



July 25 & 26, 2016  
5:00 pm – 7:30 pm

July 25:  
Belfield

July 26:  
Watford City

# U.S. HIGHWAY 85

I-94 Interchange to Watford City Bypass (McKenzie County Road 30)

Project 9-085(085)075 PCN 20046 ♦ Stark, Billings and McKenzie Counties, North Dakota



*Public Alternatives Workshop*



# Introductions & Housekeeping Items





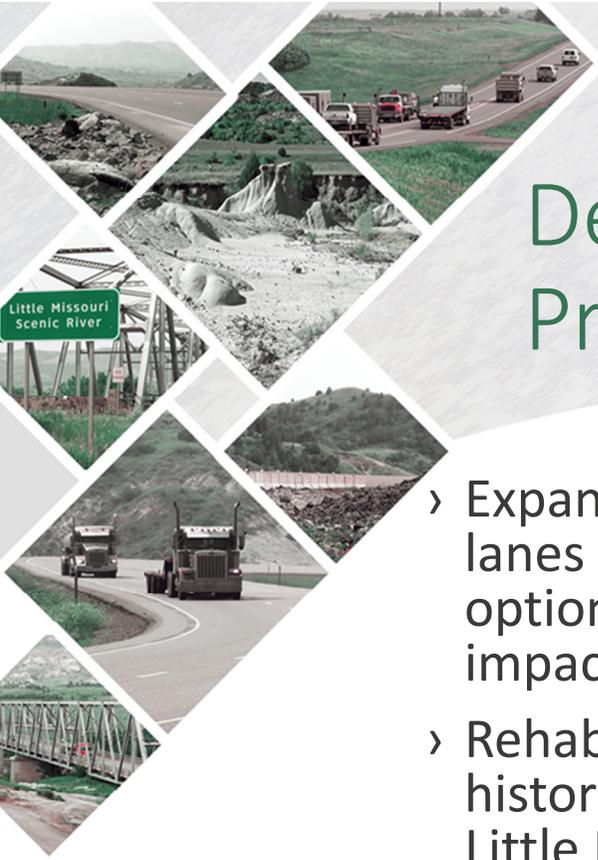


# Meeting Objectives

- › Receive input on all the proposed alternatives and concepts
- › Review Purpose & Need
- › Describe the proposed project & current status
- › Discuss the Alternatives Methodology & Screening process
- › Describe the proposed alternatives:
  - Roadway
  - Major intersections
  - Fairfield Bypass
  - Badlands
  - Long X Bridge
- › Describe the trail and preliminary wildlife crossings/accommodations concepts

# Describe the Proposed Project





## Description of the Proposed Project

- › Expand US Highway 85 to four lanes (with flexible design options to avoid or minimize impacts)
- › Rehabilitate or replace the historic Long X Bridge over the Little Missouri River
- › EIS
  - Lead agencies: FHWA & NDDOT
  - Cooperating Agencies: NPS, USACE, USFS



# Recap of Public Scoping Meetings



# Overview of EIS Process





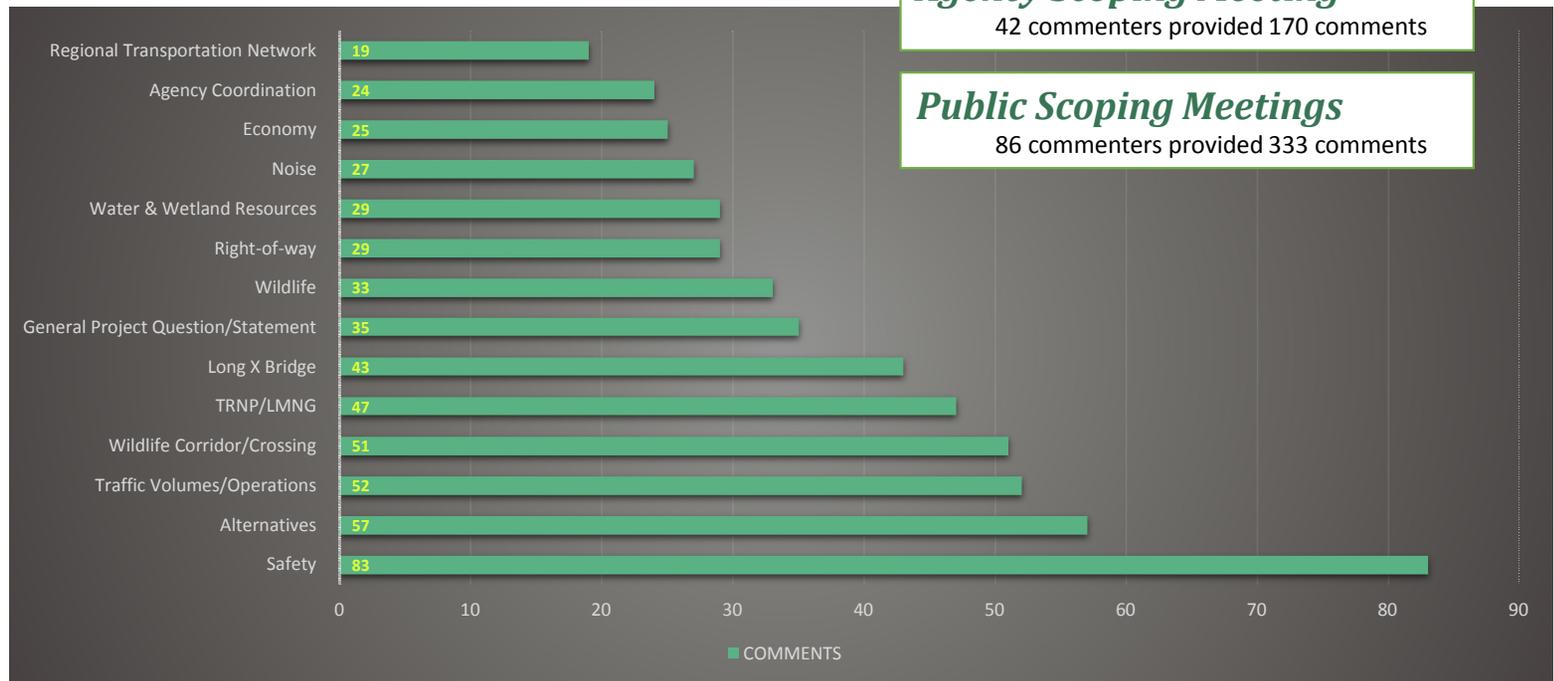
# Major Themes from Scoping Meetings

## Agency Scoping Meeting

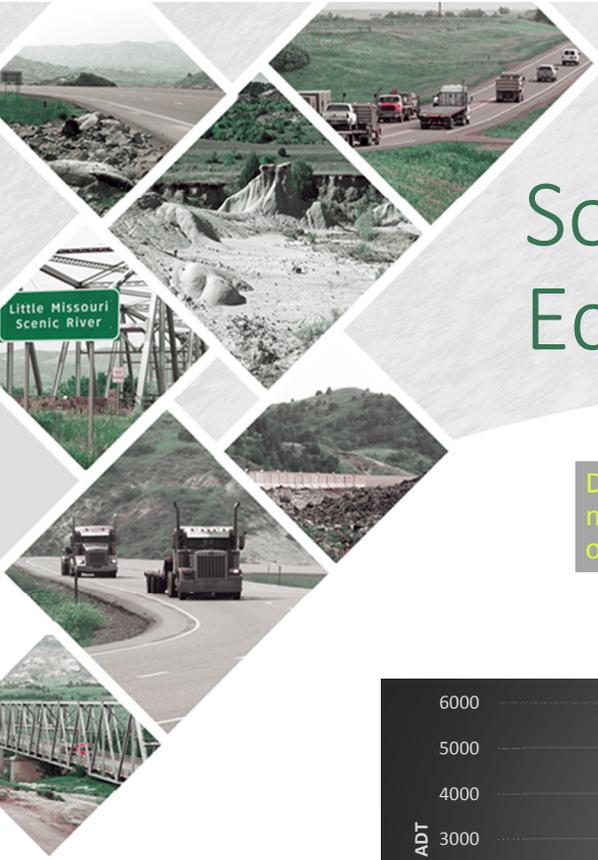
42 commenters provided 170 comments

## Public Scoping Meetings

86 commenters provided 333 comments



# Social Demands/ Economic Development



Development and maintenance of oil & gas industry



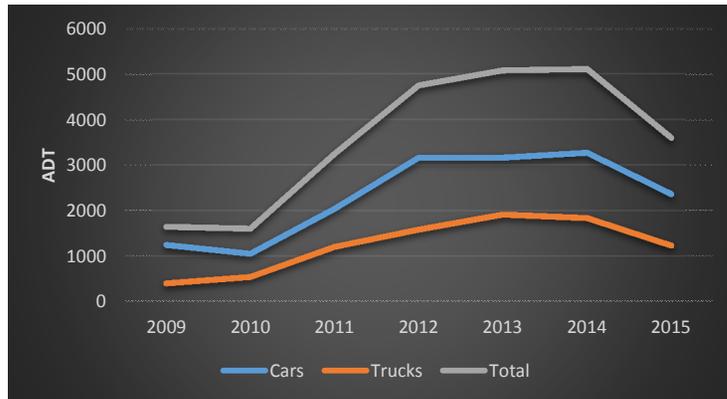
Population increase in western ND



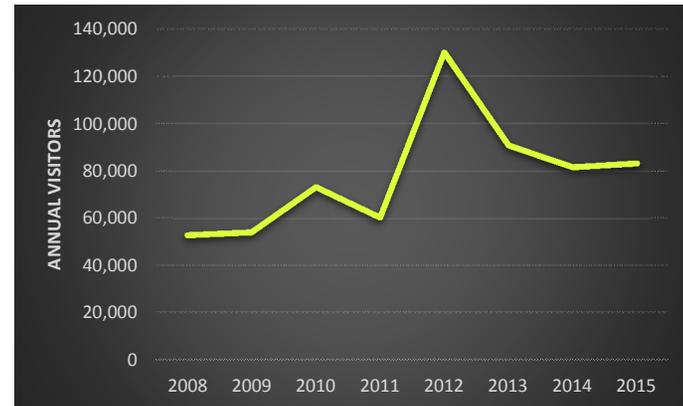
Agriculture



Recreation

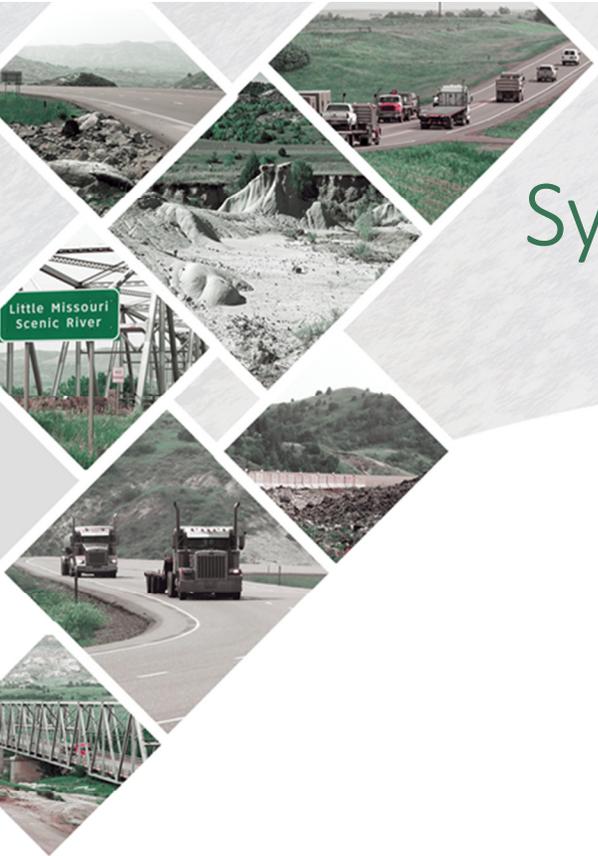



*Average Daily Traffic (RP 107.8)*



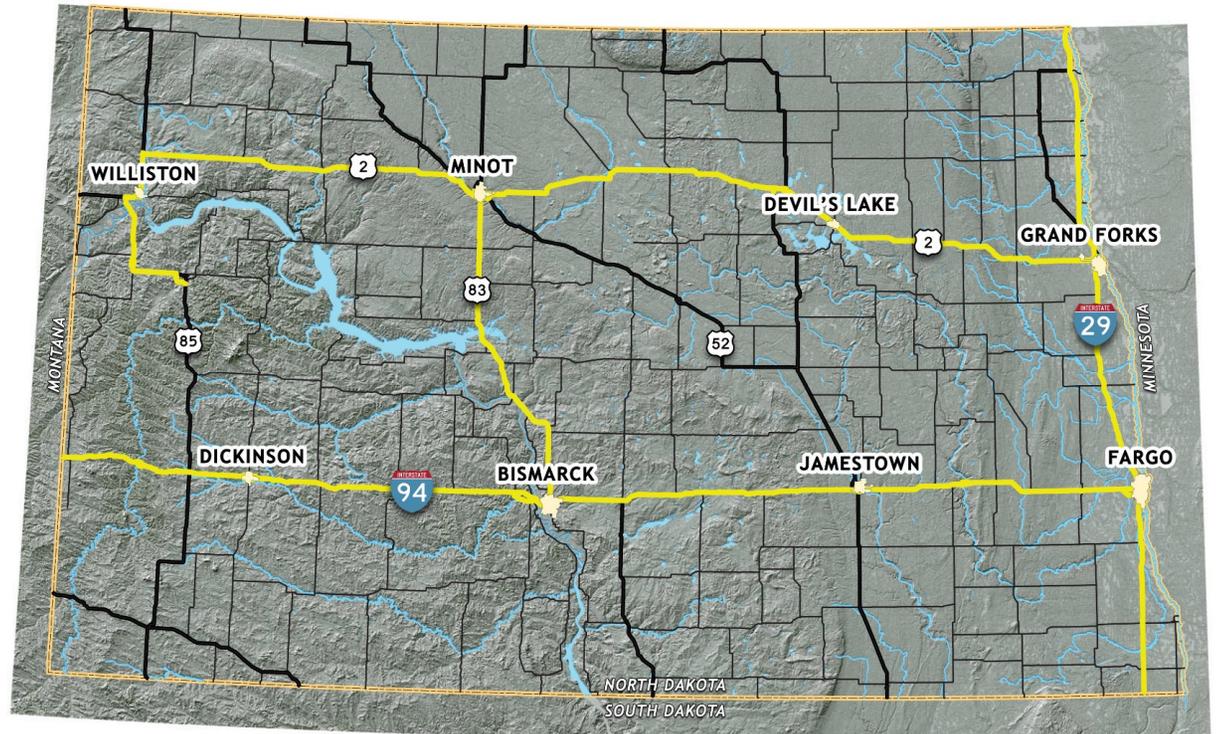
*North Unit of TRNP Annual Visitors*

# System Linkage/Connectivity

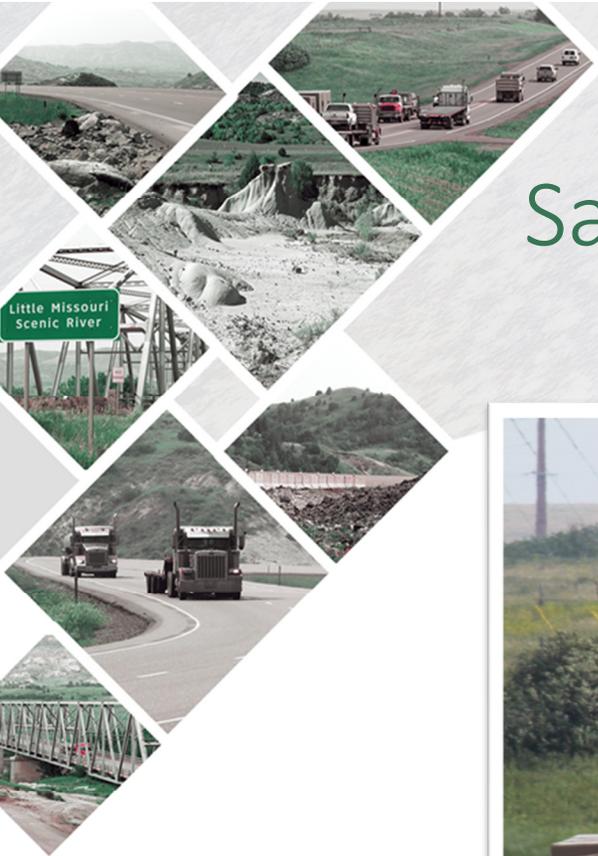


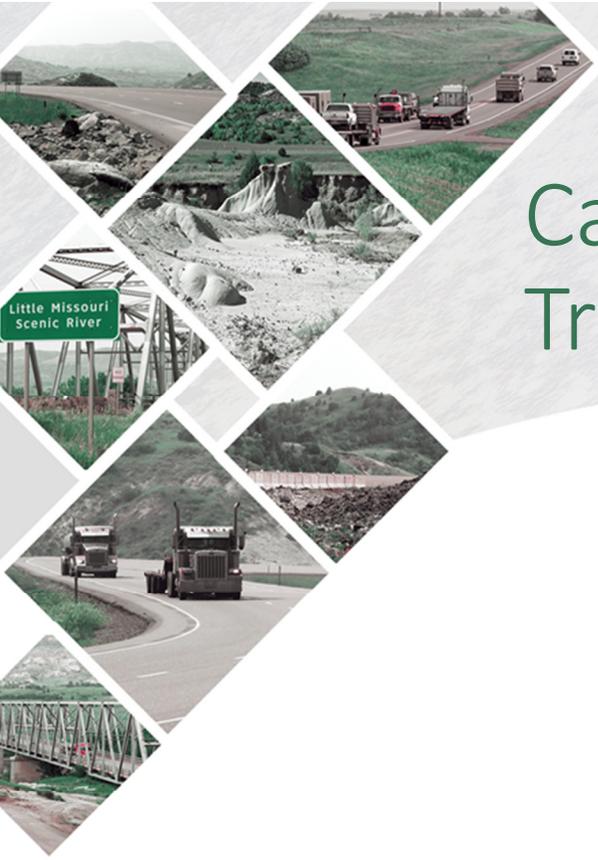
Little Missouri Scenic River

*Existing 4-Lane Infrastructure*



# Safety

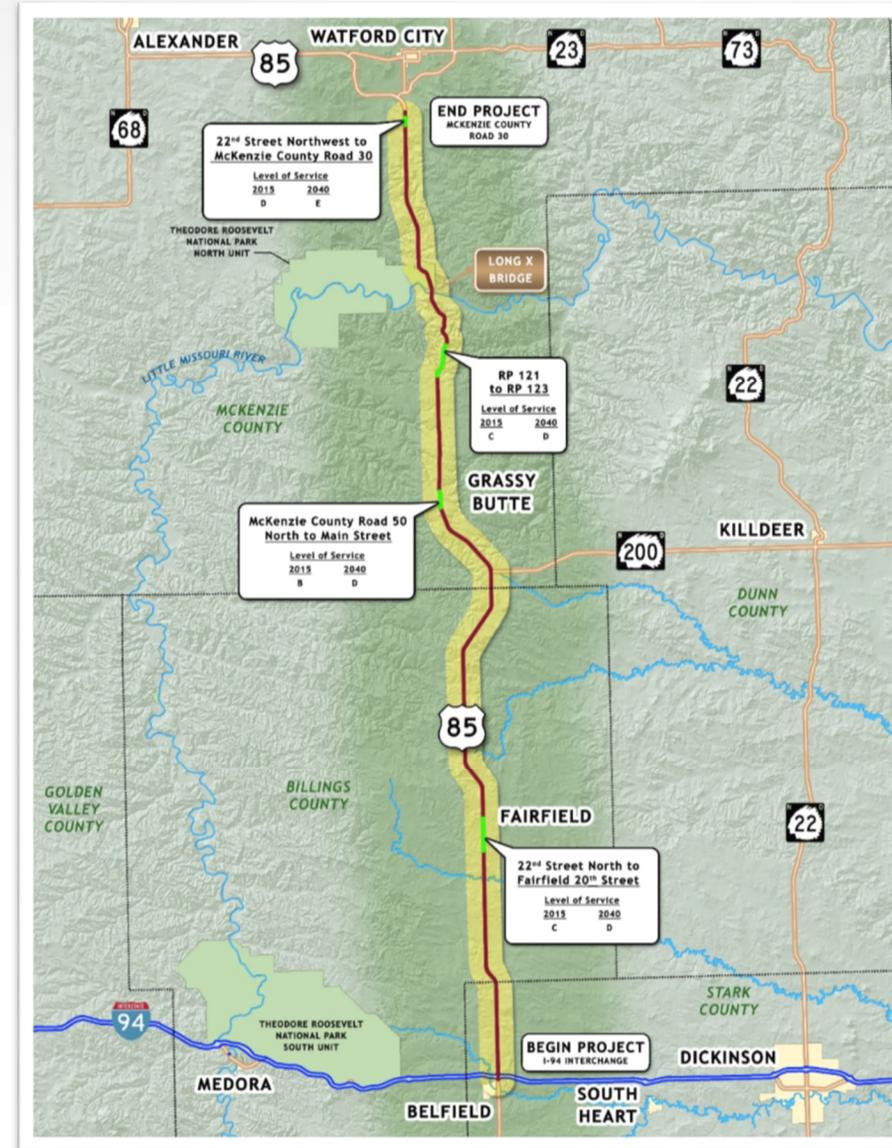




# Capacity/ Traffic Volumes

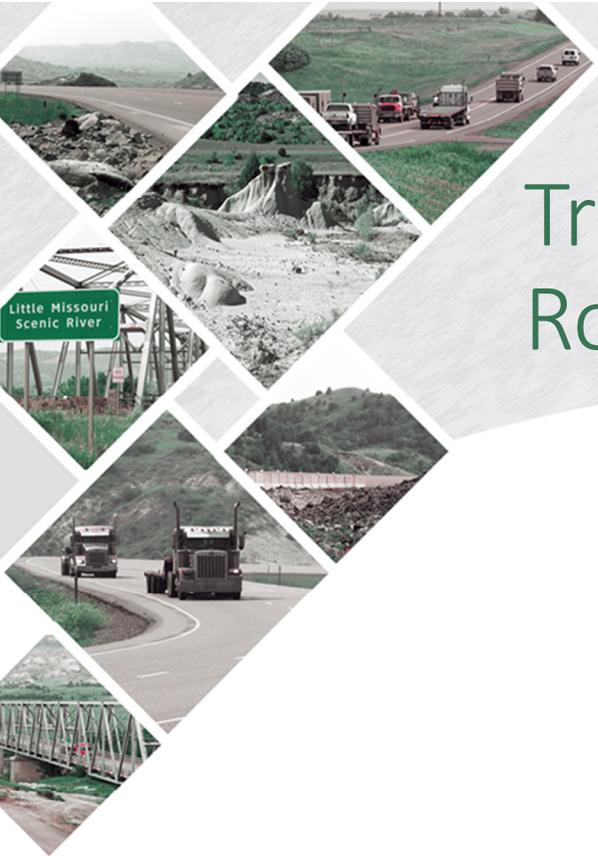
<p><b>LOS A</b></p>  <p>Free-flow operations at average speeds, vehicles are unimpeded in maneuvering within traffic stream</p>	<p><b>LOS B</b></p>  <p>Relatively unimpeded at average travel speeds, only slightly restricted maneuvering within traffic stream</p>	<p><b>LOS C</b></p>  <p>Relatively stable traffic operations, more restricted maneuvering at mid-block locations than LOS B. Individual cycle failures at traffic signals may begin to appear</p>
<p><b>LOS D</b></p>  <p>Small increases in traffic flow may cause substantial delay and decrease in travel speed, congestion and individual cycle failures at traffic signals are more noticeable as vehicles stop</p>	<p><b>LOS E</b></p>  <p>Poor travel speeds with slow progression and high delay, individual cycle failures at traffic signals occur frequently</p>	<p><b>LOS F</b></p>  <p>Extremely slow travel speeds with queues forming behind breakdowns, brief periods of movement are followed by stoppages, considered unacceptable to most drivers</p>

Source: 2000 Highway Capacity Manual, Transportation Research Board, 2000 and Corporation



# Transportation Demand/ Roadway Classification

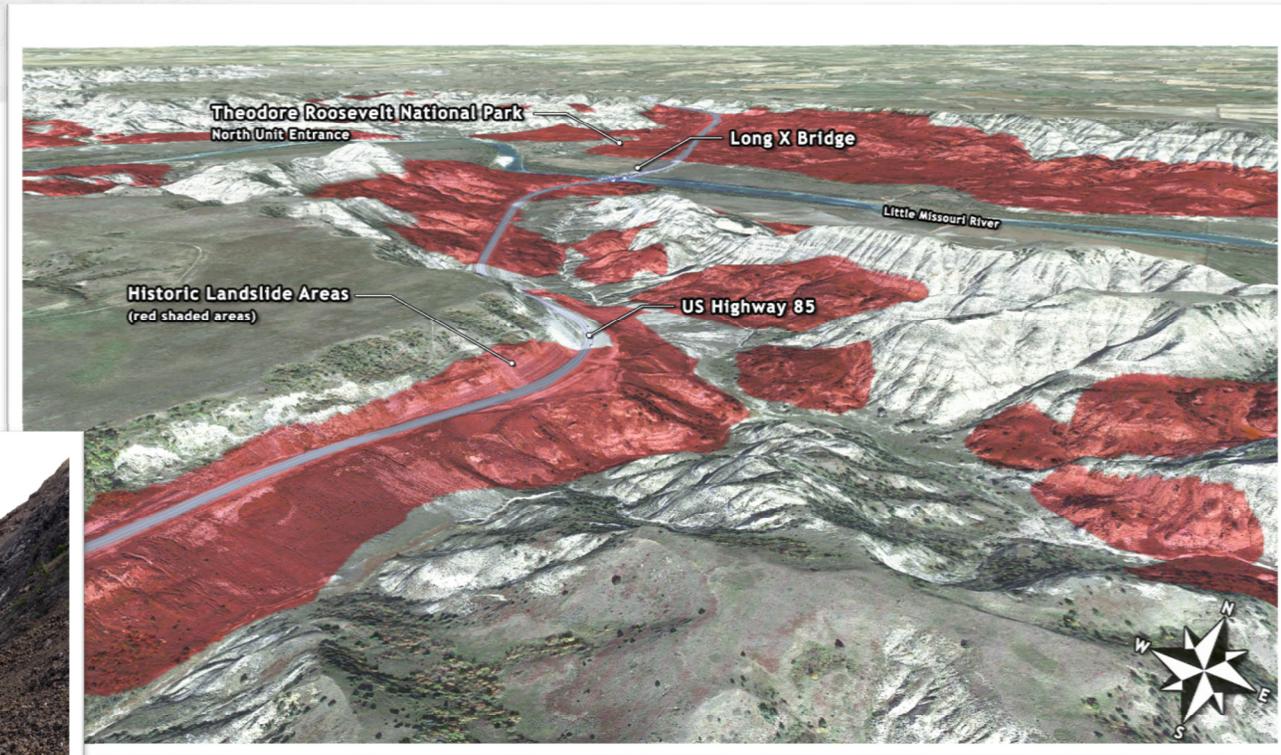
- › Part of the National Highway System
- › Classified as a Interregional System
  - High degree of mobility and reliability to support economic development
- › High Priority Corridor & Ports to Plains Alliance
  - Theodore Roosevelt Expressway



# Slope Instability/Landslides

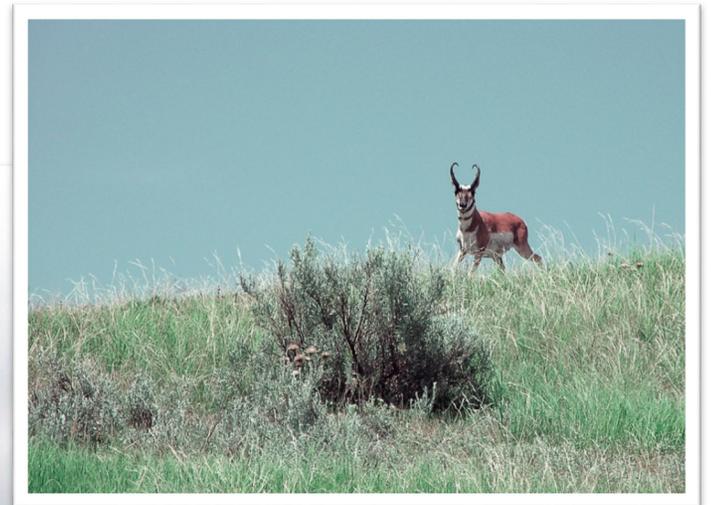
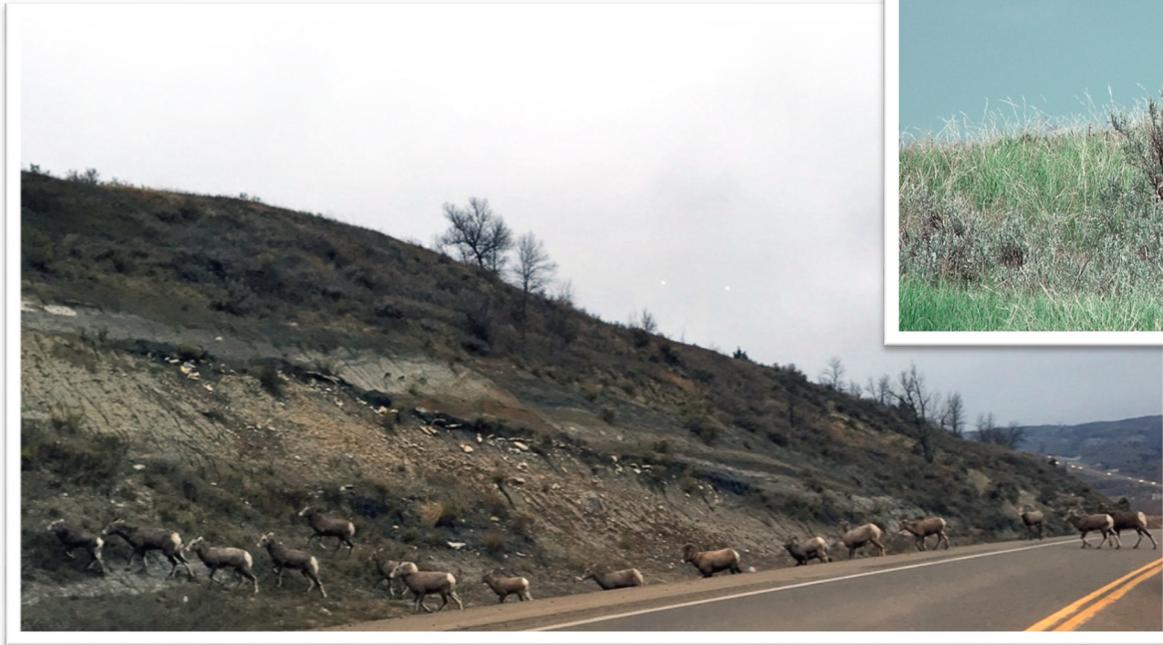


Little Missouri Scenic River



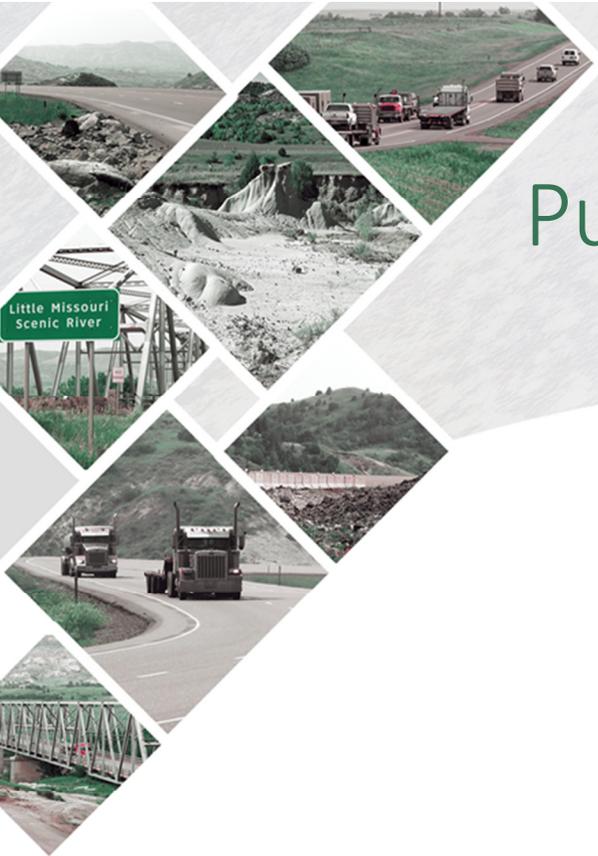
*Jersey barrier along roadway in landslide area*

# Ecological Connectivity



# Purpose of the Proposed Project

- › Address social demands created by the rise in traffic volumes and facilitate economic development within the region
- › Accommodate a mix of industrial, agricultural and passenger traffic (and oversized loads) and ample passing opportunities
- › Improve system linkage within the region and the state
- › Improve safety
- › Provide highway capacity to accommodate current and future traffic volumes
- › Satisfy transportation demands with the US Highway 85 corridor
- › Improve roadway reliability by addressing height and width restrictions with the Long X Bridge; addressing slope stability/landslide issues
- › Reduce the potential for wildlife/vehicle-related crashes and minimize habitat fragmentation



# Status of Proposed Project



# Status of Project



*Aerial targets/aerial mapping*



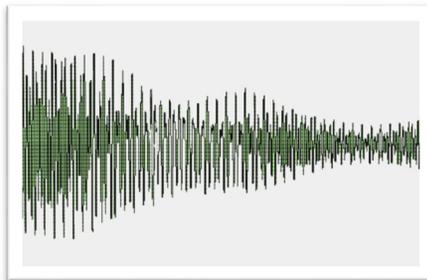
*Geotechnical investigations*



*Wetland delineations*



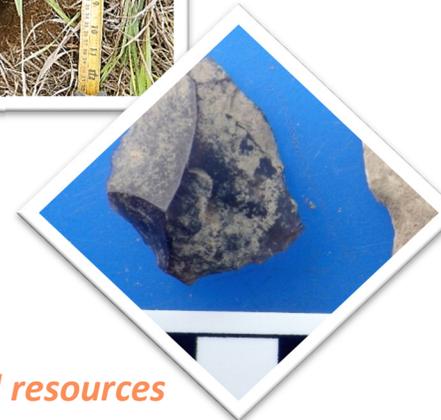
*Noise monitoring*



*Northern long-eared bat monitoring*

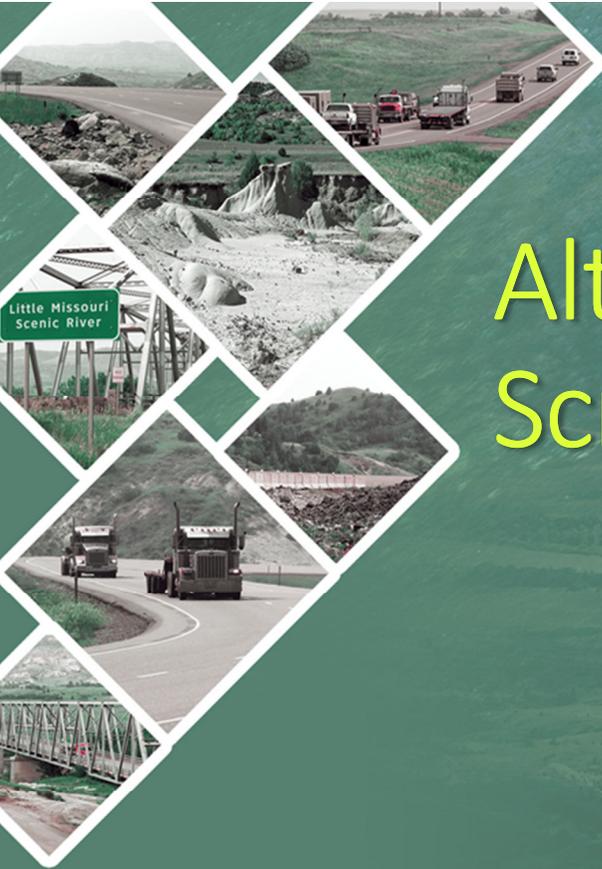


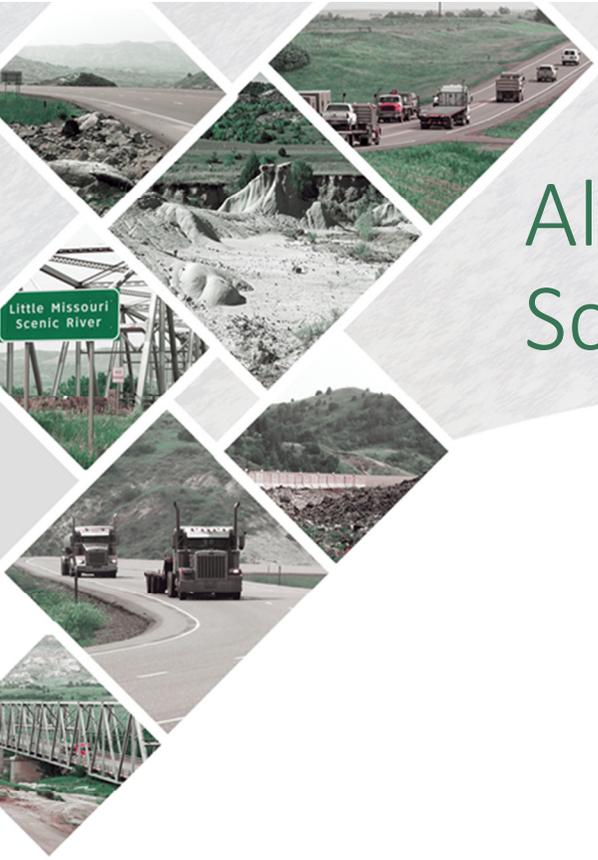
*Cultural resources*



An aerial photograph of a valley with a winding road and a bridge over a river. The landscape is green and hilly, with a road that curves through the valley and a bridge crossing a river. The text 'Alternatives Methodology & Screening' is overlaid in yellow on the left side of the image.

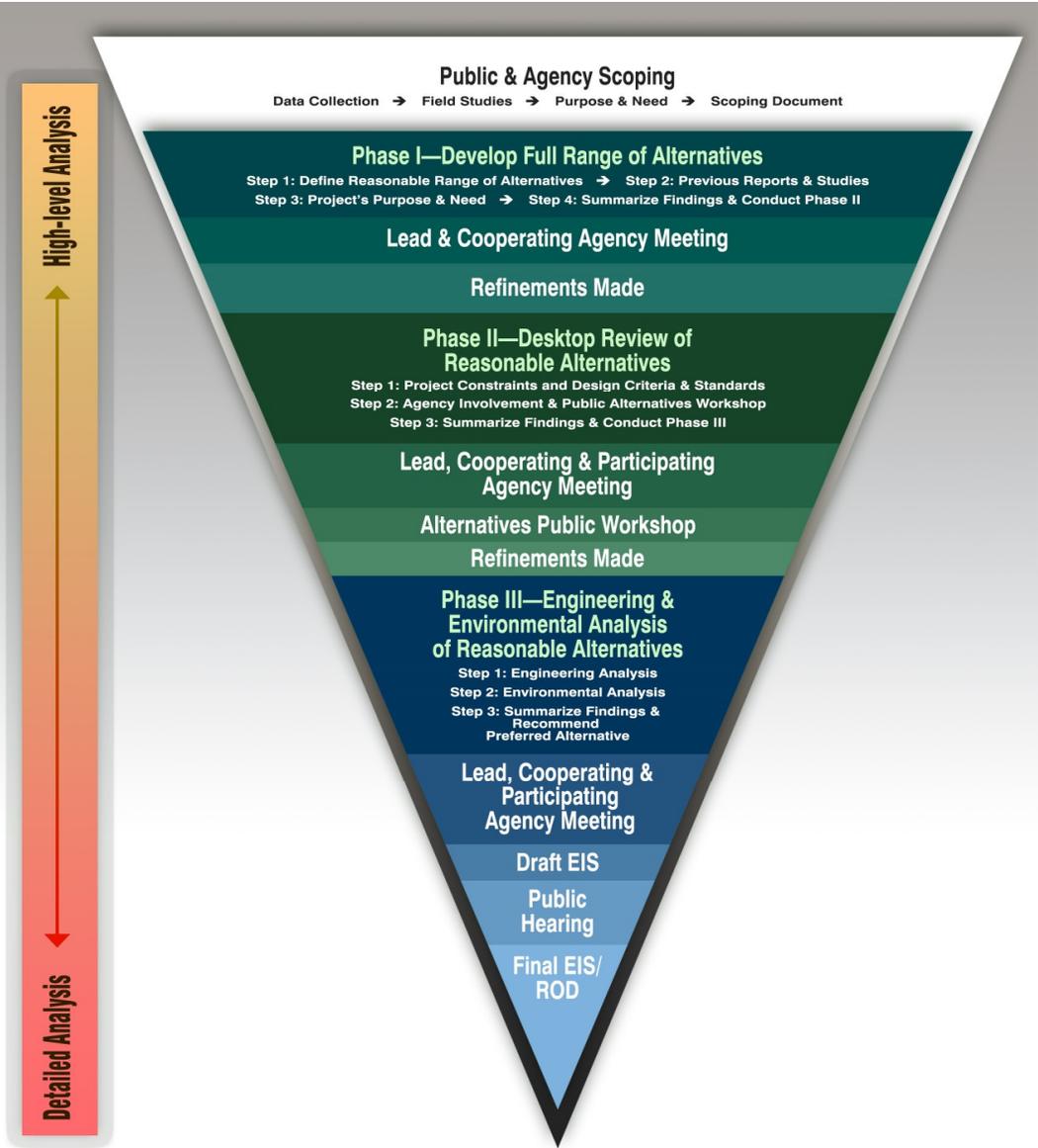
# Alternatives Methodology & Screening





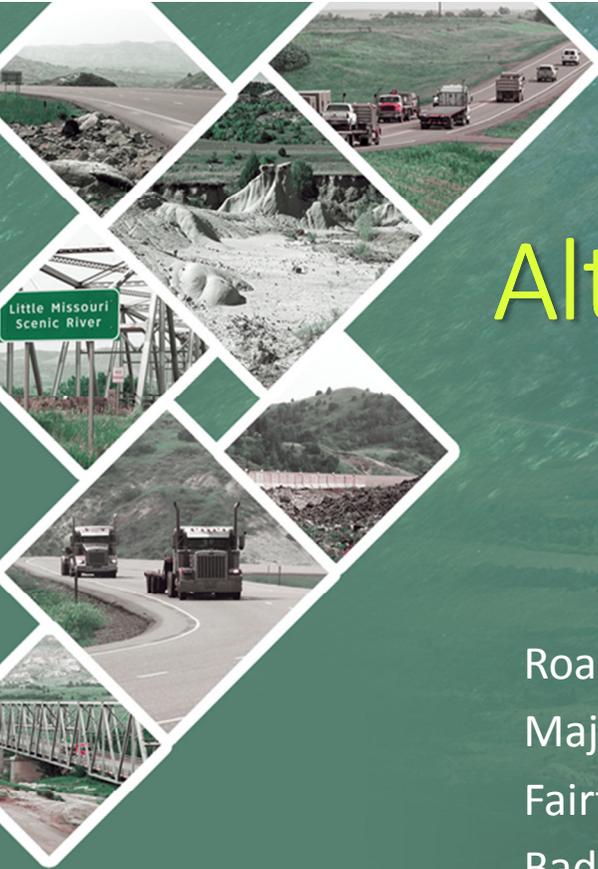
# Alternatives Methodology & Screening

- › Developed to document process of identifying, evaluating and advancing reasonable alternatives for further analysis
- › Three-phase screening process:
  - **Phase I – Develop Full Range of Reasonable Alternatives**
  - **Phase II – Desktop Review of Reasonable Alternatives**
  - **Phase III – Engineering & Environmental Impact Analyses of Reasonable Alternatives**

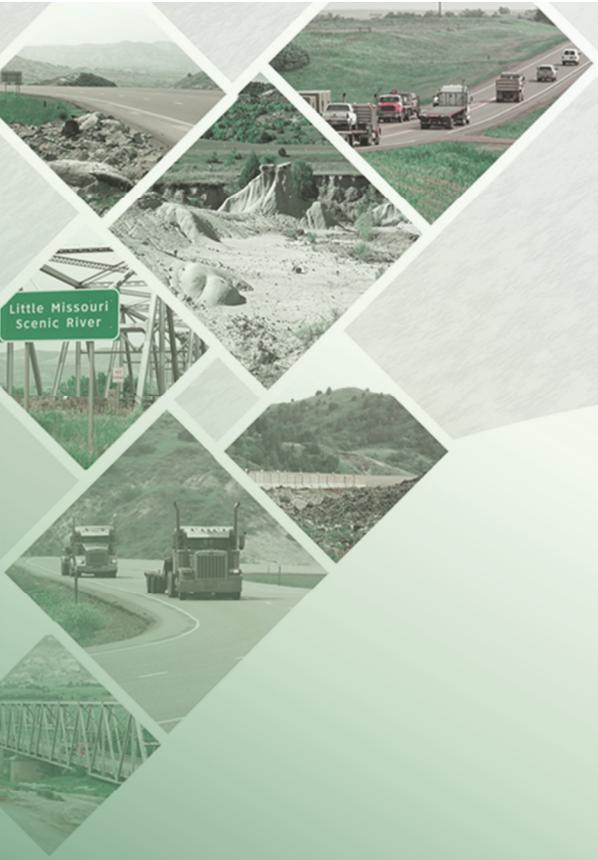


An aerial photograph of a valley with a winding road and a bridge. The landscape is green and hilly, with a river visible in the distance. The road curves through the valley, and a bridge crosses a small stream. The overall scene is a mix of natural beauty and infrastructure.

# Alternatives & Concepts

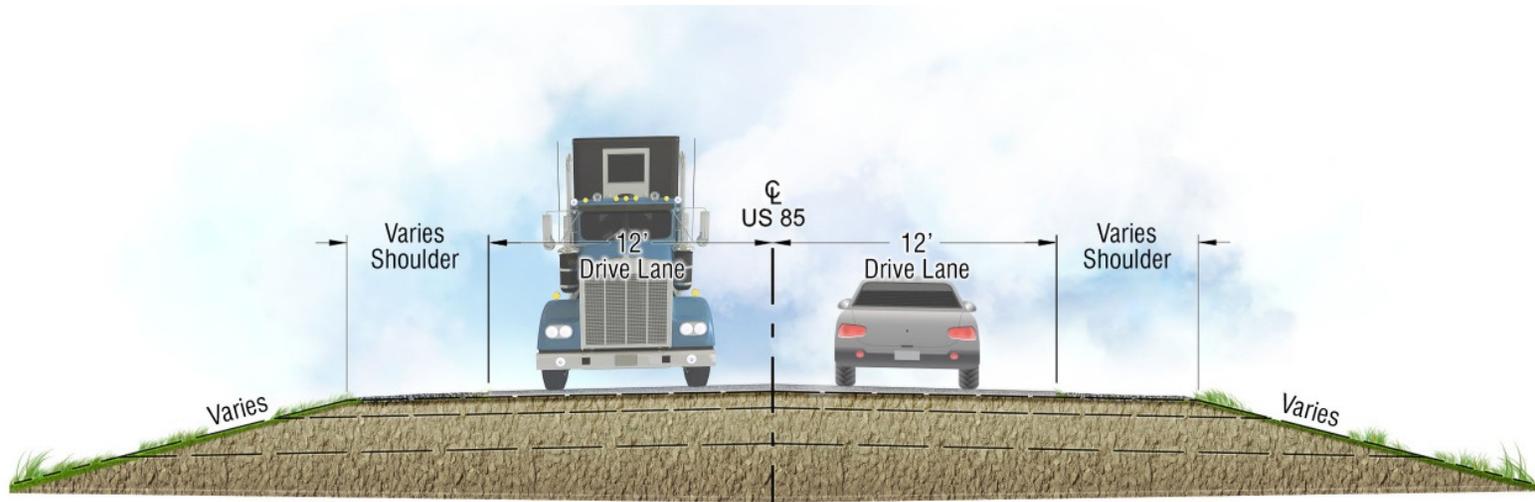
A collage of images related to transportation and infrastructure. It includes a road with several trucks, a bridge over a river, a road with two large trucks, and a road with a guardrail. The images are arranged in a diamond pattern.

Roadway Sections  
Major Intersections  
Fairfield  
Badlands  
Long X Bridge  
Trail  
Wildlife Crossings/Accommodations

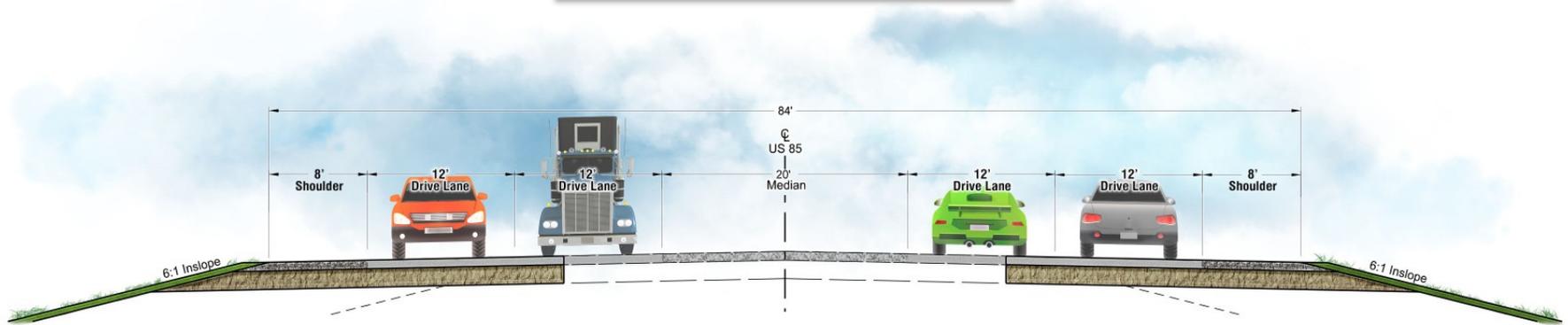


# *Roadway Section Alternatives*

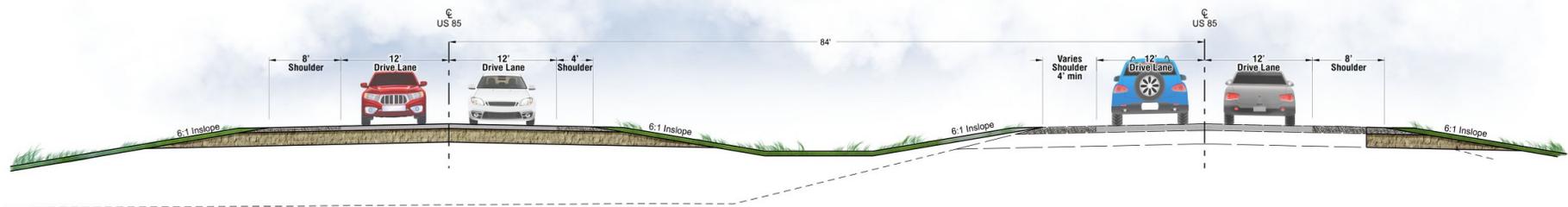
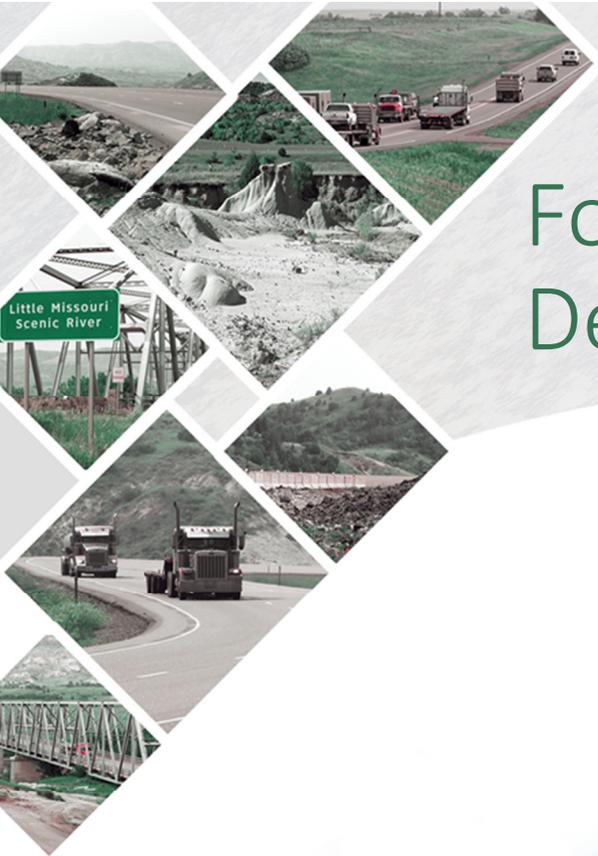
# Existing Typical Section

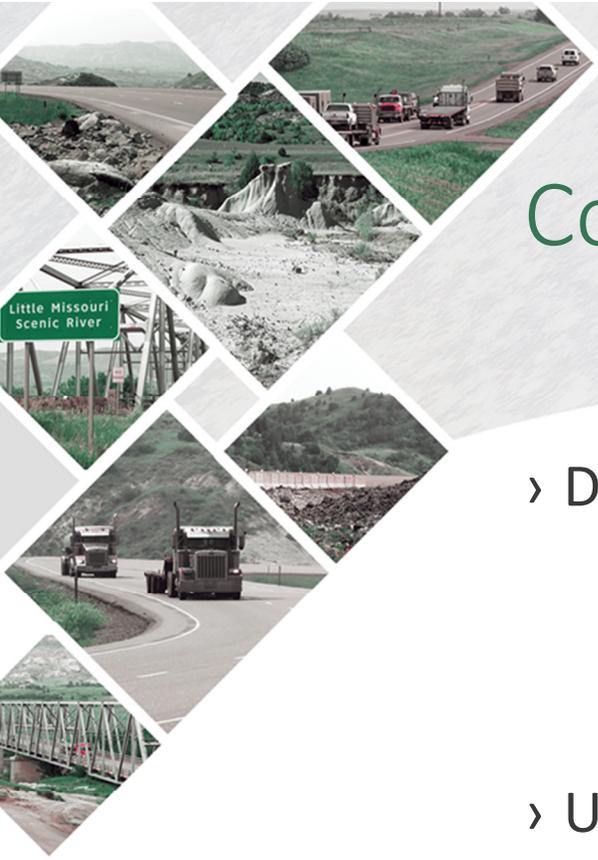


# Four-Lane Divided – Flush Median



# Four-Lane Divided – Depressed Median



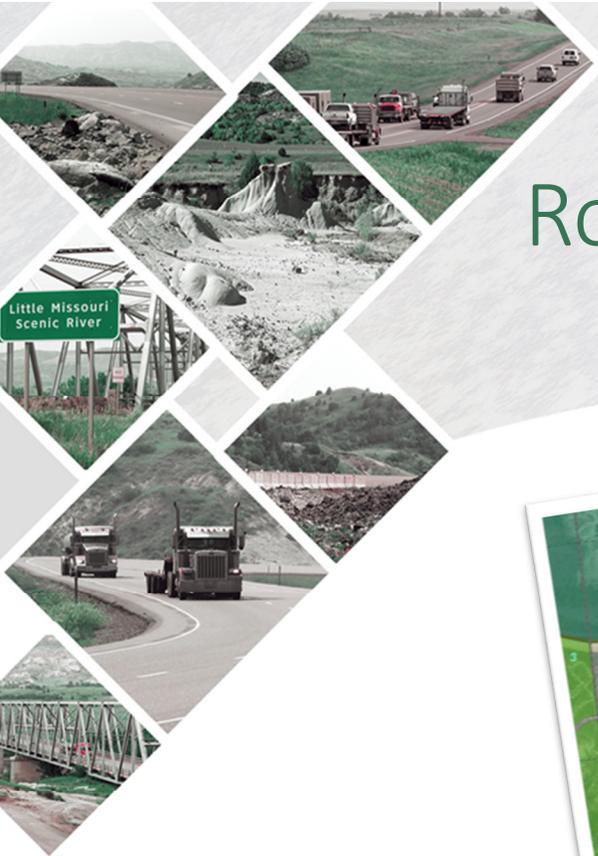


# Constraints

- › Developed properties
  - Residents
  - Farmsteads
  - Businesses
  - Industries
- › Utilities
- › Cultural resources
- › Wetlands

- › USFS Management Areas
- › Section 4(f) Properties
- › TRNP
- › Threatened, endangered, proposed, candidate & sensitive species

# Roadway Maps

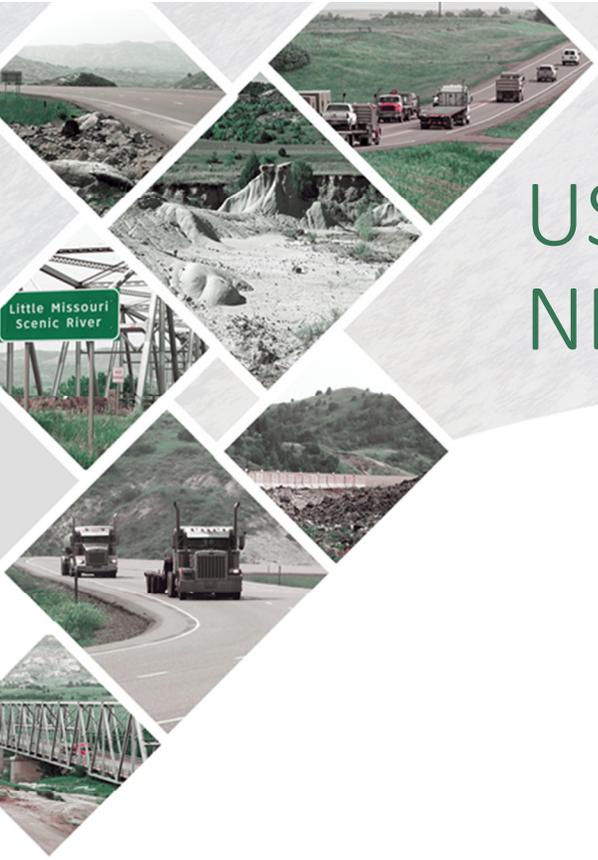




## *Major Intersection Alternatives*

# I-94 Interchange Geometry





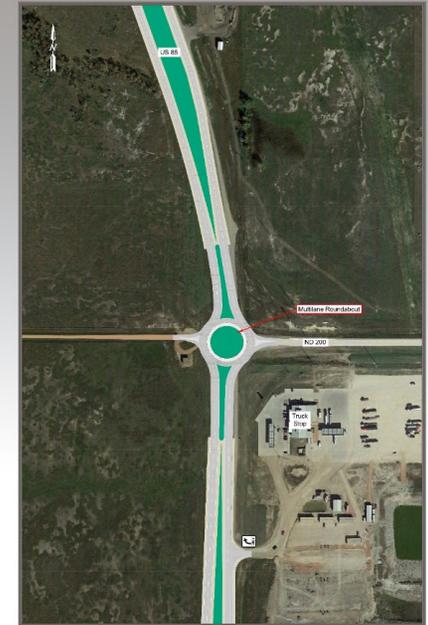
# US Highway 85/ ND Highway 200 Intersection



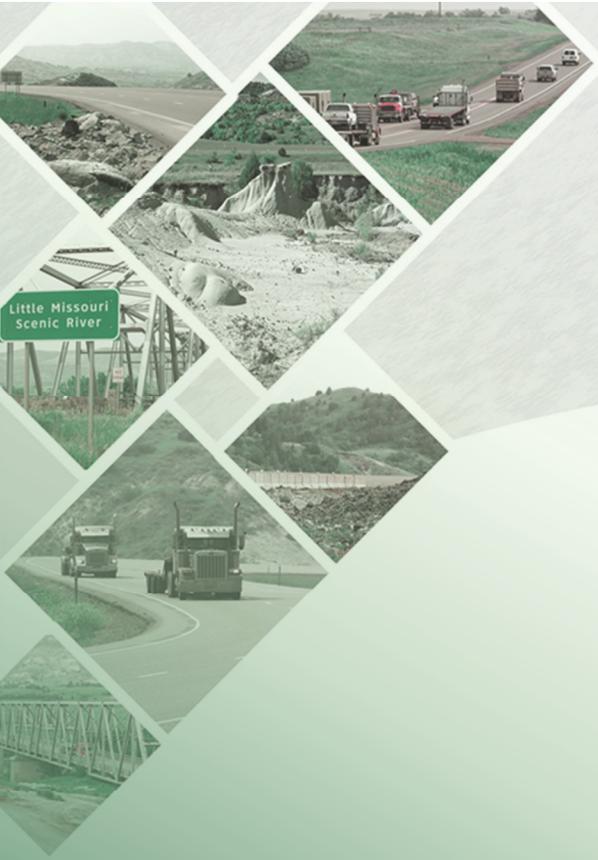
**Standard Intersection**



**J-Turn Layout**



**Multilane Roundabout**

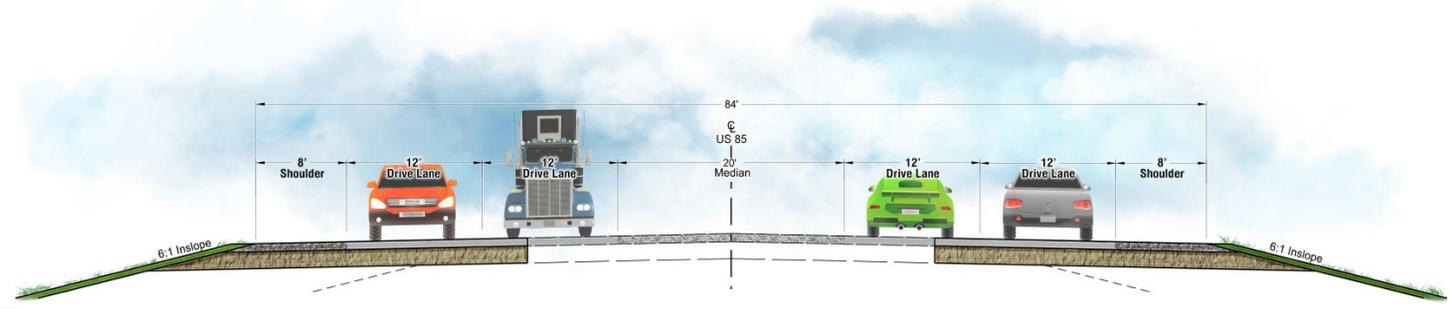


# *Fairfield Alternatives*

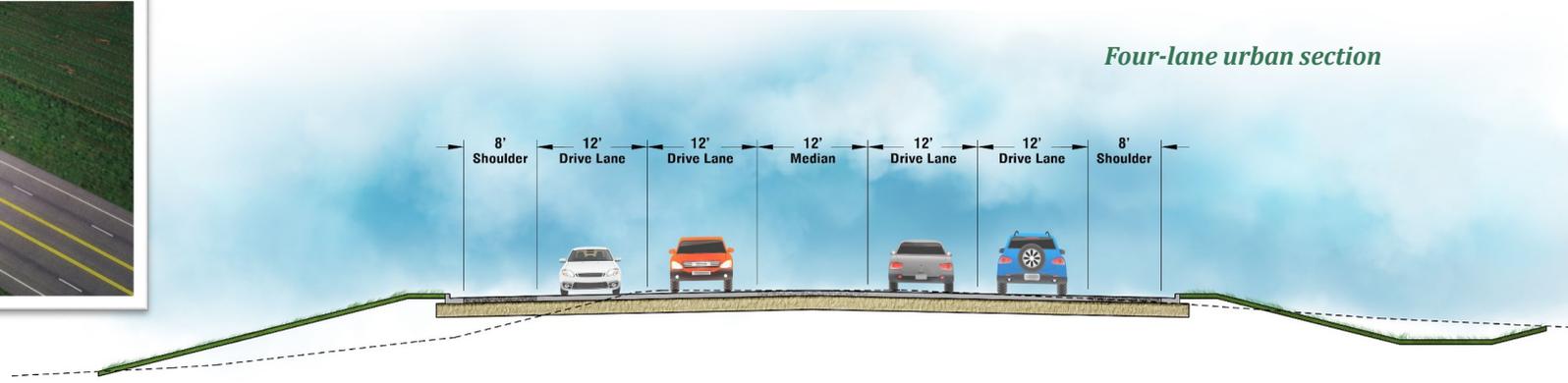
# Alternatives on Existing Alignment



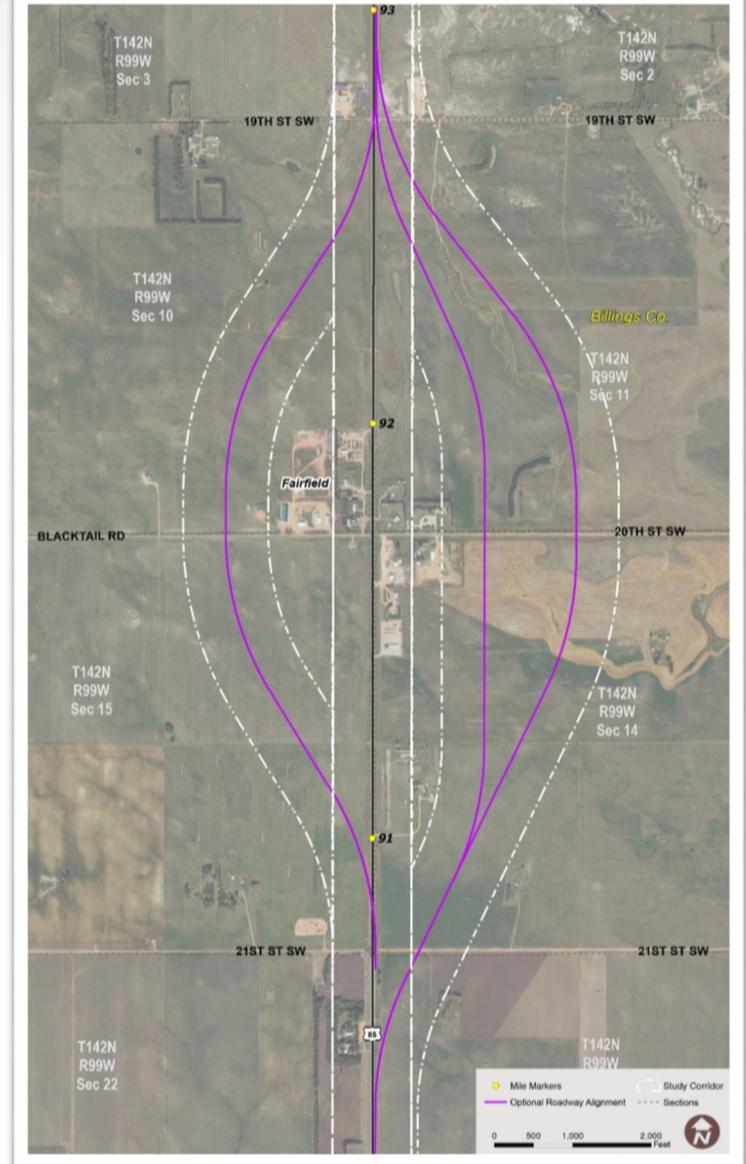
*Four-lane divided flush median*

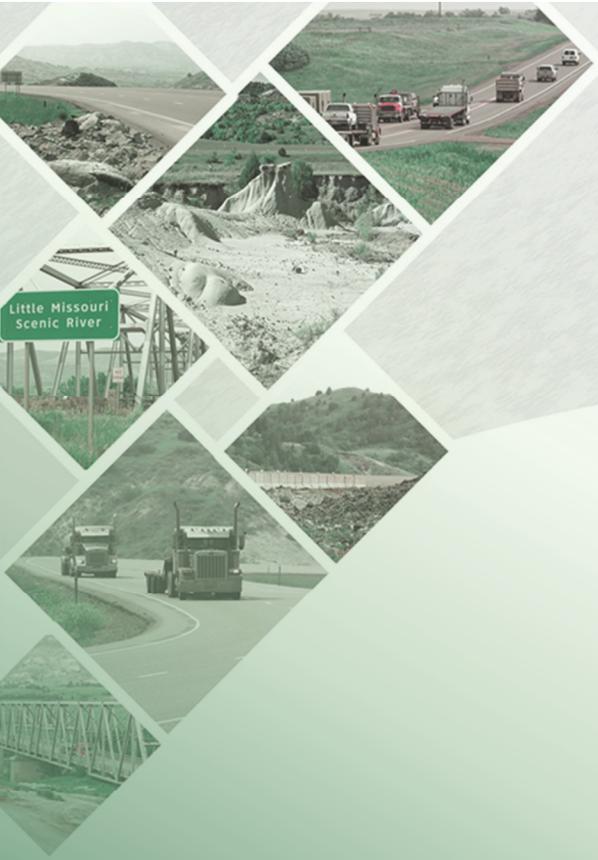


*Four-lane urban section*



# Bypass

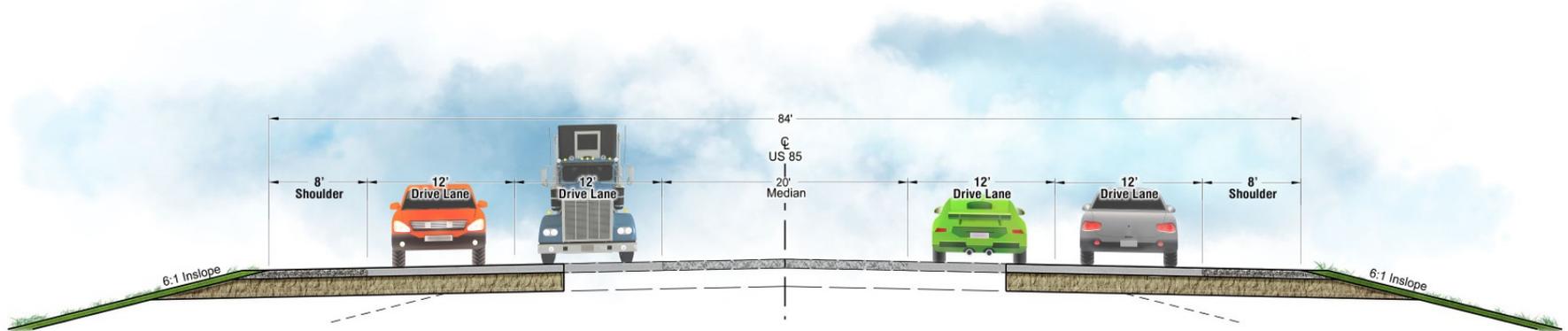




## *Badlands Alternatives*

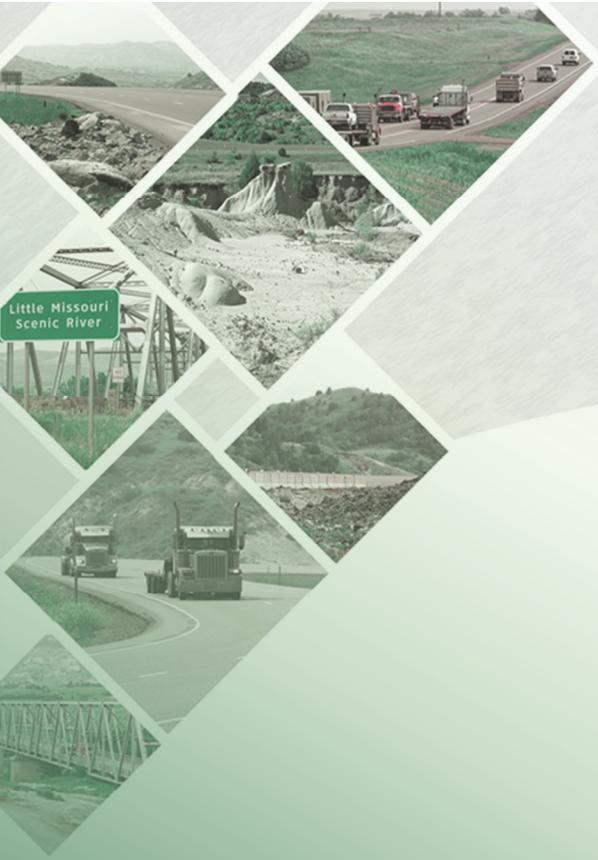
# Four-Lane Divided – Flush Median

› Varies 4–20'



# Badlands Simulation



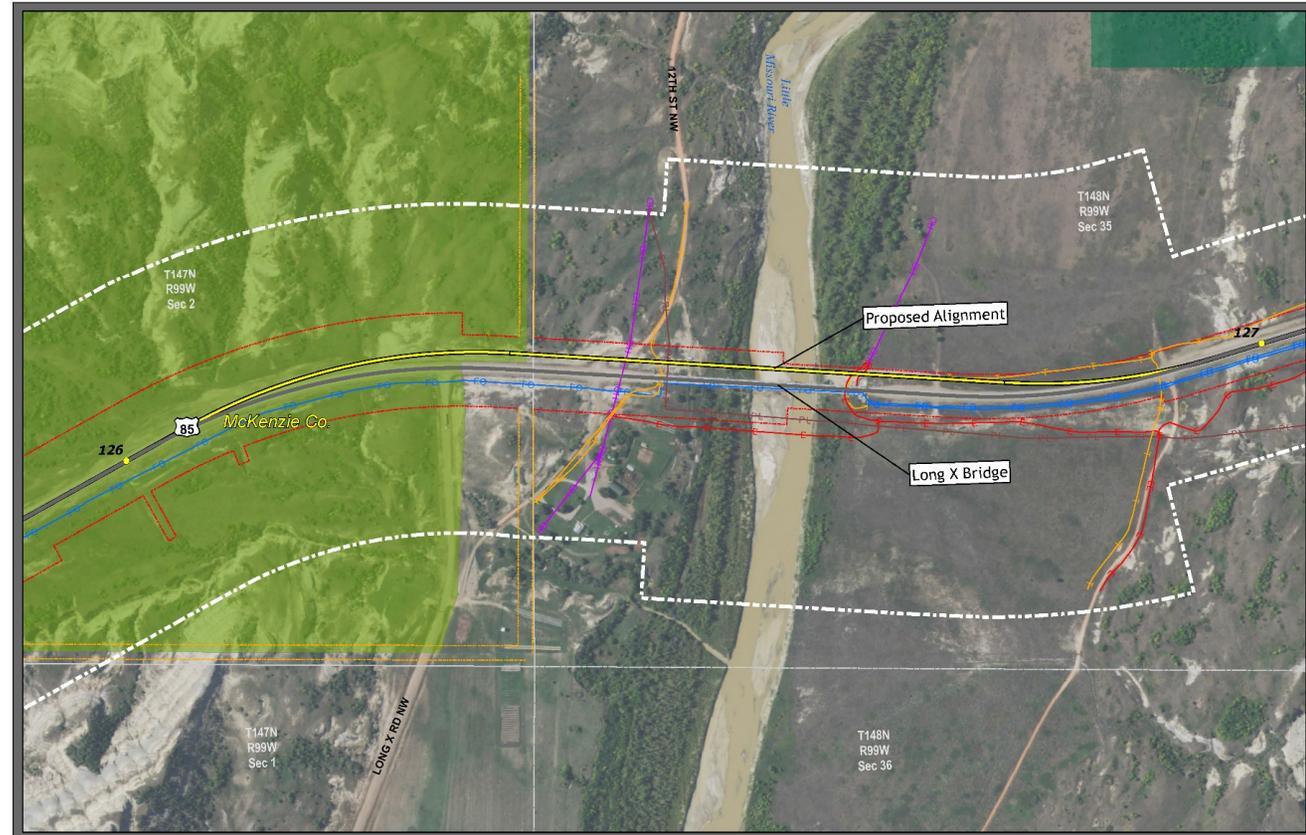


# *Long X Bridge Alternatives*

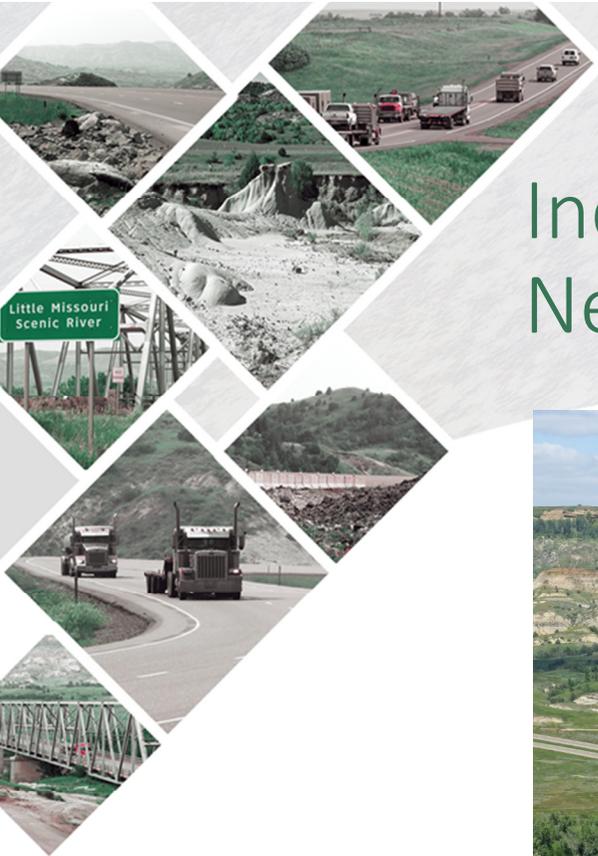
# Constraints



- › Farmstead
- › Slope Stability
- › Utilities



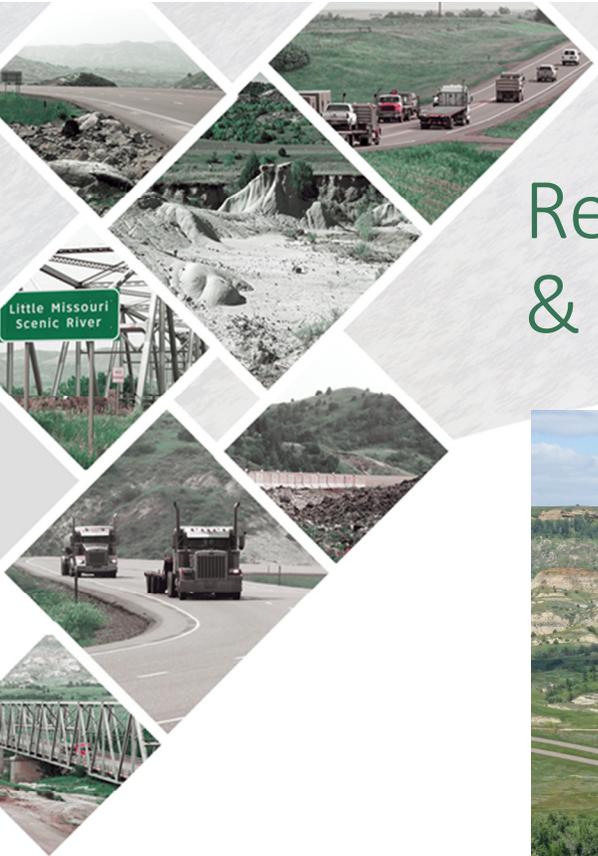
# Increase Vertical Clearance & Construct New Two-Lane Bridge Adjacent



# Increase Vertical Clearance & Construct New Two-Lane Bridge Adjacent



# Retain Existing Bridge for Alternative Use & Construct Four-Lane Bridge Adjacent



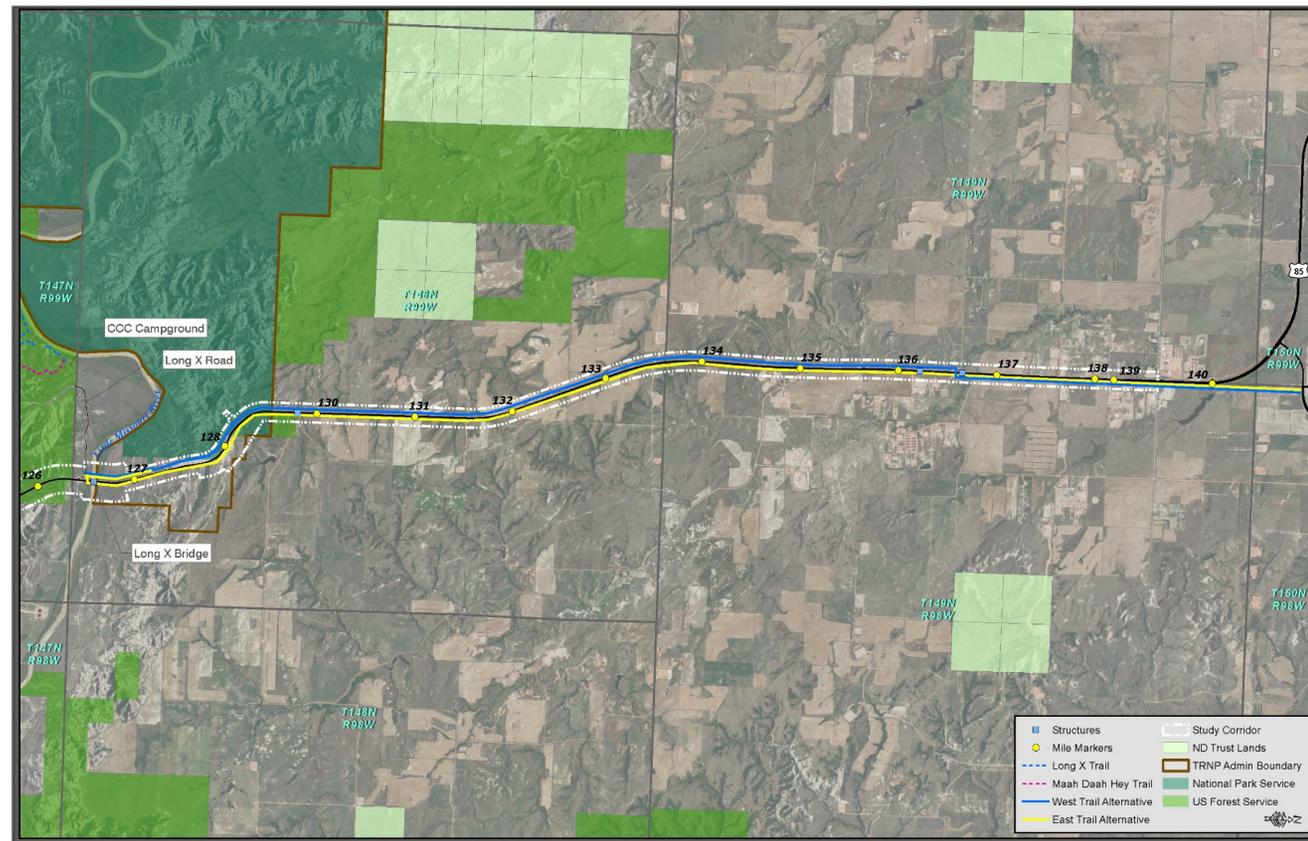
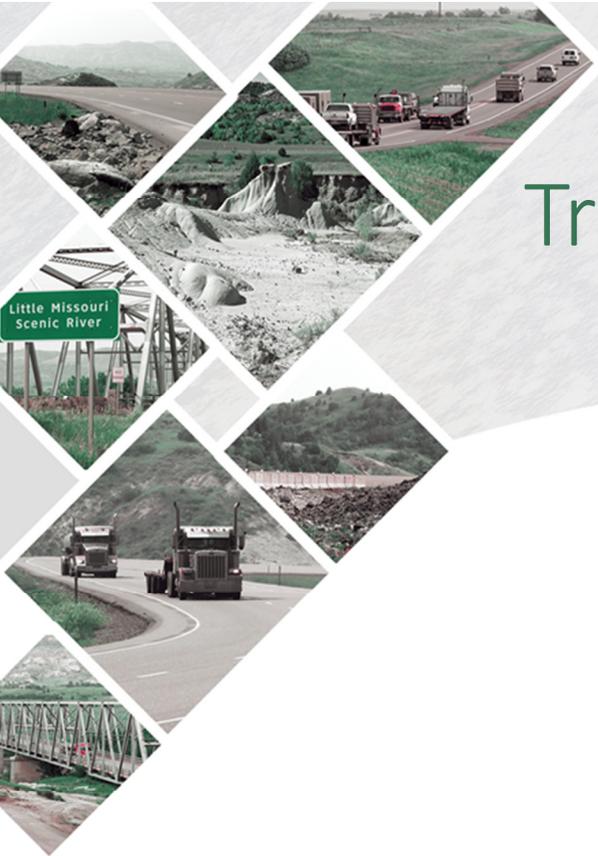
# Remove & Replace Existing Bridge with New Four-Lane Bridge



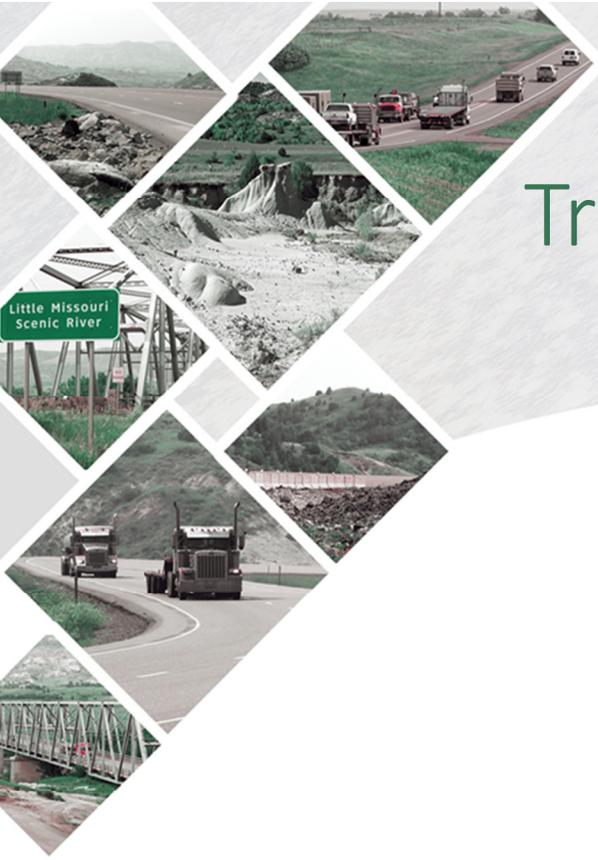


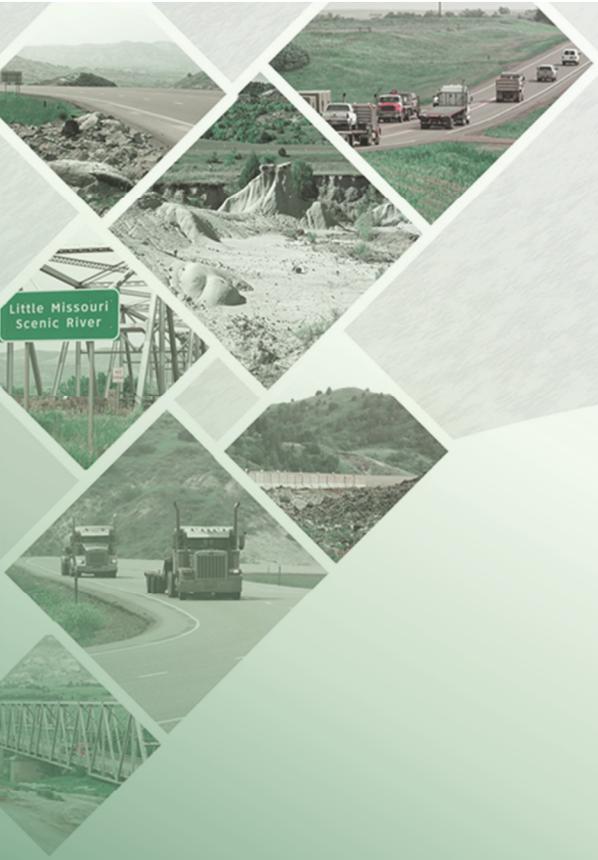
## *Trail Concepts*

# Trail Concepts



# Trail Typical Section





## *Wildlife Crossings/Accommodations*

# Wildlife Crossing/Accommodation Examples



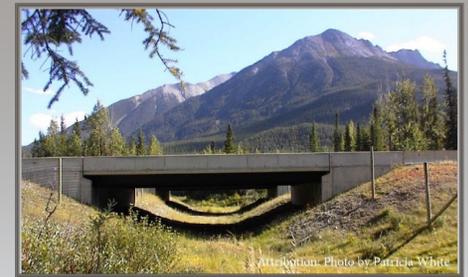
Attribution: Photo by Scott Sprague, AZGFD

**Wildlife Overpass Crossing**



Attribution: Photo by Trishla White

**Large Mammal Underpass Crossing – Culvert**



Attribution: Photo by Patricia White

**Large Mammal Underpass Crossing – Bridge**



Attribution: Photo by Cephas

**Wildlife Accommodation – Path beneath Bridge**



Attribution: Photo by CODOT.gov

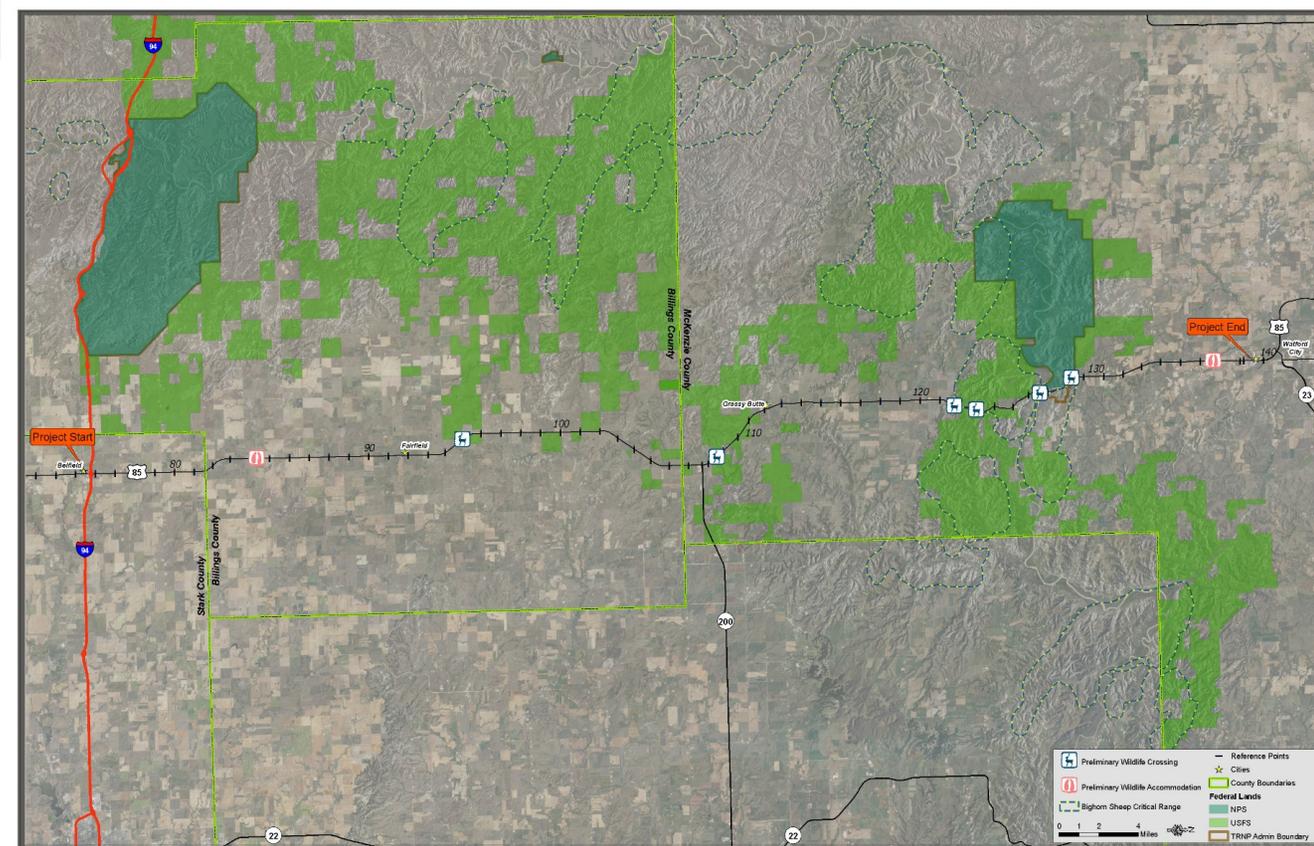
**At-Grade Wildlife Crossing with Detection System**



Attribution: Photo by John Beard

**Fencing and "Jumpout" Escape Ramp**

# Wildlife Data & Potential Crossings



# Process & Next Steps





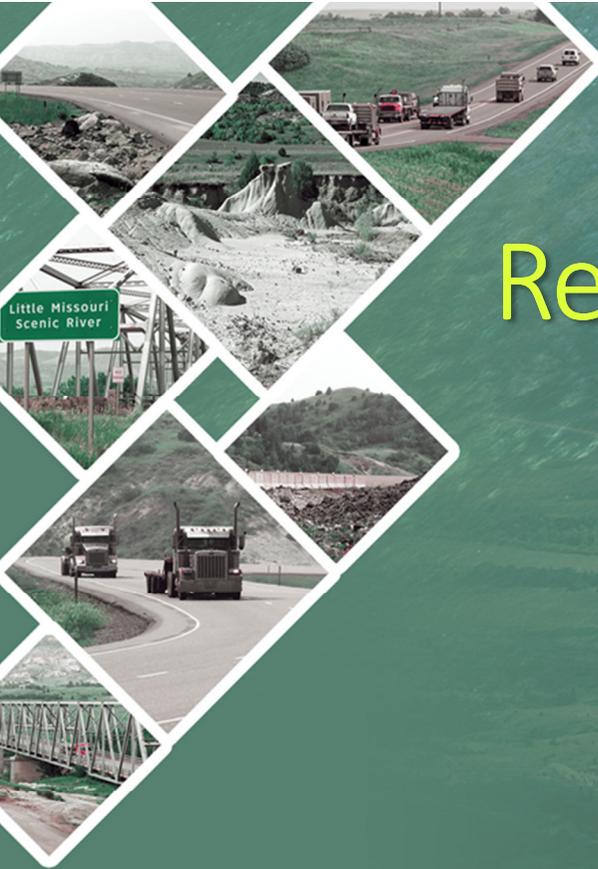
# Estimated Project Cost

Segment	Range of Estimated Costs (in millions)
Long X Bridge	\$50 - \$60 M
Long X Bridge to Watford City Bypass	\$140 M - \$170 M
ND 200 to Long X Bridge	\$290 M - \$350 M
I-94 to ND 200	\$350 M - \$420 M
<b>Total</b>	<b>\$830 M - \$1,000 M</b>

# Next Steps



# Receive Input & Questions





# Comments

- › Send or email comments by August 26, 2016 to:

Matt Linneman, Program Manager

Email: [mlynneman@nd.gov](mailto:mlynneman@nd.gov)

- › Visit the website for more information and to submit comments

- [www.nddotwilliston.com/85-project-watford-city-i94/](http://www.nddotwilliston.com/85-project-watford-city-i94/)

## U.S. HIGHWAY 85

### COMMENTS

I-94 Interchange to Watford City Bypass  
(McKenzie County Road 30)

Please use the space below to tell us your comments regarding the US Highway 85 Bypass. \*

PLEASE PRINT      Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

-THIS SPACE  
OFFICE USE ONLY-

Project Description

US 85/Watford City to I-94

Home / US 85/Watford City to I-94

The North Dakota Department of Transportation (NDDOT) in cooperation with Federal Highway Administration (FHWA) is initiating the environmental review process for a proposed project to four lane US Highway 85, approximately 6.2 miles, from the Interstate-94 Interchange to the Watford City Bypass (Co Road 30) in Stark, Billings, and McKenzie Counties. The proposed project will also consider rehabilitation or replacement of the historic Long X Bridge over the Little Missouri River.

Kadmas, Lee & Jackson, Inc. (KLIJ) has been contracted by the NDDOT to perform environmental study, preliminary engineering, and surveying for the project. Field studies are currently being conducted in the project area and letters have been sent to landowners notifying them of the work. If you have any questions or concerns about surveys or studies being conducted on your property please contact Nici Meyer at 701-250-5951 or [nici.meyer@klij.com](mailto:nici.meyer@klij.com).

Public scoping meetings will be held in November. Please visit this Latest News page for more information: <http://bit.ly/1Lm2w02>

Project Map

<http://www.nddotwilliston.com/85-project-watford-city-i94/>

Latest News and Updates

› Public Input Meeting

\* Please mail comments by August 26, 2016.

Send to: Matt Linneman, Program Manager  
 Environmental & Transportation Services  
 NDDOT  
 608 E. Boulevard Avenue  
 Bismarck, ND 58505-0700  
 Email: [mlynneman@nd.gov](mailto:mlynneman@nd.gov)

Note "Public Alternatives Workshop" in email subject line