segments, alternatives were considered using a rural four-lane typical section (see Figure 2-2) and placing the new lanes east or west of the existing lanes. For east-west US-81 segments between Osceola and the N-92 east intersection, alternatives were considered using a rural four-lane typical section and placing the new lanes south or north of the existing lanes. In the urban areas of Osceola and Shelby, a single alternative was developed because the developed nature of the corridor limits the ability to expand to four lanes. This alternative includes widening the highway to

three lanes to provide left-turn lanes to maintain traffic flow through town while minimizing impacts on adjacent urban development.

The alternatives for each segment were analyzed by developing a concept level impact area for each 2+2 construction alternative based on the terrain and typical cross section of the proposed improvements (see Figure 2-3). The alternative concept-level impact areas were then analyzed using the following screening criteria: practicability (technology, logistics, and cost), potential resource impacts relative to other alternatives, design feasibility, and public and agency input. Resources considered in the alternative screening are ROW, residential and business relocations, impacts on other structures, farmland, floodplain, wetlands, channels, historic and cultural resources, Section 4(f)[1] properties, Section 6(f)[2] properties, hazardous materials, and major utilities. Public meetings were held March 12, 13, and 14, 2024, to allow the public to review and provide input on the proposed alternatives. Overall, the public response was a mixture of support and opposition with an emphasis on bypasses, pedestrian safety, and proposed intersection types. A comparison of the segment impacts for the 2+2 construction alternatives is detailed in Table 2-1. The following alternatives were removed from consideration for each segment as detailed below.

2.4.1 Stromsburg to N-92 West Intersection

The Widen West Alternative and Widen East Alternative would have comparable impacts on ROW, farmland, floodplains, and wetlands. However, the Widen West Alternative would require the acquisition of one house, two major buildings, and three minor buildings while the Widen East Alternative would impact one minor building. Due to the higher number of building acquisitions, *the Widen West Alternative was eliminated from further evaluation.*

2.4.2 N-92 West Intersection to Osceola

In the N-92 west intersection to Osceola segment, the alternatives considered involve placing new lanes to the north or a three-lane alternative with two driving lanes and one center two-way left-turn lane. The *Widen South Alternative was eliminated* prior to development of concept level impact areas because it would require relocation of a portion of the Davis Creek channel and result in substantial floodplain impacts. A Three-Lane Alternative was added for consideration on this segment. While the Three-Lane Alternative would have fewer impacts on resources than the Widen North Alternative, the Three-Lane alternative provides no obvious advantage over the Widen North Alternative and would be the only three-lane rural section in the corridor. In addition, a three-lane roadway would be contrary to driver expectation in a rural area. Therefore, *the Three-Lane Alternative was eliminated from further evaluation*.

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

[2] Section 6(f) of the Land and Water Conservation Fund Act of 1965 (54 USC 200301–2000310) restricts the conversion of recreational land to non-recreational land if the land was acquired with money from the Land and Water Conservation Fund.

Table 2-1. Segment Concept Level Comparison

Alternative	Right-of-Way Acquisition (acres)	Structure Relocations[1]			Farmland (acres)	Floodplain		Wetlands (acres)	Channel (linear feet)	Other Notable Impacts
		House	Major Building	Minor Building		Acres	Crossings			
York to Stromsburg										
Widen East	186	7	10	2	167	8	3	17.1	309	1 historic structure; 1 archeological resource
Widen West	183	10	14	8	164	6	3	19.7	382	Electric substation
Stromsburg to N-92 West Intersection										
Widen East	27	0	0	1	26	--	--	0.1	--	--
Widen West	27	1	2	3	26	--	--	0.3	--	--
N-92 West Intersection to Osceola										
Widen North	12	1	1	0	11	5	2	0.3	--	--
Three-Lane	9	1	0	0	3	5	2	0.27	--	--
Osceola to Shelby										
Widen North	53	2	0	2	49	4	1	2.8	--	--
Widen South	55	1	0	2	52	3	1	7.9	--	NuStar facility and gas transmission main
Shelby to N-92 East Intersection										
Widen North	16	0	0	0	16	--	--	0.6	--	--
Widen South	13	0	0	0	13	--	--	1.9	--	--
N-92 East Intersection to N-64										
Widen East	146	6	7	7	115	8	3	4.8	206	Cell tower
Widen West	147	0	3	4	124	8	2	2.8	196	--

[1] House relocations include structures where people live; major building relocations include structures perceived to be critical to the functional utility of the property (for example, large livestock facilities, large barns, large machine sheds); minor building relocations include other structures not perceived to be major (for example, small toolsheds, small detached garages, small storage buildings).

2.4.3 In Osceola

Only a Three-Lane Alternative was developed in Osceola to minimize impacts on adjacent homes and businesses. This alternative would include widening the existing two-lane highway to an urban three-lane section with paved shoulders and a center turn lane to improve traffic flow through town (see Figure 2-3). There is an at-grade crossing of the NCRC rail line in Osceola at Nance Street. A grade separation was not considered as part of this Project because the crossing exposure factor of 19,335 is well below the 50,000 threshold that NDOT uses to determine consideration of a grade separation. A transition would be needed to reduce the four-lane rural divided highway to a three-lane urban section on the east and west sides of Osceola. Within these transitions, speeds would be reduced or increased incrementally to attain existing speed limits.

2.4.4 Osceola to Shelby

The impacts of the Widen North Alternative and the Widen South Alternative would be similar for most resources in this segment, except the Widen South Alternative would require the relocation of the NuStar Gas facility and gas transmission main and would have approximately 5.1 more acres of wetland impact than the Widen North Alternative. Due to the need to relocate at least a portion of the NuStar Gas facility and gas transmission main, additional wetland impacts, and construction cost difference, *the Widen South Alternative was eliminated from further evaluation*.

2.4.5 In Shelby

Only a Three-Lane Alternative was developed in Shelby to minimize impacts on adjacent homes and businesses. This alternative includes resurfacing and restriping the existing roadway as a three-lane urban section with curbs and paved shoulders and a turn lane to improve traffic flow through town (see Figure 2-3). A transition would be needed to reduce the four-lane rural divided highway to a three-lane urban section on the east and west sides of Shelby. Within these transitions, speeds would be reduced or increased incrementally to attain existing speed limits.

2.4.6 Shelby to N-92 East Intersection

The impacts of the Widen North Alternative and Widen South Alternative would be similar for most resources. The primary differentiator is that the Widen North Alternative would impact approximately 0.6 acre of wetlands while the Widen South Alternative would impact approximately 1.9 acres. Because of the higher impact on wetlands, *the Widen South Alternative was eliminated from further evaluation*.

2.4.7 N-92 East Intersection to N-64

The Widen East Alternative would require the relocation of 6 houses, 7 major buildings, and 7 minor buildings versus 0 houses, 3 major buildings, and 4 minor buildings for the Widen West Alternative. Additionally, the Widen East Alternative would require the relocation of a cell tower just south of the NCRC rail line. The Widen West Alternative would have fewer impacts on resources considered except for less than 1 percent more acres of ROW required and approximately 8 percent more acres of farmland impacted. Because of residential relocations and utility impacts, *the Widen East Alternative was eliminated from further evaluation*. There is an at-grade crossing for the NCRC rail line 0.5 mile north of the N-92 east intersection. A grade separation was not considered as part of this Project because the crossing exposure factor of 16,350 is well below the 50,000 threshold that NDOT uses to determine consideration of a grade separation.

2.4.8 Highway Intersection Alternatives

Four intersection alternatives, described below and shown in Figure 2-4, were considered for the three major rural highway intersections along US-81: N-92 west intersection, N-92 east intersection, and N-64. The existing N-92 west and N-92 east intersections where US-81 changes direction currently have a similar design, and the alternatives were considered for these two intersections as a unit to maintain consistency of design and driver expectancy. The N-64 intersection was reviewed independently because US-81 does not change direction. A comparison of the intersection alternative impacts is shown in Table 2-2.

Standard Intersection

A standard intersection is defined by a T or cross shape and can be seen at the existing highway intersections along US-81. Standard intersections can minimize change to driver expectations. For this analysis, the standard intersection for the two US-81 and N-92 intersections include a free-right-turn lane. The free-right-turn lane allows drivers on one roadway to make a right turn onto another roadway without stopping by using short "ramp" for the right turn and merging onto the other roadway after yielding to oncoming traffic.

Sweeping Curve

A sweeping curve intersection is often used when a major road changes directions, such as from north-south to east-west. This is accomplished by constructing a large radius curve for the major road traffic to continue without stopping while the minor road traffic stops at a T intersection created at some point along the curve, typically the midpoint. The sweeping curve is similar to the standard intersection in that there is a T between two major roads, but the curve prioritizes the through movement of one major road over another.

Roundabout

Roundabouts are circular intersections intended to improve traffic operations and safety. Traffic within a roundabout travels at low speed around a central island with entry and exit occurring via a right turn, yielding to the traffic already in the intersection. Restricted crossing U-turn intersections, defined below, are typically used by NDOT at intersections of a rural four-lane divided expressway or State Highway and a lower-volume minor road to reduce the frequency of higher severity crashes compared to a standard intersection (NDOT 2022b).

Restricted Crossing U-Turn

As defined in the NDOT Roadway Design Manual, restricted crossing U-turn intersections (also known as RCUTs; also referred to or commonly known as reduced conflict intersections [RCI]) restrict the left turning and through movements of lower volume roadways onto four-lane divided highways. Traffic intending to continue through the intersection or make a left turn would make a right turn onto the divided highway and then complete a U-turn at an adjacent median break. Restricted crossing U-turn intersections are predominantly used in rural areas with the intent to improve safety by restricting crossing and left-turn movements from low-volume roadways (NDOT 2022b).

N-92 West Intersection and N-92 East Intersection

N-92 and US-81 carry similar traffic volumes as detailed in Table 1-1 and Appendix A therefore, a restricted crossing U-turn intersection was not evaluated at this location. Of the three remaining intersection alternatives, the Sweeping Curve Alternative would have the greatest impact on ROW, farmland, floodplain, and wetlands and waters of the US at both the N-92 West Intersection and the

N-92 East Intersection. Therefore, *the Sweeping Curve Alternative was eliminated from further evaluation*.

The Standard Intersection Alternative would have the fewest overall impacts on resources because it would be constructed on the existing alignment; however, the addition of two lanes on US-81 (providing two lanes in each direction) would increase the number of conflict points at the intersection and is predicted to result in a slight increase (approximately 3 percent) in crash potential compared to the existing two lane intersection at the N-92 west intersection and N-92 east intersection. Comparatively, even with the additional lanes, the Roundabout Alternative would reduce the number of conflict points at the intersections and is predicted to reduce crashes by 41 percent compared to the existing N-92 west intersection and N-92 east intersection. Although the *Standard Intersection Alternative* would result in fewest impacts overall, it *was eliminated from further evaluation* due to the slight increase in the crash potential at both the existing N-92 west intersection and existing N-92 east intersection.

N-64 Intersection

The Sweeping Curve Alternative was not evaluated at the N-64 intersection because US-81 is currently the through highway and has the higher traffic volume. The three remaining intersection alternatives—the Standard Intersection, Restricted Crossing U-Turn, and Roundabout Alternatives—would have similar impacts on all resources except ROW and farmland. The Roundabout Alternative would require the smallest ROW acquisition of 5.7 acres, versus 7.5 and 10.4 acres, respectively, for the Standard Intersection and Restricted Crossing U-Turn Alternatives. While the *Roundabout and Standard Intersection Alternatives* would have the fewest and second fewest impacts on resources, respectively, *they were eliminated from further evaluation* for the following reasons:

- Generally, roundabouts operate more efficiently than traditional intersections when there is close to 50 percent distribution of traffic between the major approach (US-81) and the minor approach (N-64/141st Road. Based on NDOT's last traffic counts, approximately 76 percent of traffic entering the intersection is along US-81.
- Operationally, the RCUT concept has fewer changes to existing traffic movements than a roundabout. Based on NDOT's last traffic counts of the intersection, 93 percent of traffic movements entering the intersection would not be affected by the proposed RCUT design and would operate the same as the existing intersection configuration. The only movements that would be redirected with the proposed RCUT are the left and through movements on the minor approaches (N-64/141st Road) to the intersection, while the roundabout would impact all movements at the intersection.
- This intersection was included in the Project due to a crash rate that is over three times higher than the statewide average for a four-lane rural highway intersection. While both the roundabout and RCUT alternatives would provide safety benefits at the intersection, NDOT's recent review of the US-81 and N-91 RCUT in Humphrey, which was constructed in 2020, documented a 96 percent reduction in fatalities and serious injuries.

Minor Highway Intersections

Two Intersection alternatives were considered at S-93C, N-66, and N-69: RCUT and standard intersection. RCUTs are typically used by NDOT at the intersection of rural four-lane divided expressways and lower volume minor roads to reduce the frequency of higher severity crashes compared to a standard intersection. The intersections at S-93C and N-66 are rural and would use RCUTs. Due to the developed nature of the N-69 intersection, it would remain a standard intersection configuration.

Figure 2-4. Intersection Alternatives (page 1 of 2)

These intersection types are based on the US-81/N-92 west intersection and are for illustration only.

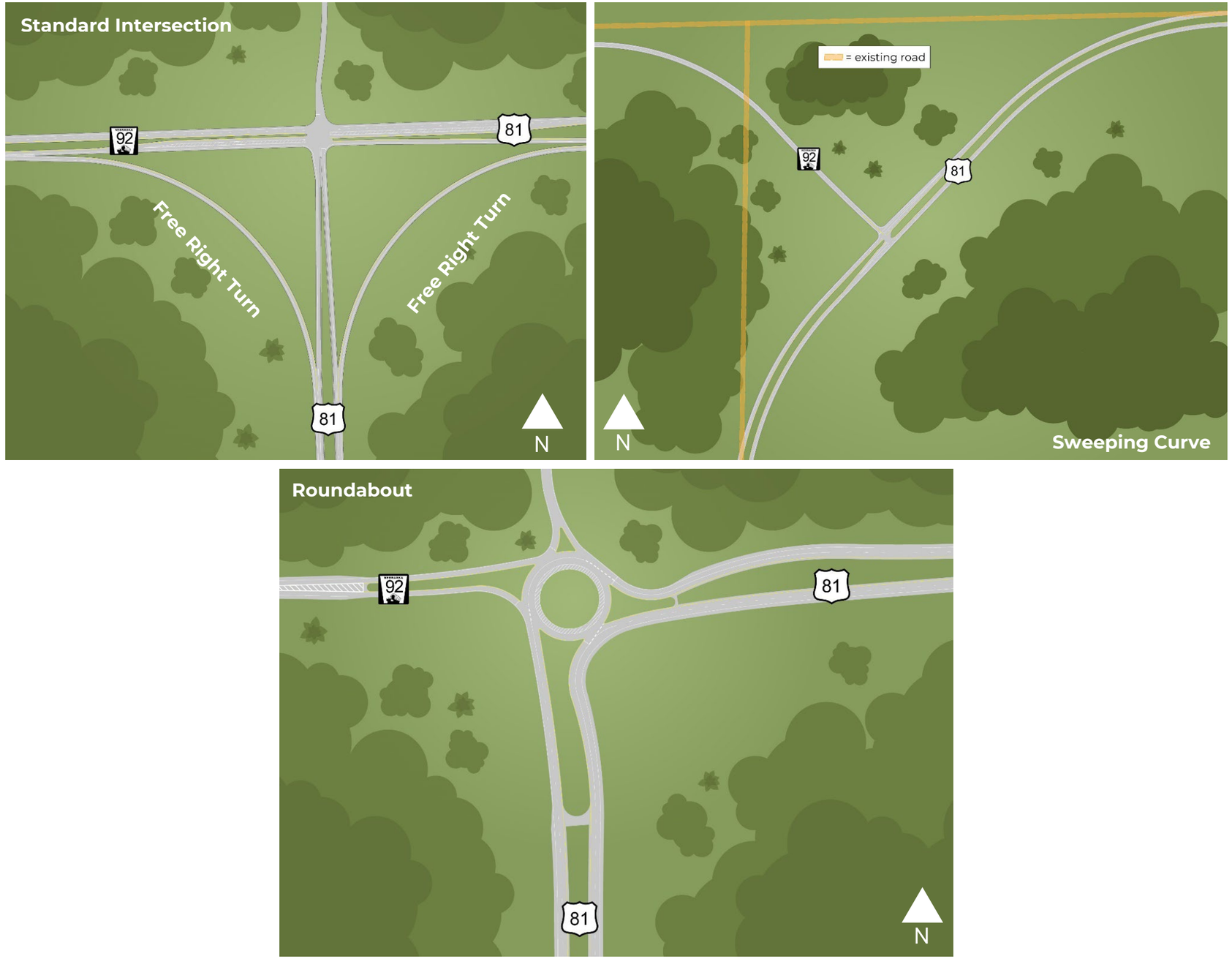


Figure 2-4. Intersection Alternatives (page 2 of 2)

This intersection type is based on the US-81/N-64 intersection and is for illustration only.

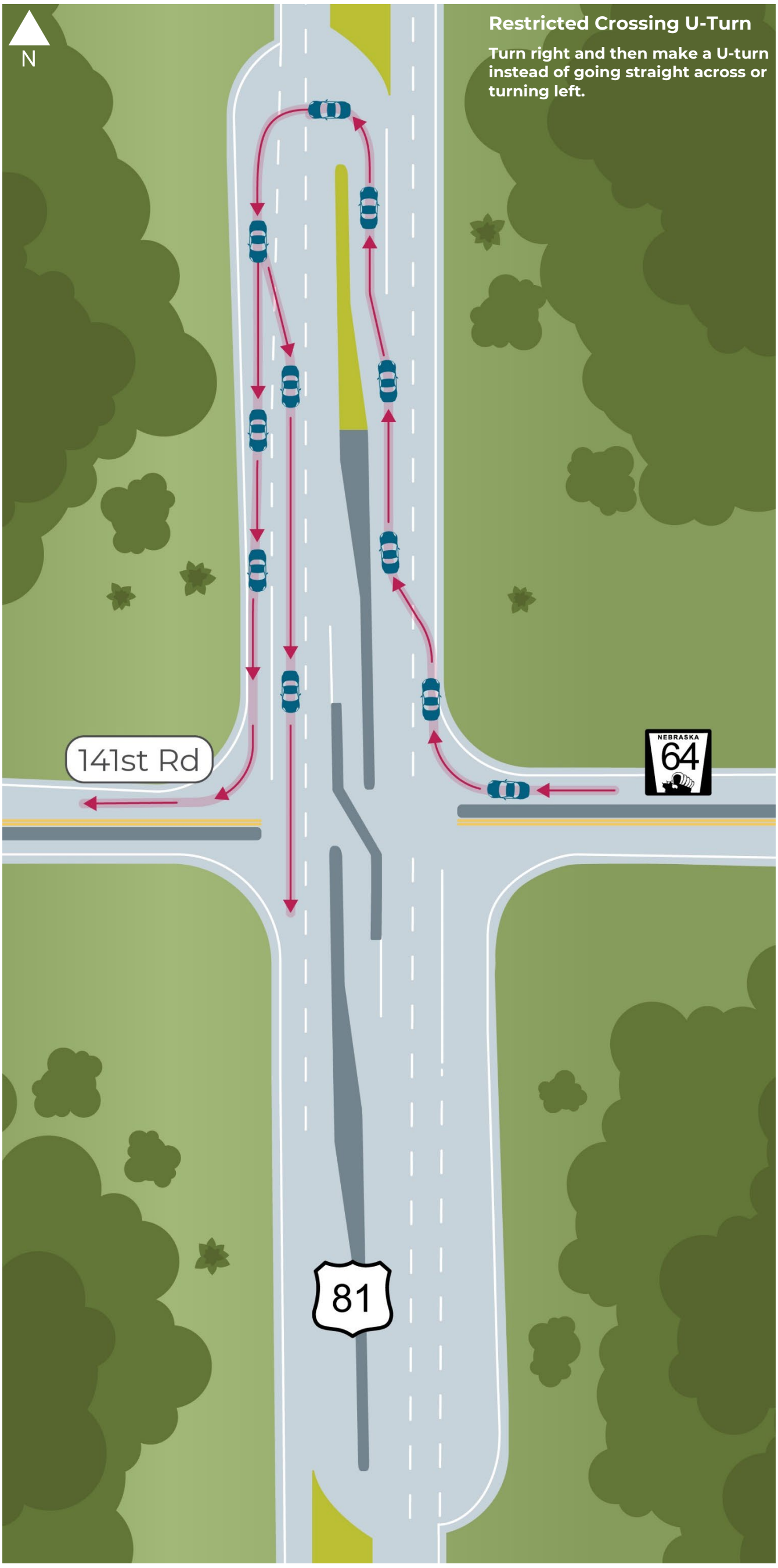


Table 2-2. Intersection Concept Impact Comparison

Alternative	Crash Reduction Factor	Right-of-Way Acquisition (acres)	Structure Relocations[1]			Farmland (acres)	Floodplain		Wetlands (acres)	Channel (linear feet)
			House	Major Building	Minor Building		Acres	Crossings		
US-81 and N-92 West Intersection										
Standard Intersection	-3	17.7	0	1	1	15	6	1	3.1	368
Sweeping Curve	33	35.9	0	0	0	30	9	2	4.2	747
Roundabout	41	28.9	0	1	1	3	6	1	3.1	368
US-81 and N-92 East Intersection										
Standard Intersection	-3	47.1	0	0	1	46	9	2	1.8	--
Sweeping Curve	33	79.0	0	0	0	78	3	2	4.6	--
Roundabout	41	36.4	0	0	1	36	9	2	1.8	--
US-81 and N-64 Intersection										
Standard Intersection	8	7.5	0	0	0	5	--	--	0.1	--
Restricted Crossing U-Turn	20	10.4	0	0	0	6	--	--	0.1	--
Roundabout	41	5.7	0	0	0	4	--	--	0.1	--

[1] House relocations include structures where people live; major building relocations include structures perceived to be critical to the functional utility of the property (for example, large livestock facilities, large barns, large machine sheds); minor building relocations include other structures not perceived to be major (for example, small toolsheds, small detached garages, small storage buildings).

2.5 Alternatives Carried Forward

2.5.1 No Build Alternative

Under the No Build Alternative, the segment of US-81 between approximately US-34 in York and N-64 south of Columbus would not be improved to a four-lane expressway but would instead remain a two-lane highway. Normal maintenance and minor rehabilitation activities would occur along this segment of US-81 to support continued operation of the existing transportation corridor. The No Build Alternative would also include ongoing minor construction projects and maintenance activities for transportation facilities throughout York, Polk, and Butler Counties. The No Build Alternative does not meet the Project purpose and need; however, it will be carried forward for further analysis under NEPA to serve as a baseline for comparison of impacts of the build alternative(s) carried forward for additional analysis.

2.5.2 Build Alternative

As a result of the previous alternatives analysis, all but one alternative was eliminated for each segment of the Project. This combination of alternatives, along with four-to three-lane transitions into and out of Stromsburg, Osceola, and Shelby, make up the Build Alternative. The Build Alternative was carried forward and the conceptual design was refined to allow detailed analysis in the EA. The Build Alternative would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway adjacent to US-81, as defined below and shown in Figure 2-5; the alternative would also include ancillary construction such as drainage structures, county road improvements, and application of a Restoration, Rehabilitation, and Resurfacing (3R) strategy to the existing two lanes:

- York to Stromsburg: Widen East and restricted crossing U-turn at the US-81 intersections with S-93C and N-66
- In Stromsburg: No improvements
- Stromsburg to N-92 West Intersection: Widen East
- N-92 West Intersection: Roundabout
- N-92 West Intersection to Osceola: Widen North
- In Osceola: Three-lane non-curbed urban section
- Osceola to Shelby: Widen North
- In Shelby: Three-lane urban section maintaining existing curbed and non-curbed sections
- Shelby to N-92 East Intersection: Widen North
- N-92 East Intersection: Roundabout
- N-92 East Intersection to N-64: Widen West
- N-64 Intersection: Restricted crossing U-turn

Figure 2-5. Build Alternative Impact Area (page 1 of 18)

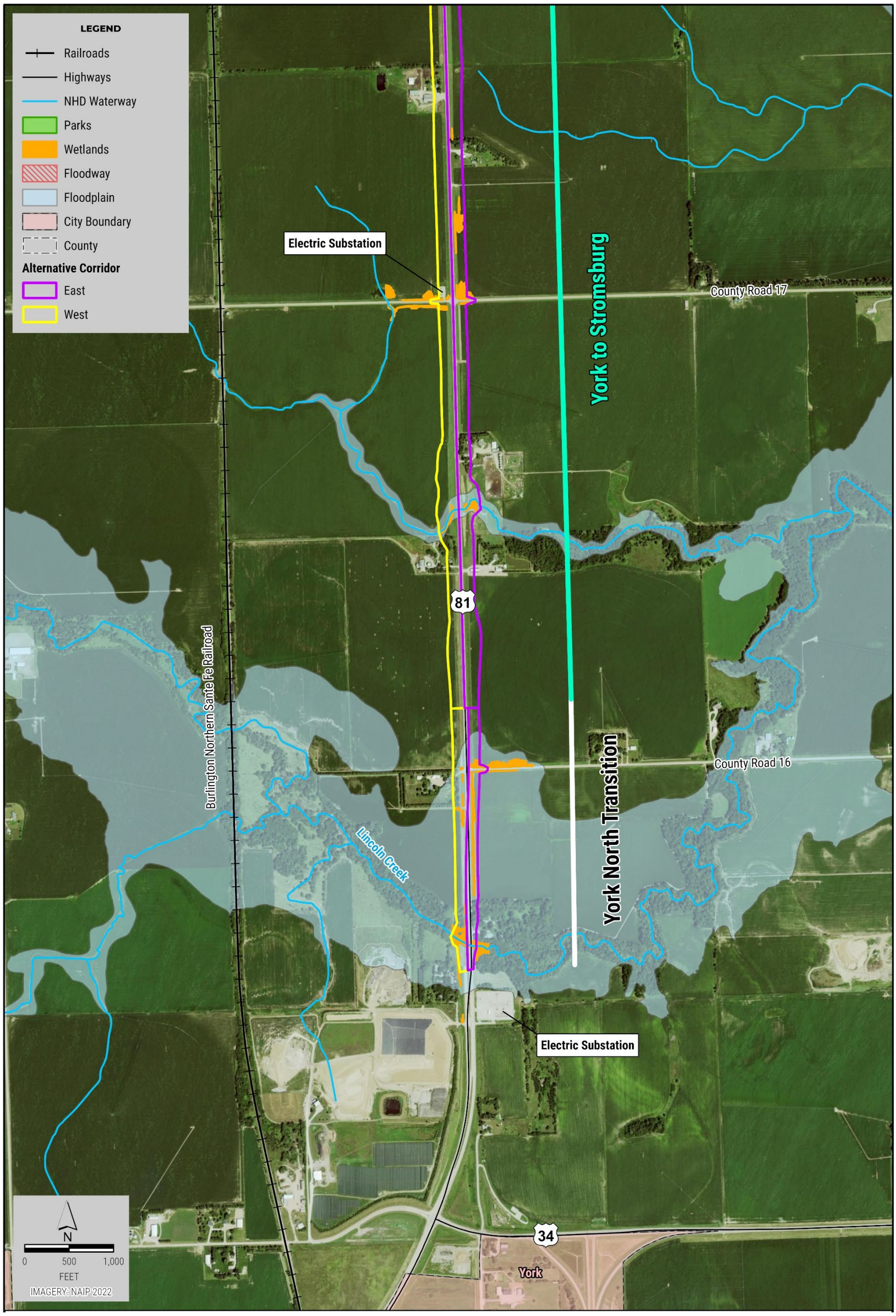


Figure 2-5. Build Alternative Impact Area (page 2 of 18)

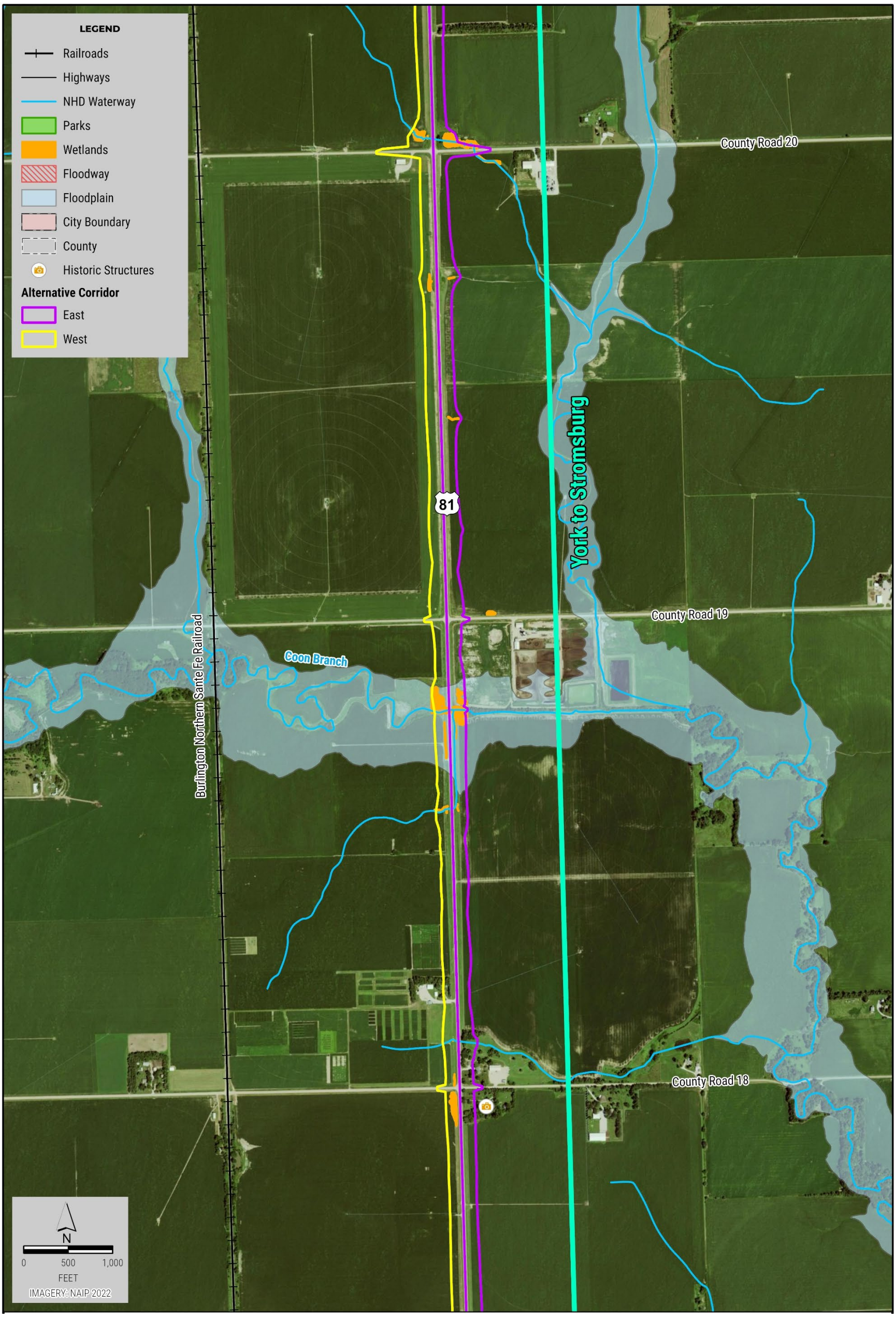


Figure 2-5. Build Alternative Impact Area (page 3 of 18)

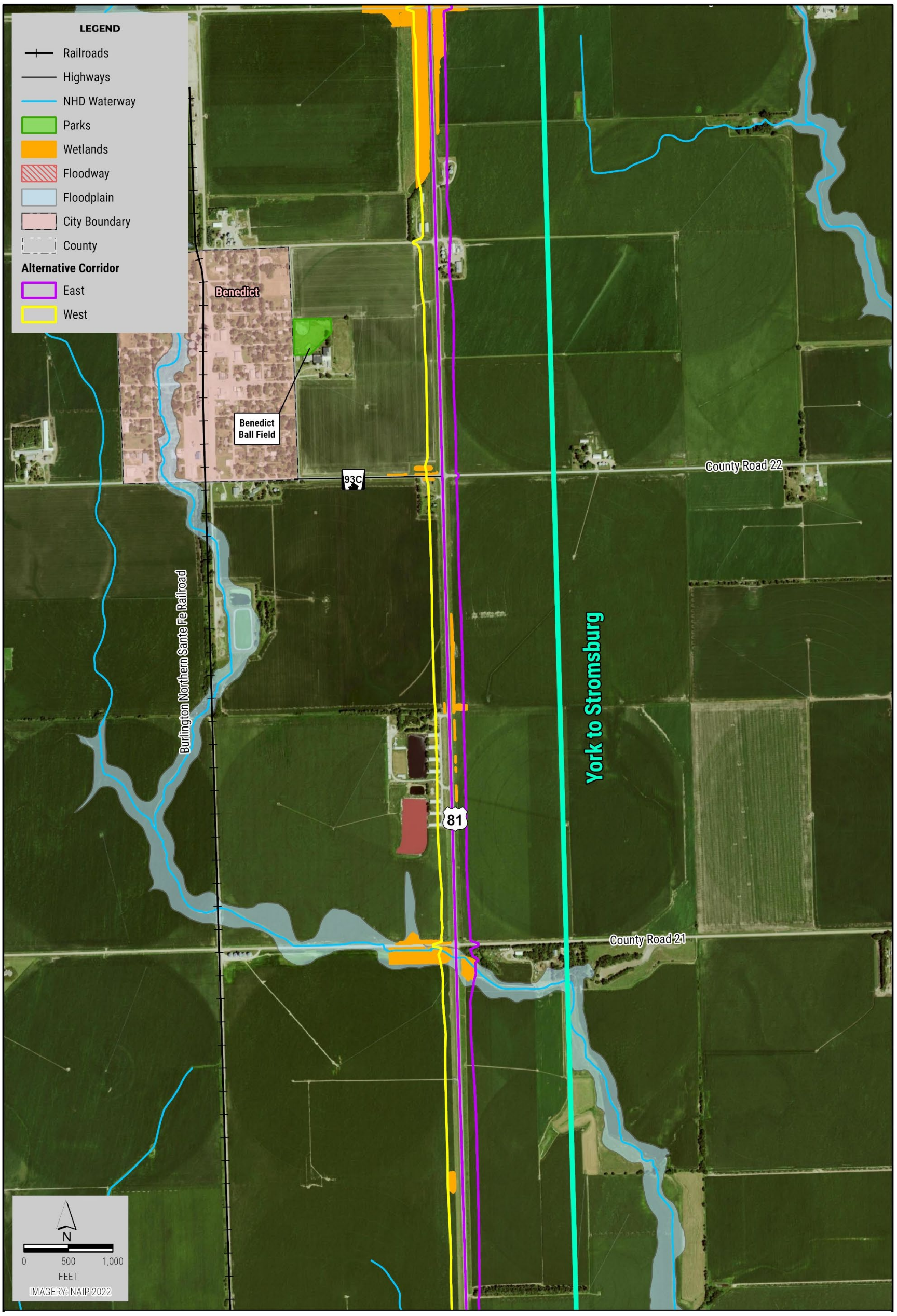


Figure 2-5. Build Alternative Impact Area (page 4 of 18)

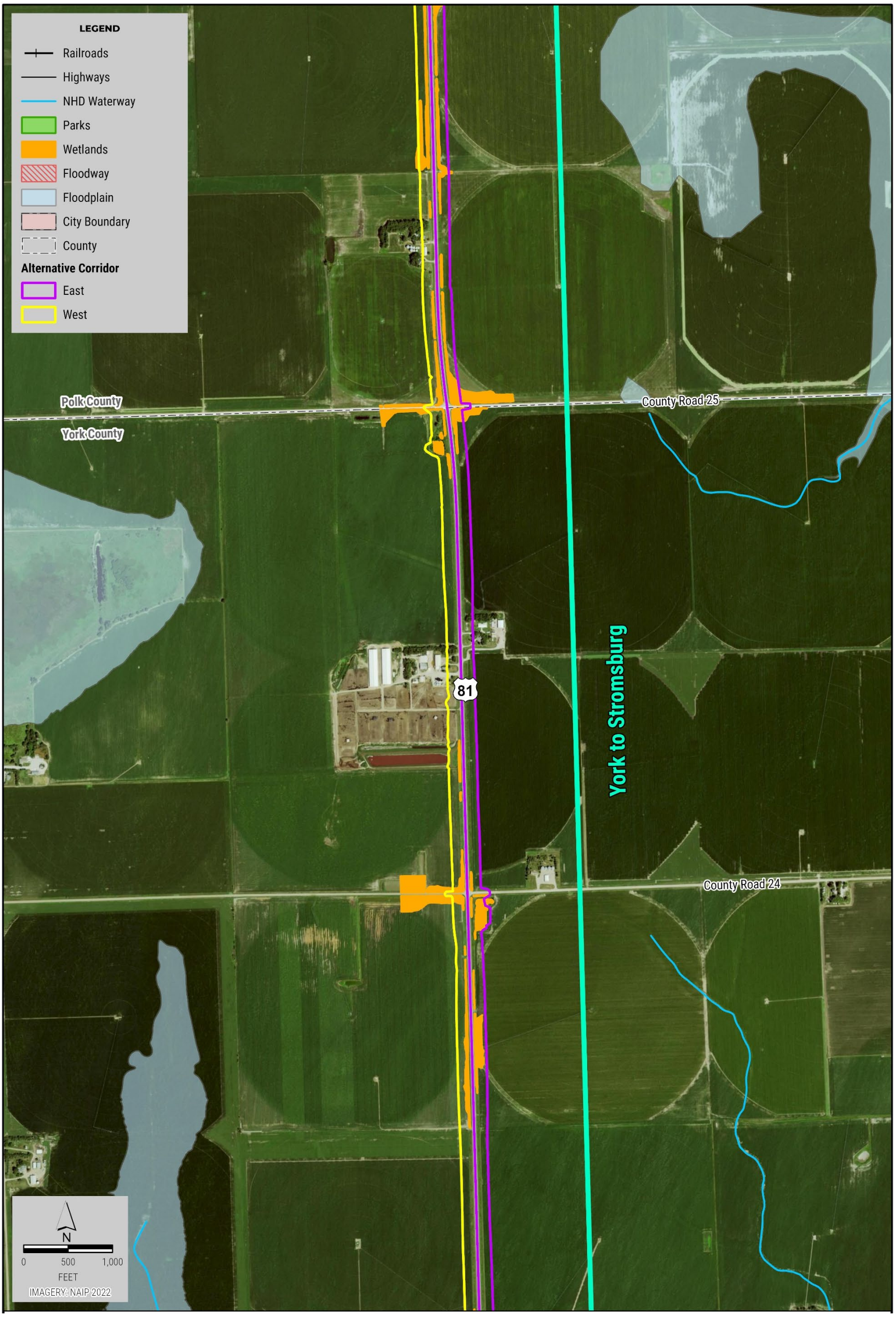


Figure 2-5. Build Alternative Impact Area (page 5 of 18)

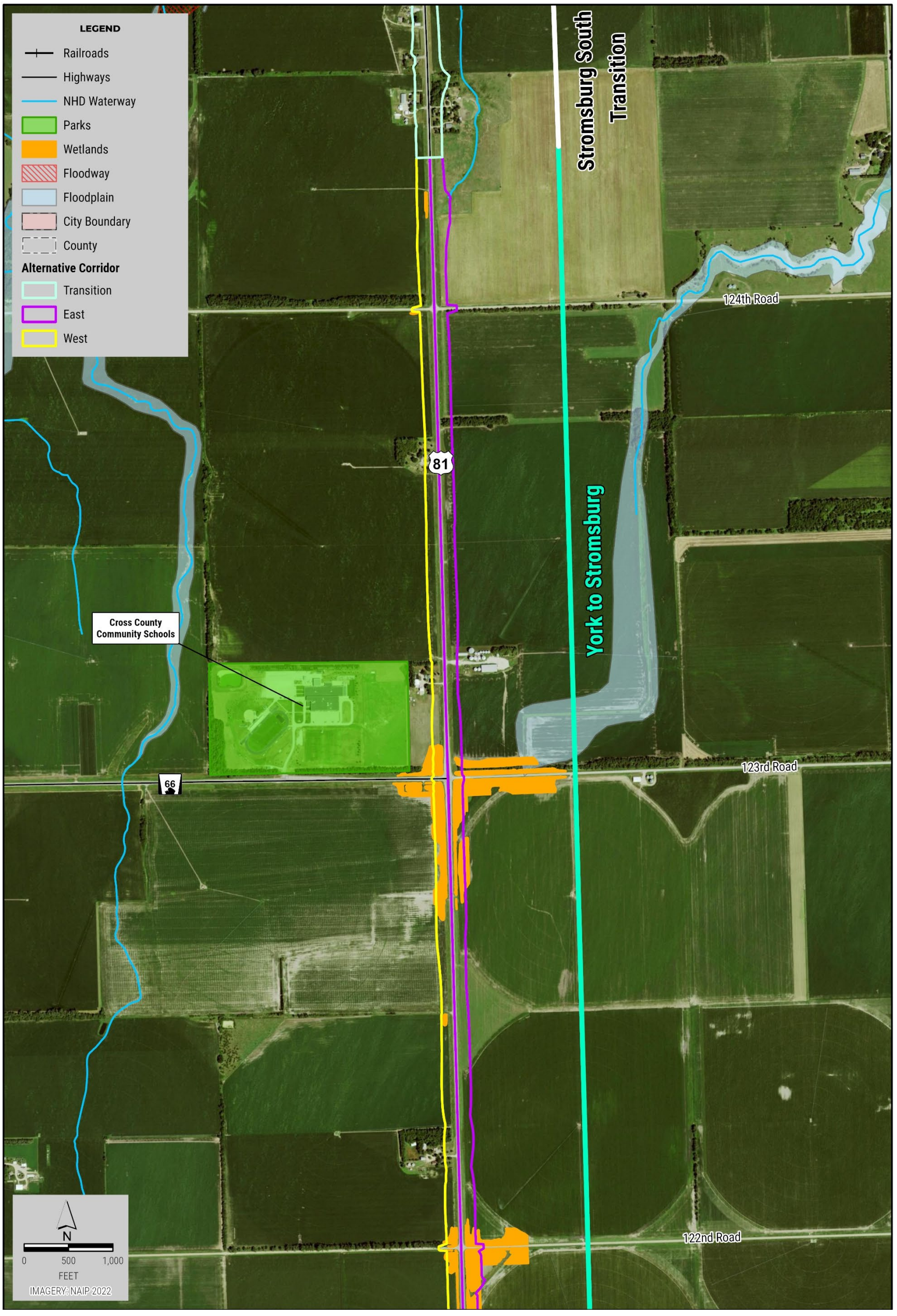


Figure 2-5. Build Alternative Impact Area (page 6 of 18)

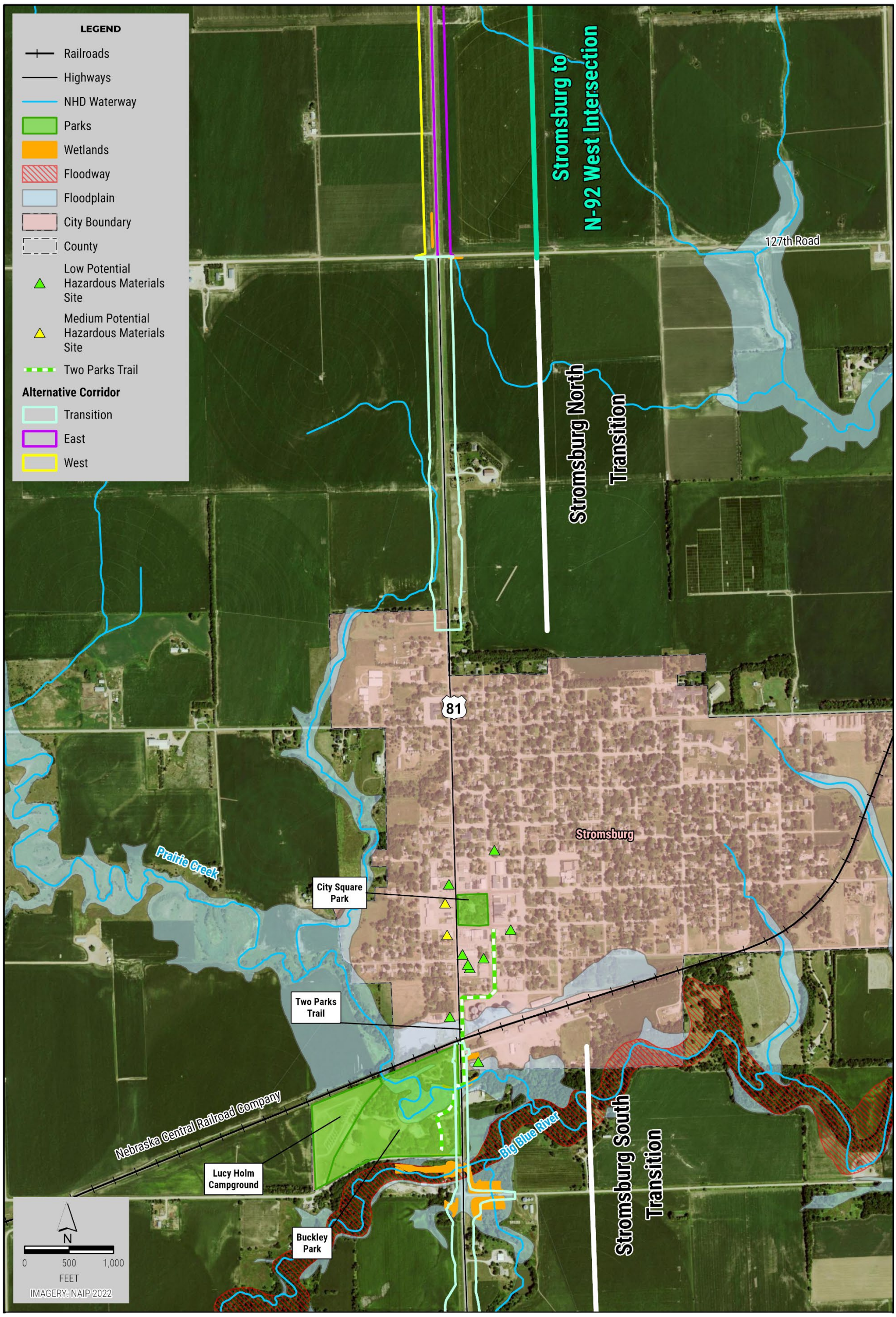


Figure 2-5. Build Alternative Impact Area (page 7 of 18)

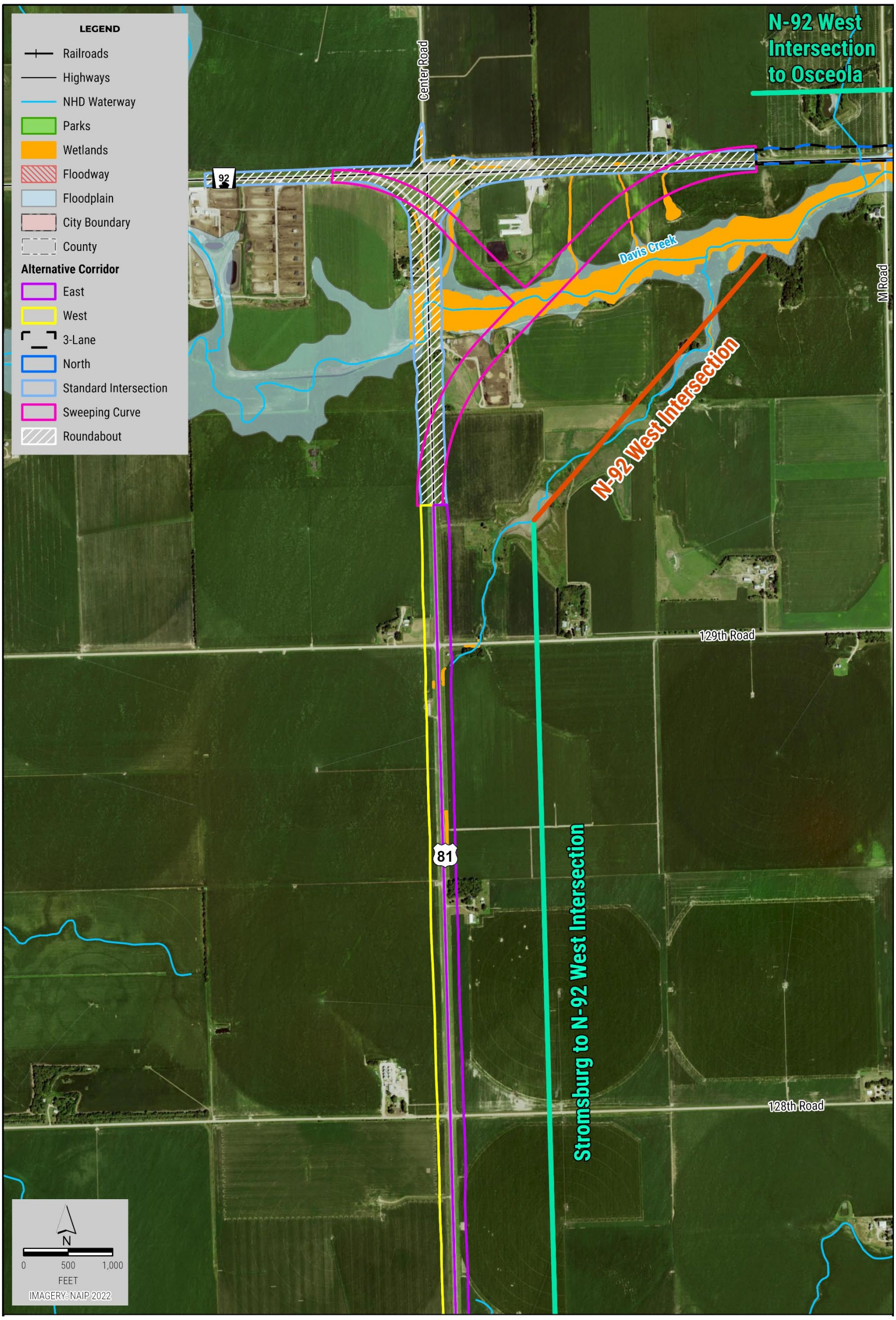


Figure 2-5. Build Alternative Impact Area (page 8 of 18)

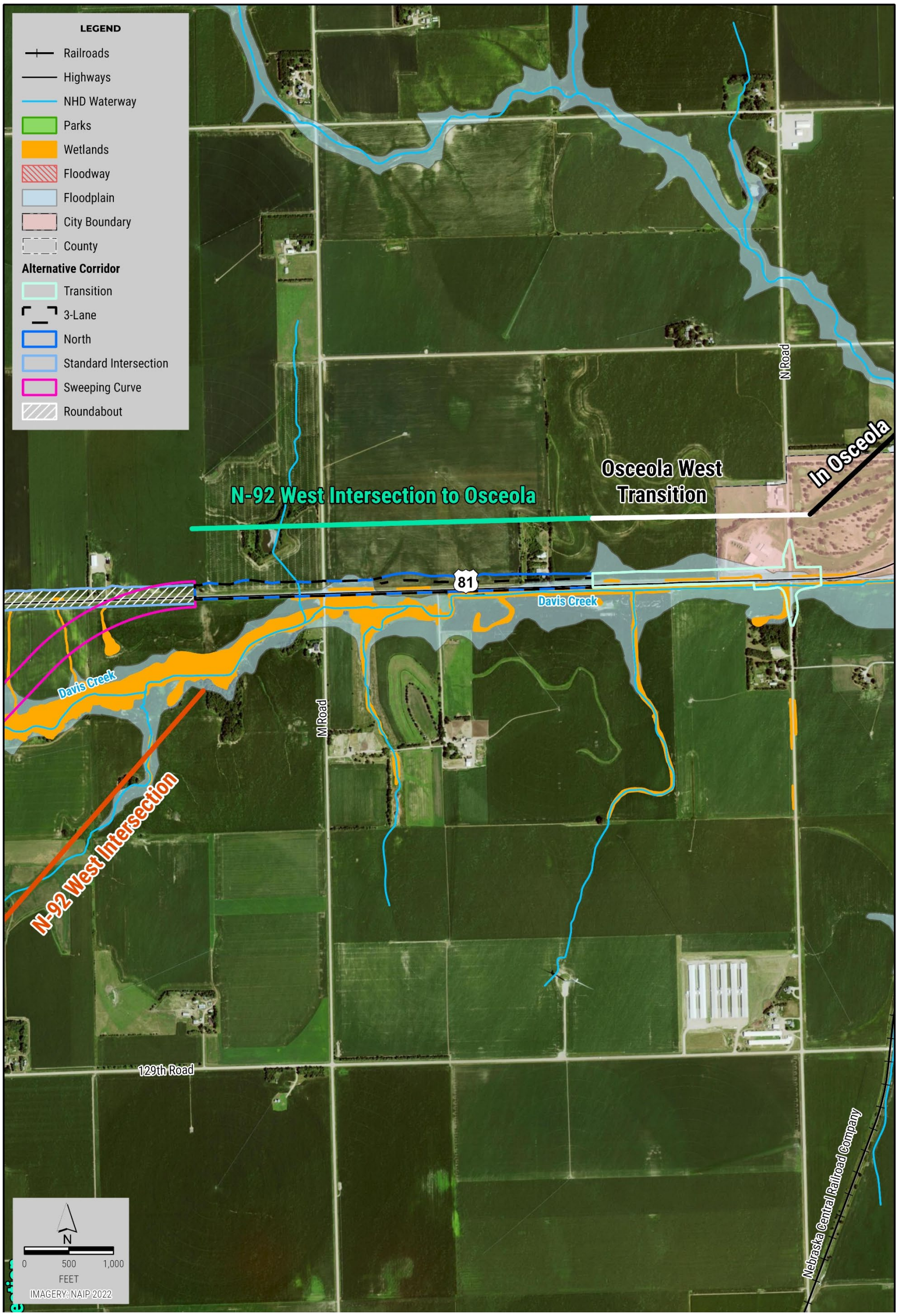


Figure 2-5. Build Alternative Impact Area (page 9 of 18)



Figure 2-5. Build Alternative Impact Area (page 10 of 18)



Figure 2-5. Build Alternative Impact Area (page 11 of 18)



Figure 2-5. Build Alternative Impact Area (page 12 of 18)



Figure 2-5. Build Alternative Impact Area (page 13 of 18)



Figure 2-5. Build Alternative Impact Area (page 14 of 18)

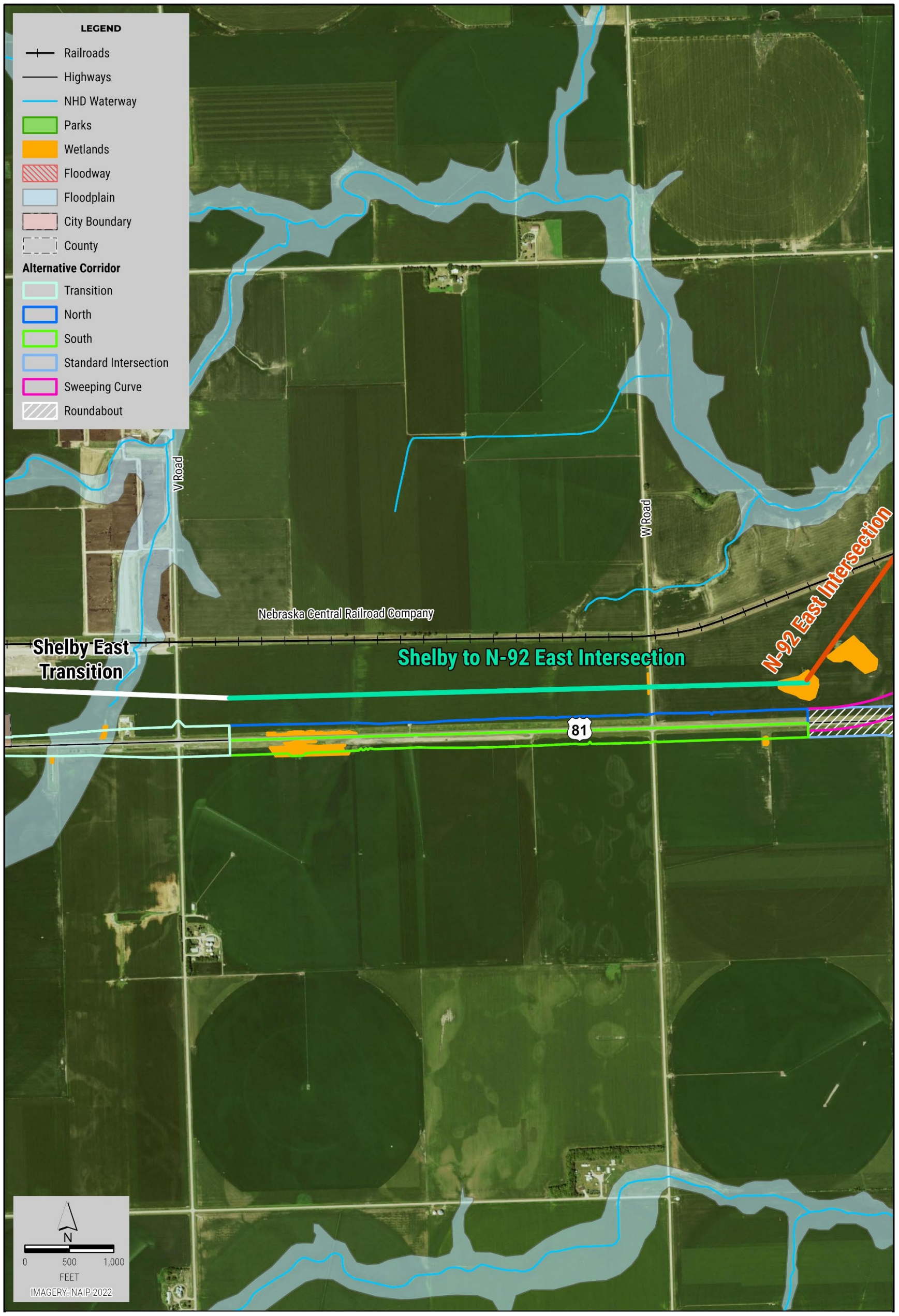


Figure 2-5. Build Alternative Impact Area (page 15 of 18)

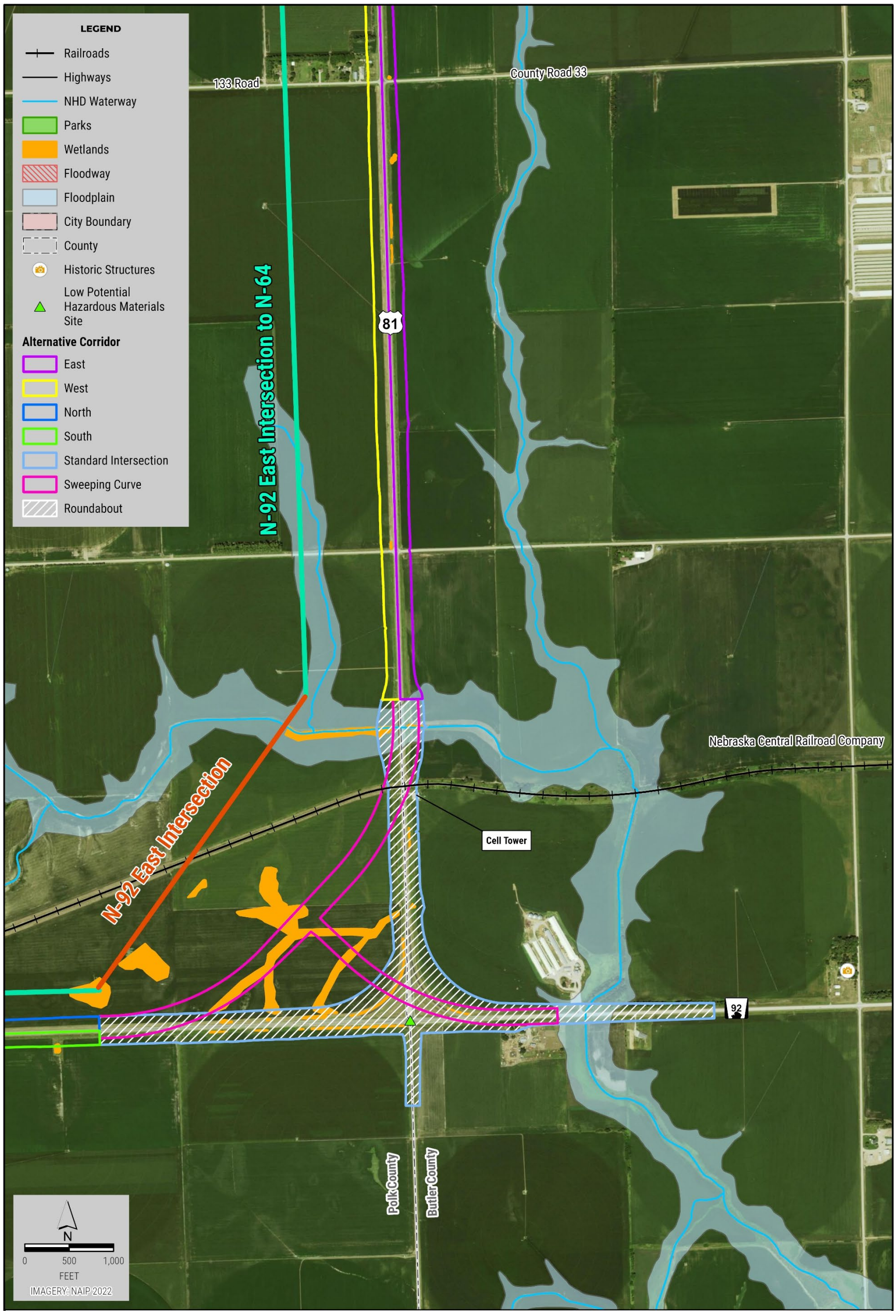


Figure 2-5. Build Alternative Impact Area (page 16 of 18)



Figure 2-5. Build Alternative Impact Area (page 17 of 18)

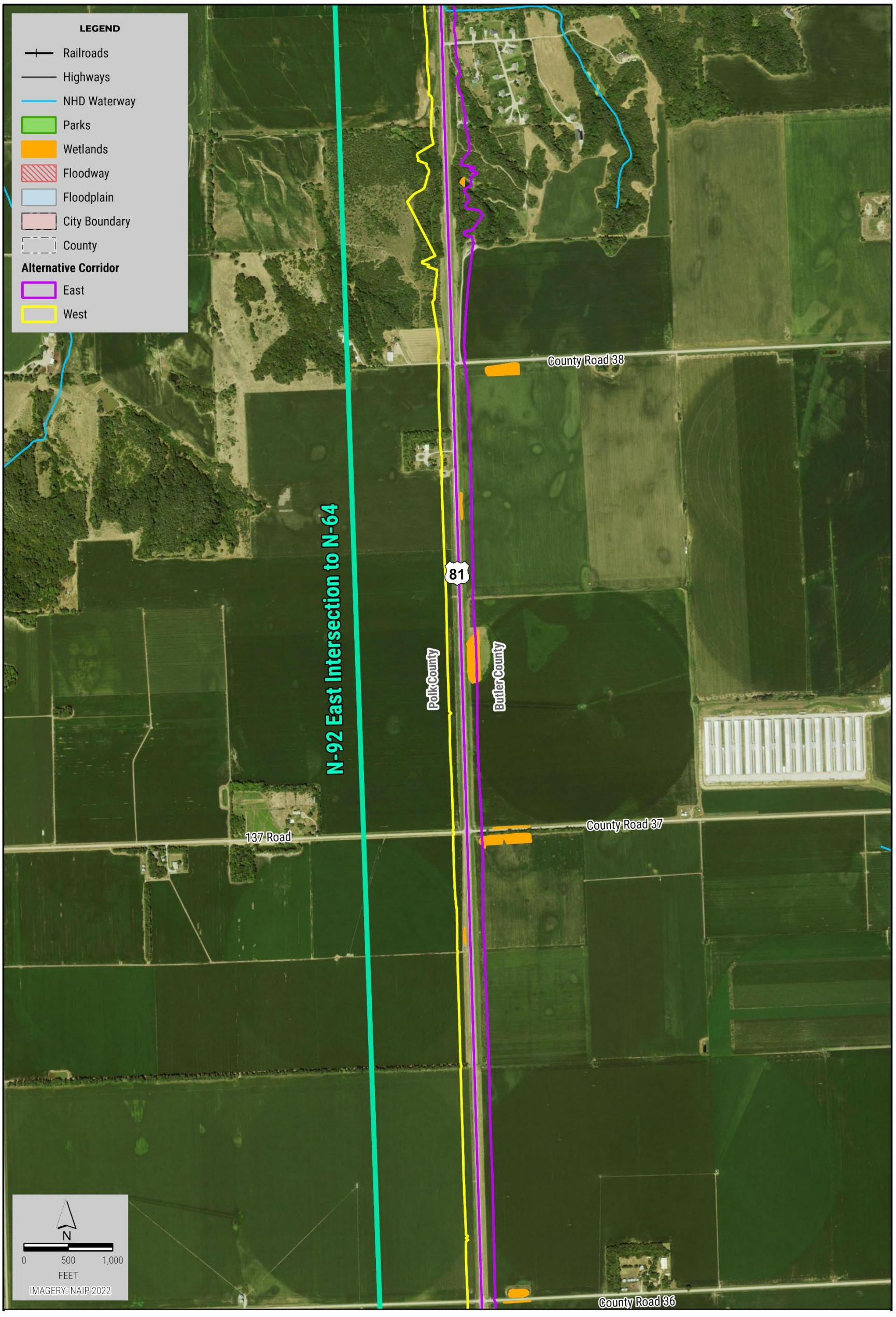
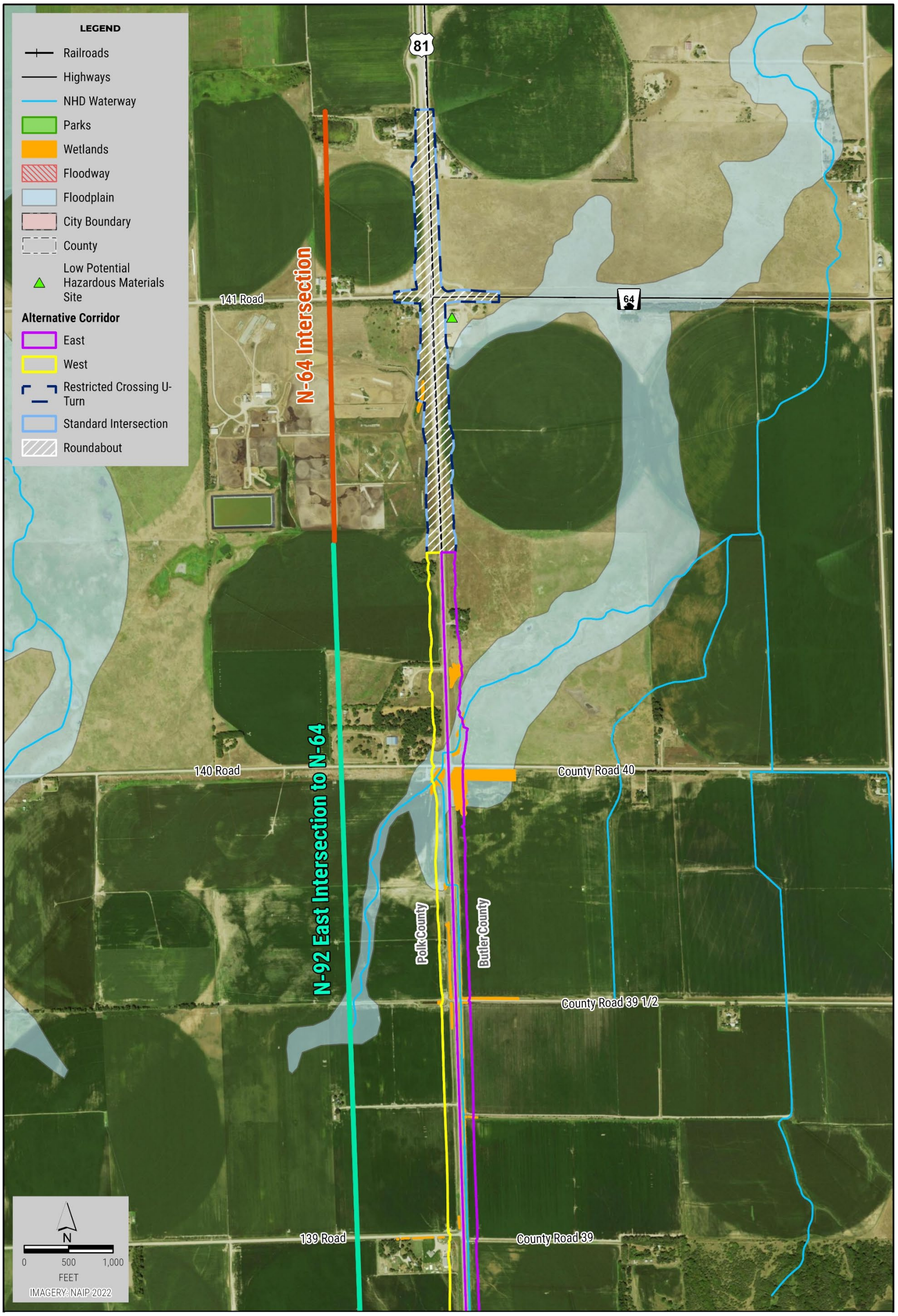


Figure 2-5. Build Alternative Impact Area (page 18 of 18)



2.6 Preferred Alternative

For this proposed Project, the preferred alternative is the one that best fits the purpose and need, considering any potential environmental, social, and economic impacts. The Build Alternative, hereafter referred to as the Preferred Alternative, was carried forward for further analysis because it meets the Project purpose and need and also balances the broader goals of infrastructure improvement while minimizing environmental and community impacts and cost. As discussed in Section 2.3, Alternatives Development and Screening, the Preferred Alternative would impact fewer resources. The Preferred Alternative would be constructed in multiple construction packages over several years.

2.7 Summary of Environmental Impacts from the Preferred Alternative

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

Table 2-3. Summary of Environmental Impacts

Resource	Impacts
Land Use	The Preferred Alternative would convert approximately 452 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	The Preferred Alternative would convert 434 acres of farmland to an expressway system. The NRCS-CPA-106 forms show that the point total for Part VI, Corridor Assessment Criteria, for York County is 48, Polk County is 47, and Butler County is 36. The NRCS-CPA-106 forms were reviewed by the Natural Resources Conservation Service on July 25, 2024. The cumulative scores for each county are below the 160 threshold and do not warrant further protections or evaluation. The Preferred Alternative has the potential to impact 58 pivots and 32 structures including farmhouses, major and minor outbuildings, and silos across the three counties. Temporary impacts during construction may occur in the form of temporary easements for access or modification of center pivots.
Right-of-Way and Relocations	The Preferred Alternative would require the acquisition of approximately 452 acres of new ROW and permanent easements. Most of the ROW acquisition would be minor, generally less than 10 percent of the total parcel. The Preferred Alternative is anticipated to relocate 9 houses, 11 outbuildings, 4 detached garages, 5 silos, 3 sheds, and 1 business. Existing field access drives and residential driveways would be relocated or realigned as needed throughout the Project.

Resource	Impacts
Community Impact Assessment	The Preferred Alternative would have minor, short- and long-term, beneficial impacts on the populations in and near the Community Impact Assessment (CIA) Study Area. Short- and long-term beneficial impacts on income and employment, and long-term beneficial economic impacts would result from expanding US-81 to a four-lane facility. Access to community resources and community facilities, cohesion among communities, and quality of life for residents along the Preferred Alternative would benefit from the moderate, long-term impacts. 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-81.
Environmental Justice	Minority and low-income populations were not identified in the Project Study Area based on NDOT's Environmental Justice methodology developed in coordination with FHWA. No translations or specialized outreach for limited English proficiency is required for this Project because a population with limited English proficiency was not identified for the total population affected by the Project. NDOT would provide language assistance if requested.
Transportation	The Preferred Alternative is anticipated to have minor, short-term, adverse impacts on the transportation network during construction. Construction would be completed under traffic, allowing continuous movement through the Project Study Area. After construction, the Preferred Alternative would have major, long-term, beneficial impacts on the transportation network in the Project Study Area and in central Nebraska.
Recreation Facilities	Impacts on the Benedict Ball Field, Cross County Community Schools, Lucy Holm Campground, City Square Park, Governor's Park Arboretum, Osceola City Park, Pocket Park, and Shelby Park are not anticipated. No ROW or easements would be acquired from these properties, and access would be maintained throughout construction. Temporary easements may be acquired from Buckley Park for construction of the roadway, but access would be maintained. Two Parks Trail would be realigned from Buckley Park to the NCRC rail line to accommodate the widening of the roadway. Access between Buckley Park and City Square Park would be maintained via a sidewalk on the west side of US-81. Approximately 1.8 acres of ROW and easements would be acquired from Ryan Hill Country Club. The acquisition is not anticipated to impact the existing golf course holes or fairways.
Historic Properties	The Preferred Alternative would not affect PK03-039 and BU00-227, and would not adversely affect YK00-266. Construction activities proposed at or adjacent to YK00-266 include construction of two new highway lanes with paved shoulders, reconstruction of the intersection of US-81 and County Road 18, the closure of the existing US-81 driveway on the west side, and the acquisition of 0.72 acre of new ROW from the 4-acre YK00-266 property. In the areas of new ROW acquisition, the Preferred Alternative would remove several existing bushes and mature trees, relocate an existing sign, and close the primary US-81 driveway for the property. Following construction, driveway access to the property would be maintained via the property's second driveway along County Road 18. The Nebraska State Historic Preservation Office concurred with the *no adverse effect* finding on May 22, 2024.

Resource	Impacts
Visual	There would be no beneficial or adverse permanent impacts on the aesthetic value of the area.
Section 4(f)	Temporary easements may be acquired from Buckley Park on the east side along US-81 for construction of the roadway and reconstruction of the existing driveways. A Section 4(f) Exception for Temporary Occupancy is anticipated. Concurrence from the official with jurisdiction would be obtained after receiving public input during the public comment period for the Draft EA. To avoid permanent impacts on Buckley Park, the roadway widening would be placed on the east side of the roadway, resulting in a full realignment of Two Parks Trail from Buckley Park to the NCRC rail line east of the widened roadway. Pedestrian access between Buckley Park and City Square Park would be maintained throughout construction via an existing sidewalk on the west side of US-81. A Section 4(f) *de minimis* is anticipated. Concurrence from the official with jurisdiction would be obtained after receiving public input during the public comment period for the Draft EA. The Preferred Alternative would acquire 0.72 acre of new ROW from the 4-acre YK00-266 property as well as close the primary driveway from US-81, remove landscaping, and relocate the existing "The Fillman Place" sign. Access to the property would be maintained via the secondary driveway from County Road 18, which would be resurfaced with rock and gravel. The Nebraska State Historic Preservation Office concurred with the *no adverse effect* finding on May 22, 2024. A Section 4(f) *de minimis* is anticipated.
Section 6(f)	The 2024 Nebraska Game and Parks Commission (NGPC) review found that there are three Land and Water Conservation Fund Act encumbered properties within the Project Study Area: Buckley Park in Stromsburg (LWCF #31-00529), Osceola City Park in Osceola (LWCF #31-01055), and Shelby Park in Shelby (LWCF #31-00292). Impacts on Osceola City Park and Shelby Park would be avoided with the Preferred Alternative. Temporary impacts are anticipated at Buckley Park. Coordination with NGPC would occur as design progresses.
Utilities	Utilities would need to be relocated for the Preferred Alternative. Impacted utility companies would be responsible for relocating their own facilities within the highway ROW at their own cost. Utilities outside of the ROW may be eligible for compensation as determined by NDOT; federal funding would not be used for utility relocations.
Air Quality	The vehicle miles traveled estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative. The emissions increase would be offset by lower Mobile Source Air Toxic emission rates due to increased speeds. Temporary impacts on air quality during construction may occur due to emissions and dust from construction equipment. These impacts would be temporary and would not create a non-attainment status within the Project Study Area.

Resource	Impacts
Noise	The noise analysis completed for the Preferred Alternative determined that 43 receptors would have noise impacts in 2050 due to the Preferred Alternative. Noise abatement was analyzed for 29 locations at 28 properties. Forty of the 43 receptors were determined to not meet the reasonableness test because the cost per benefited receptor would be greater than NDOT's allowable cost. Two locations met the requirements for feasibility and reasonableness. Additional analysis and coordination regarding noise abatement would occur during final design.
Hazardous Materials	Former Beebe Seed & Fertilizer / Thompson & Service has a medium potential to affect construction of the Preferred Alternative or to cause a materials management or worker health and safety concern, or both, related to construction of the Preferred Alternative. The remaining 22 facilities have a low potential to encounter contamination during construction. An asbestos summary was completed for the bridge structures and was negative. S081 06464 over Lincoln Creek, S081 06780 over Coon Branch, S081 07797 over the Big Blue River, S081 07815 over Prairie Creek, S081 08543 over Davis Creek, and S081 08578 over Davis Creek would be replaced or reconstructed, and all six structures are suspected of lead-based paint.
Paleontology	The University of Nebraska–Lincoln's Highway Paleontology Program has not identified any paleontological sites in the Project Study Area. Appropriate coordination protocols with the Highway Paleontology Program would occur if resources were discovered.
Wild and Scenic Rivers	There are no Wild and Scenic Rivers present, and there would be no impacts.
Floodplains	The Preferred Alternative would encroach on approximately 81 acres of Zone A (100-year) floodplains, of which approximately 28 acres are in York County, 48 acres are in Polk County, and 5 acres are in Butler County. The Preferred Alternative is not anticipated to cause greater than 1 foot of rise in the base flood elevation of any of the floodplains it crosses, nor increase the potential for property loss and hazard to life. The Preferred Alternative would impact approximately 0.49 acre of the Big Blue River floodway located south of Stromsburg but is not expected to result in a rise. Per 23 CFR 650.111, the Preferred Alternative would result in a non-functionally dependent floodplain use at Davis Creek; however, there would be no significant encroachment to a base floodplain. The Preferred Alternative would not result in a base flood causing significant potential interruption or termination of the transportation facility, which is needed for emergency vehicles or a community's only evacuation route. It also would not result in a significant risk or potential for loss of life or property due to the base flood. This Project would not result in a substantial adverse impact on natural and beneficial floodplain values. Floodplain development permits would be obtained prior to construction, and the Preferred Alternative would comply with local floodplain regulations.

Resource	Impacts
Water Quality	The Preferred Alternative would intersect Lincoln Creek, an unnamed ephemeral tributary to Lincoln Creek, Coon Branch, the Big Blue River, Prairie Creek, Davis Creek, and one intermittent and one ephemeral unnamed tributary to Davis Creek; Lincoln Creek and the Big Blue River are Category 5 impaired waters. The Project would result in no additional impairment to the aforementioned waterways. The Preferred Alternative would affect 35 groundwater 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. The Preferred Alternative would cross five identified Wellhead Protection Areas: Benedict, Stromsburg, Osceola, Shelby, and Bay Meadows Trailer Court. 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.
Wetlands and Water Resources	The Preferred Alternative would permanently affect approximately 32.47 acres of wetlands and 1,961 linear feet (0.68 acre) of 10 waterways. Construction of the Preferred Alternative would require a Clean Water Act Section 404 Individual Permit from the US Army Corps of Engineers. In addition, temporary impacts on wetlands and water resources during construction are anticipated. These impacts would also be included in the Section 404 permitting process.
Fish, Wildlife, and Vegetation	The animal-related crash rate along this portion of US-81 (23 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (57 percent). Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at 5 of the 7 wildlife corridor locations, adverse impacts on fish and wildlife are not anticipated. Native at-risk vegetative species are not present within the Project Study Area. Vegetation disturbed during Project construction would consist mainly of introduced species found commonly throughout the area. Revegetation in all disturbed areas would use native seed mixes that would improve plant species composition. Temporary construction impacts on adjacent vegetation are expected. Areas disturbed during construction would be planted with an NDOT-approved seed mix following construction. Temporary construction impacts on fish and wildlife are not anticipated. Waterways disturbed during construction would require having flow maintained through temporary means identified during final design or by the Project Contractor.
Threatened and Endangered Species	NDOT determined that the Preferred Alternative may affect, but is not likely to temporarily or permanently adversely affect, Eskimo curlew, northern long-eared bat, tri colored bat, and whooping crane. Avoidance and minimization measures for the bat species and conservation conditions for the whooping crane to prevent an adverse effect would be used during construction. No conservation conditions have been identified for the Eskimo curlew. The US Fish and Wildlife Service and NGPC consultation is ongoing.

Resource	Impacts
Cumulative Impacts	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. The present and reasonably foreseeable projects would be permitted based on federal, state, and local resource requirements prior to construction.

Chapter 3 Affected Environment and Environmental Impacts

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

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

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

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

Environmental commitments and mitigation are described by resource in this chapter and a consolidated list is provided in Appendix B.

Figure 3-1. Affected Environment (page 1 of 36)

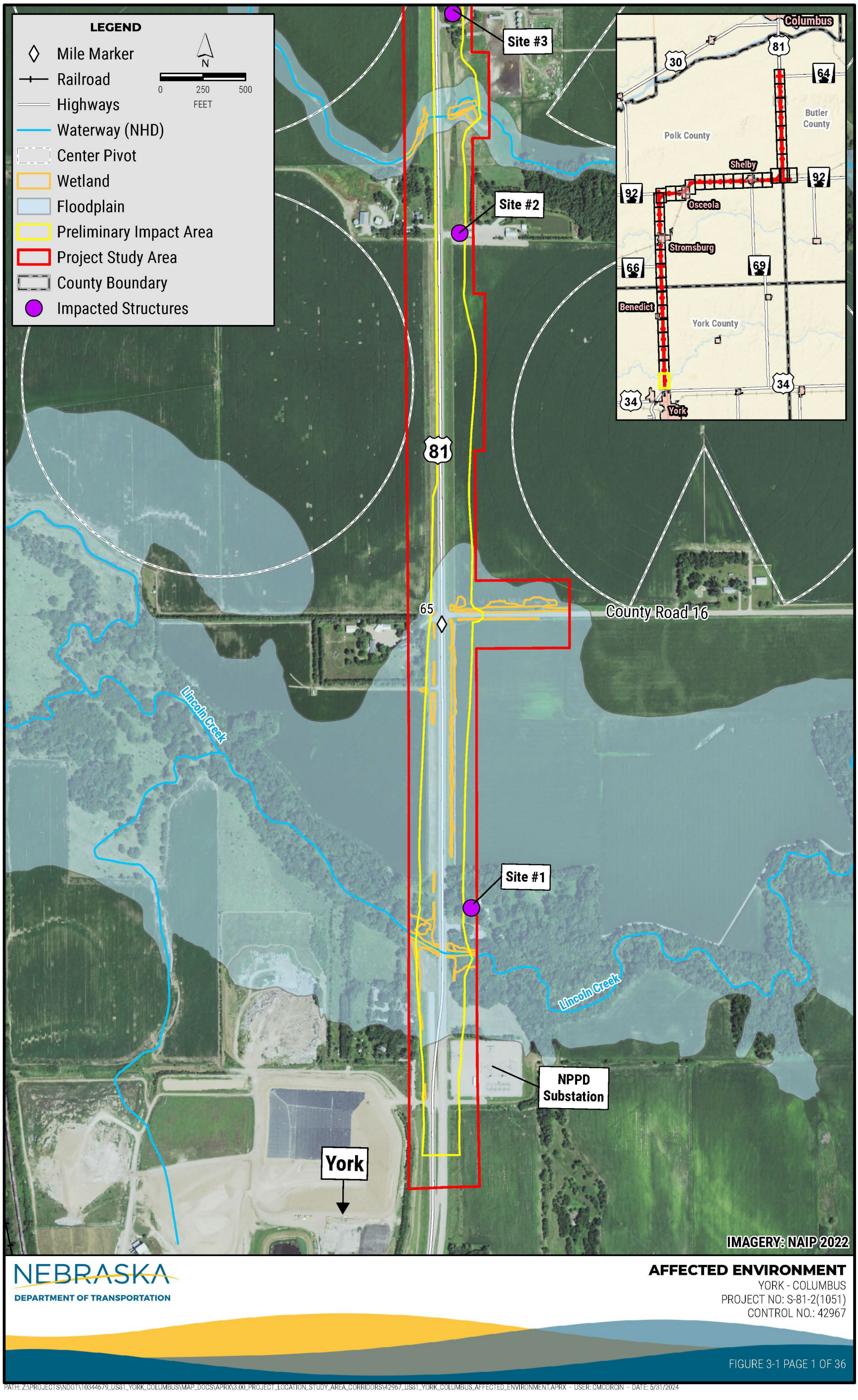


Figure 3-1. Affected Environment (page 2 of 36)

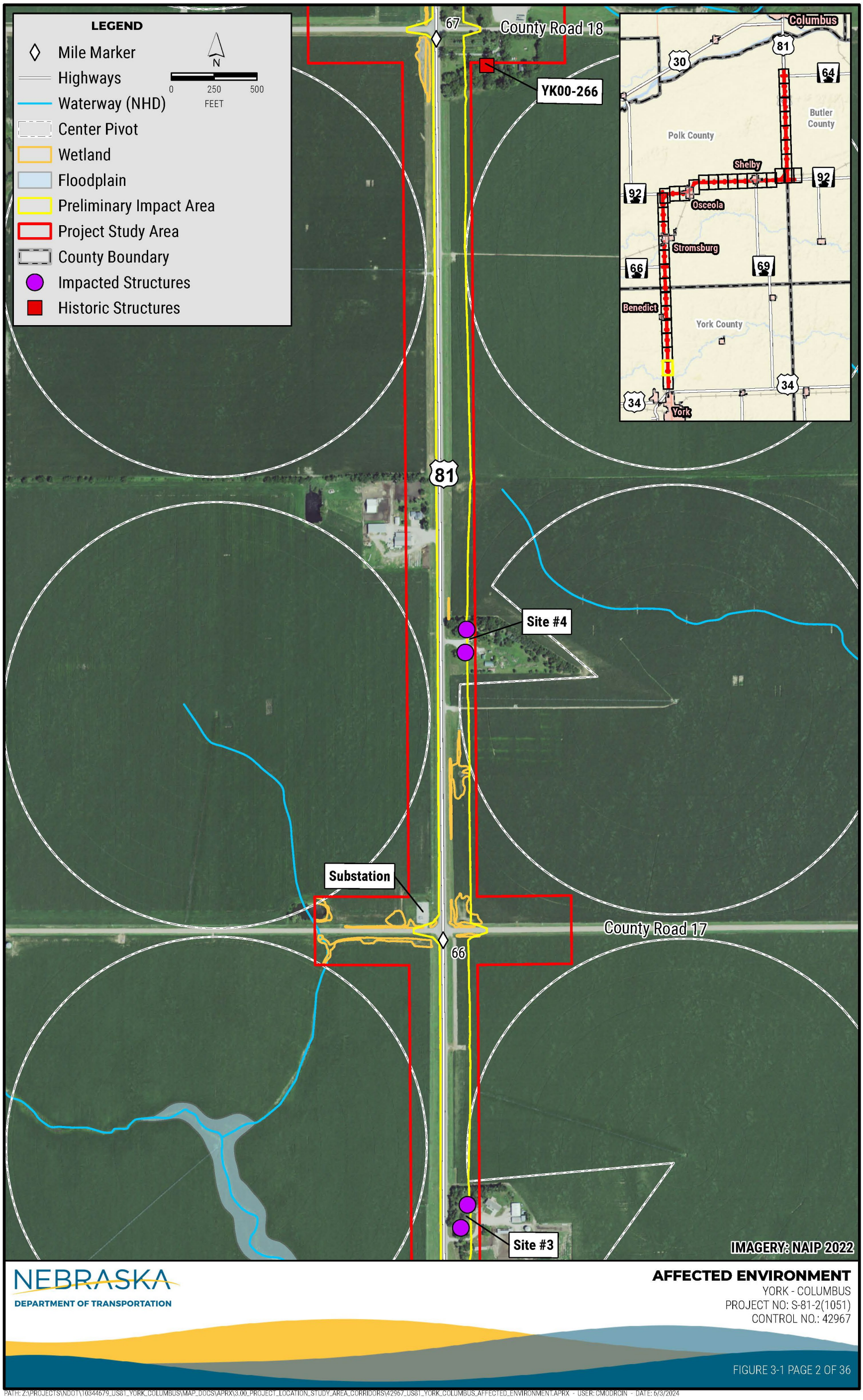


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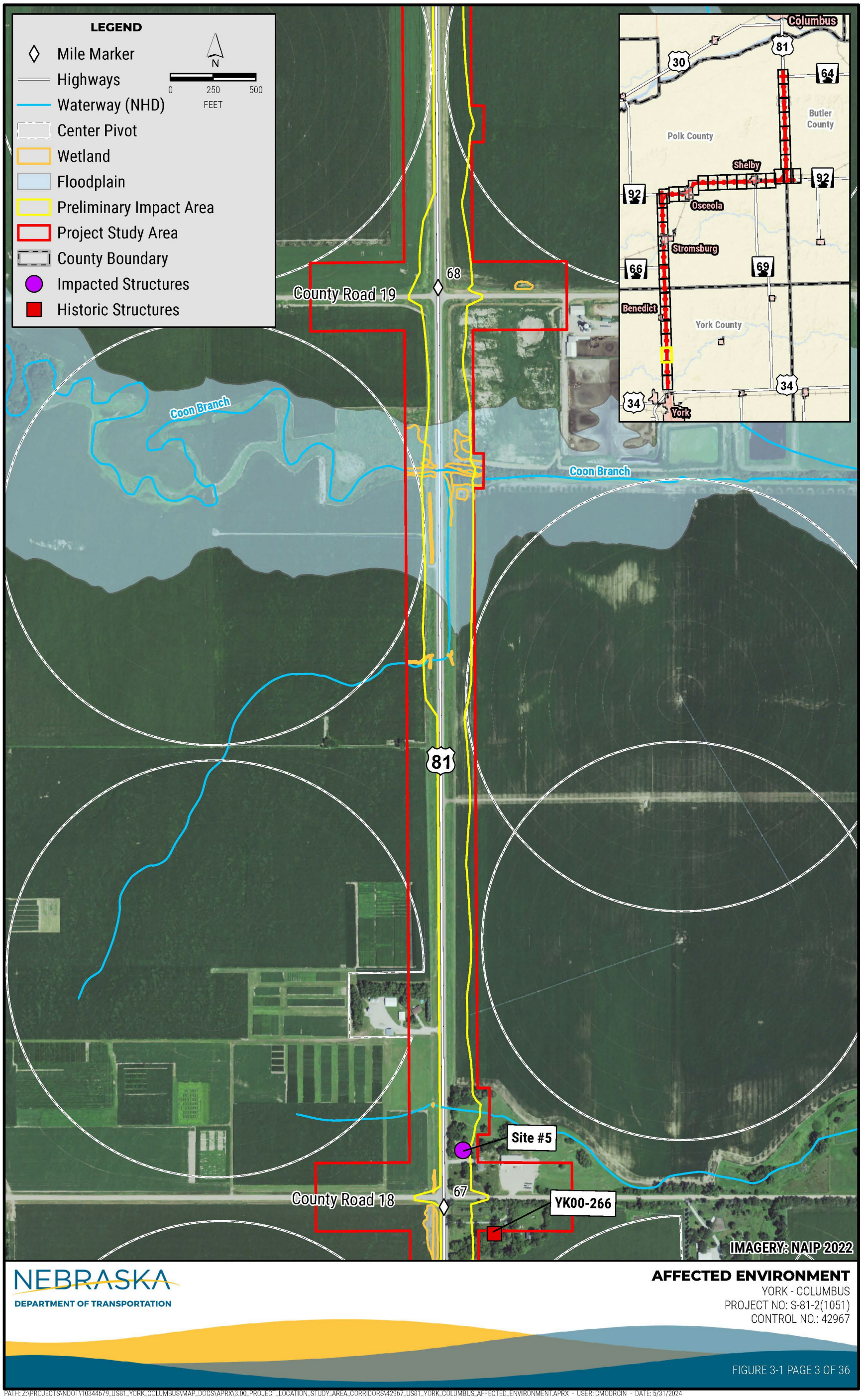


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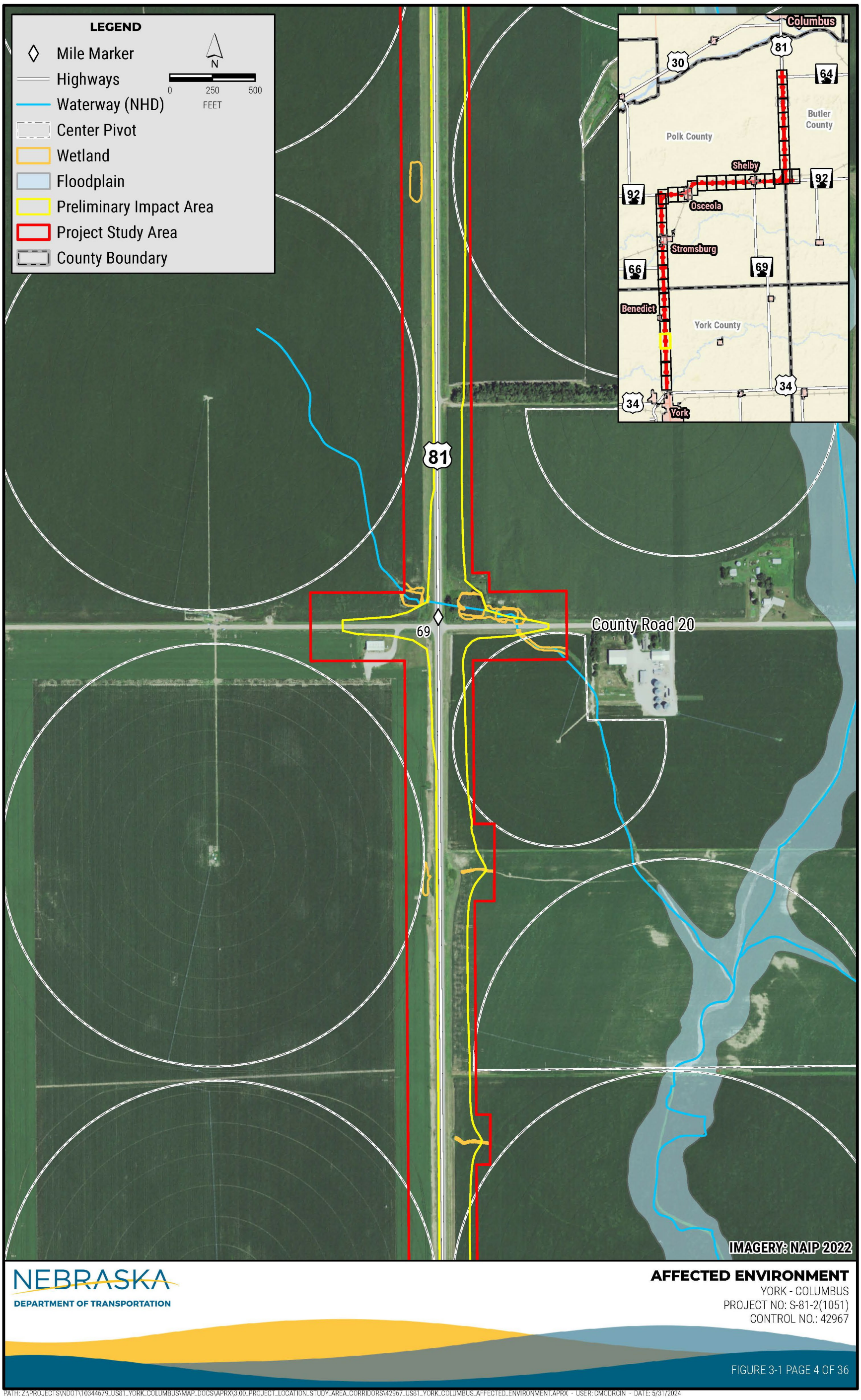


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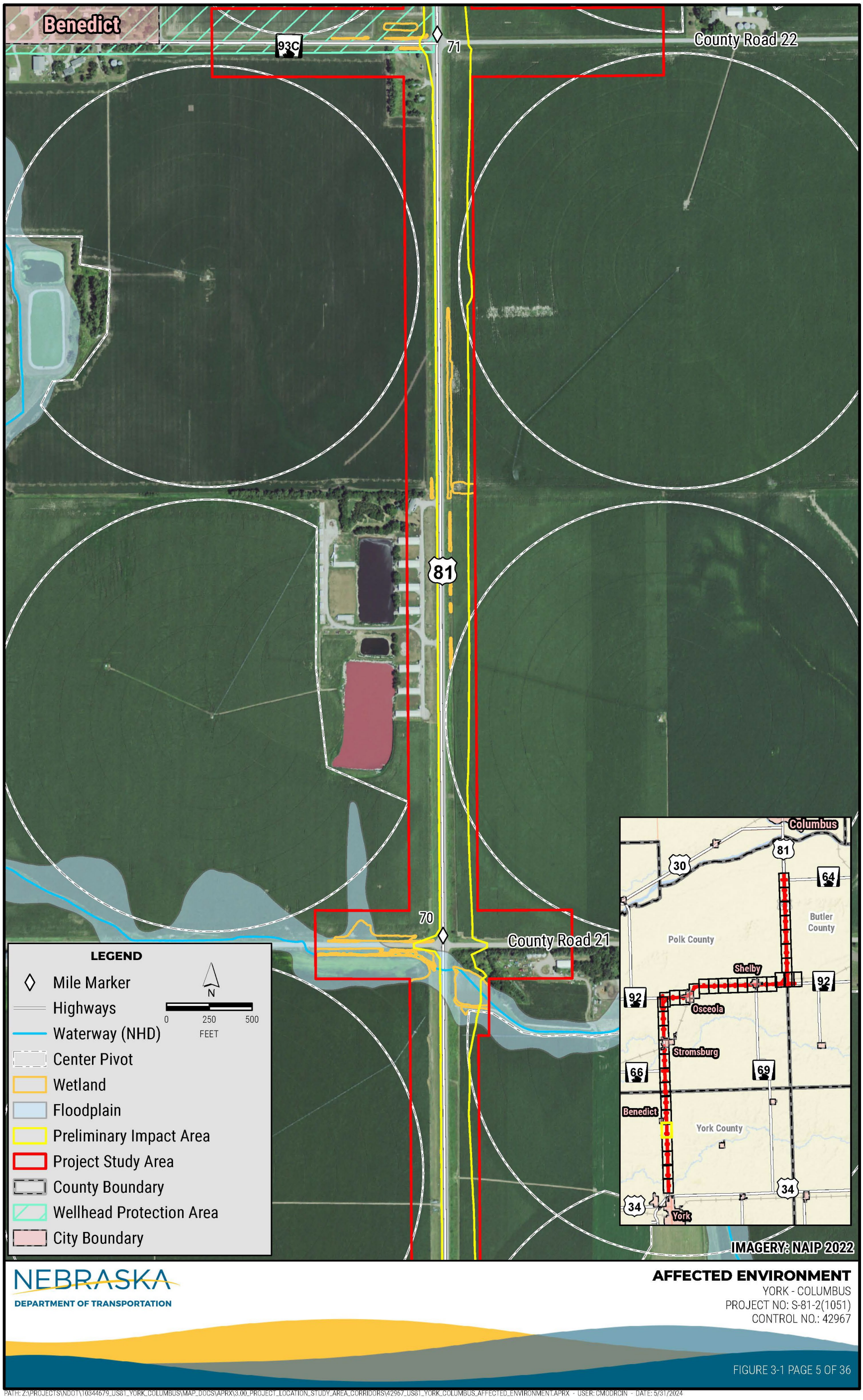
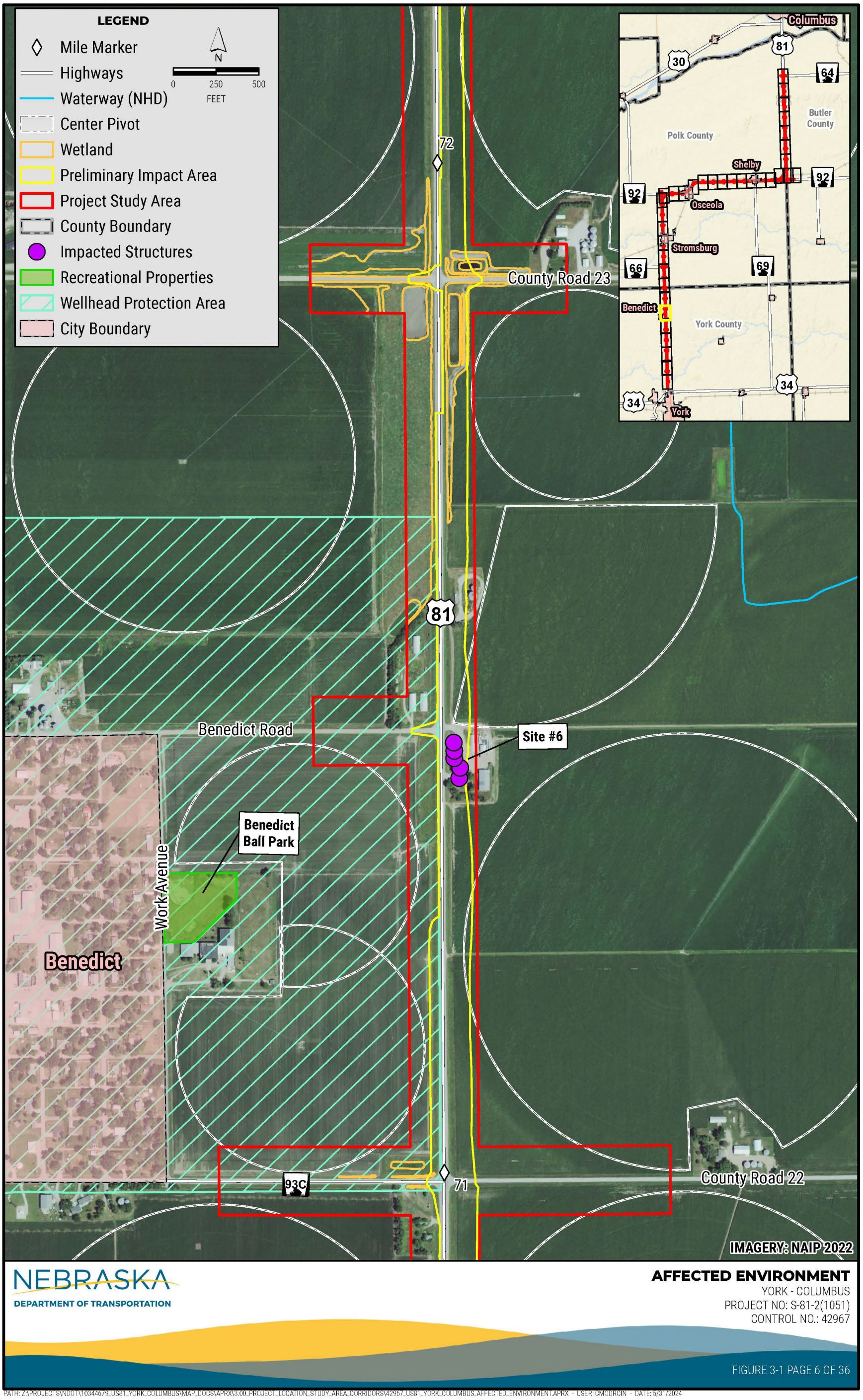


Figure 3-1. Affected Environment (page 6 of 36)



NEBRASKA
DEPARTMENT OF TRANSPORTATION

AFFECTED ENVIRONMENT
YORK - COLUMBUS
PROJECT NO: S-81-2(1051)
CONTROL NO.: 42967

FIGURE 3-1 PAGE 6 OF 36

PATH: Z:\PROJECTS\NDOT\10344679_US81_YORK_COLUMBUS\MAP_DOCS\APRX\3.00_PROJECT_LOCATION_STUDY_AREA_CORRIDORS\42967_US81_YORK_COLUMBUS_AFFECTED_ENVIRONMENT.APRX - USER: CMODRCIN - DATE: 5/31/2024

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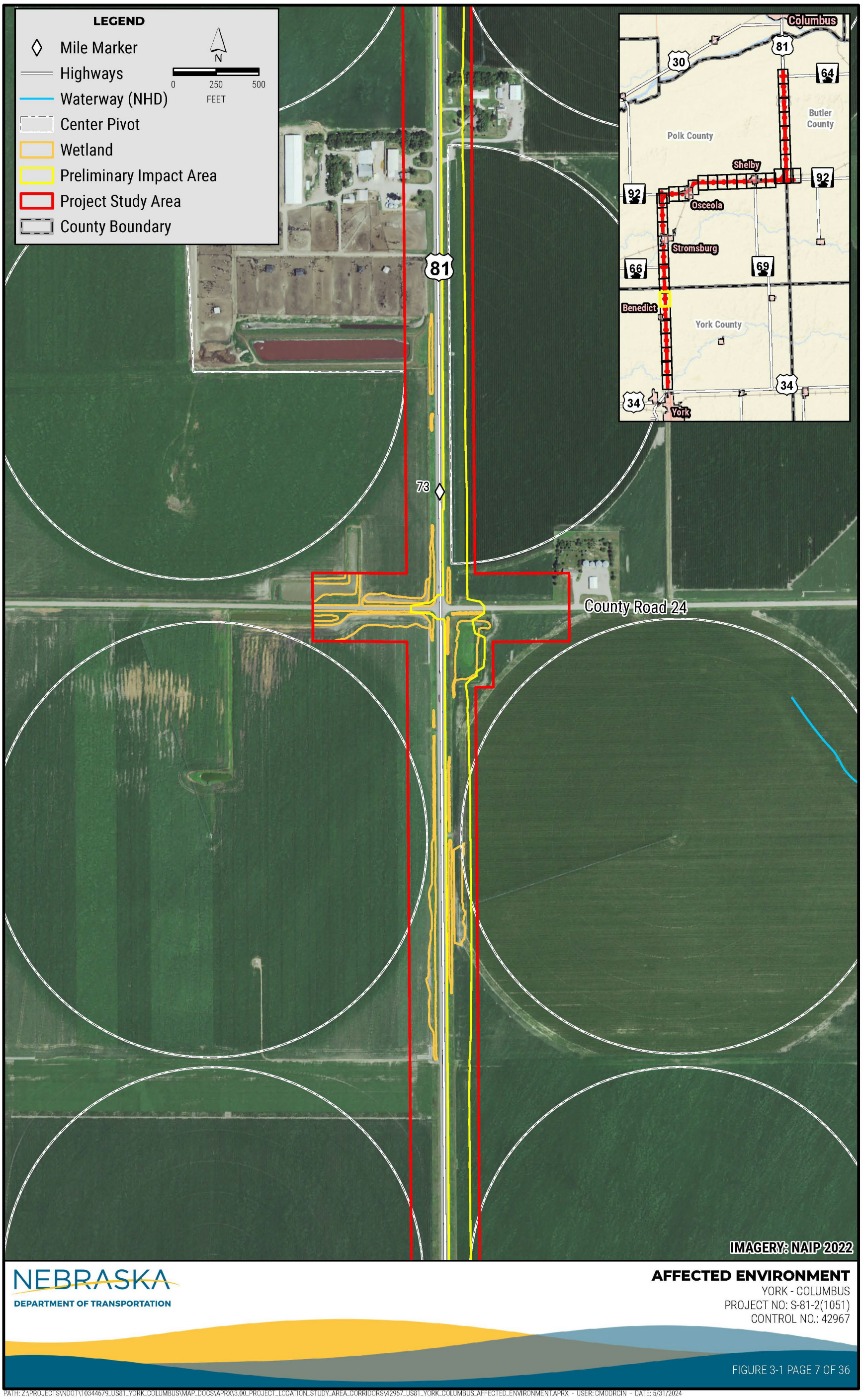


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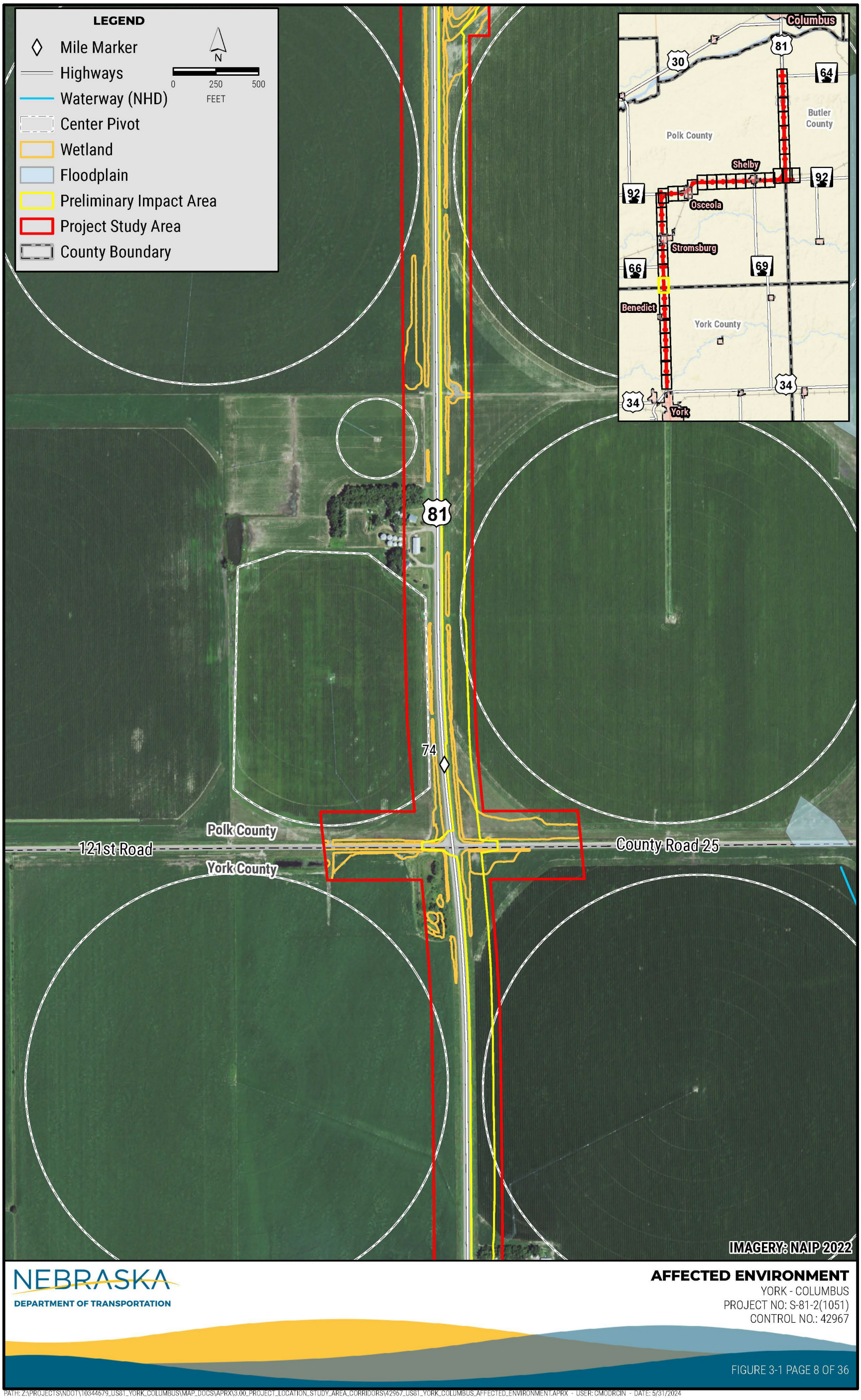


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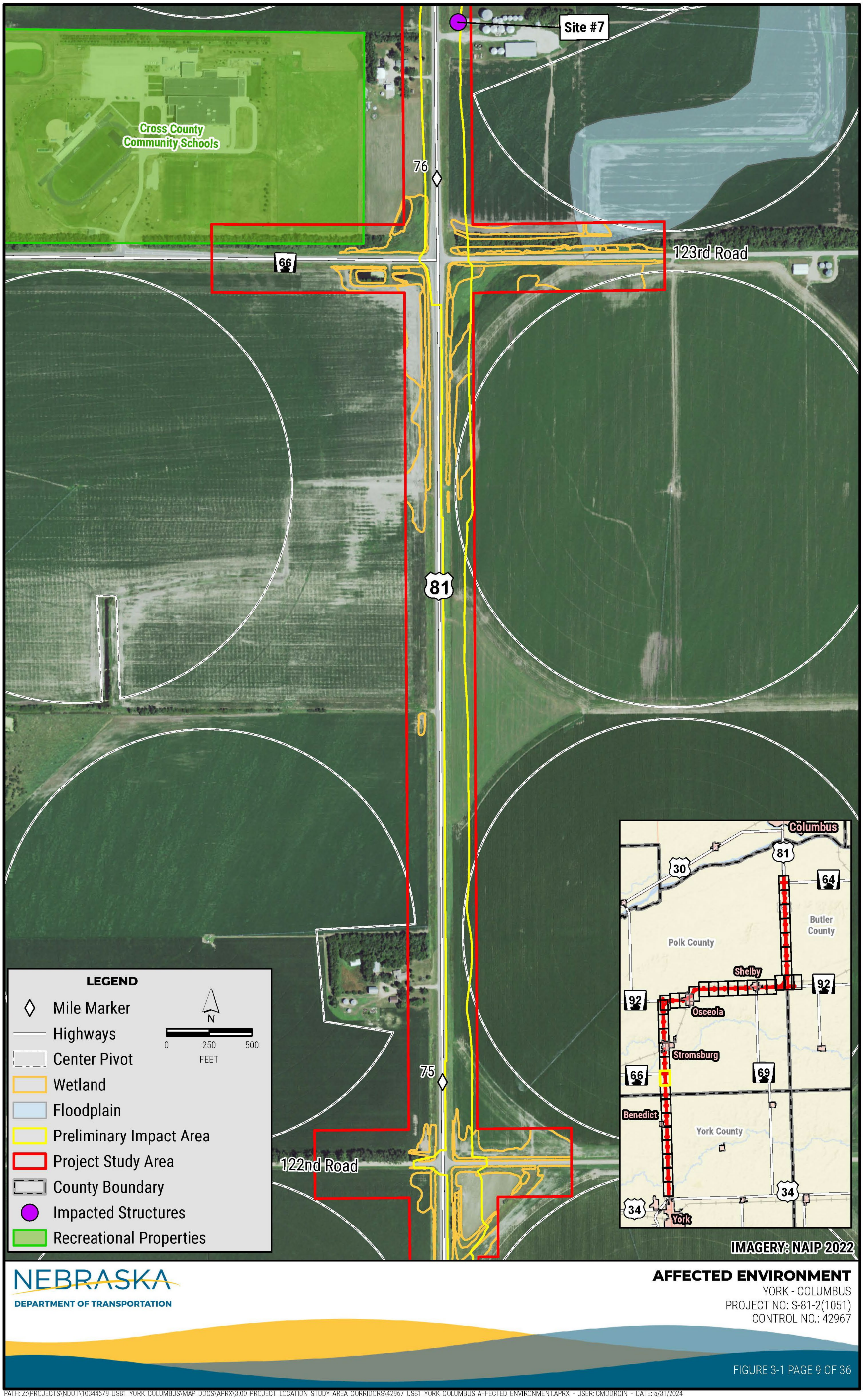


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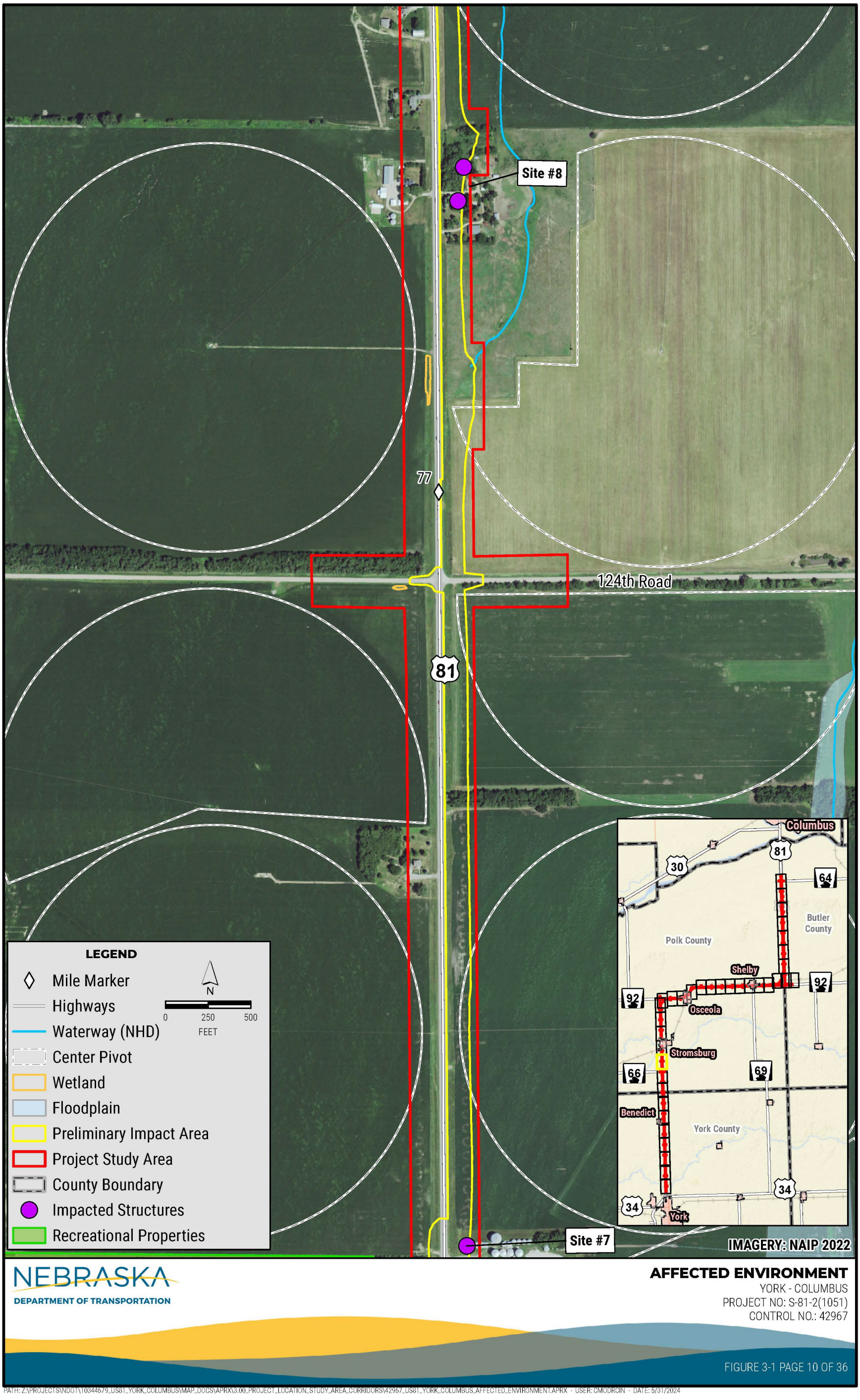


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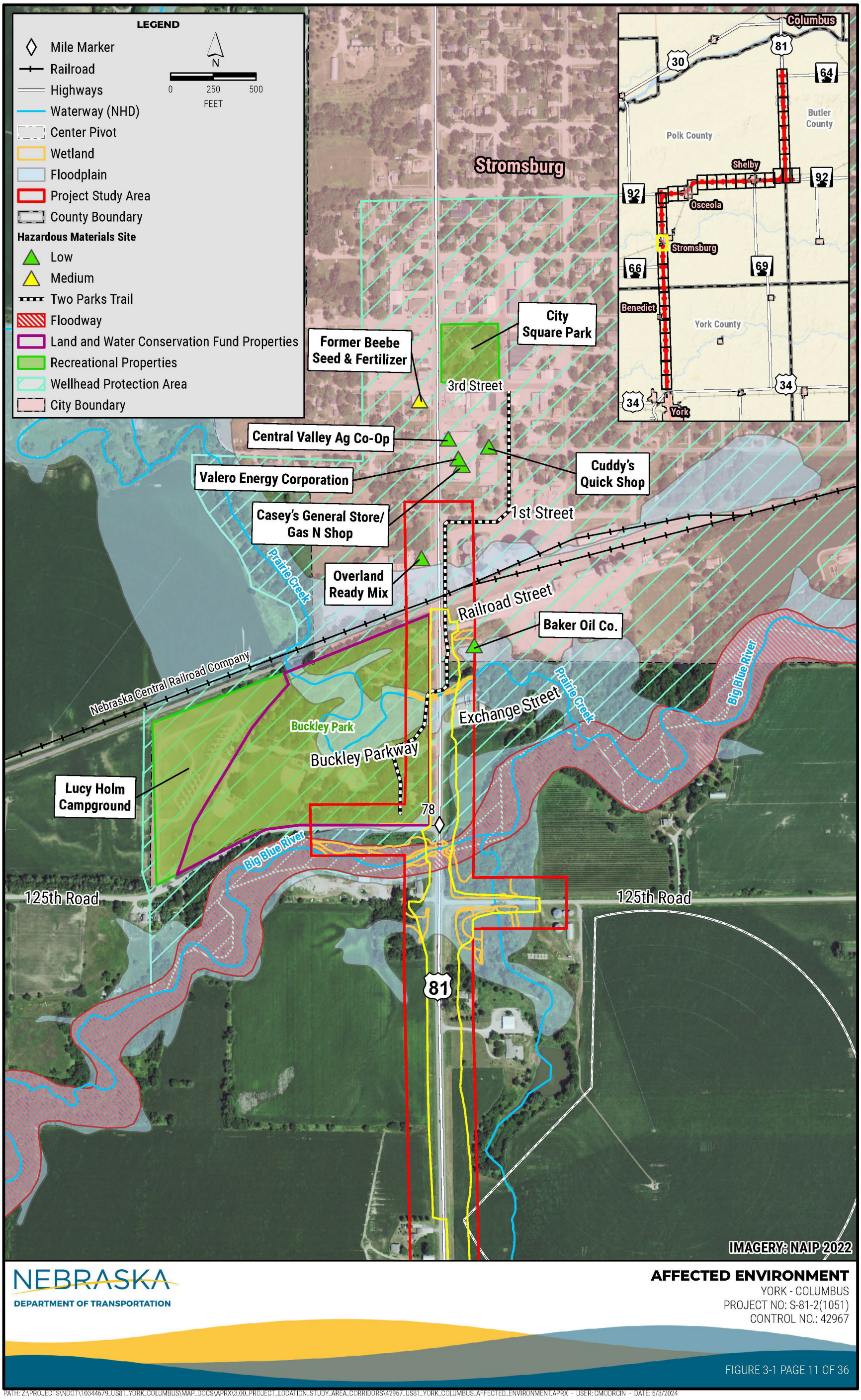


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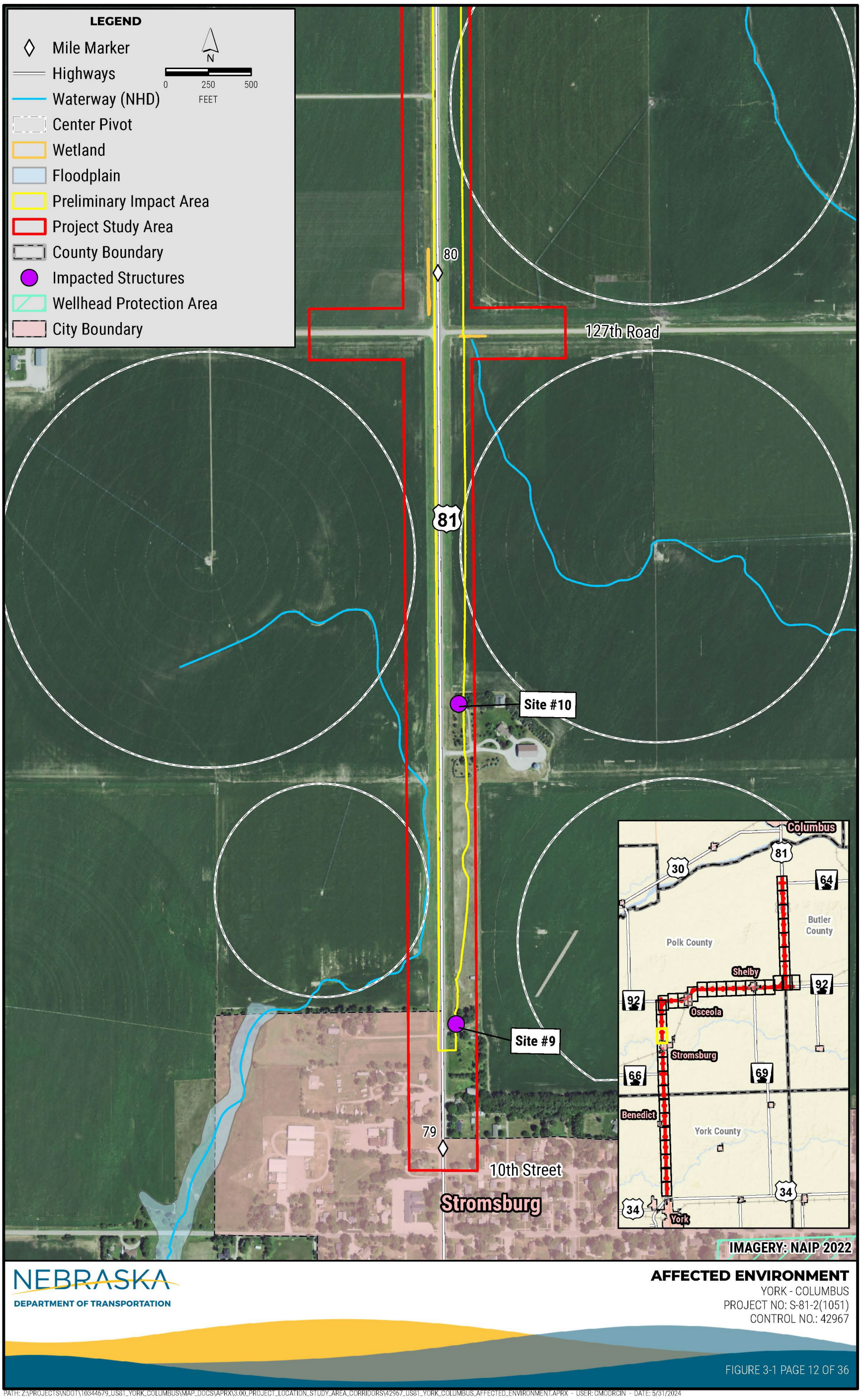


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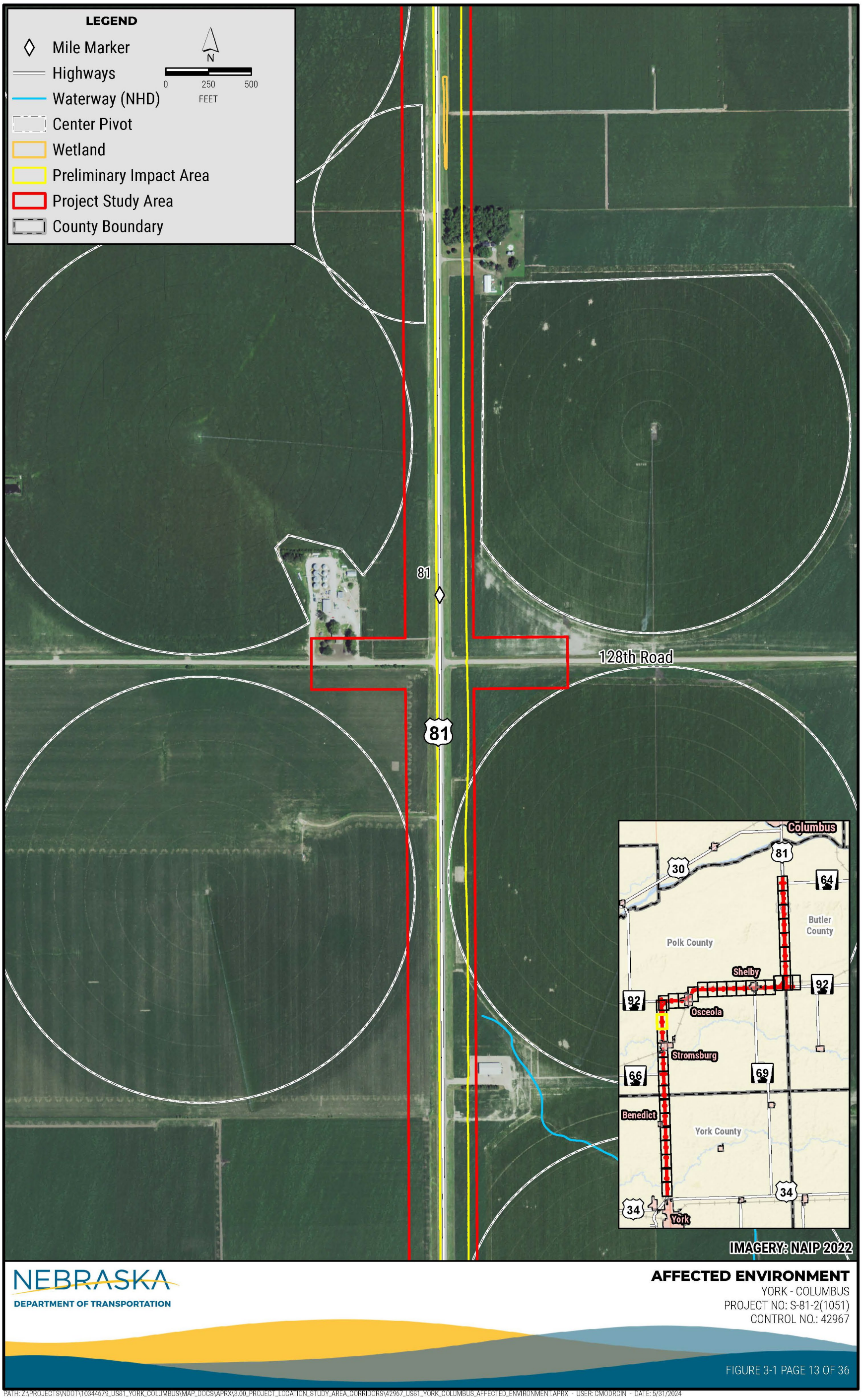


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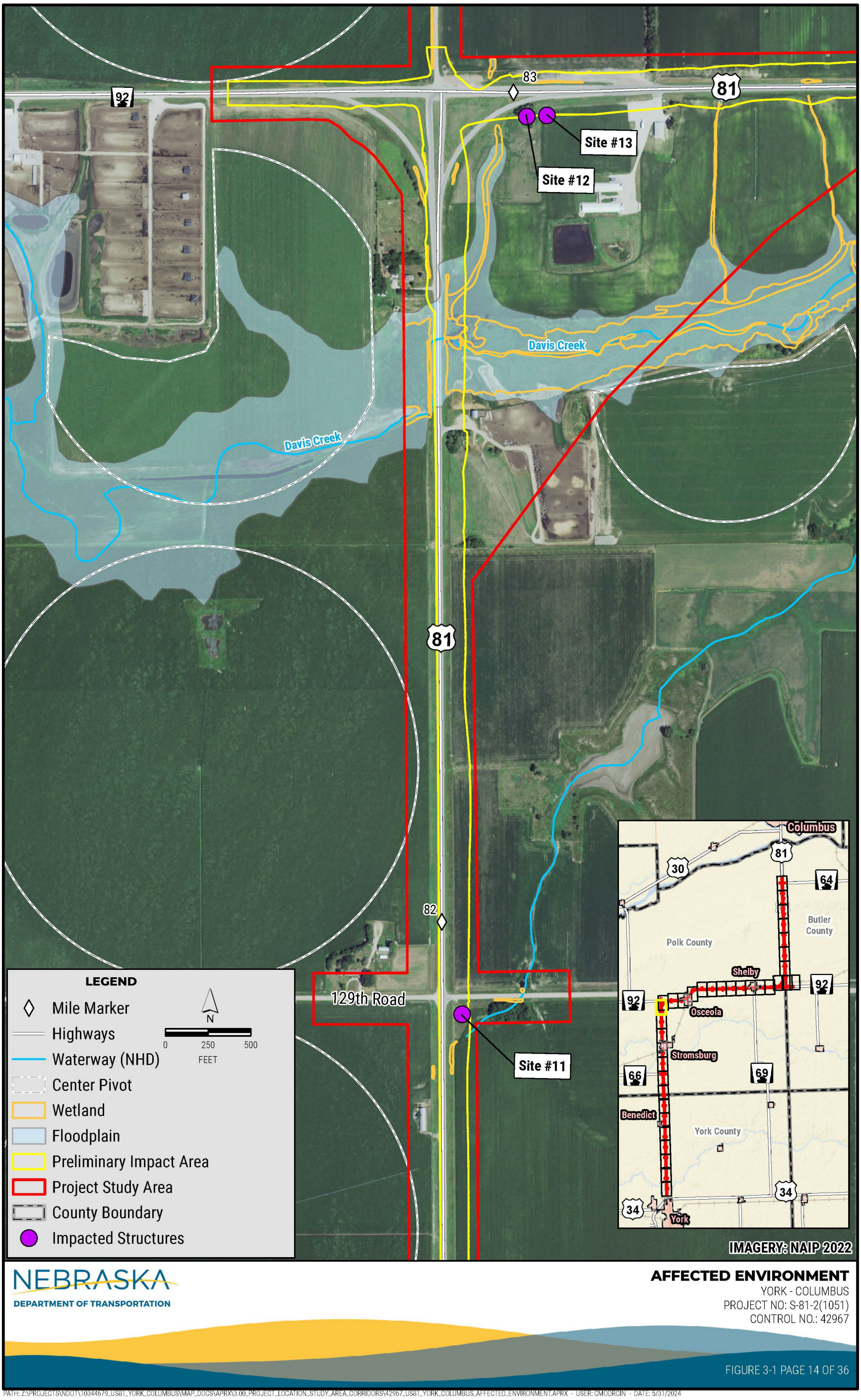


Figure 3-1. Affected Environment (page 15 of 36)

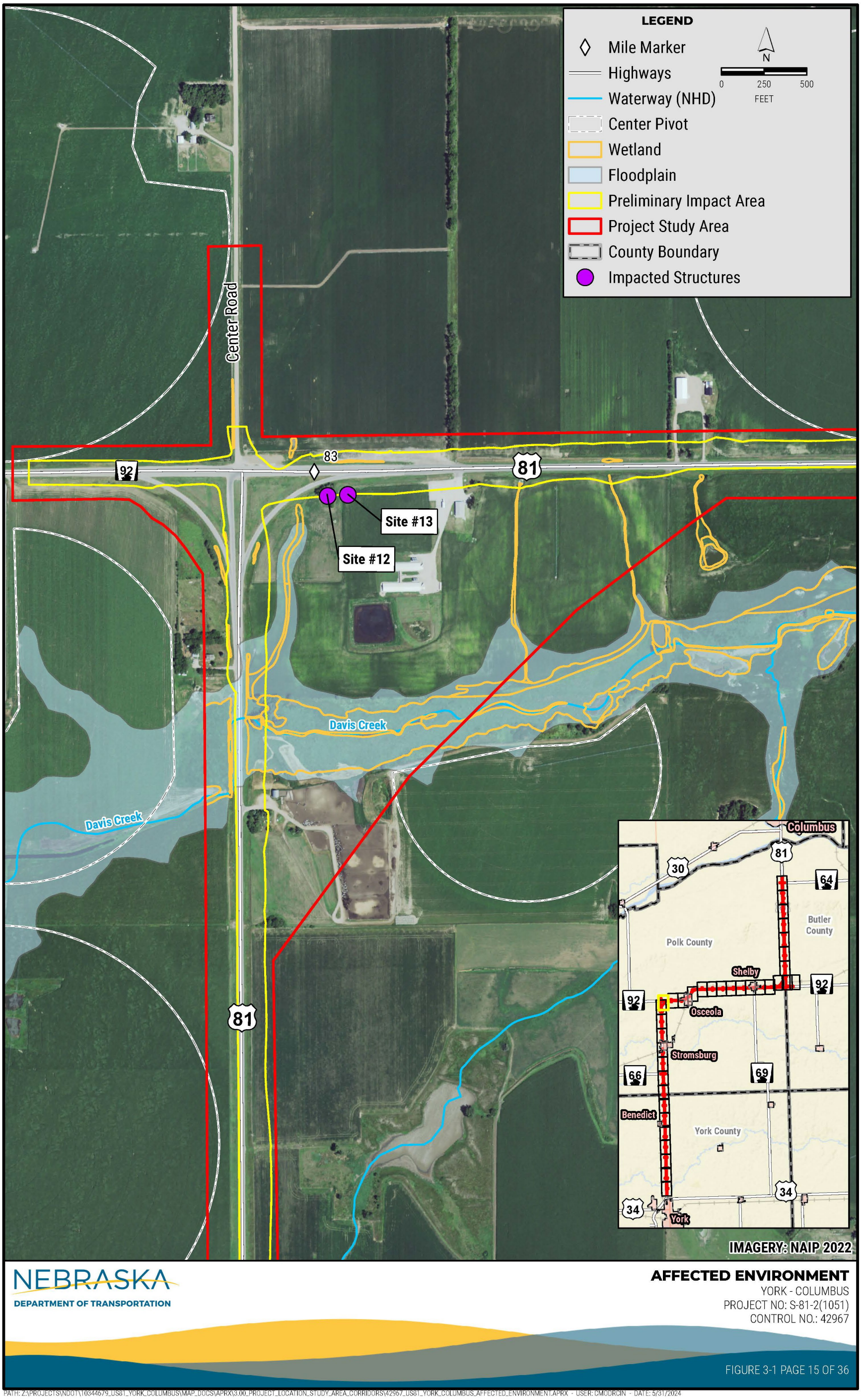


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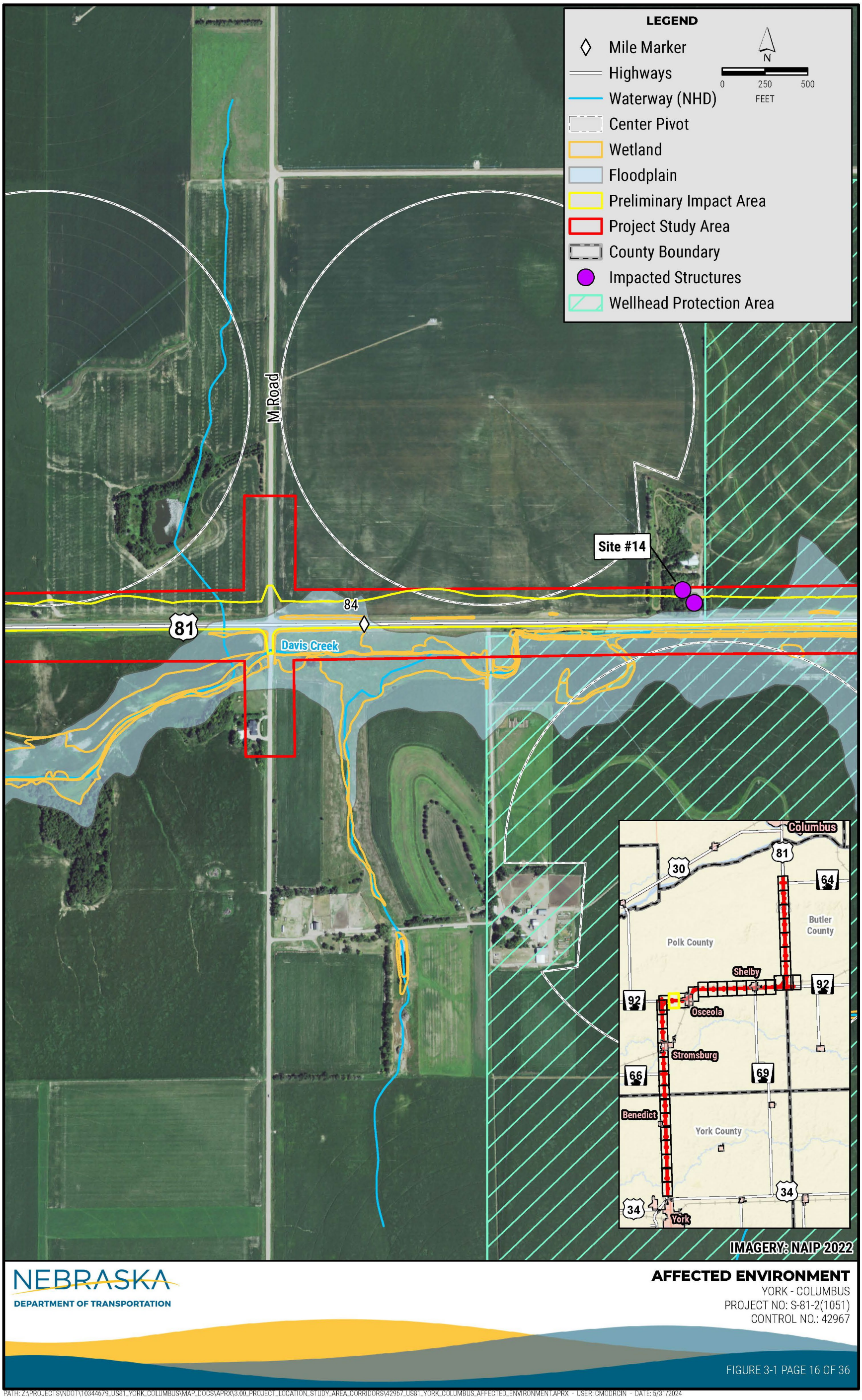


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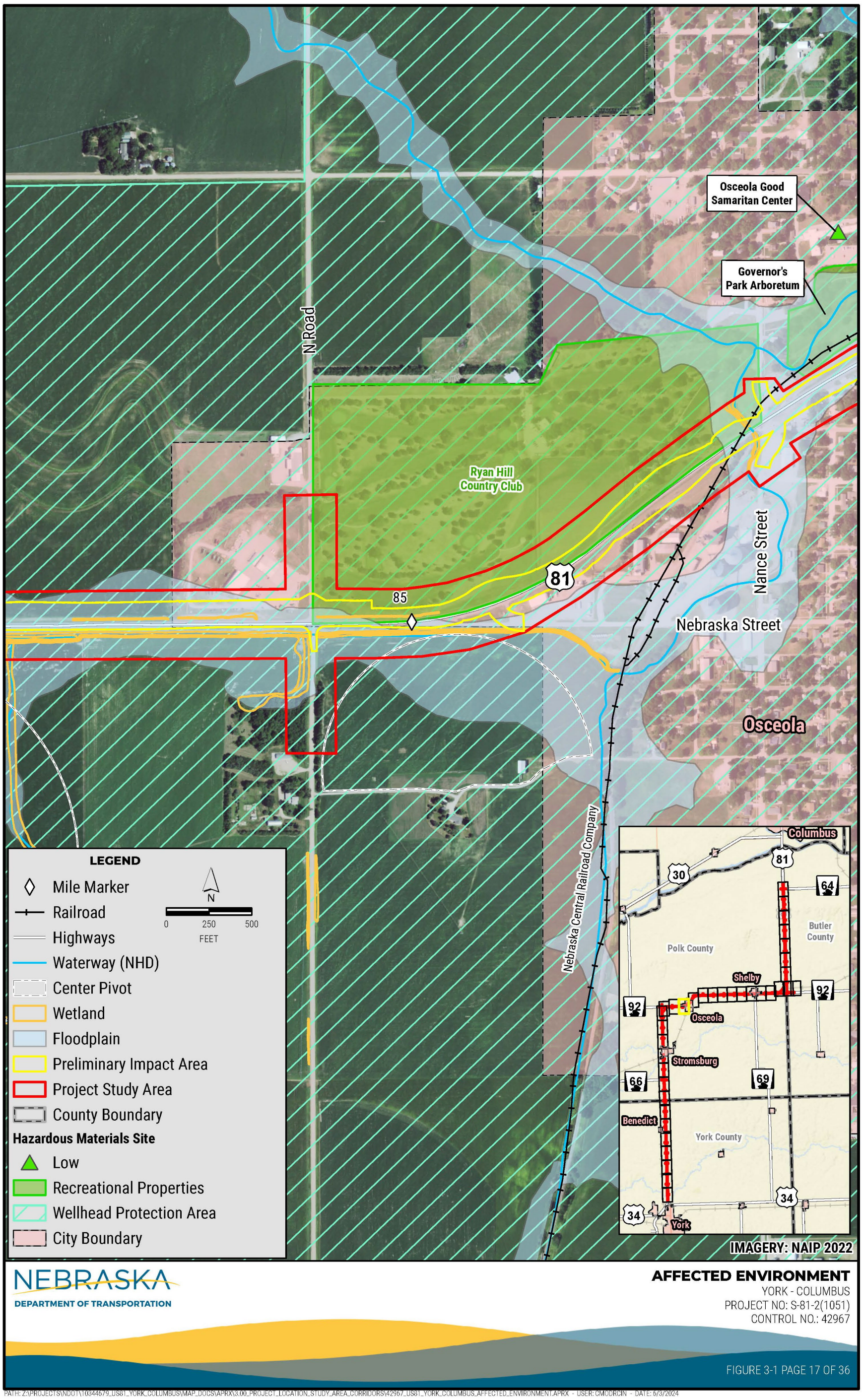


Figure 3-1. Affected Environment (page 18 of 36)

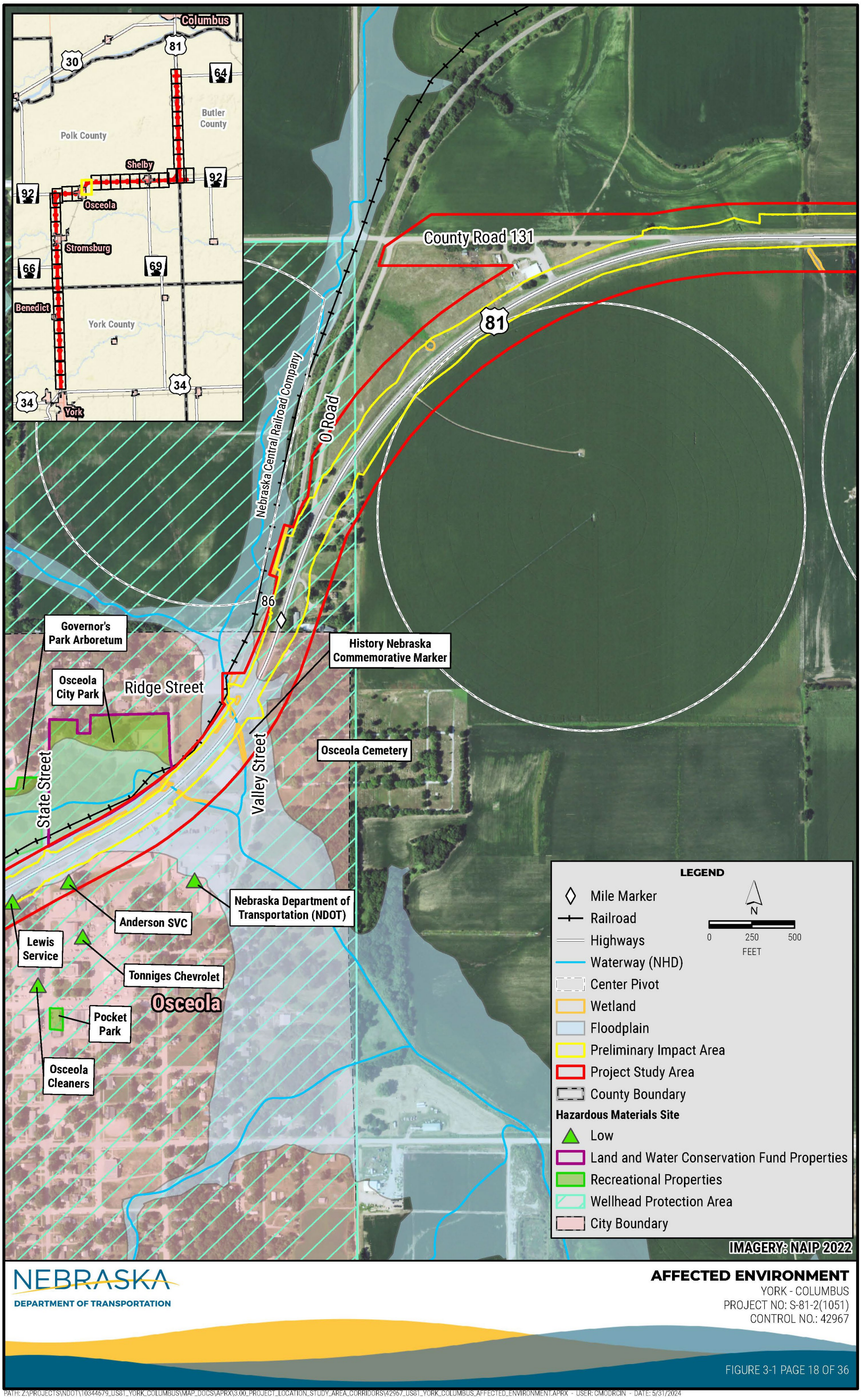


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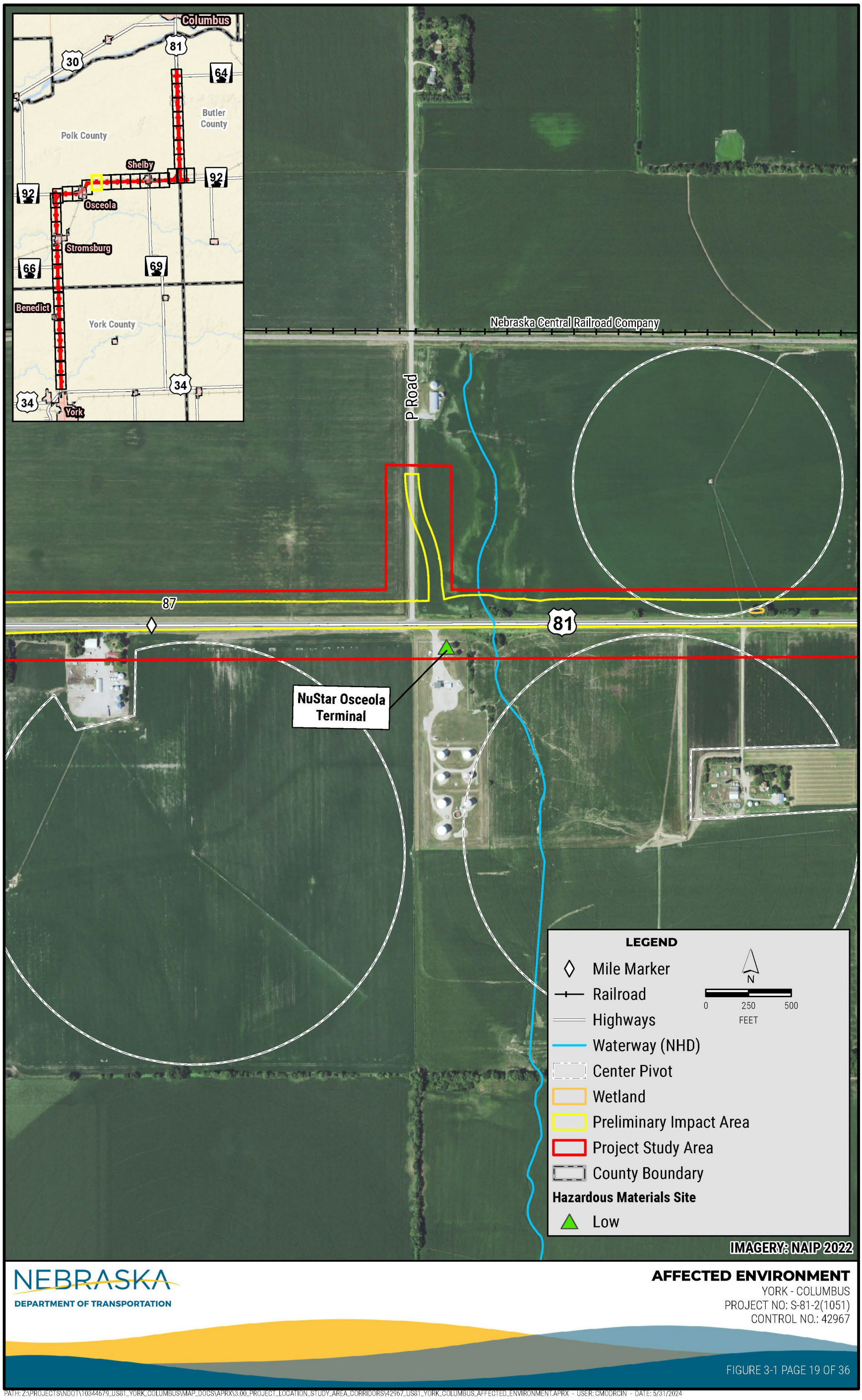


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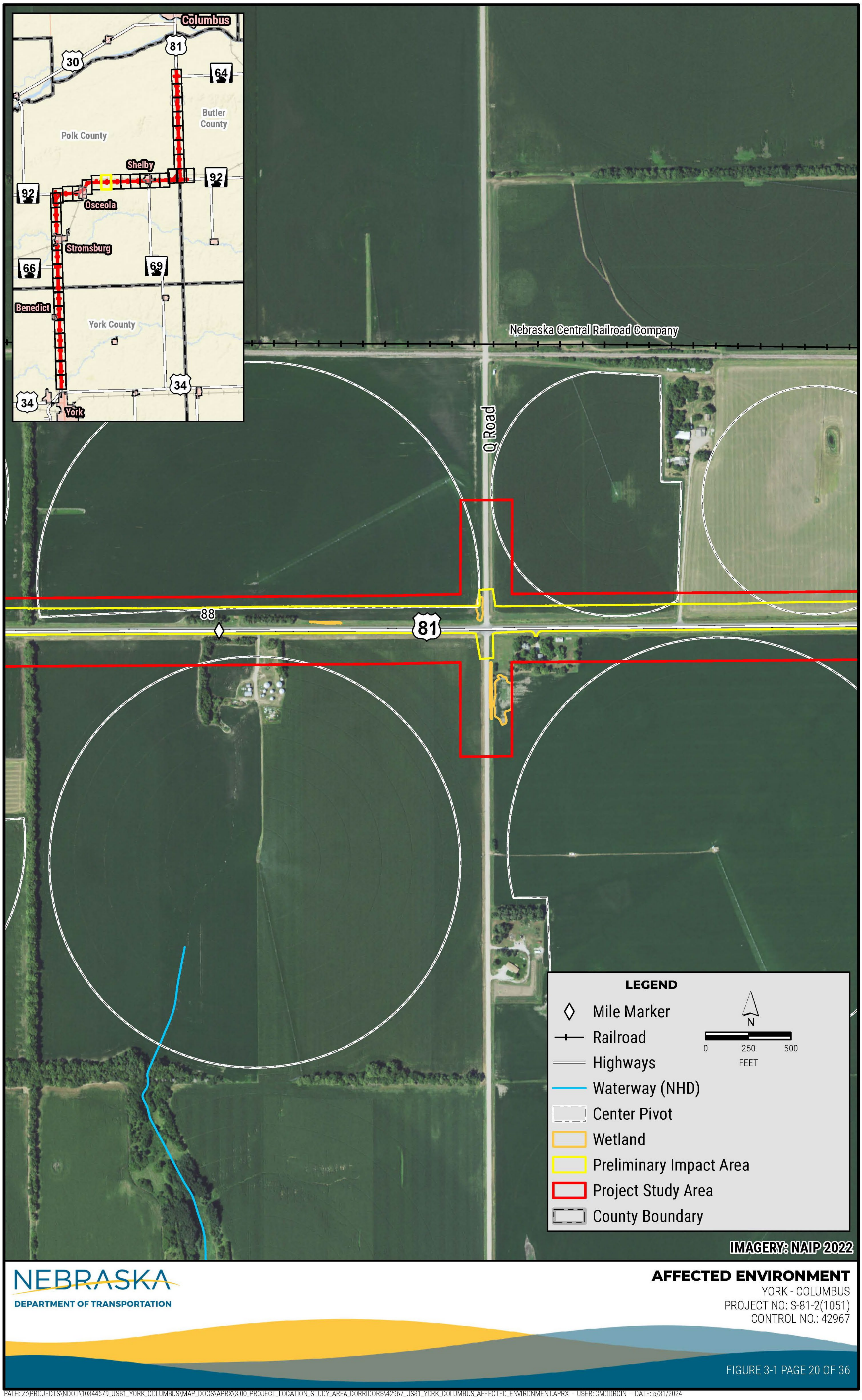


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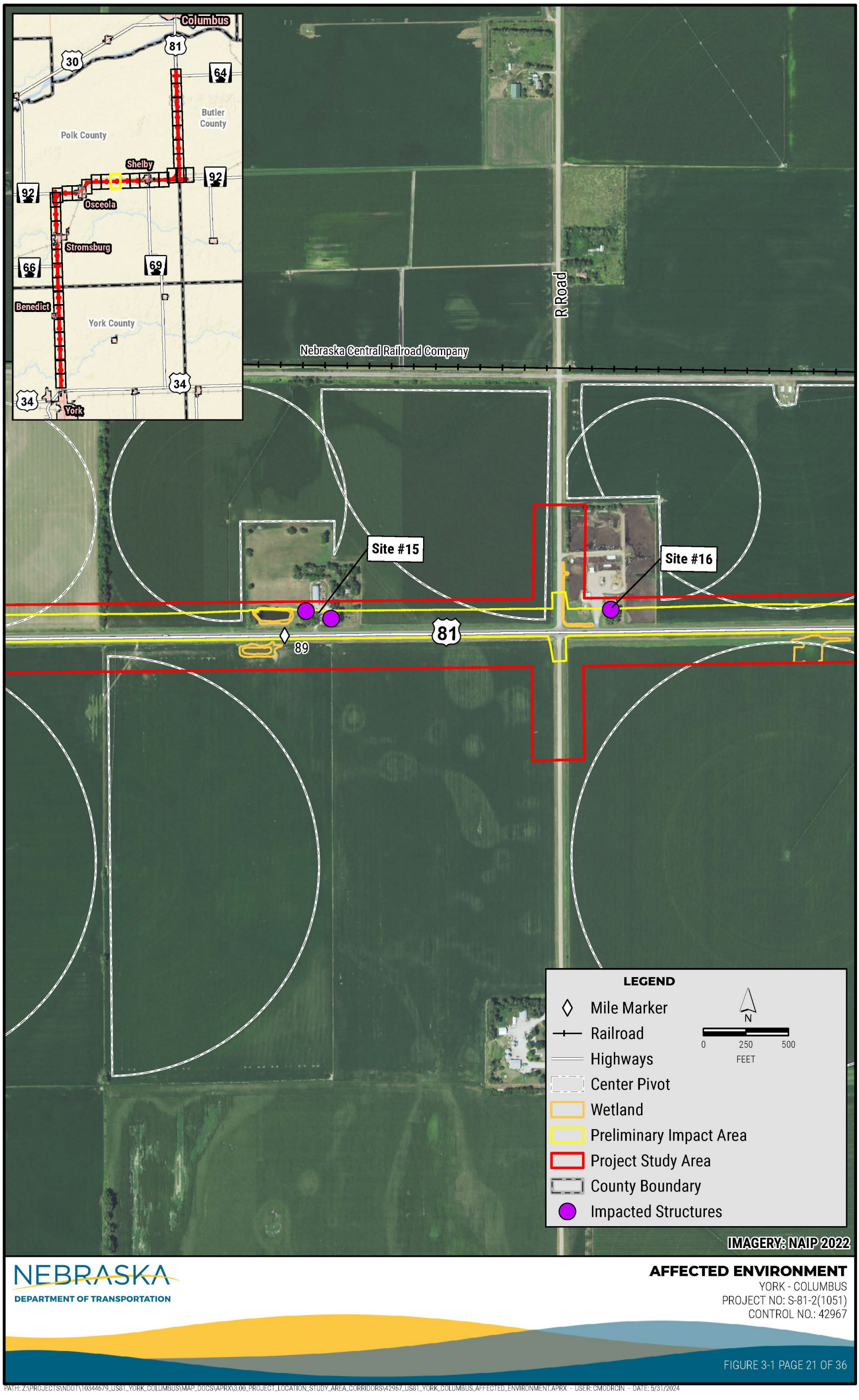


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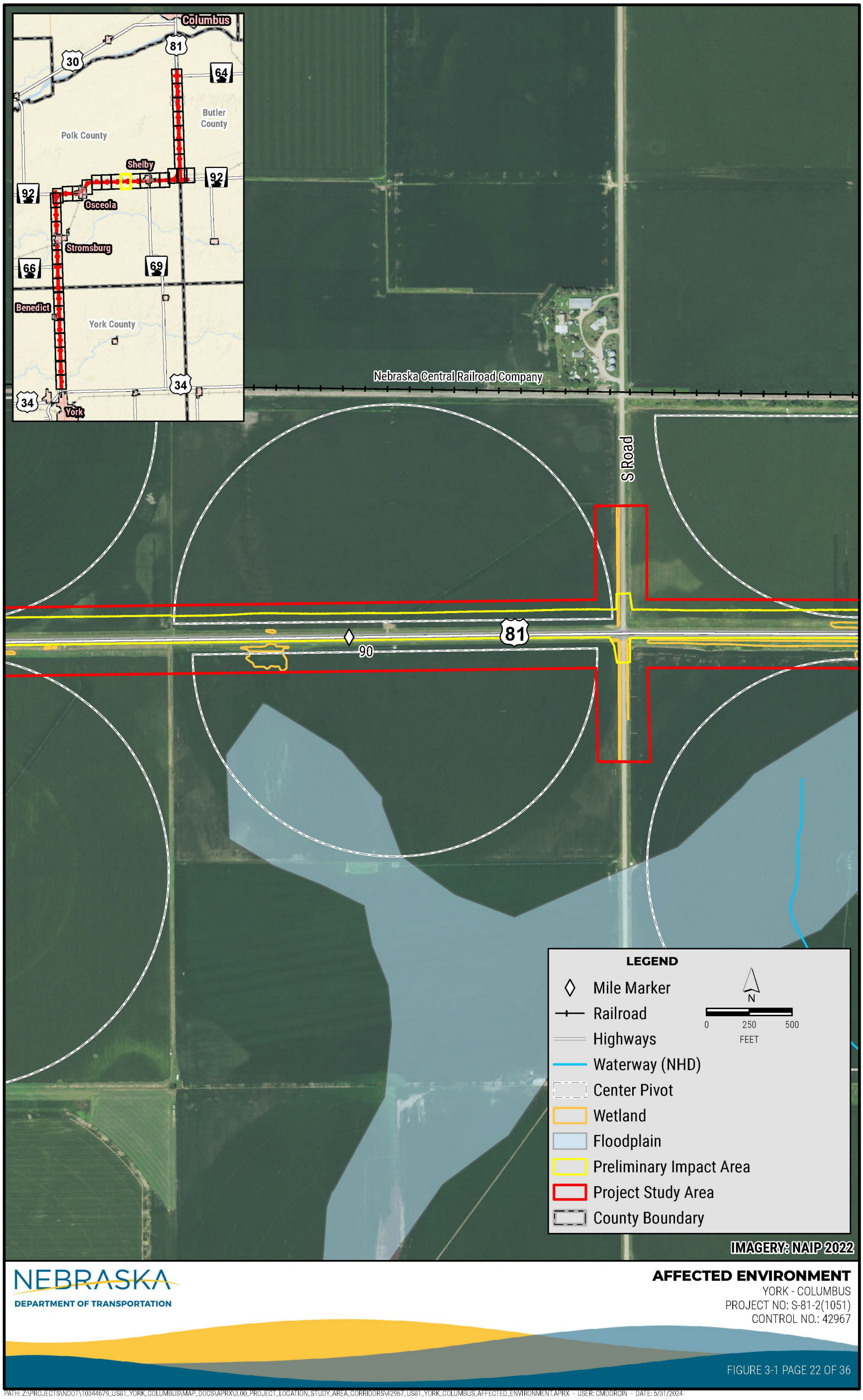


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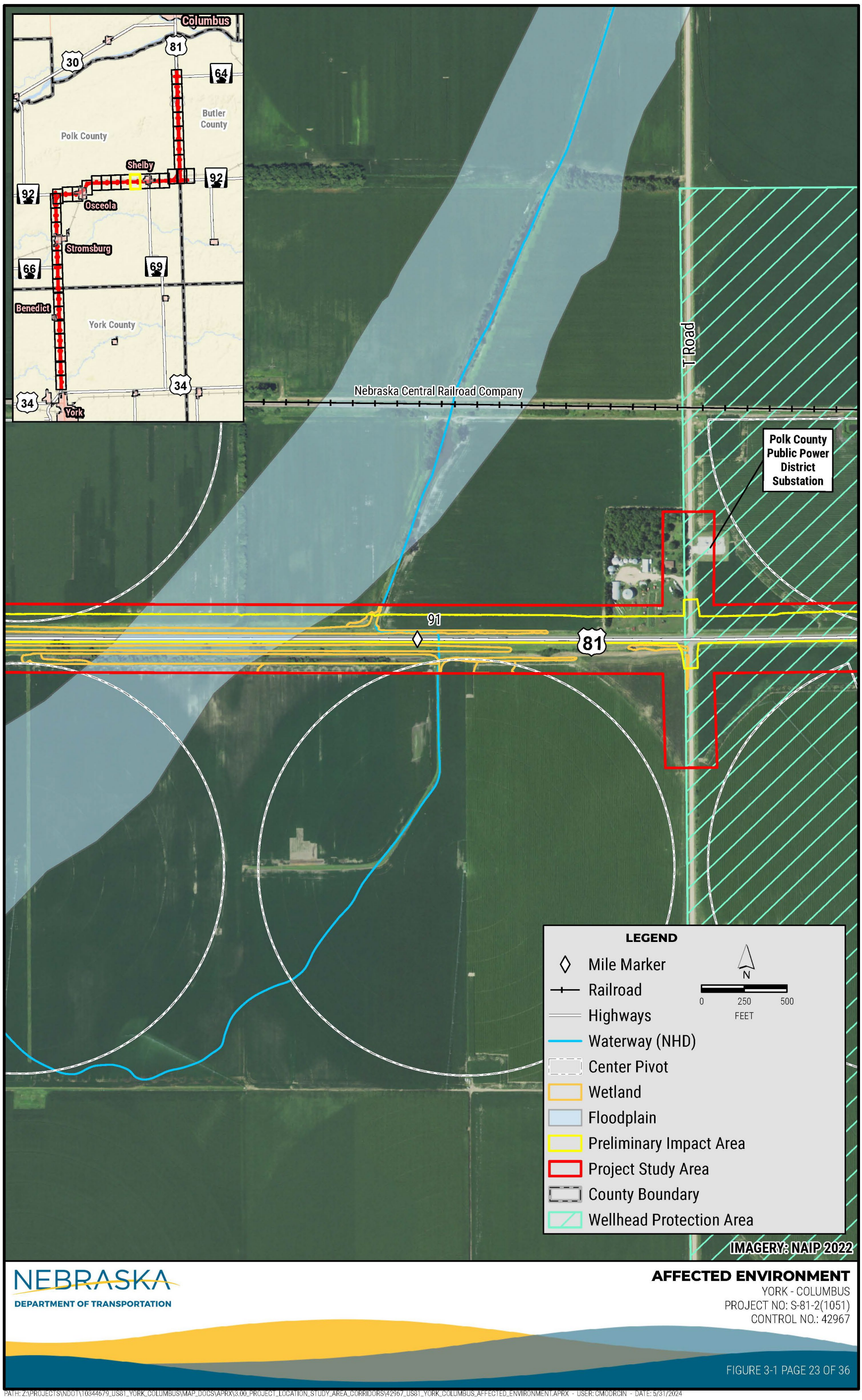


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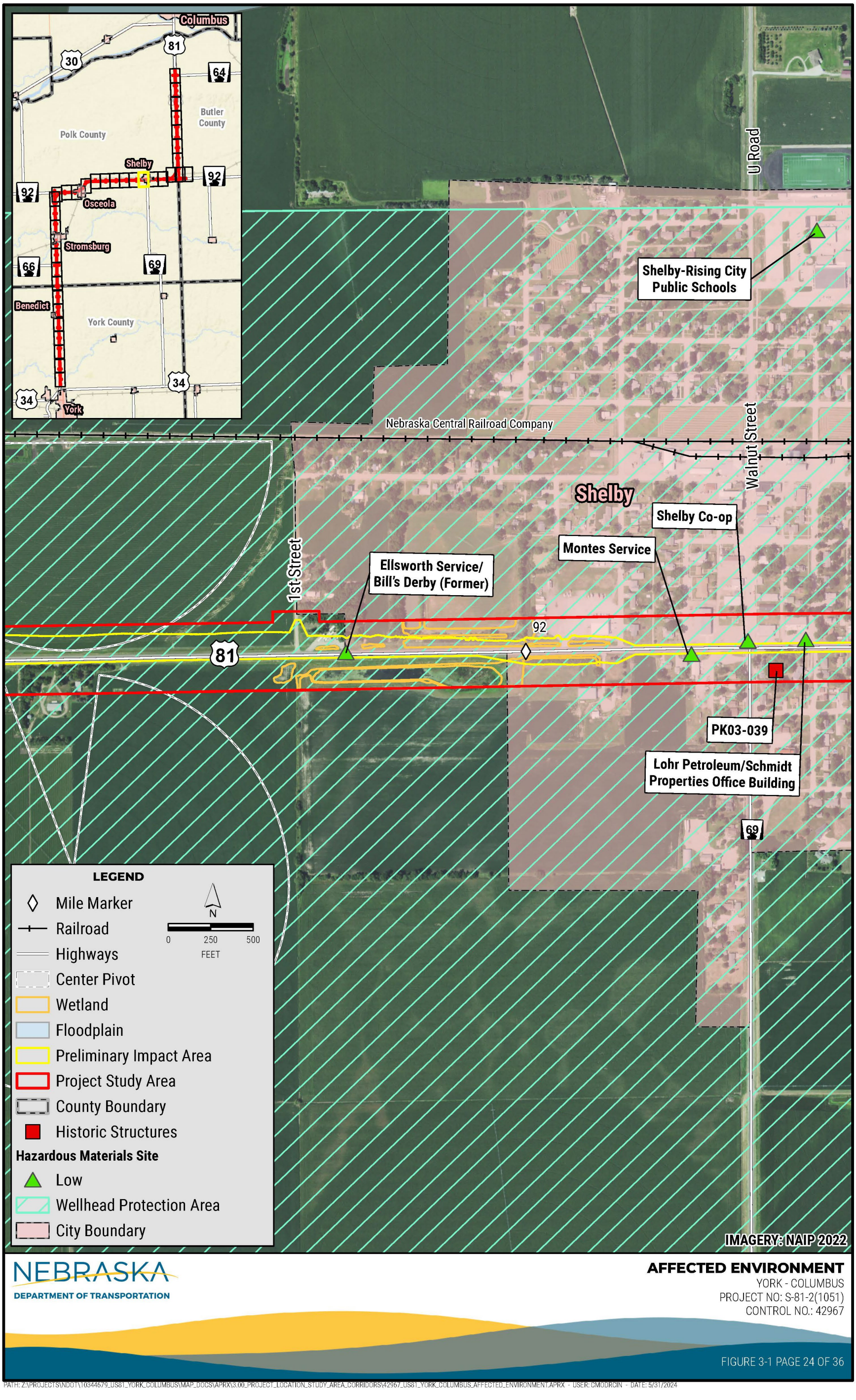


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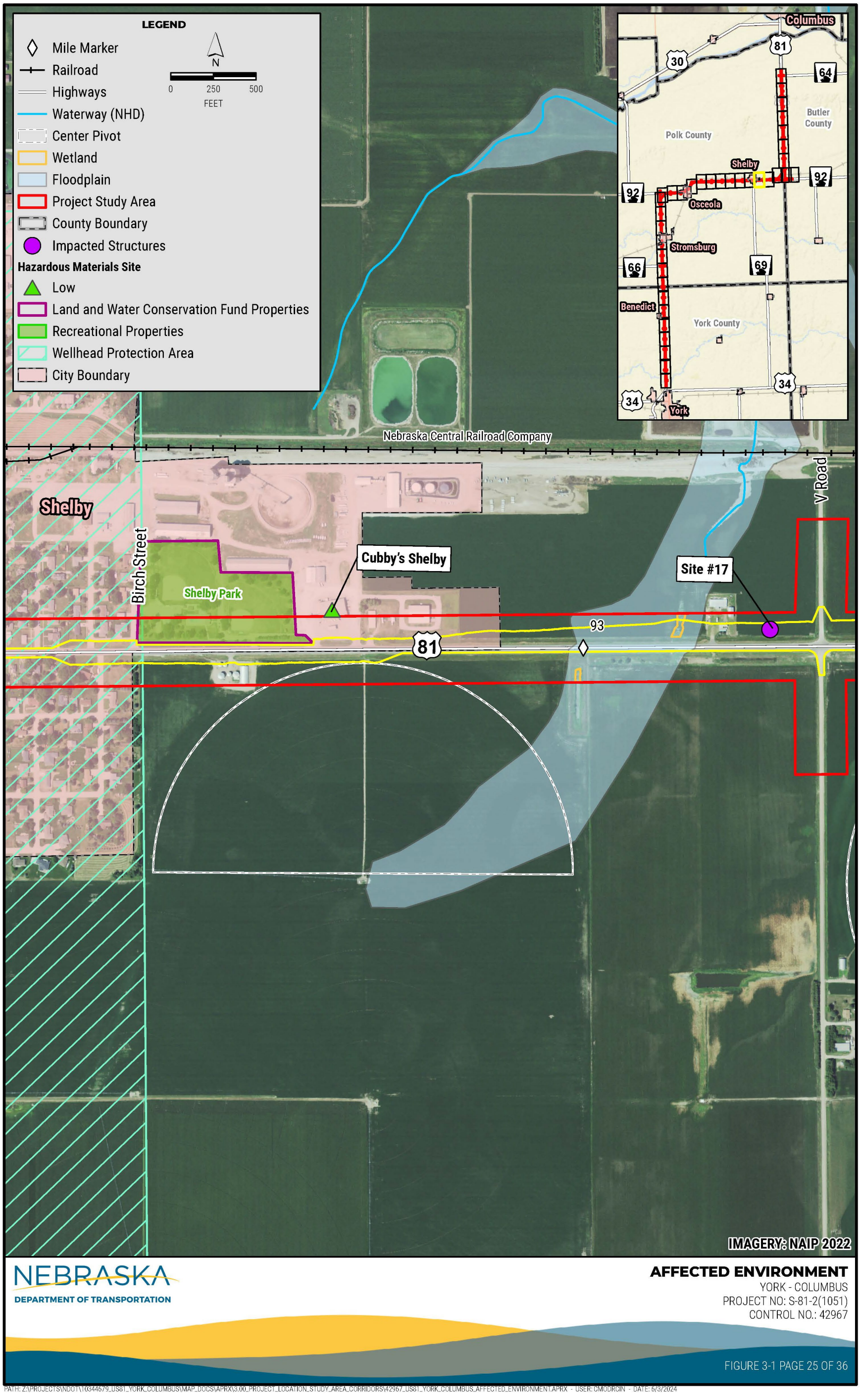


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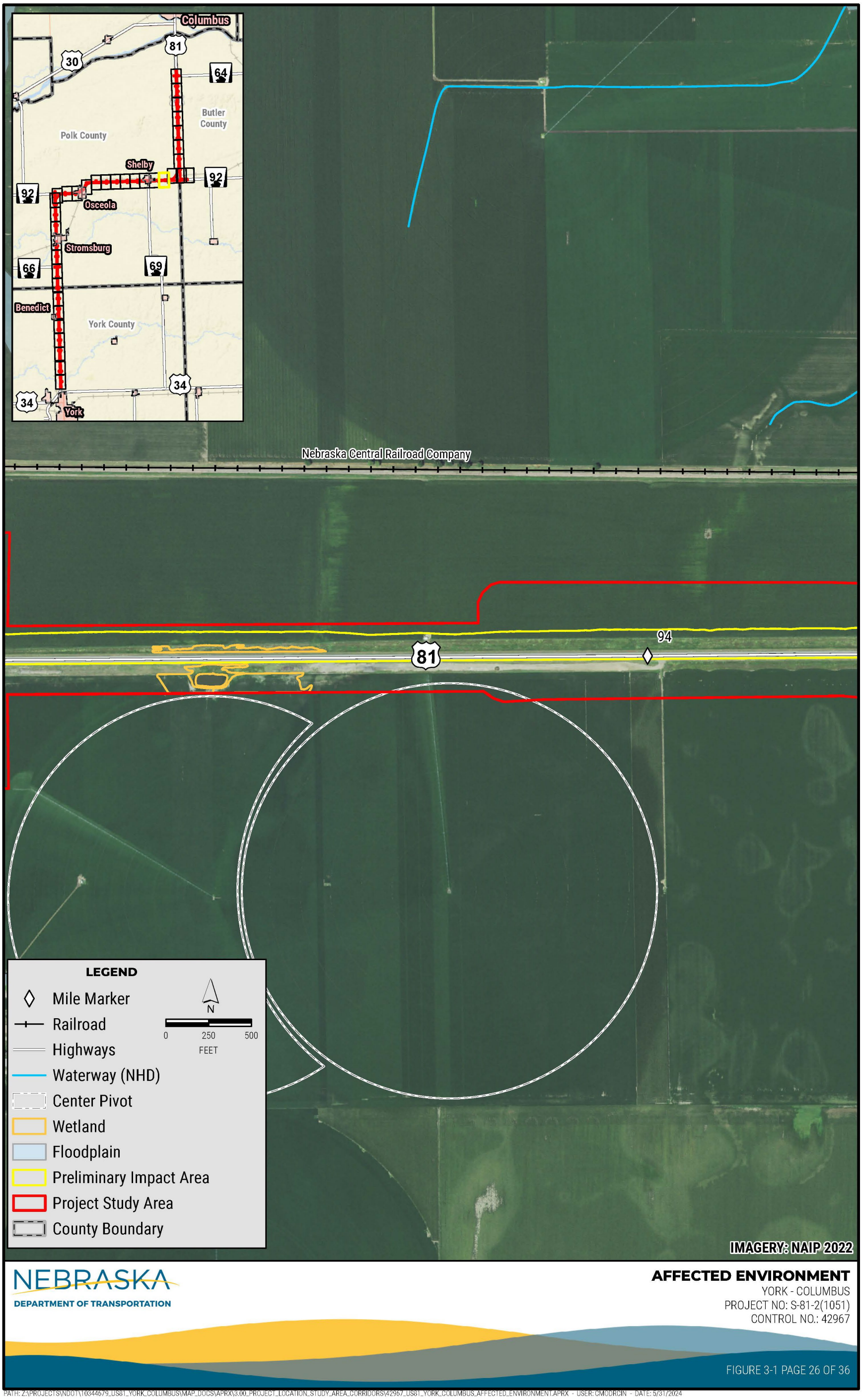


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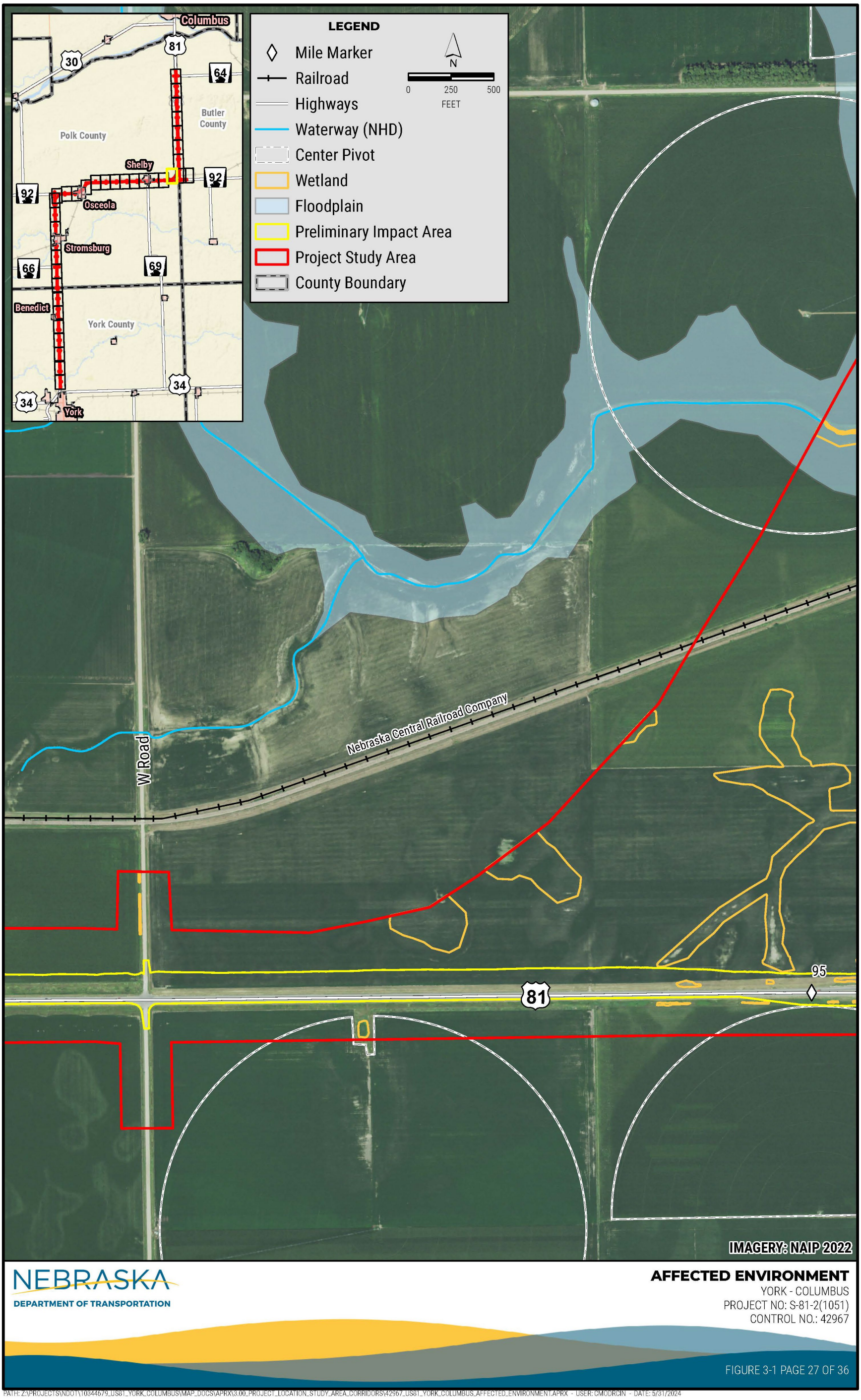


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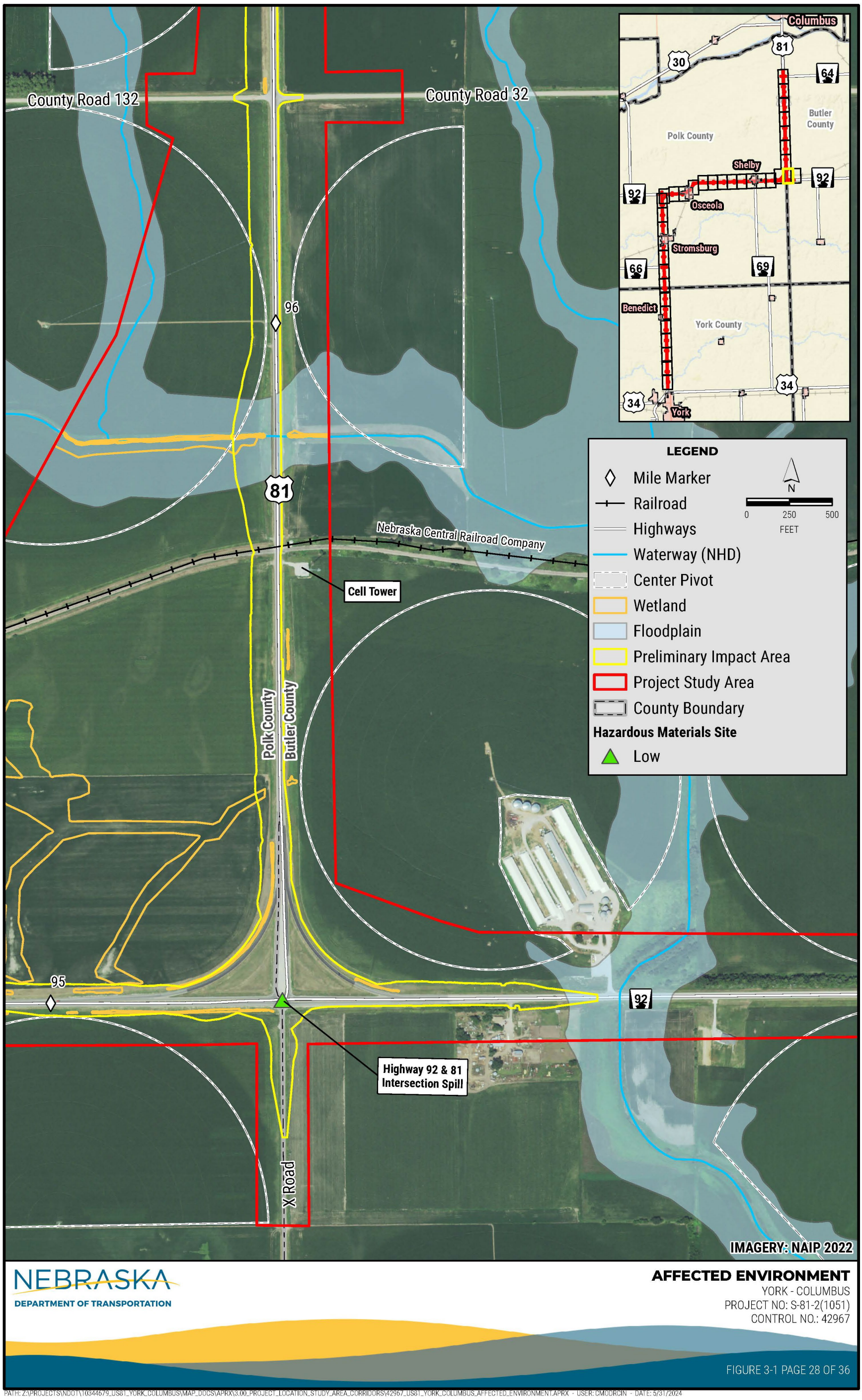


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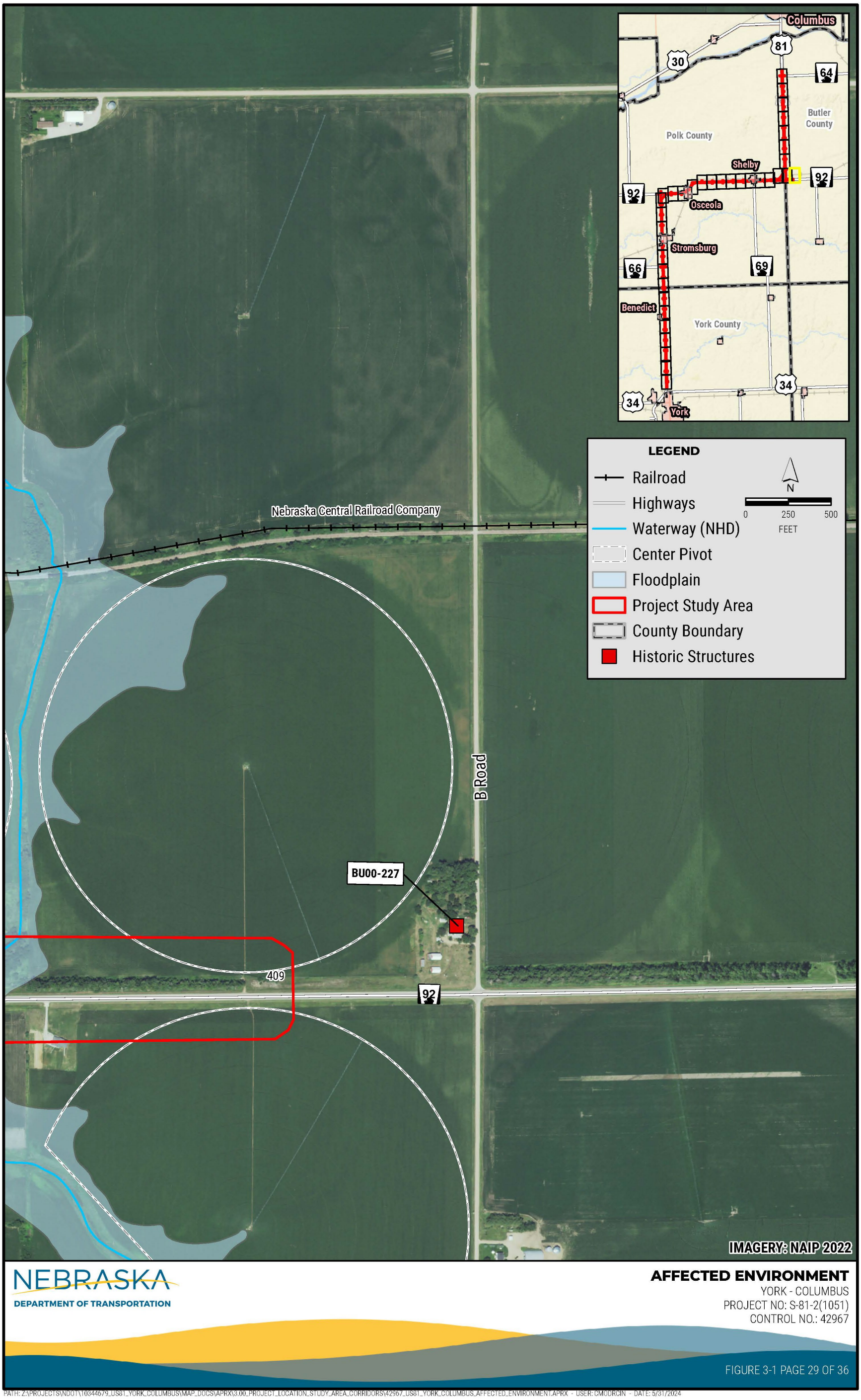


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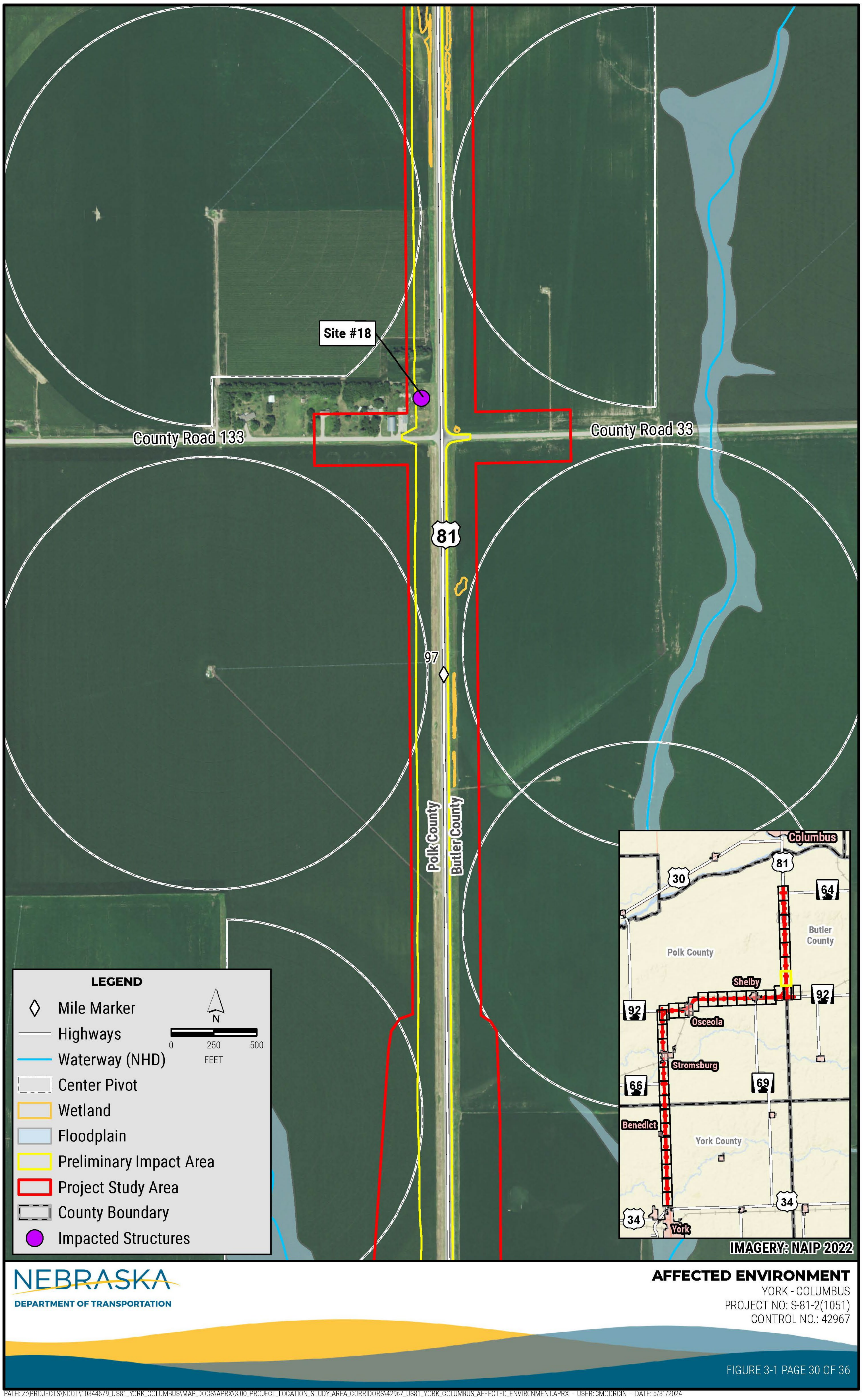


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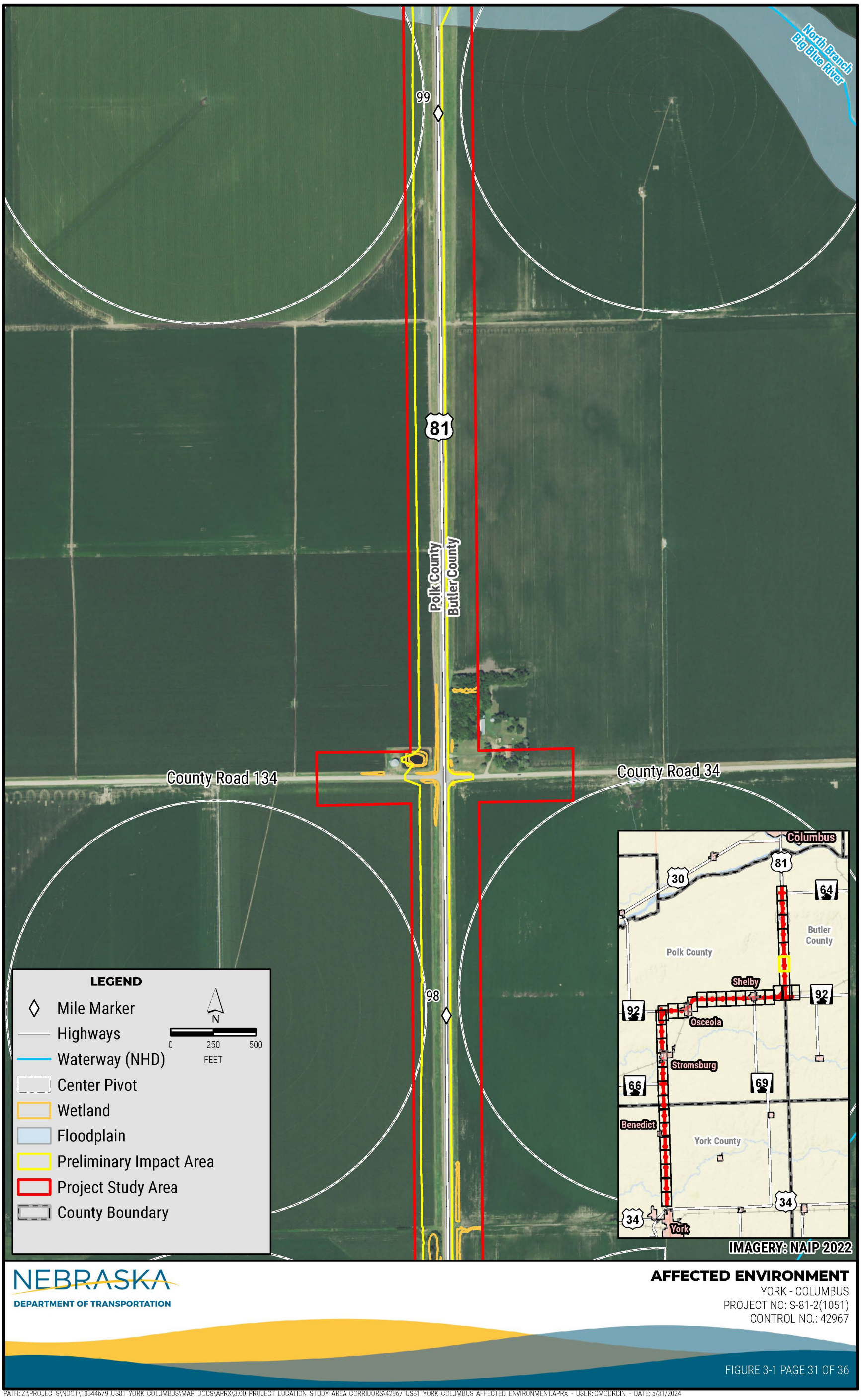


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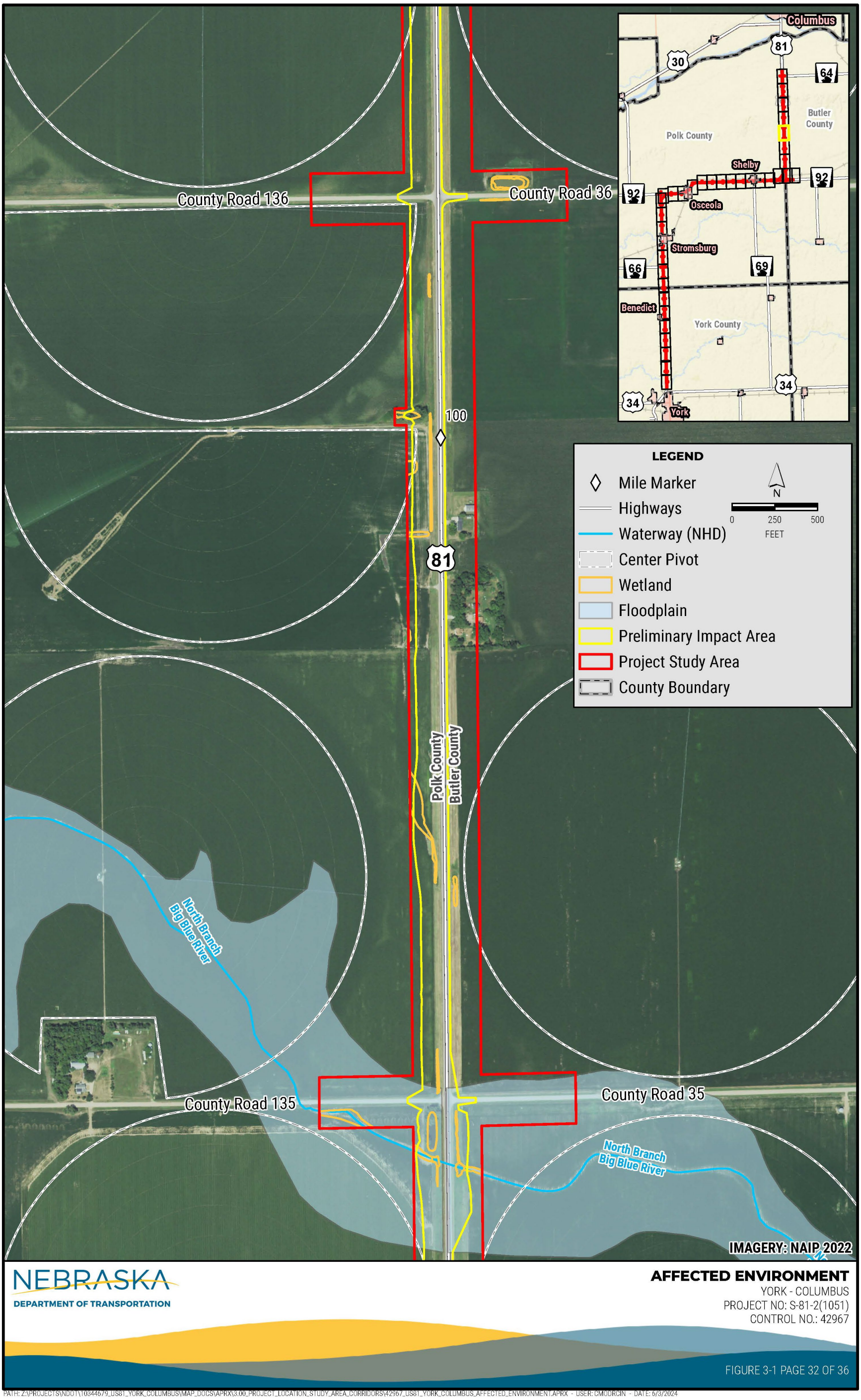


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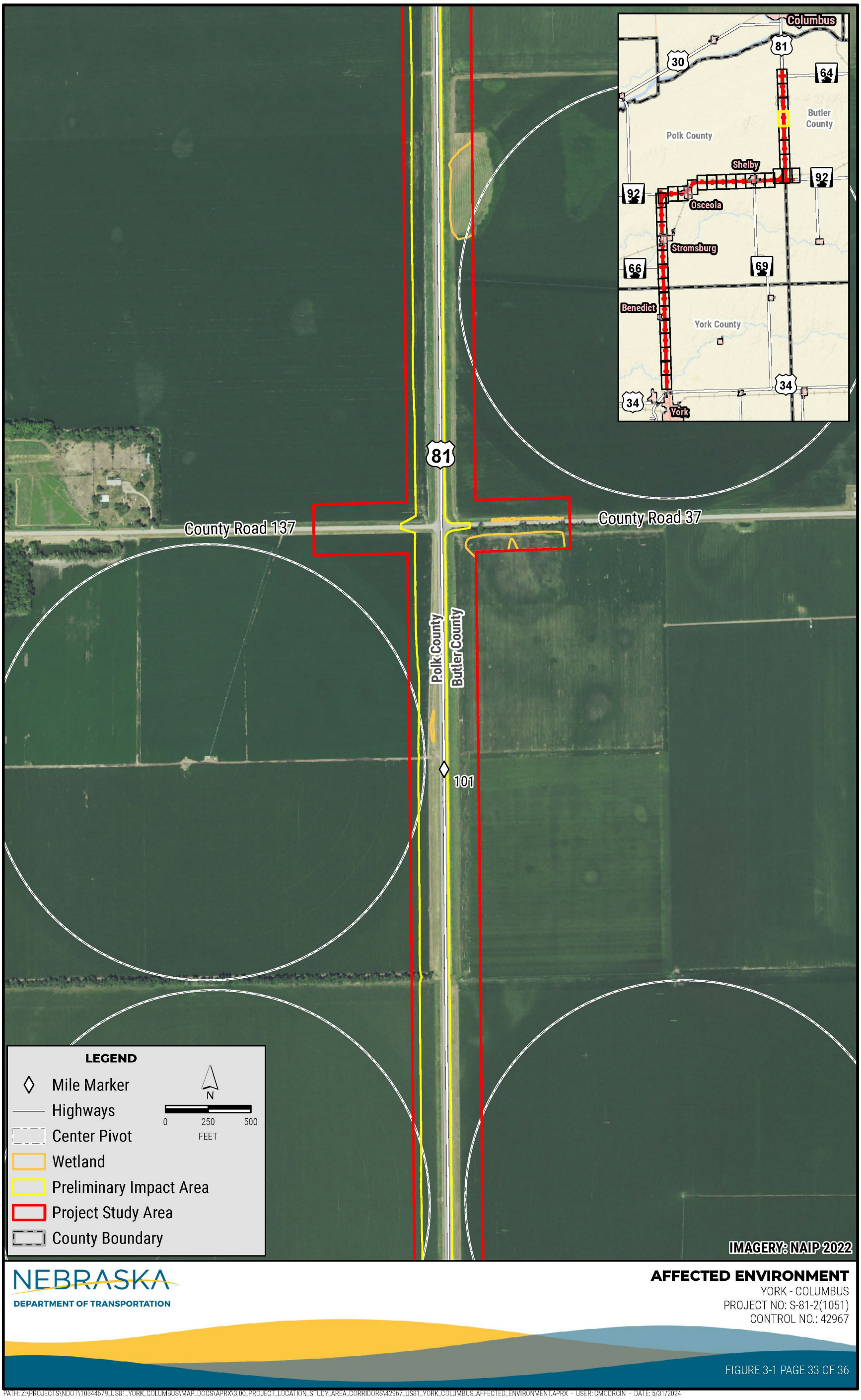


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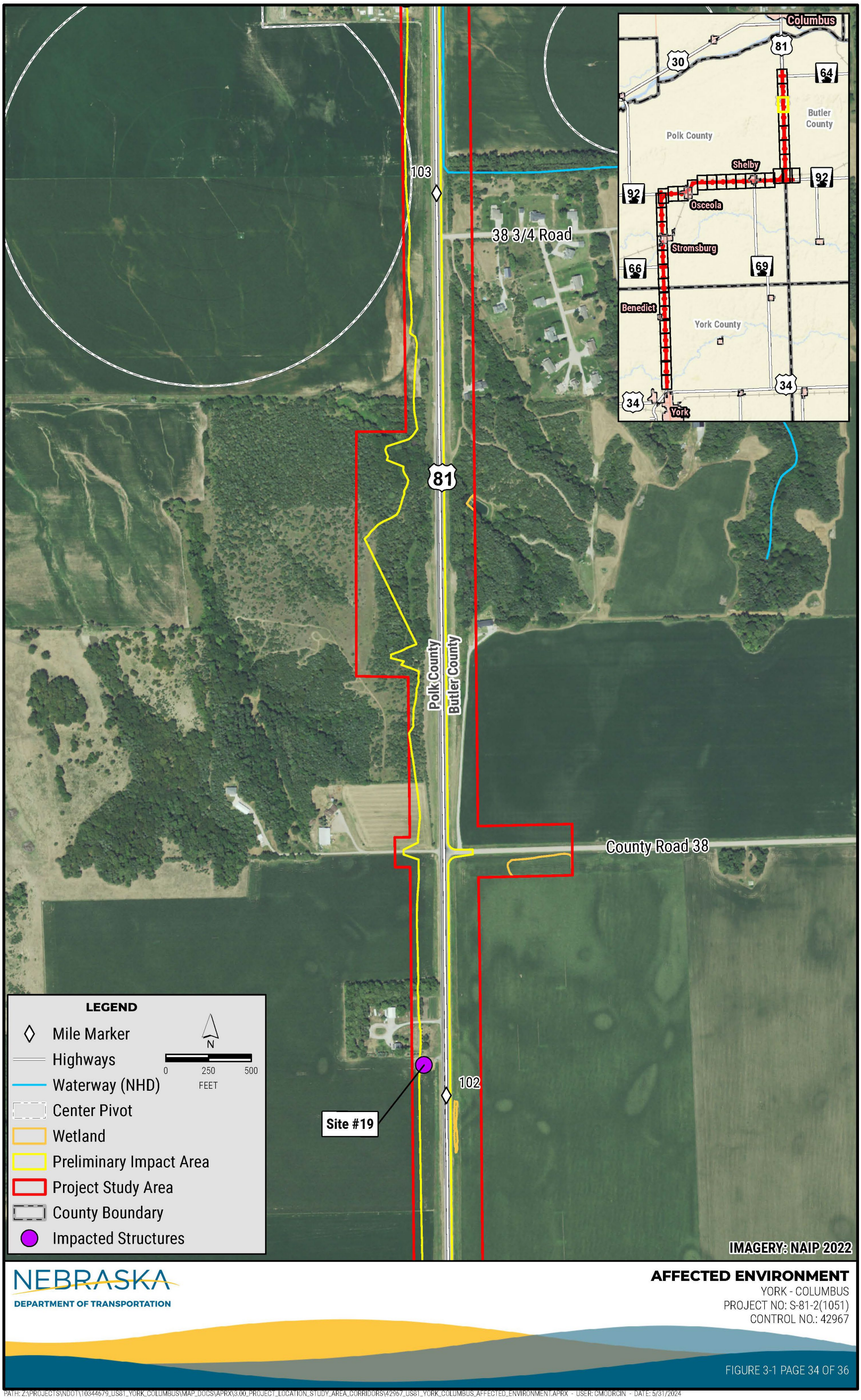


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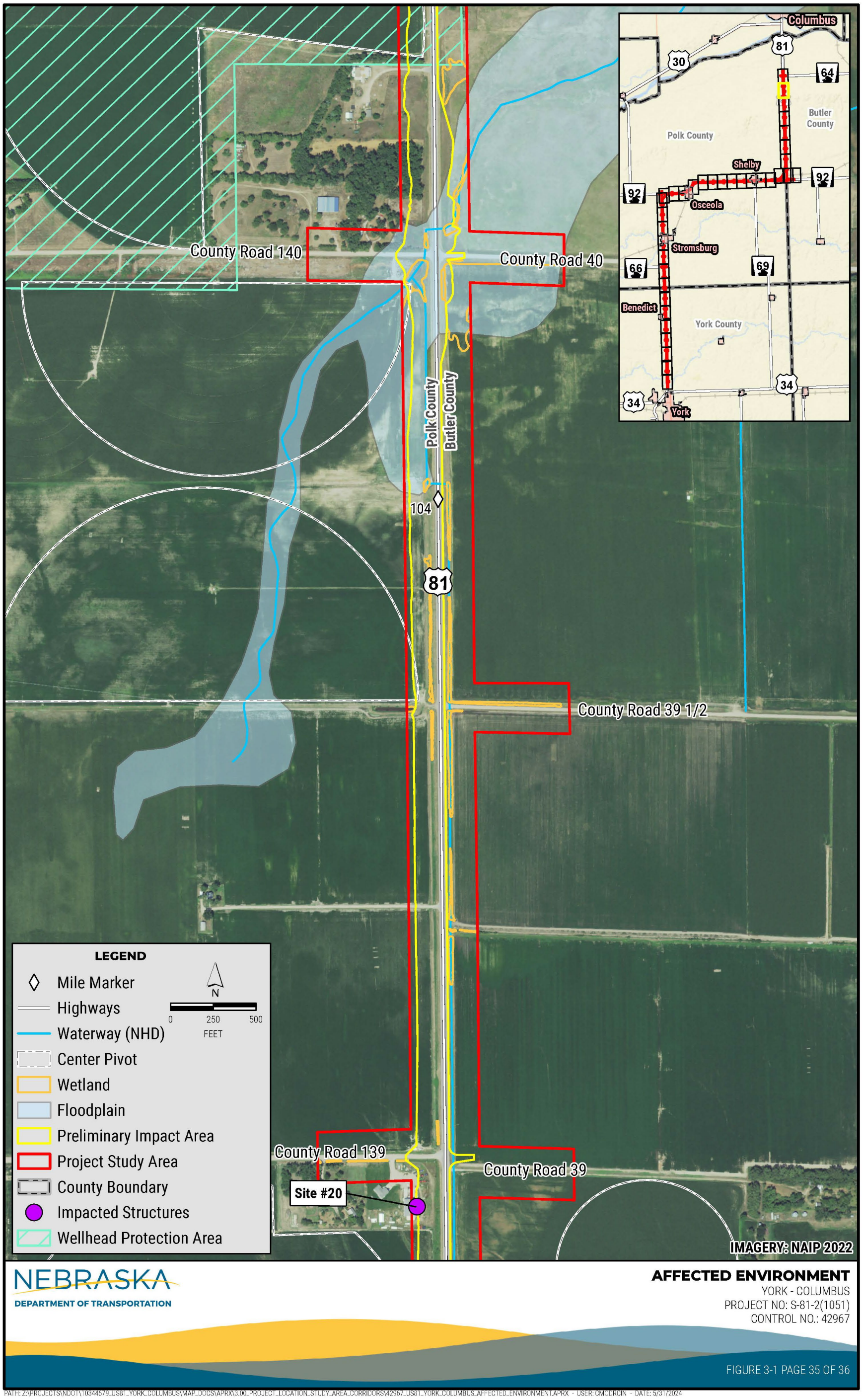
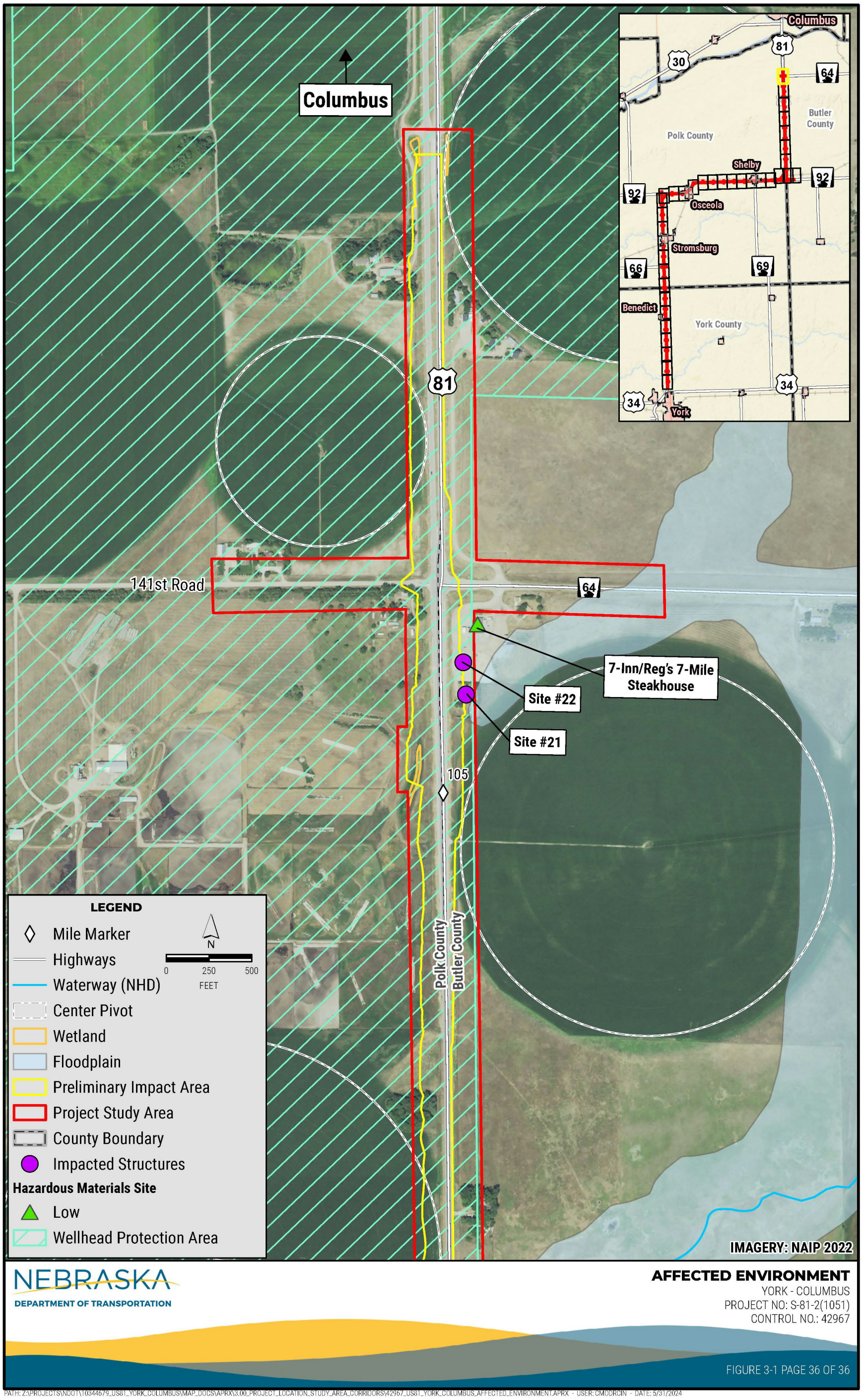


Figure 3-1. Affected Environment (page 36 of 36)



3.1 Environmental Resources Not in the Project Study Area

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

3.1.1 Environmental Justice

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

An environmental justice review was completed for the Project and can be found in Appendix C. The Environmental Justice Study Area includes nine block groups: Block Groups 1 and 2 of Census Tract 9600, and Block Groups 1 and 3 of Census Tract 9601 in Polk County; Block Groups 2 and 3 of Census Tract 9676, and Block Group 2 of Census Tract 9678 in Butler County; and Block Groups 1 and 2 of Census Tract 9696 in York County (see Figure 3-2).

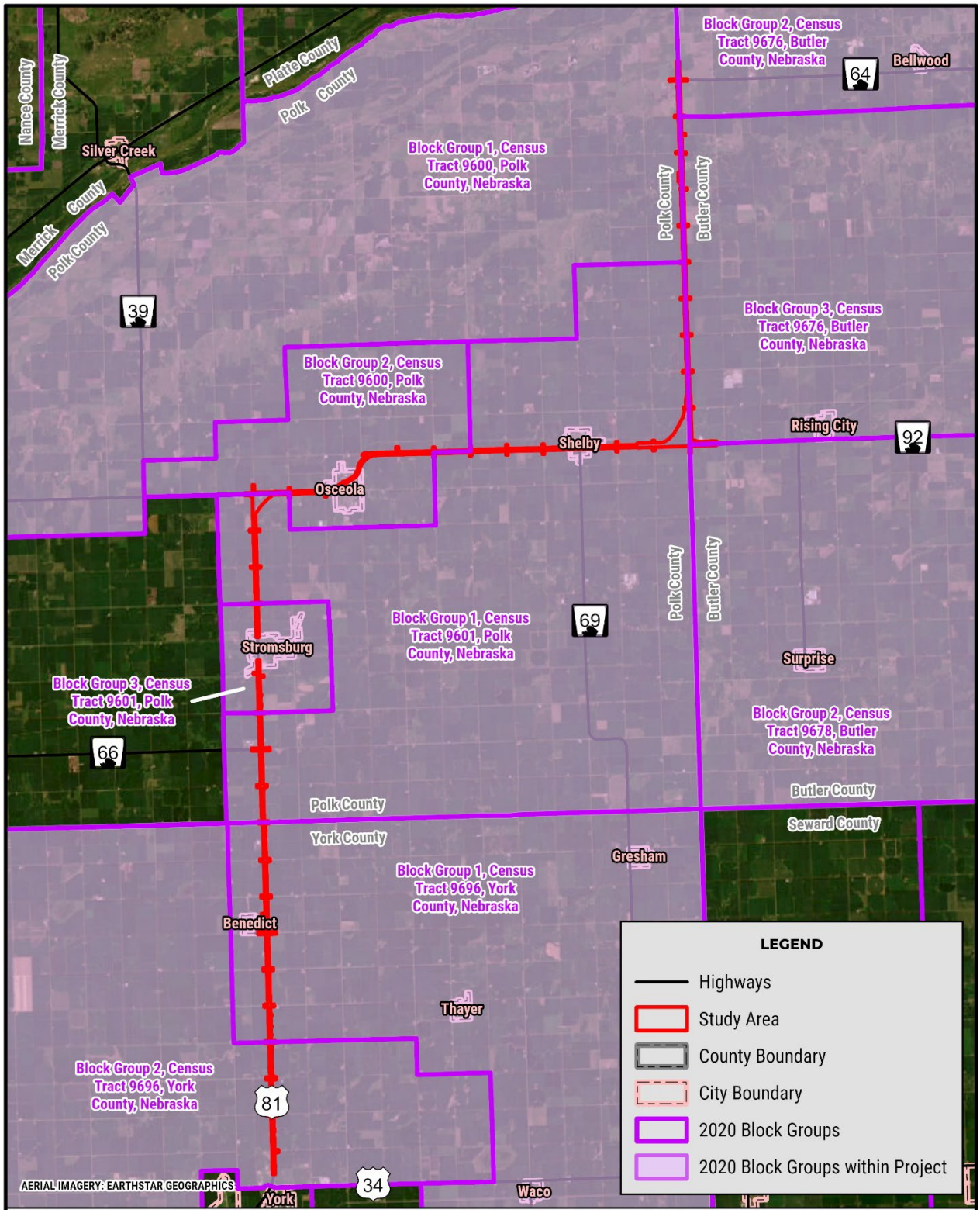
This Project was originally evaluated for the presence or absence of environmental justice populations on March 23, 2023. The evaluation in 2023 identified the presence of a Hispanic/Latino minority population in Block Group 1, Census Tract 9601. Low income and limited English proficiency populations were not identified. The Project was re-evaluated on April 1, 2024, due to the availability of newer Census data and an updated environmental justice methodology developed by NDOT in coordination with FHWA. The previously identified minority population no longer met NDOT thresholds; therefore, minority and low-income populations were not identified in the Project Study Area (see Appendix C). No translations or specialized outreach for limited English proficiency is required for this Project because there was not a limited English proficiency language group affected by the Project that met NDOT's methodology requiring advance language accommodations. NDOT would provide language assistance should it be requested.

3.1.2 Paleontology

In 1959, Nebraska's Legislature passed a law authorizing NDOT to enter into agreements with the appropriate state agencies to remove and preserve paleontological remains when such remains were to be disturbed by highway construction. In areas where new construction threatens paleontologically sensitive areas, the University of Nebraska–Lincoln's Highway Paleontology Program follows a basic three-phase strategy of salvage preconstruction, during construction, and post construction to recover the maximum amount of scientific information without causing construction delays.

The University of Nebraska–Lincoln's Highway Paleontology Program has not identified any paleontological sites in the Project Study Area (see Appendix D). In the event of a discovery of paleontological materials during construction, the Contractor would adhere to NDOT Standard Specifications for Highway Construction.

Figure 3-2. Project Census Tracts and Block Groups



3.1.3 Wild and Scenic Rivers

The National Wild and Scenic Rivers System preserves certain rivers with outstanding natural, cultural, and recreational values. Two rivers within Nebraska are designated as part of the National Wild and Scenic Rivers System, the Missouri River and Niobrara River (Interagency Wild and Scenic Rivers Coordinating Council 2024). The Project is not located within the Missouri River or Niobrara River reaches. No Nationwide Rivers Inventory resources were identified in the Project Study Area (National Park Service 2022).

Environmental Resources Requiring Detailed Analysis

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

3.2 Land Use

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

3.2.1 Affected Environment

Land use in the Project Study Area is typical of rural, row crop agricultural land use and includes rural residences, farmsteads, and modern livestock production facilities. Existing commercial and industrial areas are located in York, Stromsburg, Osceola, and Shelby.

At the start of the Project near York, land use adjacent to US-81 is predominantly agricultural and is planned to remain as agricultural land (City of York 2016).

Stromsburg has a mix of existing land uses, including recreational, residential, and some commercial. Existing land use on the south side of Stromsburg adjacent to the Project is commercial and recreational. Existing land use on the north side of Stromsburg adjacent to the Project is residential. Future land use in the Stromsburg area is expected to remain consistent with existing land uses (City of Stromsburg 2014). Some new commercial land uses are proposed south and north of the city, and residential land uses are proposed north of the city.

Land use adjacent to US-81 in Osceola is currently a mix of commercial on the south and recreational on the north. The NCRC rail line runs east-west through Osceola and splits the city in half. The land surrounding Osceola is agricultural in nature. The *City of Osceola 2014-2024 Comprehensive Plan* indicates future changes to land uses, with new future commercial land use adjacent to US-81 west of Osceola (City of Osceola 2020).

Land uses adjacent to US-81 in Shelby are similar to those in Stromsburg, with a mix of recreational, residential, and commercial. Based on County Board of Commissioners meeting minutes, there are no planned developments around Shelby, and land use is expected to remain predominantly rural (Polk County 2024a).

3.2.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on land use because no land would be converted into an expressway system. Land use changes may occur as part of other routine roadway and bridge maintenance activities, including

those projects listed in Section 3.24.1. Impacts on land use for those projects would be evaluated on a project-by-project basis.

3.2.3 Impacts of the Preferred Alternative

The Preferred Alternative would convert approximately 452 acres of private property, including properties owned by utilities, private businesses, and individuals, to NDOT ROW. Acquired land would primarily consist of agricultural land with some land acquisition from residential farmsteads. Conversion of this land would be compatible with land use plans, and adjacent land use is expected to remain in agriculture.

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

3.2.4 Avoidance, Minimization, and Mitigation

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

3.3 Farmland

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

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

3.3.1 Affected Environment

There are approximately 1,990 acres of farmed land, including row crop and pasture, within the Project Study Area. Of that land, approximately 1,462 acres are listed as prime or unique farmland. Farmed areas generally consist of small to large parcels of 1 to 290 acres.

3.3.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on farmland because no land would be converted to an expressway system. Farmland impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on farmland for those projects would be evaluated on a project-by-project basis.

3.3.3 Impacts of the Preferred Alternative

The Preferred Alternative would convert 434 acres of farmland to highway ROW. Approximately 343 acres of this farmland are listed as prime or unique. The NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form is used to evaluate impacts on federal projects. The NRCS-CPA-106 forms were completed for York, Polk, and Butler Counties and were reviewed by NRCS on July 25, 2024 (see Appendix E). The forms show that the total scores for York, Polk, and Butler Counties are 128, 122, and 98, respectively. These scores are below the 160-point site assessment threshold, so no further protections or evaluations are necessary.

In addition to converting farmland, the Preferred Alternative has the potential to impact 58 pivots and 32 structures including farmhouses, major and minor outbuildings, and silos across the three counties. Seven farmsteads may become non-functional following construction, including one cattle feed operation. Conversion of the remaining farmland would not substantially affect farming operations on individual farms because most of the parcels would remain unaffected or have minor acquisitions when compared to the larger parcel. Those farms where structures would be impacted are discussed in Table 3-1. The portion of pivots impacted by the Preferred Alternative are the spray area and/or wheel tracks. Affected center pivots would need to be shortened by one to two wheel tracks. Fifty-eight center pivots would be shortened but would remain functional following construction of the Preferred Alternative. Impacts on two center pivots would affect the pivot points. The final determination on whether the pivot point would require relocation would be made during the design process. Landowners would be compensated for the shortening, removal, or relocation of the center pivots and structures as described in Section 3.4, Right-of-Way and Relocations.

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

3.3.4 Avoidance, Minimization, and Mitigation

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

Structure and property impact mitigation is discussed further in Section 3.4.4. No other mitigation with respect to farmland would be required or is proposed.

3.4 Right-of-Way and Relocations

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

3.4.1 Affected Environment

As discussed in Section 3.2, existing land use within the Project Study Area consists of rural, row crop agricultural land use and includes rural residences, farmsteads, and modern livestock production facilities. Commercial areas are located in Stromsburg, Osceola, and Shelby. There are 275 parcels

within the Project Study Area, with approximately 99 percent of parcels privately owned. Additional property owners include NDOT, the Nebraska Public Power District, and the Cross County Community Schools.

3.4.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. ROW impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. ROW acquisition for those projects would be evaluated on a project-by-project basis.

3.4.3 Impacts of the Preferred Alternative

The Preferred Alternative would require the acquisition of approximately 452 acres of new ROW and permanent easements, primarily east of US-81 between York and the N-92 west intersection, north of US-81 between the N-92 west intersection and the N-92 east intersection, and west of US-81 between the N-92 east intersection and N-64. This new ROW would be needed to construct the new traffic lanes, county road realignments, bridges, culverts, and access driveways. Minor amounts of ROW would be required from a few parcels on the opposite side of US-81 in these areas for work on county road intersections, bridges, and culverts. Most of the ROW acquisition would be minor, generally less than 10 percent of the total parcel. Existing land use of these parcels is predominantly irrigated cropland and farmsteads. More than minor ROW acquisition may be needed from farmsteads that are smaller parcels, as discussed in more detail below.

The Preferred Alternative is anticipated to relocate 9 houses, 11 outbuildings, 4 detached garages, 5 silos, 3 sheds, and 1 business. Table 3-1 describes these properties and potential impacts. These impacts are based on conceptual design, and full or partial acquisitions would be determined during the design process and ROW phase. ROW acquisition and relocations would be conducted in accordance with the Uniform Act, Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et seq.). Additional information regarding the NDOT ROW and relocation procedures can be found on NDOT's website: https://dot.nebraska.gov/business-center/row/.

Table 3-1. Structure Relocations

Site ID	Property Description	Impact
1	Heavily wooded farmstead made up of three parcels. One parcel includes a house and outbuilding near US-81. The other two parcels include one and two structures, respectively.	Relocation of the house. The property would remain functional as a farmstead following construction.
2	Maintained farmstead with two outbuildings, a shed, and a house.	Relocation or removal of the outbuilding closest to US-81. The property would remain functional as a farmstead following construction.
3	Maintained farmstead with two houses, a barn, two outbuildings, six silos, and a shed with pastures.	Relocation or removal of the house and outbuilding closest to US-81. The property would remain functional as a farmstead following construction.

Site ID	Property Description	Impact
4	Maintained farmstead with a house, two outbuildings, and three sheds.	Relocation or removal of the house and outbuilding. The property may not remain functional as a farmstead following construction but would still function as a farm storage area.
5	Maintained farmstead with a house, detached garage, and machine shop.	Relocation or removal of the detached garage. The property would remain functional as a farmstead following construction.
6	Two adjacent parcels with a house, detached garage, three outbuildings, and three silos.	Relocation or removal of the house, detached garage, and three silos. The property may not remain functional as a farmstead following construction but would function as a farm storage area.
7	Farm storage with two outbuildings, a garage, and 13 silos.	Relocation or removal of the outbuilding closest to US-81. The property would remain functional as a farm storage area.
8	Irrigated cropland and pasture with a farmstead in the northwest quadrant. The farmstead includes a house, six sheds, and an outbuilding.	Relocation or removal of the house and the northernmost shed. The property may not remain functional as a farmstead following construction but would function as a farm storage area.
9	Pasture with an outbuilding, two sheds, and two silos.	Relocation or removal of the outbuilding adjacent to US-81. The property would remain functional as pasture following construction.
10	Maintained farmstead with a house, silo, and three outbuildings.	Relocation or removal of the outbuilding adjacent to US-81. The property would remain functional as a farmstead following construction.
11	Dry cropland with a silo.	Relocation or removal of the silo adjacent to US-81. The property would remain functional for cropland following construction.
12	Unmaintained farmhouse and shed with dry cropland on the south.	Relocation or removal of the farmhouse and shed. The property may not remain functional as a farmstead following construction but would still function as cropland.
13	Confined animal feeding operation with two animal buildings, three outbuildings, and cropland.	Relocation or removal of the outbuilding adjacent to US-81 in the northwest corner of the property. The property would remain functional as an animal feeding operation.
14	Wooded farmstead with a house, detached garage, and two outbuildings.	Relocation or removal of the house and detached garage. The property may not remain functional as a farmstead following construction but may function as a farm storage area.

Site ID	Property Description	Impact
15	Maintained farmstead with a house, detached garage, three sheds, and a barn.	Relocation or removal of the house, detached garage, and one shed adjacent to US-81. The property may not remain functional as a farmstead following construction but may function as a farm storage area.
16	Cattle operation with a house, detached garage, outbuilding, and numerous cattle pens.	Relocation or removal of the house. The property would remain functional as a cattle operation following construction but may no longer function as a farmstead.
17	A large outbuilding.	Relocation or removal of the outbuilding.
18	Maintained farmstead with a house and two outbuildings.	Relocation or removal of the north outbuilding. The property would remain functional as a farmstead following construction.
19	Dry cropland with a silo.	Relocation or removal of the silo. The property would remain functional as cropland following construction.
20	Farmstead with a house, outbuilding, shed, and pole building.	Relocation or removal of the outbuilding. The property would remain functional as a farmstead following construction.
21	Outbuilding.	Relocation or removal of the outbuilding.
22	Gun and ammo business.	Relocation or removal of the business.

As part of the Preferred Alternative, access control would be purchased along the entire Project in accordance with NDOT's Access Control Policy, generally allowing no more than three accesses to adjacent properties per mile of roadway, typically between county roads (NDOT 2024a). Existing field access drives and residential driveways would be relocated or realigned as needed throughout the Project to comply with the Access Control Policy.

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

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

3.4.4 Avoidance, Minimization, and Mitigation

ROW acquisitions, types, and amounts are based on conceptual design. Impacts on ROW and properties would be further refined and minimized to the extent possible during the design process. (NDOT)

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

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

3.5 Community Impact Assessment

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

3.5.1 Affected Environment

A CIA was completed for the Project and can be found in Appendix F. The study area for the CIA (CIA Study Area) includes Census Tracts 9696, 9697, and 9698 in York County; Census Tracts 9600 and 9601 in Polk County; Census Tracts 9676 and 9677 in Butler County; and Census Tracts 9652.98, 9653.01, 9653.02, 9654, 9655, 9656, and 9657 in Platte County. The CIA Study Area also includes the cities and villages that connect to US-81: York, Benedict, Stromsburg, Osceola, Shelby, Rising City, and Columbus.

Population

York, Polk, and Butler Counties had an average population decline of 7.6 percent from 2000 to 2020. The population decline in these counties can be attributed to the shift from rural to city and suburban patterns in Nebraska and throughout the United States. York and Columbus, the largest population centers in the CIA Study Area, saw an overall population increase from 2010 to 2020 of 3 and 8 percent, respectively (US Census Bureau 2010, 2020). Overall, the CIA Study Area had a 0.9 percent population decrease from 2010 to 2020. During this period, Nebraska had a population growth of 7.4 percent (US Census Bureau 2022).

The CIA Study Area has a median (average) age of 40.3 years. This is slightly older than the Nebraska median age of 36.9 years. Populations within the CIA Study Area are predominantly white, approximately 95 percent, which is 15 percent greater than the state average (US Census Bureau 2023).

Housing

From 2018 to 2022, there were 21,525 households in the census tracts in the CIA Study Area. The average household size had little variation, averaging between 2.1 and 2.8 people per household, indicating homes with families present. The CIA Study Area's average household size was consistent with the state average of 2.5 people per household (US Census Bureau 2023). From 2018 to 2022, the median property value for owner-occupied houses in the CIA Study Area was between $139,200 and $292,700. In the same time frame, there was a housing vacancy ranging from 3.1 to 29.6 percent in the CIA Study Area, which was higher than Nebraska's average of an 8.4 percent housing vacancy. This could be due to the declining population in the CIA Study Area.

Income and Employment

The median household income for the CIA Study Area from 2018 to 2022 was $69,373. This median household income is higher than the United States median household income of $64,994 and lower than Nebraska's median household income of $71,722. In the CIA Study Area, between 57 and 76 percent of the population age 16 and over were employed, while between 24 and 40 percent were not currently in the workforce. The highest employment industries were education services, health care, and social assistance; agriculture; and manufacturing. The dominant mode of transportation for work commutes from 2018 to 2022 was driving alone, but between 5.2 and 13.1 percent carpooled, and 1.2 and 7.1 percent walked. Of those who commuted to work, on average, their commute was 10.7 to 29.6 minutes. It was noted that 6 percent of workers ages 16 and over worked from home (US Census Bureau 2023).

Tax Base

The dominant land use in the CIA Study Area is agricultural land with approximately 52 percent of land assessed value. This compares to 60, 73, 66, and 36 percent for York, Polk, Butler and Platte Counties, respectively. The second-highest land use tax assessed value is residential land (Nebraska Department of Revenue 2023).

Community Resources and Cohesion

As discussed in Section 3.2, land use in the CIA Study Area is typical of rural, row crop agricultural land use and includes rural residences, farmsteads, and modern livestock production facilities. US-81 directly passes through the communities of Stromsburg, Osceola, and Shelby and connects them to the larger communities of York on the south and Columbus on the north. Smaller communities in the CIA Study Area but not directly on US-81, such as Bradshaw, Waco, Thayer, Gresham, Benedict, Polk, Rising City, and Bellwood, also use US-81 to reach resources in other towns that their community does not have, such as a grocery stores, education, medical care, employment, or other daily needs.

There are three public school districts that use US-81 for bus routes: Cross County Community School District, Osceola Public Schools, and Shelby-Rising City Public Schools. Cross County Community Schools is located on N-66 approximately 0.25 mile west of US-81. Students are bused in from Stromsburg and surrounding areas via N-66 and US-81. The Osceola Public Schools are located approximately 0.6 mile south of US-81 along Kimmel Street. US-81 is used by those students who are located north, west, and east of US-81. The Shelby-Rising City Schools is located in Shelby approximately 0.40 mile north of US-81 on Walnut Street. Students are bused in from Rising City and the surrounding areas via N-92 and US-81.

Emergency services in the CIA Study Area include fire, police, and health care services. Fire services are provided locally through volunteer or city fire departments. York and Stromsburg have city fire departments while Osceola and Shelby provide fire service through volunteer fire departments (State of Nebraska 2024).

Police service is provided at the local, county, and state levels. Local police service is provided in York by the city police department. County services are provided by York, Polk, Butler, and Platte County sheriffs based in York, Osceola, David City, and Columbus, respectively (Nebraska Resource and Referral System 2024). The Nebraska State Patrol Troop C in Grand Island and Troop H in Lincoln directly serve the Project Study Area.

Medical services consist of clinics and hospitals. There are six clinics in the CIA Study Area including Stromsburg Medical Clinic in Stromsburg; Prairie Creek Family Medicine in Stromsburg, Osceola, and Shelby; Butler County Clinic in David City; and Columbus Urgent Care in Columbus (Nebraska Resource and Referral System 2024). There are four hospitals in the CIA Study Area including York

General Hospital in York, Annie Jeffrey Memorial County Health Center in Osceola, Butler County Health in David City, and Columbus Community Hospital in Columbus.

Two local special events are typically held in the CIA Study Area. The first is the Swedish Festival located in Stromsburg. The event takes place in City Square Park in June (The Swedish Festival 2024). The second is Dawg Days in Osceola, which is a week-long celebration of the Osceola homecoming football game (City of Osceola, n.d.).

As noted in the discussion of housing, the area along US-81 is a well-established, cohesive rural community with most people being long-time residents of the area. US-81 bisects the three communities it intersects: Stromsburg, Osceola, and Shelby. During the public meetings discussed in Chapter 4, residents of these communities expressed concerns with traffic and pedestrian crossings. The posted speed on US-81 in rural segments is 65 mph and in urban segments is 30 to 45 mph. A pedestrian study in these communities would be completed in fall 2024.

3.5.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. The No Build Alternative would result in long-term adverse impacts on the communities surrounding the Project. Connectivity along the US-81 corridor would remain fragmented, and traffic delays between York and Columbus would increase as traffic volumes increase. Impacts on the community may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on the community for those projects would be evaluated on a project-by-project basis.

3.5.3 Impacts of the Preferred Alternative

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

Population

The Preferred Alternative would have minor, short- and long-term, beneficial impacts on the populations in and near the CIA Study Area. Over the last 50 years, the rural communities in the CIA Study Area have seen decreases in population while the larger communities, such as York and Columbus, have seen increases in population. This trend is consistent with rural communities nationwide (Economic Research Service 2023). In the long term, the Preferred Alternative would beneficially impact populations in the CIA Study Area and surrounding communities by reducing travel times to essential services and creating a more efficient roadway. In the short term, these populations would be impacted by construction activities.

Housing, Income, and Employment

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

Long-term beneficial economic impacts would result from expanding US-81 to a four-lane facility; expansion would increase connectivity in the CIA Study Area for local commuting traffic and would provide more efficient movement of local products to larger markets. The Preferred Alternative would also decrease travel times and improve travel time reliability. The Preferred Alternative would have moderate, long-term, beneficial impacts on industry in the region. Manufacturing and agriculture are important industries in the region and rely on movement of goods for sale throughout Nebraska and the United States. Currently, the movement of manufactured goods produced in the CIA Study Area,

and agricultural products, including animals, are impeded by traffic delays. With the existing density of manufacturing jobs in York and Columbus and agricultural industries in the area between the two cities, construction of the 41-mile segment from York to Columbus and improved travel times would provide an unknown increase in economic benefit to the region.

Although the region would benefit economically from travel time savings, completing the US-81 expressway between York and Columbus would not induce growth in the communities along the alignment. As discussed above, population in rural areas has been steadily declining while population in urban areas has been increasing. Completion of the US-81 expressway would connect those adjacent rural communities to the larger urban areas that are already experiencing growth without the Project. The access provided by a completed US-81 expressway would help small communities maintain their population and vitality.

Tax Base

Minor, short-term, adverse impacts on the tax base would occur in and near the CIA Study Area as portions of property parcels are acquired for expansion of US-81. As discussed in Section 3.4, the Preferred Alternative would require acquisition of approximately 452 acres of land. These acquisitions generally represent less than 10 percent of the respective parcels and 1 percent of the total assessed value in these counties. Six properties may be fully acquired and relocated and would constitute a moderate to major impact. As design progresses, impacts on adjacent properties in York, Polk, and Butler Counties would be minimized or eliminated to the extent practicable. Increased development along US-81 and in adjacent communities would increase the tax base in Nebraska; in York, Polk, and Butler Counties; and in local communities such as York, Benedict, Stromsburg, Osceola, and Shelby.

Community Resources and Cohesion

Access to community resources, including area schools, fire and police services, and community facilities; cohesion among communities, such as York, Benedict, Stromsburg, Osceola, Shelby, and Columbus; and quality of life for residents along the Preferred Alternative would benefit from the moderate, long-term impacts that would include those previously described, such as a more efficient and reliable roadway. Posted speeds in rural segments would be 70 mph and in urban segments would range from 30 to 45 mph. The posted speeds in urban areas would not differ from those currently posted. The reduced travel time between communities would be particularly beneficial for emergency services and schools. During construction, the CIA Study Area would experience minor, short-term disruptions from noise and dust. During construction, access to community resources would not be adversely affected by expansion of US-81 because improvements would be constructed under traffic. Any required closures of county roads would be of limited effect and duration. Access to businesses, community resources, and residences would be maintained but may be temporarily disrupted by construction phasing. Sidewalks in urban areas adjacent to US-81 may be closed during phasing of construction, but Americans with Disabilities Act accessible pedestrian detour routes would be posted. Utility service disruptions are not anticipated because of the Project. Local events, as discussed above, are expected to incur minor, short-term, adverse impacts during construction and moderate, long-term, beneficial impacts due to the Preferred Alternative, such as increased attendance due to better accessibility, benefiting local tourism and commerce.

3.5.4 Avoidance, Minimization, and Mitigation

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

Findings from the pedestrian study would be evaluated and incorporated into the Final EA. (NDOT)

3.6 Environmental Justice

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

3.7 Transportation

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

3.7.1 Affected Environment

There are five highways and one state spur in the Project Study Area: US-81, N-66, N-92, N-69, N-64, and S-93C (see Figure 1-4). The first highway, US-81, would be improved as part of the Project. US-81 is a major north-south corridor in Nebraska and the United States; it begins in Texas and extends north to the Canadian border. The second highway in the Project Study Area is N-66. N-66 is an east-west highway that connects Nebraska Highway 14, south of Central City, Nebraska, with US-81. The third highway in the Project Study Area is N-92. N-92 is an east-west highway approximately 490 miles long and traverses the entire length of Nebraska north of I-80 between Scottsbluff and Omaha. N-92 is co-located with US-81 along the east-west segment and has intersections with US-81 at each end of the segment. The fourth highway is N-69. N-69 is a north-south highway that connects US-34 and US-81. The final highway is N-64. N-64 is an east-west highway that connects N-15 with US-81. S-93C is the only state spur in the Project Study Area, and it connects Benedict to US-81.

In the communities of Stromsburg, Osceola, and Shelby, a network of existing sidewalks is used to access community resources such as schools and parks. There is one dedicated school crossing in Osceola at State Street and one in Shelby at N-69/Walnut Street. Both crossings are designated via roadway markings and school crossing signs.

The nearest public use airport to the Project Study Area is the York Municipal Airport. It is located approximately 1 mile southwest of the start of the Project and is accessed via US-34. This airport serves smaller non-commercial aircraft. The nearest commercial airports are the Central Nebraska Regional Airport in Grand Island and the Lincoln Municipal Airport in Lincoln.

Butler County offers rides via transit vans through Senior Services (Butler County 2024a). This is an on-demand service open to the public in Butler County. There are no set routes, but the service also provides rides outside of the county, including Columbus and other major cities.

The Project Study Area intersects one trail, Two Parks Trail. The trail connects Buckley Park with City Square Park in Stromsburg. The trail begins in Buckley Park, crosses under the US-81 Prairie Creek Bridge (S081 07815) approximately 300 feet north of Buckley Parkway/Exchange Street, and then parallels the east side of US-81 until 1st Street, where the trail turns east for a block and then follows Commercial Street to City Square Park.

One rail line intersects the Project Study Area. The NCRC rail line generally runs east-west and crosses the Preferred Alternative in three locations. The first crossing is on the south side of Stromsburg between Railroad Street and 1st Street where the NCRC rail line enters the Project Study Area from the west before it turns northeast towards Osceola. The second crossing is in Osceola at Nance Street. From there, the NCRC rail line runs adjacent to US-81 through Osceola to O Road where the rail line continues to the north and US-81 continues to the west. From there, the rail line parallels US-81 approximately 0.25 mile north of the highway. The third crossing is located 0.5 mile north of the N-92

east intersection where the NCRC rail line crosses from the west and continues east. In addition, although it does not intersect the Project Study Area, a BNSF Railway rail line parallels US-81 approximately 0.5 mile west of the highway beginning in York and extending north to Benedict.

3.7.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. The traffic volumes and delays throughout the corridor would continue to increase under the No Build Alternative. Impacts on the transportation network may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on the transportation network for those projects would be evaluated on a project-by-project basis.

3.7.3 Impacts of the Preferred Alternative

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

After construction, the Preferred Alternative would have major, long-term, beneficial impacts on the transportation network in the Project Study Area and in central Nebraska. The approximately 41 miles that the Preferred Alternative would improve represent the remaining miles to complete the US-81 expressway identified in the *1988 Nebraska Highway Needs Study* linking York, Columbus, and the surrounding communities. In the Project Study Area, the Preferred Alternative would provide a direct four-lane connection among York, S-93C, N-66, Stromsburg, N-92, Osceola, Shelby, N-69, and N-64. The Preferred Alternative would also include reconstruction of the US-81 intersections with N-66, N-92 west and east, N-69, and N-64.

A traffic study was completed for the Project and can be found in Appendix A. The Preferred Alternative would have temporary impacts on local traffic in Osceola and Shelby due to construction of side road connections and intersection reconfigurations. In Osceola, the US-81 intersections with Central, Nance, Ridge, and Valley Streets would be realigned to improve the intersection skew and intersection sight distance. The traffic study determined these realignments would not permanently impact existing traffic patterns. Additionally, access to businesses and services adjacent to reconfigured intersections would be maintained throughout construction and following construction. No intersection realignments are proposed in Stromsburg and Shelby.

The Preferred Alternative would impact the existing pedestrian transportation network. Existing sidewalks in the urban areas of Osceola and Shelby would be rebuilt with the Project and improved to be compliant with the Americans with Disabilities Act, including sidewalks on side road intersections. No new sidewalks are proposed in Osceola and Shelby as part of the Preferred Alternative. The two dedicated school crossings in Osceola and Shelby would be temporarily impacted during construction, but there are other locations where US-81 could be crossed during construction. A pedestrian survey would be completed in fall 2024 to determine any additional, long-term impacts. As noted in Section 3.5.4, those findings would be incorporated into the Final EA.

No impacts on the York Municipal Airport are anticipated based on conceptual design. The NDOT Roadway Design Division would coordinate with the NDOT Aeronautics Division once further design work has been completed.

No impacts on the Butler County transit service are anticipated. The Preferred Alternative would be constructed under traffic, and the completion of the US-81 expressway would have major, long-term, beneficial impacts on the transportation network that would also benefit transit.

Impacts on the Two Parks Trail are expected and discussed further in Section 3.8.3.

Impacts on the BNSF Railway between York and Benedict are not anticipated. Impacts on the NCRC rail line are expected south of Stromsburg, in Osceola, and north of the N-92 east intersection. The NCRC rail line south of Stromsburg would be impacted by resurfacing of US-81 and reconstruction of Two Parks Trail adjacent to the crossing. The at-grade crossing north of the N-92 east intersection would remain in its current location. A new at-grade crossing would be added for the two new lanes west of the existing crossing, and the existing crossing would be resurfaced. In Osceola, the NCRC rail line parallels US-81 and has one at-grade crossing with US-81 at its intersection with Nance Street. Work at the crossing would involve relocating the intersection and moving the at-grade crossing approximately 70 feet northeast. While the US-81 and Nance Street at-grade crossing would be relocated, the crossing relocation would not require relocation of the NCRC rail line, which would remain on its existing alignment. In addition to Nance Street, there are three side street at-grade crossings directly west of US-81 at State, Kimmel, and Ridge Streets. No impacts on the State and Kimmel Street at-grade crossings are anticipated. Work adjacent to the crossings includes roadway tie-ins to US-81. Impacts on the NCRC crossing at Ridge and Valley Streets would occur. The intersection of US-81 and Ridge and Valley Streets would be slightly relocated to the southwest to correct intersection skew. The at-grade crossing at this location would remain in the same location but may be impacted due to resurfacing and roadway tie-in. Rail traffic on the NCRC line may be restricted during construction of the proposed improvements at the crossings in Stromsburg; at Nance, Ridge, and Valley Streets in Osceola; and north of the N-92 east intersection. Additional coordination with NCRC would occur prior to construction. Coordination with NCRC would occur throughout design to determine the extent of the impacts on the rail line.

3.7.4 Avoidance, Minimization, and Mitigation

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

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

NDOT Roadway Design Division would coordinate with NDOT Aeronautics Division during the Plan-In-Hand to determine impacts on the York Municipal Airport. (NDOT Roadway)

NDOT Roadway Design Division would coordinate with NCRC during the design process to determine impacts on the NCRC rail line. (NDOT Roadway)

3.8 Recreation Facilities

Recreation facilities include parks, trails, schools, fairgrounds, and other places where people can enjoy leisurely activities. These facilities are open to the public and can be used for recreational activities. Existing recreation facilities were identified in the Project Study Area and comprehensive plans were reviewed to identify future facilities. The Preferred Alternative was analyzed for potential impacts on existing and planned facilities in the Recreational Properties Study Area. The Recreational Properties Study Area encompasses the Project Study Area plus a 0.25-mile area beyond that.

3.8.1 Affected Environment

Benedict Ball Field is located on the east side of Benedict, approximately 0.25 mile west of US-81. The ball field is owned by the Village of Benedict and open to the public. Amenities include the baseball diamond, a volleyball area, and grassed open areas.

Cross County Community Schools is located north of N-66, approximately 400 feet west of the US-81/N-66 intersection. The school includes the main building, two mowed grass fields, a track and football field, a baseball diamond, and a playground. Access to the school is located 0.35 mile west of the US-81/N-66 intersection.

In Stromsburg, Buckley Park is adjacent to US-81 on the west side between County Road 125 in Polk County and Railroad Street in Stromsburg. The park includes three pavilions and other picnicking facilities, a heated swimming pool, disc golf, tennis courts, basketball courts, sand volleyball courts, horseshoe pits, baseball fields, playground equipment, and free camping and RV parking spaces with electric hookups. Access to Buckley Park is via Buckley Parkway/Exchange Street, directly from US-81. Access to the Buckley Park Campground, which is separated from the main park by Prairie Creek, is provided by Park Road directly from US-81.

Lucy Holm Campground is located west of Buckley Park on County Road 125 south of Stromsburg. The campground includes 20 campsites with electric, water, and sewer hookups. Access to the campground is via County Road 125.

As discussed in Section 3.7.1, Two Parks Trail connects Buckley Park with City Square Park in Stromsburg and is a recreational resource. The trail begins in Buckley Park, crosses under the US-81 Prairie Creek Bridge (S081 07815) approximately 300 feet north of Buckley Parkway/Exchange Street, and then parallels the east side of US-81 until 1st Street, where the trail turns east for a block and then follows Commercial Street to City Square Park.

City Square Park is adjacent to US-81on the east side between 3rd and 4th Streets in Stromsburg. City Square Park is the center of Stromsburg's Downtown Square. The annual Swedish Festival and the display of flags for Memorial Day and Veterans Day are held at the park. City Square Park has a pavilion, the Frawley Fountain, several benches, and trees for shade. Access to City Square Park is from US-81, 3rd Street, 4th Street, or Commercial Street.

Ryan Hill Country Club in Osceola is located north of US-81 between County Road N and Nance Street. The country club hosts a 9-hole golf course that is privately owned but open to the public. The golf course is accessed from County Road N.

Governors' Park Arboretum in Osceola is located north of US-81 and the NCRC rail line between Nance and State Streets. Amenities include a walking trail and gazebo. Access to the arboretum is via Nance and State Streets.

Osceola City Park is also located north of US-81 and the NCRC rail line on the east side of State Street in Osceola. Osceola City Park includes tennis/basketball courts, the city swimming pool, and a picnic shelter. The park is accessed by State Street.

Pocket Park is located at the southeast corner of State Street and Hawkeye Street, approximately three blocks southeast of US-81, in Osceola. The park includes a shelter, benches, and landscaping. Pocket Park is accessed from State Street or Hawkeye Street.

Shelby Park is located north of US-81 at Birch Street in Shelby. Park facilities include two ball fields, a swimming pool, sand volleyball and tennis/basketball courts, a picnic shelter, and playground equipment. The main park is accessed by Birch Street. The swimming pool and one of the ball fields is accessed by an unnamed road from US-81.

3.8.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on recreational resources may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on recreational resources for those projects would be evaluated on a project-by-project basis.

3.8.3 Impacts of the Preferred Alternative

Impacts on the Benedict Ball Field, Cross County Community Schools, Lucy Holm Campground, City Square Park, Governor's Park Arboretum, Osceola City Park, Pocket Park, and Shelby Park are not anticipated. No ROW or easements would be acquired from these properties, and access would be maintained throughout construction.

Temporary easements may be acquired from Buckley Park for construction of the roadway and reconstruction of the existing driveways. Access to the park from one of the two entrances would be maintained during construction.

In response to the 2024 coordination package on historic properties (see Section 3.9.1), the City of Stromsburg responded on January 26, 2024, and expressed concerns regarding Buckley Park and Two Parks Trail, both of which are located along the Project alignment. NDOT responded to the City of Stromsburg on February 15, 2024, and indicated that the City's concerns regarding Buckley Park and the Two Parks Trail would be forwarded to the Design Team. To avoid permanent impacts on Buckley Park, the widening would be placed on the east side of the roadway, resulting in a full realignment of Two Parks Trail from Buckley Park to the NCRC rail line east of the widened roadway. There is an existing sidewalk adjacent to US-81 on the west side. Pedestrian access between Buckley Park and City Square Park would be maintained throughout construction via this sidewalk. Improvements would be made to the sidewalk as needed prior to using it as a detour route. The detour would be in place for approximately 6 to 12 months for grading, trail reconstruction, and work on the Prairie Creek bridge. Following construction, Two Parks Trail would be reconstructed in as good as, if not better than, the pre-construction condition east of its current location.

Approximately 1.8 acres of ROW and easements would be acquired from Ryan Hill Country Club. The existing land use in this area is maintained landscaping. The acquisition is not anticipated to impact the existing golf course holes or fairways.

3.8.4 Avoidance, Minimization, and Mitigation

The work occurring adjacent to Buckley Park may be minimized further during the design process. (NDOT Roadway)

Access to Buckley Park would be maintained via one of the two entrances at all times. (Contractor)

The sidewalk west of US-81 that is intended for use as the Two Parks Trail detour would be improved as needed and open for use prior to closing Two Parks Trail. (NDOT District, Contractor)

The Contractor would not complete work or stage, stockpile, or store materials outside of the boundaries of the acquired temporary easements at Buckley Park. If it is determined that additional temporary easement is required outside of the designated boundaries or if access is restricted to the property, coordination would occur with NDOT Environmental. (Contractor)

The contractor shall not complete work, stage, stockpile or store materials within the boundary of the following recreational properties: Benedict Ball Field, Cross County Community Schools recreational resources, City Square Park, Osceola City Park, Pocket Park, and Shelby Park. If it is determined that a

temporary easement is required from or access is restricted to a recreational property, coordination shall occur with NDOT Environmental. (Contractor)

The following properties shall be marked on the Project plans as sensitive areas: Benedict Ball Field, Cross County Community Schools recreational resources, Buckley Park, City Square Park, Governors' Park Arboretum, Osceola City Park, Pocket Park, and Shelby Park. (NDOT Design)

3.9 Historic Properties

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

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

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

3.9.1 Affected Environment

The historic properties study area is known as the Area of Potential Effects (APE). The APE for Section 106 purposes is defined at 36 CFR 800.16(d) as the geographic area or areas within which an action may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. A narrative describing the APE and maps showing the APE are included in Appendix G.

An evaluation of the potential for archeological resources within the APE was completed in 2023 and 2024 by the History Nebraska Highway Archeology Program. An evaluation of the potential for architectural and structural resources within the APE was completed in 2024 by HDR. No archeological historic properties were identified within the APE, and three architectural historic properties were identified within the APE (see Figure 3-1):

- YK00-266 is a two-story brick house constructed in 1930 in the National Folk style. This property is located in the southeast corner of the US-81 and County Road 18 intersection at 1719 Hwy 81, York, York County, Nebraska. This property is eligible for listing on the NRHP under Criterion C for architectural significance at the local level. The house, an associated contemporary garage, and an associated shed contribute to the property's NRHP significance.

The storage building, a schoolhouse relocated to the property sometime after 1981, and a modern sign do not contribute to the property's NRHP significance.

- PK03-039 is a two-story, rectangular-plan Queen Anne house with an asphalt cross-gabled roof constructed in 1905. This property is located south of US-81 in Shelby approximately 125 feet east of the N-69 intersection at 125 East Park Street, Shelby, Polk County, Nebraska. This property is eligible for listing on the NRHP under Criterion C for architectural significance at the local level. The house is the only resource that contributes to the NRHP significance of the property.
- BU00-227 is a farmstead consisting of a two-story farmhouse constructed in 1870 in the National Folk style, 13 associated barns and structures, and associated agricultural acreage. The property is located on B Road approximately 1 mile east of the N-92 east intersection at 3111 B Road, Rising City, Polk County, Nebraska. The property is eligible for listing on the NRHP under Criterion A for agricultural significance at the local level. The farmhouse, the 13 associated barns and structures, and the associated agricultural acreage contribute to the property's NRHP significance.

The Nebraska State Historic Preservation Office (SHPO) concurred with the NRHP eligibility recommendations, the level of effort, and the Project effects determination on May 22, 2024 (see Appendix G).

NDOT invited the local organizations, municipalities, and counties listed in Table 3-2 to participate in consultation under Section 106 on January 19, 2024. The City of Stromsburg responded on January 26, 2024, and expressed concerns regarding Buckley Park and Two Trails Park. NDOT responded to the City of Stromsburg on February 15, 2024, and indicated that the City's concerns would be forwarded to the Design Team. The City of Osceola responded on February 21, 2024, and noted the presence of the Osceola Cemetery and a History Nebraska Commemorative Marker located south of US-81 and the intersection of Ridge Street and Valley Street. The cemetery is located east of Valley Street and the marker is located west of Valley Street. NDOT responded to the City of Osceola on March 14, 2024, that NDOT would avoid both the Osceola Cemetery and the commemorative marker during construction. No responses were received from the remaining consulting parties. FHWA sent consultation packages summarizing the evaluation of the potential for cultural resources to these consulting parties (local organizations, municipalities, and counties) on May 13, 2024. The 30-day comment period expired without receiving responses from these consulting parties.

NDOT also invited the tribes listed in Table 3-2 to participate in consultation under Section 106 on January 19, 2024. The Pawnee Nation of Oklahoma responded on January 23, 2024, that the Project may adversely affect the cultural landscape of the Pawnee Nation and that the Tribe would like to be continually advised on the Project as more details emerge. The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, MT, requested on February 21, 2024, that tribes be funded to participate in any Class III survey work completed with the contractor. NDOT responded to the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, MT, on May 13, 2024 (see Appendix G). No responses were received from the remaining consulting parties. FHWA sent consultation packages summarizing the evaluation of the potential for cultural resources to these consulting parties on May 13, 2024. The Pawnee Nation of Oklahoma responded on June 13, 2024, and requested the site file and geographic information system (GIS) information for site 25PK10. NDOT provided the Pawnee Nation of Oklahoma with the requested information on June 13, 2024. The 30-day comment period expired without receiving responses from the remaining tribes.

On behalf of FHWA, NDOT sent consultation packages to the private property owners listed in Table 3-2 on May 13, 2024. NDOT spoke with Karla Ott regarding the consultation package on May 28, 2024, who stated that neither she nor her husband have any questions or concerns regarding the Project at this time. A Recordation of Telephone Conversation with Karla Ott is included in Appendix G.

The 30-day comment period expired without receiving responses from the remaining private property owners.

Table 3-2. Consulting Parties

	Consulting Parties
Local Organizations	York County Historical Society Polk County Historical Society Butler County Historical Society
Municipalities	Village of Benedict City of Stromsburg City of Osceola Village of Shelby
Counties	York County Polk County Butler County
Tribes	Arapaho Tribe of the Wind River Reservation, WY Cheyenne and Arapaho Tribes, OK Cheyenne River Sioux Tribe of the Cheyenne River Reservation, SD Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, MT Oglala Sioux Tribe Omaha Tribe of Nebraska Otoe-Missouria Tribe of Indians, OK Pawnee Nation of Oklahoma Rosebud Sioux Tribe of the Rosebud Indian Reservation, SD Three Affiliated Tribes of the Fort Berthold Reservation, ND Yankton Sioux Tribe of SD
Private Property Owners	Gerald and Maxine Hurlbut LeRoy and Karla Ott William Barnes Wallis and Luanne Kilgore

Supporting documentation associated with Project-specific consultation under Section 106 with SHPO and the parties identified in Table 3-2 can be found in Appendix G.

3.9.2 Impacts of the No Build Alternative

There would be no construction of the Project, or use of temporary detours, with the No Build Alternative. Effects on historic properties may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Effects on historic properties for those projects would be evaluated on a project-by-project basis.

3.9.3 Impacts of the Preferred Alternative

The Preferred Alternative would not affect PK03-039 or BU00-227. Design, materials, and workmanship are the key aspects of integrity that convey NRHP significance of the Queen Anne style house at 125 East Park Street in Shelby (PK03-039). For the farmstead at 3111 B Road, Rising City (BU00-227), the key aspects of integrity that convey NRHP significance are association, setting, and feeling. Based on the Preliminary Impact Area, neither of these properties would be affected by the Project as proposed. The limits of construction do not extend into the NRHP boundaries for either property, and no new property rights acquisition is anticipated from either property. There would be no direct effect on either property. Any visual, auditory, and vibratory effects on these historic properties related to construction activities would be temporary in nature and would not affect those characteristics that cause them to be good candidates for listing on the NRHP. The Queen Anne style house and the farmstead would be designated as Sensitive Areas to be avoided during construction of the Project.

The Preferred Alternative would not adversely affect YK00-266. Design, materials, and workmanship are the key aspects of integrity that convey the NRHP significance of this historic property. Construction activities proposed at or adjacent to this historic property include construction of two new highway lanes with paved shoulders, reconstruction of the intersection of US-81 and County Road 18, the closure of the existing US-81 driveway on the west side, and the acquisition of 0.72 acre of new ROW from the 4-acre YK00-266 property. In the areas of new ROW acquisition, several existing bushes and mature trees would be removed, and the existing “The Fillman Place” sign would be relocated. Gravel/rock surfacing would be placed along the driveway return off of County Road 18, which would become the main entrance to the property. Grading would take place along the western and northern edges of the historic property boundary. These activities would not directly affect those characteristics that make this property a good candidate for NRHP listing, which are architectural in nature. The key drivers of design, materials, and workmanship would not be affected. However, setting and feeling are still important aspects of integrity. To minimize effects of the Project on these two aspects of integrity, efforts were made to further refine the design. These efforts are discussed in Section 3.9.4.

3.9.4 Avoidance, Minimization, and Mitigation

NDOT worked to minimize the effects on YK00-266. In the initial design of the Project, construction activities at this historic property included the construction of a drainage ditch that would parallel new US-81 lanes and associated paved shoulders. This construction would place the proposed limits of construction within the NRHP boundary, approximately 105 feet west of the historic house, with the new ROW line located approximately 89 feet west of the historic house (see Appendix G).

To minimize the effects on the setting and feeling of the historic property, the proposed drainage ditch has been removed from the design. This would locate the proposed limits of construction approximately 145 feet west of the historic house and the new ROW line approximately 135 feet west of the house (see Appendix G). As currently proposed, the limits of construction are still within the NRHP boundaries, but are now farther away from the architecturally significant house, helping to maintain the aspects of setting and feeling. The effort to minimize effects is further illustrated in Appendix G, Figure 1, which depicts aspects of the initial roadway design alongside the current, revised roadway design.

During the design process, NDOT would verify that the proposed design is not modified in such a way that the affects to YK00-266 would be increased. (NDOT Design)

Sensitive Areas have been identified along this project. The first Sensitive Area includes the property located at 1719 Hwy 81, York (Station [STA] 231+50 to STA 235+25 Rt, mile marker [MM] 66.93 to MM 67.00). The second Sensitive Area includes the area between STA 271+73 to STA 274+80 Rt

(MM 67.72 to MM 67.76). The third Sensitive Area includes the property located at 125 E Park Street, Shelby (STA 1580+68 to STA 1581+78 Rt, MM 92.27 to MM 92.29). The fourth Sensitive Area includes the property located at 3111 B Road, Rising City (MM 108.95 to MM 109.22 along N-91). These Sensitive Area(s) shall be indicated on project plans. (Design)

Sensitive Areas have been identified along this project. The first Sensitive Area includes the area between STA 271+73 to STA 274+80 Rt (MM 67.72 to MM 67.76). The second Sensitive Area includes the property located at 125 E Park Street, Shelby (STA 1580+68 to STA 1581+78 Rt, MM 92.27 to MM 92.29). The third Sensitive Area includes the property located at 3111 B Road, Rising City (MM 108.95 to MM 109.22 along N-91). No grading or project activities, including but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, shall occur within the boundary of the Sensitive Area(s). (Contractor)

A Sensitive Area has been identified along this project. The Sensitive Area includes the property located at 1719 Hwy 81, York (STA 231+50 to STA 235+25 Rt, MM 66.93 to MM 67.00). Construction activities will be limited to the limits of the new Right of Way acquisition. No grading or project activities, including, but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, shall occur within the boundary of the Sensitive Area(s). (Contractor)

The existing "The Fillman Place" sign located at 1719 Hwy 81, York (STA 233+33 to STA 233+58 Rt, MM 66.97)will be relocated. During construction, the sign will be removed by the contractor prior to construction and safely stored in a secure location chosen by the property owner. The sign shall be clearly labeled "Do Not Dispose." NDOT Right of Way shall coordinate with the property owner during the ROW process to relocate the sign. (NDOT)

3.10 Visual

Visual resources are those physical features that make up the visible landscape, including land, water, vegetation, and human-made elements (FHWA 2015). Visual considerations are given for general resources (public) and specific sensitive resources (including some parks, landscapes, and historic properties).

3.10.1 Affected Environment

The viewshed of the Project Study Area consists of mostly rural cropland with some urban portions including the northern city limits of York, the city limits of Osceola, and the city limits of Shelby. As discussed in Section 3.2.1, the land use is predominantly rural and is planned to continue as such.

3.10.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. As a result, there would be no impact on the existing visual environment. Current land uses would remain the same, and the visual environment would remain the same. Impacts on the visual environment may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1 but those impacts would be evaluated on a project-by-project basis.

3.10.3 Impacts of the Preferred Alternative

The Preferred Alternative would involve construction of transportation infrastructure adjacent to the existing roadway with structures visually similar to the existing roadway and bridges. Construction of the Preferred Alternative would result in a roadway that would be visually similar to adjacent segments of four-lane expressway along US-81. There would be no beneficial or adverse permanent impact on the aesthetic value of the area.

There are unique viewsheds such as parks, trails, and historic properties within or immediately adjacent to the Project Study Area. Parks and trails are discussed in Section 3.8.1. These facilities are in predominantly urban built environments and would remain as such following construction. There would be no change to the parks and trails viewshed following construction.

One historic property, YK00-266, would be affected by the Preferred Alternative as discussed in Section 3.9.3. The property's viewshed would be affected by moving the US-81 roadway closer to the historic house and by the removal of the mature trees as well as removal of the west driveway. Following construction, the setting and feeling would remain rural, and the ability of this property to convey NRHP significance under Criterion C would remain unchanged.

Overall, the Preferred Alternative would have no beneficial or adverse permanent impacts on the aesthetic value of the area or the individual parks, trails, and historic sites within it.

Construction of the Preferred Alternative would result in temporary visual impacts such as visibility of construction equipment and supplies, and disturbance of vegetation exposing bare ground. The presence of construction equipment and disturbed ground would result in minor adverse visual effects. Impacts would cease when construction is complete. Disturbed areas would be revegetated by the Contractor following construction.

3.10.4 Avoidance, Minimization, and Mitigation

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

3.11 Section 4(f)

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

3.11.1 Affected Environment

Thirteen resources were evaluated as part of the Section 4(f) review. As discussed in Section 3.8.1. recreational resources eligible for Section 4(f) protection include Benedict Ball Field, Cross County Community Schools recreational resources, Buckley Park, Lucy Holm Campground, Two Parks Trail, City Square Park, Governor's Park Arboretum, Osceola City Park, Pocket Park, and Shelby Park. (see Figure 3-1). As discussed in Section 3.9.1, historic properties eligible for Section 4(f) protection include YK00-266 (a two-story brick house in the National Folk style), PK03-039 (a two-story, rectangular-plan Queen Anne house with an asphalt cross-gabled roof), and BU00-227 (a farmstead consisting of a two-story farmhouse constructed in the National Folk style, associated structures, and associated agricultural acreage) because they are eligible for listing on the NRHP.

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

3.11.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on Section 4(f) properties may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on Section 4(f) properties for those projects would be evaluated on a project-by-project basis.

3.11.3 Impacts of the Preferred Alternative

As discussed in Sections 3.8 and 3.9, the Preferred Alternative would impact Buckley Park, Two Parks Trail, and YK00-266.

As discussed in Section 3.8.3, temporary easements may be acquired from Buckley Park on the east side along US-81 for construction of the roadway and reconstruction of the existing driveways. As design advances, the temporary impacts would be minimized to the extent practicable. Any impacted areas would be returned to existing or better condition following construction. Access to the park from one of the two entrances, Buckley Parkway/Exchange Street on the south and Park Road on the north, would be maintained during construction. A Section 4(f) Exception for Temporary Occupancy is anticipated. Concurrence from the official with jurisdiction would be obtained after receiving public input during the public comment period for the Draft EA.

To avoid permanent impacts on Buckley Park, the roadway widening would be placed on the east side of the roadway, resulting in a full realignment of Two Parks Trail from Buckley Park to the NCRC rail line east of the widened roadway. There is an existing sidewalk adjacent to US-81 on the west side. Pedestrian access between Buckley Park and City Square Park would be maintained throughout construction via this sidewalk. Improvements would be made to the sidewalk as needed prior to using it as a detour route. The detour route would be in place for approximately 6 to 12 months for grading, trail reconstruction, and work on the Prairie Creek bridge. Following construction, Two Parks Trail would be reconstructed in as good as, if not better than, pre-construction condition east of its current location. A Section 4(f) *de minimis* is anticipated. Concurrence from the official with jurisdiction would be obtained after receiving public input during the public comment period for the Draft EA.

As discussed in Section 3.9.3, construction activities proposed at or adjacent to YK00-266 include construction of two new highway lanes with paved shoulders, reconstruction of the intersection of US-81 and County Road 18, the closure of the existing US-81 driveway on the west side, and the acquisition of 0.72 acre of new ROW from the 4-acre YK00-266 property. In the areas of new ROW acquisition, several existing bushes and mature trees would be removed, and the existing "The Fillman Place" sign would be relocated. Access to the property would be maintained via the secondary driveway from County Road 18, which would be resurfaced with rock and gravel. SHPO concurred with the *no adverse effect* finding on May 22, 2024. A Section 4(f) *de minimis* is anticipated.

3.11.4 Avoidance, Minimization, and Mitigation

Following the public comment period for the Draft EA, NDOT would confirm the Section 4(f) uses of Buckley Park, Two Parks Trail, and YK00-266, and would complete the appropriate documentation of impacts. (NDOT Environmental)

Following the public comment period for the Draft EA, NDOT would request concurrence from the City of Stromsburg on the temporary occupancy of Buckley Park and the anticipated *de minimis* use of Two Parks Trail. (NDOT Environmental).

Avoidance, minimization, and mitigation for impacts on Buckley Park and Two Parks Trail is discussed in Section 3.8.4.

Avoidance, minimization, and mitigation for impacts on YK00-266 is discussed in Section 3.9.4.

3.12 Section 6(f)

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act of 1965 (54 USC 200301–2000310) restricts the conversion of recreational land to non-recreational land if the land was acquired with money from the LWCF.

3.12.1 Affected Environment

The Nebraska Game and Parks Commission (NGPC) reviewed the Project for LWCF Act encumbered lands on March 4, 2024. The review found that there are three properties that are eligible for protection under Section 6(f) within the Project Study Area: Buckley Park in Stromsburg (LWCF #31-00529), Osceola City Park in Osceola (LWCF #31-01055), and Shelby Park in Shelby (LWCF #31-00292). Coordination with NGPC can be found in Appendix I. Additional descriptions of these properties can be found in Section 3.8.1.

3.12.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on Section 6(f) properties may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on Section 6(f) properties for those projects would be evaluated on a project-by-project basis.

3.12.3 Impacts of the Preferred Alternative

Osceola City Park and Shelby Park would be avoided with the Preferred Alternative. To avoid permanent impacts on Buckley Park, the Preferred Alternative would widen US-81 on the east side of the existing lanes. Temporary easements may still be acquired from Buckley Park for construction of the roadway and reconstruction of the existing driveways. The amount of temporary impact would be determined during later phases of design, and continued coordination with NGPC would occur at that time. Any impacted areas would be returned to existing or better condition following construction. Access to the park from one of the two entrances would be maintained during construction.

3.12.4 Avoidance, Minimization, and Mitigation

Additional commitments regarding Buckley Park can be found in Section 3.8.4.

Coordination with NGPC regarding impacts on Buckley Park would continue throughout Project development as impacts are refined. (NDOT Environmental)

3.13 Utilities

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

3.13.1 Affected Environment

The utilities listed in Table 3-3 are located within the Project Study Area.

There are five major utility facilities in the Project Study Area. There is one Nebraska Public Power District substation and associated transmission lines located approximately 0.50 mile south of County Road 16 in York County. A second Nebraska Public Power District substation and associated transmission line is located in the northwest quadrant of the intersection of US-81 and County Road 17 in York County. The NuStar Osceola Terminal gas facility and associated gas line is located

southeast of the intersection of US-81 and County Road P in Polk County. A substation owned by Polk County Rural Public Power District is located 0.10 mile north of the intersection of US-81 and County Road T in Polk County. A Cogent Communications cellular tower is located approximately 0.50 mile northeast of the east intersection of N-92 and US-81 in Butler County.

Table 3-3. Utilities in the Project Study Area

Utility Type	Utility Companies/Providers
Gas	Tallgrass Energy Black Hills Energy NuStar Pipeline Northern Natural Gas
Power	Nebraska Public Power District Perennial Public Power District Polk County Rural Public Power Butler Public Power District
Telecommunication	Hamilton Telecommunications Charter (Spectrum) Windstream AT&T Clarks Telephone Company Eagle Communications Cogent Communications Frontier Communications Unite Private Networks
Municipal	City of York City of Stromsburg City of Osceola Village of Shelby SID 1 Butler County

3.13.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on utilities may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on utilities for those projects would be evaluated on a project-by-project basis.

3.13.3 Impacts of the Preferred Alternative

Utilities would need to be relocated for the Preferred Alternative. Most utilities in the Project Study Area are minor service lines, several of which would require relocation. Additionally, the gas line and transmission lines from the gas facility and substations may require relocation. Substations and the NuStar Osceola Terminal gas facility would remain in place. At this time, impacts on utilities are

anticipated to be minor to moderate. Coordination with affected utilities would occur throughout Project development to determine the extent and location of impacted utilities.

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

3.13.4 Avoidance, Minimization, and Mitigation

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

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

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

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

3.14 Air Quality

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

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

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

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

determinations, future highway projects, potential environmental issues, and other issues of common interest.

3.14.1 Affected Environment

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

3.14.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. The amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same. Therefore, there would be no impacts on air quality. Impacts on air quality may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on air quality for those projects would be evaluated on a project-by-project basis.

3.14.3 Impacts of the Preferred Alternative

In consideration of the scope of the Preferred Alternative, an MSAT II Qualitative Memo was developed and is located in Appendix J. For the Preferred Alternative, the amount of MSAT emitted was assessed in relation to VMT. The VMT estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative because the additional capacity would increase the efficiency of the roadway and would attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds. According to EPA's MOVES2014 model, emissions of all priority MSATs decrease as speed increases. Because the estimated cumulative VMT is nearly the same, it is expected that there would be no appreciable difference in overall MSAT emissions. The annual average daily traffic for this Project through 2055 is forecast to be no more than 7,360 in any given year; this is well below the threshold of 140,000 to 150,000 annual average daily traffic that would require MSAT III analysis.

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

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

3.14.4 Avoidance, Minimization, and Mitigation

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

3.15 Noise

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

FHWA's *Procedures for Abatement of Highway Traffic Noise* (23 CFR 772) state that a noise impact occurs when the predicted traffic noise levels for a project approach[1] or exceed noise abatement criteria for the land use activity categories shown in Table 3-4.

Table 3-4. Noise Abatement Criteria per Land Use Activity Category

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

Leq(h) = 1-hour equivalent sound level
1 The Leq(h) Activity Criteria values are for impact determination only and are not design standards for noise abatement.
2 Includes undeveloped lands permitted for this activity category.

3.15.1 Affected Environment

Noise levels were measured at four locations in the Project Study Area and used to develop and verify computer models. Computer modeling was performed to calculate traffic noise levels at 251 Category B receptors and 24 Category C receptors. No Category A, D, or E receptors were identified in the Project Study Area. Modeling identified 21 Category B receptors with existing (2022) noise levels that exceed the noise abatement criteria as shown in Table 3-5. None of the Category C receptors had noise levels exceeding the noise abatement criteria.

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

Table 3-5. Summary of Existing (2022) Noise Modeling Results

Receptor	Location Description	Category B/C NAC Approach Level (dBA)	Existing Leq(h) (dBA)	Impact	Approx. Distance to Existing Paving (ft)	Category
6B	1610 Hwy 81, York, NE 68467	66	69	Yes	27	B
8B	1613 Hwy 81, York, NE 68467	66	70	Yes	100	B
10B	1710 Hwy 81, York, NE 68467	66	68	Yes	26	B
13B	1804 Hwy 81, York, NE 68467	66	67	Yes	35	B
15B	2118 Hwy 81, York, NE 68316	66	68	Yes	120	B
16B	2209 Hwy 81, York, NE 68316	66	68	Yes	52	B
22B	12368 Center Rd, Stromsburg, NE 68666	66	66	Yes	100	B
25B	12456 Center Rd, Stromsburg, NE 68666	66	67	Yes	100	B
28B	12491 Center Rd, Stromsburg, NE 68666	66	68	Yes	65	B
29B	12498 Center Rd, Stromsburg, NE 68666	66	69	Yes	82	B
138B	12615 Center Rd, Stromsburg, NE 68666	66	68	Yes	55	B
198B	13077 O St, Osceola, NE 68651	66	67	Yes	92	B
236B	1807 131st Rd, Shelby, NE 68662	66	66	Yes	86	B
241B	121 31 Rd, Rising City, NE 68658	66	66	Yes	75	B
255B	1876 131st Rd, Osceola, NE 68651	66	66	Yes	119	B
333B	3540 A Rd, Shelby, NE 68662	66	71	Yes	42	B
334B	3550 A Rd, Shelby, NE 68662	66	70	Yes	52	B
352B	4030 A Rd, Columbus, NE 68601	66	68	Yes	70	B
365B	34 Bay Meadows, Columbus, NE 68601	66	73	Yes	37	B
366B	34 Bay Meadows, Columbus, NE 68601	66	68	Yes	97	B
371B	34 Bay Meadows, Columbus, NE 68601	66	66	Yes	118	B

dBA = A-weighted decibel; Leq(h) = 1-hour equivalent sound level; NAC = noise abatement criteria

3.15.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. For the No Build Alternative, traffic would cause an increase in noise levels that approach or exceed the noise abatement criteria in more locations than the current conditions. Impacts on noise may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on noise for those projects would be evaluated on a project-by-project basis.

3.15.3 Impacts of the Preferred Alternative

Modeled noise levels of receptors impacted by the Preferred Alternative are presented in Table 3-6. Additional information on noise levels, including non-impacted receptors within the Project Study Area, is presented in Appendix K. The noise analysis completed for the Preferred Alternative determined that 42 receptors would have noise impacts in 2050 due to the Preferred Alternative, primarily single-family residences (Category B). Recreational areas, Section 4(f) sites, schools, cemeteries, public facilities, and other Category C facilities would not have noise impacts that exceed the noise abatement criteria. Noise abatement was analyzed for 29 locations at 28 properties (see Appendix K). Forty of the 42 receptors were determined to not meet the reasonableness test because the cost per benefited receptor would be greater than NDOT's allowable cost. See Appendix K for the locations of the two locations that did meet the requirements for feasibility and reasonableness. Impacts are based on conceptual design. During the design process, NDOT would coordinate with the property owners, conduct additional analysis, and determine if noise abatement measures would be implemented.

Table 3-6. Receptors Impacted by the Preferred Alternative

Receptor Number and Category[1]	Activity Category	NAC[2] (dBA)	Predicted Noise Levels (dBA)			Difference Existing vs. Build (dBA)
			Existing (2023)	No Build (2050)	Build (2050)	
4B	B	66	64.9	66.3	66.8	1.9
6B	B	66	69.2	70.6	69.9	0.7
8B	B	66	70.2	71.6	74.9	4.7
9B	B	66	63.8	65.3	69.8	6.0
10B	B	66	68.2	69.6	68.6	0.4
12B	B	66	63.5	64.9	70.4	6.9
13B	B	66	67.2	68.7	68.4	1.2
15B	B	66	67.6	69.2	67.0	-0.6
16B	B	66	67.9	69.9	--[3]	--[3]
18B	B	66	62.1	64.1	68.1	6.0
22B	B	66	65.8	68.9	66.7	0.9
23B	B	66	65.0	68.1	73.8	8.8
24B	B	66	64.5	67.7	66.0	1.5
25B	B	66	66.7	69.8	67.1	0.4

Receptor Number and Category[1]	Activity Category	NAC[2] (dBA)	Predicted Noise Levels (dBA)			Difference Existing vs. Build (dBA)
			Existing (2023)	No Build (2050)	Build (2050)	
26B	B	66	65.0	68.1	66.3	1.3
28B	B	66	68.2	71.4	--[3]	--[3]
29B	B	66	68.5	71.7	69.1	0.6
135B	B	66	65.3	68.5	68.6	3.3
136B	B	66	64.8	68.0	67.9	3.1
137B	B	66	63.2	66.3	65.7	2.5
138B	B	66	67.6	70.7	69.9	2.3
152B	B	66	63.8	65.3	69.3	5.5
193B	B	66	63.6	65.1	66.4	2.8
195B	B	66	64.2	65.7	66.5	2.3
197B	B	66	64.0	65.5	66.1	2.1
198B	B	66	66.7	68.2	68.5	1.8
235B	B	66	64.8	66.1	65.5	0.7
236B	B	66	65.8	67.1	66.4	0.6
241B	B	66	66.3	67.5	67.5	1.2
247B	B	66	64.0	65.2	66.1	2.1
248B	B	66	64.1	65.5	67.2	3.1
249B	B	66	64.7	65.9	67.0	2.3
250B	B	66	65.1	66.3	67.2	2.1
252B	B	66	64.7	65.9	66.3	1.6
255B	B	66	65.7	67.0	--[3]	--[3]
330B	B	66	63.3	63.6	65.5	2.2
333B	B	66	70.8	71.0	70.7	-0.1
334B	B	66	69.9	70.2	70.1	0.2
352B	B	66	68.4	68.6	68.5	0.1
365B	B	66	73.0	73.2	72.9	-0.1
366B	B	66	67.5	67.7	68.2	0.7
371B	B	66	66.2	66.4	66.7	0.5

dBA = A-weighted decibel; NAC = noise abatement criteria

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

2 Category B NAC is 66 dBA.

3 Receptor location overlaps with build condition. At this conceptual level of design, it is unknown if property will be acquired.

3.15.4 Avoidance, Minimization, and Mitigation

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

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

Noise impacts are based on conceptual design. Additional design refinement and coordination with affected property owners regarding noise abatement would occur during the design process per NDOT's Noise Analysis and Abatement Policy. (NDOT Environmental)

3.16 Hazardous Materials

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

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

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

3.16.1 Affected Environment

A Hazardous Materials Review was conducted to investigate regulated materials within the Hazardous Materials Study Area and can be found in Appendix L. After the completion of the Hazardous Materials Review, the urban portion of Stromsburg was removed from the Project because improvements are currently under construction as part of the In Stromsburg project. As a result, the Hazardous Materials Review identifies resources within Stromsburg that are not within the Hazardous Materials Study Area for this EA. The Hazardous Materials Study Area encompasses a 0.1-mile radius surrounding the construction centerline. However, sites outside the Hazardous Materials Study Area were evaluated to determine if a release could affect the Project due to groundwater migration or other criteria.

The Hazardous Materials Review included the following:

- Obtaining an Environmental Data Resources (EDR) report
- Conducting a study of federal, state, and local environmental database records
- Reviewing aerial photographs and US Geological Survey (USGS) topographic maps
- Reviewing Nebraska Department of Natural Resources (NeDNR) records for well completion and static water level information

- Conducting a windshield reconnaissance survey

Table 3-7 lists the regulated sites identified during the records review and/or the windshield reconnaissance survey. The regulated sites were assessed for their potential impact on the Project. Figure 3-1 shows the locations of the identified sites in relation to the Project Study Area.

Table 3-7. Hazardous Materials Sites

Facility	Site Address	Regulatory Database[1] and Facility Status[2]	Distance Relative to Project	Risk
7-Inn/Regs 7-Mile Steakhouse	105B 41st Street, Columbus, NE	UST(A), HIST UST(I)	100 feet east	Low
Highway 91 & 81 Intersection Spill	Highway 92 & 81 Intersection, Rising City, NE	SPILLS(I)	Project Corridor	Low
Lohr Petroleum/Schmidt Properties Office Building	Elm & 92 Shelby Lumber, Shelby, NE	LST(I)	20 feet north	Low
Shelby Co-op (NDEE ID – 65846)	Co-op Hwy 92 & Walnut Street, Shelby, NE	LST(I), RGA LST(I)	40 feet north	Low
Ellsworth Service/Bill's Derby (Former) (NDEE ID – 83628)	Highway 92 W, Shelby, NE	LST(I)	45 feet north	Low
Cubby's Shelby	600 E Park,/650 W Park, Shelby, NE	UST(A), EDR Hist Auto(I)	50 feet north	Low
Montes Service	650 W Park, Shelby, NE	EDR Hist Auto(I)	50 feet north	Low
Shelby Public Schools	650 N Walnut, Shelby, NE	LST(I), UST(I), HIST UST(I)	2,200 feet north	Low
NuStar Osceola Terminal	1705 131st Road, Osceola, NE	LST(I), SPILLS(I), AST(A), TIER 2(A), RCRA-CESQG(A)	250 feet south	Low
Nebraska Department of Transportation (NDOT)	521 North Kimmel Road, Osceola, NE	LST(I), UST(A), AST(A), HIST UST(I), FINDS(A), TIER 2(A)	200 feet east	Low
Anderson SVC	451 Hwy 81 & 92, Osceola, NE	UST(A), EDR Hist Auto(I)	45 feet south	Low
Lewis Service	541 Hwy 92, Osceola, NE	EDR Hist Auto(I), LST(I)	45 feet south	Low
United Co-Op Inc	450 Polk Avenue, Polk, NE	FTTS (I), Hist FTTS(I)	75 feet south	Low
Tonniges Chevrolet	414 Nebraska Street, Osceola, NE	UST(A)	250 feet southeast	Low
Osceola Cleaners	320 North State Street, Osceola, NE	EDR Hist Cleaners(I)	385 feet east	Low

Facility	Site Address	Regulatory Database[1] and Facility Status[2]	Distance Relative to Project	Risk
Osceola Good Samaritan Center	600 Center Drive, Osceola, NE	AST(A)	408 feet north	Low
Central Valley Ag Co-Op / Burg Auto Repair Inc / Farmers Co-Op	201 Main Street, Stromsburg, NE	LST(I), UST(I), HIST UST(I), EDR Hist Auto(I)	30 feet east	Low
Former Beebe Seed & Fertilizer Sales / Thompson & Service	220 Main Street, Stromsburg, NE	LST(A), UST(I), RGA LST(I), UIC(A)	40 feet west	Medium
Valero Energy Corporation	2nd & Main Street, Stromsburg, NE	EDR Hist Auto(I)	40 feet east	Low
Casey's General Store #2733/Gas N Shop #58 (NDEE ID – 39834)	117 Main Street, Stromsburg, NE	UST(A), LST(I), RGA LST(I), HIST LST(I)	40 feet east	Low
Baker Oil Co.	15 Main Street, Stromsburg, NE	EDR Hist Auto(I)	100 feet east	Low
Cuddys Quick Shop	120 East 2nd Street, Stromsburg, NE	EDR Hist Auto(I)	60 feet east	Low
Overland Ready Mix	22 Main Street, Stromsburg, NE	UST(I)	220 feet west	Low

[1] AST = Aboveground Storage Tank; EDR Hist Auto = EDR Exclusive Historical Auto Stations; EDR Hist Cleaners = EDR Exclusive Historical Cleaners; FINDS = Facility Index System; FTTS = Federal Insecticide, Fungicide, and Rodenticide (FIFRA) / Toxic Substance Control Act (TSCA) Tracking System; HIST = Historical; LST = Leaking Storage Tanks; RCRA-CESQG = Resource Conservation and Recovery Act-Conditionally Exempt Small Quantity Generator; RGA LST = Recovered Government Archive Leaking Underground Storage Tank; SPILLS = Surface Spill List; TIER 2 = Tier 2 Facility Listing; UIC = Underground Injection Control; UST = Underground Storage Tank.

[2] (A) = Active; (I) = Inactive.

Former Beebe Seed & Fertilizer Sales / Thompson & Service was identified as having a medium potential to affect construction of the Project or to cause a materials management or worker health and safety concern, or both, related to construction of the Project.

Former Beebe Seed & Fertilizer Sales / Thompson & Service, currently operating as Unlimited Welding, is located 40 feet west of the Project at 220 Main Street in Stromsburg. The facility is listed in the Leaking Storage Tanks, Underground Storage Tank, Recovered Government Archive Leaking Underground Storage Tank, and Underground Injection Control databases. The site had four tanks removed, and no tanks are currently in place. No other information is listed for the underground storage tank. The facility had a leaking storage tank incident in July 1994 with gasoline released on site. The facility status is currently listed as "No Further Action (Incident Closed)." The Recovered Government Archive Leaking Underground Storage Tank listing indicates the facility was operating as Thompson Sales & Service from 1999 to 2005 and Johnson Chrysler from 2010 to 2012. The facility is also in the Underground Injection Control database for the remediation and air sparge system that was installed in 2021 to remediate soil and groundwater contamination from the leaking storage tank.

3.16.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Therefore, there would be no impacts on hazardous materials sites. Hazardous material impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on hazardous materials for those projects would be evaluated on a project-by-project basis.

3.16.3 Impacts of the Preferred Alternative

Former Beebe Seed & Fertilizer / Thompson & Service has a medium potential to affect construction of the Preferred Alternative or to cause a materials management or worker health and safety concern, or both, related to construction of the Preferred Alternative. The remaining 22 facilities identified in Table 3-7 have a low potential to cause a contamination encounter during construction.

An asbestos summary was completed for the bridge structures. The survey failed to detect any asbestos. Therefore, no asbestos mitigation is required. S081 06464 over Lincoln Creek, S081 06780 over Coon Branch, S081 07797 over the Big Blue River, S081 07815 over Prairie Creek, S081 08543 over Davis Creek, and S081 08578 over Davis Creek would be replaced or reconstructed, and all six structures are suspected of lead-based paint. Requirements for lead-based paint are provided in Section 3.16.4.

3.16.4 Avoidance, Minimization, and Mitigation

There is a medium potential for contamination to be present in the soils in the Project Study Area. The following location will have a medium potential for contamination to impact the Project:

- Former Beebe Seed & Fertilizer Sales / Thompson & Service: Between 2nd and 3rd Streets along US-81 in Stromsburg

The Contractor shall be aware of the possibility of encountering contamination in this area during construction activities and look for signs such as odor and/or discolored soil. The NDOT Highway Project Manager (HPM) shall be notified 7 days prior to when construction is expected to begin in the suspect area. If contamination is discovered, all work in the immediate area shall be stopped until NDEE and NDOT are notified and a materials management plan has been developed and approved. The Contractor shall manage the waste in accordance with Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations, and/or Title 132, Integrated Solid Waste Management Regulations. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Section 107 (Legal Relations and Responsibilities to the Public) to handle and dispose of contaminated material in accordance with applicable laws. (Contractor)

If contaminated soils/water or unexpected wastes are discovered, the Contractor shall stop all work within the immediate area. The Contractor shall secure the area of the discovery and notify the NDOT HPM. The Contractor shall not re-enter the discovery area until allowed to do so by the HPM. At the time of discovery, the HPM and Contractor shall use the NDOT Unexpected Waste Action Plan to coordinate appropriate actions. The actions to be carried out by the NDOT HPM include, but are not limited to, verifying that the Contractor has suspended construction activities in the area of the discovery, contacting the Environmental Section Manager, and making an entry into Site Manager that an unexpected waste discovery was made. The HPM shall then use the Unexpected Waste Action Plan Notification Form (NDOT Form 691) to properly document the extent and type of waste. The HPM shall ensure that proper disposal of the waste and any required health and safety mitigation is implemented by the Contractor. The Contractor is required by NDOT's Standard Specifications for Highway Construction, Section 107 (Legal Relations and Responsibilities to the Public) to handle and dispose of regulated material in accordance with applicable laws. (NDOT District, Contractor)

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

There is potential for lead-based paint to be found on the bridges' painted components. If the method of removal of the components generates paint debris, the waste shall be handled in accordance with NDOT's Standard Specifications for Highway Construction, Section 732 (Lead-based Paint Removal) and Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead-based painted material or debris from causing or threatening to cause pollution of the air, land, and waters of the State. The Contractor's implementation plan efforts shall be documented in ECO-Database Environment Commitment Tracking System. (Contractor)

Bridge structures S081 06464, S081 06780, S081 07797, S081 07815, S081 08543 and S081 08578 will be replaced/reconstructed. The Contractor shall recycle any lead bearing plates and/or lead shims at a legitimate recycling facility as found in NDOT's Standard Specifications for Highway Construction, Subsection 203.01, paragraph 3 (Environmental Requirements) and in accordance with Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations. The Contractor's implementation plan efforts shall be documented in a Stormwater Pollution Prevention Plan (SWPPP). (NDOT District, Contractor)

3.17 Paleontology

Paleontological resources are discussed in Section 3.1.2.

3.18 Wild and Scenic Rivers

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

3.19 Floodplains

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

Local jurisdictions (counties and cities) enforce the federal requirements to maintain participation in the FEMA National Flood Insurance Program.

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

3.19.1 Affected Environment

York, Polk, and Butler Counties, the City of York, the City of Stromsburg, the City of Osceola, and the Village of Shelby participate in the FEMA National Flood Insurance Program. Floodplains in the Project Study Area associated with Lincoln Creek, an unnamed tributary to Lincoln Creek, Coon Branch, an unnamed tributary to Coon Branch, the Big Blue River, Prairie Creek, Davis Creek, an unnamed tributary to David Creek, the North Branch Big Blue River, an unnamed tributary to the North Branch Big Blue River, and an unnamed tributary to Clear Creek are designated as Zone A (see Figure 3-1). Zone A is an area inundated by the base (100-year) flood with no base flood elevations determined. The Big Blue River, located south of Stromsburg, is designated as Zone AE, meaning areas inundated by the base (100-year) flood with base flood elevations determined. The Big Blue River is this area also includes a regulatory floodway.

3.19.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Floodplain and floodway impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on floodplains and floodways for those projects would be evaluated on a project-by-project basis.

3.19.3 Impacts of the Preferred Alternative

Based on FEMA Flood Insurance Rate Maps, the Preferred Alternative would encroach on approximately 81 acres of 100-year floodplain, of which approximately 28 acres are in York County, 48 acres are in Polk County, and 5 acres are in Butler County. Floodplains intersected by the Preferred Alternative are associated with Lincoln Creek, an unnamed tributary to Lincoln Creek, Coon Branch, an unnamed tributary to Coon Branch, the Big Blue River, Prairie Creek, Davis Creek, the North Branch Big Blue River, an unnamed tributary to the North Branch Big Blue River, and an unnamed tributary to Clear Creek (see Figure 3-1). The Preferred Alternative is not anticipated to cause greater than 1 foot of rise in the base flood elevation of any of the floodplains it crosses, nor increase the potential for property loss and hazard to life. The Preferred Alternative would impact approximately 0.49 acre of the Big Blue River floodway located south of Stromsburg. Impacts are based on conceptual design, and any design would be such that there would be no rise in the floodway.

Per 23 CFR 650.111, the Preferred Alternative would result in a non-functionally dependent floodplain use at Davis Creek where it parallels the Preferred Alternative from approximately MM 83.85 to MM 85.93. A functionally dependent use is one that involves water conveyance structures such as bridges and culverts. There would be limited impacts on the natural and beneficial floodplain values of the floodplains along this Project. Because there would be temporary soil disturbance during construction activities, sediment and erosion control best management practices (BMP) would be used during construction, and disturbed areas would be seeded following construction.

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

incompatible floodplain development. Therefore, an alternatives analysis related to incompatible floodplain development is not warranted. Temporary impacts on floodplains during construction may occur in the form of construction access and temporary structures. Floodplain development permits would be obtained prior to construction, and the Preferred Alternative would comply with local floodplain regulations.

3.19.4 Avoidance, Minimization, and Mitigation

The US-81 roadway and bridges would be designed to adequately convey flood flows along existing drainage patterns. Construction of the Project would have floodplain encroachment, but Project impacts would be certified that federal, state, and local floodplain regulations are met, and a Floodplain Development Permit would be obtained from the appropriate jurisdictions prior to construction. All conditions of the permit would be adhered to during construction. (NDOT Environmental, Contractor)

3.20 Water Quality

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

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

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

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

3.20.1 Affected Environment

The 303(d) List of Waters, included in the *2022 Water Quality Integrated Report* generated by NDEE and approved by EPA (NDEE 2023), was reviewed for the Project. As discussed in the report, waters are classified based on the following five categories:

- "Category 1 – Waterbodies where all designated uses are met.
- Category 2 – Waterbodies where some of the designated uses are met but there is insufficient information to determine if all uses are being met.

- Category 3 – Waterbody where there is insufficient data to determine if any beneficial uses are being met.
- Category 4 – Waterbody is impaired, but a TMDL is not needed.
- Category 5 – Waterbody where one or more beneficial uses are determined to be impaired by one or more pollutants and all of the TMDLs have not been developed."

Based on NDEE's *2022 Water Quality Integrated Report*, there are two impaired streams within the Project Study Area (NDEE 2023). Lincoln Creek (BB4-20900) is a perennial waterway that intersects the Project approximately 0.37 mile south of County Road 16 in York County. The Big Blue River (BB4-40000) is a perennial waterway that intersects the Project at MM 77.95 on US-81, south of Stromsburg. Both Lincoln Creek (BB4-20900) and the Big Blue River (BB4-40000) are classified as Category 5 waterbodies, meaning one or more beneficial uses are determined to be impaired by one or more pollutants and all the TMDLs have not been developed (NDEE 2023). Lincoln Creek (BB4-20900) is listed in Category 5 due to an impairment to the aquatic life (impaired aquatic community) use. The Big Blue River (BB4-40000) is listed in Category 5 due to an impairment to aquatic life (dissolved oxygen) (NDEE 2023). There are no other impaired streams or waterbodies in the Project Study Area.

The Project is in the Big Blue River drainage basin from the beginning of the Project to MM 100.27, with the Big Blue River and its tributaries in the Project Study Area generally flowing to the east and south. The remainder of the Project runs along the eastern edge of the Central Platte drainage basin, with the Platte River and its tributaries generally flowing to the north and east.

Regional geology is Carlile Shale intermixed with the Niobrara Formation. These geologic resources consist of shale and limestone with a maximum thickness between 300 to 570 feet (USGS 1986). The High Plains Aquifer extends across much of Nebraska. The aquifer system consists of unconsolidated to consolidated sand and gravel that were deposited by a broad network of branching streams millions of years ago (USGS 1997). The Project Study Area is within a secondary aquifer system of the larger High Plains Aquifer, known as the Maha Aquifer. The Maha Aquifer is characterized as a sandstone aquifer separated and confined by shale (USGS 1997). The Maha Aquifer is the largest and most used secondary aquifer within the High Plains system, supplying water to more than 3,400 wells in eastern Nebraska (UNL 2017). In York, Polk, and Butler Counties, the aquifer is approximately 400 to 600 feet thick and is buried to depths of 1,000 feet or less below the land surface (USGS 1997). Groundwater in the Project Study Area generally moves west to east. Groundwater flow direction may be affected by changes in water table elevations, which may or may not be consistent with surface water flow.

A records review was conducted of the NeDNR Registered Groundwater Wells Database, a list of domestic water supply, irrigation, and monitoring wells. There are 48 registered wells in the Project Study Area, as shown in Table 3-8.

The Project Study Area crosses through five Wellhead Protection Areas: (1) a 0.75-mile-long roadway section of the Project would be located within the Benedict Wellhead Protection Area; (2) a 0.4-mile-long section is within the Stromsburg Wellhead Protection Area; (3) a 1.85-mile-long section is within the Osceola Wellhead Protection Area; (4) a 1.28-mile-long section is located within the Shelby Wellhead Protection Area; and (5) a 1.32-mile-long section is within the Bay Meadows Trailer Court Wellhead Protection Area (NDEE 2020). Figure 3-1 shows the location of the Wellhead Protection Areas in relation to the Project Study Area.

Table 3-8. Registered Groundwater Wells in the Project Study Area

Well Type	Active	Inactive/Decommissioned
Domestic	5	2
Ground heat exchange	1	0
Injection	1	0
Irrigation	11	6
Livestock	1	3
Monitoring	4	13
Other	0	1
Total	23	25

Source: NeDNR 2020.

3.20.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on water quality may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on water quality for those projects would be evaluated on a project-by-project basis.

3.20.3 Impacts of the Preferred Alternative

The Preferred Alternative would intersect Lincoln Creek, an unnamed ephemeral tributary to Lincoln Creek, Coon Branch, the Big Blue River, Prairie Creek, Davis Creek, and one intermittent and one ephemeral unnamed tributary to Davis Creek. Project construction activities adjacent to Lincoln Creek, Coon Branch, the Big Blue River, Prairie Creek, Davis Creek, and the North Branch Big Blue River include roadway construction and structure repair or replacement. These construction activities would not contribute to or exacerbate the impairment to the aquatic life because BMPs would be implemented during construction of the Preferred Alternative to prevent water quality degradation. Therefore, the Preferred Alternative would result in no additional impairment to the aforementioned waterways.

Due to the inconsistent precision of the well locations in the NeDNR groundwater wells dataset, wells were buffered 100 feet when calculating impacts to account for potential error in well location. The Preferred Alternative would affect 35 wells, as shown in Table 3-9. Impacts on active listed wells would be determined during the design process. 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.

The Preferred Alternative would cross the five identified Wellhead Protection Areas. Because no public drinking water sources or wells occur within the Preliminary Impact Area, no impacts are anticipated.

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

Table 3-9. Registered Groundwater Wells Impacted by the Preferred Alternative

Well Type	Active	Inactive/Decommissioned
Domestic	1	0
Ground heat exchange	0	0
Injection	0	0
Irrigation	10	6
Livestock	1	1
Monitoring	4	11
Other	0	1
Total	16	19

3.20.4 Avoidance, Minimization, and Mitigation

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

The Project traverses five Wellhead Protection Areas including the Benedict, Stromsburg, Osceola, Shelby, and Bay Meadows Trailer Court Wellhead Protection Areas. NDOT's Standard Specifications for Highway Construction, Subsections 107.01, 107.09, and 107.16, address the Contractor's responsibility to keep fully informed of, observe, and comply with all federal, state, and local laws and ordinances that affect the conduct of the work. (Contractor)

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

There are Category 5 impaired waters in the Project Study Area; BMPs shall be reviewed and developed as necessary during the erosion control review process. If mitigation is required for impaired waters, it shall be captured in the Project's erosion control plan sheets and special provisions. (NDOT Roadside Development and Compliance Unit)

3.21 Wetlands and Water Resources

Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328). A water resource can include waterways (rivers, streams, and intermittent and ephemeral drainageways) or open water areas and are defined as waters of the US or waters of the State. A water of the US is defined as "the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide; tributaries, lakes and ponds, and impoundments of jurisdictional waters; and adjacent wetlands" (33 CFR 328.3(a)). Waters of the State are defined as "all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, wetlands, watercourses,

waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state" (Nebraska Administrative Code Title 126, Chapter 1).

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

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

3.21.1 Affected Environment

Wetlands and other waters of the US were identified within the Project Study Area during wetland and water resource delineations on the following dates in 2022: June 13-17, 22, and 26; September 9; and October 13 and 24. Additional site visits were completed in 2023 on July 20, August 29-30, and September 15, and on April 9, 2024. The findings of the delineations are summarized below. The full report can be found in Appendix M.

Wetlands

Three hundred and ninety-four (394) wetlands and 34 open water features were identified within the Project Study Area. All delineated wetlands and ponds were classified as either palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), or palustrine unconsolidated bottom (PUB). A total of 182.08 acres of wetlands were delineated as described in Table 3-10. Additionally, 1.29 acres of non-functioning PFO wetland were delineated. Unlike traditional PFO, non-functioning PFO wetlands do not receive flooding from a nearby river or stream. The non-functioning PFO wetlands within the Project Study Area were typically isolated features where trees were established within or along the feature boundary. Locations of wetlands in the Project Study Area are shown in Figure 3-1 and Appendix M.

Table 3-10. Wetland and Water Resources

Wetlands		Waterways	
Wetland Type[1]	Acreage	Waterway Type	Linear Feet / Acreage
PEMA/C	90.26	Ephemeral	1,546 / 0.18
Farmed Wetland (PEMA/C)	70.68	Intermittent	16,804 / 2.78
PEMF	3.92	Perennial	1,846 / 0.86
PSSA	0.63		
PFOA	4.16		
Non-Functioning PFOA	1.29		
PUB	11.14		
Total	182.08	Total	20,197 / 3.82

PEMA/C = palustrine emergent temporarily / seasonally flooded; PEMF = Palustrine emergent semi-permanently flooded; PFOA = palustrine forested temporarily flooded; PSSA = palustrine scrub-shrub temporarily flooded; PUB = palustrine unconsolidated bottom (open water).

Waterways

Thirteen waterways were documented within the Project Study Area: 1 unnamed perennial channels, 2 unnamed intermittent channels, 5 unnamed ephemeral channels, Lincoln Creek, Coon Branch, the Big Blue River, Prairie Creek, and Davis Creek. Davis Creek parallels US-81 to the east and south from MM 82.65 to MM 85.25 west of Osceola. These waterways are shown in Figure 3-1 and Appendix M.

3.21.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Wetland and water resources impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on wetlands and water resources for those projects would be evaluated on a project-by-project basis.

3.21.3 Impacts of the Preferred Alternative

The Preferred Alternative would permanently affect approximately 32.47 acres of wetlands and approximately 1,961 linear feet (0.68 acre) of 10 waterways (Lincoln Creek, 2 unnamed ephemeral channels, Coon Branch, 3 unnamed intermittent channels, the Big Blue River, Prairie Creek, and Davis Creek), as shown in Table 3-11. Construction of the Preferred Alternative would require a CWA Section 404 Individual Permit from USACE.

Table 3-11. Wetland and Water Resource Impacts

Wetland Impacts		Waterway Impacts	
Wetland Type[1]	Acreage	Waterway Type	Linear Feet / Acreage
PEMA/C	18.71	Ephemeral	247 / 0.04
Farmed Wetland (PEMA/C)	7.19	Intermittent	1,023 / 0.31
PEMF	0.96	Perennial	691 / 0.33
PSSA	0.12		
PFOA	1.40		
Non-Functioning PFOA	0.23		
PUB	3.86		
Total	32.47	Total	1,961 / 0.68

PEMA/C = palustrine emergent temporarily / seasonally flooded; PEMF = Palustrine emergent semi-permanently flooded; PFOA = palustrine forested temporarily flooded; PSSA = palustrine scrub-shrub temporarily flooded; PUB = palustrine unconsolidated bottom (open water).

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

3.21.4 Avoidance, Minimization, and Mitigation

Throughout the conceptual design process, efforts were made to minimize impacts on wetlands and other waters of the US. The following measures were employed during conceptual design:

- To reduce impacts on Lincoln Creek at Structure Number S081 06464 and Coon Branch at Structure Number 081 06780, the grading of slopes and ditches would be optimized to accommodate drainage.
- Impacts on Davis Creek would be minimized by placing the new lanes north of the existing lanes and widening bridge structures S081 08543 and S081 08578 in lieu of full reconstruction. Additionally, the existing culvert structure (S081 08265) located south of the west junction of US-81/N-92 would be extended rather than replaced.
- All other wetland impacts within the Project corridor include avoidance/reduction of impacts by grading slopes and ditches to optimize drainage.

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

Based on the conceptual design impacts, wetland and stream mitigation is anticipated. Where wetland impacts could not be avoided or minimized, mitigation would occur at ratios determined by USACE and at locations approved by USACE. Mitigation ratios are determined based on the type and location of mitigation proposed for the affected wetlands. Required mitigation would be completed at a minimum 1:1 ratio. All impacts are expected to be mitigated at a permittee-responsible mitigation site. A mitigation site has not yet been identified but is likely to be located near the Project. Once a

mitigation site is determined, NDOT would reinitiate consultation with USACE. A Nebraska Stream Condition Assessment Procedure would be completed as part of the CWA Section 404 permitting process to determine stream mitigation needs.

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

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

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

3.22 Fish, Wildlife, and Vegetation

This section describes the fish and wildlife species that inhabit the Project Study Area as well as the vegetation in the Project Study Area. Threatened or endangered species and their associated habitat are discussed in Section 3.23. Applicable federal and state legislation is summarized below.

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

The Bald and Golden Eagle Protection Act of 1940, as amended (16 USC 668–668d), provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commercial use of such birds, except under certain specific conditions. Violations of this law can be charged as misdemeanors or felonies, and conviction can result in fines of more than $100,000 and/or imprisonment.

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

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

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

3.22.1 Affected Environment

The Project is located in the southwest portion of the Tallgrass Prairie Ecoregion, as defined by the Nebraska Natural Legacy Project. Historically, much of the Tallgrass Prairie Ecoregion was dominated by grasses, wildflowers, and forbs, with wetlands found near waterways and forested areas found near waterways and on elevated bluffs. The Project resides entirely within the Rainwater Basin Biologically Unique Landscape (NGPC, n.d.). The Rainwater Basin Biologically Unique Landscape occupies parts of 17 counties in south-central Nebraska. The topography is flat to gently rolling loess plain. The surface water drainage system in this landscape is poorly developed, and many watersheds drain into low-lying wetlands. Most uplands in the landscape had been converted to cropland by the beginning of the 20th century, and nearly all remaining Rainwater Basin wetlands have been farmed at some time in the last century. As a result of modern agricultural and land management practices altering this native ecosystem, non-native species including eastern red cedar (*Juniperus virginicana*) and cool season grasses can be found in the Project Study Area. The Project Study Area consists of upland and wetland, native and non-native vegetation.

Project-specific wetland and waters of the US delineations were conducted in the Project Study Area between 2022 and 2024. The delineation documented vegetation found within and beyond US-81 ROW and areas surrounding waterways. The land in the Project Study Area, including the existing riparian areas near streams, is highly disturbed due to agricultural practices. Vegetative species commonly occurring in US-81 ROW in upland areas include smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*). Reed canarygrass (*Phalaris arundinacea*), sedge species (*Carex spp.*), smartweed species (*Persicaria spp.*), and foxtail barley (*Hordeum jubatum*) were common species identified in wetland areas. Trees documented were associated with waterways and included eastern cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), and peach-leaf willow (*Salix amygdaloides*). While many of these species are not listed on the Invasive Plants Watch List, discussed below, they are introduced species and considered invasive. The delineation did identify the noxious weeds leafy spurge (*Euphorbia esula*), musk thistle (*Carduus nutans*), and Queen Anne's lace (*Daucus carota*) in the Project Study Area.

Stromsburg, Osceola, and Shelby include commercial development, residences, paved streets, parking areas, and mowed and maintained tall fescue (*Schedonorus arundinaceus*) and Kentucky bluegrass lawns. Trees and shrubs are dispersed throughout the towns and are mainly the result of residential plantings.

Habitat connectivity and fragmentation was evaluated for the Project, and detailed findings can be found in Appendix N. Intensive agriculture has fragmented and reduced the amount of woodland grassland habitat available for wildlife and has decreased the quality of wildlife habitat that remains within and adjacent to the Project Study Area. Beyond the existing highway, the majority of the Project Study Area consists of agricultural fields, grassland, and developed land use (farmsteads, urban development, and roadways). Wetlands and riparian woodlands associated with waterways are less prominent features within the Project Study Area and are described in Section 3.21. There are no NGPC nature preserves or wildlife management areas in or adjacent to the Project Study Area (NGPC 2024a).

Agricultural fields and grassland habitat provide a food source for several avian and terrestrial species, including turkey, pheasant, mice, raccoons, opossums, and deer. Riparian corridors provide suitable foraging habitat for an array of mammals, as well as nesting and roosting habitat for migratory birds. The Project Study Area is in the north-south trending bird migration route through Nebraska known as the Central Flyway, which is used yearly by land birds, shore birds, and waterfowl. Along major waterways, such as Lincoln Creek and the Big Blue River, there are trees sufficient in size and maturity to provide suitable habitat for bald or golden eagles. The waterways in the Project Study Area serve as tributaries to the West Fork Big Blue River, the Big Blue River, or the Platte River. The larger, perennial

waterways in the Project Study Area provide habitat for fish and mussels, as well as small mammals, birds, and insects. Wetland complexes across the Project Study Area provide habitat for mammals, birds, insects, and amphibian species.

Wildlife corridors are areas that wildlife regularly traverse to find food, escape predators, and find refuge. There are seven locations in the Project Study Area where wildlife-vehicle collisions are concentrated. These areas have non-agricultural habitat in or adjacent to the Project Study Area or are along waterways. This combination of factors suggests that the areas are being used as wildlife corridors. Table 3-12 lists the potential wildlife corridors present in the Project Study Area as well as animal strike crashes that occurred in each wildlife corridor. Wildlife crossing signs are posted on either side of the Lincoln Creek and Coon Branch riparian corridors. There are also wildlife crossing signs posted near the wooded, rolling hills and grassland habitat between MM 104.73 and MM 105.31.

Table 3-12. Wildlife Corridors

Wildlife Corridor (Mile Marker)	Crash Locations[1] (Mile Marker)	Habitat Description	Features that Could be Used for Movement[2]
64.53 – 65.04[4]	64.53 64.54[3] 64.62 64.65[3] 64.68[3] 64.69 64.70 64.73 64.81 65.04[3]	Lincoln Creek, its floodplain, and connected wooded corridors and fence lines. Wooded fence line at MM 65.00 serves as a potential wildlife shortcut for continuing east to Lincoln Creek rather than following the waterway south. Lincoln Creek includes emergent and forested wetlands and riparian corridor consisting of woodland, wetlands, and upland grassland areas.	MM 64.64 – Structure Number S081 06464 (101-foot-long bridge)
65.47 – 65.57	65.47[3] 65.51[3]	Wooded areas associated with farmsteads. Narrow emergent wetlands associated with an unnamed ephemeral waterway. Waterway and grassland/woodland swale east of US-81 drains into Lincoln Creek.	MM 65.57 – Twin 5-foot by 4-foot reinforced concrete box culverts
76.90 – 78.04	76.91 76.94 77.22 77.42[3] 77.47 77.83 77.85 77.87 77.90 77.91 77.92 77.94 77.99 78.04	Big Blue River and its floodplain south of Stromsburg. The river's banks support emergent and forested wetlands while the broader floodplain supports emergent and forested wetlands, open water (PUB), and wooded areas. The river supports a wide, riparian corridor. The wildlife corridor was extended south to capture a narrow, wooded corridor that connects to grassland and an open water impoundment east of US-81 that drains into the Big Blue River approximately 2 miles east of the highway.	MM 77.97 – Structure Number S081 07797 (126-foot-long bridge)

Wildlife Corridor (Mile Marker)	Crash Locations[1] (Mile Marker)	Habitat Description	Features that Could be Used for Movement[2]
83.40 – 84.39	83.40 84.23 84.39	Davis Creek and its floodplain. The floodplain supports a wide wetland complex consisting of emergent wetlands of various hydrologic regimes (PEMA/C and PEMF), forested and scrub-shrub wetlands, open water (PUB), upland grassland, and woodland areas.	MM 83.44 – 5-foot by 6-foot reinforced concrete box culvert MM 83.85 – 4-foot by 4-foot reinforced concrete box culvert MM 84.37 – 4-foot by 4-foot reinforced concrete box culvert
89.80 – 90.80	89.80 90.23 90.50 90.80	Narrow emergent wetlands in ditches north and south of US-81. Larger wetland complex consisting of emergent wetlands north of US-81 and emergent and scrub-shrub wetlands south of US-81 located near MM 90.80. Scattered woodland areas present on both sides of the highway. Located west of Shelby in an agriculturally dominated area.	None
101.73 – 103.34	101.73 101.77[3] 102.12 102.25 102.28 102.33 102.52 102.60 102.74 102.77[3] 103.09 103.34	Scattered, isolated wetland areas. Open water impoundments and wooded hills and ravines from MM 102.35 to MM 103.03. Tracts of grassland areas, with the remainder of habitat consisting largely of row crop agricultural fields.	MM 102.70 – 6.5-foot by 5-foot reinforced concrete box culvert
104.73 – 105.31[4]	104.73[3] 104.98 105.19 105.31	Area consists largely of grassland/pasture areas with scattered woodland and row crop agricultural fields. Concentrated animal feeding operation located west of US-81 at MM 105.00.	None

PEMA/C = palustrine emergent temporarily / seasonally flooded; PEMF = Palustrine emergent semi-permanently flooded; PUB = palustrine unconsolidated bottom (open water).

1 Crashes occurring between January 1, 2011, and December 31, 2020.
2 Only structures with a minimum 12-square-foot opening were included.
3 Multiple wildlife collisions occurred at this location.
4 Wildlife crossing signs posted within corridor.

The common habitat characteristics of these areas are proximity to a waterway, wooded corridors, and a combination of habitat types, including wetlands. The habitat diversity adjacent to these corridors likely equates to increased species diversity. Five of the seven wildlife corridors include a stream crossing with a bridge structure or a culvert with an opening greater than 12 square feet.

Although not an all-inclusive list, some of the most common wildlife species that can be seen inhabiting the Project Study Area and surrounding region are listed in Table 3-13.

Table 3-13. Common Wildlife Species in the Project Study Area

	Species
Mammals	whitetail deer, raccoon, coyote, masked shrew, eastern mole, white jackrabbit, eastern cottontail, opossum, red fox, gray squirrel, plains pocket gopher, plains pocket mouse, deer mouse, meadow vole, muskrat
Birds	cardinal, robin, blue jay, purple martin, wild turkey, ruffed grouse, quail, pheasant, mallard duck, Canada goose, red tailed hawk
Insects	stag beetle, acorn weevil, Nebraska conehead grasshopper, deer fly, honeybee, yellow jacket (hornet), silver-spotted skipper, and green lacewing
Reptiles	common garter snake, plains garter snake, bull snake, painted turtle, ornate box turtle
Amphibians	American bullfrog, northern leopard frog, great plains toad, plains spadefoot toad (UNL 2020)
Snails	brown garden snail, decollate snail, tadpole physa, marsh rams-horn (Stephen 2018)
Fish	green sunfish, smallmouth bass, channel catfish, flathead catfish, various minnow species
Mussels and crayfish	Giant floater, northern crayfish, calico crayfish (NGPC 2024b)

The Director of the Nebraska Department of Agriculture has identified 12 species as noxious weeds throughout Nebraska (Nebraska Invasive Species Program 2024), as shown in Table 3-14.

Table 3-14. State Noxious Weeds

Common Name	Scientific Name	Documented Occurrence in Project Study Area
Canada thistle	*Cirsium arvense*	York, Polk, and Butler Counties
Japanese knotweed	*Fallopia japonica*	None
Giant knotweed	*Fallopia sachalinensis*	None
Leafy spurge	*Euphorbia esula*	York, Polk, and Butler Counties
Musk thistle	*Carduus nutans*	Polk and Butler Counties
Phragmites / Common reed	*Phragmites australis*	Polk and Butler Counties
Plumless thistle	*Carduus acanthoides*	None
Purple loosestrife	*Lythrum salicaria, L. virgatum*	Butler County
Saltcedar	*Tamarix ramosissima*	None
Sericea lespedeza	*Lespedeza cuneata*	Butler County
Spotted knapweed	*Centaurea biebersteinii*	None
Diffuse knapweed	*Centaurea diffusa*	None

Sources: Nebraska Invasive Species Program 2024; York County 2024; Polk County 2024b; Butler County 2024b.

The Nebraska Invasive Species Program has developed Nebraska's Invasive Plants Watch List, which is an ecoregion-based list of invasive plants to monitor. The listed plants are separated into three

categories. Category 1 species are future invasive species that are not known to exist in an ecoregion but would pose a significant threat if introduced. Category 2 species are those considered a top priority for eradication for new and existing populations, while Category 3 species are established and prevention of spread to new areas is a top priority (Nebraska Invasive Species Program 2023). The Invasive Plants Watch List species occurring in the Tallgrass Prairie Ecoregion, which includes York, Polk, and Butler Counties, are shown in Table 3-15.

3.22.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Impacts on fish, wildlife, and vegetation may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on fish, wildlife, and vegetation for those projects would be evaluated on a project-by-project basis.

Table 3-15. Nebraska's Invasive Plants Watch List for Tallgrass Prairie Ecoregion

Common Name	Scientific Name
Category 1	
Yellow bedstraw	*Galium verum*
Perennial sow thistle	*Sonchus arvensis*
Category 2	
Russian knapweed	*Acroptilon repens*
Absinth wormwood	*Artemisia absinthium L.*
Giant reed	*Arundo donax L.*
Caucasian bluestem	*Bothriochloa bladhii*
Yellow bluestem	*Bothriochloa ischaemum*
Flowering rush	*Butomus umbellatus*
Oriental bittersweet	*Celastrus orbiculatus*
Black knapweed	*Centaurea moncktonii*
Houndstongue	*Cynoglossum officinale*
Queen Anne's lace	*Daucus carota*
Common teasel	*Dipsacus fullonum*
Cutleaf teasel	*Dipsacus laciniatus*
Wintercreeper	*Euonymus fortunei*
Sickleweed	*Falcaria vulgaris*
Yellow flag iris	*Iris pseudacorus*
Japanese honeysuckle	*Lonicera japonica*
Morrow honeysuckle	*Lonicera morrowii*
Showy fly honeysuckle	*Lonicera tatarica*

Common Name	Scientific Name
Amur honeysuckle	*Lonicera macckii*
Wild parsnip	*Pastinaca sativa*
Common buckthorn	*Rhamnus cathartica*
Category 3	
Garlic mustard	*Allaria petiolata*
Callery pear	*Pyrus calleryana*
Crown vetch	*Securigera varia*

3.22.3 Impacts of the Preferred Alternative

The animal-related crash rate along this portion of US-81 (23 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (57 percent). That may mean that wildlife already successfully use structures to cross under US-81, that wildlife is not frequently crossing US-81 in the Project Study Area, that drivers are able to avoid those animals that cross the road, or that there is sufficient habitat on either side of US-81 so that wildlife does not need to cross the road. The grade would remain the same or increase at the structure over Lincoln Creek, and grade raises in both directions are anticipated at the structure over Coon Branch. Increasing the structure sizes could also serve to improve wildlife mobility. Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at five of the seven wildlife corridor locations, adverse impacts on fish and wildlife are not anticipated (see Appendix N).

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

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

3.22.4 Avoidance, Minimization, and Mitigation

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

Suitable bald eagle nesting and/or roosting habitat exists within 0.5 mile of the Environmental Study Area. If construction will begin between February 1 and April 15, a nest survey must be completed at

least 1 day but not more than 14 days prior to construction. If construction will begin between April 15 and October 1, a nest survey completed in March is sufficient because nests will likely already be constructed if nesting will occur that year. However, a nest survey may be completed any time during this timeframe as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS will be required prior to beginning construction activities. Eagle roosting surveys will be conducted if construction occurs between October 1 and January 31. (NDOT Environmental, Contractor)

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

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

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

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

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

3.23 Threatened and Endangered Species

The Endangered Species Act of 1973, as amended (16 USC 1531–1544), protects federally listed endangered and threatened species, and the Nebraska Nongame and Endangered Species Conservation Act of 1975 (Nebraska Revised Statutes Section 37-801 to 37-811) provides protection for State-listed species. Violation of these laws can be charged as misdemeanors or felonies, and conviction can result in fines of more than $100,000 and/or imprisonment.

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

and have reviewed the potential for impacts on the federally and state-listed species in Nebraska. The Programmatic process includes the following steps; only the first four steps are required for projects that would not affect listed species or are not likely to adversely affect species with the implementation of standard conservation conditions:

- Complete a Biological Evaluation Form to document the habitat characteristics of a project's Action Area. The Action Area extends 1.1 mile from the project impact area. This distance represents the greatest likely extent of project effects based on the activities associated with road projects.
- Identify species or critical habitat potentially present in a project's Action Area.
- Screen species and critical habitat based on characteristics of the Action Area.
- Identify the potential for impact on individual species and/or critical habitat based on the construction activities that would be conducted for the project.
- Complete an Individual Project Level Evaluation if a project may have an effect on a listed species or if conservation conditions are recommended for a species not likely to be present.
- Complete a biological evaluation, which may be required if adverse effects on a species are anticipated even with the implementation of conservation conditions.

3.23.1 Affected Environment

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

For the Project Action Area, USFWS lists 11 federally protected species and NGPC lists 12 state protected species. Table 3-16 lists federally and state-listed threatened and endangered species with potential for occurrence in the Project Action Area, as well as a brief description of suitable habitat for the listed species.

Table 3-16. Federally and State-listed Threatened and Endangered Species in the Project Action Area

Status[1]	Common Name	Scientific Name	Habitat Description
FE, SE	Black-footed ferret	*Mustela nigripes*	Prairie dog town or complexes 1,000 acres or more in size.
FT, ST	Eastern black rail	*Laterallus jamaicensis*	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	*Numenius borealis*	Wet meadows, burned over prairies, or newly plowed fields.
FE, SE	Gray wolf	*Canus lupus*	Wide range of habitats including prairie, mountains, temperate forests, wetlands, tundra, and taiga. Areas where they are accepted by people.

Status[1]	Common Name	Scientific Name	Habitat Description
SE	Interior least tern	*Sternula antillarum athalassos*	Barren to sparsely vegetated sandbars along rivers, sand and gravel pits, and lake and reservoir shorelines.
ST	Lake sturgeon	*Acipenser fulvescens*	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.
FE, SE	Northern long-eared bat	*Myotis septentrionalis*	Hibernates in caves and mines. Swarms in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in upland forests.
FE, SE	Pallid sturgeon	*Scaphirhynchus albus*	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	*Charadrius melodus*	Barren to sparsely vegetated sandbars along rivers, sand and gravel pits, and lake and reservoir shorelines.
FT, ST	Rufa red knot	*Calidris canutus rufa*	Open mud flats and/or mud and sandy shorelines free of vegetation.
Proposed FE[2]	Tri-colored bat	*Perimyotis subflavus*	Hibernates in caves and mines. Swarms in surrounding wooded areas in autumn. During late spring and summer, roosts and forages in woodland.
FT, ST	Western prairie fringed orchid	*Platanthera praeclara*	Wet prairies and sedge meadows.
FE, SE	Whooping crane	*Grus americana*	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 2024c.

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).

According to Natural Heritage Records, there are documented occurrences of interior least tern, lake sturgeon, piping plover, and whooping crane within 5 miles of the Project Action Area within the last 30 years, but there are no documented occurrences of any of these species within 1 mile of the Project Action Area. There is no critical habitat present within the Project Action Area.

While there is a documented occurrence of lake sturgeon within 5 miles of the Project Action Area, the NGPC-estimated range for the species is approximately 2.3 miles north of the Project Action Area. There are no lower tributaries to the Platte River intersecting the Project Action Area suitable for lake sturgeon or pallid sturgeon. The waterways present in the Project Action Area are relatively narrow and lack the braided channel habitat suitable for these two species.

The northern limits of the Project, north of 39½ Road, are within the estimated ranges for interior least tern, piping plover, and rufa red knot. The waterways within the Project Action Area lack sandbars or sparsely vegetated banks or shorelines suitable for these species. Additionally, there are no sand or gravel mining pits or lakes and reservoirs present in the Project Action Area.

The Project Action Area lies within the USFWS range for western prairie fringed orchid, which is based on the Platte River Basin, but falls outside the NGPC-designated range where western prairie fringed orchid occurrence would be anticipated. Based on the wetland delineation, there are no wet prairie or sedge meadow habitats present within the Project Action Area suitable for the species.

There are no prairie dog towns or complexes near the Project Action Area suitable for black-footed ferret. The Project Action Area is approximately 35 miles northeast of the Harvard Waterfowl Production Area, the last documented occurrence of eastern black rail. There have been no documented occurrences of gray wolf near the Project Action Area in the last 30 years.

Waterways across the Project alignment, including Lincoln Creek, tributaries to Lincoln Creek including Coon Branch, and the Big Blue River and its tributaries including Prairie Creek and Davis Creek, support wooded riparian corridors that may be suitable habitat for the northern long-eared bat and tri-colored bat. Beyond the riparian corridors associated with waterways, wooded areas across the Project Action Area also include farmsteads, windbreaks, fence lines, and wooded bluffs from MM 102.35 to MM 103.03. There are approximately 180 acres of woodland within the Project Action Area. With the exception of intersecting waterways and the wooded bluff habitat near the Project's northern terminus, most woodland areas along the Project alignment are fragmented and less than 10 acres in size. The larger woodland tracts across the Project alignment are more likely to support northern long-eared bat and tri-colored bat, although either species may use any of these habitats for summer roosting and foraging activities.

Northern long-eared bat and tri-colored bat have been known to use human-made structures for occasionally roosting, such as barns and sheds. The bats may also use bridge and large culvert structures for summer roosting. There are approximately eight bridges and bridge-sized culverts in the Project Action Area. The structures over and adjacent to Davis Creek (Structure Numbers S081 08265, S081 08490R, S081 08543, and S081 08578) are not within suitable habitat for the species. The structures over and adjacent to Lincoln Creek (S081 06464), Coon Branch (S081 06780), Big Blue River (S081 07797), and Prairie Creek (S081 07815) are situated in suitable summer roosting habitat for the species, although bat structure surveys did not detect any bats or evidence of bat usage.

The nearest Natural Heritage documented occurrence of northern long-eared bat is approximately 45 miles from the Project Action Area. The closest documented occurrence of tri-colored bat is approximately 60 miles from the Project Action Area and is also the next closest location for northern long-eared bat. There are no known northern long-eared bat hibernacula or maternity roosts within 1 mile of the Project Action Area.

An acoustic survey for bats was conducted July 23 and 24, 2024. A total of 7,046 files were recorded during the survey. Only 1 of the 7,046 files recorded was determined to belong to a target species, the tri-colored bat. This single recording of tri-colored bat establishes species presence but does not provide any measurable information on the level of species activity. There were no recordings of northern long-eared bat. Consultation with USFWS and NGPC is ongoing to determine the next steps to complete the consultation process.

Outside the municipalities of York, Benedict, Stromsburg, Osceola, and Shelby, Eskimo curlew and whooping crane may use a majority of the Project Action Area for foraging habitat. Agricultural fields, grassland/pasture, emergent wetlands, and open water areas provide suitable habitat for the species. With the exception of Davis Creek, the waterways intersecting the Project Action Area support wooded

riparian corridors that prevent good horizonal visibility for whooping crane. Davis Creek supports a wider floodplain largely dominated by emergent wetlands, open water, and low-lying vegetation. While there is an abundance of suitable foraging habitat in the Project Action Area, whooping crane would likely continue north and roost in suitable habitat along the Platte River. Migration route location data supports whooping crane's preference for the Platte River for roosting; there are no documented occurrences of the species within the Project Action Area, but several documented occurrences along the Platte River northwest to northeast of the Project Action Area (Pearse et al. 2020).

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

3.23.2 Impacts of the No Build Alternative

There would be no construction of the Project with the No Build Alternative. Threatened and endangered species impacts may occur as part of other routine roadway and bridge maintenance activities, including those projects listed in Section 3.24.1. Impacts on threatened and endangered species for those projects would be evaluated on a project-by-project basis.

3.23.3 Impacts of the Preferred Alternative

Based on the analysis conducted using the Programmatic Agreement review process, the Preferred Alternative may affect, but is not likely to adversely affect, Eskimo curlew, northern long-eared bat, tri-colored bat, and whooping crane. These species are the only listed species identified through the Programmatic process that may potentially be impacted by the Preferred Alternative.

Wetland mitigation would be required to offset aquatic resource impacts incurred by the Preferred Alternative. All impacts are expected to be mitigated at a permittee-responsible mitigation site. A mitigation site has not yet been identified but is likely to be located near the Preferred Alternative. Similar to construction of the Preferred Alternative, mitigation site construction would integrate conservation conditions to mitigate effects on the species. Once a mitigation site is determined, NDOT would reinitiate consultation with NPGC and USFWS. Consultation with USFWS and NGPC is ongoing but would be completed prior to the NEPA decision. Anticipated conservation conditions and avoidance and minimization measures are listed in Section 3.23.3.

Eskimo Curlew

Potentially suitable habitat for Eskimo curlew is present, but no conservation conditions have been implemented for the species. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect, Eskimo curlew.

Northern Long-eared Bat and Tri-colored Bat

Potentially suitable habitat for northern long-eared bat and tri-colored bat is present, but there are no historic records for either species within the Project Action Area and there are no identified hibernacula or maternity roosts within 1 mile of the Preferred Alternative. The acoustic survey did not identify northern long-eared bats in the Project Action Area, but did confirm presence of tri-colored bat. Tree clearing and other woody vegetation removal activities associated with the Preferred Alternative have the potential to impact both bat species. Pending concurrence from USFWS and NGPC, with NDOT's commitment to implement the avoidance and minimization measures listed in Section 3.23.3, the Preferred Alternative may affect, but is not likely to adversely affect, northern long-eared bat. The affect finding for tri-colored bat would be determined through the ongoing consultation process with the USFWS and NGPC.

Whooping Crane

Outside city areas, potentially suitable habitat for whooping crane is present across the Preferred Alternative alignment. Bank stabilization, a construction activity representing a potential effect on whooping crane, would occur at eight bridges and bridge-sized culvert locations (Structure Numbers S081 06464, S081 06780, S081 07797, S081 07815, S081 08265, S081 08490R, S081 08543, and S081 08578) across the Preferred Alternative alignment. Bridges would have riprap placed under the bridge decks to protect bridge berms from erosion, while bridge-sized culvert structures would have riprap placed at outlets to protect from scour. The heavily wooded riparian corridors at S081 06464 (Lincoln Creek), S081 06780 (Coon Branch), S081 07797 (Big Blue River), and S081 07815 (Prairie Creek) disrupt line of sight and lack suitable habitat for the species. Therefore, armoring of the banks adjacent to the existing and proposed bridge/bridge-sized culvert structures in these locations would not convert or modify suitable habitat for the species. Structure Numbers S081 08543 and S081 08578 convey Davis Creek in the city of Osceola. Due to the developed nature of the surrounding land use, suitable habitat is not present, so armoring of the banks at these locations would not convert or modify suitable habitat for the species.

Structure Numbers S081 08265 and S081 08490R convey Davis Creek under US-81 and under County Road N in Polk County. Surrounding land use at S081 08265 consists of agricultural fields and the Davis Creek floodplain. The creek's floodplain contains forested wetlands directly adjacent to the bridge structure and thick reed canarygrass (*Phalaris arundinacea)* exceeding 3 feet in height that serve to disrupt line of sight. Shallow wetlands/open water areas along Davis Creek are removed from the bridge location and located farther to the east. Structure Number S081 08490R is located near the municipal boundaries of Osceola. US-81, industrial development, and a golf course are located north of the structure, with farmsteads and agricultural land present to the south. Placement of riprap in either of these locations would be limited to below or directly upstream/downstream of the structure locations and would convert an inconsequential amount of marginal habitat for whooping crane. While there is marginally suitable habitat for whooping crane near these two structure locations, whooping cranes would likely elect to continue north to the Platte River and Loup River floodplains where more suitable habitat is present.

Construction, if occurring during the whooping crane migration season, has the potential to affect whooping crane species by creating noise or human disturbance that could harm or otherwise disturb this species; disturbing staging, roosting, or foraging behaviors; disturbing occupied or suitable habitat; indirectly modifying habitat; or deterring individuals from using these areas for stopovers during migration. Construction would be scheduled to the extent possible to avoid the whooping crane migration period. If work is required during the whooping crane migration period, noise levels in the vicinity of the Preferred Alternative would temporarily increase, potentially causing whooping crane to avoid the area when equipment is operating. The abundance of suitable habitat in the Action Area and implementation of conservation conditions would minimize any adverse impacts on whooping crane that may stop or nest in the vicinity of the Preferred Alternative. Areas disturbed by construction, but not converted to new roadway, would be restored with native vegetation. With the implementation of the conservation conditions in Section 3.23.3, the Preferred Alternative may affect, but is not likely to adversely affect, whooping crane.

3.23.4 Avoidance, Minimization, and Mitigation

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

- A-1 Changes in Project Scope. If there is a change in the project scope, the project limits, or environmental commitments, the Highway Project Manager shall coordinate with the NDOT Environmental Section to evaluate potential impacts prior to implementation. Environmental

commitments are not subject to change without prior written approval from the NDOT Environmental Section. (District Construction)

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

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

  Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The contractor must receive notice of acceptance from NDOT environmental, prior to starting the above-listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. (NDOT Environmental, District Construction, Contractor).
- A-7 Waste/Debris. Construction waste/debris will be disposed of in areas or a manner that will not adversely affect state and/or federally listed species and/or designated critical habitat. (Contractor)
- A-8 Post Construction Erosion Control. Erosion control activities carried out by NDOT Maintenance or others after construction is complete, but prior to project close-out, shall

adhere to any standard conservation conditions for species designated for the project limits during construction. (NDOT Maintenance, District Construction, Contractor)

- S-2 Platte River Depletions. To the maximum extent practical, efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the Contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general, the following are considered de minimis depletions, but may still require agency coordination; a project which: a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) diverted water that will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet. (NDOT Roadway Design, Contractor)
- S-3 Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder or within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed plants were identified, any seed mix requirements identified during resource agency consultations shall be used for the project. (NDOT Environmental)
- S-4 Sensitive Areas. Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOT Environmental for avoidance. (NDOT Environmental, NDOT Roadway Design, District Construction)
- S-5 Species Surveys. If species surveys are required during the construction phase of the project (including pre-construction surveys), results will be sent by NDOT Environmental Section to the USFWS, NGPC, and if applicable the USACE. (NDOT Environmental, District Construction)
- S-6 Permanent LED Lighting (NDOT Design Commitment). Only LED roadway luminaries listed on the NDOT "Nebraska Qualified Material Vendors List" will be considered for use on Nebraska highway lighting projects. Proposed changes to the following LED lighting requirements would require resource agency (USFWS and/or NGPC) coordination and approval prior to installation:
  - Nominal CCT – 3000 +/- 300 K
  - BUG Ratings – Maximum nominal Backlight (N/A), Uplight (0), Glare (N/A)
  - Lumen Output – N/A

  Any proposed changes to the listed requirement(s) must be presented to the NDOT Environmental Section for Agency Coordination and approval.
- Wetland Mitigation Site Consultation. NDOT will re-initiate consultation with NGPC and USFWS once a wetland mitigation site is determined.
- Northern Long-eared Bat and Tri-colored Bat
  - General AMM 1. Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

  - Tree Removal AMM 1. All phases/aspects of the Project (e.g., temporary work areas, alignments) will be modified, to the extent practicable, to avoid tree removal in excess of what is required to implement the Project safely.
  - Tree Removal AMM 3. Tree removal will be limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).
  - Lighting AMM 1. Direct temporary lighting away from suitable habitat during the active season.
  - Lighting AMM 2. When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

- Whooping Crane
  - WC-1. Construction activities will not occur during Whooping Crane migration periods. (Spring migration: March 6 – April 29; and fall migration: October 9 – November 15). (NDOT Environmental, Construction, Contractor) OR
  - WC-2. If construction activities occur during Whooping Crane migration periods (Spring migration: March 6 – April 29; and fall migration: October 9 – November 15), NDOT trained personnel, or a qualified biologist, will conduct surveys according to protocol at the following locations: entire project alignment outside of Stromsburg, Osceola, and Shelby city limits (location of suitable habitat). (prior to the start of daily construction activities). If species are present the District will notify the Contractor to stop work within ½ mile of the whooping crane and follow the protocol to determine when work can resume (also not initiate work if species is found in the morning survey). Options for resuming work may include but are not limited to (NDOT Environmental, Construction, Contractor):
    - Construction activities are limited to the hours from 10:00 a.m. to 4:00 p.m. (CST) during the migration period, unless morning survey indicates Whooping Cranes are not present.
    - If a whooping crane is observed during the survey within ½ mile of the project, but departs the area (further than ½ mile from the project), then work can resume. Document this departure according to protocol. AND
  - WC-3. Herbaceous species used for re-seeding within ¼ mile of the following location: entire project alignment outside of Stromsburg, Osceola, and Shelby city limits (location of suitable habitat) will be native grass or forb species. Native shrub or woody species used in restoration should reach no more than 4 feet in height at maturity. (Design, NDOT Environmental).

3.24 Cumulative Impacts

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

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

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

3.24.1 Affected Environment

The methodology used to address cumulative impacts involves identifying past, present, and reasonably foreseeable future projects; reviewing resources that would be affected by the Project; determining the approximate time frames and locations of impacts; considering the types of impacts likely; and selecting the resources requiring detailed evaluation of cumulative impacts. Past and present projects can include those that are currently under construction and would be completed prior to the analyzed project or those that could change the functionality of a region, such as traffic patterns or induced growth. Reasonably foreseeable future projects can include ongoing projects, such as transportation and commercial or industrial development, that are not expected to be completed by the time the analyzed project would begin construction, or are planned projects that are included in planning documents for the area. The projects listed in Table 3-17 and shown in Figure 3-3 were identified as past, present, and reasonably foreseeable.

Table 3-17. Past, Present, and Reasonably Foreseeable Projects in the Project Study Area

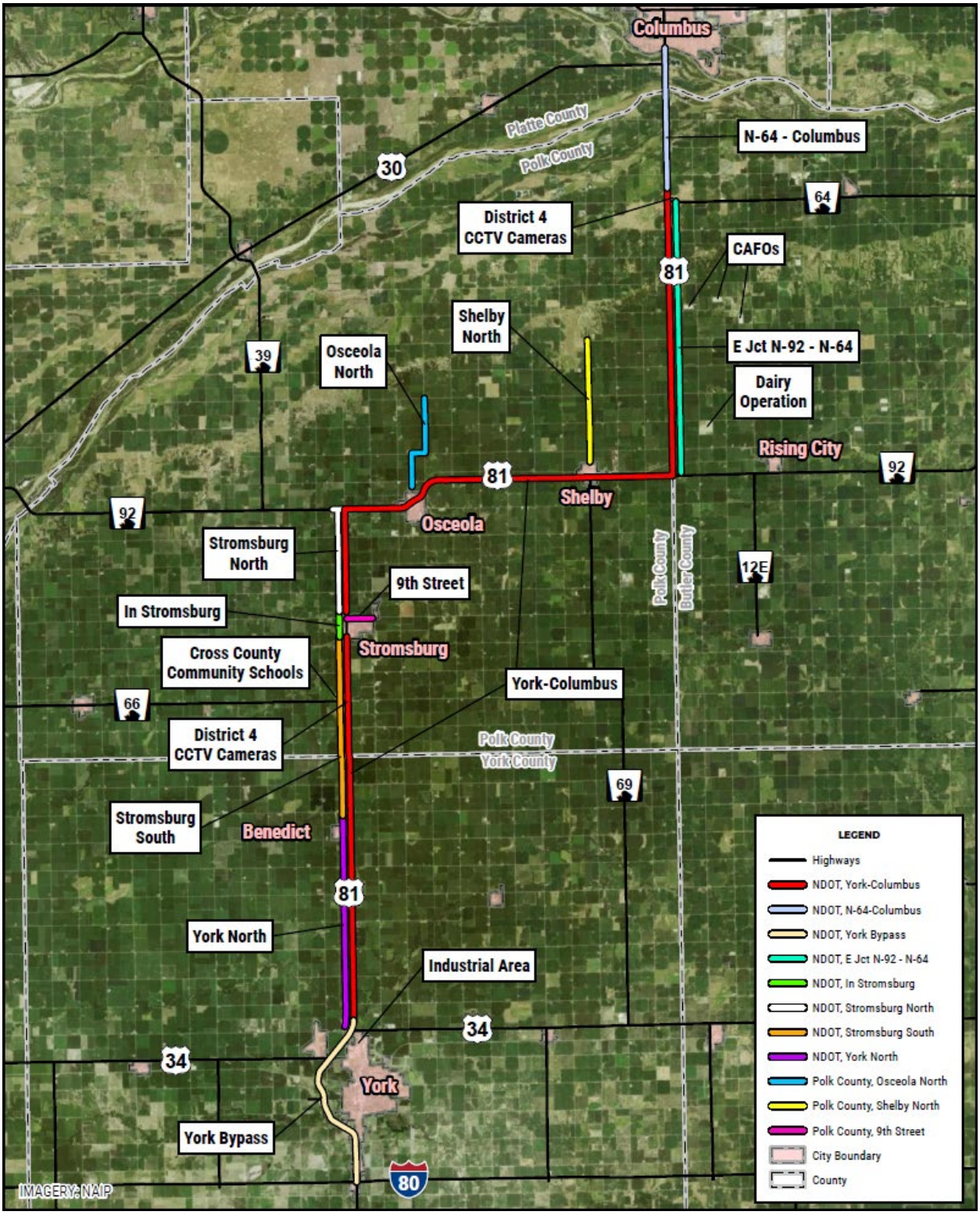
	Projects
Past	NDOT Control Number (CN) 41578, US-81 York Bypass NDOT CN 40419, US-81 N-64 to Columbus York industrial area Cross County High School Dairy operation in Butler County Confined feeding operations adjacent to Road 37 in Butler County
Present	NDOT CN 42782B, In Stromsburg NDOT CN 42782A, Stromsburg North Polk County, 9th Street
Reasonably Foreseeable	NDOT CN 42957, York North NDOT CN 42931, Stromsburg South NDOT CN 43008, District 4-CCTV Cameras NDOT CN 42956, E Jct N-92 – N-64 Polk County Osceola North Polk County Shelby North

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

Resources Considered for Impacts Analysis

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

Figure 3-3. Past, Present, and Reasonably Foreseeable Projects Considered



3.24.2 Impacts of the No Build Alternative

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

3.24.3 Impacts of the Preferred Alternative

Direct impacts associated with the Preferred Alternative are evaluated in this Draft EA.

No adverse, cumulative impacts are anticipated for any of the resources discussed above due to the Preferred Alternative and past actions. The past actions would have been permitted based on federal, state, and local requirements. Additionally, the past actions would have been constructed 5 to 30 years before the Project and are far enough removed in time to prevent cumulative impacts.

No adverse, cumulative impacts are anticipated for any of the resources discussed above due to the Preferred Alternative and present or future actions. The identified projects by their nature do not have more than minor impacts on adjacent resources. These projects would be permitted based on federal, state, and local resource requirements prior to construction.

3.24.4 Avoidance, Minimization, and Mitigation

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

3.25 Permits and Approvals

Permits and approvals that would be required to implement the Project are listed in Table 3-18.

Table 3-18. 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 general stormwater discharge permit for construction activities, Clean Water Act, including a Stormwater Pollution Prevention Plan	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	York, Polk, and Butler Counties	As participating parties in FEMA's National Flood Insurance Program, York, Polk, and Butler Counties regulate activities that encroach within their FEMA-designated Zone A 100-year floodplains.
Section 106 consultation, National Historic Preservation Act	SHPO	SHPO concurred with the *no adverse effect* finding on May 22, 2024.

Permit or Approval	Granting Agency(ies)	Reason
Section 4(f) of the US Department of Transportation Act	FHWA	FHWA must approve the use of properties protected by Section 4(f). Two *de minimis* uses of Two Parks Trail and YK00-266 is expected. A Section 4(f) Exception for Temporary Occupancy is anticipated for Buckley Park. 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 Eskimo curlew, northern long-eared bat, tri-colored bat, and whooping crane with implementation of conservation conditions and avoidance and minimization measures.
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 Eskimo curlew, northern long-eared bat, tri-colored bat, and whooping crane with implementation of conservation conditions and avoidance and minimization measures.

Chapter 4 Comments and Coordination

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

4.1 Resource Agency Coordination

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

4.1.1 Pre-Application Meeting

A Section 404 pre-application meeting was held with NDOT and USACE on May 5, 2023. The purpose of the meeting was to present to USACE the progress to date and a summary of the wetland data, and to discuss the Approved Jurisdictional Determination approach, permitting possibilities, and mitigation options. Preliminary impacts indicate that an individual permit would be needed with a Section 404(b)(1) analysis. Additional topics discussed during the meeting are summarized in the meeting minutes in Appendix Q.

4.1.2 Agency Scoping Meeting

An agency scoping meeting was held on February 21, 2024, at NDOT Headquarters in Lincoln, Nebraska. Five state and federal agencies were in attendance. The purpose of the meeting was to present the Project to the agencies and to seek input on the Project purpose and need, concept study alternatives, potential resources of concern, and schedule. Topics discussed during the meeting are summarized in the meeting minutes in Appendix Q. Scoping comments were received from EPA, USFWS, and NGPC. EPA comments have been addressed in this Environmental Assessment, and USFWS and NGPC comments have been addressed through the threatened and endangered species consultation process.

4.2 Public and Stakeholder Coordination

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

4.2.1 Public Meetings

Based on an analysis of the Project scope and a civil rights analysis, a public information open house meeting, a targeted mailer in the form of a public notification, a legal notice, a news release, temporary highway signs, a website, social media, and a 30-day comment period were used as outreach tools for public involvement on this Project. The public notification involved mailing a postcard with a Project location map to a compiled distribution list of 1,281 property owners adjacent to the Project location

(50-foot buffer), as well as the entire towns of Shelby, Osceola, and Stromsburg. Additionally, 254 public and private agencies with potential interest in the Project were included in the distribution list, including the Nebraska Trucking Association. A legal notice was placed in three Nebraska Press Association recognized newspapers: the *York News-Times* and *Columbus Telegram* on February 27, 2024, and the *Polk County News* on February 29, 2024. Temporary highway signs advertising the meeting were placed near the public information meeting open house locations along the Project Study Area. Project information was posted on Twitter and Facebook and added to NDOT's website at www.ndot.info/42967.

Three public information open house meetings were held, as follows:

- Shelby-Rising City Public Schools in Shelby on Tuesday, March 12, 2024, at 5–7 p.m. with 112 people in attendance
- Osceola Auditorium in Osceola on Wednesday, March 13, 2024, at 5–7 p.m. with approximately 103 people in attendance
- Holthus Convention Center in York on Thursday, March 14, 2024, at 5–7 p.m. with approximately 98 people in attendance

NDOT received 82 comments during the specified comment period (February 27 through March 29, 2024). Comments centered on consideration of bypasses, pedestrian safety, and proposed intersection types. The comments and corresponding responses are summarized in Table 4-1 and are detailed in the public meeting summary in Appendix R. Responses in italics were verbal responses. All other responses were in writing.

Table 4-1. Public Comments

Comment Number	Comment	Response
1	Stakeholder introduced themself and stated they are with the Nebraska Examiner. Stakeholder said these hearings, or open houses, are set on this York to Columbus segment of the expressway. Stakeholder said materials say it could be constructed, it could be started in 2028, but they just want to be clear there is no schedule for it to start in 2028. Stakeholder said what they see on the plan is some kind of future capital improvement. Stakeholder said it's not scheduled at all so just wanted to double check that that's true. Stakeholder requested a call back at 402-618-0009.	*Called stakeholder back 2/27/2024 at 10:15 A.M.* *Explained to stakeholder that the construction schedule is not set and would not be until the project is let and awarded. Then explained the project schedule and that the project is still in preliminary design, and that no final design decisions would be made until after the March meetings and Hearing were held. Stakeholder thanked NDOT for the time and stated they had already spoken with Jeni Campana, as well.*
2	Stakeholder introduced themself and requested a call back and stated they would appreciate it greatly. Stakeholder said their call is in reference to the Highway 81 expansion there south of Columbus to York. Stakeholder stated their phone number is 402-841-4869.	*Called stakeholder back 2/29/2024 at 1:50 P.M.* *Stakeholder explained that she is snowbirding out of state and will not be able to attend the meeting. Stakeholder stated her primary concern was with ROW on her property/farmland. Explained to her that ROW would contact her after the design footprint has been established if it is needed. Owner explained that she and her husband attended the hearings in the '90's and were concerned NDOT would be bypassing the towns and need ROW from them. Explained to property owner that the preliminary design is for an*

Comment Number	Comment	Response
		expansion through the towns. Owner seemed pleased, requested NDOT email her meeting materials to candrewsursula@yahoo.com. Explained that materials would be sent after the meetings were held and they would likely not all fit in an email, but NDOT would include the website link as well. Encouraged stakeholder to follow the NDOT Facebook page, as she stated that is how she learned about the upcoming meetings.
3	Stakeholder introduced themselves and stated phone number. Stakeholder said they are contacting NDOT to get some pointers where I can look on the computer here to see on this US-81 project.	*Called stakeholder back 2/29/2024 at 2:18 P.M.* *Stakeholder was not home but a message was left with a call back number with his wife.* *Stakeholder called back at 2:30 P.M. and explained that he and his dad both worked for NDOT (name dropped Mo, Khalil, Kyle, Molly & Hannah) - it sounds like he was in Lincoln this week. Stakeholder was looking for project location maps prior to the meeting, let him know the only maps currently available to the public are on the postcard (almost posted to the website) and the other materials would be made available the day of the first meeting. Stakeholder talked for several minutes about past projects he was on, as well as former employees and working with Wes and District 4.*
4	Stakeholder stated they would like more information on how this will affect their property and home since they live right on Highway 81 and do not want to move or have their property downsized at this late time of their life.	Appreciated input regarding the York – Columbus project. Stated that project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Stated that NDOT understands concerns about the route affecting property. Stated that if property is impacted by this project, stakeholder will be contacted by a representative once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
5	Stakeholder requested to see the proposed route from Columbus to York since they own land southwest of Columbus.	Appreciated input regarding the York – Columbus project. Stated that all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update

Comment Number	Comment	Response
		at the public hearing, tentatively scheduled for fall 2024. Thanked stakeholder for feedback and participation on this project.
6	Stakeholder requested a map of changes.	Appreciated input regarding the York – Columbus project. Stated that all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Thanked stakeholder for feedback and participation on this project.
7	Stakeholder requested information on the project.	Appreciated input regarding the York – Columbus project. Stated that all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Thanked stakeholder for feedback and participation on this project.
8	Stakeholder stated they don't believe is awful but expressed concern over the potential disruption of business in the villages, settlements, particularly Shelby. Stakeholder proposed having the road (Expressway) pass one mile South of Shelby to prevent any daily disruption and potential loss of business. Stakeholder stated they will firmly stay neutral however dissatisfied if major interruption of construction takes place.	Appreciated input regarding the York – Columbus project. Stated that regarding comment on the potential disruption of businesses, a bypass around Shelby is no longer being considered as part of the project due to cost and schedule constraints. Stated the proposed three-lane improvements in Shelby would minimize impacts through town and improve traffic operations. Thanked stakeholder for feedback and participation on this project.
9	Stakeholder stated that they are still in favor of by-passes now instead of later.	Appreciated input regarding the York – Columbus project. Stated that regarding comment on bypasses, NDOT is no longer considering bypasses for Stromsburg, Osceola, or Shelby as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Thanked stakeholder for feedback and participation on this project.
10	Stakeholder stated roundabouts are very helpful in keeping intersections safe. Stakeholder stated roundabouts are also a way to keep costs of intersections hopefully lower. Stakeholder stated the road has high traffic of semis and large trucks that would need enough room to turn and requested NDOT consider this. Stakeholder stated they like the design of the transitions from 4-lane to 2-lane in towns.	Appreciated input regarding the York – Columbus project. Stated that regarding comments on roundabouts, the project team would design roundabouts to accommodate the turning radius of large trucks and other large equipment.

Comment Number	Comment	Response
	Stakeholder stated they also think it is important to have in mind costs using what is already in existence. Stakeholder thanked NDOT for having this meeting.	Stated that regarding transitions, the expressway would change from four to three lanes in urban areas, including Stromsburg, Osceola, and Shelby. Thanked stakeholder for feedback and participation on this project.
11	Stakeholder stated they live two houses from Park Street (Highway 81) that goes through town. Stakeholder stated there is a lot of traffic through town. Stakeholder stated that if the expressway is built through town, it will be very hard for their grandkids to cross the highway after school, etc. Stakeholder stated crossing is already bad. Stakeholder stated they slow down to make a turn on the street next to their home and have to pull over almost on the lawn so the through traffic can get by. Stakeholder stated traffic does not slow down and drives 50+ mph through town.	Appreciated input regarding the York – Columbus project. Stated understanding regarding safety concerns with the proposed alignment through town and ensured that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated that traffic projections for US-81 show that adequate traffic operations can be maintained through the community with a three-lane roadway. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated NDOT will share concerns about speeding with local law enforcement. Thanked stakeholder for feedback and participation on this project.
12	Stakeholder stated they worry about kids crossing the highway in all three communities. Stakeholder stated Shelby has most of the kids in town living on one side of town with the school and other resources on the other side. Stakeholder stated they worry about speed limits through all three towns as well. Stakeholder stated they would prefer the roundabout proposal for the two major intersections.	Appreciated input regarding the York – Columbus project. Stated understanding regarding safety concerns with the proposed alignment through town and ensured that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossings during later design stages of the project. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for feedback and participation on this project.
13	Stakeholder stated their parents own land on the west side of and adjacent to US-81 within the project limits. Stakeholder stated they live in Ft. Worth, Texas and would not be able to attend the information meeting. Stakeholder stated they would like to receive the information being presented at the meetings.	Appreciated input regarding the York – Columbus project. Stated all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing

Comment Number	Comment	Response
		the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Thanked stakeholder for feedback and participation on this project.
14	Stakeholder stated they used to work for NDOT as an Engineers Aide. Stakeholder expressed interest in the project.	Appreciated input regarding the York – Columbus project. Stated all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Thanked stakeholder for feedback and participation on this project.
15	Stakeholder requested information on the project.	Appreciated input regarding the York – Columbus project. Stated all project information presented at recent public meetings can be found on the project website, www.ndot.info/42967. Thanked stakeholder for feedback and participation on this project.
16	Stakeholder attached comments on the York-Columbus highway project. Stakeholder stated the east option would appear to potentially destroy the value of their dad's (deceased) farm and that they are highly in favor of the west option. Stakeholder requested to be on the email notification list of the 2024 Q3/4 public meeting announcing the east or west option. [Stakeholder attached a comment form along with this letter] Stakeholder stated their dad's 6 acres are located on 34th Road & Highway 81 NE of Shelby. Stakeholder stated their dad passed away in January 2024 and the farm is now in estate. Stakeholder stated the east option would severely impact the value of their dad's farm. Stakeholder stated the ROW impact shows the line right next to the machine shed. Stakeholder stated they talked to Brooke at the meeting, and she said this may or may not entail removal of the machine shed. Stakeholder stated the east option essentially turns a very livable acreage into a strip of land lengthwise north to south along a very busy (70 mph) 4-lane highway. Stakeholder stated the west option at least provides a buffer to that traffic. Stakeholder stated they believe that the east option renders this 6 acre property essentially unlivable and that maybe someone would buy it at a bargain price where previously it was a highly valued piece of property. Stakeholder stated that	Appreciated input regarding the York – Columbus project. Extended condolences on the passing of stakeholder's father. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that stakeholder has been added to mailing list and will receive a notification. Stated understanding regarding concerns about the route affecting property. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.

Comment Number	Comment	Response
	case, NDOT might as well acquire it all. Stakeholder also stated there is a small wetlands area on the NW corner of the property used by many birds. Stakeholder urged use of the west option. *(Figures marked up by commentor attached along with comment form)*	
17	Stakeholder stated the information provided from the meeting on March 13, 2024 in Polk County has given them some major concerns. Stakeholder stated the primary concern is the intersection of Highway 66 and Highway 81. Stakeholder stated that during the months of August through March there are hundreds of events at Cross County High School from football games, volleyball games, basketball, softball, speech events, and robotics. Stakeholder stated the idea of a "RCUT" solution is very bothersome and should be of concern to NDOT as well. Stakeholder stated the exit location of Cross County for all vehicles is less than a ¼ mile from the intersection of Highway 66 and Highway 81. Stakeholder stated that asking all vehicles to turn south and get in an east lane to make a U-turn might be the craziest idea they have ever heard. Stakeholder stated there are going to be multiple kids ages 14-18 pulling out south on to Highway 81 and then stopping and waiting for a U-turn at dark. Stakeholder stated that 99% of events at Cross County get over at 8:30-9:15 pm. Stakeholder stated that as a father of two and soon to be three boys driving this is a major concern to them. Stakeholder stated that traffic in the south and then the Willastern lane is going to be backed up clear to Highway 66. Stakeholder stated that this RCUT may work in Humphrey or other locations, but asked how many of these other locations have a school less than ¼ mile away with a constant flow of traffic, especially in the evenings. Stakeholder stated that NDOT has to come up with a better solution and suggested a traffic light. Stakeholder stated that something similar to what Wahoo, NE has at their bypass west of town or even a roundabout would be better than having multiple teenagers making U-turns onto a major highway. Stakeholder stated they are not old enough to remember when the talk of this US-81 highway renovation started, but asked if the original goal was to get the flow of traffic out of these small towns. Stakeholder stated that the plan is now to take a 4-lane road and create a bottle neck into 3 lanes in three different communities. Stakeholder stated that the plan does not make sense to them. Stakeholder stated they understand money	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections RCUTs have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for a location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions and that intersection lighting would be incorporated. Stated that NDOT would also take measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Noted that at this time the intersection types have not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding safety concerns with the proposed alignment through town and ensured that safety is NDOT's highest priority. Stated that the new center turn lane through communities would allow vehicles turning off the highway to move over to a dedicated lane. Stated that traffic projections for US-81 show that adequate traffic operations can be maintained through the communities with a three-lane roadway. Thanked stakeholder for feedback and participation on this project.

Comment Number	Comment	Response
	doesn't grow on trees, but that everyone has to think about the safety of the residents and especially teen drivers. Stakeholder stated with the school being 5 miles out of town, NDOT has to take into account teenage drivers and their safety. Stakeholder stated that should be the major priority and they questioned if that is even a factor at this point. Stakeholder asked NDOT to reconsider the design of an RCUT at Highway 66 and Highway 81 for the safety of everyone, especially young drivers.	
18	Stakeholder stated they would like to make a comment on the proposed 4-lane highway from Columbus to York. Stakeholder stated that their father just passed away in late January and they are his daughter, along with their 4 brothers. Stakeholder stated they will own 1/5 of the property of 110 34th Road, Shelby NE 68662. Stakeholder stated they have a very large Morton building that sits in the way (as it looks now) if it was decided to put the highway on the east side. Stakeholder requested that the alignment go to the west side and avoid their property. Stakeholder stated if they lost that nice huge building it would very much diminish the value of that property and anyone living there. Stakeholder stated that it would also put the highway closer to the house, which is not a good thing. Stakeholder asked NDOT to consider going with the west side. Stakeholder stated that there is nothing but farm ground there and nothing would be hurt. Stakeholder thanked NDOT for time with this matter.	Appreciated input regarding the York – Columbus project. Extended condolences on the passing of stakeholder's father. Appreciated input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns about the route affecting property. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
19	Stakeholder proposed that the 4 lanes north of the Highway 81/Highway 92 junction go on the west side of the current highway. Stakeholder stated that if the alignment goes east NDOT will have to move that electrical tower by the railroad tracks, and it would be very expensive. Stakeholder stated that it looks like it would affect less if it were on the west side of the road.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
20	Stakeholder stated that in Shelby, the highway goes through town, and it is already difficult to cross the highway from the north part of town to south part of town. Stakeholder stated that in Osceola, coming in or out of town from East to West they have to come around a curve and down a hill. Stakeholder stated that Main Street is at the center and bottom of each hill which is already dangerous. Stakeholder stated that small towns have kids and old people and that kids have to cross the	Appreciated input regarding the York – Columbus project. Stated that regarding safety concerns with the proposed alignment through town, NDOT wants to ensure stakeholder that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that the new center turn lane would allow vehicles turning off the highway to move over to a

Comment Number	Comment	Response
	highway to go to swimming pool and parks in all three towns. Stakeholder stated this plan is setting Polk County up for mores accidents and deaths. Stakeholder stated that the only answer for this area is standard intersection alternatives. Stakeholder asked NDOT how many truckers they want to run over them in a roundabout. Stakeholder stated it's too bad NDOT does not live in a small town.	dedicated lane. Stated that traffic projections for US-81 show that adequate traffic operations can be maintained through the communities with a three-lane roadway. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
21	Stakeholder stated they personally feel this project is not necessary. Stakeholder stated they personally felt the 3-lane passing zones was a much better option. Stakeholder stated that NDOT needs to rethink a total alternate route for Highway 81 from I-80 south of York to use I-80 east to then catch up with Highway 81 on the Highway coming south out of Columbus and completely leave the Highway 81 alternate route through these 3 towns. [included drawing on comment form] On drawing, stakeholder stated that they don't know – but encouraged NDOT to think about it.	Appreciated input regarding the York – Columbus project. Stated that regarding the three-lane passing zone and the alternate route, one purpose of this project is to fulfill legislative intent to continue the development of the expressway system identified in the 1988 Nebraska Highway Needs Study. Stated that this project is needed to advance the last two-lane segment of the US-81 Expressway from the Kansas/Nebraska border to Norfolk, Nebraska. Thanked stakeholder for feedback and participation on this project.
22	Stakeholder stated that one of their concerns is the idea of roundabouts. Stakeholder stated that it would seem that this would be a headache for long haul commerce. Stakeholder stated that to have to slow down and fight for the right-of-way it would be frustrating. Stakeholder stated that these are usually used in areas like school zones and in cities where traffic is really heavy. Stakeholder stated that with wide load of farm equipment and construction materials, it would cause problems for traffic. Stakeholder stated with the idea of not doing bypasses, there should be additional funds to acquire land to do sweeping curves. Stakeholder asked NDOT how many big rigs have been questioned on this idea of roundabouts.	Appreciated input regarding the York – Columbus project. Stated that regarding comments on roundabouts, NDOT would design the roundabout to accommodate the turning radius of large trucks and other large equipment that would utilize them. Stated that regarding intersection alternatives, NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
23	Stakeholder stated that at the Highway 92 and State Street crossing in Osceola if NDOT could somehow improve the crosswalk for kids crossing to go to the pool and park.	Appreciated input regarding the York – Columbus project. Stated that regarding comment about crosswalk improvements, NDOT wants to ensure that safety is NDOT's highest priority. Stated that as such, our team will evaluate safe pedestrian crossing

Comment Number	Comment	Response
		locations and types during later design stages of the project. Thanked stakeholder for feedback and participation on this project.
24	Stakeholder stated they strongly suggest roundabouts at both ends of Highway 92.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
25	Stakeholder stated the speed limit through Osceola needs to be lowered to 30 mph or 35 mph. Stakeholder stated they have too many children crossing to get to the park and pool. Stakeholder stated the 45 mph is way too fast. Stakeholder stated they have a concern of ambulance and fire trucks crossing the highway.	Appreciated input regarding the York – Columbus project. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Ensured that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that coordination with emergency services would occur during later design stages of the project if impacts are anticipated. Thanked stakeholder for feedback and participation on this project.
26	Stakeholder stated they have safety concerns on the RCUTs, but the explanation does make sense. Stakeholder stated that another need is slowing traffic through towns and safety at transitions are a concern.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that additional information about RCUT (Restricted Crossing U-Turn) intersections is available at www.ndot.info/RCUT. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for feedback and participation on this project.
27	Stakeholder stated they dislike any roundabouts and RCUTs. Stakeholder stated that NDOT should bring leaving traffic to go through the communities. Stakeholder stated there is a need for pedestrian bridges over the highway.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public

Comment Number	Comment	Response
	Stakeholder encouraged NDOT to make sure that box culverts are used instead of metal culverts.	hearing, tentatively set for a central location in fall 2024. Stated that although NDOT is not considering a pedestrian bridge over the highway, our team will evaluate safe pedestrian crossing locations and types during later design stages of the project. Thanked stakeholder for feedback and participation on this project.
28	Stakeholder stated they have major concerns regarding the 3-lane highway going through Osceola. Stakeholder stated there are many children on the South side of town and it will be impossible for them to safely cross the highway to get to the park and swimming pool. Stakeholder stated at a minimum the speed must be lowered but that won't be enough. Stakeholder asked how kids will make it across the highway. Stakeholder stated there are also a lot of people who drive golf carts in town and that crossing the 3-lane highway will not be safe. Stakeholder stated that running a major 3-lane highway right through the middle of town is not safe. Stakeholder stated that flashing lights and reducing speeds through town will not make it safer for kids.	Appreciated input regarding the York – Columbus project. Stated that regarding safety concerns with the proposed alignment through town, NDOT wants to ensure that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for feedback and participation on this project.
29	Stakeholder stated they believe what the state is proposing is progress. Stakeholder stated they have a few thoughts NDOT might consider. Stakeholder stated that speed limits has been an issue for years. Stakeholder stated that as Polk County tries to fill Sherriff positions which would allow more policing through town, applications are minimal. Stakeholder suggested 30-35 mile an hour limits. Stakeholder stated as children cross the current highway through town to get to the park and swimming pool a visible crosswalk should be considered. Stakeholder thanked NDOT for allowing people to voice their opinions and concerns.	Appreciated input regarding the York – Columbus project. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that if stakeholder would like to set up a meeting to discuss the project further, they should contact Wes Wahlgren, NDOT's District 4 Engineer, at wes.wahlgren@nebraska.gov or (308) 385-6265. Thanked stakeholder for feedback and participation on this project.
30	Stakeholder stated that RCUTs do not work. Stakeholder stated that the three in this project have a lot of farm semis crossing the highway. Stakeholder stated that as the mayor of Stromsburg they have heard a lot of comments that the bypass is very important for safety.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024.

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	Stakeholder stated that trucks already speed through town now and it will probably get worse.	Stated that additional information about RCUT (Restricted Crossing U-Turn) intersection is available at www.ndot.info/RCUT. Stated that regarding comment on bypasses, NDOT is no longer considering bypasses for Stromsburg, Osceola, or Shelby as part of this project due to cost and schedule constraints. Stated that the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for feedback and participation on this project.
31	Stakeholder stated they farm section 19 14-2 southwest y4 and they would like to install a subsurface drip irrigation system and needs to know how far west they can go. Stakeholder stated they prefer that you move to the west side. Stakeholder stated they think it would save a lot of miles and fuel in the long run if the highway went straight north from the Highway 81/Highway 92 junction north of Stromsburg to Highway 22 east of Genoa. Stakeholder stated that this bypasses 3 towns.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Stated understanding regarding concerns about the route affecting property. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
32	Stakeholder requested NDOT put a big roundabout around each community. Stakeholder stated this is overall a good project but that it is just going to cost a whole lot more than if the state would have "bit the bullet" in the first place.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
33	Stakeholder stated that they would like their driveway to come out at 166, possibly a drive all the way across. Stakeholder stated they think NDOT should look at both sides of the road and take the route that has the least amount of houses on it.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder

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		once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
34	Stakeholder stated they own the hog facility at 2110 Highway 81 just south of Benedict. Stakeholder stated it is important for their business to have 2 access lanes into their property for semi-trucks delivering feed and hogs. Stakeholder stated the south driveway to their property could be moved further south if needed. Stakeholder requested NDOT contact them with any questions.	Appreciated input regarding the York – Columbus project. Noted that at this time the location of the two new lanes has not yet been decided. Stated that NDOT is still assessing the options and property access locations. Stated that NDOT will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
35	Stakeholder stated they are very excited to see this project. Stakeholder stated whatever path makes the most sense is fine with them.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for feedback and participation on this project.
36	Stakeholder asked if through the Stromsburg business district, they could have 20 mph speed limits. Stakeholder asked if through Stromsburg they can add a yellow beacon with crosswalk at 1st or 2nd Street. Stakeholder asked if at the Highway 66/Highway 81 junction they can have a restricted access U-turn similar to that in Humphrey on Highway 81 with 55 mph speed limit. Stakeholder asked if when possible in Stromsburg, southward from 3rd St., they can have non-curbed with 8 ft shoulders, and if not, why.	Appreciated input regarding the York – Columbus project. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that regarding crosswalks and beacons, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Thanked stakeholder for input on intersection type. Stated that an RCUT is being considered for the intersection of Nebraska Highway 66 (N-66) and US-81; however, NDOT is still assessing the options. Stated that NDOT will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that regarding shoulders in Stromsburg, the reconstruction of US-81 to a three-lane section with a curbed shoulder is being done under a separate project. Stated that some curbed shoulders are needed to convey drainage; however, south of the railroad tracks, a non-curbed 8-foot shoulder would be constructed with this project. Thanked stakeholder for feedback and participation on this project.
37	Stakeholder stated they are interested in nearby property.	Appreciated input regarding the York – Columbus project.

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		Stated that all project information presented at recent public meetings can be found on the project website, www. ndot.info/42967. Stated that NDOT will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
38	Stakeholder introduced themselves as Jeff Berggren and stated they are a local farmer around the Stromsburg area. Stakeholder stated they farm all around the Highway 81 corridor between Highway 92 and the Polk/York county line on both sides of the highway. Stakeholder stated their main concern is the way NDOT plans to construct the turning point at the Highway 66/Highway 81 corner. Stakeholder stated that NDOT knows there is a school near that point. Stakeholder stated that their safety is the main concern with young kids driving during the busy season of farming such as spring and fall when most fieldwork is completed at that time. Stakeholder stated most kids turn North to go to Stromsburg and the lines at that intersection become quite long. Stakeholder stated that if kids have to turn right with the new proposed design, then have to make a U-turn to head north, they are concerned that there will be many kids that pull out and turn right at the same time, then there will be a long line to turn left to make the U-turn due to oncoming traffic heading north bound and they don't think about that prior to turn right off Highway 66. Stakeholder stated that then the kids, maybe a semi or 2, and/or a tractor with large implements are waiting on Highway 81 in the passing lane to make a left U-turn. Stakeholder stated that this will create a major hazard. Stakeholder stated that this is not like the 4-14 Humphrey turn because Humphrey doesn't have a school right next to it. Stakeholder stated that they highly suggest another way to create that intersection to make it a safer turning point. Stakeholder stated that it needs an overpass or stop light there utilizing the light during heavy traffic hours at least. Stakeholder stated that the rest of the time it should be a yellow flashing light and yellow flashing lights as you approach the intersection on Highway 81 when the stop light is in use. Stakeholder stated that these kids aren't regular drivers that are experienced drivers, and they can see someone heading southbound in the	Appreciated input regarding the York – Columbus project. Stated understanding regarding concerns about RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection) Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 34 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for a location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that NDOT would also take measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Stated that regarding the request for a crosswalk or pedestrian bridge over the highway, NDOT wants to ensure that safety is NDOT's highest priority. Stated that though NDOT is not considering a pedestrian bridge, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Thanked stakeholder for feedback and participation on this project.

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	passing lane on their phone not paying attention and rear ending the vehicles wanting to turn left to do a U-turn to head north. Stakeholder stated that if NDOT doesn't feel this is a good reason to make the engineering changes, then they should at least make the excess turning area for semis longer, so it is a merging lane instead of just a turn area and that will help at least. Stakeholder requested that if NDOT would like to reach out to them, please email them and they can call NDOT with my additional concerns such as combines and tractors and semis that will need to cross that intersection as well due to bridges to the north on the gravel road not being structurally sound enough to hold the weight of the agricultural equipment. Stakeholder stated they also feel traffic will just go to the next intersection or kids will go north and use gravel roads more often which will create an even more safety concern due to the intersection NDOT is thinking about creating at that location. Stakeholder thanked NDOT for listening to their concerns.	
39	Stakeholder stated they prefer the highway to extend west from the present highway.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
40	Stakeholder listed their concerns regarding the proposed four-lane through Osceola, NE in Polk County if this road goes through Osceola making the two lane a three or four lane. Stakeholder asked how young children will cross this four lane to get to the park, the swimming pool, and the disc golf course safely. Stakeholder asked how the ambulance (and/or the fire trucks if need be) will get across the four lane to transport patients from the Good Samaritan Center, the Assisted Living and other parts of the north end of town in a timely manner to the hospital which is on the south end of town. Stakeholder stated that the railroad crosses the highway on the west edge of town, usually between 10 p.m. and 2 a.m. Stakeholder asked if traffic is supposed to stop for that and stated that it sounds like accidents begging to happen. Stakeholder stated that they are not so I that they don't know their little town has their unfortunate share of illegal drugs in the town but stated that people hear about the big drug busts on the interstate. Stakeholder stated that they really don't need more of this kind of	Stated that after reviewing the comment further - NDOT believes there may be some confusion as to what the project scope entails. Stated that bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated that the proposed plan is to re-purpose the highway through the Osceola community, keeping the overall width similar to what is currently there. Stated that currently, the roadway consists of one driving lane in each direction plus a wide paved shoulder on either side. Stated that the proposal for the future highway through town includes the same one-lane traffic in each direction and a common center turn lane. Stated that this is much like what is currently being constructed in Stromsburg. Stated that the three-lane improvements that are planned for these communities would minimize impacts through town and improve traffic operations. Stated that regarding safety concerns, the new center turn lane would also provide a safety

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	traffic. Stakeholder asked if the wider road will actually attract people to stop at Casey's, Dollar General, the park, or drive into town to see what is available. Stakeholder states they highly doubt it. Stakeholder asked if the wider road somehow goes around Osceola, they doubt Osceola will dry up due to lack of a chance of possible business. Stakeholder thanked NDOT for allowing them to voice their concerns in hopes the road does not go through Osceola.	benefit by allowing vehicles turning off the highway to move over to a dedicated lane. Stated that those vehicles (& pedestrians) crossing the highway would cross a similar amount of pavement that currently is out there. Stated that NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that NDOT is also reviewing the railroad crossing and local side street intersections for any potential improvements as part of this project. Stated that hopefully, this clears up concerns and offers clarity as to what NDOT is proposing. Stated that NDOT still encourages stakeholder to attend any of the future public information meeting open houses to speak with staff to address any additional questions or concerns they may have. Stated that if stakeholder is unable to attend, all meeting materials will be available on the project's webpage, www.ndot.info/42967, after the public meeting on Tuesday, March 12th.
41	Stakeholder thanked NDOT for looking at their concerns. Stakeholder stated it must be a lot cheaper to go through town instead of going around. Stakeholder asked if NDOT foresee this four-lane project connecting York to Columbus to increase traffic for travelers to get from the southern NE to the Northern NE. Stakeholder asked NDOT what size town/city they grew up in. Stakeholder stated their town is one where everyone one knows everyone or at least whom the children belong to. Stakeholder stated they watch out for them. Stakeholder stated they realize the third lane proposal you spoke of is for easier turning into town, but by no means does that make it any safer for children to cross the highway to get to the north side of town where the recreation area is for them. Stakeholder stated that as they have stopped at the stop sign waiting my turn to get on the highway, they have had to wait for up to 10 cars and/or semis before they can proceed. Stakeholder stated they feel this road project through town will increase traffic. Stakeholder stated that heaven forbid traffic slows down regardless of the speed traffic signs, so unless there is a stop light or an overhead bridge included in this project, they see it as an enormous problem for the youth. Stakeholder stated that although NDOT was considerate enough to address their concerns, they are rather sure NDOT already has their minds made up. Stakeholder invited NDOT to walk across the highway as it is (by Casey's or Dollar General) a couple of different times of day—	*Responded to in conjunction with comments below.*

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	maybe at 1:00 when people are going back to work and the pool is just opening, or at 5:00 when kids are going home for supper and people are getting off work when the sun is shining in the driver's eyes, and to think about their children or grandchildren while they take that stroll.	
42	Stakeholder stated their main concern is the safety of the children who now cross two lanes to get to the park and back will now be three lanes with the turn lane. Stakeholder stated that the speed limit should be lowered to 30-35. Stakeholder stated that the railroad and bridges need to be redone or sidewalks to go to Dollar General and coming down State St. Stakeholder agreed that a turn lane would help traffic but that it is still now 3 lanes for kids to cross. Stakeholder suggested NDOT consider a stoplight not a yellow flashing light or an overpass for kids. Stakeholder stated that roundabouts and RCUTs are ridiculous and asked NDOT to please not do those.	*Responded to in conjunction with comments below.*
43	Stakeholder stated that this morning they had the opportunity to drive leisurely on Highway 92 from the west side of Osceola all the way through to the east side of Osceola. Stakeholder stated that although they are still EXTREMELY concerned about the youth's safety in crossing the intersection of State Street and Highway 92 with the addition of the turning lane, they can see several benefits to completing the highway project as proposed, with the possibility of decreasing the speed limit from 45 to 35 or slower and/or a flashing light to make drivers aware of pedestrians. Stakeholder stated that after many prayers they can see the benefit to our town businesses and see the struggle of eminent domain being sidestepped should the road have to go around Osceola. Stakeholder stated they heard the road would be raised which may help with the flooding of two or three areas of this stretch through town that occurs one to two times a year if they are blessed with moisture at all. Stakeholder thanked NDOT again for taking time and consideration for their humble opinions.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that regarding safe crossings, NDOT wants to ensure that safety is NDOT's highest priority. Stated that NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that additional sidewalk improvements are not being considered at this time. Stated that traffic projections for US-81 show that adequate traffic operations can be maintained through the community with a three-lane roadway. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that regarding signals, NDOT will assess traffic conditions, including intersections, to determine if traffic signal warrants are met. Stated that per national standards, various warrants for volume, crash history, and other factors need to be satisfied for installation of traffic signals. Stated that regarding railroads, NDOT is reviewing the railroad crossing and local side street intersections for any potential improvements as part of this project. Stated that bridges are also being evaluated to see if improvements need to be made to accommodate the proposed three-

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		lane section and to understand the benefits and impacts associated with the concept alternatives. Stated that regarding flooding, the concept alternatives at Osceola went through an in-depth modeling analysis to address the highway overtopping concerns while weighing the impacts of the associated highway improvements. Stated that this in-depth analysis will help select a preferred alternative at Osceola that would reduce the frequency of highway flooding overtopping but also working within state statute limits for causing less than a one-foot rise in the base flood elevation at the site. Stated that NDOT will strive to keep any increases in the base flood elevation at a minimum while addressing known flood overtopping issues of the highway. Thanked stakeholder for feedback and participation on this project.
44	Stakeholder stated that they own land along Highway 81 at 1512 Hwy. 81 and they are wondering when the project will begin, more exactly when the bulldozers will begin because they have fence that needs to be taken out. Stakeholder thanked NDOT.	Appreciated input regarding the York – Columbus project. Stated that construction could begin as early as fall 2028 and is subject to funding availability and agency approvals. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Thanked stakeholder for feedback and participation on this project.
45	Stakeholder stated they would prefer that the highway expand to the west of its current location, not to the east. Stakeholder thanked NDOT.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
46	Stakeholder stated they would strongly prefer the new highway be placed on the west side of the current highway. Stakeholder thanked NDOT.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024.

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		Thanked stakeholder for feedback and participation on this project.
47	Stakeholder stated they attended the informational open house in Shelby on March 12th. Stakeholder stated while they believe the project is vitally important to the future of transportation in Nebraska, they do have concerns with the current proposal. Stakeholder stated that reducing lanes from 4 down to 2 + a turn lane in Stromsburg, Osceola, and Shelby is a major safety concern. Stakeholder stated it is already challenging to cross Highway 81 where it intersects with Highway 69 in Shelby, and assuming traffic will increase due to the 4 lanes, it will even become more difficult. Stakeholder stated they are just not sure what the gain is if the plan is bottleneck its 3 communities. Stakeholder stated that if the intent is to improve traffic flow through the state of Nebraska, why are they not building a new expressway from the Highway 81/Highway 92 corner west of Osceola straight north and connecting to the current 4 lane west of Columbus. Stakeholder stated this would by far be the most efficient route, avoiding traffic issues in Osceola, Shelby, and Columbus. Stakeholder asked NDOT if this option has been looked at. Stakeholder stated the current proposal really needs to be reevaluated and determine whether it meets the objective of a 4-lane project. Stakeholder stated they are not sure how much they are gaining by squeezing it down to 2 lanes in three communities, along with the safety issues it creates. Stakeholder thanked NDOT for taking their comments.	Appreciated input regarding the York – Columbus project. Stated that regarding safety concerns with the proposed alignment through town, safety is NDOT's highest priority. Stated that the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated that regarding safe crossings, NDOT wants to ensure that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated that regarding thoughts on constructing a new expressway west of Osceola, bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated that the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Thanked stakeholder for feedback and participation on this project.
48	Stakeholder stated they have a piece of ground located by Rd. 34. NW ¼ 31-14-1E 142.78 Acres Butler County on east side of Hwy 81. Stakeholder stated they also have a piece of ground located Rd. 33 W ½ NW ¼, and NW ¼ SW ¼ 6-14-1E 49.065 Acres Butler County on East side of Hwy 81. Stakeholder stated their brother Glyn Moeller owns 52 Acres connected with their 49.065 Acres. Stakeholder stated their concerns are they have ground North of Columbus, and their son rents these 2 pieces of ground so takes large machinery over Loupe and Platte River down Hwy 81 to farm these pieces of ground. Stakeholder stated they will need access to get there. Stakeholder stated they just bought land in Jan. 2024 that lies next to their 49.065 Acres that has easement for CO-2 line. Stakeholder stated their concerns would be both sides of my land would have construction on it and it would make it very difficult to farm. Stakeholder stated that all their	Appreciated input regarding the York – Columbus project. Extended deepest condolences on the passing of stakeholder's husband. Stated understanding regarding concerns about the route affecting property. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Stated that construction could begin as early as fall 2028 and is subject to funding availability and agency approvals. Thanked stakeholder for feedback and participation on this project.

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	pivots would need to be shortened. Stakeholder stated they have had many changes in the past 3 years. Stakeholder stated they lost their husband (the farmer) and that this would add more stress to their life.	
49	Stakeholder stated they are a resident of the City of York Nebraska. Stakeholder stated they appreciate the time and energy the Department of Roads invested in these public information gatherings. Stakeholder stated they all agree the express way system is way overdue for completion. Stakeholder stated the professionalism shown by the many NDOT employees and third party representatives makes one feel proud these people are on board for them. Stakeholder stated they heard two main comments from the public at the different display stations. Stakeholder asked how much more traffic would increase when the project is completed and if this would take some truck pressure off of I-80. Stakeholder stated their other question is why there are no bypasses around the small towns like York has. Stakeholder asked why (estimated) 300% increase in truck traffic and if NDOT would want this going through a town. Stakeholder stated NDOT can't use the argument of money. Stakeholder stated preventing a small child being killed while crossing an expressway system is a poor trade off. Stakeholder asked NDOT to please reconsider.	Appreciated input regarding the York – Columbus project. Stated that regarding traffic increases, traffic projections for US-81 show that adequate traffic operations can be maintained through the community with a three-lane roadway. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that regarding question about bypasses around the small towns, bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Stated that regarding safe crossings, NDOT's highest priority is safety. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Thanked stakeholder for feedback and participation on this project.
50	Stakeholder stated they are concerned with the 3 lanes going through Shelby and children having to cross to get to school, ballpark, and pool. Stakeholder stated they live just South of Shelby on Highway 69 and semis are hitting their jake brakes at their place and no-way they are going 35 when they hit the city limits. Stakeholder asked how long vehicles/humans will have to wait going N/S across the 3-lanes, mainly the Highway 69/Highway 92 junction.	Appreciated input regarding the York – Columbus project. Stated that regarding your safety concerns with the proposed alignment through town, NDOT's highest priority is safety. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that delay times for vehicles and pedestrians at the three-lane intersections would vary based on traffic volumes and pedestrian activity. Stated that at this time, NDOT does not have specific data on delay times.

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		Thanked stakeholder for feedback and participation on this project.
51	Stakeholder stated most of the population of Osceola is on the South side of the highway. Stakeholder stated the parks and pool are on the North side of the highway. Stakeholder stated it is dangerous for the young and old as traffic goes through very fast. Stakeholder stated they would like a walkway over the highway that would also accommodate golf carts. Stakeholder thanked NDOT.	Appreciated input regarding the York – Columbus project. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that regarding request for a pedestrian bridge over the highway, NDOT is not considering pedestrian overpasses for the proposed project. Ensured that safety is NDOT's highest priority. Stated that as such, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Thanked stakeholder for feedback and participation on this project.
52	Stakeholder asked NDOT to not put a roundabout at the "T" of Hwy 81 and 92. Stakeholder stated they are difficult for local truck drivers to navigate with a full load. Stakeholder stated they are concerned about loss of farm ground and having to relocate several structures. Stakeholder stated that a positive of this project is that they will get much needed bridge repairs.	Appreciated input regarding the York – Columbus project. Appreciated input on intersection types. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that regarding comments on roundabouts, NDOT would design the roundabout to accommodate the turning radius of large trucks and other large equipment. Stated understanding regarding concerns about the route affecting property. Stated if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.
53	Stakeholder stated their family owns the property on the south side of the highway across from the Cubby's store on the east side of Shelby. Stakeholder stated they would greatly appreciate if NDOT could move the area from 304 lane east far enough to where it would not affect their pivot on the south side of the road. Stakeholder stated they also don't think it's a good idea to have the transition from 3-4 lanes that close to the Cubby's Entrance.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns about the route affecting your property. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.

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54	Stakeholder stated that information was very well presented. Stakeholder stated that they need finalized decisions on several items. Stakeholder stated they look forward to getting this project started and finished.	Appreciated input regarding the York – Columbus project. Stated that NDOT will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
55	Stakeholder stated the part about cross county school where Highway 66 and Highway 81 meet running traffic to the south and then a U-turn going back north to Stromsburg is not a good choice. Stakeholder stated that after games there would be 50 to 60 cars in a row turning south to U-turn the north and what a mess that would be. Stakeholder stated trucks making U-turns is also messy and that death will happen. Stakeholder stated that they can't see traffic from south because of hill. Stakeholder stated that running traffic through Stromsburg will have all kinds of traffic hitting traffic from post office to bank and other areas. Stakeholder stated this project will probably never happen in 2028. Stakeholder stated this project was to happen 20 years ago. Stakeholder stated that NDOT spends all money in Lincoln and Omaha. Stakeholder stated that gas tax was to go for this, never happened. Stakeholder stated the project probably should start with around towns first so that you finish projects. Stakeholder stated four lanes would be great, but NDOT won't ever get this done.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), RCUTs have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that more information about RCUTs is available at www.ndot.info/RCUT.https://dot.nebraska.gov/news-events/transportation-tidbits/r-cut-intersections/ Thanked stakeholder for feedback and participation on this project.
56	*[No comment on form]*	Appreciated input regarding the York – Columbus project.
57	Stakeholder requested that NDOT do the bypasses. Stakeholder stated it makes more sense to do them now then come back and do them later. Stakeholder stated the added cost of going through the towns could be avoided. Stakeholder stated it is called an expressway for a reason, so people don't have to slow down going through the towns.	Appreciated input regarding the York – Columbus project. Stated that regarding comments on bypasses, bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Thanked stakeholder for feedback and participation on this project.

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58	Stakeholder stated the bypasses are needed now and more so when the expressway is complete. Stakeholder stated that a solution to the lack of funding for the bypasses would be to complete the expressway to where the bypasses would start and make it a toll road to pay for the bypasses. Stakeholder stated they have to drive 81 to Texas and the toll roads are used.	Appreciated input regarding the York – Columbus project. Stated that regarding comments on bypasses, bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Thanked stakeholder for feedback and participation on this project.
59	Stakeholder stated they attended the public information meeting at Osceola NE and was disappointed. Stakeholder stated they were informed that the state was to work on Hwy 81. Stakeholder stated it is long over-due as a North-South corridor from Mexico to Canada, but they were surprised to find out that the Hwy 81 was not going to bypass Stromsburg, Osceola, or Shelby. Stakeholder stated that all other towns, to their knowledge, were bypassed but not in Northern York and Northern Polk County. Stakeholder stated the state is going to put roundabouts along the route, disturbing. Stakeholder stated there are many trucks using Hwy 81 now and if completed there will be more and roundabouts are very difficult and unsafe. Stakeholder asked NDOT to please reconsider this idea, to have them stand out for safety and consideration. Stakeholder thanked NDOT.	Appreciated input regarding the York – Columbus project. Stated that regarding comments on bypasses, bypasses of the three communities are no longer being considered as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Thanked stakeholder for input on intersection type. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
60	Stakeholder stated although they are highly in favor of the NDOT expansion of Highway 81 to allow for safer vehicle travel between York and Columbus on the two-lane portions, themself and other Osceola patrons have great concerns for pedestrian travel across the highway in Osceola. Stakeholder stated that high volumes of traffic on Highway 81, along with an increased number of careless, distracted, or impatient drivers, has made those 41 miles of highway very unsafe. Stakeholder stated that almost each time they leave Osceola to travel to York or Columbus, they witness unsafe passing being done by others making it necessary for all drivers to be driving especially defensively. Stakeholder stated the four-lane expressway will allow safer passing of slower vehicles between the towns. Stakeholder stated their concerns for the safety of their children and other pedestrians is just as great. Stakeholder stated that in the past, the city has been told they cannot get the state to lower their speed limit on Highway 81/92 through town due to there not being any residential homes in	Appreciated input regarding the York – Columbus project. Stated that regarding safety concerns with the proposed alignment through town, NDOT's highest priority is safety. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated NDOT is not considering a pedestrian bridge over the highway, however, NDOT will evaluate safe pedestrian crossing locations and types during later design stages of the project. Stated NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Thanked stakeholder for feedback and participation on this project.

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	Osceola with a highway address. Stakeholder stated that currently, the speed limit is 45, although it is 30 through Stromsburg and 35 through Shelby, and much of the traffic is going faster than 45 through Osceola. Stakeholder stated that Osceola's City Park is located on the north side of the highway and railroad tracks, with most residents living on the south side of the highway and tracks. Stakeholder stated that thus, most of the children walking or biking to the park and swimming pool are having to cross the highway. Stakeholder stated with the addition of a third lane for turning, it will make it more dangerous for children to cross safely. Stakeholder stated patrons would like to see a pedestrian bridge over the highway, but they know that is probably not possible with limited State funding for the project as it is, so they ask that as part of this highway project, NDOT should drastically lower the speed limit through Osceola and install a yellow blinking caution light above the Highway 81/North State Street intersection to help provide for the safety of their children. Stakeholder stated that this intersection is already the busiest in town with Casey's store also located there. Stakeholder asked NDOT to help Osceola make this intersection as safe as possible with a speed limit change and additional caution light to prevent a tragedy. Stakeholder thanked NDOT for taking the time to read about their concerns.	
61	Stakeholder stated that this letter is to provide feedback following the open-house meetings regarding the above named project to widen Highway 81 to 4-lanes from York to Columbus. Stakeholder stated they attended the one in Shelby on March 12th. Stakeholder stated they think the project is well overdue as NDOT has probably heard many times. Stakeholder stated they have concerns over several of the intersection design options presented. Stakeholder stated the intersection they are most concerned with is the Hwy 81-Hwy 66-Road 123 intersection south of Stromsburg. Stakeholder stated that intersection is extremely busy at certain times many days of the week. Stakeholder stated it's not like there will be 3-4 vehicles there at once. Stakeholder stated that before school is in session in the morning, after school, before and after sports practices, activities in the evenings, there can be 20 or more vehicles at that intersection at one time. Stakeholder stated they have witnessed too many close calls with younger drivers taking risks there in combination with traffic from trucks and farm	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), RCUTs have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for

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	equipment crossing Hwy 81 or turning onto and off of Hwy 66. Stakeholder stated with a four-lane highway going through there, the speeds and amount of traffic will pose more risk. Stakeholder stated they think the best way to manage that intersection is with a roundabout. Stakeholder stated they think it allows for traffic to free flow in all 4 directions, but also manages the speed at which vehicles pass through the intersection as well. Stakeholder stated with so many young drivers using that intersection daily, managing the speed through this intersection is going to be critical. Stakeholder stated it forces the traffic from all 4 directions to slow down through this area due to going through a roundabout, and there won't be as many impatient drivers waiting to enter Hwy 81 like there is with a normal intersection or even a RCUT. Stakeholder stated they heard mention of an RCUT at this intersection, which they don't like for a couple reasons. Stakeholder stated that a good proportion of the traffic at this intersection is coming from the west and turning left (north). Stakeholder stated that with an R-Cut, traffic is forced to go south, but traffic will also have to jump across from the outside lane to the inside lane to get into the turn lane. Stakeholder stated that with traffic moving fast down a 4-lane Hwy-81 and during busy times, drivers are not able to judge how fast oncoming traffic is coming at them and the oncoming traffic is going to jump to the center lane, the same place the turning drivers are wanting to cross. Stakeholder stated they've been through the RCUT at Humphrey many times, and they cringe each time they go through there. Stakeholder stated they see a lot of close calls with slow moving trucks turning or Hwy 81 through traffic trying to sail on through, and suddenly heavy braking because slow vehicles are trying to cross to the turn lane, and there isn't a flood of traffic there like there would be near a school. Stakeholder stated speed limits signs slow some folks down, but not everyone. Stakeholder stated they are afraid if unaware traffic is rolling up or down Hwy 81 past this intersection at busy times, the difference in speeds is going to be a problem with all the crossing traffic. Stakeholder stated a roundabout here forces everyone coming through to slow down and allows entering traffic more opportunity judge the speed of oncoming traffic and to maneuver through the intersection going any of 3 directions. Stakeholder stated that as they mentioned, a lot of traffic is going east-west at this intersection,	anticipated traffic conditions, and intersection lighting would be incorporated. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.

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	including trucks and farm equipment (tractors, combines, grain carts). Stakeholder stated that an RCUT now makes that equipment go up Hwy-81 and around with this fast 60-75 mph traffic around them on both sides. Stakeholder stated that having farm equipment on the 4-lane trying to maneuver around an RCUT is not easy or very safe. Stakeholder stated the quicker they can cross at a roundabout, the better. Stakeholder stated at the major intersections north of Stromsburg and east of Shelby, they like the idea of nice sweeping curves, but realize they take up a lot of real estate. Stakeholder stated they think building some good roundabouts at these intersections is probably the best option for allowing freedom of traffic to keep moving and not take up so much land. Stakeholder thanked NDOT for their consideration.	
62	Stakeholder stated the only viable option for the intersection of highway 66 and 81 is the standard version.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
63	Stakeholder stated they strongly believe expanding HWY 81 and the west side is the best option especially between Hwy 92 and Columbus. Stakeholder asked if less negatively impacting people on small acreages with lanes on the east side would be "The Good Life", especially concerning the home/acreage site on 34th Rd. Hwy 81 – Butler County. Stakeholder stated it would be terribly unsafe to live on the edge of a 4 lane highway go 70 mph especially for children. Stakeholder stated the alignment on the west side would be less invasion for wildlife that uses the woods/wetlands area on that space. Stakeholder stated that keeping its land value of that small acreage would be good property tax for Butler County. Stakeholder encouraged NDOT to expand Hwy 81 to the west side.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
64	Stakeholder stated they are a landowner close to the Highway 92 & Highway 81 junction between Rising City and Shelby that has property on both the east and the west side of the proposed project as it turns north and heads toward Columbus. Stakeholder stated they are also involved in the local fire and rescue department.	Appreciated input regarding the York – Columbus project. Thank you for your input on the location of the two new lanes and the intersection types. NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. If your property is

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	Stakeholder stated concerning the selection of west vs east going north toward Columbus, their preference is for the new ROW to be expanded to the west. Stakeholder stated they have pivot irrigated ground to the east and dryland to the west. Stakeholder stated that obviously the dryland would be impacted less. Stakeholder stated that another detriment to the east is a cell tower on property leased from them. Stakeholder stated that lastly, their family also has a poultry operation on the east side of the junction that they would like to keep traffic away from as much as possible for biosecurity reasons. Stakeholder stated that concerning the intersection, even though they are not a huge fan of roundabouts, it looks like from a safety standpoint that it may be the wisest of the 3 choices. Stakeholder stated they have worked multiple accidents on the present intersection some involving fatalities and if the safety rises by the degree the material presents, it makes a lot of sense. Stakeholder stated the sweeping curve would be their last choice because of the large intrusion on multiple properties. Stakeholder stated that their comments on the transition to Highway 92. Stakeholder stated that their preference is to leave 92 alone as much as possible. Stakeholder stated this highway was originally placed in the 1950's and has held up amazingly well with only infrequent repair. Stakeholder asked NDOT to please save the money and not expand the transition to highway 92 any more than necessary. Stakeholder stated major changes could also affect their poultry operation which would be a negative for biosecurity and traffic disruption for the farm. Stakeholder thanked NDOT for considering their input.	impacted by this project, an NDOT representative will contact you once the design footprint has been finalized and the right-of-way (ROW) process begins. Regarding transitions, the proposed three-lane improvements for these communities would minimize impacts through towns and improve traffic operations. NDOT will make every effort to maximize the use of existing transportation infrastructure and improve the condition of the existing infrastructure. This includes minimalizing the amount of reconstruction on Highway 92 to implement the proposed alternatives. Thanked stakeholder for feedback and participation on this project.
65	Stakeholder stated they recently saw a plan for more road construction that would apply to the 81-66 junction south of Stromsburg. Stakeholder stated they realize that complaints may have been received requesting a "solution" to the traffic from Cross County School. Stakeholder stated they doubt that any of these proposals will be a solution. Stakeholder stated they also realize that no plan is going to please everyone. Stakeholder stated they have not heard of accidents in the ten plus years that the school has been located at this spot. Stakeholder stated they have been out there enough to witness that traffic coming from the school respects the north/south on 81 well enough to be cautious when coming from the school. Stakeholder stated	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT

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	they have also been out there many times after a ball game and don't witness a big problem. Stakeholder stated the expense of "fixing" what isn't even a big problem could be used in a more constructive way where it is really needed. Stakeholder stated the plan of making traffic go south and then make a U-turn and go back north is bizarre. Stakeholder asked if NDOT can even imagine what kind of a traffic jam that will be when hundreds of people are attempting to do that after school, after a game, after graduation, etc. Stakeholder stated the traffic coming from the north would be held up while people coming from the school wait for the traffic coming from the south so they can do their U-turn and go back to the north. Stakeholder stated that doesn't even take into account the people coming from the south trying to get to the school. Stakeholder stated that NDOT should throw that plan away. Stakeholder stated they cannot even imagine how semi-trucks, tractors, and traffic could benefit from the roundabout plan. Stakeholder stated the other options don't seem to make sense either. Stakeholder stated that what they have now is something that everyone has adjusted to, and it works. Stakeholder stated that traffic coming from the north and south are totally visible for the traffic coming from the east and west. Stakeholder stated they do NOT believe there is a need for change. Stakeholder stated they are also confused as to WHY they "needed" a 3 lane going through town. Stakeholder stated this is a huge expense and mess with no logic to it. Stakeholder stated that just to list one big negative, the parking that was in town is going to be gone and will affect local businesses, and that's not progress.	held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that one purpose of this project is to fulfill legislative intent to continue the development of the expressway system identified in the 1988 Nebraska Highway Needs Study. Stated that this project is needed to advance the last two-lane segment of the US-81 Expressway from the Kansas/Nebraska border to Norfolk, Nebraska. Thanked stakeholder for feedback and participation on this project.
66	Stakeholder stated that staff were very nice people and honest, if they could not answer questions, they found someone who could. Stakeholder stated that after reading pamphlet and looking at the graphs a few questions have come to their mind. Stakeholder asked where their PO Box will be, and they understand that is a federal question. Stakeholder asked that if a fender bender happens, it would be more practical to have an 8 ft shoulder to keep traffic moving. Stakeholder stated they have lived at their address right on the highway 81 for 68 years of my life. Stakeholder stated that car break downs and fender benders would be nice to pull off road. Stakeholder stated that it is no big deal if they lose some grass to widen the road. Stakeholder thanked NDOT for listening.	Appreciated input regarding the York – Columbus project. Stated that regarding a change in the location of stakeholder's mailbox, that work is being done as part of the *In Stromsburg* project. Asked stakeholder to contact the project manager, Lynette Kowalski at 308-571-2199 for information. Stated that regarding shoulders in Stromsburg, the reconstruction of US-81 to a three-lane section with a curbed shoulder is being done under a separate project. Stated that some curbed shoulders are needed to convey drainage; however, south of the railroad tracks, a non-curbed 8-foot shoulder would be constructed with this project.

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		Thanked stakeholder for feedback and participation on this project.
67	Stakeholder stated they are writing on behalf of Gunslingers, their business located at 105 41st Rd Lot 3, Columbus, NE 68601. Stakeholder stated they have recently invested a substantial amount of resources into the expansion of their live fire shooting range. Stakeholder stated this expansion project is anticipated to exceed four million dollars in costs. Stakeholder stated that they have become aware of the proposed expansion of Highway 81, which they believe will significantly impact our investment. Stakeholder stated that given the potential implications of the highway expansion on their business operations, they believe it would be mutually beneficial for both parties to explore the possibility of the Nebraska Department of Transportation purchasing their location for the expansion before they commence the groundbreaking phase of our project. Stakeholder stated this proactive approach would allow them to mitigate potential losses and would provide the Department with an opportunity to incorporate their property into their expansion plans in a manner that best serves the interests of all parties involved. Stakeholder stated that their original timeline for commencing development on the expansion project was set for the spring of 2025. Stakeholder stated that given the circumstances, they are open to discussions and willing to adjust their timeline to accommodate negotiations with the Department. Stakeholder requested a meeting to discuss this matter further and explore potential options for collaboration. Stakeholder requested that NDOT let them know a convenient time for them, and they will make the necessary arrangements. Stakeholder stated they are committed to finding a solution that addresses the needs of both Gunslingers and the Nebraska Department of Transportation. Stakeholder thanked NDOT for attention to this matter. Stakeholder stated they look forward to a prompt response and the opportunity to engage in productive discussions.	Appreciated input regarding the York – Columbus project. Stated that regarding property concerns, the project is still in design, and NDOT will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that construction on this project could begin as early as fall 2028 and is subject to funding availability and agency approvals. Stated that if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Stated that as discussed on the phone, to set up a meeting, stakeholder should contact Wes Wahlgren, NDOT's District 4 Engineer, at wes.wahlgren@nebraska.gov or (308) 385-6265. Thanked stakeholder for feedback and participation on this project.
68	Stakeholder stated they are contacting NDOT as School Board President of Cross County Schools located near the intersection of Hwy 81 & 66. Stakeholder stated they are writing to submit their comments regarding the proposed design of the new intersection at this location.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public

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	Stakeholder stated this intersection has always been somewhat of a safety concern ever since their school first opened in 2008. Stakeholder stated they are fortunate that up to this point there have been no serious accidents involving students, patrons, or visitors to our school. Stakeholder stated the proposed widening of Hwy 81 to four lanes is a project they welcome, but they also recognize that it would make this intersection an even greater safety concern. Stakeholder stated that NDOT design proposals for either a standard intersection or an RCUT intersection both cause them some concern. Stakeholder stated this is partly due to the fact that many of the drivers at this location are students who are naturally inexperienced and higher risk drivers, and this is heightened considerably by high traffic volumes at the beginning and end of the school day. Stakeholder stated the most extreme levels of risk would be at the ending time of large school events that occur at night. Stakeholder stated they frequently could have several hundred cars leaving their school all at once, with the majority of them wanting to turn north onto Hwy 81. Stakeholder stated that a standard intersection would obviously be simpler and less expensive for NDOT to construct. Stakeholder stated that however, with the likely higher traffic speed on Hwy 81, and somewhat limited sightlines, especially to the north, they feel that it would become a much more dangerous intersection for those who are turning north or crossing to the east. Stakeholder stated that with light traffic in daytime this may not be a big problem, but as mentioned above, with nighttime conditions and very high traffic volumes this could become a more dangerous situation. Stakeholder stated that at the bare minimum, they would hope that a flashing yellow light would be installed here if NDOT ends up going with the standard intersection design. Stakeholder stated the RCUT design would probably be somewhat safer, as it would help to alleviate some of the danger of crossing both lanes at once, but they have serious reservations about how well it could handle hundreds of vehicles in a short window of time. Stakeholder stated it may need to have a longer U-turn Lane than normal to handle the higher volume. Stakeholder stated even then there may be traffic backed up waiting to get into the U-turn Lane, which could be a major hazard for the high-speed traffic in the southbound lanes. Stakeholder stated that there is also the potential of having	hearing, tentatively set for a central location in fall 2024. Stated that regarding comments on an overpass, bypasses or overpasses, are no longer being considered as part of this project due to cost and schedule constraints. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic, NDOT would be happy to coordinate that effort with stakeholder's district. Stated that if an RCUT is selected for a location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that NDOT would also take measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.

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	the eastbound Hwy 66 traffic backed up all the way to the school entrance, which is a fairly common occurrence even now following large events. Stakeholder stated one other consideration for the RCUT design is that it essentially eliminates any possibility of farm machinery crossing Hwy 81 at this location. Stakeholder stated while that may be good for safety reasons for the future, we currently do have farmers crossing here on a daily basis. Stakeholder stated that it was stated at one of the meetings that NDOT is currently not considering other alternatives for this intersection. Stakeholder stated that because they have safety concerns that they believe are both significant and legitimate, they hope that NDOT will be open to considering some of the other possibilities. Stakeholder stated the first of those would be a roundabout intersection similar to what NDOT is proposing at several other locations. Stakeholder stated they can understand why NDOT would have an obvious priority of not wanting to slow all Hwy 81 traffic down at this location, all of the time, but they feel that this intersection likely has one of the higher probabilities of high volumes of traffic than most all of the intersections along the 41-mile route of this project. Stakeholder stated they know that a roundabout would not be a perfect solution either, but they feel that it would more effectively keep things moving along safely at times of high traffic volume. Stakeholder stated they also believe that it would potentially help to save the lives of people that they know and love as they travel to and from their school. Stakeholder stated another alternative that they believe should perhaps be explored would be a traffic light similar to the intersection at the south end of Lincoln Avenue in York. Stakeholder stated the sensors at that location seem to work well at only stopping Hwy 81 traffic at those times when the traffic flowing out of York requires it. Stakeholder stated that when there is no such traffic, Hwy 81 flows along smoothly without interruption. Stakeholder stated that lastly, they will mention one of the obvious best choices for safety which would be an overpass at this location similar to the one at Fairmont. Stakeholder stated that it seems likely that this idea may be cost prohibitive, but they believe that safety considerations should be weighed very heavily in choosing the best design for this situation.	

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	Stakeholder stated they would be happy to communicate more with NDOT on this issue if there are further opportunities to do that. Stakeholder stated they look forward to this project actually happening after so many years of talking about it. Stakeholder thanked NDOT and staff for all of the good work they do on this project and across the state of Nebraska.	
69	Stakeholder stated they live at the address below. Stakeholder stated they are curious as to which side the current highway it will go. Stakeholder stated that if it goes west, NDOT needs to plan on buying their house too if it is west. Stakeholder stated that if their shop isn't there, they don't want to live there. Stakeholder stated they also don't want a 4 lane highway 150' from their front door.	Appreciated input regarding the York – Columbus project. Stated that at this time, the location of the two new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Thanked stakeholder for feedback and participation on this project.
70	Stakeholder stated they are writing in concerns with the project S-81-2(1051) York-Columbus; C.N. 42967. Stakeholder stated if the project is constructed on the west side of existing Hwy 81 between York and Stromsburg, they would have major issues with this project that would damage their farm and cattle feeding operations. Stakeholder stated it would have a major impact on their existing scale which is used to monitor all commodities in and out of our feedyard/farming operations. Stakeholder stated it would mean removal of their business office and apartment. Stakeholder stated it would have a major effect with cattle feeding capacity loss of 300 head. Stakeholder stated that their DEQ wastewater pond would need to be relocated with this project. Stakeholder stated that NDOT would need to replace fences, gates, and make pivot adjustments. Stakeholder stated that all of these changes would be a huge expense to the State of Nebraska. Stakeholder stated another very important issue for their business is the need for a turning lane for the northbound traffic onto our property from Hwy 81. Stakeholder stated that for safety reasons they need a turning lane for semi-trucks, farm trucks, livestock pickups & trailers to approach their scale head on. Stakeholder stated they have many trucks daily coming in and out with cattle, grain, distillers wet grain, protein supplements, fertilizers, farm equipment, etc. Stakeholder stated that if this project goes on the east side of Hwy 81, they would have to relocate their employee/family house. Stakeholder stated that if it's going on the east side, there would still need to be a turning lane for traffic to safely get	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that stakeholder is on mailing list and will receive a notification. Stated that regarding a turning lane, NDOT will evaluate the appropriate location for auxiliary turning lanes as part of the design process at a future date. Stated that regarding property impacts, if property is impacted by this project, an NDOT representative will contact stakeholder once the design footprint has been finalized and the right-of-way (ROW) process begins. Thanked stakeholder for feedback and participation on this project.

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	across the highway to their business. Stakeholder stated it would be wiser for their business to construct the 2 extra lanes on the East side of the existing highway, unless NDOT is willing to relocate the existing 2 lanes and construct a curve so all buildings can be spared of relocation or destruction. Stakeholder requested that NDOT please take a look at that option. Stakeholder stated that their son and them met with 3 NDOT representatives at their farm and explained to them the complications of this highway project. Stakeholder stated that this was the same day as the public meeting in York, NE. Stakeholder stated they also attended that meeting as well. Stakeholder stated their overall satisfaction with the proposed project is "Neutral". Stakeholder requested that NDOT continue to communicate and thanked NDOT for listening to their concerns.	
71	Stakeholder thanked NDOT for providing information and holding open houses about this project. Stakeholder stated that while they believe this project will have positive impacts, they do have some concerns, the most important being the junction of Hwy 81 & Hwy 66. Stakeholder stated there is a public school located in close proximity to this intersection which causes traffic to be quite heavy during certain times of the day/night. Stakeholder stated many of the drivers are young and inexperienced. Stakeholder stated they have witnessed many close calls and near collisions at this site. Stakeholder stated they think a priority must be placed on safety here and slowing down traffic to allow for the busy intersection. Stakeholder stated they do not think a "RCUT" would serve this purpose and would maybe even increase the chance of accidents. Stakeholder stated that North/South traffic will be moving at 70mph (or more) with a multitude of young drivers crossing lanes and essentially making a U-turn in front of them. Stakeholder stated that in addition, there is enough elevation of the roadway (both north and south) to make it difficult to see that fast moving traffic. Stakeholder stated that for safety reasons, they believe that a roundabout would be a better.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for a location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.
72	Stakeholder thanked NDOT for hopefully reading their input. Stakeholder stated they got a few different viewpoints they'd like to address each	Appreciated input regarding the York – Columbus project.

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	one at the intersection of highway 81 & 66 junction. Stakeholder stated that at a standard Intersection 4 lane, they would like to see a Flashing yellow light at this intersection to possibility alert drivers of caution for their local Cross County Community School located at this intersection. Stakeholder stated certain times of the day and evenings this intersection has high volume of traffic coming onto HWY 81 and they have been very lucky that no major accidents have occurred from younger drivers. Stakeholder stated this style would allow flow of East West Traffic on HWY 66 for local farmers with equipment and families traveling to and from work. Stakeholder stated that an RCUT is not a feasible intersection for here and that it would force local semis to go a mile north and south a mile for east west travels. Stakeholder stated that local Polk County bridges and roads couldn't handle this higher volume of weighted traffic and not to mention safety in county road living. Stakeholder stated that on a night of activities at local school of 75-125 vehicles leaving and wanting to go north on hwy 81 would create high volume at the U-turn area and possibly leave vehicles on 4 lane and south bound traffic possible rear ending waiting vehicles. Stakeholder stated there is a lot of grain and feed that flows west on hwy 66 from east of hwy 81 to bins or elevators or the ethanol plant in Central City. Stakeholder stated that for the Ag community, this just doesn't work. Stakeholder stated these U-turn's put a lot of unnecessary wear on semi trailer's axles and tires while carrying extra weight. Stakeholder stated that they know an overpass (like at Fairmont), may be costly but a life saved is worth something. Stakeholder stated this would accommodate everyone safely and flow of traffic. Stakeholder stated they heard roundabouts are not on the table but hopefully NDOT will take another look here.	Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions, and intersection lighting would be incorporated. Stated that NDOT would also take measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Stated that regarding your comments on bypasses, bypasses are no longer being considered as part of this project due to cost and schedule constraints. Thanked stakeholder for feedback and participation on this project.
73	Stakeholder stated they are writing to express their strong opposition to the proposed implementation of an RCUT intersection at highways 66 and 81. Stakeholder stated that as a farmer deeply rooted in this community and a concerned parent, they are troubled by the potential consequences this intersection could have on both their agricultural operations and the safety of their community's young drivers. Stakeholder stated they must emphasize the critical role that efficient transportation plays in their livelihood and daily lives. Stakeholder stated that farming requires the frequent and safe movement of heavy machinery, such as tractors	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal

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	and trailers, between fields, storage facilities, and markets. Stakeholder stated the design of an RCUT intersection severely impedes this movement, presenting significant challenges for farmers like themself who rely on these routes to conduct our essential operations. Stakeholder stated that the nature of RCUT intersections, with their restricted turning options and limited space for larger vehicles, poses a direct threat to the safety of both farm operators and other road users. Stakeholder stated that maneuvering large equipment through such intersections increases the risk of accidents and collisions, putting lives at stake and potentially causing significant property damage. Stakeholder stated the proposed RCUT intersection fails to account for the unique needs and challenges faced by the agricultural community. Stakeholder stated that unlike standard vehicles, farm machinery cannot easily navigate sharp turns or narrow passages, making it virtually impossible for them to traverse through these intersections without encountering considerable difficulty and delays. Stakeholder stated their concerns extend beyond the impact on agriculture. Stakeholder stated they are deeply troubled by the potential repercussions of this intersection on the safety of student drivers in their community. Stakeholder stated that with the introduction of an RCUT intersection, there is a risk that inexperienced drivers, seeking to avoid the complexities of such intersections, may opt to take nearby gravel roads instead of the highway. Stakeholder stated that this diversion raises serious safety concerns. Stakeholder stated that gravel roads, particularly those not designed for heavy traffic, lack the safety features and maintenance of major highways, increasing the likelihood of accidents and putting their young drivers at risk. Stakeholder stated that as a parent, they cannot stand idly by while such hazards are introduced into their community, jeopardizing the well-being of their children. Stakeholder urged the Department of Transportation to consider constructing an overpass at this location, or at the very least leaving it as a standard intersection. Stakeholder stated it is crucial that any transportation infrastructure decisions take into account the perspectives and needs of the entire community, ensuring that their roads remain safe for everyone.	crashes by 63%. Stakeholder stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions. Stated that intersection lighting would be incorporated. Stated that NDOT would also take similar measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Stated that regarding comments on an overpass, bypasses, or overpasses, are no longer being considered as part of this project due to cost and schedule constraints. Thanked stakeholder for feedback and participation on this project.

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	Stakeholder thanked NDOT for attention to this matter.	
74	Stakeholder stated that as both a concerned parent and a teacher within the community, they are writing to express their strong opposition to the proposal for implementing an R-cut intersection near Cross County Community Schools at the intersection of highways 81 and 66. Stakeholder stated that while they understand the intention behind such measures, they firmly believe that this particular intersection design poses significant risks, especially concerning the safety of their school's bus transportation system and the potential consequences for inexperienced teen drivers. Stakeholder stated they are deeply concerned about the safety of their school buses and the children they transport daily. Stakeholder stated that R-cut intersections, although purported to enhance traffic flow, often present challenges for larger vehicles, such as buses, when navigating through them. Stakeholder stated the increased complexity of merging and potential conflicts with other vehicles can heighten the risk of accidents, particularly during peak hours when traffic is heavy, and visibility is reduced. Stakeholder stated the safety of their teenage drivers cannot be overlooked in this matter. Stakeholder stated it is well documented that teens, especially those with limited driving experience, may resort to alternative routes, such as gravel roads, to avoid potentially daunting intersections. Stakeholder stated this not only raises concerns about increased traffic on lesser-maintained roads but also amplifies the likelihood of accidents, as gravel surfaces offer less traction and stability compared to paved highways. Stakeholder stated that as a parent, they are deeply invested in ensuring the safety and well-being of their children, both on and off school grounds. Stakeholder stated that implementing an R-cut intersection near our school poses unnecessary risks to their students, bus drivers, and the broader community. Stakeholder stated that instead, they urge the Department of Transportation to leave this a standard intersection. Stakeholder requested that the concerns raised by themself, and other community members be carefully considered before moving forward with any plans proposed for this intersection. Stakeholder thanked NDOT for taking the time to review their concerns. Stakeholder stated they trust that NDOT will give due consideration to the	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stakeholder stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions. Stated that intersection lighting would be incorporated. Stated that NDOT would also take similar measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.

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	safety implications of the proposed intersection and work towards finding a solution that best serves the interests of their community.	
75	Stakeholder stated they disagree with the RCUT that's proposed at the 66-81 junction south of Stromsburg. Stakeholder stated they use this intersection multiple times every day because they have a dairy feed lot located 1 mile east and ½ north of 66/81. Stakeholder stated they have a trucking business also – hauling feed cattle – sand gravel crossing that highway many times a day. Stakeholder stated that turning large semis around in an RCUT is always challenging when so much traffic. Stakeholder stated that many Stromsburg kids drive to school and there is always a line of busses and cars leaving school and go north of town. Stakeholder stated that when school is out, they have sat there many times with their semi waiting for these to turn safely. Stakeholder stated that with NDOT's idea you would have 2 lines - 1 at stop sign and 1 at R-Cut.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions. Stated that intersection lighting would be incorporated. Stated that NDOT would also take similar measures to educate young drivers. Stated that more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.
76	Stakeholder stated they are NOT in favor of the propose RCUT for 66/81 Jct intersection. Stakeholder stated they have to travel to school to get grandkids and cross the highway. Stakeholder stated that after any activity at the school – leaving would be a nightmare for busses going north and all the traffic of Stromsburg people heading home. Stakeholder stated they live ½ mile from 66/81 and since they have a dairy farm trucking business they cross the interstate many times – with semis – (loaded or unloaded) turning will be very difficult and adding other vehicles in the mix of turning. Stakeholder stated that many farmers go to elevator at Polk/Central City with grain harvest they haul! Stakeholder suggested stop lights like on York Bypass.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Stated understanding regarding concerns regarding RCUT intersections. Stated that according to the Federal Highway Administration (FHWA), compared to traditional unsignalized intersections (like the current intersection), Restricted Crossing U-Turn (RCUT) intersections have been shown to reduce injury and fatal crashes by 63%. Stakeholder stated that when implemented on Highway 30 in North Bend, Nebraska, NDOT held a presentation at the local high school to educate drivers on how the RCUT would function before it was opened to traffic. Stated that if an RCUT is selected for this location along US-81, NDOT would design it to allow adequate space for large vehicles such as buses and semis to turn at the intersection. Stated that vehicle queueing would be considered during the design process to provide turn lane storage for anticipated traffic conditions. Stated that intersection lighting would be incorporated. Stated that NDOT would also take similar measures to educate young drivers. Stated that

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		more information about RCUTs is available at www.ndot.info/RCUT. Thanked stakeholder for feedback and participation on this project.
77	Stakeholder introduced themself and stated where they live. Stakeholder stated that their family has resided there since February 2003. Stakeholder stated they have lived and worked in the community for all of those years until just recently they took a job with a trucking company in Columbus, where they drive Highway 81 daily. Stakeholder stated they also have the privilege to serve as the Chairman of the Board for the Village of Shelby, Board of Trustees. Stakeholder stated they have been on the Board for 20 years. Stakeholder stated they first saw the Highway 81 corridor proposal in the late 1990's in the basement of the COOP. Stakeholder stated it was approximately 11 years old at that time, now it has gotten a little long in the tooth at 36 years of age. Stakeholder stated that every year they discuss the probability of the by-pass, and if it will ever get done in their lifetime. Stakeholder stated that a couple years ago, the crews came through with the GPS poles, wandering the ditches up and down the corridor. Stakeholder stated that one would think, it is getting close. Stakeholder stated that an article in the Polk county News dated January 25, 2023 by Rick Holtz, stated the "by passes may be eliminated". Stakeholder stated this article stated that Dawn Knott had been in contact with each Board in each town to discuss. Stakeholder stated that NEVER happened. Stakeholder stated no one from the State ever reached to them, or as they understand, either of the other Mayors in Osceola or Stromsburg for an opinion or to even just tell them what was in the works. Stakeholder stated they are AGAINST a three-lane through Shelby. Stakeholder stated they will outline their reasons and concerns further down, but first they would like to state the communication on this project has been nil and could have been done in a professional manner, but to no avail. Stakeholder stated as they do appreciate the "full force" of employees and Benesch staff in town last night, NDOT can't tell them that of all those folks on the payroll, no one could pick up the phone. Stakeholder stated that with the Zoom meeting craze, no one could set up an online meeting with each board to discuss and get input. Stakeholder stated that NDOT has dropped the ball.	Appreciated input regarding the York – Columbus project. Stated that regarding project communication, NDOT followed our standard process and procedures of including local governments within the project area on distribution lists when sending invitations and/or project information for upcoming events. Stated that going forward, NDOT will be sure to contact stakeholder prior to the planned public hearing this fall. Stated that regarding comments about a bypass, NDOT is no longer considering a bypass for Shelby or the other communities as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements through these communities would minimize impacts through town and improve traffic operations. Stated understanding regarding safety concerns with the proposed alignment through town and ensured that safety is NDOT's highest priority. Stated that as such, our team will evaluate safe pedestrian crossings during later design stages of the project. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated understanding regarding frustrations that come with loud vehicles going over the speed limit. Stated that regarding speed limits, NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that in Shelby, new traffic signage and markings would be incorporated. Stated that NDOT will share concerns about speeding with local law enforcement. Stated that regarding the three lanes through Shelby, the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated that traffic projections for US-81 show that adequate traffic operations can be maintained through the community with a three-lane roadway.

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	Stakeholder stated they are FOR the completion of the Pan American Expressway, and they are FOR a four lane to "bypass" our community. Stakeholder stated they should send it around like it is meant to do. Stakeholder stated they have a commercial building on the Northwest corner of Park St (Highway 81) & Walnut St (Main Street). Stakeholder stated that from their conference room windows that face South and West, they have a full view of the intersection. Stakeholder stated they cannot begin to state the number of vehicles, truck traffic and autos) that FLY through their town 60-70 miles an hour, kids trying to cross that intersection to get to school. Stakeholder asked if NDOT wants to keep it going right through town. Stakeholder stated they have witnessed accidents, they have even had duals from a truck come off the vehicle, barely missing three small Hispanic kids to slam into their building doing over $4000.00 damage while the truck was doing in excess of 60 mph in a 35 zone. Stakeholder stated that safety is the first issue. Stakeholder stated that even though they have a 35 mph zone through town, very few honor that. Stakeholder stated that trucks fly through town, autos as well. Stakeholder stated that jake brakes roar at all times of the day and night. Stakeholder stated that their community's facilities lie North of the Highway, Main street, parks, pool, school and a Church. Stakeholder stated that as the community is in dire need of housing, new builds are South of Highway 81. Stakeholder stated that while amenities are North, these new homes are families. Stakeholder stated that these children have to walk or bike across that busy Highway to get to the pool, parks, C-store and school. Stakeholder stated that it is DANGEROUS. Stakeholder stated that their grocery store is located east of town, northside of highway 81, there have been numerous accidents, as well as of aging folks will not drive out there due to the highway to get essential grocery needs. Stakeholder stated that the store, at one time, delivered groceries to their elderly, but that since stopped. Stakeholder stated that volume, at times, it can take up to 10 minutes to get on the highway just to go out to the store, or get on the road to work, or merely cross to get to Worship, and that's on Sunday. Stakeholder stated that the number of heavy trucks is increasing. Stakeholder stated that they are a through-fare to the packing plants in Omaha and Schuyler, Grand Island to the West. Stakeholder stated that harvest trucks to the corn	Stated that regarding flooding, the concept alternatives at Osceola went through an in-depth modeling analysis to address the highway overtopping concerns while weighing the impacts of the associated highway improvements. Stated that this in-depth analysis will help select a preferred alternative at Osceola that would reduce the frequency of highway flooding overtopping but also working within state statute limits for causing less than a one-foot rise in the base flood elevation at the site. Stated that NDOT will strive to keep any increases in the base flood elevation at a minimum while addressing known flood overtopping issues of the highway. Thanked stakeholder for input on intersection type. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.

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	plant South on 69 and trucks daily top the plant in Columbus. Stakeholder stated that as America needs product, a truck brings it to you, this volume is picking up and not slowing down. Stakeholder stated that as they mentioned, they have a parking lot on the North side of the highway. Stakeholder stated that many times a day, cars zoom into their lot to avoid a South turning vehicle. Stakeholder stated that this volume Needs to be out of town, not going straight through it. Stakeholder stated that regarding economic impact, Shelby is not growing North, East or West. Stakeholder stated that downtown is holding its own. Stakeholder stated that housing is being built South of the highway, 69 corridor is their new growth sector. Stakeholder stated that if the by-pass was South, their community could annex the corridor on highway 69, re-zone for commercial development, 5-acre housing plots and sub-divisions. Stakeholder stated they have invested in water, sewer, gas and electric to move South. Stakeholder questioned who wants to build an 800,000.00 home to have to drive up and wait 8-10 minutes to get on the Highway and who wants their children to have to cross a very busy 3 lane to get to school. Stakeholder stated that in their comprehensive plan from 3 years ago, they identified as a "service-oriented, bed room community". Stakeholder stated that folks move to town for their school, their small-town way of life. Stakeholder stated that they drive to Columbus, York and Seward, so, a four lane North and South is highly desirable, just NOT THOROUGH TOWN. Stakeholder stated that in regard to community, they have envisioned if the by-pass did get completed, they would get Park Street back. Stakeholder stated that with the street as wide as it is, they understand the three lane would not need much ROW to complete, but they envision Park Street as a Boulevard as days past. Stakeholder stated that a divided boulevard with street lamps, flowers, greenery and hardscape would add beauty to their Community from one end to the other, not a three lane behemoth with truck trailers barreling through town, autos swerving to keep on time while looking at their cell phones. Stakeholder stated they desire to slow down to speed up. Stakeholder requested that instead of dividing their town, it should go around and let them unite to a cohesive community. Stakeholder stated that back in the early 2000's, they testified in Lincoln at the request of Deb	

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	Fischer. Stakeholder stated they stated many of these issues back then. Stakeholder stated that after that they were part of a committee break-out in Lincoln as well to address the impact of it going around, they was for the by-pass then and they are for it now…. but not through town. Stakeholder stated that this is new. Stakeholder stated that back then, it was how to fund it - gas tax, sales tax, tax, tax, tax. Stakeholder stated they are up to their EARS in TAXES! Stakeholder stated that they will testify again, but no one reaches out. Stakeholder stated that communication on this has been horrible. Stakeholder stated that as stated before, with all the employees, and those on the budget payroll, the four guys sleeping in the truck on the side of the road, NDOT can't tell them no one can reach out. Stakeholder requested that NDOT get their opinions on a three-lane rumbling through their quiet neighborhood. Stakeholder stated that being in the trucking world, trucks do not like to slow down. Stakeholder stated that a truck has to slow down, then speed back up, fuel mileage suffers as well as lost time. Stakeholder stated that if a truck can maintain a steady speed for longer durations, it is more efficient. Stakeholder stated that as emissions, and climate consciousness are buzz words these days, NDOT should not hinder their commercial operators by making them slow down any more than they have to. Stakeholder stated that NDOT should keep them moving AROUND these communities and that Shelby will not hurt by going around them…Wahoo is thriving. Stakeholder asked if this was this not the premise of the mega-project of the by-pass South of Lincoln. Stakeholder asked why highway 2 was not widened and dealt with right through town there. Stakeholder asked why if commercial land in Lancaster County was purchased why Polk county farmland is perceived as too expensive to utilize for a by-pass. Stakeholder stated they also have a concern for Osceola. Stakeholder stated that Davis Creek floods right in town at the drop of a hat. Stakeholder stated that in 2019 when the floods happened, 92 was closed for a significant amount of time due to Davis Creek, 69 was closed. Stakeholder stated that as was 81, it was an all-around bad deal for everyone. Stakeholder asked if this has been evaluated. Stakeholder stated they would like to state they am FOR the four-lane completion, and they are FOR a by-pass AROUND Shelby. Stakeholder stated they are COMPLETELY AGINST a three-	

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	lane coming through town. Stakeholder stated that a roundabout East of town seems logical, versus an R-CUT.	
A78	Stakeholder stated they emailed their letter of comment (AGAINST) the 3 lane through town. Stakeholder requested that as Chairman of the Board of Trustees DO NOT run this through their Community and GO AROUND! Stakeholder stated they stated multiple reasons in their letter and stated the communication of said project has been non-existent. Stakeholder requested NDOT see their letter of comment drafted 3/13/24 and emailed to Sierra noted above. Stakeholder stated they have also contacted Gov. Pillen, Sen Hughes, Sen Fischer and Sen Floral and Ricketts. Stakeholder stated they have also emailed Vicki Kramer @ NDOT.	Responded to in conjunction with the comment above.
79	Stakeholder stated they would like the new road to go on the west side of 81 between 64th and 92.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for input on the location of the two new lanes. Stated NDOT is still assessing the options and will provide an update at the public hearing, tentatively set for a central location in fall 2024. Thanked stakeholder for feedback and participation on this project.
80	Stakeholder stated this feels extremely dangerous, to expand the highway through Shelby. Stakeholder stated the crossing is already worrying at times. Stakeholder stated children walk across the Highway to school, park, and pool. Stakeholder stated they also have parishioners who walk South across it to Church and Children Catechesis. Stakeholder stated the speed and decisions made by drivers currently through the village is worrying at times. Stakeholder stated adding a third lane through the village due to finances seems neglectful and dangerous. Stakeholder stated all they can think of is the nickname for the center turn lane, the California Suicide Lane. Stakeholder stated if the highway did not split the town in half, it wouldn't bother them but the current design worries them for the safety of their parishioners and the children who regularly cross the highway now. Stakeholder stated they would like to see the highway go to the North or South of the village.	Appreciated input regarding the York – Columbus project. Stated that regarding comment on going around town, NDOT is no longer considering bypasses for Stromsburg, Osceola, or Shelby as part of this project due to cost and schedule constraints. Stated the proposed three-lane improvements for these communities would minimize impacts through town and improve traffic operations. Stated that regarding safety concerns with the proposed alignment through town, NDOT's highest priority is safety. Stated the new center turn lane would allow vehicles turning off the highway to move over to a dedicated lane. Stated that in Shelby, both vehicles and pedestrians crossing the highway would cross a similar amount of pavement as the existing road. Stated that NDOT plans to study the US-81 transition from four lanes to three lanes into each community and to review the existing speed zones. Stated that in Shelby, new traffic signage and markings would be incorporated. Thanked stakeholder for feedback and participation on this project.

Comment Number	Comment	Response
81	Stakeholder requested NDOT clean out Davis Creek between M road and West Osceola so it will hold more water during heavy rains.	Appreciated input regarding the York – Columbus project. Thanked stakeholder for feedback and participation on this project.
82	Stakeholder requested that NDOT please see enclosed sheets concerning where all of their utilities run and other concerns. Stakeholder stated they would like to know how this will affect their property taxes and value of their homes/ground. Stakeholder stated they don't feel like there is enough traffic to justify 4 lanes of higher speed traffic going past our place. *[commenter included 2 pages of map markups]*	Appreciated input regarding the York – Columbus project. Noted that at this time the location of the new lanes has not yet been decided. Stated that NDOT is still assessing the options and will provide an update at the public hearing, tentatively scheduled for fall 2024. Stated understanding regarding concerns about the route affecting property. Stated that if property is impacted by this project, stakeholder will be contacted by a representative once the design footprint has been finalized and the right-of-way (ROW) process begins. Stated that regarding utility locations, NDOT will work closely with different utility providers to ensure they are properly relocated, if needed. Thanked stakeholder for feedback and participation on this project.

4.3 Public Hearing

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

4.4 Availability of Draft EA for Review

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

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

- NDOT Headquarters (1500 Nebraska Parkway, Lincoln, NE)
- FHWA Nebraska Division (100 Centennial Mall N., Lincoln, NE)
- NDOT District 4 Headquarters (211 North Tilden Street, Grand Island, NE)
- Kilgore Memorial Library (520 Nebraska Avenue, York, NE)
- Stromsburg Public Library (320 Central Street, Stromsburg, NE)
- Osceola Public Library (131 N. Main Street, Osceola, NE)
- Shelby Community Library (648 N. Walnut Street, Shelby, NE)
- Columbus Public Library (2500 14th Street, Suite 2, Columbus, NE)

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