Appendix F

Cumulative Impacts

This memo was updated based on design changes resulting from the public hearing. The only changes were to numeric values and the determinations and conclusions listed in this memo have not changed.

Technical Memorandum

Date: February 20, 2024

Project: Norfolk–Wisner
Project No. S-275-6(1052); Control No. 32319

Subject: Cumulative Impacts

Introduction

Federal Highway Administration (FHWA) and Nebraska Department of Transportation (NDOT) propose to expand US Highway 275 (US-275) from a two-lane highway to a four-lane expressway[1] along an approximately 16-mile segment in Stanton and Cuming Counties, Nebraska, referred to as Norfolk–Wisner (Figure 1). The proposed action (Project) has logical termini connecting two existing sections of four-lane expressway. It would begin approximately 0.3 mile west of the US-275 and Nebraska Highway 57 (N-57) junction, where it would connect to the existing four-lane roadway. The Project would extend east and south to 18th Street on the northwest side of Wisner, Nebraska, where it would tie into the existing US-275 four-lane roadway.

The purpose of this memo is to address cumulative impacts that could occur as a result of aggregate Project impacts and the impacts associated with other projects (e.g., road construction for other actions within or near the study corridors could also affect access and travel patterns). Cumulative impacts are identified and described for resources that would be potentially adversely affected by the Project and other actions near the Project that would have the potential to affect the same resources.

A cumulative impact is defined as, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Thus, cumulative impacts include the direct and indirect impacts of a project together with the impacts from reasonably foreseeable future actions of other projects.

This assessment of the cumulative impacts of federal, state, and private actions is required by Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA). The cumulative impacts with respect to the Project were evaluated in accordance with CEQ guidance (CEQ 1997) and other sources, including FHWA interim guidance titled "Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (FHWA 2003) and the FHWA position paper titled "Secondary and Cumulative Impact Assessment in the Highway Project Development Process" (FHWA 1993).

Affected Environment

The Study Area to determine cumulative impacts includes the US-275 corridor between Norfolk and the US Highway 77 (US-77)/US-275 interchange and highway segments that intersect with the Project (N-57, Nebraska Highway 15 [N-15], and Nebraska Highway 51 [N-51]). The majority of land uses

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

within the US-275 corridor are agricultural, with communities scattered throughout and extensive agriculture-related industries and services supporting agriculture. The major hubs within the Study Area include Norfolk, West Point, and Fremont. Numerous smaller communities are scattered throughout the Study Area (Figure 2). The Elkhorn River and its associated floodplain are located adjacent to US-275 (within 1 to 2 miles) from Pilger to Hooper.

Actions Evaluated for Cumulative Impacts

The methodology used to address cumulative impacts involves identifying past, present, and reasonably foreseeable future actions; reviewing resources potentially affected by the Project; determining the approximate impact time frames and locations; considering the types of impacts likely for reasonably foreseeable future actions; and selecting the resources requiring detailed cumulative impact evaluation. For an action to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The impacts of reasonably foreseeable future actions not associated with the Project include other federal, state, and private actions. Reasonably foreseeable future actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents. Past actions can include those that are currently under construction and would be completed prior to the analyzed project or those that could change a region's functionality, such as traffic patterns or induced growth. Reasonably foreseeable future actions can include ongoing projects, such as transportation and commercial or industrial development, which are not expected to be completed by the time the analyzed project would begin construction or planned projects included in planning documents for the area. The NDOT 5-year transportation plan, Cuming County 1- and 6-year transportation plan, Stanton County and Cuming County Board of Commissioners, City of Wisner City Council, local news sources, and 20 years of aerial imagery were reviewed for other projects, including roadways, bridges, parks, and large developments. The following actions were identified.

Past Actions

Past actions on this segment of US-275 and adjacent highways include normal repair and maintenance, such as resurfacing and culvert and bridge repair. Four past projects or developments have been identified as intersecting with, or are adjacent to, the Project.

- One cattle operation, approximately 0.60 mile north of US-275 on 568th Avenue, expanded operations between 2006 and 2009. The original operation included 40 acres east of 568th Avenue. The expansion added approximately 50 acres west of 568th Avenue.
- NDOT Control Number (CN) 32376, S-275-6(1061), Wisner to West Point: work includes US-275 resurfacing from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection. Construction for this project is planned for 2023, is expected to take one construction season, and would be complete prior to construction of the Norfolk–Wisner Project.
- NDOT CN 32021, F-275-6(1020), US-275 Norfolk East: work included expanding US-275 from two to four lanes from the eastern corporate limits of Norfolk to the intersection with N-57. Construction was completed between 2002 and 2003.
- NDOT CN 21492, F-275-6(1027), US-275 Hooper East and West: work included expanding US-275 from two to four lanes from the US-77/US-275 interchange to approximately 0.60 mile east of County Road H in Dodge County. The project included constructing a bypass around Hooper. Construction was completed between 2005 and 2007.

Present Actions

One present action was identified along the US-275 corridor.

- NDOT CN 32302, S-275-6(1050), US-275 Scribner to West Point: work includes expanding US-275 from two to four lanes beginning approximately 2.75 miles southeast of Scriber and extending north to 2 miles west of the Nebraska Highway 9 (N-9) intersection. The US-275 West Point to Scribner Expressway EIS determined the project start and end to represent logical termini connecting the existing four-lane facility at Hooper to N-9 north of West Point. The project is currently under construction, with completion anticipated in 2024.

Future Actions

Three future actions have been identified as adjacent to the Project. All of these are transportation projects sponsored by NDOT. As such, these projects would follow NDOT's project development procedures, including mitigation development.

- NDOT CN 32359, STP-7-3(111), In Stanton and North: work includes resurfacing N-57 from approximately the Nebraska Highway 24 (N-24) intersection to the US-275 intersection. Construction is planned for 2025 and is expected to take one construction season.
- NDOT CN 32406, STP-15-3(120), US-275 North: work includes resurfacing approximately 6 miles of N-15, beginning at the US-275 east junction and extending 1 mile north of the Stanton/Cuming/Wayne County line. Construction is planned for 2029 and is expected to take one construction season.
- NDOT CN 32024A, S-275-6(1062), Wisner–West Point North: work includes expanding US-275 from two to four lanes from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection west of West Point. This project would connect into the eastern terminus of the Scribner to West Point project discussed above. This is the final US-275 expressway system segment and would complete the expressway between Fremont and Norfolk. NDOT currently has funding programmed in fiscal year 2026 for design of this project. Although the ultimate construction timeframe of this project is unknown, it is included here for consideration of cumulative impacts.
- At a stakeholder meeting in August 2019, it was noted that a housing development was planned for the area between Wisner High School and N-51. To date this development has not been started, nor discussed or approved by County or City officials; therefore, it is not considered reasonably foreseeable.

US-275 Corridor

Upon completion of the Norfolk – Wisner and Wisner – West Point North projects, the US-275 corridor between Norfolk and Fremont will have been completely widened to a four-lane expressway via five expansion projects over approximately a 30-year period since 2000. As discussed above, three projects have already been completed and the remaining two would be completed within the next 10 years. While the projects occur within the same US-275 corridor, each project has independent utility from the others (additional detail regarding the 3 recent US-275 projects can be found in the attached Logical Termini Memo). Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed.

The completed Norfolk East, Hooper East and West, and Scribner – West Point projects have all been serving the purpose of connecting communities and improving regional connectivity along US-275 in northeast Nebraska since the independent completion of each project. The Norfolk – Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to

northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need upon completion. With regard to the Wisner – West Point North project, the Scribner – West Point and Norfolk – Wisner projects would be constructed and serve their intended purpose and need regardless of whether the Wisner – West Point North segment was ever constructed.

Resources Considered for Impact Analysis

Because of the Study Area's characteristics, types of projects studied, and extent of impacts resulting from the Project Preferred Alternative, the cumulative impacts of past, present, and future actions were evaluated for the following resources: farmland, community impact assessment and transportation, and wetlands and water resources.

The following resources, which were assessed individually in the Norfolk–Wisner EA, were not evaluated for cumulative impacts because of the minor impacts resulting from the Preferred Alternative. A brief statement of why a detailed cumulative impacts analysis was deemed unnecessary is noted for each resource. No adverse, cumulative impacts are anticipated for any of these resources:

- Land use: Land use changes are not anticipated as a result of the Preferred Alternative. There would be conversion of agricultural land and residential farmstead property to NDOT ROW, but that this conversion is compatible with land use plans. Additionally, reasonably foreseeable future actions are not anticipated to result in substantial changes in local land use.
- Right-of-way (ROW) and relocations: No residential relocations are needed for the Preferred Alternative. Two farm buildings would require relocation or removal, but impacts would be compensated during the ROW process. It is possible that one or more of the reasonably foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any adverse cumulative impacts.
- Recreation facilities: The Preferred Alternative, as planned, would result in an impact to Wisner-Pilger Public Schools property that is publicly available for recreation activities. Land would be acquired from the school, but the property would still be available for recreation during and following construction. No recreation facilities are known to be affected by the reasonably foreseeable future actions.
- Historic Properties: The Preferred Alternative, as planned, would result in an impact on the Sharpe Homestead site. These impacts would be resolved through consultation with the Nebraska State Historic Preservation Office. Cumulative impacts on the Sharpe Homestead Site from other projects is not anticipated due to the distance of the site from the other projects.
- Section 4(f): The Preferred Alternative, as planned, would result in a *de minimis* use of one Section 4(f) property, the Wisner-Pilger Public Schools property. Although reasonably foreseeable future actions could possibly affect Section 4(f) properties, the Preferred Alternative would not contribute to cumulative impacts on Wisner-Pilger Public Schools property.
- Utilities: Utilities would need to be relocated with the Preferred Alternative, and the relocations would be at the cost of the utility provider. It is possible that one or more of the reasonably

foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.

- Air Quality: The Study Area is in attainment for air quality and the Preferred Alternative would not contribute to air quality degradation. Reasonably foreseeable future actions are not anticipated to result in substantial air quality changes.
- Noise: Noise patterns generated from roadway traffic would increase in proportion to traffic growth within the Study Area. It was determined that noise abatement was not reasonable for the Preferred Alternative. Reasonably foreseeable future actions are not anticipated to result in substantial changes to noise levels as they are removed from the Study Area.
- Hazardous materials: The Preferred Alternative would have a medium potential to encounter hazardous materials during construction. Construction commitments regarding encountering contamination are in place and would mitigate impacts. It is possible that one or more of the reasonably foreseeable future actions may encounter hazardous materials, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.
- Paleontology: There is a possibility to encounter paleontological resources during Preferred Alternative construction. The reasonably foreseeable future actions also have the potential to encounter paleontological resources, but the actions occur in different locations (miles apart) and are not anticipated to cause any cumulative impacts.
- Floodplain: The Preferred Alternative crosses six floodplains. One or more of the reasonably foreseeable future actions would also be constructed within floodplains, including the Elkhorn River floodplain. However, each project constructed within a 100-year floodplain boundary would need to go through an individual approval and permitting process that would account for consideration of overall impacts—past, present, and future—on floodplains and floodways.
- Water quality: The Preferred Alternative is located within wellhead protection areas for the communities of Pilger and Wisner. Thirteen domestic, irrigation, and monitoring wells may be closed or be relocated with the Preferred Alternative. The Preferred Alternative and reasonably foreseeable future actions would also include grading and soil disturbance. Cumulative impacts to surface and groundwater quality are not anticipated. Any project with an acre or more of soil or ground disturbance must meet National Pollutant Discharge Elimination System (NPDES) requirements, with protections for stormwater and water quality. Additionally, any impacts on wells or wellhead protection areas must comply with local and state regulations.
- Fish, Wildlife, and Vegetation: The Preferred Alternative was determined to have a minimal impact on wildlife. There are no biologically unique landscapes in the Study Area, and existing vegetation consists primarily of introduced species. Although reasonably foreseeable future actions may affect fish and wildlife, as well as their habitats, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions. Additionally, federal, state, and NDOT standard specifications would require revegetation plans and other measures to restore disturbed areas post construction. The Preferred Alternative, as well as reasonably foreseeable actions, would comply with NDOT revegetation standard specifications and seed mixes.
- Threatened and endangered (T&E) species: The Preferred Alternative would result in a "May Affect, Not Likely to Adversely Affect" finding for the eastern black rail and northern long-eared bat. Conservation conditions to prevent an adverse effect would be utilized during construction. Although reasonably foreseeable future actions may also affect these T&E species, they would be evaluated under current NDOT T&E protocols with associated

construction commitments. Therefore, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions.

Impacts of the No Build Alternative

Farmland

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The one past resurfacing project and two future resurfacing projects may have converted, or may need to convert, farmland to a non-agricultural use, but amounts are expected to be minor. The past expanded cattle operation converted approximately 50 acres of farmland, but the conversion was consistent with local farmland uses. The two past US-275 projects, as well as the two future US-275 projects, are large expressway expansions, including a bypass around Scribner, as part of the Scribner to West Point project, and Hooper as part of Hooper East and West, which would convert adjacent farmland to highway ROW. Impacts on farmland as part of the past Hooper East and West and Norfolk East projects were evaluated as part of those projects, and coordination was completed with the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) as needed. Impacts on farmland for the Scribner to West Point project were evaluated as part of the Environmental Impact Statement (EIS) led by the US Army Corps of Engineers (USACE). USACE and NRCS issued a joint Record of Decision (ROD) approving the project on May 5, 2021. The Wisner–West Point North project is in the planning phase and impacts on farmland would be considered throughout project development. Additional coordination with NRCS would be completed if needed during that time. No substantial cumulative impacts on farmland under the No Build Alternative are likely to occur.

Community Impact Assessment and Transportation

The No Build Alternative would not construct the Project, but the other projects identified above are presumed to occur. As a result, there would be no work beyond what is needed to complete routine roadway and bridge maintenance activities on US-275 between N-57 and Wisner. Users would have an expressway from Wisner to Omaha and N-57 to Norfolk, but a 2-lane highway in between the 4-lane segments. While connectivity would improve for areas along the Scribner–West Point and Wisner–West Point North projects, the No Build alternative is expected to have negative long-term impact on the communities and services in the Study Area. Connectivity along the US-275 corridor would remain fragmented, and traffic delays between Norfolk and Fremont would increase as traffic volumes increase. The past cattle operation expansion would also contribute to increased heavy truck traffic as cattle are taken to market. Delays would impact access to services and communities between N-57 and Wisner, west to Norfolk, and east to West Point.

Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that will allow traffic to be maintained on existing traffic lanes. Impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

Wetlands and Water Resources

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The three past roadway projects and cattle operation expansion have been or would be completed and impacts on wetlands and water resources

have been evaluated and permitted as part of those projects. Wetland and water resource impacts for each future project can be expected, but each project would be required to follow local, state, and federal laws, which would reduce any cumulative impacts on wetlands and water resources. Additionally, any project utilizing 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.

The Scribner–West Point project was permitted for wetland and water resource impacts under a Clean Water Act Individual Permit on May 12, 2021. The project was permitted for 114.51 acres of permanent wetland impacts with 136.7 acres of compensatory mitigation occurring at two mitigation sites and two mitigation banks. The Wisner – West Point project is in the early planning stages. Design has not begun, but for purposes of this analysis, widen north and widen south corridor-level alternatives have been developed. Preliminary wetland impacts with these alternatives range from 14 to 45 acres and waterway impacts range from 1,500 feet to 3,500 feet. Actual wetland and water resource impacts would be determined during final design and all impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit.

Impacts of the Preferred Alternative

Farmland

The Project's Preferred Alternative would convert ~~324~~ *328* acres of farmland into an expressway system. Approximately ~~213~~ *217* acres of this farmland are listed as prime or unique. The NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor Type Projects) forms show that the highest possible "Total Points" that could be reached would only be 157 in Stanton County and 159 in Cuming County. The 160-point site assessment threshold for additional site consideration and protection would not be reached. The Preferred Alternative would not likely result in the conversion of surrounding farmland to nonagricultural use, beyond that needed for the Preferred Alternative. No coordination with NRCS is required. As discussed in the No Build Alternative, the two resurfacing projects may need to convert farmland to a non-agricultural use, but amounts are expected to be very minor, and the expanded cattle operation is consistent with agricultural land uses. Farmland impacts resulting from the Scribner–West Point project were evaluated under the USACE EIS and determined to be minor. The EIS was approved by both USACE and NRCS. Farmland impacts resulting from the Wisner–West Point North project would be similar in magnitude to the Scribner – West Point project and the Preferred Alternative as it would be constructed using the same 2+2 method as these other projects. Cumulative impacts on farmland from construction of the Preferred Alternative with the other projects are expected to be minor and beneficial because the projects would improve the transportation network and would benefit agriculture in the Study Area.

Community Impact Assessment and Transportation

Cumulative impacts are not anticipated between the Preferred Alternative and the two resurfacing projects, one past resurfacing project, and the expanded cattle operation. The two resurfacing projects would be completed by the time the Preferred Alternative would begin construction, and adverse cumulative impacts on the communities surrounding the projects, as well as the transportation facilities, would not occur. US-275 is currently experiencing additional heavy truck traffic from the expanded cattle operation, and the Preferred Alternative would increase capacity and reduce the traffic delay associated with heavy truck traffic.

With regard to the Preferred Alternative, the past two US-275 projects, and the Scribner–West Point and Wisner–West Point North projects, constructing US-275's three remaining segments would result in beneficial, long-term, cumulative impacts on the surrounding communities and transportation

network within northeast Nebraska. The two previous US-275 projects were constructed 15 to 20 years ago and the communities along those segments of the corridor are already experiencing cumulative benefits from those expansions. The US-275 corridor serves as a critical connection between major food producers, American-made steel, and the wider US economy. According to the 2017 Census of Agriculture, the counties adjacent to the corridor have some of the highest levels of cattle and grain production in the US. The US-275 improvements would provide more reliable regional access, thereby enhancing the economic, employment, service, healthcare, and educational connections for the surrounding region. Expanding and improving the corridor would better connect producers to Nebraska's freight and passenger transportation network. The projects would decrease transportation costs and improve access for shippers and residents of adjacent rural communities by reducing unexpected delays and supply chain bottlenecks and improving travel times. The 2015 Nebraska's Highway 275 4-Lane Expansion report estimated an increase of $1.2 billion in the State of Nebraska gross domestic production (the total value of goods and services) over 15 years from construction of the 47-mile segment of US-275 from Hooper to Norfolk (Goss and Associates 2015). Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that allows traffic to be maintained on existing traffic lanes. The minor short-term impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

The Preferred Alternative, in conjunction with the Scribner–West Point and Wisner–West Point North projects, has the potential to induce growth in the region. Improvements to all three remaining US-275 segments would accommodate increased vehicular volume and connections, likely resulting in expanded regional development, particularly in Norfolk. As discussed above, Norfolk is a regional hub for commercial and industrial development. The timeframe for this growth is not known, but it is likely beyond 10 years in the future. The City of Norfolk has an economic development plan in place to address new and existing business expansions within the area. For the three US-275 projects, it is anticipated that there could be an increase in development in the Norfolk area, but the projects are unlikely to increase development along most of the corridor. This is due to the low population density, the lack of centers of employment, and the agricultural nature of the Study Area. As such, development along the corridor would not be considered induced as the projects' purposes are connectivity and not development.

Wetlands and Water Resources

Cumulative impacts would not occur between the Preferred Alternative and the three resurfacing projects because these other projects would have minimal impacts on wetlands and water resources. Cumulative impacts would also not occur in conjunction with the two past roadway expansion projects (Norfolk East and Hooper East and West) and past expanded cattle operation because these projects were constructed more than a decade before the Preferred Alternative and the wetland and water resource impacts of these past projects were mitigated at that time in accordance with local, state, and federal laws. Additionally, based on the time that has passed, mitigation for those projects would be fully established and functioning so any past impact would have been restored.

The Preferred Alternative is expected to impact approximately ~~13.15~~ *13.17* acres of wetlands and 0.61 acre of waterway. The impacted wetlands are predominantly located in roadside ditches and are dominated by non-native species. The affected waterways are typically incised and of low quality based on the Nebraska Stream Condition Assessment (NeSCAP). As discussed in the No Build Alternative, the Scribner–West Point project had 114.51 acres of wetland impact. Based on a preliminary analysis, wetland impacts from the Wisner – West Point project, are expected to be between 14 and 45 acres and waterway impacts between 1,500 feet and 3,500 feet. All wetland and

water resources impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit. Additionally, any project utilizing 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.

The Preferred Alternative would ultimately have minor to moderate beneficial cumulative impacts on wetlands and water resources with consideration of resource quality and permitting and mitigation requirements for the Scribner–West Point and Wisner–West Point North projects. The 114.51 acres of wetland impact resulting from the Scribner – West Point project were mitigated via 136.7 acres of new wetlands at two mitigation banks and two mitigation sites. The two mitigation sites are located within 1 mile of the Elkhorn River and combined provide over 100 acres of high-quality wetlands and habitat compared to the impacted wetlands, many of which were narrow, low-quality ditch wetlands. Stream channel impacts with the Scribner - West Point project did not require mitigation. The Preferred Alternative and Wisner – West Point North projects would also create new wetlands at a greater than 1:1 ratio. The Preferred Alternative is anticipated to be mitigated at a mitigation site west of Wisner, adjacent to the Elkhorn River, creating a large area of high-quality wetlands and habitat in the Elkhorn River floodplain, compared to the low-quality ditch wetlands impacted by the Preferred Alternative. Additionally, stream impacts associated with the Preferred Alternative would be mitigated in accordance with the Nebraska Stream Condition Assessment Procedure (NeSCAP) and the Section 404 permit. Impacts resulting from the Wisner – West Point North project would be mitigated at an appropriate wetland mitigation bank or wetland and/or stream mitigation site. All sites constructed for mitigation are or would be located within the appropriate watershed and planted with an appropriate wetland seed mix. Due to this net increase in wetlands as well as the increased quality of wetlands and habitat developed in conjunction with the projects, cumulative impacts on wetlands and water resources are expected to be minor to moderate and beneficial.

Conclusions

The Preferred Alternative would not result in long-term adverse cumulative impacts to farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable actions. The Preferred Alternative would result in long-term beneficial cumulative impacts to the communities and transportation network surrounding the US-275 corridor. Each project would improve the condition and reliability of the transportation network and increase connectivity to essential services within the region, resulting in cumulative beneficial impact. Temporary impacts associated with Preferred Alternative construction are expected but would not result in cumulative impacts with the other projects as they occur in different timeframes and locations.

Memo

Date:	Tuesday, March 14, 2023		
Project:	NDOT US-275 Norfolk-Wisner Project No. 275-6(1052) CN 32319	HDR Project No.	10165712
To:	NDOT		
From:	HDR		
Subject:	Responses to USACE Questions on Logical Termini and Independent Utility		

The following memo is provided in response to January 2023 concerns expressed by USACE NRO regarding logical termini and independent utility, as they relate to the NDOT projects on US-275 between Norfolk and Scribner, Nebraska (Norfolk to Wisner, Wisner to West Point, and West Point to Scribner). This memo documents that each of these projects has logical termini and independent utility.

Logical Termini

Norfolk to Wisner – the Norfolk to Wisner project has a straight-forward definition of logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 at N-57 and the four-lane segment within Wisner. An Environmental Assessment and preliminary design are currently being developed for this segment and construction funding is included in the STIP.

West Point to Scribner – the US-275 West Point to Scribner Expressway EIS section on logical termini (1.1.2 of Volume I) relies on NDOT's establishment of the project's logical termini and summarizes NDOT's rationale. The southern terminus was noted as connecting to the existing 4-lane highway with no additional discussion or detail. However, there was substantial discussion to justify the northern terminus (west of N-9) since that terminus did not connect to a four-lane section and was not an obvious terminus (such as connecting two segments of four-lane roadway). The justification included discussion of rationale for including N-9 with the project and crossover geometry, including undesirable situations such as on a superelevated curve, in proximity to a bridge with guardrail, proximity to intersections, etc. This segment is currently under construction.

Wisner to West Point – the Wisner to West Point project also has straight-forward logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 in Wisner and the soon to be completed four-lane roadway west of N-9 (currently under construction with the West Point to Scribner Expressway). This segment is currently funded for design, but design has not yet started. Construction funding is not currently included in the STIP.

The methodology contained in FHWA's paper on Development of Logical Termini (Environmental Review Toolkit (dot.gov) supports the development of the remaining two-lane US-275 corridor as three separate segments with logical termini based on funding availability:

"If there is a demonstrated need for improvements in the entire corridor from point A to point C, there may still be no funding available and no likelihood of improving the entire corridor in the near future. In this case, the project from point A to point B could still be implemented…" This statement includes the caveat that the following conditions are met, all of which are met by the US-275 projects.

- Project serves an identified need and stands on its own from point A to point B
- Project would not force immediate improvements on the remainder of the facility from point B to point C
- Project does not restrict alternatives on the remaining segment to the point where environmental requirements would be difficult or impossible to satisfy.

When the decision to move forward with three separate projects was made back in 2018, funding was only available for the Scribner to West Point segment. Since then, NDOT has identified funding for the Norfolk to Wisner segment and has been developing NEPA documentation for that stand alone project. Construction funding for the remaining segment, Wisner to West Point is not programmed and the timeframe for construction is uncertain and dependent on many factors related to NDOT's overall STIP.

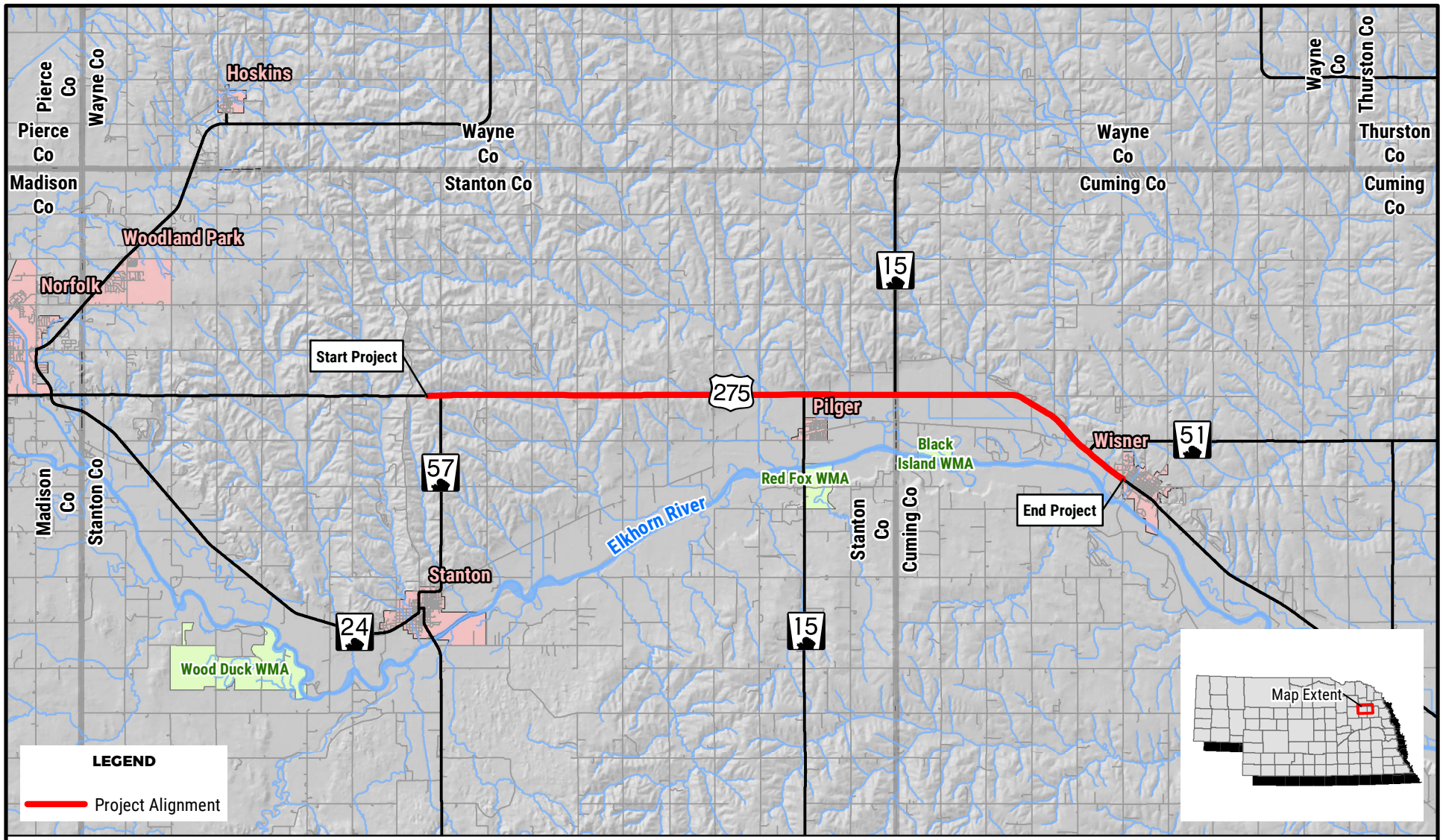
Independent Utility

Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed. The Norfolk to Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need.

Additionally, the independent utility of the projects within the US-275 corridor have a noteworthy difference when compared with the US-30 Schuyler to Fremont expressway corridor, for which USACE evaluated environmental impacts for the entire corridor and authorized construction of the three segments via a single Section 404 permit with two amendments. US-30 involved new alignment and project segmentation in the middle of an undeveloped field (well removed from the existing highway corridor). That is, the easternmost US-30 segments were wholly dependent upon one another and did not have independent utility. That is not the case along US-275. Both the Norfolk to Wisner project and Scribner to West Point project are located approximately 12 miles apart from each other and would be constructed years apart, construction beginning in 2025 for Norfolk to Wisner and construction finishing in 2024 for Scribner to West Point. These two projects can be considered independent from each other. With regards to the Wisner to West Point project, the two previous US-275 projects would be constructed and serve their intended purpose and needs regardless of whether the Wisner to West Point Expressway segment was ever constructed.

Conclusion

As the lead federal agency for NEPA, USACE determined that the West Point to Scribner project has logical termini and independent utility. Similarly, FHWA, as the lead federal agency for NEPA, determined that the Norfolk to Wisner project has logical termini and independent utility. During the initial multi-agency coordination meeting in 2019 and the three subsequent pre-application meetings spanning 2019-2021, neither USACE nor any other agencies have expressed concerns about the logical termini for the Norfolk to Wisner project. Additionally, all three segments of would have independent utility from each other due to funding, construction timing, and location.



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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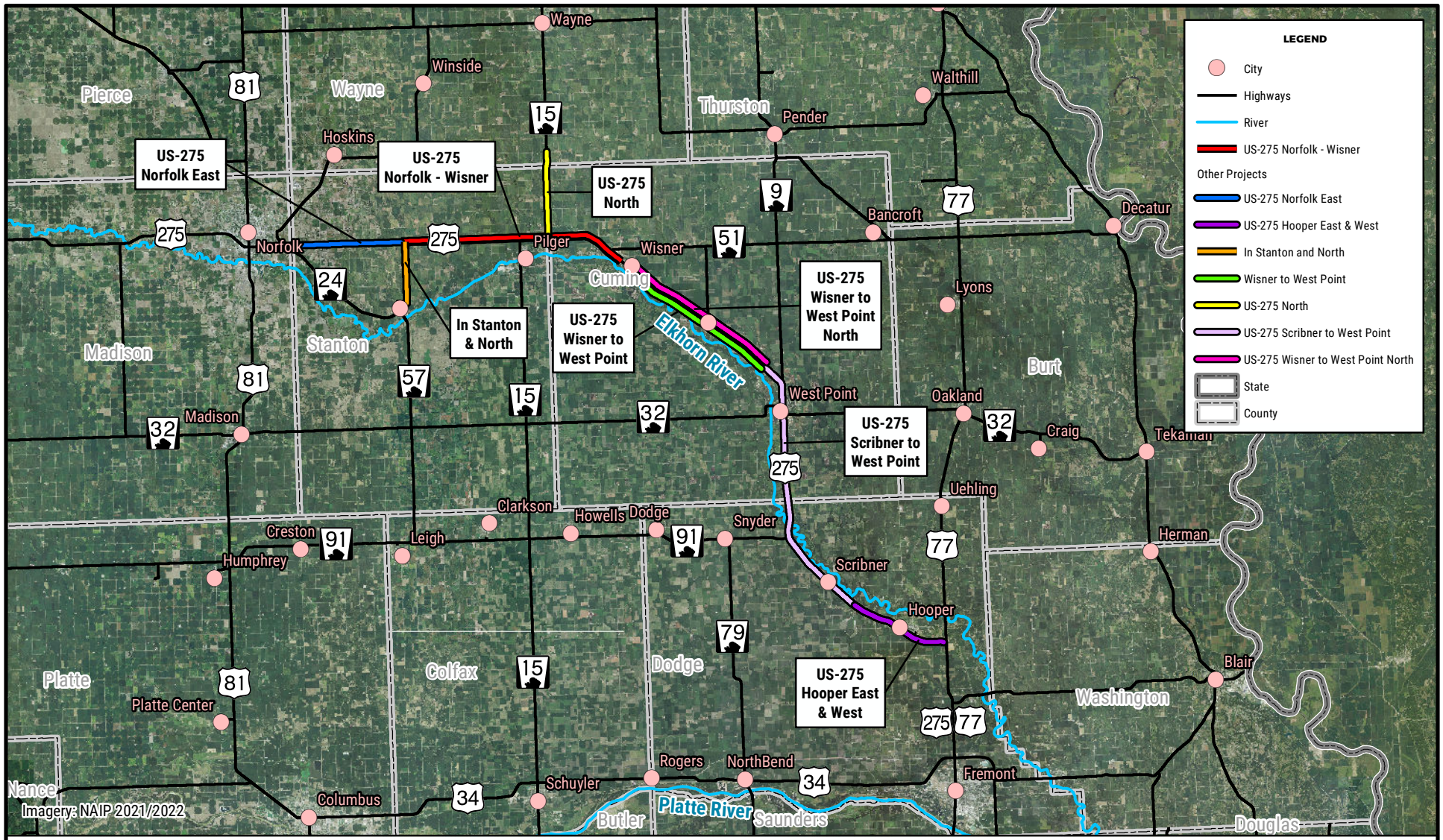
PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO.: S-275-6 (1052)
CONTROL NO.: 32319

DATE: 11/18/2022

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_00_PROJECT_LOCATION_STUDY_AREA_CORRIDORS\PROJECT_LOCATION\MAP_8X11_FIG_1_PROJECT_LOCATIONV2.MXD - USER: CMODRCIN - DATE: 11/18/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

PROJECTS CONSIDERED

NORFOLK - WISNER
PROJECT NO.: S-275-6(1052)
CONTROL NO.: 32319

DATE: 1/30/2023

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_25_CUMULATIVE\MAP_8X11_CUMULATIVE_IMPACTS.MXD - USER: CMODRCIN - DATE: 1/30/2023