Lexington East Viaduct
Control Number 61457
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Draft Environmental Assessment

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

Project Sponsor signatures indicate 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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List of Acronyms

AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
APE	Area of Potential Effect
APP	Avian Protection Plan
BMPs	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CSW	Construction Storm Water
CWA	Clean Water Act
dB(A)	Decibel, A-weighted
Draft EA	Draft Environmental Assessment
DHHS	Department of Health and Human Services
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FY	Fiscal Year
GIS	Geographic Information System
GHG	Greenhouse Gases
LEP	Limited English Proficiency
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
mph	Miles Per Hour
MSAT	Mobile Source Air Toxics
NAC	Noise Abatement Criteria
NDEQ	Nebraska Department of Environmental Quality
NDNR	Nebraska Department of Natural Resources
NDOT	Nebraska Department of Transportation
NEPA	National Environmental Policy Act
NESCA	Nebraska Nongame and Endangered Species Conservation Act
NFIP	National Flood Insurance Program
NGPC	Nebraska Game and Parks Commission
NLEB	Northern Long-Eared Bat
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPPD	Nebraska Public Power District
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PRRIP	Platte River Recovery Implementation Program
ROW	Right-of-Way
SDWA	Safe Drinking Water Act
Section 106	Section 106 of the National Historic Preservation Act, as amended
Section 4(f)	Section 4(f) of the Department of Transportation Act of 1966
Section 6(f)	Section 6(f) of the Land and Water Conservation Fund Act
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Loads

List of Acronyms (continued)

UWAP	Unexpected Waste Action Plan
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
UPRR	Union Pacific Railroad
US	United States
USACE	Unites States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Executive Summary

OVERVIEW

The City of Lexington, Nebraska is proposing to construct a viaduct (bridge overpass) and roadway improvements in the vicinity of County Road 435, the Union Pacific Railroad (UPRR) crossing, and US Highway 30 (US 30) on the east side of Lexington in Dawson County, Nebraska. The viaduct is developed as a federal-aid project with the Federal Highway Administration (FHWA) as the lead federal agency. The Nebraska Department of Transportation (NDOT) and the City of Lexington are the project sponsors.

PROJECT PURPOSE AND NEED

The purpose of the proposed project is to improve traffic flow around the intersection of County Road 435, US 30 and the UPRR. NDOT and the City of Lexington have identified the need to:

- reduce crashes on County Road 435 near US 30 and the UPRR crossings;
- reduce delays for vehicles crossing the UPRR tracks along County Road 435; and
- provide accessibility that is consistent with plans approved by the City of Lexington including *The Lex-Plan 2013* (City of Lexington 2013) and *City of Lexington One and Six Year Improvement Plan 2018–2023* (City of Lexington 2017).

ALTERNATIVES AND SCREENING

Five Build Alternatives (Alternatives 1 through 5) and a No Build Alternative were studied. Each Build Alternative proposed to construct a viaduct over the UPRR. The City of Lexington and NDOT used a three-step screening process to study the alternatives:

- Step 1 screened an area of 250 feet on each side of the alternative to calculate or estimate potential worst-case environmental impacts and other potential constraints based on existing Geographic Information System (GIS) data. Alternatives 1 and 2 were eliminated from further study in this step.
- Step 2 involved using feedback from the public on the three remaining alternatives. Alternative 5 was eliminated in this step.
- Step 3 included an analysis of impacts from the estimated construction limits of Alternatives 3 and 4 and coordination between the City of Lexington and Dawson County.

Based on the screening process, Alternative 3 was identified as the Preferred Alternative for the proposed project. Features of Alternative 3 include the following:

- Building a new north-south viaduct along County Road 435 over the UPRR and US 30
- Closing the at-grade crossing of the UPRR tracks at County Road 435 and County Road 436 south of US 30
- Constructing two new local roads to maintain access in the area
- Realigning County Road 755 from County Road 435 to provide an optimal intersection with US 30
- Creating turn lanes and shoulders for US 30 at the relocated intersection of County Road 755

The No Build Alternative does not meet the purpose and need of the proposed project; however, the environmental analysis retains the No Build Alternative to provide the baseline conditions against which the potential impacts of the Preferred Alternative was compared.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

The No Build Alternative and the Preferred Alternative were carried forward for detailed evaluation in this Draft Environmental Assessment (EA):

Category	Criteria	No Build	Preferred Alternative
Meets Purpose and Need			
Reduce crashes on County Road 435 near the US 30 and UPRR crossings	Yes / No	No	Yes
Reduce traffic delays on County Road 435 from trains	Yes / No	No	Yes
Improve accessibility to the area as identified by local planning initiatives	Yes / No	No	Yes
Constructability / Disruption during Construction			
Local detour required	Yes / No	No	Yes
Phasing	Yes / No	No	Yes
Potential Right-of-Way Needs			
Construction area	Acres	0	≈ 7.3
Potential Displacement / Relocation			
Residential	Number	0	0
Business	Number	0	0
Potential Drive Relocations / Changes in Property Access			
Residential	Number	0	2
Business (including farm fields)	Number	0	10
Wetlands	Number (Acres)	0 (0)	1 (<0.01)
Stream Crossings	Number (Linear Feet)	0 (0)	1 (≈ 40)
Requires an Individual Section 404 Permit	Yes / No	No	No
Hazardous Material Sites Impacted	Number	No	0
Floodplain Impacts	Linear Feet	0	≈ 1,750
Noise (move roads closer to receptors)	Yes / No	No	No
Protected Populations Impacts	Yes / No	No	No
Cultural Resources Impacts	Yes / No	No	No
Section 4(f)[1] and Section 6(f)[2] Impacts	Yes / No	No	No
Prime and Unique Farmlands	Acres	No	≈ 4
Potential Utility Conflicts (electric, pipes: sanitary, storm, water)	Number	0	4

1. Section 4(f) of the Department of Transportation Act of 1966
2. Section 6(f) of the Land and Water Conservation Fund Act

NEXT STEPS

Following the approval of the Draft EA by FHWA, a public hearing would be held to seek comments on the Draft EA. After the public hearing, a Final EA would be prepared, and the FHWA would determine if the proposed project may be carried forward with a Finding of No Significant Impact, or whether an Environmental Impact Statement may be required.

1.0 Project Purpose and Need

1.1 Introduction

The City of Lexington, Nebraska, is proposing to construct a viaduct (bridge overpass) and roadway improvements in the vicinity of County Road 435, the Union Pacific Railroad (UPRR) crossing, and US Highway 30 (US 30) on the east side of Lexington in Dawson County, Nebraska (Figure 1). **[Note: A viaduct is a type of bridge over land.]** The viaduct would be developed as a federal-aid project with the Federal Highway Administration (FHWA) as the lead federal agency. The Nebraska Department of Transportation (NDOT) and the City of Lexington are the project sponsors.

As a federal undertaking, the proposed project must satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 (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

All federally funded projects must comply with NEPA, which requires federal agencies to consider the social, environmental, and economic impacts of a proposed project and to include public involvement as part of its decision-making process.

Under NEPA, FHWA uses EAs to determine whether a proposed project would result in significant environmental impacts. 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.

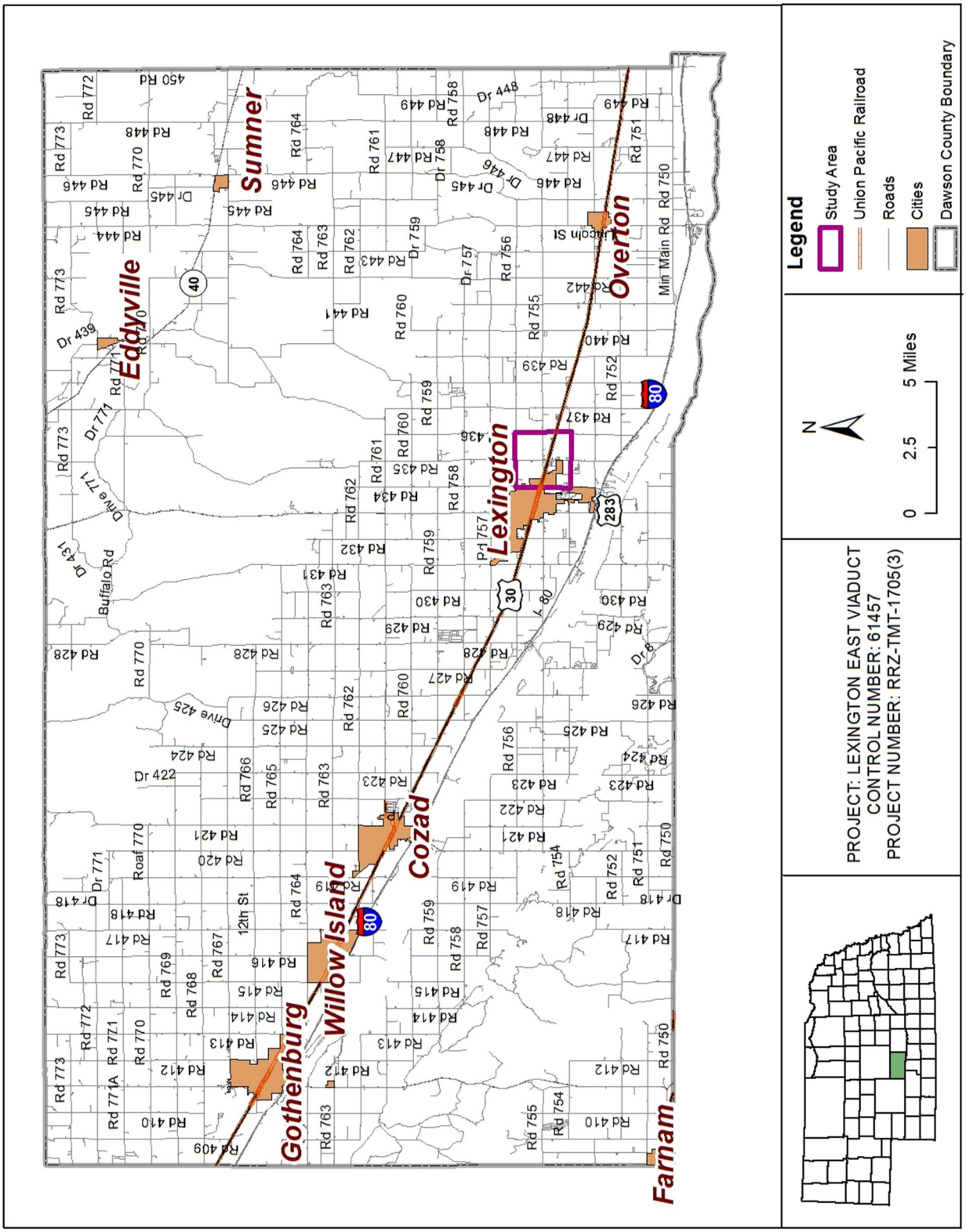
If, based on the EA, FHWA determines that no significant impacts have been identified or if significant impacts can be minimized or mitigated, FHWA would prepare a Finding of No Significant Impact (FONSI). If significant environmental impacts are identified and cannot be minimized or mitigated, FHWA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

1.2 Why Are We Doing the Proposed Project?

The proposed Lexington East Viaduct Project is in Dawson County, Nebraska. The purpose of the proposed project is to improve traffic flow around the intersection of County Road 435 and US 30 and the UPRR. NDOT and the City of Lexington have identified the following needs:

- Reduce crashes on County Road 435 near US 30 and the UPRR crossings.
- Reduce delays for vehicles crossing the UPRR tracks along County Road 435.
- Provide accessibility that is consistent with plans approved by the City of Lexington, including *The Lex-Plan 2013* (City of Lexington 2013) and *City of Lexington One and Six Year Improvement Plan 2018–2023* (City of Lexington 2017).

Figure 1. County Location Map



NDOT identifies potential locations for railroad grade separation structures by considering crashes, vehicle delays, and the "exposure factor," which is the product of the annual average daily vehicle traffic (AADT) and the average daily train traffic at a crossing. NDOT considers that a minimum exposure factor of 50,000 at a single railroad grade crossing sufficiently identifies a potential viaduct location. The exposure factor estimate at County Road 435 near the UPRR crossing is 128,800 based on the AADT of 920 vehicles (NDOT 2016) times 140 trains per day (UPRR 2013).

Exposure Factor

The exposure factor at County Road 435 is 128,800 compared to the minimum exposure factor of 50,000 needed for a viaduct.

Annual Average Daily Traffic (AADT) is the estimate of typical daily traffic on a road segment for all days of the week over the period of one year.

The following sections further describe the purpose and need for the proposed project. Appendix 1 provides the full Purpose and Need Statement.

1.2.1 Reduce Crashes on County Road 435

The intersection at US 30 and County Road 435 had the most crashes (11) in the six-year period between January 2009 and December 2014 in the Study Area (see Section 1.3). The crash rate at the intersection in this six-year period was above the state average crash rate and above the critical crash rate for similar intersections in Nebraska. The critical crash rate is determined by comparing the actual annual crash rate with the same information for a roadway with similar conditions and traffic. The critical crash rate is used to determine if the number of crashes indicates a potential safety issue.

Appendix 2 provides detailed crash data and the traffic analyses.

1.2.2 Reduce Vehicle Delay on County Road 435

Previous analyses have shown that the highest daily average for trains in Dawson County occurs near County Road 435 (Kirkham 2008). In general, the number of trains per day ranged between 105 and 150. The UPRR expects the number of trains to increase (UPRR 2013). Based on a 24-hour video taken on April 10 and April 11, 2013, at the County Road 435 and UPRR crossing, the roadway was blocked 79 times with an average of 2 minutes and 24 seconds per stop. In total, the delay for that 24-hour period was approximately 3 hours 16 minutes. The travel-time delays of vehicles from trains are expected to increase as the volume of train traffic increases.

UPRR Crossing at County Road 435

The AADT on US 30 in 2014 was 3,140 per NDOT's 2014 Statewide Traffic Flow Map. AADT on County Road 435 between County Road 756 and County Road 754 was 920 in 2015 (NDOT 2016). *The Lex-Plan 2013* notes traffic volumes on US 30 are expected to increase to between 4,600 and 5,300 in 2035. This plan also indicates that traffic on County Road 435 south of US 30 is expected to increase to 2,900

by 2035. Additionally, anticipated future industrial development in the southwestern portion of the Study Area would contribute to increasing vehicle volumes on County Road 435 and US 30 (Appendix 2).

1.2.3 Provide Accessibility that Is Consistent with Area Planning Efforts

The City of Lexington's current planning documents, including *The Lex-Plan 2013* and *City of Lexington One and Six Year Improvement Plan 2018-2023*, show the need for better truck routes in the city. To be effective, truck routes need to be continuous and direct, and built to handle the size and weight of trucks. Currently, continuous north-south access is limited by the amount of train traffic on the UPRR. The City of Lexington has two grade-separated crossings: Adams Street (to the west) and US 283 (central to the city). No grade-separated crossings occur on the east side of the city. The closest grade-separated crossing is approximately 10 miles to the east. The City of Lexington has identified the construction of a bridge at or near County Road 435 over the UPPR as a key improvement that must be implemented for a potential truck route on the east side of Lexington.

The City of Lexington's *Long Range Transportation Plan* (City of Lexington 2005) identifies the existing intersections of County Road 435 and US 30 and the UPRR as ones that should be addressed with a grade separation "at or near" County Road 435. The *City of Lexington One and Six Year Improvement Plan 2018–2023*, approved on March 14, 2017, calls for a viaduct on County Road 435. In addition, the City of Lexington's current Comprehensive Plan, *The Lex-Plan 2013*, identifies critical elements of the transportation system that need to be improved to better support truck movement, minimize conflicts, and improve the quality of life in the area. A long-term goal in *The Lex-Plan 2013* is to implement a grade-separated crossing of County Road 435 over the UPRR.

1.3 Where Is The Proposed Project Located?

The Lexington East Viaduct Project Study Area is in the city of Lexington, Dawson County, Nebraska. Portions of the Study Area lie partially outside the Lexington city limits, but within the City of Lexington's extraterritorial jurisdiction. **[Note: Extraterritorial Jurisdiction means the City can develop plans for an area even if it is outside of the city limits.]**

The Study Area for the proposed project is large enough to identify and address environmental concerns and is bounded by the following existing routes (Figure 2):

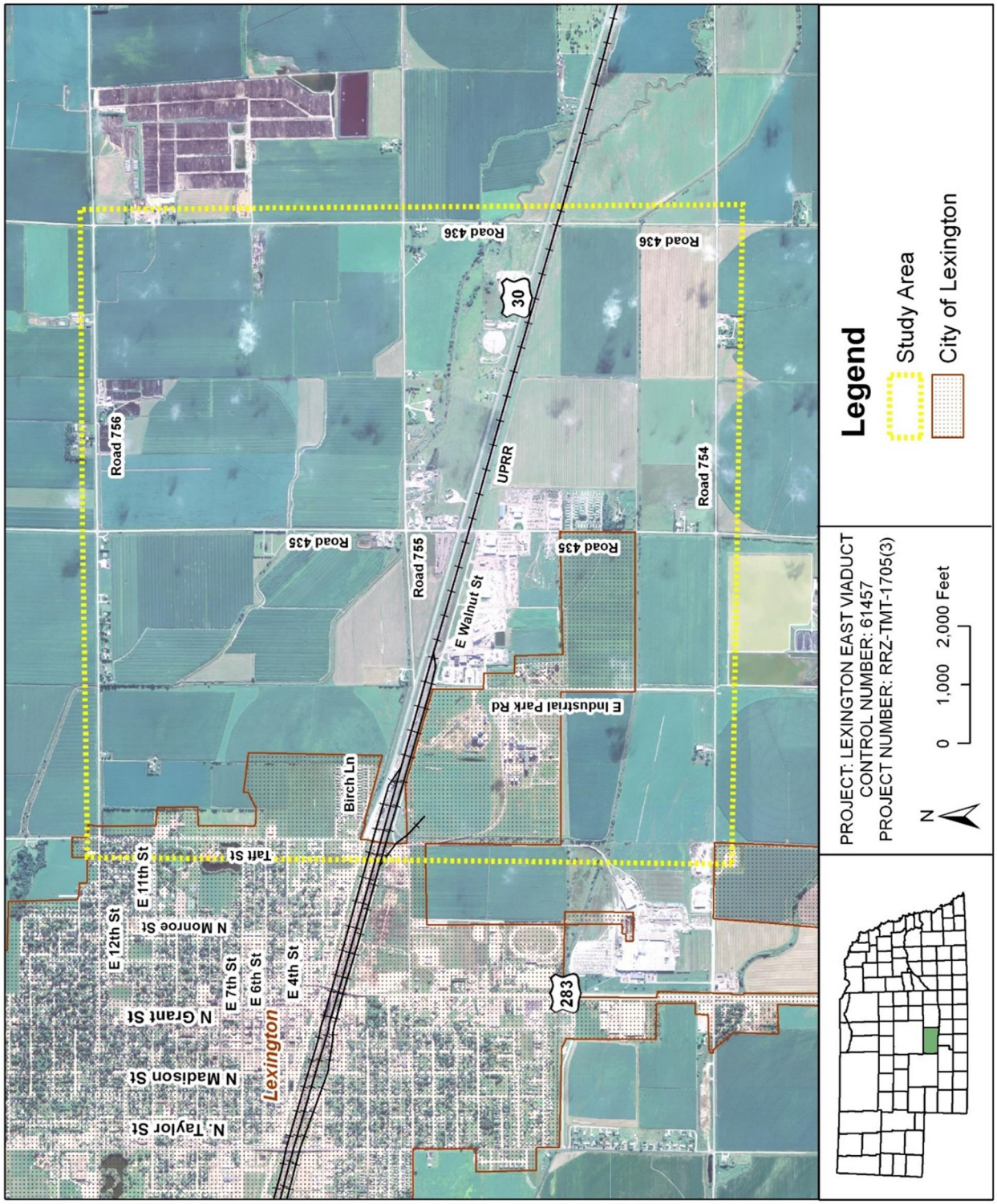
- County Road 754 to the south
- County Road 756 to the north
- County Road 436 to the east
- Approximately Taft Street to the west

These routes serve as logical connections for the proposed project because they are the closest through routes that provide access to the area. In addition, the Study Area is large enough to allow for the height of a viaduct high enough to clear both US 30 and the UPRR, and provide enough room to tie back into existing roads in accordance with current NDOT design standards.

1.4 What Is In The Study Area?

As shown in Figure 2, the Study Area is rural and includes undeveloped, road right-of-way, industrial, commercial, scattered residential, and farmland uses. Small developments of industrial and commercial uses are concentrated in areas near the crossing of County Road 435 and US 30. Residential areas are concentrated closer to Lexington along County Road 756/13th Street north of US 30 and on County Road 435 south of US 30.

Figure 2. Study Area Map



2.0 Alternatives Analysis

As the project sponsors, the City of Lexington and NDOT studied five Build Alternatives and a No Build Alternative for this proposed project. Each Build Alternative proposes to construct a viaduct over the UPRR. The proposed project's purpose is to improve traffic flow on the east side of Lexington at the intersection of County Road 435 and US 30 and the UPRR crossing at County Road 435.

All five of the Build Alternatives propose to close the existing at-grade crossings of the UPRR at County Road 435 and County Road 436 and to change existing intersections in the area. The project sponsors also included a No Build Alternative in the analysis. Although the No Build Alternative does not meet the proposed project's purpose and need, it does provide a baseline against which to compare any changes to the area and analyze potential impacts from the Build Alternatives.

What is an Alternatives Analysis?

An alternatives analysis identifies and studies the potential environmental, social and economic impacts of a number of project proposals and then compares the proposals to identify which one best fits the purpose and need for the project while minimizing impacts where possible.

This chapter briefly describes the five Build Alternatives, the baseline of the No Build Alternative, and the process used to identify the locally Preferred Alternative. To read more about the alternatives and the process used to identify the Preferred Alternative, see Appendix 3.

2.1 What Alternatives Were Analyzed?

2.1.1 Build Alternatives

The five Build Alternatives initially identified and studied by the project sponsors were based on the 2008 study *Rural Viaduct Location Study – Lexington, Nebraska* (Kirkham 2008), and on discussions with NDOT, state and federal resource agencies, and the City of Lexington. Figure 2 depicts the Study Area used for the alternatives analysis for this current study. The project sponsors analyzed the alternatives using the screening process described in Section 2.2. Table 1 provides a brief description of each Build Alternative developed for this analysis and the results of the screening process that are described in Section 2.2.

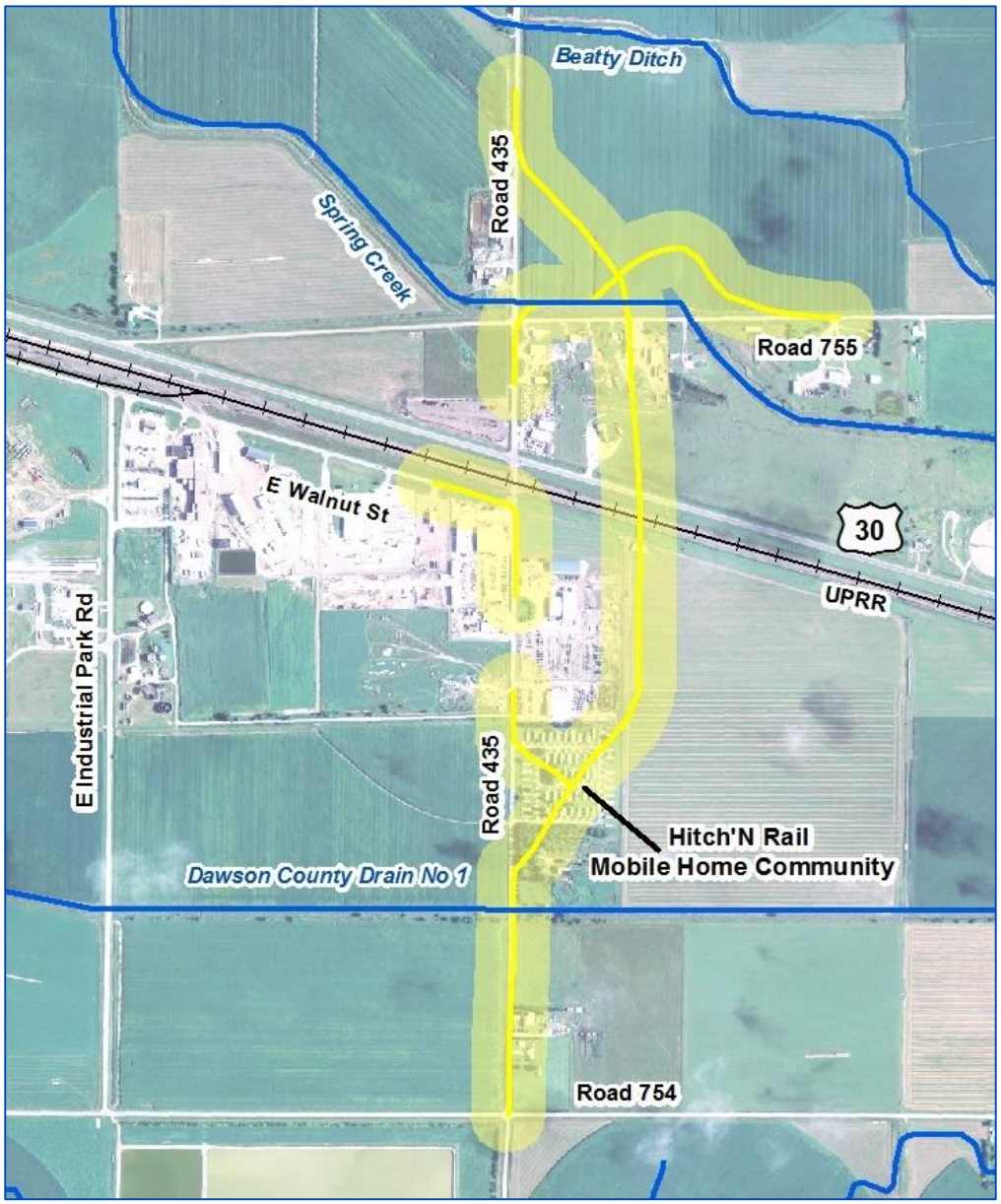
2.1.2 No Build Alternative

The No Build Alternative consists of routine maintenance and repair of the existing roadways in the Study Area. In the Study Area, roadways are generally on a grid pattern, except for US 30, which runs east-west at a slight angle to the northwest-southeast. US 30 is a paved two-lane roadway with approximately 6-foot-wide paved shoulders. Local roads are a mix of paved and gravel surfaces with little or no paved shoulders and have open ditches for drainage.

The Study Area for the No Build Alternative contains numerous intersections of County Road 435, including County Road 754/Prospect Road, County Road 755, and County Road 756/13th Street. The No Build Alternative would not meet the purpose and need of the proposed project because it would not reduce crashes on County Road 435 near the crossings of the UPRR and US 30, not reduce vehicular delays crossing the UPRR tracks or improve accessibility to the area. However, this environmental analysis retains the No Build Alternative to provide the baseline conditions against which the potential impacts of the Build Alternatives were compared.

Table 1. Alternatives Studied

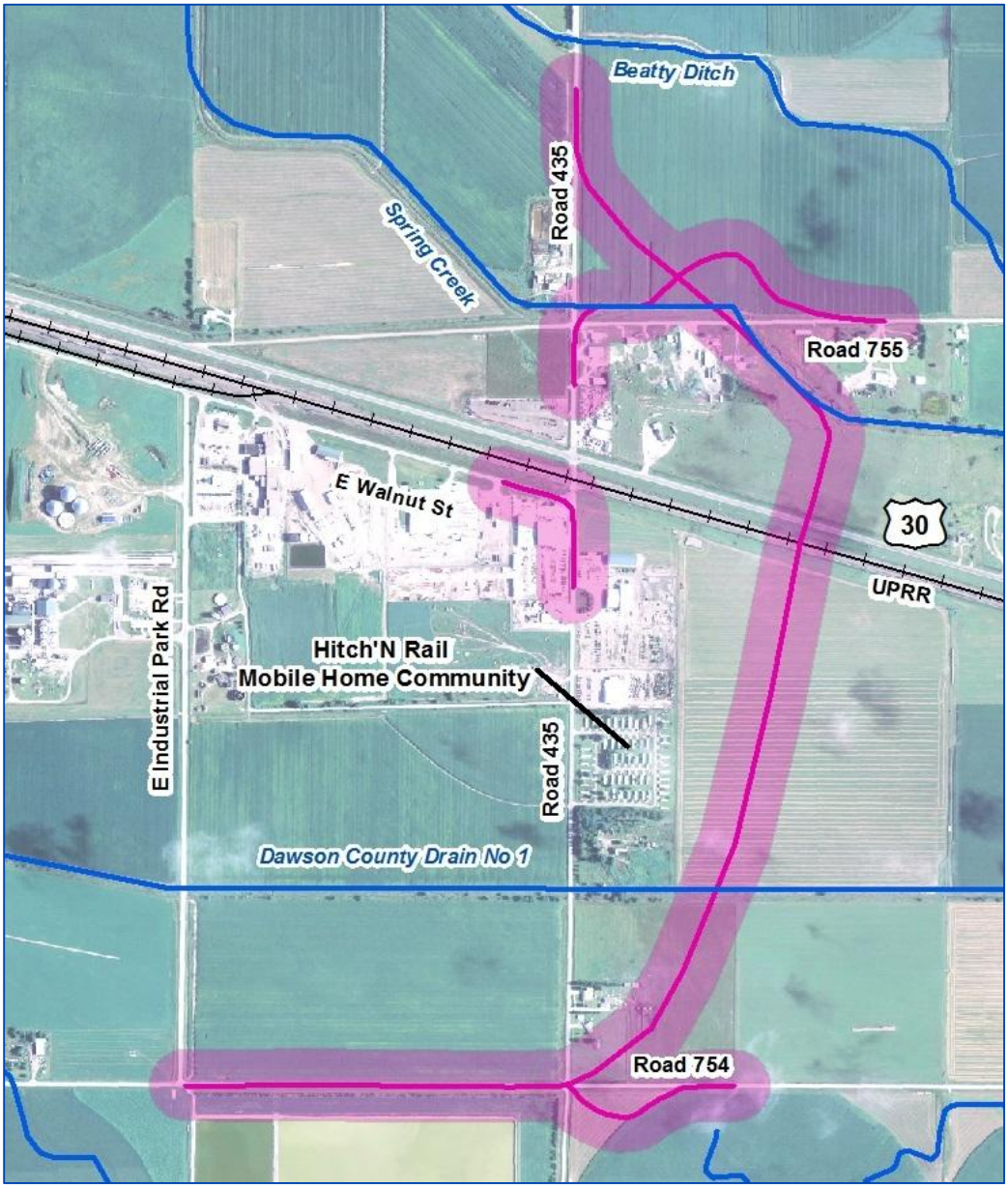
Alternative 1 – North-South Viaduct east of County Road 435



	Screening Result
• New north-south viaduct to the east of County Road 435 that connects to County Road 435 north and south of US 30 • New intersection between County Road 435 and County Road 755 • Close current railroad crossing on County Road 435 • Close current railroad crossing on County Road 436 • Turn lanes on US 30	Eliminated during Step 1 screening because of impacts to the Hitch'N Rail Mobile Home Community (see Section 2.2.1 for more discussion)

Table 1. Alternatives Studied (continued)

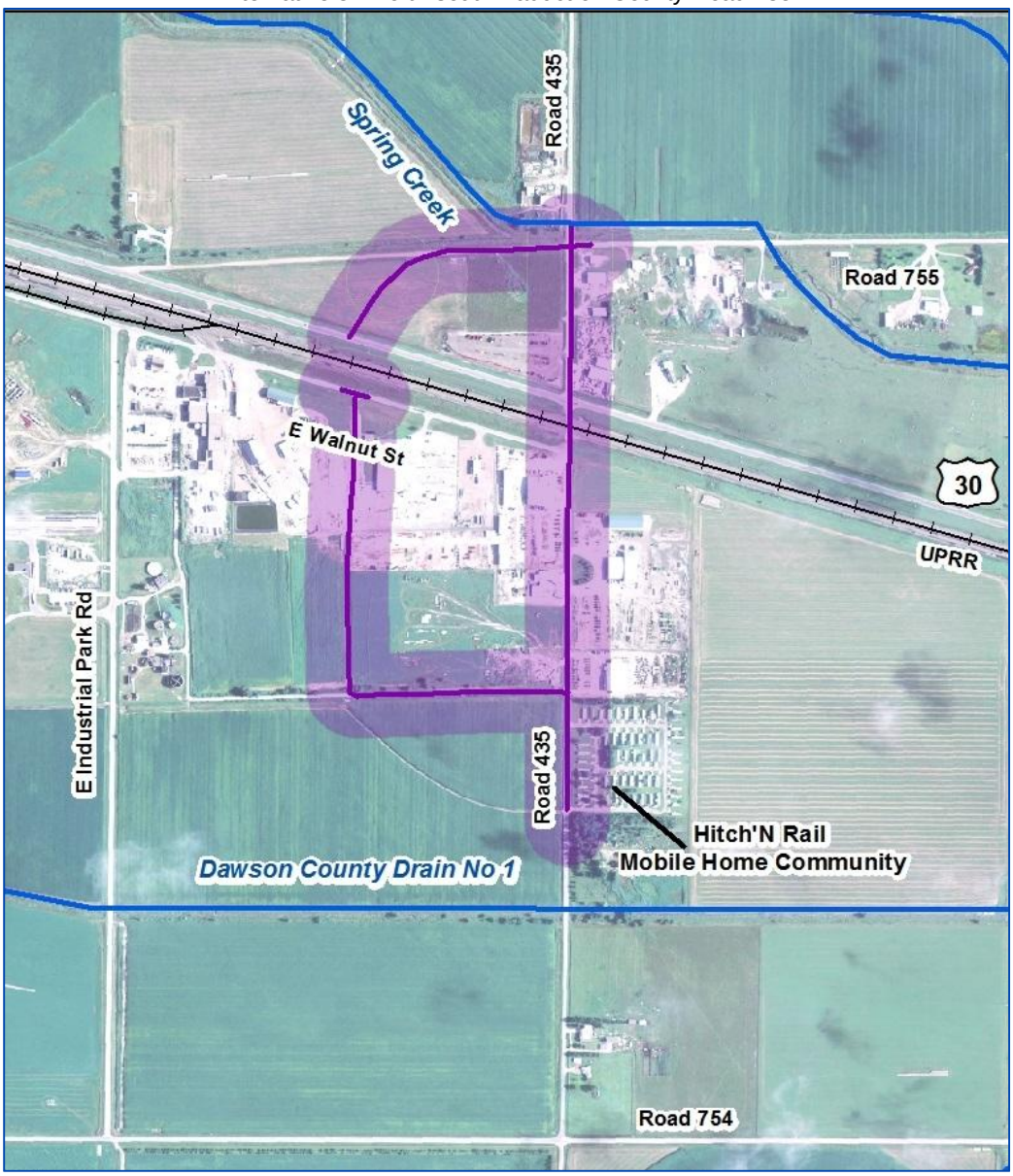
Alternative 2 - Slightly angled north-south viaduct east of County Road 435



Description	Screening Result
• New, slightly slanted north-south viaduct east of County Road 435 • New roadway connects to County Road 435 both at County Road 754 and north of County Road 755 • New intersection with County Road 755 and County Road 435 • Close current railroad crossing on County Road 435 • Close current railroad crossing on County Road 436	Eliminated during Step 1 Screening because impacts to Spring Creek were substantially higher than the other alternatives (see Section 2.2.1 for more discussion)

Table 1. Alternatives Studied (continued)

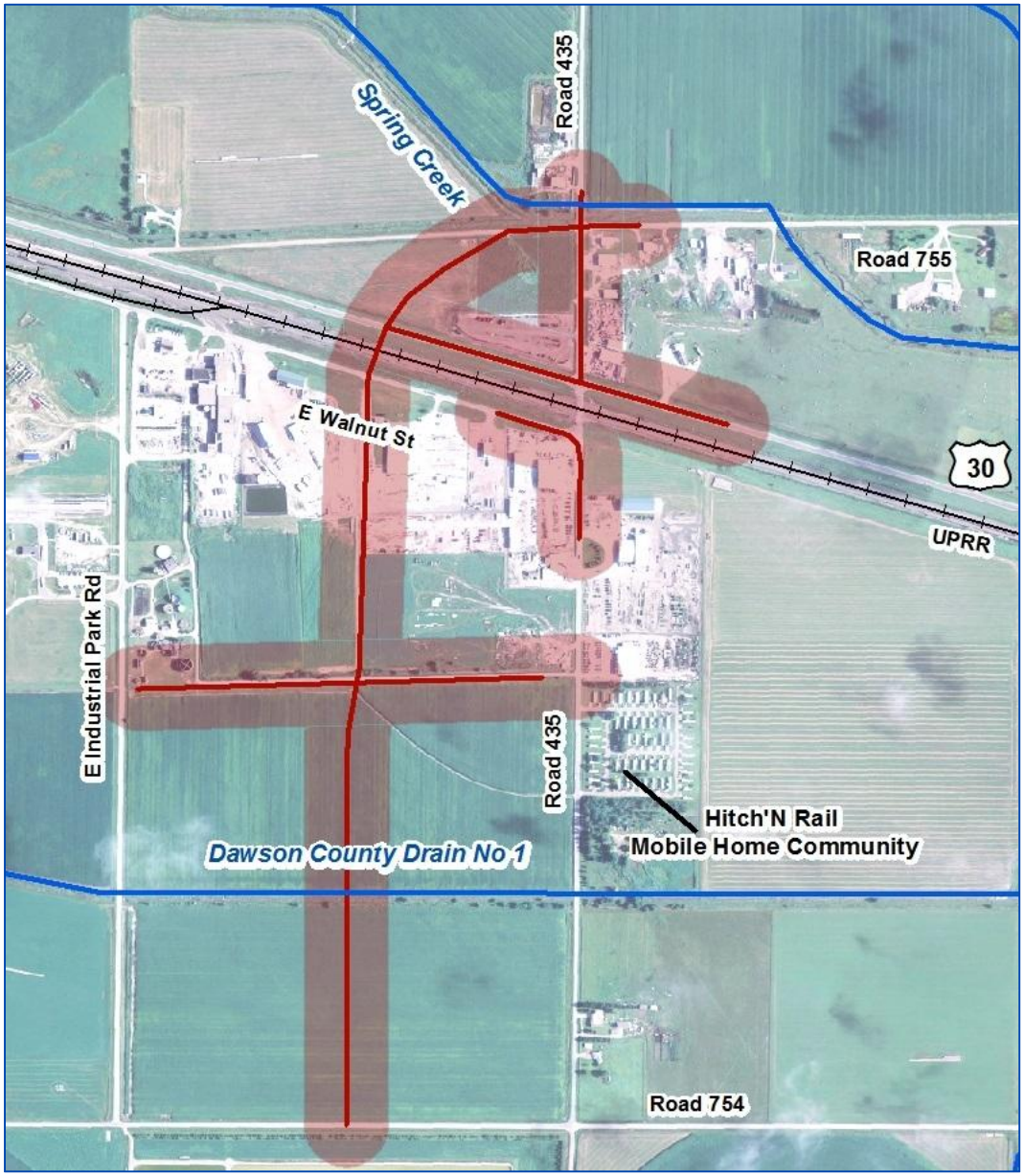
Alternative 3 - North-south viaduct on County Road 435



Description	Screening Result
• New north-south viaduct on County Road 435 • A new connection to E. Walnut Street west of the viaduct • Realign the roadway connecting County Road 755 to US 30 • Turn lanes on US 30 at County Road 755 • E. Walnut Street closed at County Road 435 • Close current railroad crossing on County Road 435 • Close current railroad crossing on County Road 436	Kept for more study in Step 2 Screening (see Section 2.2.2 for more discussion)

Table 1. Alternatives Studied (continued)

Alternative 4 - North-south viaduct west of existing County Road 435



Description	Screening Result
• New north-south viaduct west of existing County Road 435 • New north-south road connecting County Road 755 and County Road 754 • New turning movement on County Road 435 north of US 30 • Close current railroad crossing on County Road 435 • Close current railroad crossing on County Road 436	Kept for more study in Step 2 Screening but eliminated during Step 3 Screening (see Section 2.2.2 for more discussion)

Table 1. Alternatives Studied (continued)

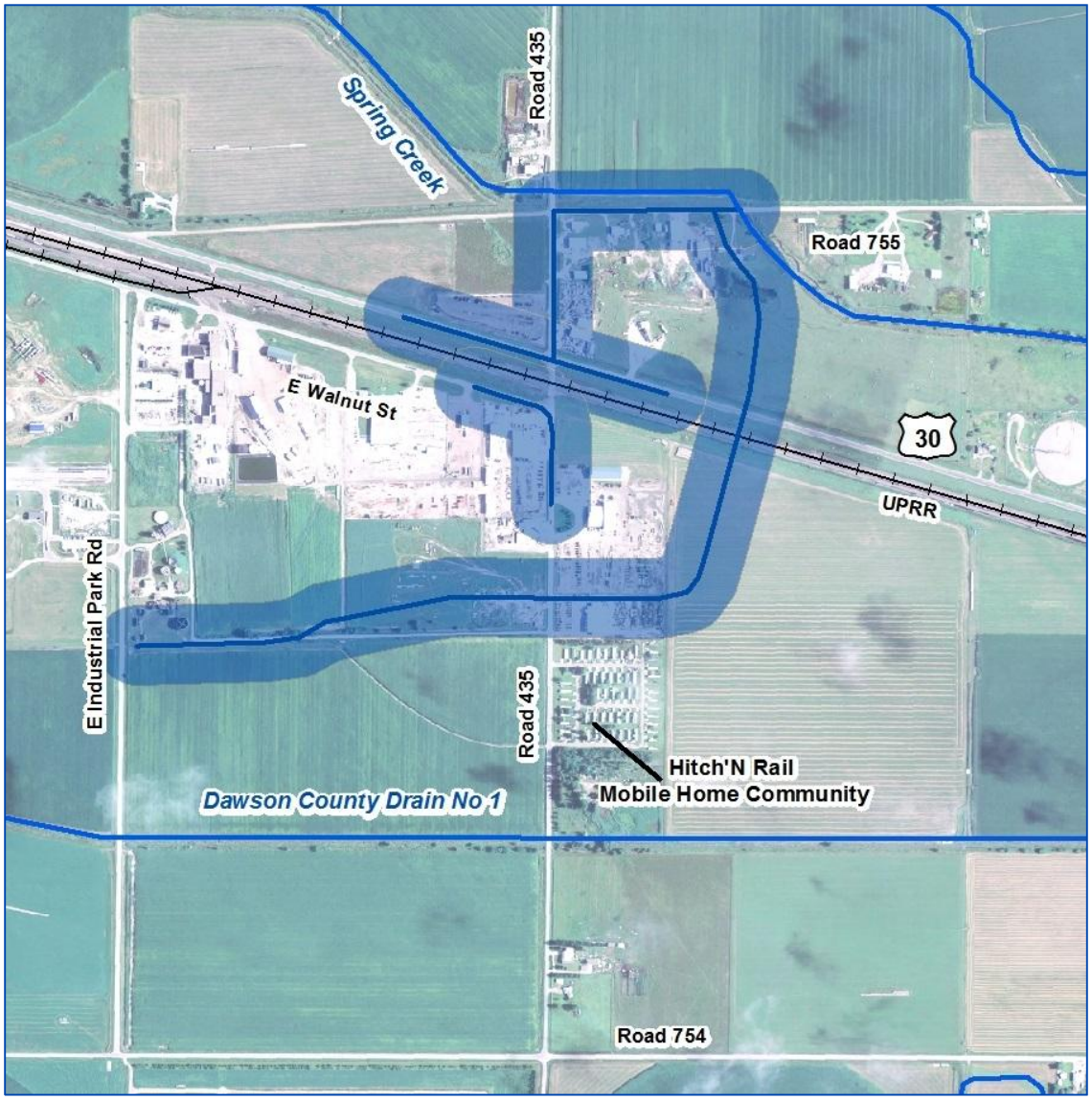
Alternative	
Alternative 5 - North-south viaduct to the east of County Road 435 	
Description	**Screening Result**
• New north-south viaduct and roadway to the east of County Road 435 • Realign the east-west roadway connecting to E. Industrial Park Road from the new viaduct and north-south roadway • Realign the roadway connecting County Road 755 to US 30 • Close current railroad crossing on County Road 435 • Close current railroad crossing on County Road 436	Kept for more study in Step 2 Screening but eliminated during Step 2 Screening (see Section 2.2.2 for more discussion)

Table 1. Alternatives Studied (continued)

Alternative	
No Build Alternative	
Description	**Screening Result**
• Maintains the existing roadways and railroad crossings in the area as is • A bridge is not built crossing the UPRR near County Road 435 • Two-way stop-controlled or yield controlled traffic	Kept for comparing and identifying impacts of the Build Alternatives

2.2 How Were the Alternatives Studied?

Each Build Alternative was studied to learn how it would potentially impact the area. The project sponsors used three screening steps to study the alternatives.

In Step 1, the screening process used an area of 250 feet on each side of the proposed centerline of the alternatives to calculate or estimate potential worst-case environmental impacts and other potential constraints based on existing GIS data.

In Step 2, the screening process used feedback from the public on alternatives.

In Step 3, the screening process used analysis of the impacts from the potential construction limits of Alternatives 3 and 4 and coordination between the City of Lexington and Dawson County.

2.2.1 Step 1 Screening – Five Build Alternatives to Three Build Alternatives

Step 1 of the screening process used area distance of 250 feet on each side of the alternatives to identify worst-case environmental impacts based on existing GIS data. Table 2 lists the environmental criteria reviewed to determine potential impacts by alternative. The alternatives were also reviewed for their ability to meet the purpose and need of the proposed project. Appendix 3 provides a complete list of the data.

Table 2. Step 1 Alternative Screening Criteria

Criteria Category	Criteria within 250 feet of Proposed Centerline
Meets Purpose and Need	
Reduce crashes on County Road 435 near the US 30 and UPRR crossings	Yes / No
Reduce traffic delays on County Road 435 from trains	Yes / No
Improve accessibility to the area as identified by local planning initiatives	Yes / No
Constructability / Disruption during Construction	
Local Detour Required	Yes / No
Phasing	Yes / No
Potential Right-of-Way Needs	
Total Acres in Study Area	Acres
Number of Parcels in Study Area	Number
Potential Displacement / Relocations	
Residential	Number
Business	Number
Wetlands	Number and Acres
Stream Crossings	Number
Require an Individual Clean Water Act (CWA) Section 404 Permit	Yes / No
Hazardous Material Sites Impacted	Number
Floodplain Impacts	Acres
Noise (move roads closer to receptors)	Yes / No
Protected Populations Impacts	Yes / No
Cultural Resources Impacts	Yes / No
Section 4(f) and Section 6(f) Impacts	Yes / No
Prime and Unique Farmlands	Acres
Potential Utility Conflicts (electric, pipes: sanitary, storm, water)	Number

Note: Analysis completed in August 2013

Using the screening criteria listed in Table 2, the project sponsors eliminated Alternatives 1 and 2 from further consideration. Alternative 1 failed the initial screening because of potential impacts to the protected population in the Hitch'N Rail mobile home community. Alternative 2 failed the screening because of the amount of anticipated impacts to Spring Creek. NDOT and FHWA agreed to eliminate Alternatives 1 and 2 during a monthly coordination meeting on September 25, 2013. Appendix 3 documents the initial screening results and analysis.

The project sponsors further studied Alternatives 3, 4, and 5 in the Step 2 Screening.

2.2.2 Step 2 Screening – Three Build Alternatives to Two Build Alternatives

During the Step 2 Screening, the City of Lexington asked the public to comment on the remaining three Build Alternatives. The City of Lexington held a public meeting on November 7, 2013, to collect input on the purpose and need of the proposed project and on Alternatives 3, 4, and 5. The meeting was advertised in two local newspapers, and notices were mailed to stakeholders. A total of 40 people signed in at the meeting, including project staff. Figure 3 depicts the three Build Alternatives as shown to the public for review and comment.

Of the 11 comments received during the comment period, two commenters favored Alternative 3 because they believed this alternative would be easier for drivers. Five commenters favored Alternative 4 because they believed it would have fewer impacts on their homes or livelihoods (compared to the other alternatives) and would provide improved access to properties and businesses in the area. Only one commenter favored Alternative 5, noting that it would have less of an impact to existing businesses on County Road 435 but also indicating no objection to Alternative 3. One commenter favored both Alternative 3 and Alternative 4. Two commenters did not identify a favored alternative.

Following the public meeting, the project sponsors eliminated Alternative 5 for the following reasons:

- Drivers would have to make more turns to access areas on the south side of US 30 that other alternatives did not require.
- The alternative would not improve access to roads in the Study Area as well as the other alternatives.
- The alternative would have more property and floodplain impacts.
- The alternative received more negative comments from the public than the other alternatives.

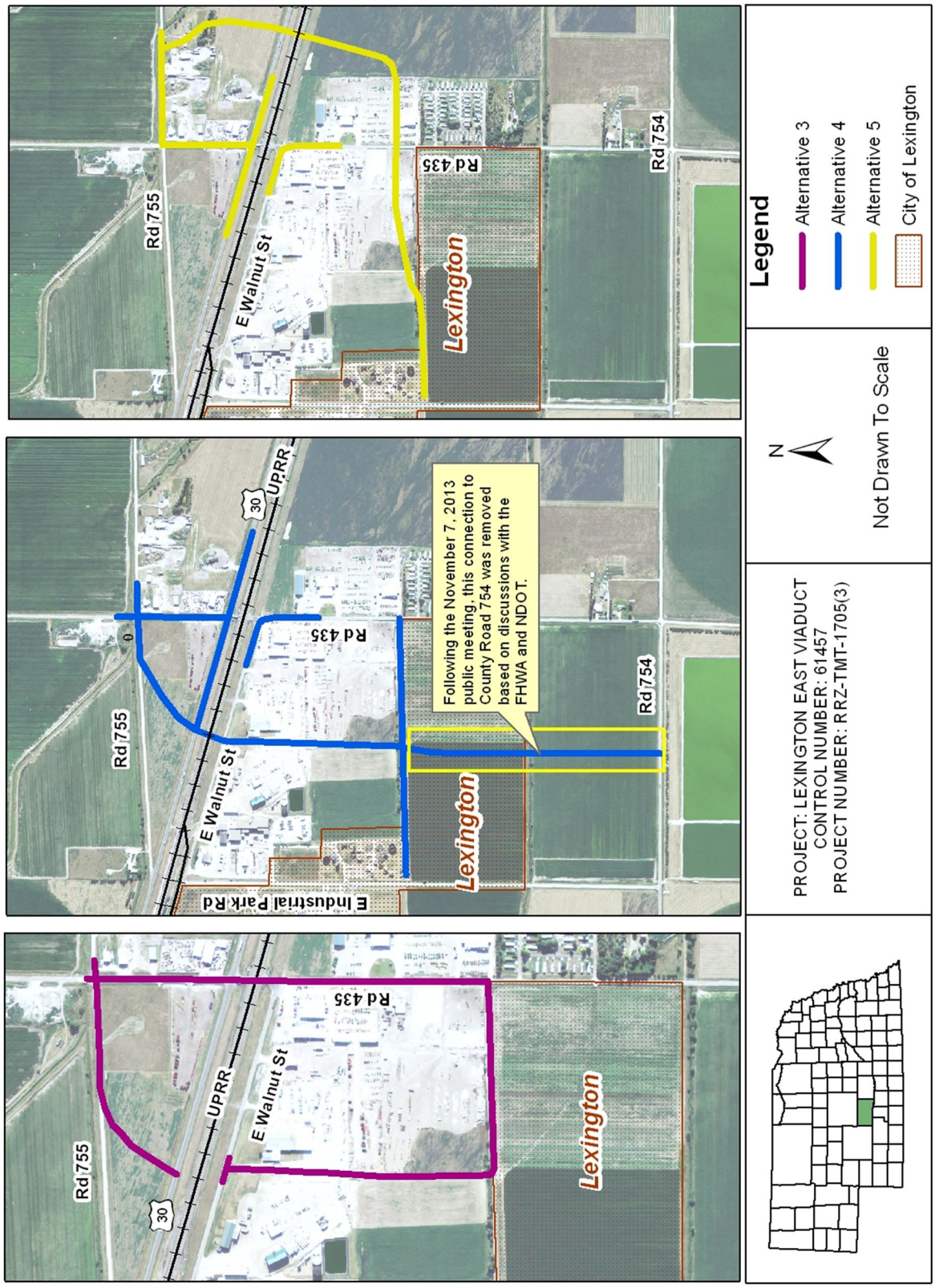
The public comments and corresponding responses are in the public meeting summary located in Appendix 4 and discussed in Section 4.3.

Following the public meeting, the City of Lexington also modified Alternative 4 as shown in Figure 3. Discussions between the City of Lexington, NDOT, and FHWA resulted in removing the connection from the viaduct to County Road 754 because it was not considered critical to the purpose and need of the proposed project. Additionally, removal of the connection would reduce project construction costs, if Alternative 4 were to be identified as the Preferred Alternative. With the modification, traffic would be routed back to County Road 435 or E. Industrial Park Road via a new connector road. After the Step 2 Screening, Alternative 3 and a modified version of Alternative 4 were advanced for Step 3 Screening.

2.2.3 Step 3 Screening – Comparing the Remaining Two Build Alternatives

In Step 3 of the screening, the project sponsors studied the potential construction limits of Alternatives 3 and 4. Based on the potential construction limits, there were only minor differences between the two alternatives. In other words, the potential environmental impacts from both alternatives would be similar. Both alternatives would also cost about $9.6 million to build. For more information about the results of the Step 3 Screening, see Appendix 3.

Figure 3. Build Alternatives 3, 4, and 5



As a part of this step, the project sponsors considered whether detours would be needed during construction. A detour for US 30 would be necessary for either alternative when beams for the viaduct are put over the UPRR tracks and US 30. Travelers on US 30 would have to use Interstate 80 (I-80) between Lexington and Overton.

In addition to the US 30 detour, Alternative 3 would require a local detour of the intersection of County Road 435 and US 30 and the UPRR crossing during construction. Alternative 4 would not require a detour of the intersection of County Road 435 and US 30 or the UPRR crossing during construction.

2.2.3.1 Alternative 3 - Benefit and Concern Summary

Alternative 3 would provide the following benefits:

- There would be a slightly lower amount of right-of-way needed to build.
- Upon completion, travel patterns would continue to be the most like the existing road network because the viaduct would be on the existing alignment of County Road 435.
- The viaduct would result in fewer turns for truckers and better visibility for businesses.
- Alternative 3 would be consistent with the City of Lexington's *Long Range Transportation Plan* (City of Lexington 2005), the *One and Six Year Improvement Plan 2018–2023* (City of Lexington 2017), and *The Lex-Plan 2013* (City of Lexington 2013).

The concerns associated with Alternative 3 include the following:

- There would be short-term access issues during construction.
- Property impacts would occur to businesses on County Road 435.
- Lost access to existing businesses on County Road 435 would need to be restored through mitigation or property acquisition.
- A local detour of the intersection of County Road 435 and US 30 during construction would be required.

2.2.3.2 Alternative 4 - Benefit and Concern Summary

The benefits of Alternative 4 include the following:

- County Road 435 would remain open during construction.
- Public comments favored Alternative 4 based on expectations of fewer direct impacts to properties and businesses in the area during construction.

The following concerns were associated with Alternative 4:

- Alternative 4 is not consistent with the City of Lexington's *Long Range Transportation Plan* (City of Lexington 2005), the *One and Six Year Improvement Plan 2018–2023* (City of Lexington 2017), and *The Lex-Plan 2013* (City of Lexington 2013).
- Alternative 4 would introduce new travel patterns.
- The proposed viaduct under Alternative 4 would bisect currently developed land.

2.3 What is the 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.

On March 11, 2014, the Lexington City Council and the Dawson County Commissioners held a joint session to discuss Alternative 3 and Alternative 4. The meeting was open to the public and advertised in the *Lexington Clipper-Herald* newspaper on March 1, 2014.

During the meeting, the Council and the Commissioners reviewed Alternative 3 and Alternative 4 in detail. The Commissioners took an informal survey of the audience, which resulted in nine votes for Alternative 3 (five from the City of Lexington and four from Dawson County), and one vote for Alternative 4 (from

Dawson County). The City of Lexington and Dawson County approved a joint resolution that identified Alternative 3 as the locally preferred project alignment. Appendix 4 contains a summary and additional information regarding the joint resolution.

Based on the joint resolution, City of Lexington identified Alternative 3 as the locally Preferred Alternative for the proposed project. The Preferred Alternative would also require some changes in existing driveways in the area, roadway widths, and the number of lanes. Figure 4 through Figure 8 illustrate the features of the Preferred Alternative. Pedestrian and bicycle facilities are not proposed as part of the Preferred Alternative. The Preferred Alternative includes:

- A new north-south viaduct (bridge) along County Road 435 over the UPRR and US 30 (Figure 5 and Figure 6)
- Closure of the at-grade crossing of the UPRR tracks at County Road 435 and County Road 436 south of the US 30
- Construction of two new local roads to maintain area access designated as Road A and Road B in this document; rename Road A and Road B following construction (Figure 4 and Figure 7)
- Realignment of County Road 755 to provide an optimal intersection with US 30 (Figure 8)
- Turn lanes and shoulders for US 30 at the relocated intersection of County Road 755
- Driveway modifications, as needed, to provide access (Figure 4)
- A storm water system including inlets, as needed, to maintain proper drainage
- Street lighting along the viaduct

Figure 4. Preferred Alternative Construction Limits, including Drive Access Changes

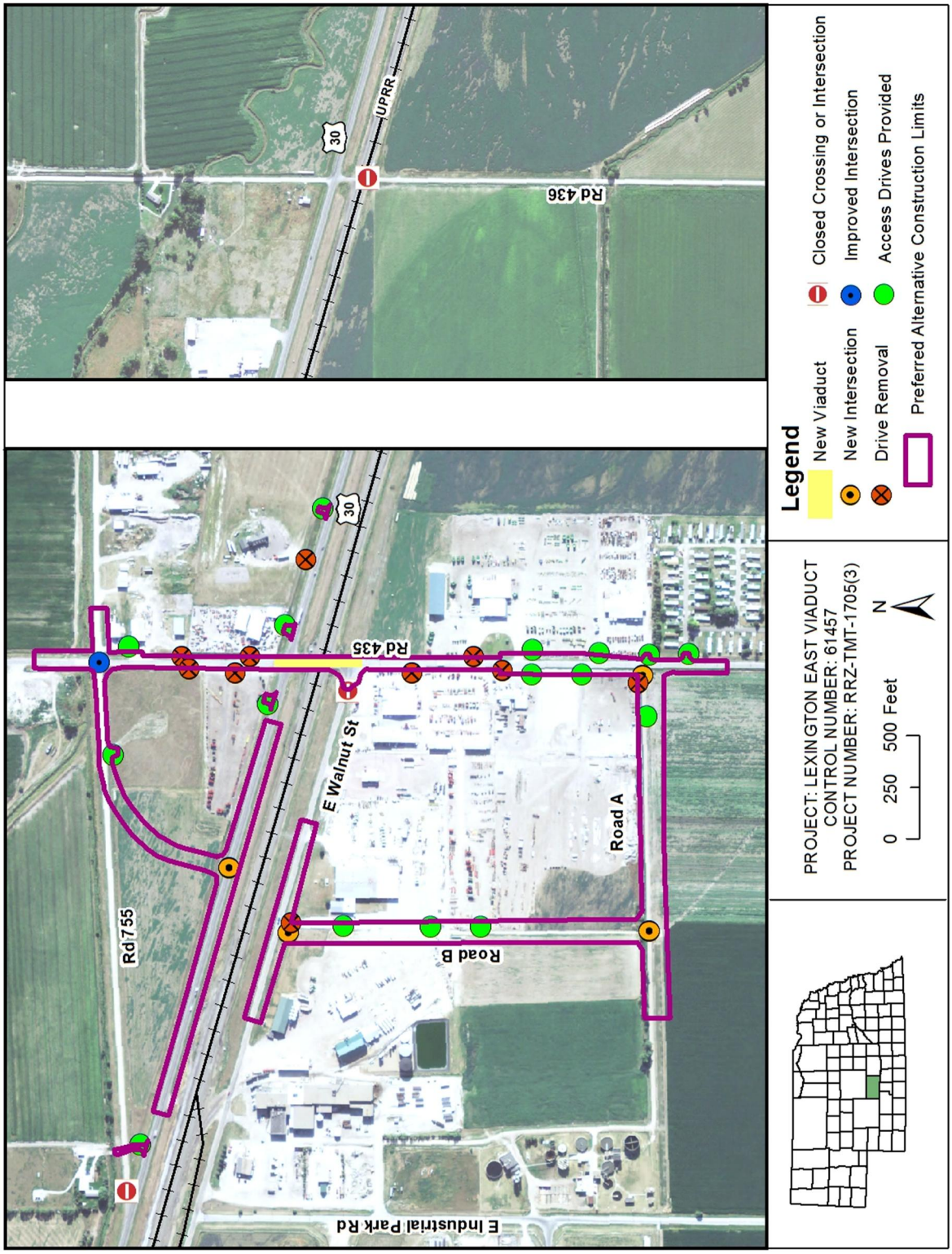


Figure 5. County Road 435: 42 Feet Wide with Center Turn Lane

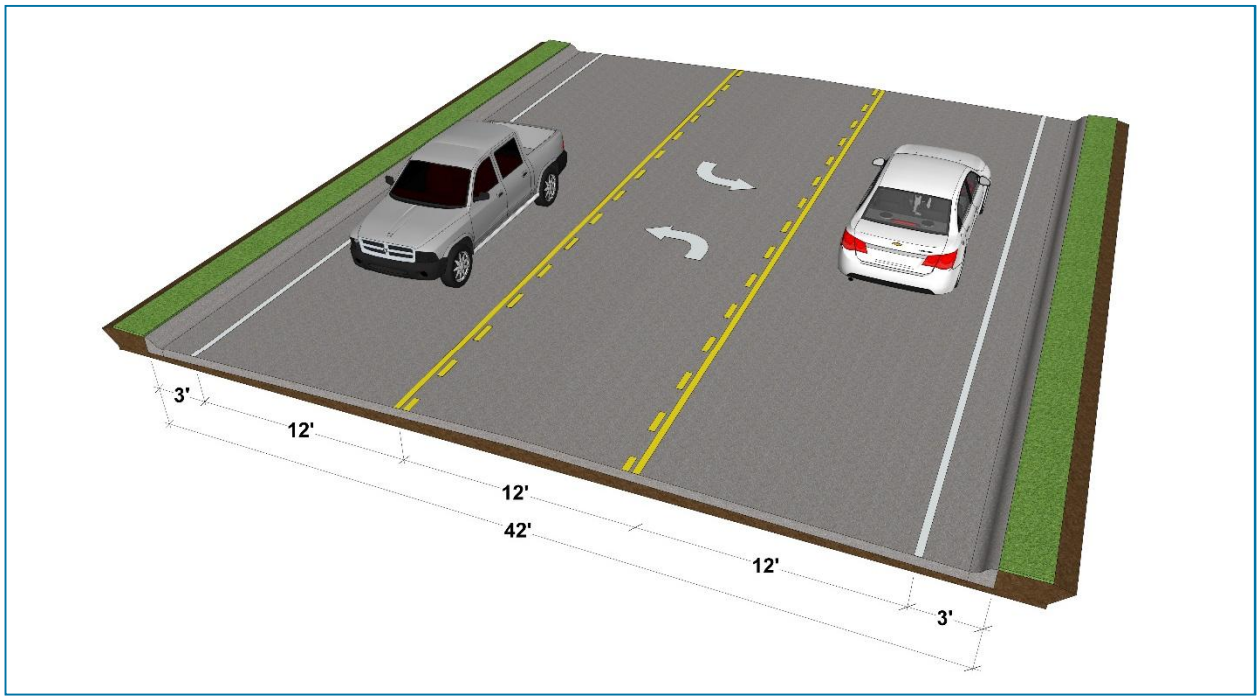


Figure 6. The Viaduct: 42 Feet Wide with No Center Turn Lane

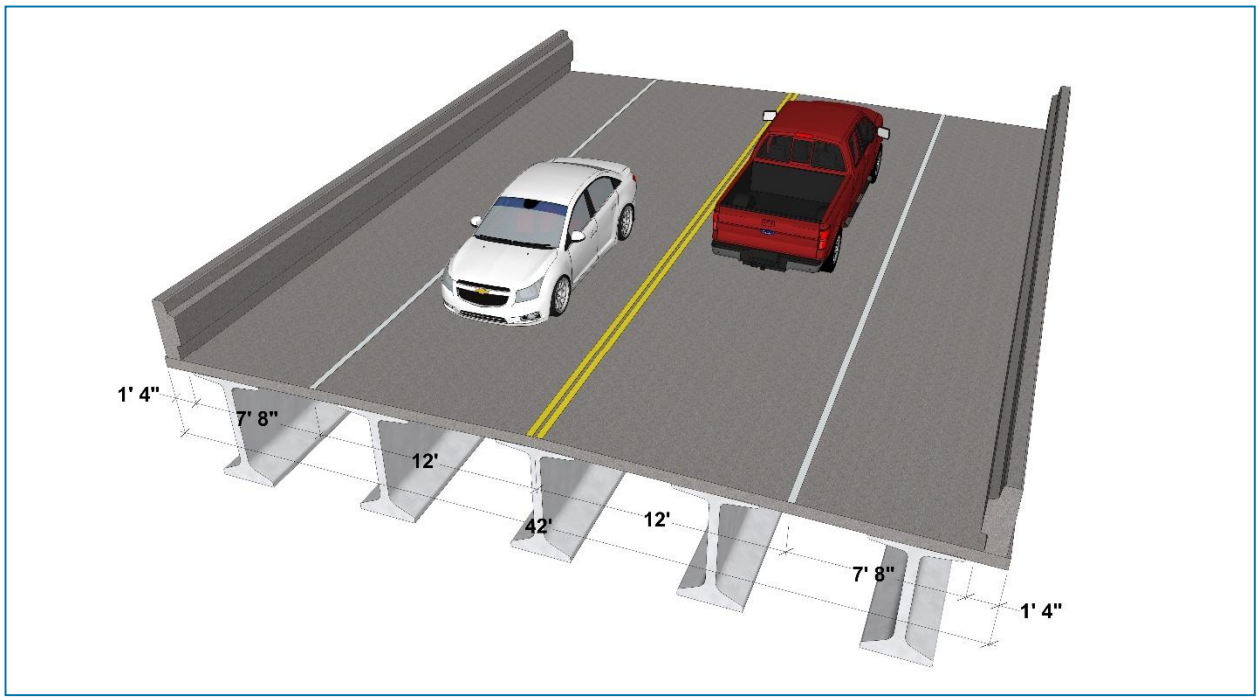


Figure 7. Road A and Road B: 24 Feet Wide with Two Lanes

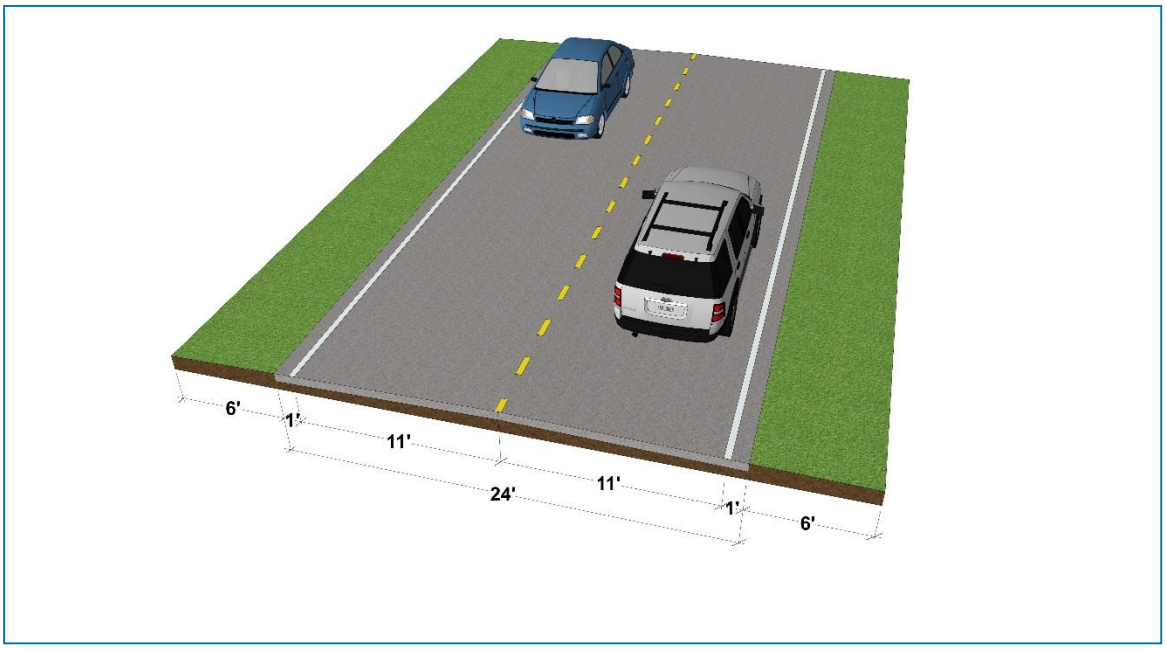
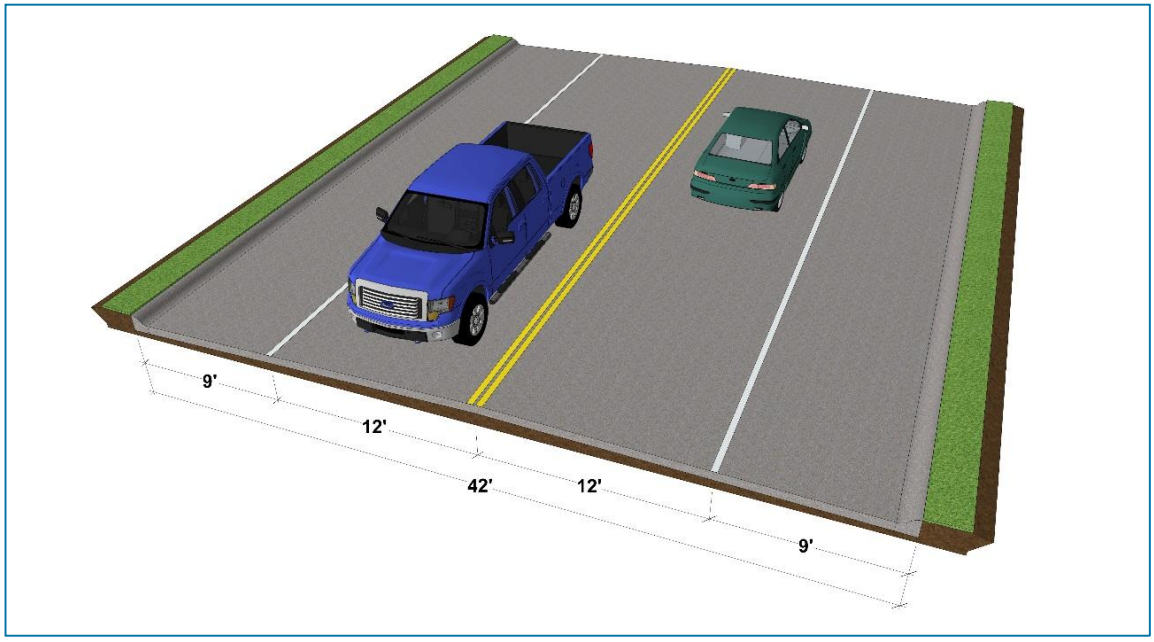


Figure 8. County Road 755: 42 Feet Wide with Two Lanes and Shoulders



3.0 Affected Environment and Environmental Impacts

In general, the Study Area includes the area between County Roads 754, 756, 436 and Taft Street (Figure 2).

This section identifies environmental resources that would be affected by the proposed project and the anticipated impacts on those resources. As described in further detail in this section, the Study Area for the environmental analysis depends on the resource studied (human or natural). It should be noted, however, that the environmental Study Area for each resource is large enough to identify and address potential concerns. Under NEPA, the context (the relationship between the project and its setting) and intensity of impacts determine the significance of impacts from a project. CEQ guidance on preparing NEPA analysis notes that environmental analysis should focus on significant issues and impacts should be discussed in proportion to their significance (77 FR 14473, December 2012).

To describe the analysis of how the proposed project affects environmental resources, this section is divided into three levels:

- Environmental Resources Not in the Study Area. This subsection identifies environmental resources that are typically studied as part of NEPA, but are not located within the Study Area.
- Environmental Resources with Streamlined Analysis. This subsection describes the environmental resources for which detailed analysis and discussion are not warranted because the context and intensity of impacts were evident based on an initial analysis. The subsection also identifies resources where the impact determination was based on existing agreements between NDOT and resource agencies or addressed by NDOT Standard Specifications. **[Note: Standard Specifications are NDOT requirements regarding materials, products, services, and construction methods.]**
- Environmental Resources Requiring Detailed Analysis. This subsection reviews environmental resources that required detailed technical studies or analysis in order to determine the context and intensity of potential impacts.

Environmental Resources Not in the Study Area

For this proposed project, there are several resources that do not require discussion in the Draft EA because they do not occur within the Study Area (Table 3).

Table 3. Environmental Resources Not Requiring Detailed Discussion in the Draft EA

Resource Area	Description	Summary
Section 6(f)	Section 6(f) of the Land and Water Conservation Fund Act restricts the conversion of recreational lands to non-recreational land if the land was acquired with money from the Land and Water Conservation Fund.	A review of the National Parks Service website did not identify any Section 6(f) land in the Study Area (http://projects.invw.org/data/lwcf/grants-ne.html, accessed August 15, 2018).
Wild & Scenic Rivers	The National Wild and Scenic Rivers System preserves certain rivers with outstanding natural, cultural, and recreational values.	The Study Area is outside of the Missouri River and Niobrara River reaches, which are the only wild and scenic rivers identified in Nebraska (https://www.rivers.gov/nebraska.php, accessed March 28, 2017). No Nationwide Rivers Inventory resources were identified in the Study Area (https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm).

Environmental Resources with Streamlined Analysis

Table 4 identifies the environmental resources where the context and intensity of impacts were evident based on an initial analysis, where the impact determination was based on existing agreements between NDOT and resource agencies, or were addressed by NDOT Standard Specifications. As describe in Chapter 2 of this DEA, the City of Lexington and NDOT studied five Build Alternatives and a No Build Alternative for this proposed project. The project sponsors used three screening steps to study each Build Alternative to learn how it would potentially impact the area and used a three-step process to identify a locally Preferred Alternative for further analysis and comparison against the No Build Alternative. Table 4 summarizes the analysis for the following environmental resources:

- Section 4(f)
- Cultural Resources
- Protected Species
- Noxious Weeds
- Farmlands
- Impaired Waters
- Platte River Depletion
- Hazardous Materials
- Air Quality and Greenhouse Gases
- Visual and Aesthetics

Table 4. Environmental Resources with Streamlined Analysis

Section 4(f)
What is Section 4(f)? Section 4(f) of the US Department of Transportation Act of 1966 provides special protection for publicly owned parks and recreational lands, wildlife and waterfowl refuges, and significant public or private historic properties.
How were Section 4(f) resources identified and studied? The NDOT Section 4(f) Initial Assessment Form is in Appendix 5 of this Draft EA. This form describes the potential Section 4(f) resources in the area, and how they were identified and evaluated for the project. Ten resources were studied as part of the Section 4(f) review. These include five historic resources (Auto Showroom, L.R. Ranch Motel, Hollingsworth Motel sign, County Drain No.1 Irrigation Canal, and Berquist Lateral Irrigation Canal) and five recreational resources (Kirkpatrick Memorial Park, Oak Park, Arbor Park, Morton Elementary School and Playground and Pershing Elementary School and Playground). Except for the County Drain No.1 Irrigation Canal and Berquist Lateral Irrigation Canal, these resources are mostly within the developed portion of the City of Lexington (Figure 9) and reviewed for impacts resulting from the temporary detour routes. The canals were evaluated for historical importance and are discussed further in Cultural Resources (below) and Appendix 6.
Section 4(f) Alternative Comparison
No Build Alternative - There would be no construction of the project or temporary detours required. As a result, there would be no impact to any Section 4(f) resource. **Preferred Alternative -** The Nebraska State Historic Preservation Office (NeSHPO) determined that there would be “no historic properties affected” by construction of the project, including the temporary detour. More information on the review of historic properties is found below. There is additional detailed information on historic resources below in this Table, under the Cultural Resources heading and in Appendix 6. In addition, because no recreational resources are in or near the construction area, there would be no impact as a result of the Preferred Alternative.
Section 4(f) Summary
Although there are Section 4(f) properties in the Study Area, the project does not restrict access to any of these areas, take land from these resources, or change the way in which these resources are accessed or operate (Appendix 5). In addition, sensitive resources, such as wetlands, cultural resources and Section 4(f) properties near construction activities would be identified on design plans and marked for avoidance during construction.

Figure 9. Section 4(f) Resources, including Cultural Resources, within the Study Area

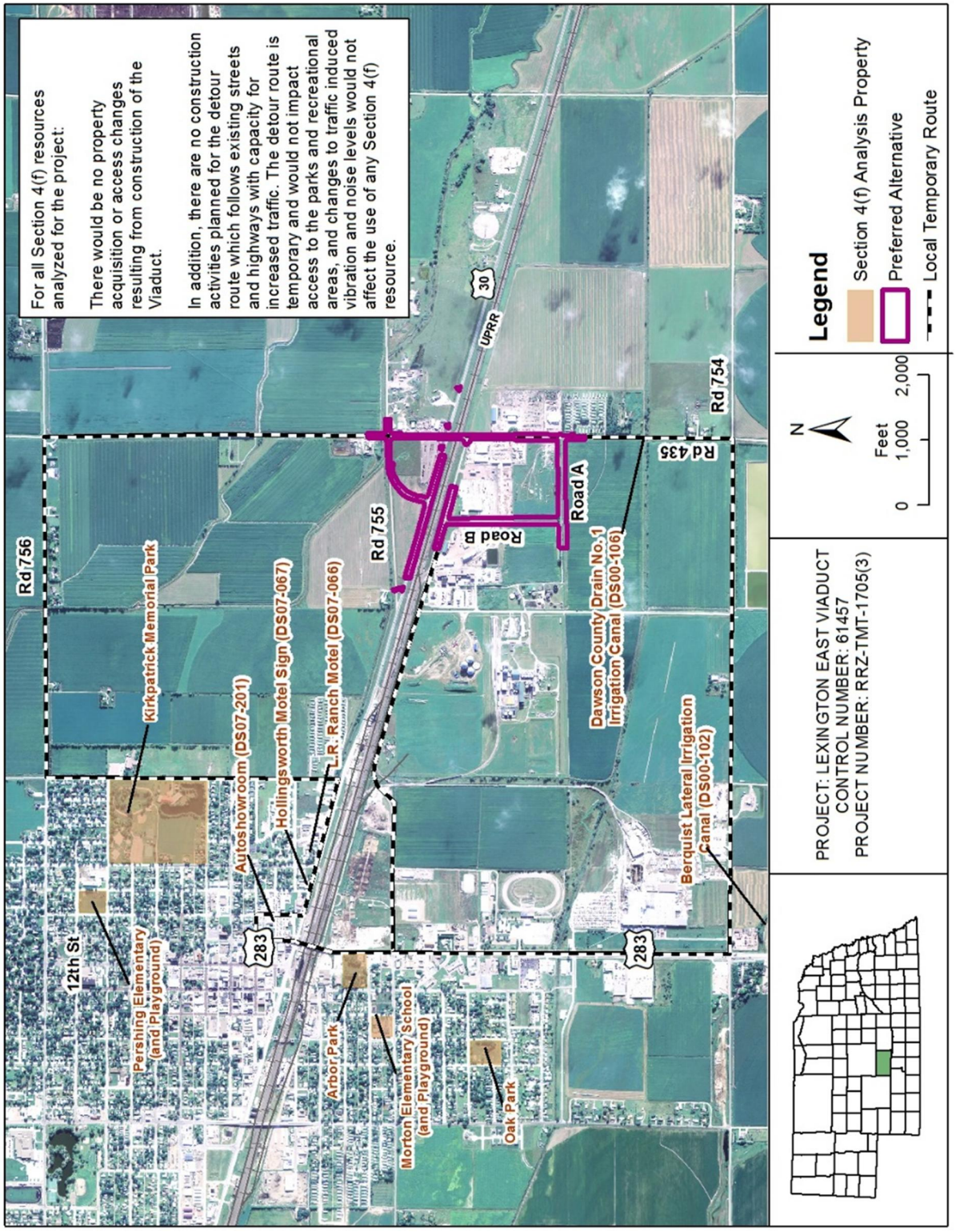


Table 4. Environmental Resources with Streamlined Analysis (continued)

Cultural Resources
What are Cultural Resources? Cultural resources are archeological sites, historic properties, traditional cultural places, or other places where important historic activities occurred. Cultural resources are considered important if they are listed in or eligible for listing in the National Register of Historic Places (NRHP), which is the official list of our country's historic buildings, districts, sites, structures, and objects worthy of preservation. Section 106 of the National Historic Preservation Act, requires that federal agencies consider the impacts of a project on cultural resources.
How were Cultural Resources identified and studied? The coordination between NDOT, FHWA and the NeSHPO is found in Appendix 6. The coordination describes how historic resources were identified and studied for the project. The Study Area for cultural resources is known as the Area of Potential Effects (APE) and was chosen to identify any resource in or eligible for the NRHP (archaeological or historic structures) that may be directly or indirectly changed by the project. For the APE, there are no archeological sites considered important based on a review of the Nebraska State Historical Society Cultural Resources Geographic Information System, historic maps, and a field survey by NDOT (Appendix 6). Based on historic mapping and reviews completed by NDOT, there were five resources in or near the APE that were studied (Figure 9). These resources include: Auto Showroom, L.R. Ranch Motel, Hollingsworth Motel sign, Berquist Lateral Irrigation Canal and Dawson County Drain No. 1 Irrigation Canal. Except for the Berquist Lateral Irrigation Canal and the Dawson County Drain No. 1 Irrigation Canal, these resources are in the developed portion of the City of Lexington (Figure 9) and evaluated for impacts from the temporary detour routes. Only the Dawson County Drain No. 1 Irrigation Canal is within the APE, and was studied for impacts from both construction and the detours.
Cultural Resources Alternative Comparison
No Build Alternative - There would be no construction of the project or temporary detours required. As a result, there would be no impact to any cultural resources. **Preferred Alternative** – Based on the analysis completed by NDOT, the detour routes would not change or alter the Auto Showroom, L.R. Ranch Motel, Hollingsworth Motel sign, or the Berquist Lateral Irrigation Canal. Although, the Dawson County Drain No.1 Irrigation Canal is located within the APE, it is more than 0.4 mile away from the nearest construction area. As a result, it was reviewed for noise and vibration impacts. Based on the analysis by NDOT, no impacts are anticipated from construction or from the temporary detour routes.
Cultural Resources Summary
The FHWA recommended, and the NeSHPO agreed, that the proposed project would not affect historic properties (Appendix 6). NDOT standard specifications describe what would happen if previously unidentified archeological resources are discovered during construction (Appendix 8). In addition, sensitive resources, such as wetlands, cultural resources and Section 4(f) properties near construction activities would be identified on design plans and marked for avoidance during construction.

Table 4. Environmental Resources with Streamlined Analysis (continued)

Protected Species
What are Protected Species? The Endangered Species Act of 1973 as amended, protects federally listed endangered and threatened species and the Nebraska Nongame and Endangered Species Conservation Act provides protection for state-listed species. Other species with special protection are bald and golden eagles under the Bald and Golden Eagle Protection Act and migratory birds under the Migratory Bird Treaty Act.
How were Protected Species identified and studied? The federal endangered and threatened species review was conducted according to the Programmatic Agreement for the Nebraska Federal Aid Transportation Program. Appendix 7 contains the forms completed for the project based upon this Programmatic Agreement. The Study Area is industrialized with undeveloped areas used for farmland. A number of planted trees occur along streets and in residential or business yards that may provide some habitat for protected species. Some wetland vegetation exists in ditches within the Study Area. These habitats, although not ideal, may still be sufficient for some protected species.
Protected Species Alternative Comparison
No Build Alternative – There would be no impacts to protected species because the No Build Alternative has no construction activities, detour routes, or transportation caused habitat changes. **Preferred Alternative** – On March 12, 2014, it was determined by NDOT that the project "may affect/ is not likely to adversely affect" the northern long-eared bat (NLEB) and have no effect on all other listed species. Documentation of concurrence is located in Appendix 7. Although no migratory birds were identified during the analysis of the project, they may be present in the Study Area. NDOT has developed Special Provisions and an Avian Protection Plan (APP) to minimize the chance of impacts to migratory birds. Because construction of the Preferred Alternative would remove some landscaped trees and vegetation in ditches, the APP would be followed.
Protected Species Summary
NDOT determined that the proposed project "may affect/is not likely to adversely affect" the northern long-eared bat (NLEB) and have no effect on all other listed species (Appendix 7). To minimize any potential impacts to protected species, specific conservation conditions would be implemented during design and construction (Appendix 7): A-1 Changes in Project Scope – If there is a change in the project scope, the project limits, or environmental commitments, the NDOT Environmental Section must be contacted to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the FHWA. (District Construction, Contractor) A-2 Conservation Conditions – Conservation conditions are to be fully implemented within the project boundaries as shown on the plans. (District Construction, Contractor) A-3 Early Construction Starts – Request for early construction starts must be coordinated by the Project Construction Engineer with NDOT Environmental for approval of early start to ensure avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes will require approval from the FHWA and could require consultation with the USFWS and NGPC. (District Construction, Contractor) A-4 E&T Species – If federal- or state-listed species are observed during construction, contact NDOT Environmental. Contact NDOT Environmental for a reference of federal- and state-listed species. (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) * - Note that when commitments are made for resources, the parentheses indicate who is responsible for complying

Protected Species Summary Continued

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 (NGPC) 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 Chapter 11 of the Matrix (on NDOT's website), where species survey protocol can be found, to estimate the level of effort and timing requirements for surveys. (Contractor)

Any project-related activities that occur outside of the project limits must be environmentally cleared/permitted with the NGPC, 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 four 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 District Construction Project Manager will notify NDOT Environmental, which will coordinate with FHWA for acceptance if needed. The Contractor must receive notice of acceptance from NDOT 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)

S-2 Platte River Depletions – If within the Platte River watershed (including the Elkhorn, Salt Creek, Loup, Calamus, and Lower Platte drainage basins), include the following for all detention basin/retention basins, and borrow sites. All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the Contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general, the following are considered de minimis depletions but may still require agency coordination; a project which: a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) any diverted water will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet. (Contractor)

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

Protected Species Summary Continued
Northern Long-eared Bat: • NLEB-1 Tree clearing, bridge deck joint replacements over the bridge deck, bridge removal activities will not occur between June 1 – July 31 to avoid impacts to the northern long-eared bat maternity roosting period. (NDOT Environmental, Construction, Contractor) OR • NLEB-2 If tree clearing, bridge demolition, or removal of structures occurs during the northern long-eared bat maternal roosting period (June 1 – July 31), NDOT or a qualified biologist will perform surveys prior to the start of these activities. If the species is absent, work may proceed. If the species is found, NDOT Environmental Section will consult with the USFWS, NGPC, and FHWA prior to the start of construction. (NDOT Environmental, Construction, Contractor)
Noxious Weeds
What are Noxious Weeds? Noxious weeds are usually invasive species that harm natural ecosystems. Several regulations and guidelines limit the spread of these noxious weeds, including: Executive Order 13112, Invasive Species; the Nebraska Noxious Weed Control Act; and the Nebraska Noxious Weeds Regulations.
Are there Noxious Weeds in the Study Area? The Study Area is primarily made up of roadways, industrial businesses, and farmland. As a result, vegetation in the area is highly disturbed. Maintained lawns with ornamental vegetation or planted trees exist around residences, businesses and roadways. Non-planted farmland edges and wetlands may contain a mix of native and non-native plants.
Noxious Weed Alternative Comparison
No Build Alternative – The No Build Alternative would not result in construction or improvements to the Study Area's vegetation. As a result, the threat of spreading noxious weeds would remain the same as it currently is in the Study Area. **Preferred Alternative** – Noxious weeds could be introduced as result of the Preferred Alternative because construction involves disturbing existing vegetation (clearing and grubbing). However, due to the amount of disturbance that has already occurred in the Study Area, the Preferred Alternative is unlikely to lower the overall quality of the area's natural vegetation. The creation of new roadways and associated ditches may improve the area's vegetation, if native plants are used for revegetation following construction.
Noxious Weed Summary
NDOT Standard Specifications would be followed during design and construction, including the identification of seed mixes which contain native plants (Appendix 8).

Table 4. Environmental Resources with Streamlined Analysis (continued)

Farmlands
What are Farmlands? The Federal Farmland Protection Policy Act (FPPA) was enacted to minimize unnecessary conversion of farmland to other uses as a result of federal decisions. In addition, the FPPA states that federal programs should be compatible with state and local policies or programs that protect farmland. The Natural Resources Conservation Service (NRCS) oversees FPPA compliance. It should be noted that the NRCS also designates some soils as "Prime farmland." Prime Farmland has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed (including water management) according to acceptable farming methods.
How were farmlands identified and studied? The FPPA is administered by the Natural Resources Conservation Service which developed the NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form to evaluate impacts to federal projects. The NRCS-CPA-106 form was completed, and is found in Appendix 9 along with the coordination efforts for the project. According to the Soil Survey of Dawson County, Nebraska, most of the farmland within the Study Area is classified as prime farmland. The majority of farmland in the Study Area is located to the east of County Road 435, south of County Road 754, and north of US 30 (Appendix 9).
Farmland Alternative Comparison
No Build Alternative – The No Build Alternative would not affect farmlands because no construction would occur. Farm vehicles would still face travel time delays in the area because the at grade crossing at County Road 435 and the UPRR would remain in place. **Preferred Alternative** – The Preferred Alternative converts approximately 1.6 acres of farmland near County Roads 435, 436, 754, 755 and US 30 to a transportation use. Portions of farmland within this area are planned to be converted to future commercial/industrial land uses as identified in the Lex-Plan 2013. The Preferred Alternative, may provide benefits to farming operations and farm-related business on County Road 435 because vehicles would be able to cross both US 30 and UPRR without having to stop for cross traffic. It should also be noted that the viaduct was designed to accommodate larger width farm vehicles.
Farmland Summary
The Natural Resources Conservation Service determined that conversion of 1.6 acres of farmland is not a farmland concern based upon the requirements identified within the FPPA (Appendix 9).

Table 4. Environmental Resources with Streamlined Analysis (continued)

Impaired Waters
What are Impaired Waters? Section 303(d) of the federal Clean Water Act identifies and establishes a ranking for waterbodies to determine which ones are impaired, meaning the pollution levels do not meet standards of the CWA. In Nebraska, the 303(d) List of Waters are identified through programs administered by the Nebraska Department of Environmental Quality (NDEQ) and documented in the 2018 Water Quality Integrated Report.
How were Impaired Waters identified and studied? The 2018 Water Quality Integrated Report was reviewed for the project (Appendix 10). Spring Creek is the only impaired waterbody identified in the Study Area. The last time Spring Creek was sampled by the NDEQ (in 2013), the water was slightly turbid, and the substrate was deep silt. NDEQ identified that Spring Creek is impaired for recreational uses because of bacteria (*Escherichia coli*) concerns and for aquatic life because of ammonia levels.
Impaired Waters Alternative Comparison
No Build Alternative – The No Build Alternative would not impact Spring Creek because no construction activities would occur, as a result, there would be no additional impairment. **Preferred Alternative** – The Preferred Alternative includes a storm sewer system to direct surface water to existing drainage facilities along County Roads 435 and 755. The drainage from County Road 435 north of US 30, including the north half of the viaduct, would be collected in a storm sewer before being discharged into Spring Creek. The Preferred Alternative, including the temporary detours, would not affect Spring Creek because, as a roadway project, it would not result in the release of bacteria or ammonia, and, therefore, would not contribute to additional impairment.
Impaired Waters Summary
The project would not contribute to Spring Creek's impairment; thus, no additional analysis or coordination is needed, however, the following activities would occur as part of the project: • The City of Lexington will obtain a Construction Storm Water (CSW) permit from NDEQ and produce an associated project-specific Storm Water Pollution Prevention Plan (SWPPP). The Project Sponsor will incorporate soil erosion and sediment control practices as detailed in the CSW permit and SWPPP. Permanent drainage and water quality facilities (that is, Best Management Practices [BMPs]) may be included with the final design to mitigate adverse impacts caused by storm water runoff. These BMPs will protect water quality and provide a discharge velocity that is equal to or better than the current conditions. The project will comply with CSW permit requirements. • The project-specific SWPPP will outline mitigation measures during construction and maintenance requirements for all permanent BMPs. The SWPPP will include a detailed Erosion and Sediment Control Plan as part of the roadway design set. These plans will show temporary measures, such as silt fences, hay bales, soil retention blankets, inlet protection, and stabilized construction entrances. The design of measures to be taken will be determined during final design.

Table 4. Environmental Resources with Streamlined Analysis (continued)

Platte Rivers Depletion
What does "Platte River Depletion" mean? The governors of Colorado, Nebraska, and Wyoming, and the US Department of the Interior signed an agreement in 2006 to implement a basin-wide Platte River Recovery Implementation Program (PRRIP) to reduce the depletion of water flows in the Platte River.
The Study Area occurs within the central Platte River drainage basin. As a result, the project has the potential to have an impact on Platte River flows (PRRIP 2009).
Platte River Depletion Alternative Comparison
No Build Alternative – The No Build Alternative would not lead to construction, and thus would not have Platte River depletion concerns. **Preferred Alternative** – The Preferred Alternative would have stormwater drainage drop structures from the viaduct and open ditches for conveying stormwater runoff. Therefore, stormwater runoff would not be detained and all water would remain within the drainage basin, thereby meeting the USFWS de minimis determination (USFWS, 2009). In addition, operational or maintenance activities would not expose groundwater, which is approximately 8 feet below the existing elevation in the Study Area.
Platte River Depletion Summary
Although no depletions would occur as the part of the project, the following measures will be established for construction: • If the borrow site is located within a depletion area of concern and it is identified that the site will pond water after excavation, the contractor will determine project-related impacts by calculating the evaporated loss of water at the borrow site by using the NRCS Consumptive Use Calculator. For borrow sites/detention basins that will result in the exposure of groundwater in the North Platte River Basin, the contractor will submit the borrow site request information to the NGPC and USFWS. This will be done to determine ways to avoid depletions or provide offsets if depletions are to occur. Requests for borrow sites that occur outside the Platte River watershed will be submitted to the Nebraska Department of Natural Resources (NDNR) for tracking surface water depletions. • Borrow sites that expose groundwater and are obtained outside the PRRIP areas will be offset according to the Biological Opinion prepared by NGPC in accordance with the Nebraska Nongame and Endangered Species Conservation Act (Nebraska Revised Statute 37-806 et seq. 2008). Borrow sites that pond water and occur outside the PRRIP area and the Platte River watershed would be calculated using the NRCS Consumptive Use Calculator and submitted to the NDNR to be included in the report to the Governance Committee.

Table 4. Environmental Resources with Streamlined Analysis (continued)

Hazardous Materials

What are Hazardous Materials? Hazardous materials, defined as substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present a threat to public health or the environment. Nebraska Administrative Code Title 128, Nebraska Hazardous Waste Regulations regulates hazardous wastes in the state.

How were Hazardous Materials identified and studied? A desktop hazardous materials review determined identified six sites of concern within the Study Area. These six sites are listed below and shown on Figure 10.

Map ID*	Street Address	Program (Status)
1	75498 County Road 435	Leaking Storage Tank (Inactive)
2	1208 E. Walnut Street	Resource Conservation and Recovery (Inactive) Underground Injection Control (Inactive)
3	1502 E. Walnut Street	Resource Conservation and Recovery (Active) Underground Injection Control (Inactive)
4	75481 County Road 435	Leaking Storage Tank (Inactive) Resource Conservation and Recovery
5	75482 County Road 435	Resource Conservation and Recovery (Active)
6	1110 E. Industry Drive	Leaking Storage Tank Petroleum Release Remediation (Inactive)
* shown on Figure 10		

The hazardous materials technical report, and coordination with NDOT are found in Appendix 11.

Hazardous Materials Alternative Comparison

No Build Alternative – The No Build Alternative does not involve any new right-of-way or construction activities other than general maintenance to existing roadways. As a result, the No Build Alternative does not have any effect to or from any known hazardous materials sites.

Preferred Alternative – Sites 1 through 5 are located within 0.10 mile of the Preferred Alternative and Site 6 is within 0.25 mile. Of the six identified sites, the Lexington WWTP is the only one that had a reported release of hazardous waste. Due to the remedial actions taken at the Lexington WWTP and the distance to project construction activities, there is no risk for the Preferred Alternative (Appendix 11).

Hazardous Materials Summary

Although there is no risk to or from the project (Appendix 11), the following mitigation measures will be completed for the project:

- 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 State Representative. The Contractor shall not re-enter the discovery area until allowed to do so by the State Representative. At the time of discovery, the NDOT State Representative and Contractor shall utilize the Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the State Representative are (but not limited to): verification that the Contractor has suspended construction activities in the area of the discovery, contact the Environmental Section Manager and make an entry into Site Manager that an unexpected waste discovery was made. The State Representative shall then utilize the UWAP Site Discovery Check List to properly document the extent and type of waste. The State Representative 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 Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of regulated material in accordance with applicable laws. (Contractor, NDOT)

Figure 10. Hazardous Materials identified within the Study Area

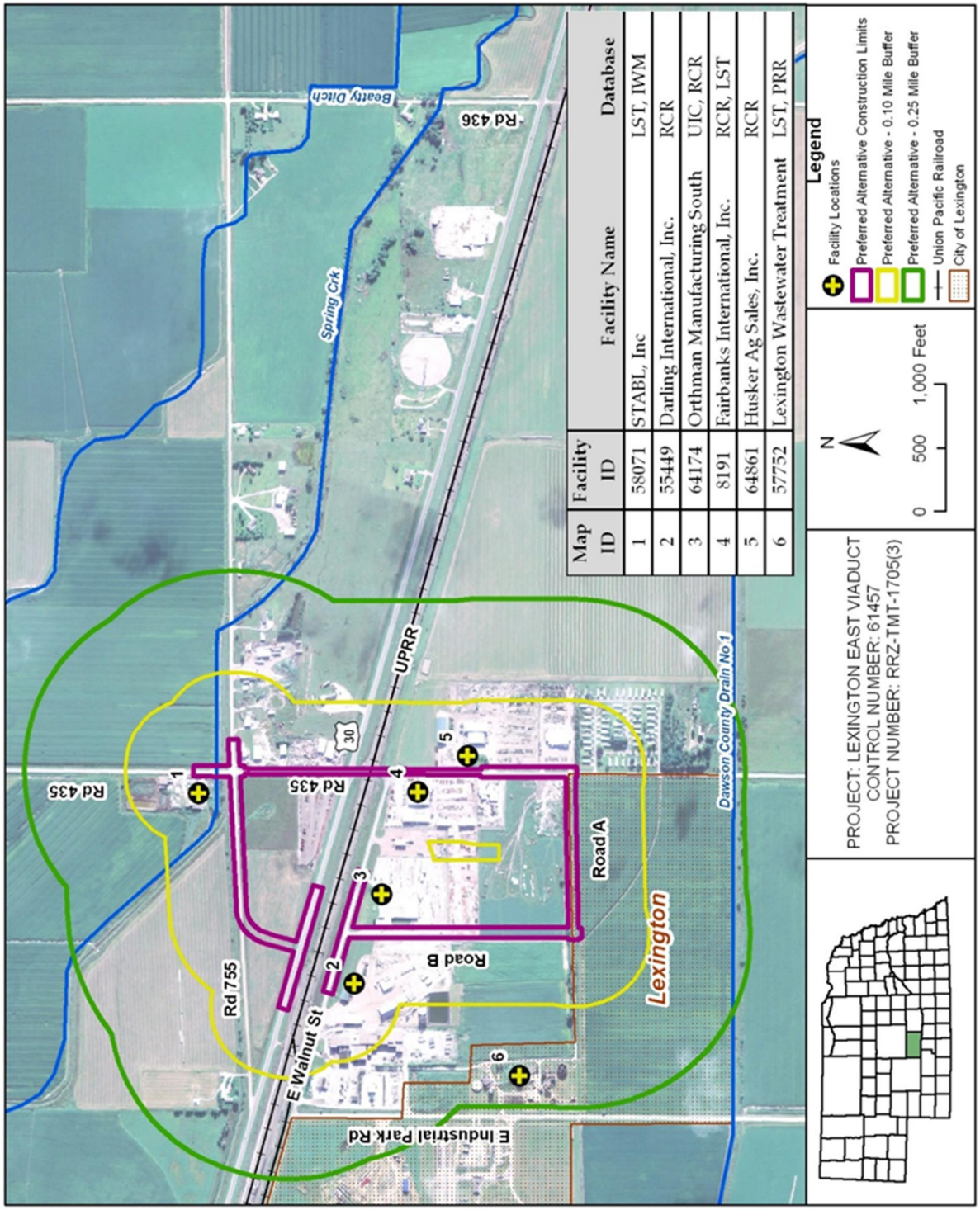


Table 4. Environmental Resources with Streamlined Analysis (continued)

Visual and Aesthetic Resources
What are Visual and Aesthetic Resources? Visual resources are those physical features that make up the visible landscape, including land, water, vegetative, and man-made elements (FHWA 1986). Visual considerations are given for general resources (public) and specific sensitive resources (including some parks, landscapes, and historic properties).
How were Visual and Aesthetic Resources identified and studied? The Study Area does not contain any particularly sensitive visual resources. The topography is relatively flat, and land uses include industrial, commercial, scattered residential, and farmland. Industrial and commercial developments are closest to the crossing of US 30 and County Road 435. One area of residential development is south of the US 30 and County Road 435 intersection. Other residential uses are scattered throughout the Study Area. Lexington's WWTP is located within the Study Area. *The Lex-Plan 2013* states that, in the future, industrial developments would continue to expand into the Study Area.
Visual and Aesthetics Alternative Comparison
No Build Alternative – The No Build Alternative does not change the visual landscape of the Study Area. However, anticipated industrial development would affect the area's visual setting. **Preferred Alternative** – Project construction would likely change the visual aesthetics within the area. During construction, machinery and activities would change the current view from the existing alignment of County Road 435. However, such obstructions would be temporary in nature and not likely detract from the visual resources once construction is complete. In addition, because the US 30 and local detour routes would occur along existing roads, and no construction would occur along the routes, the visual setting of the area would not change as a result of the proposed project. When built, the bridge would be visible by some residents of the Hitch'N Rail mobile home community, however, it would be similar to the visual setting of the area. More information on the visual and aesthetic impacts is found in Appendix 12.
Visual and Aesthetics Summary
Based on the information provided above, no mitigation measures for visual and aesthetic impacts will be required for the project.

Table 4. Environmental Resources with Streamlined Analysis (continued)

Air Quality and Greenhouse Gases
What are Air Quality and Greenhouse Gases? The Clean Air Act Amendments of 1990 controls air toxic emissions in the US and regulates 188 air toxics including Mobile Source Air Toxics (MSAT). In addition to MSAT concerns, FHWA has developed mitigation strategies to reduce transportation greenhouse gas (GHG) emissions.
How were Air Quality and Greenhouse Gases identified and studied? The area surrounding the project is primarily a mix of residential, industrial, and farm fields. These land uses, coupled with the existing automobile and rail traffic, contribute to the ambient air quality conditions of the Study Area. The MSAT evaluation was conducted according to the procedures outlined in the Interim Guidance Update on MSAT Analysis in NEPA Documents (FHWA 2012) and is found in Appendix 12. The primary purpose of the evaluation was to determine whether there would be impacts as a result of increased MSAT.
Air Quality Alternative Comparison
No Build Alternative – The No Build Alternative has minimal air impacts due to the amount of increased traffic which would occur over time. Because the No Build Alternative does not provide a grade separation, vehicles would still be stopped by passing trains. As a result, the stopped vehicles would continue to idle and not reduce potential GHG emissions in the area. **Preferred Alternative** – The proposed project would improve traffic flow and minimize traffic delays by constructing a viaduct. As a result, the Preferred Alternative would generate minimal air quality impacts for Clean Air Act Amendments criteria pollutants and has not been associated with any special air quality concerns. Additionally, the proposed project would reduce the number of vehicles idling caused by vehicle delays on County Road 435 from the UPRR crossing. The reduction of idling vehicles would have a positive impact on air quality, including reduced GHG emissions as discussed in Appendix 13.
Air Quality Summary
Air quality is not negatively impacted by the project, but could be improved if it results in fewer vehicles idling.

What Resources Have Detailed Discussions in the Draft EA?

The following environmental resources require additional discussion in the Draft EA to fully determine the context and intensity of potential impacts:

- Transportation and Traffic
- Land ownership and Land use
- Socioeconomic issues and Environmental Justice
- Wetlands and Waters of the United States
- Floodplains
- Groundwater and Wellhead Protection Areas
- Noise
- Public Utilities
- Temporary Construction Impacts

Sections 3.1 through 3.10 discuss these resource impacts, as well as indirect and cumulative impacts.

UPRR Crossing Number 816901E (County Road 435)

3.1 Transportation and Traffic

The Study Area was expanded, to better understand travel patterns for businesses potentially affected by the Preferred Alternative and local detour. The Study Area for the Transportation and Traffic review includes the area from west of US 283 to County Road 437 (Figure 11).

3.1.1 Affected Environment

Roads in the Transportation and Traffic Study Area are generally two lanes and include US 30, County Road 435, E. Walnut Street, County Road 436, County Road 754/Prospect Road, County Road 755, County Road 756/13th Street, E. Industrial Park Road, and Taft Street. The speed limit on US 30 is 65 mph. The speed limits on County Road 435 and Walnut Street are 55 mph. The state statutes of Nebraska limit the speed limit to 50 mph on gravel county roads and 55 mph on paved county roads unless posted otherwise.

The UPRR identifies crossings by number. The UPRR crossing at County Road 435 is crossing number 816901E and is located at railroad milepost 222.58. At this crossing, the UPRR maintains three mainline tracks and advanced warning signs, flashing lights, gate arms, and bells.

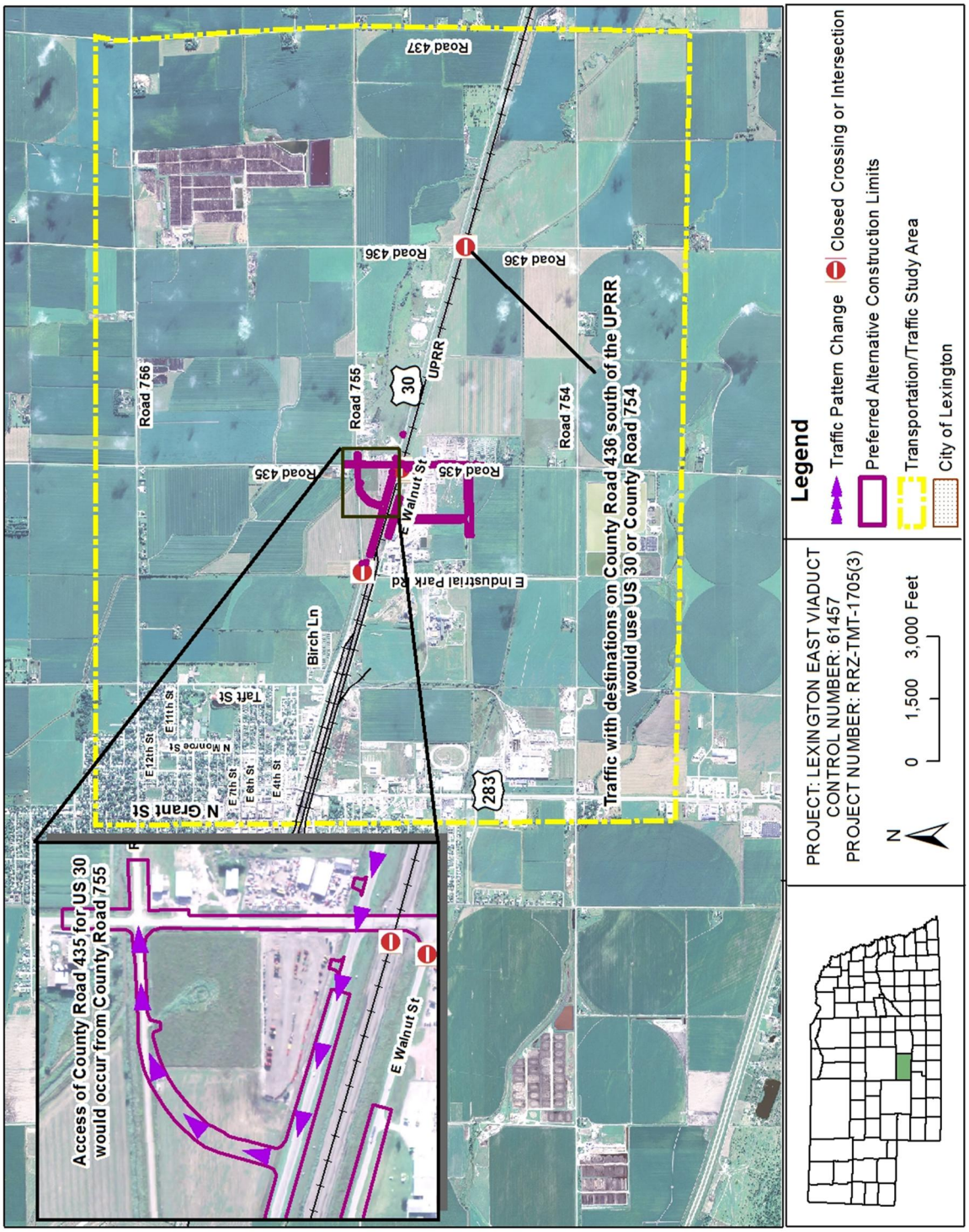
The UPRR crossing at County Road 436 is crossing number 816902L. At this crossing, the UPRR also has three mainline tracks, but there are no advanced warning signals, flashing lights, gate arms, or bells.

3.1.2 Impacts of the No Build Alternative

Roads and access points would not change as a result of the No Build Alternative. The UPRR grade crossings at County Roads 435 and 436 would remain open as a result of the No Build Alternative. Typical routine maintenance and repairs of the existing roads would continue in the manner it is today.

The No Build Alternative would not separate traffic on County Road 435 from trains. As a result, travelers would still face delays at the UPRR crossing. In fact, as a result of the No Build Alternative, the delays of vehicles would increase because of anticipated increases in both the volume of trains and vehicles. *The Lex-Plan 2013* (City of Lexington 2013) anticipates an increase in the AADT on US 30 from 4,600 vehicles per day to 5,300 vehicles per day in 2035. This plan also indicates traffic growth on County Road 435 south of US 30 by 2035 (Appendix 2).

Figure 11. Transportation/Traffic Study Area



In addition, the increase in both train and vehicular traffic would increase the exposure factor for the County Road 435 and UPRR crossing, meaning there would be greater potential for conflicts between trains and vehicles.

3.1.3 Impacts of the Preferred Alternative

The Preferred Alternative would provide a grade-separated railroad crossing on County Road 435, allowing traffic to continue without stopping for trains. The grade separation would be consistent with the proposed project's purpose and need because it would eliminate traffic delays that result from UPRR train crossings. The grade separation would also eliminate the potential vehicle and train conflicts on County Road 435. As a result of the Preferred Alternative, the at-grade crossing of the UPRR at County Road 436 would permanently close.

3.1.3.1 Traffic Patterns

The Preferred Alternative would change how some intersections function in the future. For example, the existing US 30 and County Road 435 intersection would not exist. As a result, traffic that currently uses that intersection would have to use County Road 755 to access County Road 435 (Figure 11).

As stated previously, the Preferred Alternative would also close the at-grade crossing of County Road 436 and the UPRR. To access County Road 436 south of the crossing, traffic would use US 30 to County Road County Road 755 to County Road 435, and then southward to either County Road 753 or County Road 754 to access County Road 436. County Road 436, north of County Road 755 and south of County Road 754, would remain open (Figure 11).

Rerouting of traffic that currently uses the at-grade crossing on County Road 436 would be less than 4 miles with the Preferred Alternative.

The primary benefit of closing the County Road 436 and UPRR at-grade crossing is that vehicles would have the ability to safely cross both US 30 and UPRR without having to stop for cross traffic (either vehicles on US 30 or trains on the UPRR). For example, the Roberts Cattle Company (Roberts Cattle) located on County Road 436 between County Roads 755 and 756 has two main trucking functions: transporting feed and shipping of cattle (Parsons Brinckerhoff 2016). For transporting feed, Roberts Cattle uses County Road 436 to access the south side of Lexington. According to the facility manager, using County Road 435 would take some adjustment. However, the facility manager has also noted that eliminating the delay from trains would be a benefit. For cattle shipping, the company receives cattle from many different locations, but closing County Road 436 south of US 30 would not result in operational issues (Parsons Brinckerhoff 2016). For shipping cattle out, Roberts Cattle delivers directly to Tyson Foods (south of US 30), and its trucks typically use County Road 756/13th Street and cross the UPRR on US 283. The Preferred Alternative would provide a more direct route and would keep trucks out of the city of Lexington (Parsons Brinckerhoff 2016). The Preferred Alternative has been designed to accommodate larger-width farm vehicles, which would also better accommodate farm and commercial traffic in the area.

In addition to Roberts Cattle, between County Roads 754 and 755, 10 parcels border County Road 436 (refer to Section 3.3.3). North of US 30, the closure of County Road 436 would have minimal impacts on parcels because of continued access to US 30.

3.1.4 Mitigation

The following mitigation would be required:

- The City of Lexington shall notify the public of the start of construction by placing notices in the newspaper 14 calendar days before construction begins. Electronic message boards may be used before beginning construction activities. The City of Lexington shall also notify emergency services providers, such as police and fire departments, before construction activities begin, as well as

maintain continued coordination throughout construction. Emergency services providers will be invited to the pre-construction meeting for this project. (City of Lexington)[1]

- Turn lanes would be evaluated as plans for the viaduct are further defined.

3.2 Land Ownership and Land Uses

3.2.1 Affected Environment

Land uses in the Study Area are mostly farmland (e.g., crops such as soybeans), undeveloped land, or industrial. Industrial and commercial uses, such as auto/towing services and farm equipment suppliers, are closest to the crossing of US 30 and County Road 435 (Figure 12). One area of residential development (the Hitch'N Rail mobile home community) is south of the intersection of the UPRR crossing on County Road 435. Other single-family residential uses are scattered throughout the Study Area.

As identified in *The Lex-Plan 2013* (City of Lexington 2013), future projected land uses in the Study Area are not dramatically different from the existing uses (Figure 13). Future desired industrial uses within the Study Area include the following:

- An 80-acre parcel owned by the City of Lexington
- A 75-acre parcel owned by Cornhusker Energy
- An 80-acre parcel owned by Tyson Foods

3.2.2 Impacts of the No Build Alternative

The No Build Alternative would not result in the construction of the viaduct or other roadway improvements. As a result, there would be no right-of-way acquired by the proposed project and access points would be the same as what is currently in the Study Area. The No Build Alternative would be inconsistent with the anticipated future land uses identified in *The Lex-Plan 2013* because it would not result in infrastructure improvements that support planned future land uses.

3.2.3 Impacts of the Preferred Alternative

The Preferred Alternative would be compatible with the existing and planned land uses in the Study Area. The Preferred Alternative would be consistent with *The Lex-Plan 2013,* because it would provide a railroad grade separation for County Road 435.

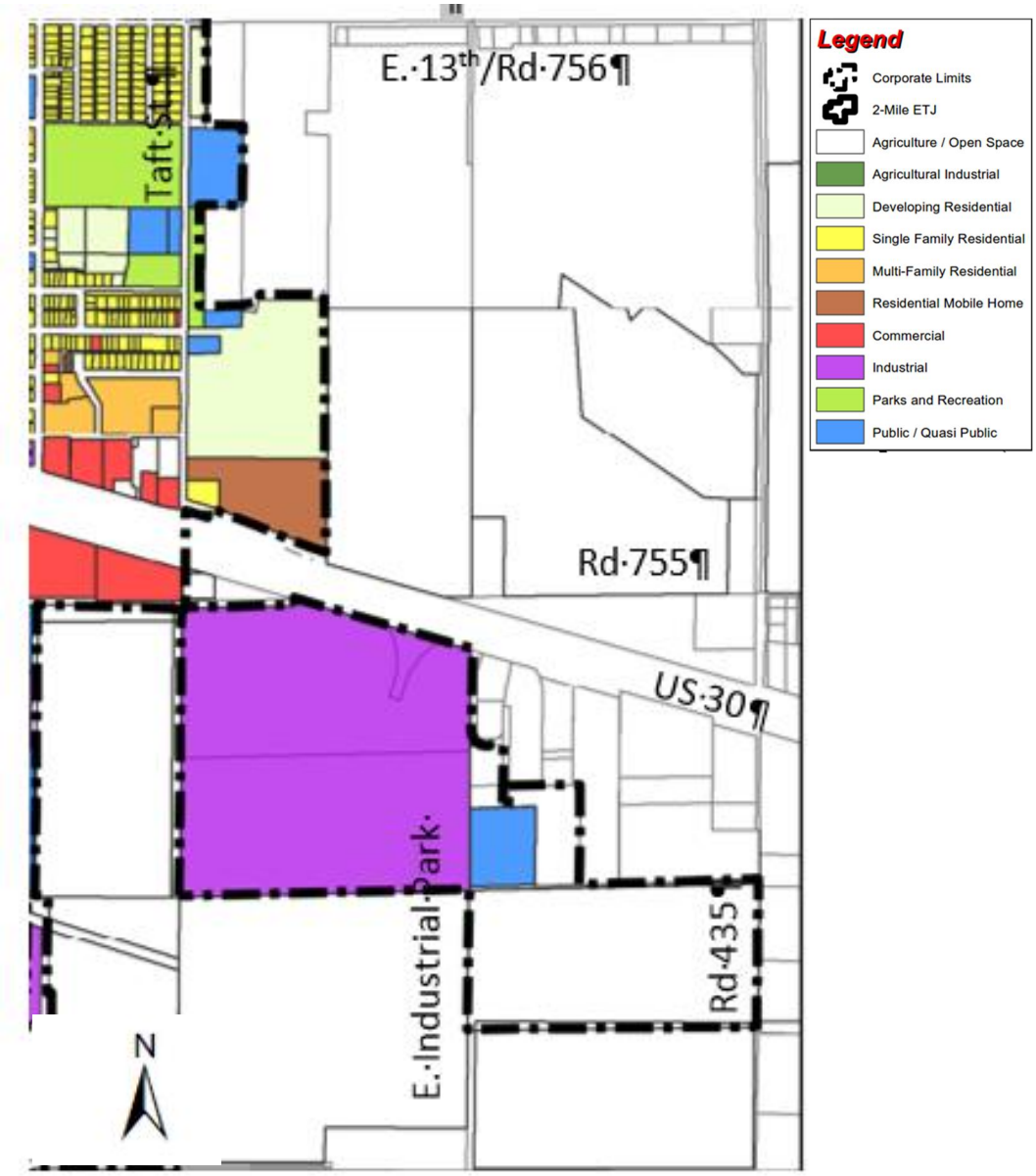
The Preferred Alternative requires approximately 7.3 acres of land acquisition:

- Approximately 2.5 acres of public land owned by the City of Lexington, which is roadside right-of-way and farm fields
- Approximately 4.8 acres of privately owned land that is farmland, commercial, or industrial

Except for land purchased for the project, no additional changes in land use are expected. No residences or businesses would be displaced and properties would continue to be used in the same manner as existing conditions. Any property acquisition would be conducted by payment of fair market value for the property rights in conformance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (42 USC 4601 et seq.)

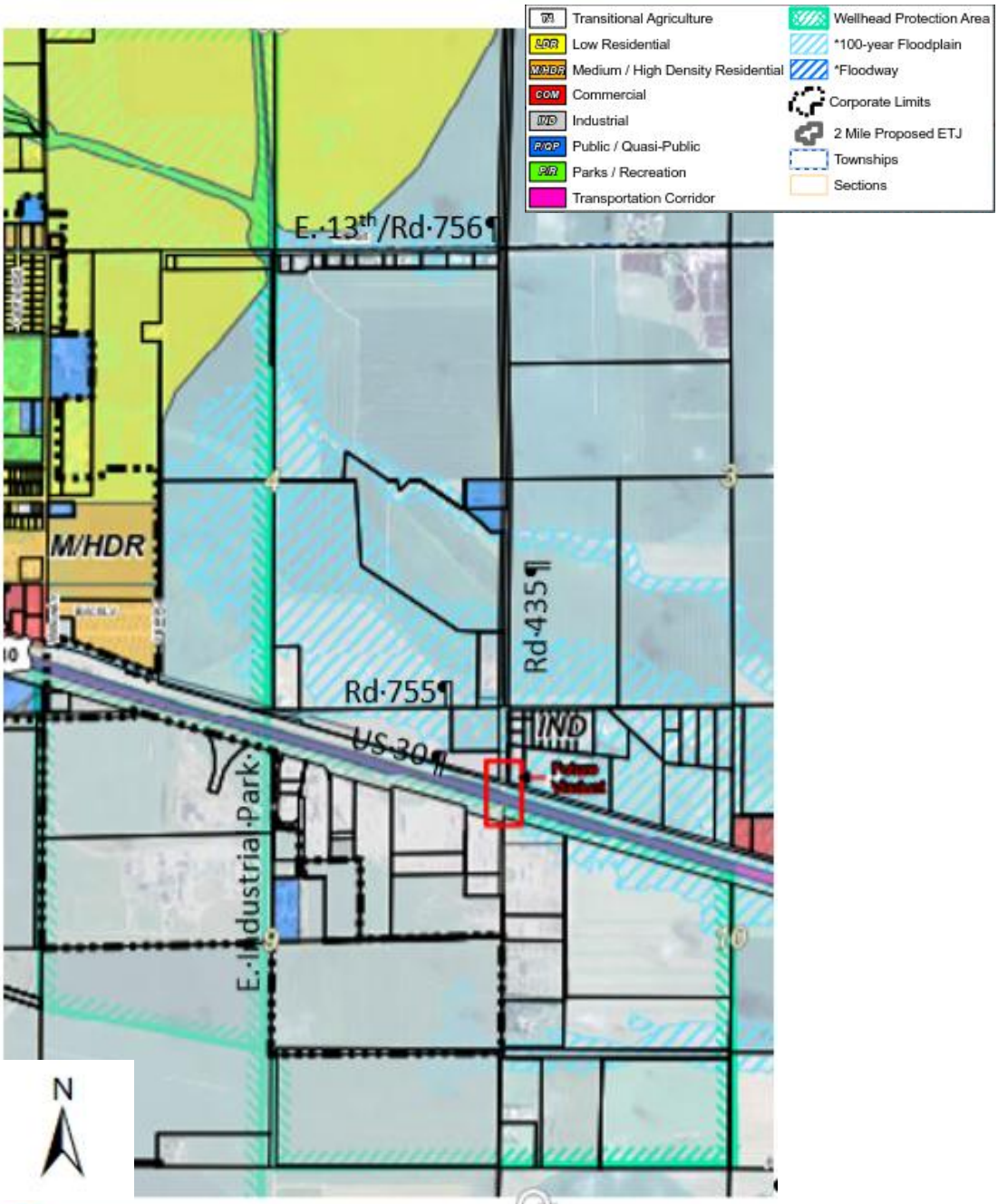
[1] In the mitigation subsections of the EA, the responsible party is identified in parentheses at the end of the proposed mitigation. If two or more parties are listed, the City of Lexington will identify the responsible party during bidding and construction, if needed.

Figure 12. Existing Land Use near County Road 435 and US 30



Source: Modified from *The Lex-Plan 2013* (City of Lexington 2013)
Note: Dawson County does not have a current land use plan.

Figure 13. Future Projected Land Uses



Source: Modified from *The Lex-Plan 2013* (City of Lexington 2013)

3.2.4 Mitigation

The following mitigation would be required:

- Coordination with property owners would occur throughout final design to provide access points and minimize impacts for businesses and residences in the area. (City of Lexington)
- Property rights acquisition will be conducted by paying fair market value for the property rights and damages that may occur. Right-of-way acquisition will be conducted in conformance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended (42 USC 4601 et seq.) and the Nebraska Relocation Assistance Act (Neb. Rev. Stat. Section 76-1214 et seq.). (City of Lexington)
- Access to individual businesses, residences, and other facilities will be maintained during construction. (City of Lexington, Contractor)

3.3 Socioeconomic Considerations and Environmental Justice

Socioeconomic considerations for a project include changes or impacts on accessibility to neighborhoods or communities, community facilities, emergency services, and businesses. To address the socioeconomic conditions of the area and access changes to businesses, the Study Area was expanded east to County Road 437.

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. Section 4.3 discusses the public information meeting held to get feedback from the public, including residents of the Hitch'N Rail mobile home community, concerning the proposed project. Appendix 4 lists public comments and responses received. Future public outreach would continue the project's engagement of the public on issues, such as environmental justice.

"Low income" = a household with a median household income at or below the Department of Health and Human Services poverty guidelines.

"Minority" = a person who is Black, Hispanic, Asian American, American Indian, or Alaskan Native.

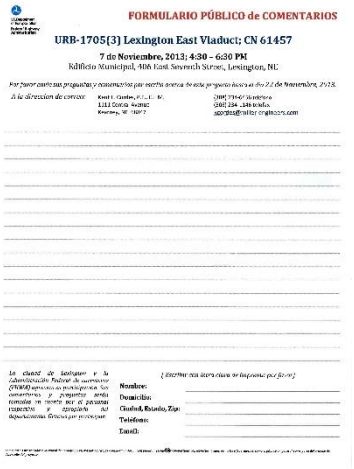
3.3.1 Affected Environment

Dawson County's population decreased slightly between the years 2000 and 2010, according to the US Census Bureau. During that same period, the City of Lexington had a minor increase in population. Within the Study Area, two census tracts had an increase in population while one had a decrease during the 10-year period. Appendix 14 provides more detailed information on the demographics of the Study Area.

There are no schools, fire stations, police stations, public transportation facilities, or pedestrian and bicycle accommodations within the Study Area.

The socioeconomic and environmental justice Study Area includes two residential communities: the Hitch'N Rail mobile home community located on County Road 435 and the Willow Ridge mobile home community located on Taft Street near US 30. Appendix 14 provides detailed discussion about the character and make of these communities.

Most of the businesses in the Study Area are part of the manufacturing and farm industries. Many of these businesses have heavy truck traffic or large farming and industrial equipment that crosses the UPRR on County Road 435 for access to US 30. Access modifications as a result of the proposed project are described in Section 3.3.3.


FORMULARIO PÚBLICO de COMENTARIOS

URB-1705(3) Lexington East Viaduct; CN 61457

7 de Noviembre, 2013; 4:30 - 6:30 PM

Edificio Municipal, 406 East Seventh Street, Lexington, NE

Nombre:
Domicilio:
Ciudad, Estado, Zip:
Teléfono:
Email:

For public outreach, materials were available in English, Spanish and Somali

Based on 2009-2013 5-Year American Community Survey (ACS) data[2], all but one block group within and adjacent to the Study Area have a minority population percentage greater than 50 percent (Appendix 14). The low-income population in two block groups is greater than that of Lexington. The Hitch'N Rail mobile home community is a part of that population. As a result, the proposed project analysis must identify and address any potential "disproportionately high and adverse" impact to the protected populations in accordance with Executive Order 12898.

The Spanish-speaking population with Limited English Proficiency (LEP) ranges from 6.5 percent to 25.2 percent in the block groups in the Study Area (Appendix 14). In addition to the high numbers of Spanish-speaking people, the City of Lexington is home to between 1,300 and 3,000 Somalian people (NDOT 2013b). This information is not recorded in the census, but has been widely reported in Nebraska newspapers. The majority of the Somalian people do not speak English as their primary language. These figures reach NDOT's trigger of 5 percent (or 1,000 persons) in block groups for LEP outreach activities. Although LEP populations do not fall under the definition of an environmental justice population, any impacts to these populations are considered as part of the Civil Rights analysis for the proposed project. The Civil Rights analysis is found in Appendix 14.

3.3.2 Impacts of the No Build Alternative

The No Build Alternative would not result in the construction of a viaduct, and roadways in the Study Area would remain the same. Additionally, there would be no changes to schools, community facilities, businesses, or residences. Because there would be no construction under the No Build Alternative, no construction-related traffic delays to socioeconomic resources on County Road 435 near the UPRR crossing would occur. As noted in Sections 1.2.2 and 3.1.2, the travel-time delays of vehicles are expected to increase as the volume of train traffic increases. Under the No Build Alternative, the County Road 436 crossing with the UPRR would remain open, and there would be no need to reroute traffic.

Overall, the No Build Alternative would not change conditions for protected populations, and thus would not result in disproportionately high and adverse effects to protected populations, and it would not require any additional LEP population outreach.

3.3.3 Impacts of the Preferred Alternative

3.3.3.1 Socioeconomic Considerations

The Preferred Alternative would not alter population or housing characteristics of the Study Area. Access to residences during the proposed project construction would be maintained by construction sequencing and US 30 and local detour routes.

Detailed information on temporary construction-related impacts, including the detour, is provided in Section 3.9.3.

[2] The ACS is an annual survey and is the tool used by the US Census Bureau to collect and aggregate detailed population and housing information about our nation and to identify demographic changes taking place in a community.

The Preferred Alternative would improve traffic flow for employees and business patrons by providing a grade separation on County Road 435, eliminating the travel delay associated with the UPRR tracks, and thereby improving travel time. The Preferred Alternative would result in minor changes to access along County Road 435. Table 5 and Figure 14 identify these permanent access changes to/from US 30 and County Road 435.

In addition to access to properties along County Road 435, the Preferred Alternative could change driveway access for businesses. Table 5 identifies anticipated access changes in the Study Area.

In addition, residents along County Road 436 affected by the permanent closure of the crossing at UPRR crossing would be rerouted (Figure 13). The rerouting would be less than 4 miles. The primary benefit of this rerouting would be the ability to cross both US 30 and UPRR without having to stop for cross traffic (either vehicles on US 30 or trains on the UPRR).

Overall, the Preferred Alternative is expected to have a positive effect on the area by eliminating travel delays associated with trains on the UPRR and cross traffic on US 30.

3.3.3.2 Environmental Justice

Although there are minority and low-income populations in the census tracts and block groups within the Study Area, there would be no disproportionately high and adverse human health or environmental effects to minority and low-income populations because the Preferred Alternative would not create any displacements or significant impacts for noise, air quality concerns, or visual quality to protected populations. For a more detailed discussion of the environmental justice analysis, see Appendix 14.

The proposed project would have no disproportionately high and adverse human health or environmental effects to minority and low-income populations.

In addition, based on the proposed location of the construction elements, residents of the Hitch'N Rail mobile home community and the Willow Ridge Court mobile home community would not experience a decrease in the visual quality of the area. During construction, public outreach activities would continue for the proposed project. Because Spanish-speaking and Somali-speaking populations in the Study Area meet NDOT's threshold for LEP outreach activities, public information materials for the proposed project would be translated into Spanish and Somali. Notices would be posted in Spanish and Somali to convey that interpreters are available to address questions regarding the proposed project.

Entrance to Hitch'N Rail mobile home community on County Road 435

The proposed local detour during construction of the Preferred Alternative would maintain access to residences, businesses, or essential services. The local detour would not result in isolation, exclusion, or separation of protected populations within a given community or from the broader community.

1 **Table 5. Preferred Alternative Access Changes to Area Properties**

Map ID[1]	Site Address	General Use of Property	To US 30 (east-west) from Properties within the Area[2]	To County Road 435[3]
4A	Lexington Co-op Oil, Co.	4A	• E. Walnut Street to Road B • Road B to Road A • Road A to County Road 435 • County Road 435 to County Road 755 • County Road 755 intersects US 30	• E. Walnut Street to Road B • Road B to Road A • Road A to County Road 435
14	Cornhusker Energy – Lexington, LLC. 1111 E. Industrial Park Road	Heavy Industrial		
15	No site address	Heavy Equipment/ Industrial		
16	Oxbow Properties, LLC. 904 E. Industrial Park Road	Undeveloped/ Storage		
17	Darling International, Inc. 1208 E. Walnut Street	Heavy Industrial		
18	City of Lexington 1110 E. Industry Drive	Undeveloped		
18A	City of Lexington 1110 E. Industry Drive	Wastewater Treatment Plant		• Road A[4] to County Road 435
7	1502 E. Walnut Street	Industrial	• New driveway to Road B • Road B to Road A • Road A to County Road 435 County Road 435 intersects County Road 755 • County Road 755 intersects US 30	• New driveway to Road B • Road B to Road A • Road A intersects County Road 435
3/3A /3B	CMV, LLC/Case 75481 County Road 435	Case Showroom (3)		
		Farm Field/Storage	• New driveway, but no other change	• No direct access to County Road 435 • Access provided by US 30 to County Road 755 • County Road 755 to County Road 435
5	75479 County Road 435	Commercial	• County Road 435 to County Road 755 • County Road 755 intersects US 30	• One drive would be closed, but no other change
6	Downey & Associates, LLC. No site address	Equipment/Storage	• County Road 435 to County Road 755 • County Road 755 intersects US 30	• One drive from County Road 435 replaced with one on Road A, but no other change
9	Landmark Implement, Inc. 75482 County Road 435	Farm Equipment Supplier	• Driveways modified to access County Road 435 • County Road 435 to County Road 755 • County Road 755 intersects US 30	
4	Lexington Co-op Oil, Company 75482 County Road 435	Commercial	• County Road 435 to County Road 755 • County Road 755 intersects US 30	• No change
8	Hitch'N Rail Mobile Home Community 75440 County Road 435	Residential (mobile home community)		

2

Table 5. Preferred Alternative Access Changes to Area Properties (continued)

Map ID[1]	Site Address	General Use of Property	To US 30 (east-west) from Properties within the Area[2]	To County Road 435[3]
10	75490 County Road 435	Residential/ Commercial	• New driveway, but no other change	• No direct access to County Road 435 • US 30 to County Road 755 • County Road 755 to County Road 435
11	Darling International, Inc. No site address	Storage (undeveloped)	• New easement to Map ID Site 12 to County Road 435 • County Road 435 to County Road 755 • County Road 755 intersects US 30	• New easement to Map ID Site 12 to County Road 435
12	75496 County Road 435	Construction/ storage	• County Road 435 to County Road 755 • County Road 755 intersects US 30	• New driveway
1	Nebr By-Products, Inc. 75494 County Road 435	Undeveloped/ Industrial	• County Road 755 which intersects US 30	• No change
19	No site address	Farm Field	• No change	
1A	Nebr By-Products, Inc. 75513 County Road 435	Undeveloped		
20	No site address	Farm Field		
2	43449 County Road 755	Farm House/Field	• New driveway to US 30	• US 30 to County Road 755 • County Road 755 to County Road 435
13	No site address	Farm Field	• New driveway to County Road 755 • County Road 755 intersects US 30	• County Road 755 to County Road 435

Notes:
1. Map ID corresponds to numbered parcels in Figure 14.
2. Access to properties from US 30 would follow the route in reverse.
3. Access to properties from County Road 435 would follow the route in reverse.
4. Road A would be a new connection between Road B and E. Walnut Street and would provide additional access in the area. Road B would be a new connection between Road A and County Road 435. Road A and Road B are identified as such for discussion purposes in this document. They would be renamed following implementation.

Figure 14. Area Parcels and Preferred Alternative

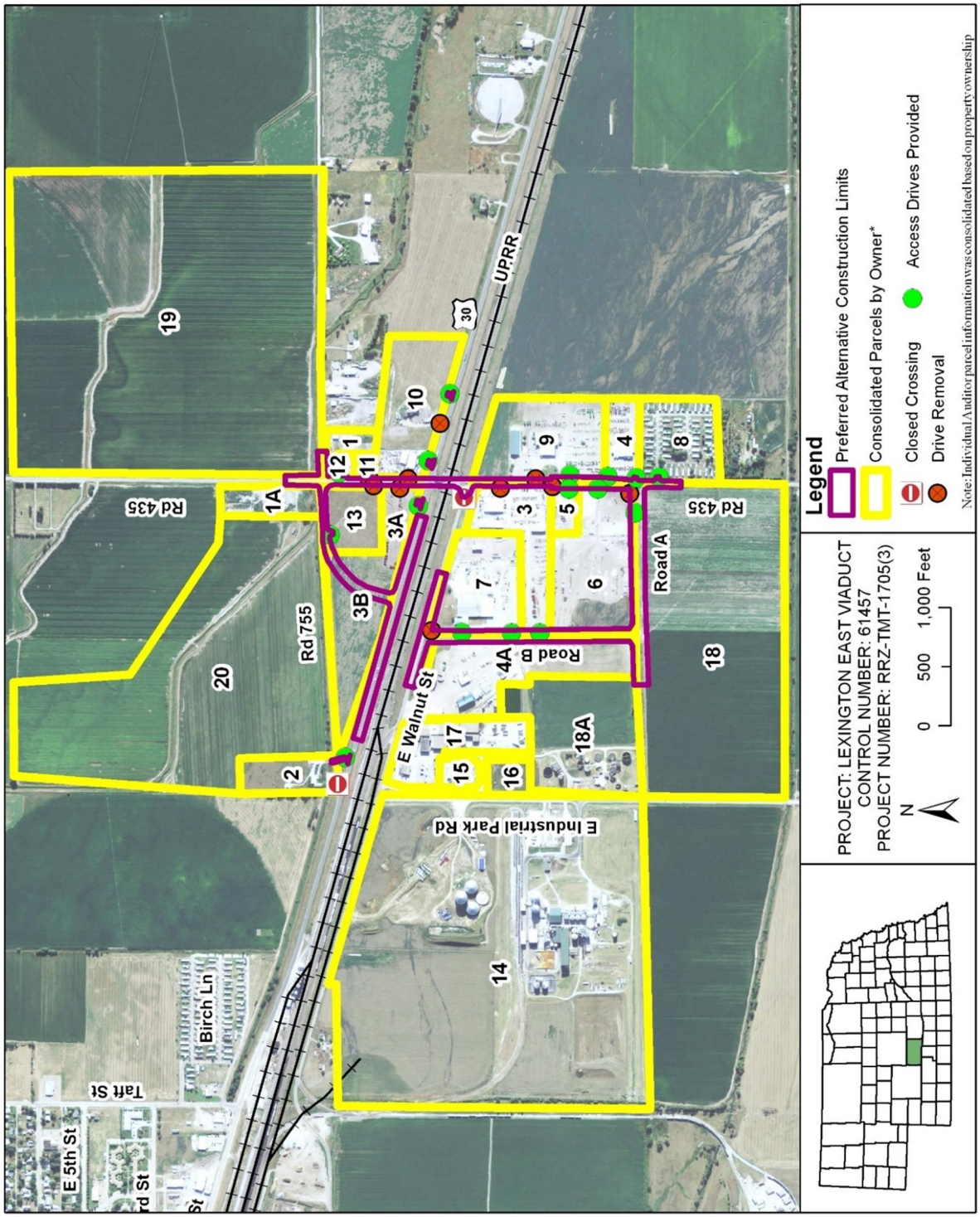
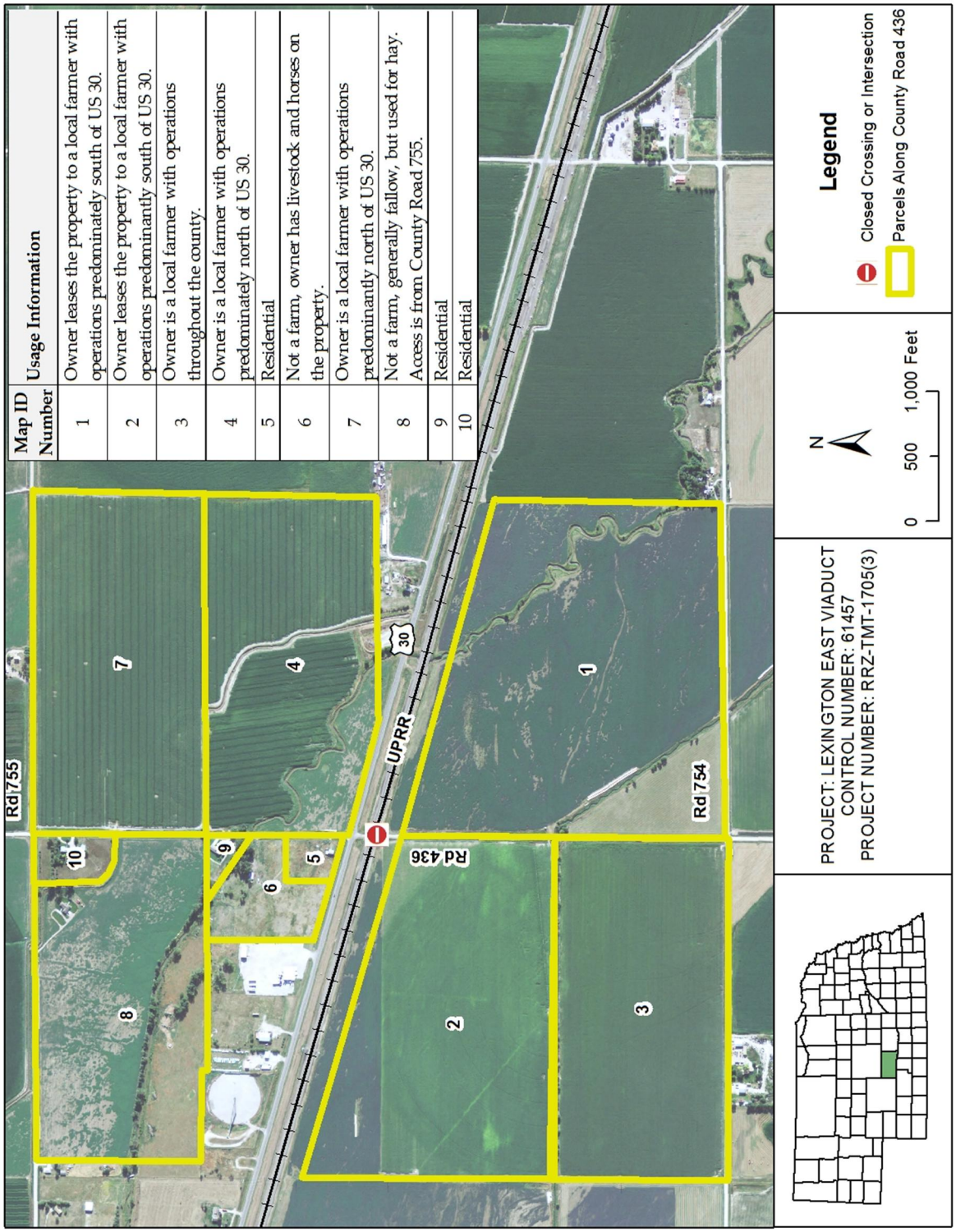


Table 6. Anticipated Access Changes to Properties from the Preferred Alternative

Map ID[1]	Site Address	Description of Changes
1/1A	Nebr By-Products 75494 County Road 435	• No changes anticipated
2	43449 County Road 755	
4	Lexington Co-op Oil, Co.	
8	Hitch'N Rail Mobile Home Community	
14	Cornhusker Energy – Lexington 1111 E. Industrial Park Road	
15	No site address	
16	Oxbow Properties, LLC. 904 E. Industrial Park Road	
17	Darling International, Inc. 1208 E. Walnut Street	
19	No site address	
20	No site address	
18A	City of Lexington 1110 E. Industry Drive	
3/3A/ 3B	CMV, LLC/Case	• Site has three distinct use areas and employees would adjust to the new travel pattern if they travel between the areas.
4A	Lexington Co-op Oil, Co. 1306 E. Walnut Street	• Construction of Road B would require 3.1 acres of right-of-way, which is used for storage and/or is undeveloped. • No access changes are anticipated.
5	75479 County Road 435	• Two driveways would be consolidated to one. • Internal travel patterns would change, but employees and patrons would likely adjust quickly because the rebuilt drive would be in the location of an existing driveway.
9	Landmark Implement, Inc. 75482 County Road 435	
6	Downey & Associates, LLC. No site address	• An existing gravel drive would be rebuilt and connect to Road A. • Internal travel patterns would change, but access would be improved.
7	1502 E. Walnut Street	• One existing drive from E. Walnut Street would be replaced with a new one to Road B. • Because the distance between the existing drive and new drive would be approximately 40 feet, employees and patrons would likely adjust quickly.
10	75490 County Road 435	• A driveway on County Road 435 would be replaced with one on US 30. • A second drive on US 30 would be moved east approximately 250 feet.
11	Darling International, Inc. No site address	• Access to County Road 435 would be permanently closed. • Access to the property would occur through an easement from Map Site ID 12. • Employees would adjust to the change, but no other changes are anticipated.
12	75494 County Road 435	• The existing drive would be rebuilt. • An easement to Map Site ID 11 would be requested. If an easement is not agreed upon, 0.03 acre of right-of-way would be acquired. Neither the easement nor the right-of-way acquisition would change uses of the property.
13	No site address	• Access to the field would change from County Road 435 to County Road 755; no other changes are anticipated.
18	City of Lexington 1110 E. Industry Drive	• Approximately 2.5 acres of the 78-acre parcel would be acquired, but not preclude future development.

[1] Map ID corresponds to numbered parcels in Figure 14.

Figure 15. Properties near the Closure of the At-Grade Crossing of County Road 436



Map ID Number	Usage Information
1	Owner leases the property to a local farmer with operations predominately south of US 30.
2	Owner leases the property to a local farmer with operations predominantly south of US 30.
3	Owner is a local farmer with operations throughout the county.
4	Owner is a local farmer with operations predominately north of US 30.
5	Residential
6	Not a farm, owner has livestock and horses on the property.
7	Owner is a local farmer with operations predominantly north of US 30.
8	Not a farm, generally fallow, but used for hay. Access is from County Road 755.
9	Residential
10	Residential

3.3.4 Mitigation

The following mitigation would be required:

- The contractor will provide private dwellings, commercial properties, businesses, and public facilities access to and from the nearest intersecting public road or street. Accommodations will be made to ensure local traffic passing within the limits of the project has access to private dwellings, commercial properties, businesses, agricultural properties, and public facilities. During those periods when a road is closed, even for a short duration, limited access will be maintained for authorized local traffic. If access is to be closed longer than one day, the contractor will coordinate with the affected property owners. (Contractor, City of Lexington)
- During construction, access to neighborhoods and community facilities will be maintained through controlled construction scheduling and/or provisions for alternate routes of entry. Any access changes will be indicated by providing adequate signage and, where necessary, by working with the facility and/or property owner throughout the construction period to provide advanced notification of the changes. (Contractor, City of Lexington)
- The City of Lexington will notify civic organizations serving LEP residents and emergency services providers, such as police and fire departments, before construction activities begin, as well as maintain continued coordination throughout construction. Civic organizations serving LEP residents and emergency service providers will be invited to the pre-construction meeting for this project. Spanish and Somali interpreters will be retained to provide information as needed. (City of Lexington)
- All written information that is dispersed to the public about this project will be translated into Spanish and Somali[3]. (City of Lexington, Contractor)
- The director of the Lexington Somali Community Center will be contacted to help disseminate or translate information for the Somali LEP population. (City of Lexington, Contractor)
- For the public hearing, interpreters will be present for both Spanish and Somali populations. Notices will be posted in Spanish and Somali to convey that the interpreters are available. (City of Lexington)

3.4 Wetlands and Waters of the US

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). The US Army Corps of Engineers (USACE) is the agency charged with administering and enforcing federal laws related to wetlands under Section 404 of the CWA (33 USC 1344). A particular water body is protected under federal law if it is defined by 33 CFR Part 328.3(b) as a "jurisdictional water". A "jurisdictional determination" for the proposed project established the presence of wetlands and waters within the Study Area that are protected as "waters of the US" (under the jurisdiction of the USACE) or "waters of the state of Nebraska" (under the jurisdiction of the NDEQ).

A perennial stream has continuous flow all year round during years of normal rainfall.

Detailed information about this jurisdictional determination and other information related to the wetlands and waters of the US affected by the proposed project can be found in the 2013 *Wetlands and Waters of the US Delineation Report* (Parsons Brinckerhoff 2013b).

3.4.1 Affected Environment

Field surveys identified 14 wetlands totaling 1.95 acres within the Study Area (Figure 14 and Appendix 15). These wetlands are low-quality palustrine that vary in size between 0.01 and 0.55 acre. Field surveys also identified the following three perennial streams within the Study Area (Appendix 15):

- Dawson County No. 1 Drainage Canal – Within the Study Area, this resource is located west of County Road 435 between a gravel farm road and County Road 754 and flows west-to-east with a

[3] Translation of materials into Somali is included as part of good faith efforts by the City of Lexington to reach additional segments of the population.

channel between approximately 14 and 15 feet wide. Dawson County No. 1 Drainage Canal flows under County Road 435 through a single barrel-pipe culvert.

- Spring Creek – The portion of Spring Creek within the Study Area is approximately 10 to 24 feet wide and flows under County Road 435 via a triple concrete-box culvert.
- Unnamed Tributary to Spring Creek – This resource is a west-to-east flowing perennial channel approximately 15 to 20 feet wide that converges with Spring Creek just west of County Road 435, north of County Road 755.

As part of the Preliminary Jurisdictional Determination, the 2013 Wetlands and Waters of the US Delineation Report (Parsons Brinckerhoff 2013b) and the 2014 Addendum of the Wetland and Waters of the US Delineation Report for Agricultural Wetlands (Parsons Brinckerhoff 2014b) were coordinated with the USACE. The Preliminary Jurisdictional Determination, dated July 30, 2014, indicates that an unnamed tributary to Spring Creek, Spring Creek, and an unnamed fringe wetland along Spring Creek are the only jurisdictional resources within the Study Area (USACE Letter – Appendix 15).

3.4.2 Impacts of the No Build Alternative

The No Build Alternative would not affect wetlands, waters of the US, or waters of the State of Nebraska because there would be no new disturbances resulting from construction.

3.4.3 Impacts of the Preferred Alternative

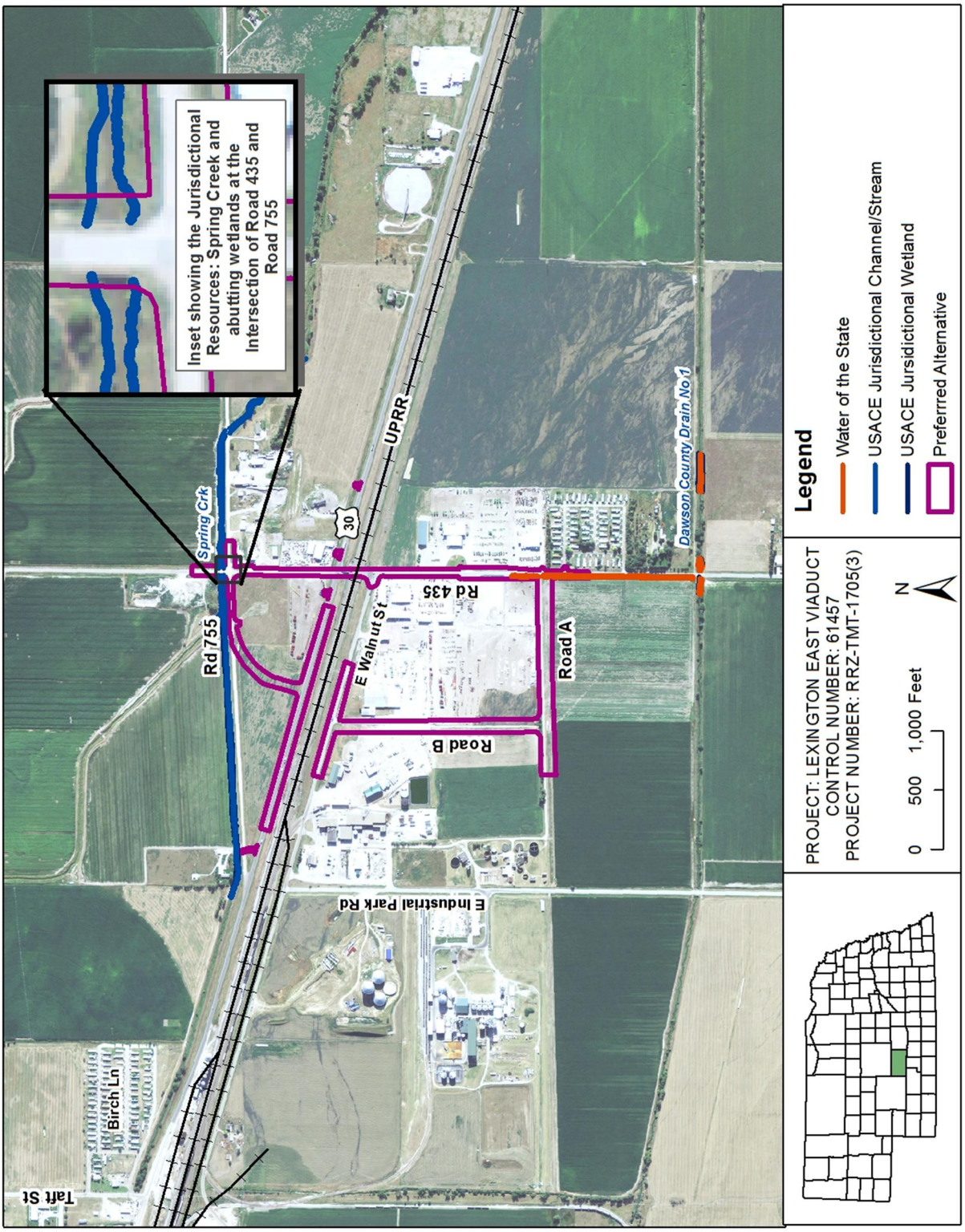
The Preferred Alternative would affect 0.01 acre of an unnamed wetland and approximately 40 feet of Spring Creek. The impacts to these USACE jurisdictional resources would come from improvements to County Road 435. As a result, construction of the Preferred Alternative would require a CWA Section 404 permit from the USACE.

Spring Creek near US 30 and County Road 755

One water of the State of Nebraska, a roadway ditch, would be affected by the Preferred Alternative. This roadway ditch is located near the intersection of what would be County Road 435 and Road A. Approximately 260 linear feet (0.07 acre) of this ditch would be temporarily affected by construction. Because this is a water of the State of Nebraska, the City of Lexington would coordinate with NDEQ to obtain a Letter of Opinion of Non-Degradation prior to construction.

No other impacts to wetlands, waters of the United States, or waters of the State of Nebraska are anticipated for the Preferred Alternative.

Figure 16. Water Resources within the Study Area



3.4.4 Mitigation

The following mitigation would be required:

- Before any construction work, the City of Lexington will obtain a Letter of Opinion of Non-Degradation from NDEQ for impacts to Waters of the State of Nebraska (NDEQ 2009). (City of Lexington, Contractor)
- A CWA Section 404 permit from the USACE will be obtained for impacts to jurisdictional waters of the US. (City of Lexington, Contractor)
- At the discretion of NDEQ, affected wetlands occurring within roadside ditches may be mitigated on-site at a 1:1 ratio if the project design allows the creation of new ditch wetlands adjacent to the affected areas. Appropriate mitigation sites will require adequate hydrology and will be seeded with a mix of hydrophytic grasses and sedges appropriate for the region to create in-kind replacement. Monitoring the progress of vegetation establishment and evaluating hydrology will be required to ensure the success of the mitigation wetland areas. (City of Lexington)

3.5 Floodplains

Executive Order 11988 directs federal agencies to avoid long- and short-term adverse impacts associated with modifying floodplains. FHWA regulations governing encroachments in floodplains are found in 23 CFR 650. The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which also establishes standards for compliance.

Local jurisdictions (counties and cities) enforce the federal requirements in order to maintain participation in the FEMA NFIP. Both Dawson County and the City of Lexington participate in the FEMA NFIP, which requires communities to adopt and enforce a floodplain management ordinance that meets minimum NFIP requirements and to require permits for all development in the 100-year floodplain.

Floodway vs. Floodplain

A floodplain is any area with at least a one percent chance of flooding in a given year.

A floodway is the part of the floodplain that carries the flow of water and must be protected to minimize potential flood damage.

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

3.5.1 Affected Environment

FEMA Flood Insurance Rate Maps identified a 100-year floodplain in the Study Area (Figure 15). The floodplain for Spring Creek is based on a Flood Insurance Study with an effective date of May 3, 2011.

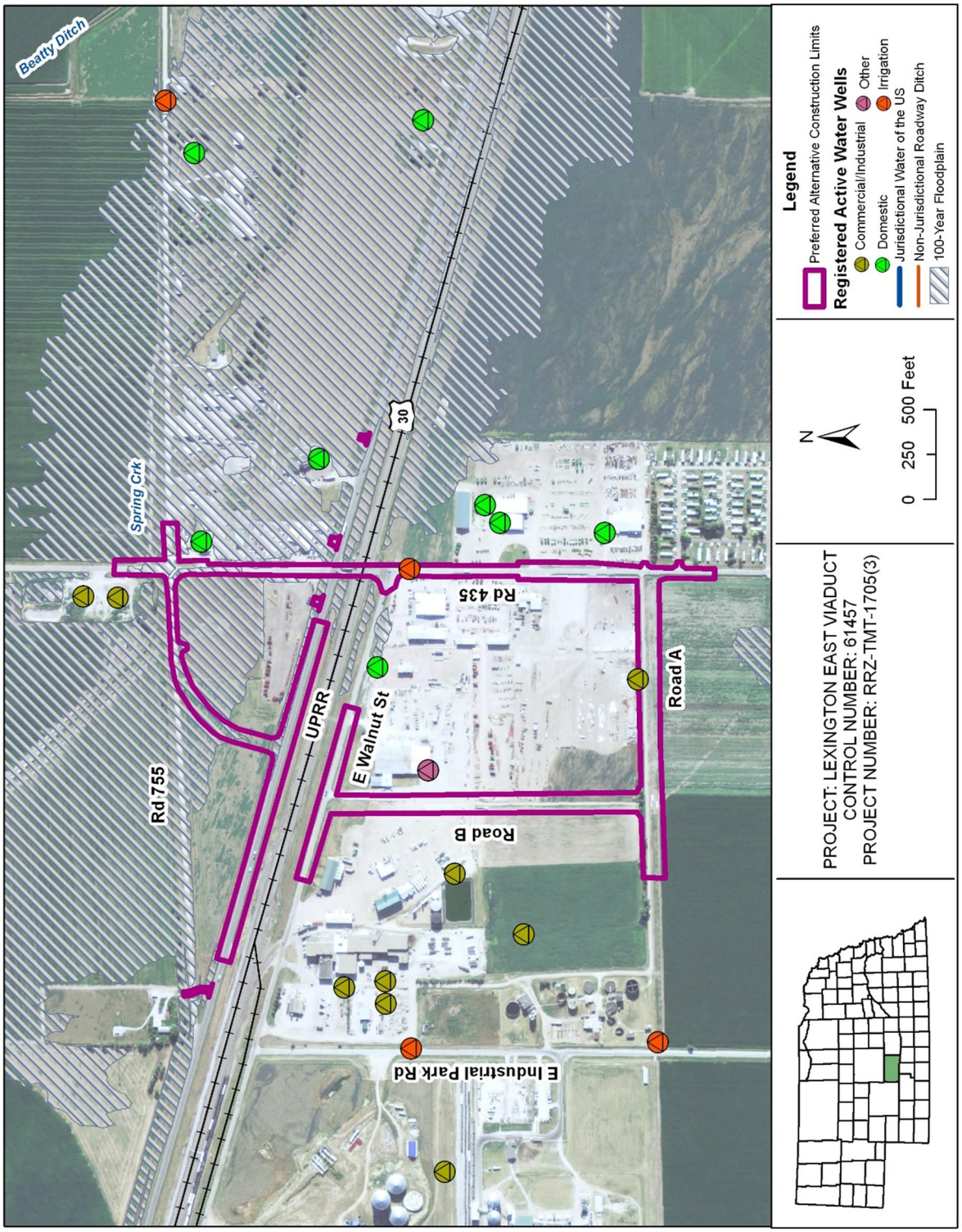
3.5.2 Impacts of the No Build Alternative

The No Build Alternative would not affect floodplains because there would be no new disturbances other than general maintenance and repair of the existing roadways.

3.5.3 Impacts of the Preferred Alternative

The Preferred Alternative would include approximately 1,750 feet of construction in the Spring Creek floodplain resulting from the viaduct, realignment work on County Road 755, and improvements to US 30 at County Road 755. According to the hydraulic investigation and analysis completed to-date for the Preferred Alternative, the maximum increase in the Base Flood Elevation at the encroachment location would be approximately 0.3 feet (Appendix 16). This change would not increase the potential for loss of life or property, according to the hydraulic analysis completed for the proposed project (Appendix 16).

Figure 17. Floodplains and Water Wells within the Study Area



3.5.4 Mitigation

The following mitigation would be required:
Construction of the Preferred Alternative will follow the City of Lexington and Dawson County floodplain management permits and guidelines. Floodplain permits and approvals will be obtained during final design prior to construction. (City of Lexington, Contractor)

3.6 Groundwater and Wellhead Protection Areas

Nebraska Administrative Code Title 118, Ground Water Quality Standards and Use Classification, is the foundation for groundwater regulatory programs in Nebraska that protect groundwater quality and prevent contamination in designated areas. The NDNR is responsible for permitting and maintaining records related to wells throughout the state. The Wellhead Protection Area Act (Nebraska Revised Statute 46-1501 et seq.) provides for Wellhead Protection Areas to regulate potential sources of contamination near municipal and other public wells used to provide drinking water.

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"

3.6.1 Affected Environment

The Study Area is partially located within a designated Wellhead Protection Areas. Within the Study Area near the Preferred Alternative, there are 20 active water wells registered with the NDNR (Figure 15). Based on *The Report of Geotechnical Investigation: Lexington East Viaduct Roadway Improvements* (Mid-State Engineering 2014), the average depth to water in the area is approximately 8 feet below ground.

3.6.2 Impacts of the No Build Alternative

The No Build Alternative would not affect current groundwater levels, groundwater quality, or wells because it would not result in any disturbances to the Study Area.

3.6.3 Impacts of the Preferred Alternative

A portion of the Study Area is located within a Wellhead Protection Area. Since no public drinking water sources or wells occur near the Preferred Alternative (Figure 15), no impacts are anticipated.

There is one irrigation well near the viaduct and another commercial/industrial well near the alignment of Road A. Impacts for both wells would be determined during final design. In addition, any unregistered wells within the right-of-way would be properly decommissioned. The City of Lexington would coordinate with the owners of any wells directly affected by the Preferred Alternative.

3.6.4 Mitigation

The following mitigation would be required:

- A portion of the project has been identified as being located within the City of Lexington Wellhead Protection Area. The City of Lexington will use NDOT's Standard Specifications 107.01, 107.09, and 107.18 to 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. (City of Lexington, Contractor)
- The Project Sponsor would coordinate with the owners of wells that would be directly impacted by the proposed project. If the well is actively used, the Project Sponsor would replace the well or pay the owner to replace the well. The Project Sponsor would then have an independent contractor decommission the well after ROW negotiations and acquisitions are complete. If the well is not in use, the Contractor would decommission the well after negotiations with the owner (City of Lexington, Contractor).

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

3.7 Noise

Automobile noise primarily comprises sounds from engine exhaust, drive train, and tire/roadway interaction. This Draft EA is supported by an analysis of noise that is presented in a Traffic Noise Technical Memorandum (Appendix 17), which has been prepared in accordance with 23 CFR Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 2011), the FHWA *Highway Traffic Noise Analysis and Abatement Policy and Guidance* (FHWA 1995), and NDOT *Noise Analysis and Abatement Policy* (NDOT 2011).

Noise is unwanted sound that is emitted from numerous sources, including airplanes, factories, railroads, power generation plants, trucks, and automobiles.

FHWA's *Procedures for Abatement of Highway Traffic Noise* (FHWA 2010) states that a noise impact occurs when the predicted traffic noise levels for a project approach or exceed Noise Abatement Criteria (NAC) for the land use activity categories shown in Table 7.

A noise-sensitive receptor is any property (owner-occupied, rented, or leased) where human activity occurs (typically outdoors) and where a lowered noise level would be of benefit.

3.7.1 Affected Environment

In the Study Area, noise levels were measured at 18 noise-sensitive receptors representing 17 residences and one business. Additional information on noise levels within the Study Area is in Appendix 17.

3.7.2 Impacts of the No Build Alternative

For the No Build Alternative, none of the 18 noise receptors are predicted to approach or exceed the NAC for Category B or E land uses (Table 8).

3.7.3 Impacts of the Preferred Alternative

Noise levels are not predicted to approach or exceed the NAC in 2038.

Noise-sensitive areas that may experience construction noise include residences at the Hitch'N Rail mobile home community on County Road 435. However, this neighborhood would not likely be exposed to major construction elements such as pile driving and pavement work on the bridge, which would occur near the railroad and US 30, and would be a considerable distance away from the Hitch'N Rail mobile home community (at least 1,000 feet away).

Overall, construction noise impacts would be minimal because the construction noise would be relatively short at any given location.

Noise measurements were taken at 18 noise-sensitive locations in the Study Area

3.7.4 Mitigation

No noise mitigation would be required because the expected impacts from noise would be below actionable thresholds.

Table 7. Noise Abatement Criteria

Activity Category	Activity Criteria[1] $L_{eq}(h)$	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where preserving those qualities is essential if the area is to continue to serve its intended purpose
B[2]	67	Exterior	Residential
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E[2]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F
F	—	—	Agriculture, airports, bus yards, emergency services, industrial, logging maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	—	—	Undeveloped lands

Source: NDOT's *Noise Analysis and Abatement Policy*, effective July 13, 2011
[1] The $L_{eq}(h)$ Activity Criteria values are for impact determination only and are not design standards for noise abatement. NDOT NAC is 1 dB(A) less than the FHWA NAC.
[2] Includes undeveloped lands permitted for this activity category.

Table 8. Predicted Traffic Noise Levels

Receptor Number[1]	Land Use	Activity Category	NAC[2]	Predicted Noise Levels			Difference Existing vs. Build (d(BA))
				Existing (2013)	No Build (2038)	Build (2038)	
1	Residence at 43413 County Road 755	B	66	54.5	55.6	55	0.5
2	Bill's Volume Sales	E	71	48.9	50.2	52.4	3.5
3	Hitch'N Rail residence 1	B	66	56.5	57.8	60	3.5
4	Hitch'N Rail residence 2	B	66	53.7	54.9	57.3	3.6
5	Hitch'N Rail residence 3	B	66	50.6	51.8	54.3	3.7
6	Hitch'N Rail residence 4	B	66	48.9	50.1	52.6	3.7
7	Hitch'N Rail residence 5	B	66	47.2	48.5	50.8	3.6
8	Hitch'N Rail residence 6	B	66	46.0	47.2	49.7	3.7
9	Hitch'N Rail residence 7	B	66	44.9	46.1	48.6	3.7
10	Hitch'N Rail residence 8	B	66	44.0	45.2	47.3	3.3
11	Hitch'N Rail residence 9	B	66	43.2	44.4	46.6	3.4
12	Hitch'N Rail residence 10	B	66	42.5	43.7	45.9	3.4
13	Hitch'N Rail residence 11	B	66	57.0	58.2	60.1	3.1
14	Hitch'N Rail residence 12	B	66	60.5	61.7	63.2	2.7
15	Hitch'N Rail residence 13	B	66	60.4	61.7	63.1	2.7
16	Hitch'N Rail residence 14	B	66	60.3	61.6	62.9	2.6
17	Hitch'N Rail residence 15	B	66	60.2	61.4	62.7	2.5
18	Hitch'N Rail 43511 US 30	B	66	49.0	50.0	52.0	3.0

[1] The locations of the noise-sensitive receptors modeled are found in the project files of NDOT.
[2] Category B NAC is 66 dB(A); Category E NAC is 71 dB(A).

3.8 Public Utilities

Along US 30, NDOT has the authority and responsibility to regulate utility occupancy on all state highway right-of-way. All other public roads and streets not designated as state highways are under the jurisdiction of the City of Lexington or Dawson County in accordance with state statutes and local ordinances.

3.8.1 Affected Environment

The following known providers have utilities in the Study Area:

- Source Gas
- Dawson Public Power District
- City of Lexington
- Quest
- Charter Communications

3.8.2 Impacts of the No Build Alternative

The No Build Alternative would not result in construction or land disturbance. Thus, the No Build Alternative would not result in impacts to local public utilities.

3.8.3 Impacts of the Preferred Alternative

The Preferred Alternative would affect the following providers: Source Gas, Dawson Public Power District and Charter Communications. Ongoing communications with the utilities affected by the Preferred Alternative would continue during final design. At this time, impacts to the utilities are anticipated to be minor and routine for roadway projects.

Utility companies are responsible for relocation costs associated with their facilities in the public right-of-way if impacted by the proposed project construction.

3.8.4 Mitigation

The following mitigation would be required:

- The Contractor will follow the guidelines of NDOT's Policy for Accommodating Utilities on State Highway ROW (NDOT 2001). It is the responsibility of the City of Lexington to notify utility companies of the need for relocation during the design stage. The City of Lexington will coordinate utility agreements with the utility companies prior to construction. It is the responsibility of the Contractor to notify utility companies of relocation needs during the construction phase for utilities that were not relocated prior to construction. If utility relocations using federal funds are located outside the Study Area, those locations will be evaluated before construction. (Contractor, City of Lexington)

3.9 Temporary Construction Impacts

Temporary construction impacts typically include such things as construction noise and dust, temporary detours during construction activities, temporary limitations on access to properties adjacent to construction activities.

Project construction activities may lead to temporary short-term impacts in the Study Area.

3.9.1 Affected Environment

The Study Area is typical of a rural environment, consisting of a variety of land uses, including undeveloped, industrial, commercial, scattered residential, and farm uses.

3.9.2 Impacts of the No Build Alternative

The No Build Alternative would not result in construction or land disturbance and, therefore, would have no temporary impacts in the Study Area. Additionally, no temporary roadway detours would be needed because of the proposed project.

3.9.3 Impacts of the Preferred Alternative

3.9.3.1 Construction Phasing

The Preferred Alternative would include construction of a viaduct and new connector roads (designated Road A and Road B in this document) to provide access to local businesses. Table 9 describes the impacts based on property ownership. Property ownership is depicted in Figure 16.

The first phase of construction would consist of building Road A and Road B, including the intersection at County Road 435.

Phase I would also include the realignment of County Road 755 from County Road 435 to US 30 and improvements to US 30 at the relocated intersection of County Road 755. This phase would also include construction of the four approaches along US 30 to properties within the Study Area.

During this construction phase, the contractor would maintain access to County Road 435 through sequencing and the use of temporary road surfacing. All construction signing would follow NDOT Standard Specifications[4] and Special Provisions.

To minimize potential impacts, the proposed project has two construction phases:

Phase I - construct Road A and Road B.
Phase II - immediately follows Phase I and includes construction of County Road 435.

The second phase of construction would immediately follow Phase I and would include construction of County Road 435 from the north end of the Phase I improvements across the UPRR and US 30 to the improved intersection at County Roads 435 and 755. County Road 435 would be closed to build the viaduct, abutments, and retaining walls. The contractor would maintain access to all approaches outside of the fill areas for the abutments with construction sequencing. Traffic control would include signs directing motorists to the various businesses within the Study Area as well as local detour signing. In addition, nighttime work may occur when beams for the viaduct are put over the UPRR tracks and US 30.

This phase of construction would also include closing and removing the UPRR crossing on County Road 436. Construction at this location would include removing railroad crossing traffic control (consisting of railroad crossing and yield sign combinations), and implementing approved traffic control devices at the closure.

3.9.3.2 Construction Detours

A detour for US 30 would be needed while girders for the viaduct are set over the UPRR tracks and US 30. For US 30 travelers, a detour along I-80 would be used between Lexington and Overton (Figure 17). The maximum out of direction distance for this detour is approximately 5.7 miles.

During construction, temporary detours would be needed for both regional and local traffic.

Access to properties and business would be maintained during construction and along the detours.

[4] Standard Specifications are requirements of NDOT regarding materials, products, services, and construction methods.

Table 9. Temporary Changes in Access during Construction

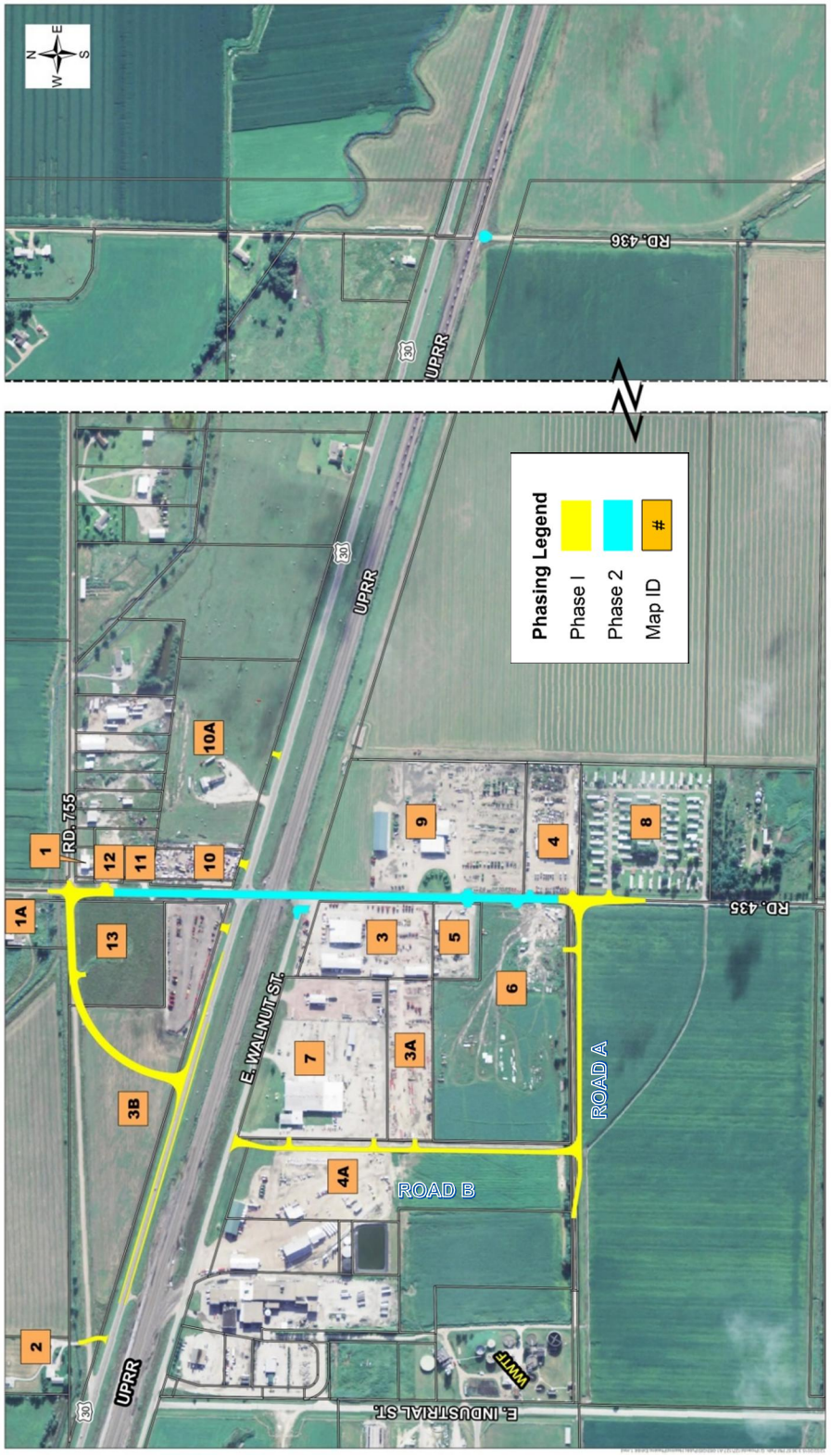
Map ID*	Site Address	Construction Phase I	Construction Phase II
1/1A	Nebr By-Products, Inc. 75494 County Road 435	Traffic would be required to travel through construction zones to access drives.	County Road 435 south would be closed. Access to areas south of US 30 would require using the local detour described in Section 3.3.3.
2	43449 County Road 755	The drive would be realigned, but access would be maintained. The existing drive is gravel, so the contractor would coordinate with the owners to minimize interruptions.	No change.
3	CMV, LLC/Case 75481 County Road 435	Construct temporary access through a permanent easement to an existing drive of the adjoining property. A drive would be constructed to Road B.	Construct permanent surfacing over the temporary access that goes south to the permanent approach to access County Road 435.
3A/ 3B	Case/CMV No site address	A new drive to US 30 would be constructed.	Access would change to US 30. Travel between this property and the Case dealership, which is south of US 30, would be via the local detour.
4	Lexington Co-op Oil 75482 County Road 435	The southernmost drive would be closed, but access would remain via the northern driveway. County Road 435 would remain open; travel would occur through the construction zone and internal circulation patterns may change to access the northern drive.	The northern drive would be closed intermittently depending on the construction activities along County Road 435. When the northern drive is closed, the southern drive would be open; therefore, inconvenience to the property would be expected to be minimal. County Road 435 would be closed to through traffic north, and traffic would have to use Roads A and B to access E. Walnut Street using the local detour described in Section 3.3.3.
4	Lexington Co-op Oil, Co. 1306 E. Walnut Street	Access to the property would require travel through construction.	County Road 435 would be closed to through traffic north, and traffic would have to use Roads A and B to access E. Walnut Street using the local detour described in Section 3.3.3.
5	75479 County Road 435	Access to the property would require travel through a construction zone; as a result, vehicle width may be limited temporarily.	The northernmost drive would be permanently closed. Access to the facility would be maintained at all times during construction at the southern drive through construction sequencing. Access to US 30 would require the local detour described in Section 3.3.3.

Table 8. Temporary Changes in Access during Construction (continued)

Map ID*	Site Address	Construction Phase I	Construction Phase II
6	Downey & Associates, LLC. No site address	This site currently has two drives directly on County Road 435 and a third via access to a gravel road, which outlets onto County Road 435. The drive on the gravel road would be replaced by a drive on Road A that would be built.	The southern drive would have intermittent closures. When closed, access would be via the drive on Road A, requiring the internal circulation patterns to change. County Road 435 would be closed to through traffic north and traffic would have to use Roads A and B to access E. Walnut Street using the local detour described in Section 3.3.3. Access south of the property would not be affected.
7	1502 E. Walnut Street	The west drive from E. Walnut Street would be closed and replaced with two drives to Road B.	County Road 435 would be closed to through traffic north, and traffic would have to use E. Walnut Street and the local detour described in Section 3.3.3.
8	75440 County Road 435	The northernmost drive would be closed. Residents would be temporarily restricted to the southern drive, but access would be maintained at all times.	County Road 435 would be closed, and the residents would have to use Roads A and B to access E. Walnut Street using the local detour described in Section 3.3.3.
9	Landmark Implement, Inc. 75482 County Road 435	Access to the property would require travel through a construction zone; as a result, vehicle width may be limited temporarily.	The northernmost drive would be permanently closed. Access to the facility would be maintained at all times during construction at the southern drive through construction sequencing. Access to US 30 would require the local detour described in Section 3.3.3.
10/ 10A	75490 County Road 435	New drives would be constructed for access onto US 30.	Internal circulation would occur as the existing drive to County Road 435 is permanently closed. Access would occur on US 30.
11	Darling International, Inc. No site address	Access to the property would require travel through a construction zone; as a result, vehicle width may be limited temporarily.	The drive would be permanently closed and access would occur through an easement north to the drive approach at Site 12 (below). Access to areas south of US 30 would require the local detour described in Section 3.3.3.
12	75496 County Road 435	The existing drive would be reconstructed. Access would be maintained through the use of construction sequencing.	No direct impact to the drive, but County Road 435 would be closed to the south, requiring the local detour described in Section 3.3.3.
13	No site address	A new drive on County Road 755 would be constructed, and access would be maintained at all times.	The drive on County Road 435 would be permanently closed. Access would occur through the drive on County Road 755.

* - Refer Figure 16.

Figure 18. Temporary Access Changes during Construction



Source: Miller & Associates 2015

A local detour would be needed because County Road 435 would be closed during viaduct construction. For local traffic north of US 30, motorists on County Road 435 would use County Road 756 to Taft Street, approximately 1 mile west of County Road 435, or US 283 to E. Walnut Street or County Road 754 (Figure 20). The maximum length of the local detour would be approximately 6.9 miles, and is on facilities similar to County Road 435, meaning that they can accommodate the same mix of vehicles and have sufficient capacity to handle the increase in diverted traffic. The increase in traffic volume would be approximately 920 vehicles per day based on current use of County Road 435 between County Road 756 and County Road 754 (NDOT 2016). No construction activity would occur along the detour route.

3.9.4 Mitigation

The following mitigation would be required:

- Access to individual properties will be maintained through construction sequencing. An access plan would be developed during detailed design of the project. Public feedback on the access plan would be obtained through the Public Hearing for the project. (Contractor, City of Lexington)
- Nebraska Air Quality Regulations (NDEQ 2014) state that no person may cause or permit a road being constructed or repaired without applying reasonable measures to prevent particulate matter (commonly referred to as dust) from becoming airborne and remaining visible beyond the premises where it originates. Slight wetting of the soil during demolition and earthwork activities to prevent dust from affecting on-site workers and any potential off-site migration is recommended. Additionally, the USEPA suggests the need for dust suppression when dry and dusty conditions are present to reduce the inhalation of dust, including the recommended use of dust masks by contractors. The contractor is required by NDOT's Standard Specification Section 309 to control dust during construction. (Contractor)

3.10 Indirect and Cumulative Impacts

Assessing cumulative impacts considers whether adding "one more project" to what is already going on in the Study Area would be the tipping point into making the overall impact significant. In assessing cumulative impacts, a new project's implementation asks, "Is this the straw that breaks the camel's back?" or, in other words, whether a project changes traffic enough to make congestion, economic growth, environmental justice, and land use or other transportation-related impact significant when on their own, these impacts would not be significant. Assessing indirect impacts considers project impacts that occur "later in time or farther removed in distance, but are still reasonably foreseeable." They can be viewed as 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 farther removed in distance, but are still reasonably foreseeable. **[Note: 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 Study Area. In other words:

Baseline	+	Future Effects	+	Project Impacts	=	Cumulative Effects
(historical and current)		(expected projects)		(direct and indirect)		

Figure 19. Proposed Detour Route for US 30

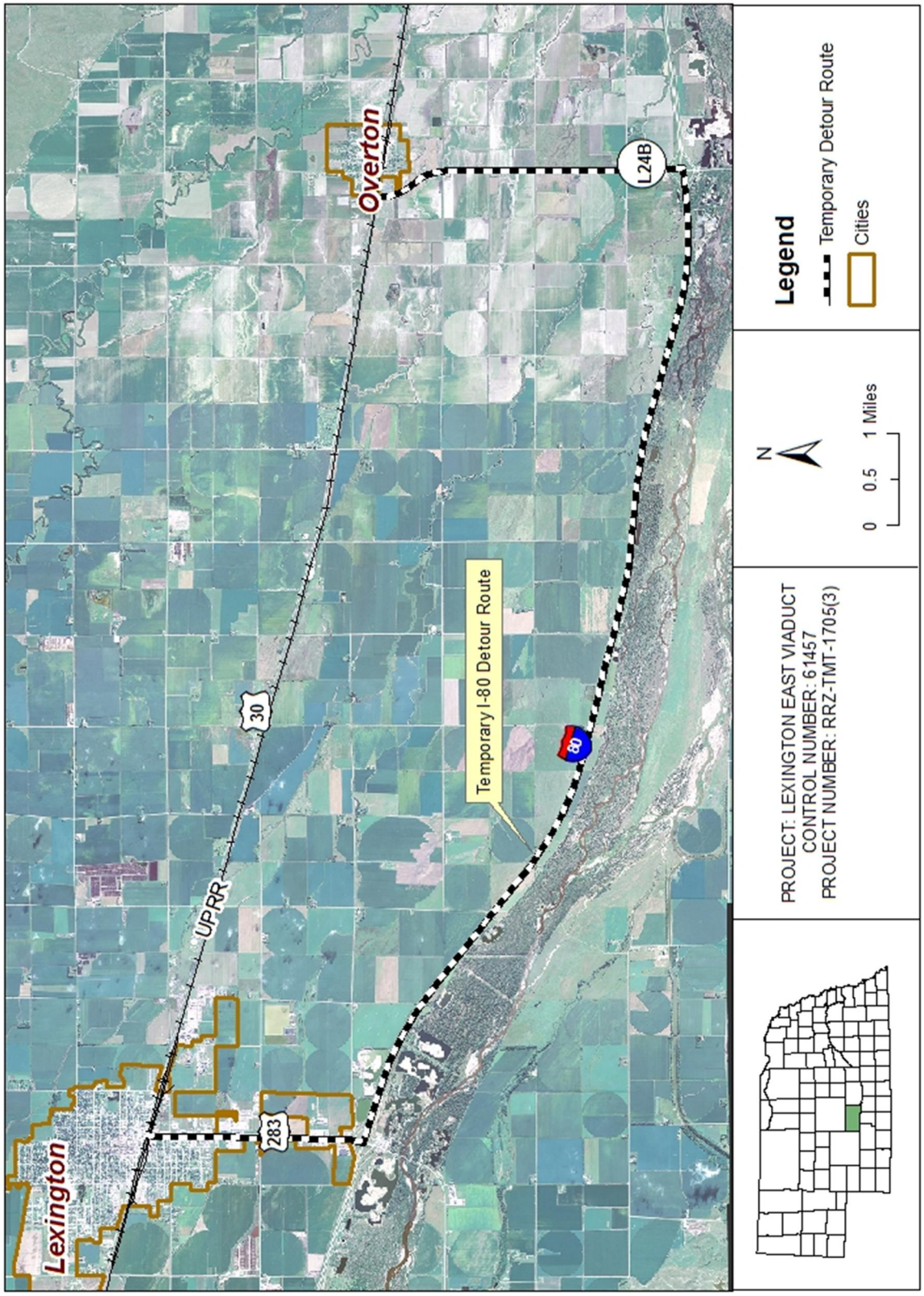
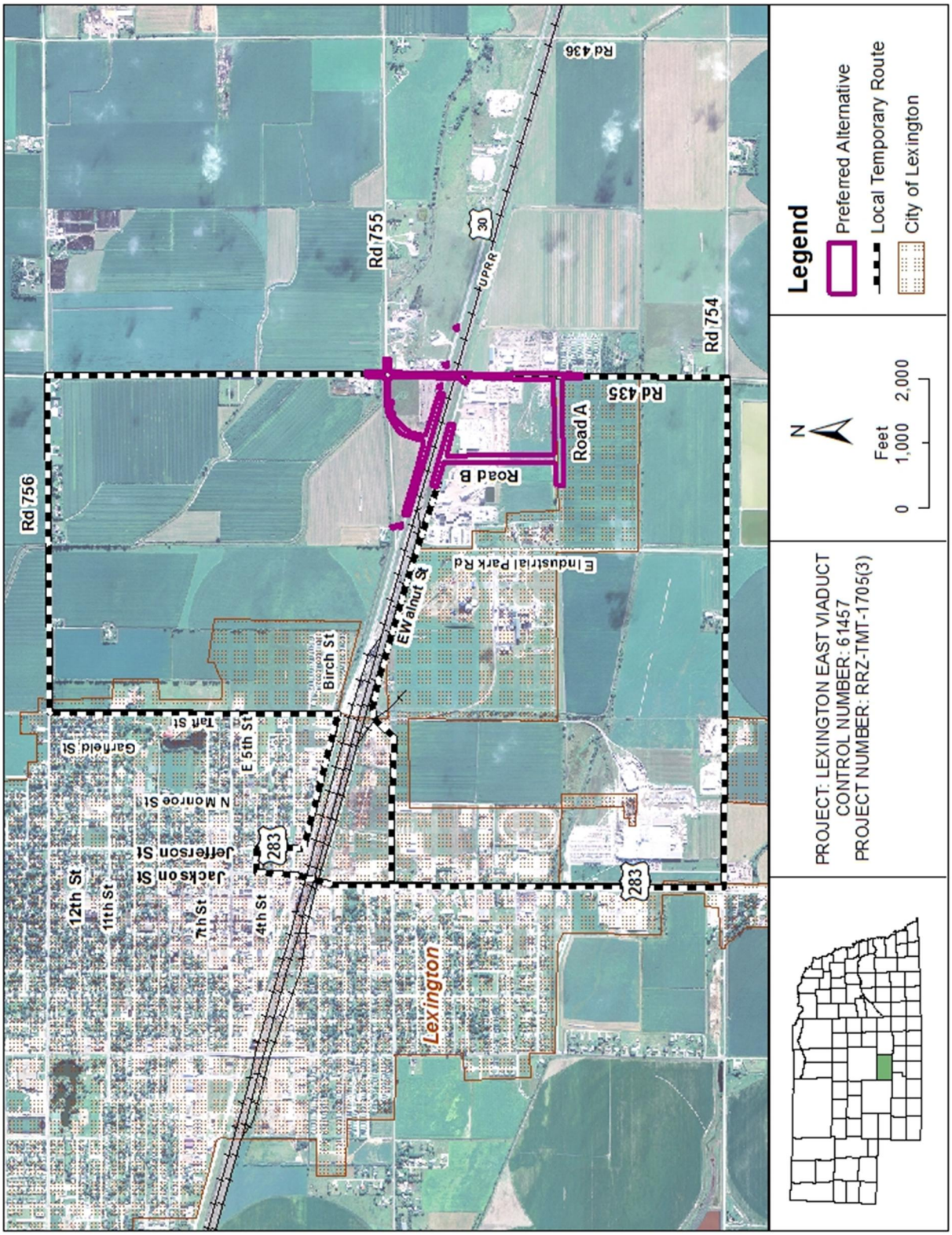


Figure 20. Proposed Local Detour Route



3.10.1 Affected Environment

The Study Area to determine indirect and cumulative impacts is 1 mile in each direction from the current US 30 and County Road 435 intersection, plus the area extending to County Road 753 to the south. This Study Area includes the area for the overall project plus areas where reasonably foreseeable development plans by 2035 are located (City of Lexington 2014 and 2016; Tyson Foods 2017).

3.10.1.1 Past Actions

A review of past actions and local plans in the City of Lexington determined that 1999 was a reasonable year for cumulative impacts, based on the completion date of the Lexington comprehensive plan, which outlined the area's future development.

From 1999 to 2014, some industrial development occurred in the Study Area; however, land has mostly remained as farmland or open space. The roadway system remained the same over this 15-year period. The following provides a summary description of the Study Area:

- Industrial development – Industrial facilities have developed on the south side of the UPRR tracks, to the east of County Road 435, and to the west of E. Industrial Park Road. Scattered residential development has remained minimal in the Study Area.
- Railroad development – Within the Study Area, the UPRR has three tracks and rail spurs on the south side of US 30, west of County Road 435 and east of Plum Creek Parkway, into existing industrial facilities.
- Population growth – Population in the City of Lexington has grown in the past 25 years from 1989 – 2014 (6,819 in 1990; 10,033 in 2000; 10,230 in 2010) with the greatest increase in the 1990s. It has remained level for the past 10 years. Dawson County population has seen a similar trend; however, there has been a slight decrease in population since 2009.

3.10.1.2 Present Actions

No present actions, beyond this proposed project, were considered for indirect or cumulative effects because no other projects are currently under construction within the Study Area.

3.10.1.3 Future Actions

The City of Lexington's city manager (City of Lexington, June 26, 2014) provided information on expected land development in the Study Area by 2038. Figure 21 identifies development the City of Lexington reasonably foresees between 2014 and 2038. No development is expected north of US 30 because of floodplain issues, and US 30 is the southern boundary of the floodplain. Based on this information, the expected land development within the limits of the Study Area is negligible. Few new industrial developments are expected to change land use from farmland by 2038.

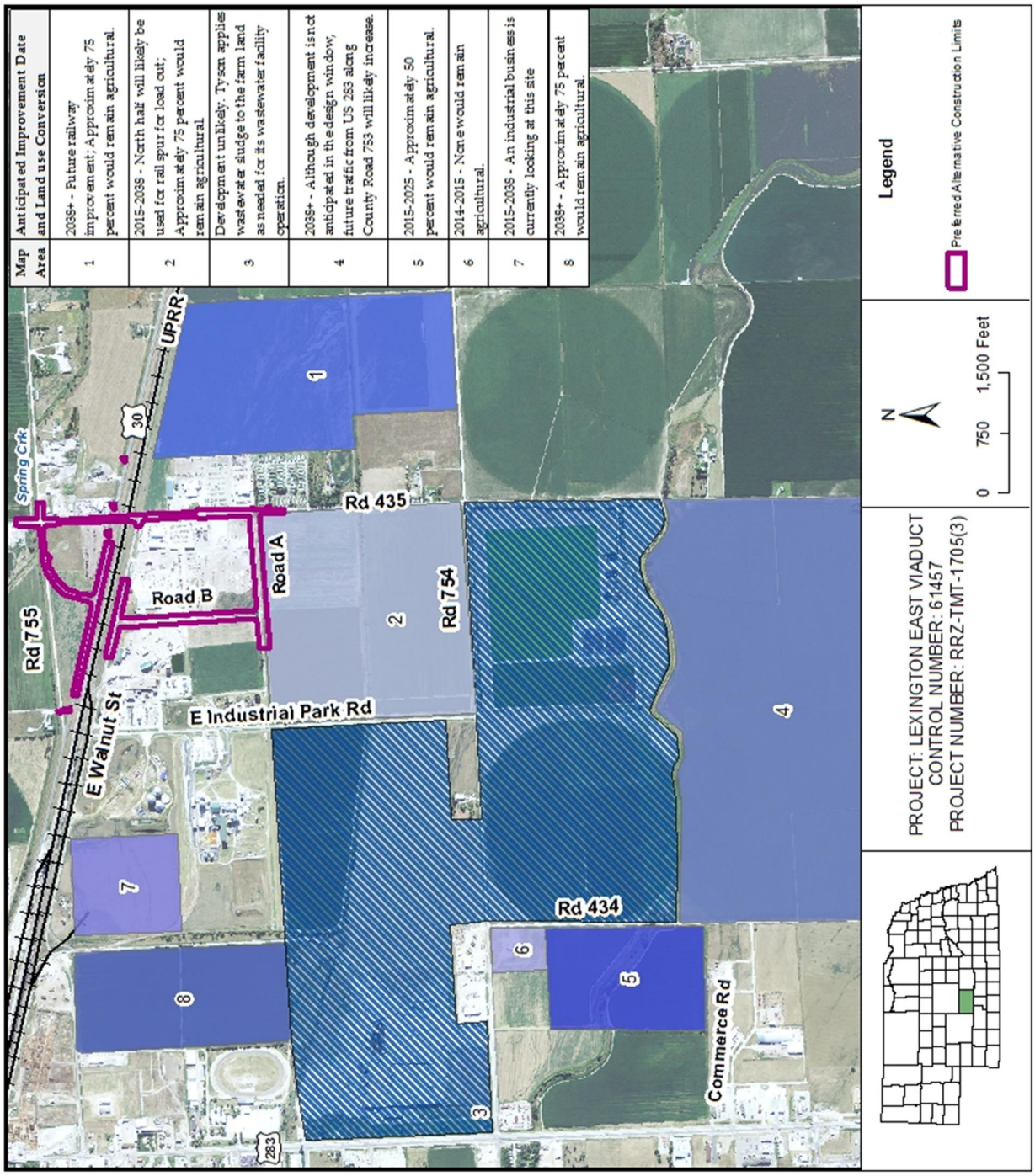
Year 2038 was used as the future year limit because it is the projected future traffic analysis date for the proposed project. By 2038, future industrial development relevant to this analysis will have occurred.

Industrial uses are planned to expand around existing industrial land. The following parcels of land are available for future development south of the Study Area:

- An 80-acre parcel owned by the City of Lexington
- A 75-acre parcel owned by Cornhusker Energy
- An 80-acre parcel owned by Tyson Foods

Land use in *The Lex-Plan 2013* shows that industrial development is planned to occur in the southwest quadrant of the Study Area. Future land uses in the rest of the Study Area indicate that they would likely remain mostly vacant or farmland.

Figure 21. Future Development Map



Source: Personal communications, Joe Pepplitsch, City of Lexington City Manager (June 26, 2014; July 23, 2014; and May 6, 2016) and Kim Dirks, Senior Director Environmental Health Safety Operations, Tyson Foods (January 30, 2017)

3.10.1.4 Resources Considered for Impacts Analysis

Because of the characteristics of the Study Area and type of project studied, the indirect and cumulative impacts of past, present, and future actions were evaluated for the following resources:

- Traffic and access
- Induced economic growth
- Environmental justice
- Land use changes

3.10.2 Impacts of the No Build Alternative

3.10.2.1 Indirect Effects

The No Build Alternative is not anticipated to have indirect effects in the Study Area since a viaduct would not be constructed. The No Build Alternative would result in a future increase in the "exposure factor," with longer vehicle delays at the intersection of US 30 and County Road 435. Traffic volumes could also increase at other intersections in the vicinity because of increased delays and traffic. Additionally, an indirect effect may result in changes in regional traffic patterns for accessing the industrial area to/from I-80 from traffic that accesses US 30 without needing to cross the UPRR tracks to reach businesses.

3.10.2.2 Cumulative Effects

Cumulative effects of planned development could occur in the No Build Alternative. Projects that are currently planned and programmed are anticipated to occur as noted on the future development map (Figure 19).

Traffic and Access

Traffic would be expected to grow from industrial development and continue to mix with farming traffic causing a strain on the roadway. Heavy truck traffic would further deteriorate the pavement with the increase of traffic to businesses. Increased traffic combined with the railroad crossing would result in longer delays. Also, since UPRR anticipates an increase in train traffic, the delays would occur more often throughout the day.

Induced Economic Growth

No reasonable foreseeable cumulative effects are anticipated related to induced economic growth; however, it could result in the loss of business growth in the study area since access would not be improved and delays would continue to occur at the intersection of County Route 435 and US 30.

Environmental Justice

Increased traffic over time, without roadway improvements, and any new development would contribute to delays for residences at the mobile home community.

Land Use Changes

Changes to farmland are anticipated to be minimal because of the No Build Alternative and planned development since traffic and roadway improvements would not occur. Industrial businesses, or even residences, would not likely relocate to the Study Area as opposed to another area in the city of Lexington.

3.10.3 Impacts of the Preferred Alternative

3.10.3.1 Indirect Effects

Traffic and Access

Indirect changes in traffic patterns for local traffic may occur along County Road 436 because of the closure at the railroad crossing and US 30. Property owners along this road are not anticipated to be able to continue their daily operations as they currently do, as noted in Section 3.3.3.

The indirect effect of the roadway improvements on County Road 435 could result in an increase of traffic that is not already anticipated to and from the businesses that develop in the Study Area. However, the mix of vehicles would be similar to existing conditions because the overall land use types would be comparable to what is currently in the Study Area (i.e., there would still be varying amounts of residential, industrial, and farmland uses).

Induced Economic Growth

Some industrial development is anticipated to occur in the Study Area with or without the Preferred Alternative. It is not anticipated that the Preferred Alternative would induce more development beyond what is planned since the proposed project would improve an existing facility rather than create a new facility.

Environmental Justice

The Preferred Alternative is not anticipated to indirectly effect protected populations. Any increases in traffic are not expected to be high enough in the future to result in delays to protected populations in the area or changes in traffic patterns.

Land Use Changes

The Preferred Alternative is not anticipated to result in land uses that are different than what is currently in the Study Area. The proposed improvements are in response to the existing industrial and farmland uses that are currently located here. An increase in residential land uses is not anticipated according to the comprehensive plan.

3.10.3.2 Cumulative Effects

As described in the following subsections, because of the characteristics of the Study Area and type of project studied the following resources were considered for cumulative effects: Traffic Access, Induced Economic Growth, Environmental Justice, and Land Use Changes.

Traffic Access

Cumulative effects are anticipated to be minimal because future land use plans are similar to the existing industrial and commercial uses that are currently in the Study Area. New developments are expected to have better access to the area as a result of the project because there would be no delay of traffic on County Road 435 from US 30 and the UPRR. New development plans to the west and south of the viaduct could create new traffic to County Road 435 from the region, but are consistent with the existing and future plans for the Study Area as adopted by the City of Lexington.

Induced Economic Growth

Development plans in the southwest portion of the Study Area are anticipated to result in a rise in economic activity with the improved accessibility. Also, access to trains for freight may attract more business in the area if the UPRR adds a fourth railroad track. Potential new business are consistent with the planning efforts for the Study Area as adopted by the City of Lexington.

Environmental Justice

Protected populations in the Study Area, specifically at the Hitch'N Rail mobile home community, may experience improved access to the industrial and commercial developments in the Study Area. However, any increases in traffic due to better access and additional businesses could result in minor delays to locations outside of the Study Area, but are anticipated to be minor in nature.

Land Use Changes

Construction of the proposed project along with planned and potentially new industrial development would directly result in some loss of farm land. Depending on the specific parcel of land, it is estimated between 25 and 50 percent loss of farmland would occur. Overall, the loss of cropland, as indicated by the USDA NRCS, through this conversion would be considered minor (Appendix 9).

3.10.4 Mitigation

Given the analysis provided above, no mitigation measures would be required for the proposed project.

3.11 Summary of Environmental Impacts

Under the No Build Alternative, construction of a new viaduct would not occur. The No Build Alternative does not meet the project Purpose and Need because it would not reduce crashes on County Road 435 near the crossings of the UPRR and US 30, reduce vehicular delays crossing the UPRR tracks, or improve accessibility to the area. Because no construction would occur, there would be no right-of-way acquisition or permanent or temporary construction impacts. There would be no changes to access points; however, people in the area would be subject to continued delays from trains on County Road 435. Under the No Build Alternative, land use changes would not be consistent with future commercial/industrial land uses as identified in *The Lex-Plan 2013*.

The Preferred Alternative would result in a grade separation of County Road 435 and the UPRR and US 30. It meets the project Purpose and Need because the viaduct would reduce crashes on County Road 435 near the crossings of the UPRR and US 30, reduce traffic delays on County Road 435 from trains, and improve accessibility to the area as identified by local planning initiatives. Because a new viaduct would be constructed, approximately 7.3 acres of right-of-way would be required and minor impacts to streams (approximately 40 linear feet), wetlands (<0.01 acre), and floodplains (approximately 1,750 linear feet) would occur. There would also be changes in access to approximately 12 properties including residences, businesses, and farm fields. Based on the analysis completed in the Draft EA, the right-of-way acquisition, and permanent or temporary construction impacts would be expected to be minimal compared to the benefits of the Preferred Alternative.

Impacts associated with the No Build Alternative and the Preferred Alternative are summarized in Table 10 on the next page.

Table 10. Summary of Environmental Impacts for the No Build and Preferred Alternative

Category	Criteria	No Build	Preferred Alternative
Meets Purpose and Need			
Reduce crashes on County Road 435 near the US 30 and UPRR crossings	Yes / No	No	Yes
Reduce traffic delays on County Road 435 from trains	Yes / No	No	Yes
Improve accessibility to the area as identified by local planning initiatives	Yes / No	No	Yes
Constructability / Disruption during Construction			
Local detour required	Yes / No	No	Yes
Phasing	Yes / No	No	Yes
Potential Right-of-Way Needs			
Construction area	Acres	0	7.3
Potential Displacement / Relocation			
Residential	Number	0	0
Business	Number	0	0
Potential Drive Relocations / Changes in Property Access			
Residential	Number	0	2
Business (including farm fields)	Number	0	10
Wetlands	Number (Acres)	0 (0)	1 (<0.01)
Stream Crossings	Number (Linear Feet)	0 (0)	1 (≈ 40)
Requires an Individual CWA Section 404 Permit	Yes / No	No	No
Hazardous Material Sites Impacted	Number	No	0
Floodplain Impacts	Linear Feet	0	≈ 1,750
Noise (move roads closer to receptors)	Yes / No	No	No
Protected Populations Impacts	Yes / No	No	No
Cultural Resources Impacts	Yes / No	No	No
Section 4(f)[1] and Section 6(f)[2] Impacts	Yes / No	No	No
Prime and Unique Farmlands	Acres	No	≈ 4
Potential Utility Conflicts (electric, pipes: sanitary, storm, water)	Number	0	4

1. Section 4(f) of the Department of Transportation Act of 1966
2. Section 6(f) of the Land and Water Conservation Fund Act

4.0 Public Involvement

The purpose of public involvement during the NEPA process is two-fold: 1) it provides stakeholders information about the proposed project and its status and 2) it allows sponsors to get input on the proposed project or Study Area that ultimately yields a better outcome.

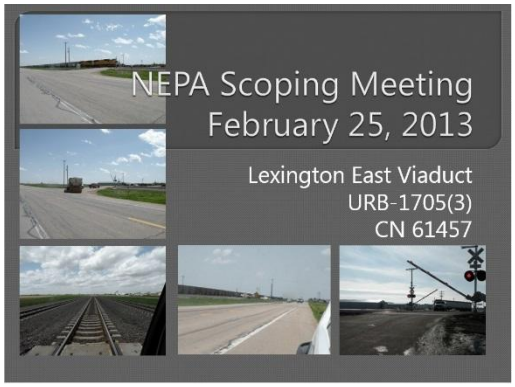
A project stakeholder is anyone who is interested in or affected by the proposed project, either directly or indirectly, including the public, local residents and businesses, resource agencies, elected officials, and public and agency officials

Ideally, public involvement builds agreement about a project solution by determining benefits and impacts while addressing concerns that have been identified. As described below, the City of Lexington used a variety of methods for providing information to and getting input from stakeholders:

- Resource Agency Scoping Meeting
- Union Pacific Railroad Coordination
- Public Information Meeting
- City and County Joint Resolution Meeting
- Future Public Outreach

4.1 How Were Resource Agencies Involved?

A resource agency scoping meeting was conducted on February 27, 2013. **[Note: A resource agency is a division of government with a specific regulatory role and technical expertise that can provide knowledge or assistance]**. The purpose of the agency scoping meeting was to provide information about the proposed project to state and federal resource agencies and gather information they may have for the Study Area. The project sponsors presented information on the purpose and need, the five Build Alternatives, and the Study Area.



The resource agencies had no comments on the Study Area, and focused on the regulatory wetland and streams. As part of the proposed project, field studies were completed to identify the location of wetlands and streams that could be affected by the Build Alternatives (see Section 3.4.3). Notes from the resource agency scoping meeting are in Appendix 4.

4.2 Was Coordination Done With the Union Pacific Railroad?

Because the viaduct would go over the railroad, and potential piers could occur within the UPRR right-of-way, a meeting between the UPRR, the City of Lexington, and the design engineers was held on August 28, 2013. The purpose of the meeting was to discuss the status of the proposed project, identify the Build Alternatives, and identify UPRR concerns for its right-of-way.

The UPRR indicated that there may be a need to extend a railroad siding on the south side of the main tracks and two existing sidings to meet the need of potential customers. At the meeting, the UPRR also indicated that the viaduct should not prevent them from potentially adding a fourth main track in the future. Although there are no plans for a fourth main track at this time, the Preferred Alternative's span would be long enough to accommodate these future potential UPRR improvements.

Prior to construction, the City of Lexington and the UPRR would need to develop a grade separation agreement to allow work to occur within the railroad right-of-way.

4.3 How Was the Public Included in the Proposed Project?

As discussed in Section 2.2.2, a public information meeting was held on November 7, 2013, at the Lexington Municipal Building, 406 E. 7th Street in Lexington. The meeting presented the purpose and need and the alternatives developed for the proposed project and allowed feedback from the public.

Approximately 40 people attended the meeting. Eleven attendees provided written comments. Of the 11 comments, two responses favored Alternative 3 because commenters believed this alternative would be easier for drivers to understand. Five commenters favored Alternative 4 because they believed it would have fewer impacts on their homes or livelihoods compared to the other alternatives, and would provide improved access in the Study Area. Only one commenter favored Alternative 5, noting that it would have less impact to existing businesses on County Road 435, but also did not object to Alternative 3. One commenter favored either Alternative 3 or Alternative 4. Two commenters did not identify a favored alternative.

The public comments and corresponding responses are in the public meeting summary located in Appendix 4.

Photographs from the November 7, 2013, Public Information Meeting

4.4 How Were City of Lexington and Dawson County Leaders Involved?

On March 11, 2014, the Lexington City Council and the Dawson County Commissioners held a joint session to discuss Alternative 3 and Alternative 4, which were identified for further review in Screening Step 3 (see Sections 2.2.3 and 2.3). The meeting was open to the public and advertised in the *Lexington Clipper-Herald*, the newspaper of record.

A newspaper of record, refers to a publicly available newspaper that is recognized by the Nebraska Press Association as having the authority to publish legal notices.

During the meeting, the Council and the Commissioners reviewed Alternative 3 and Alternative 4 in detail. The Commissioners took an informal survey of the audience, which resulted in nine votes for Alternative 3 (five from the City of Lexington and four from Dawson County), and one vote for Alternative 4 (from Dawson County). Afterward, the City of Lexington Council and the Dawson County Commissioners approved a joint resolution that identified Alternative 3 as the locally preferred project alignment.

Saturday, March 15, 2014

LEXINGTON Clipper-He

City Council, Dawson County Commissioners approve viaduct alignment resolution

KEVIN ZELAYA
C-H staff writer

LEXINGTON, Neb. – In a joint meeting of the Lexington City Council and County Building Inspector Bill

ing to fences, but it will require two more readings to leave time for resident feedback.

City of Lexington Chief

Vazquez honor as Entrepreneu

LEXINGTON, Neb. – The Center for Rural Affairs Rural Enterprise Assistance Project's Hispanic Business Center has awarded the Entrepreneur of the Year honor to Diana Vazquez, longtime owner of Fascination, a downtown retail store in

Appendix 4 contains a summary and additional information regarding the joint resolution.

4.5 Will There Be More Public Input on the Proposed Project?

Following the approval of the Draft EA by FHWA, the project sponsors would have a public hearing to seek comments on the Draft EA. The hearing would also provide a public forum to allow citizens to comment on the project.

Prior to the public hearing, the Draft EA would be available electronically on the City of Lexington's website. Printed copies of the Draft EA would also be available for review at the following locations:

- City of Lexington City Hall
- Dawson County Courthouse
- Lexington Public Library
- NDOT Headquarters (1500 Highway 2, Lincoln, NE)
- FHWA Nebraska Division (100 Centennial Mall N., Lincoln, NE)

At least 15 days before the hearing, a legal notice would be published in the *Lexington Clipper-Herald*. The notice would also be translated into Spanish and advertised in *Que Pasa* (Appendix 4). In addition, meeting notices would be delivered to the Lexington Somali Community Center for the facility to distribute information about the hearing.

In addition to the newspapers, a public hearing notice would be mailed to individuals and businesses on the project mailing list, and identified on the City of Lexington's website.

The project mailing list contains the names and addresses of almost 200 project stakeholders.

5.0 Environmental Commitments and Mitigation

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

The main objective of mitigation is to minimize unavoidable impacts to sensitive resources.

Table 11 provides an overview of the mitigation measures and commitments for the Lexington East Viaduct Project as identified in Section 3.0. In addition to these mitigation measures and commitments, NDOT Standard Specifications and Special Provisions would be applied to the Preferred Alternative as appropriate to provide specific methodology. A list of NDOT Standard Specifications and Special Provisions relevant to the proposed project are found in Appendix 8.

Table 11. Summary of Mitigation Measures Developed for the Preferred Alternative

Issue	Mitigation Measures	Responsible Party
Transportation and Traffic	• The City of Lexington shall notify the public of the start of construction by placing notices in the newspaper 14 calendar days before construction begins. Electronic message boards may be used before beginning construction activities. The City of Lexington shall also notify emergency services providers, such as police and fire departments, before construction activities begin, as well as maintain continued coordination throughout construction. Emergency services providers will be invited to the pre-construction meeting for this project. • Turn lanes would be evaluated as plans for the viaduct are further defined.	• City of Lexington
Land Ownership and Land Uses	• Coordination with property owners would occur throughout final design to provide access points and minimize impacts for businesses and residences in the area.	• City of Lexington
	• Property rights acquisition will be conducted by paying fair market value for the property rights and damages that may occur. Right-of-way acquisition will be conducted in conformance with the Federal Uniform Act, as amended, (42 USC 4601 et seq.) and the Nebraska Relocation Assistance Act (Neb. Rev. Stat. Section 76-1214 et seq.).	• City of Lexington
	• Access to individual businesses, residences, and other facilities will be maintained during construction.	• City of Lexington and Contractor

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
Socioeconomic Considerations and Environmental Justice (continued)	• The contractor will provide private dwellings, commercial properties, businesses, and public facilities access to and from the nearest intersecting public road or street. Accommodations will be made to ensure local traffic passing within the limits of the project has access to private dwellings, commercial properties, businesses, agricultural properties, and public facilities. During those periods when a road is closed, even for a short duration, limited access will be maintained for authorized local traffic. If access is to be closed longer than one day, the contractor will coordinate with the affected property owners.	• Contractor and City of Lexington
	• During construction, access to neighborhoods and community facilities will be maintained through controlled construction scheduling and/or provisions for alternate routes of entry. Any access changes will be indicated by providing adequate signage and, where necessary, by working with the facility and/or property owner throughout the construction period to provide advanced notification of the changes.	• Contractor and City of Lexington
	• The City of Lexington will notify civic organizations serving LEP residents and emergency services, such as police and fire departments, before construction activities begin, as well as maintain continued coordination throughout construction. Civic organizations serving LEP residents and emergency service providers will be invited to the pre-construction meeting for this project. Spanish and Somali interpreters will be retained to provide information as needed.	• City of Lexington
	• All written information dispersed to the public about this project will be translated into Spanish and Somali.	• City of Lexington and Contractor
	• The director of the Lexington Somali Community Center will be contacted to help disseminate or translate information for the Somali LEP population.	• City of Lexington and Contractor
	• For the public hearing, interpreters will be present for both Spanish and Somali populations. Notices will be posted in Spanish and Somali to convey that the interpreters are available.	• City of Lexington
Protected Species	• A-1 - Changes in Project Scope. If there is a change in the project scope, the project limits, or environmental commitments, the NDOT Environmental Section must be contacted to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from FHWA.	• NDOT-District Construction and Contractor
	• A-2 - Conservation Conditions. Conservation conditions are to be fully implemented within the project boundaries as shown on the plans.	• NDOT-District Construction and Contractor

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
Protected Species (continued)	• A-3 - Early Construction Starts. Request for early construction starts must be coordinated by the Project Construction Engineer with NDOT Environmental for approval of early start to ensure avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes will require approval from the FHWA and could require consultation with the USFWS and NGPC.	• NDOT-District Construction and Contractor
	• A-4 - Endangered and Threatened Species. If federal- or state-listed species are observed during construction, contact NDOT Environmental. Contact NDOT Environmental for a reference of federal- and state-listed species.	• NDOT-Environmental, NDOT-Construction, and 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 Chapter 11 of the Matrix (on NDOT's website), where species survey protocol 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 four 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 District Construction Project Manager will notify NDOT Environmental which will coordinate with FHWA for acceptance if needed. The contractor must receive notice of acceptance from NDOT, 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, NDOT-Construction, and Contractor

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
Protected Species (continued)	• A-7 - Waste/Debris. Construction waste/debris will be disposed of in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat.	• Contractor
	• S-2 - Platte River Depletions. If within the Platte River watershed (including the Elkhorn, Salt Creek, Loup, Calamus, and Lower Platte drainage basins) include the following for all detention basin/retention basins, and borrow sites: All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general, the following are considered de minimis depletions, but may still require agency coordination; a project which: a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) any diverted water will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet	• NDOT-Environmental
	• S-3 - Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion-prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the Study Area during surveys. If listed plants were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project.	•NDOT- Environmental
	• NLEB-1 - Tree clearing, bridge deck joint replacements over the bridge deck, bridge removal activities will not occur between June 1 – July 31 to avoid impacts to the northern long-eared bat maternity roosting period.	•NDOT-Environmental, NDOT-Construction, Contractor
	• NLEB-2 - If tree clearing, bridge demolition, or removal of structures occurs during the northern long-eared bat maternal roosting period (June 1 — July 31), NDOT or a qualified biologist will perform surveys prior to the start of these activities. If the species is absent, work may proceed. If the species is found, NDOT Environmental Section will consult with the USFWS, NGPC, and FHWA prior to the start of construction.	•NDOT-Environmental, NDOT-Construction, Contractor

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
Wetlands and Waters of the US	• Before any construction work, the City of Lexington will obtain a Letter of Opinion of Non-Degradation from NDEQ for impacts to Waters of the State of Nebraska (NDEQ 2009).	• City of Lexington and Contractor
	• A CWA Section 404 permit from the USACE will be obtained for impacts to jurisdictional waters of the US.	• City of Lexington and Contractor
	• At the discretion of NDEQ, affected wetlands occurring within roadside ditches may be mitigated on-site at a 1:1 ratio if the project design allows the creation of new ditch wetlands adjacent to the affected areas. Appropriate mitigation sites will require adequate hydrology and will be seeded with a mix of hydrophytic grasses and sedges appropriate for the region to create in-kind replacement. Monitoring the progress of vegetation establishment and evaluating hydrology will be required to ensure the success of the mitigation wetland areas.	• City of Lexington
Floodplains	• Construction of the Preferred Alternative will follow the City of Lexington and Dawson County floodplain management permits and guidelines. Floodplain permits and approvals will be obtained during final design prior to construction.	• City of Lexington and Contractor
Groundwater and Wellhead Protection Areas	• A portion of the project has been identified as being located within the City of Lexington Wellhead Protection Area. The City of Lexington will use NDOT's Standard Specifications 107.01, 107.09, and 107.18 to address the contractor's responsibility to keep fully informed of, observe, and comply with federal, state, and local laws and ordinances that affect the conduct of the work.	• City of Lexington and Contractor
	• The Project Sponsor would coordinate with the owners of wells that would be directly impacted by the proposed project. If the well is actively used, the Project Sponsor would replace the well or pay the owner to replace the well. The Project Sponsor would then have an independent contractor decommission the well after ROW negotiations and acquisitions are complete. If the well is not in use, the Contractor would decommission the well after negotiations with the owner (City of Lexington, Contractor)	• City of Lexington and Contractor
	• A licensed water well contractor will decommission any wells in accordance with the DHHS regulations under Nebraska Administrative Code Title 178, Water Well Standards, Chapter 12, Water Well Construction, Pump Installation, and Water Well Decommissioning Standards (Nebraska DHHS 2005).	• City of Lexington and Contractor

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
Impaired Waters	• The City of Lexington will obtain a Construction Storm Water (CSW) permit from NDEQ and produce an associated project-specific Storm Water Pollution Prevention Plan (SWPPP). The Project Sponsor will incorporate soil erosion and sediment control practices as detailed in the CSW permit and SWPPP. Permanent drainage and water quality facilities (that is, Best Management Practices [BMPs]) may be included with the final design to mitigate adverse impacts caused by storm water runoff. These BMPs will protect water quality and provide a discharge velocity that is equal to or better than the current conditions. The project will comply with CSW permit requirements.	• City of Lexington
	• The project-specific SWPPP will outline mitigation measures during construction and maintenance requirements for all permanent BMPs. The SWPPP will include a detailed Erosion and Sediment Control Plan as part of the roadway design set. These plans will show temporary measures, such as silt fences, hay bales, soil retention blankets, inlet protection, and stabilized construction entrances. The design of measures to be taken will be determined during final design.	• City of Lexington and Contractor
Platte River Depletions	• If the borrow site is located within a depletion area of concern and it is identified that the site will pond water after excavation, the contractor will determine project-related impacts by calculating the evaporated loss of water at the borrow site by using the NRCS Consumptive Use Calculator. For borrow sites/detention basins that will result in the exposure of groundwater in the North Platte River Basin, the contractor will submit the borrow site request information to the NGPC and USFWS. This will be done to determine ways to avoid depletions or provide offsets if depletions are to occur. Requests for borrow sites that occur outside the Platte River watershed will be submitted to the Nebraska Department of Natural Resources (NDNR) for tracking surface water depletions.	• Contractor and City of Lexington
	• Borrow sites that expose groundwater and are obtained outside the PRRIP areas will be offset according to the Biological Opinion prepared by NGPC in accordance with the Nebraska Nongame and Endangered Species Conservation Act (Nebraska Revised Statute 37-806 et seq. 2008). Borrow sites that pond water and occur outside the PRRIP area and the Platte River watershed would be calculated using the NRCS Consumptive Use Calculator and submitted to the NDNR to be included in the report to the Governance Committee.	• Contactor and City of Lexington

Table 11. Summary of Mitigation Measures (continued)

Issue	Mitigation Measures	Responsible Party
Hazardous and Special Waste Materials	• 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 State Representative. The Contractor shall not re-enter the discovery area until allowed to do so by the State Representative. At the time of discovery, the NDOT State Representative and Contractor shall utilize the Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the State Representative are (but not limited to): verification that the Contractor has suspended construction activities in the area of the discovery, contact the Environmental Section Manager and make an entry into Site Manager that an unexpected waste discovery was made. The State Representative shall then utilize the UWAP Site Discovery Check List to properly document the extent and type of waste. The State Representative 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 Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of regulated material in accordance with applicable laws.	• Contractor and NDOT
Public Utilities	• The contractor will follow the guidelines of NDOT's Policy for Accommodating Utilities on State Highway ROW (NDOT 2001). It is the responsibility of the City of Lexington to notify utility companies of the need for relocation during the design stage. The City of Lexington will coordinate utility agreements with the utility companies prior to construction. It is the responsibility of the contractor to notify utility companies of relocation needs during the construction phase for utilities that were not relocated prior to construction. If utility relocations using federal funds are located outside the environmental Study Area, those locations will be evaluated before construction.	• Contractor and City of Lexington

Table 11. Summary of Mitigation Measures (continued)

Issue	Minimization/Mitigation Measures	Responsible Party
	• Access to individual properties will be maintained through construction sequencing. An access plan would be developed during detailed design of the project. Public feedback on the access plan would be obtained through the Public Hearing for the project.	• Contractor and City of Lexington
Temporary Construction Impacts	• Nebraska Air Quality Regulations (NDEQ 2014) state that no person may cause or permit a road being constructed or repaired without applying reasonable measures to prevent particulate matter (commonly referred to as dust) from becoming airborne and remaining visible beyond the premises where it originates. Slight wetting of the soil during demolition and earthwork activities to prevent dust from impacting on-site workers and any potential off-site migration is recommended. Additionally, the USEPA suggests the need for dust suppression when dry and dusty conditions are present to reduce the inhalation of dust, including the recommended use of dust masks by contractors. The contractor is required by NDOT's Standard Specification Section 309 to control dust during construction. • Sensitive resources, such as wetlands, cultural resources and Section 4(f) properties near construction activities would be identified on design plans and marked for avoidance during construction.	• Contractor
Public Engagement	• The Draft EA would be made available to the general public prior to the public hearing.	• City of Lexington

6.0 Conclusion and Next Steps

This Draft EA has been prepared in accordance with the CEQ regulations (40 CFR 1500–1508) and FHWA implementing regulations (23 CFR 771and 23 CFR 774). After reviewing and studying this Draft EA, FHWA has determined that the document adequately and accurately discusses the environmental issues and impacts of the proposed project.

Following the approval of the Draft EA by FHWA, the public would be invited to a public hearing. The public hearing would seek comments on the Draft EA and cover the information required in 23 CFR 771.111. There would be a 30-day comment period for the Draft EA, after which the Final EA would be prepared. FHWA would make a determination based on the public hearing comments and the Final EA as to whether the project may be carried forward with a FONSI, or whether an EIS may be required.

7.0 References

23 CFR 650. Bridges, Structures, and Hydraulics

23 CFR 771. Environmental Impact Procedures.

23 CFR 772. Procedures for Abatement of Highway Traffic Noise and Construction Noise.

23 CFR 774. Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)).

36 CFR 800. Protection of Historic Properties.

40 CFR 1508.7. Cumulative Impact.

16 USC 668-668c. Bald and Golden Eagle Protection Act.

16 USC 703-712: Ch. 128. Migratory Bird Treaty Act.

16 USC 1531 et seq. 1973. Endangered Species Act, as amended.

33 USC 1344. Section 404 of the Clean Water Act.

42 USC 4601 et seq. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

54 USC 300101 et seq. Public Law 89-665; National Historic Preservation Act of 1966, as amended.

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