

**ODOT**



**WELCOME**

**Public Meeting For SH-51 Over Baron  
Fork Creek  
In Cherokee County**

**September 24, 2013**

# TEAM INTRODUCTIONS

## ■ ODOT

- Darren Saliba - Division 1 Engineer
- Chris Wallace - Division 1 Construction Engineer
- Siv Sundaram - Environmental Programs
- Laurie Effinger - Division 1 NEPA Project Manager
- Bob Rusch - Bridge/Hydrology & Hydraulics
- Raul Gutierrez - Project Management
- Kurt Harms – Right-of-Way and Relocation
- Anjie King - Right-of-Way & Relocation
- Cody Boyd – Media & Public Relations
- Frank Roesler, III – Public Involvement Officer
- Clinton Tillette – Public Involvement Specialist



## ■ GARVER

- Jason Langhammer - Project Manager/Bridge Lead
- Jenny Sallee - Roadway Lead
- Kirsten McCullough - Public Involvement
- Kyle Williams - Roadway Design
- Lacee Stanley - Hydrology & Hydraulics



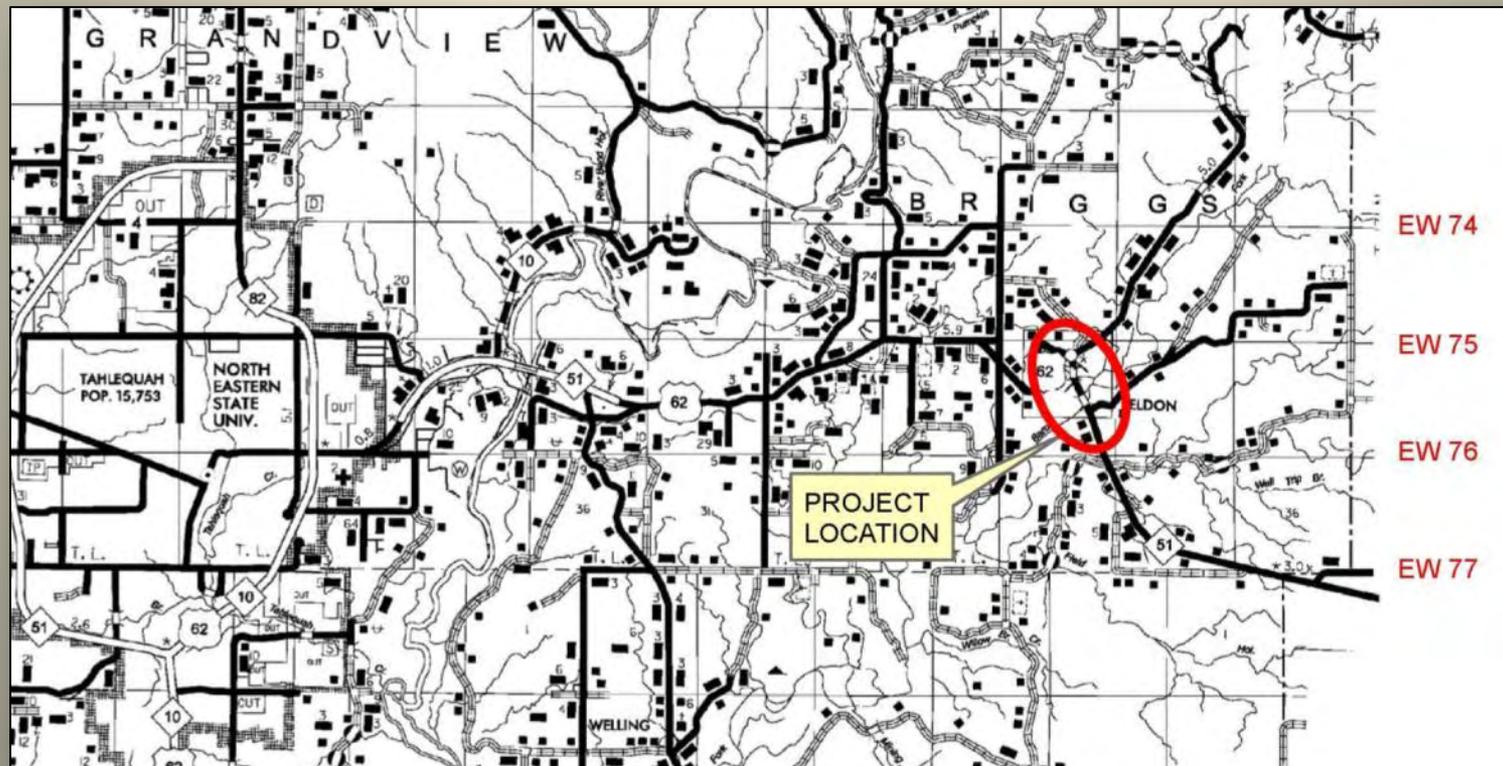
# PURPOSE OF THIS MEETING

**...is to Inform the Public and Solicit Comments  
About the Proposed Improvements to SH-51 Over  
Baron Fork Creek in Cherokee County**



# PURPOSE OF THIS MEETING *cont'd....*

...is to Inform the Public and Solicit Comments About the Proposed Improvements to SH-51 Over Baron Fork Creek in Cherokee County

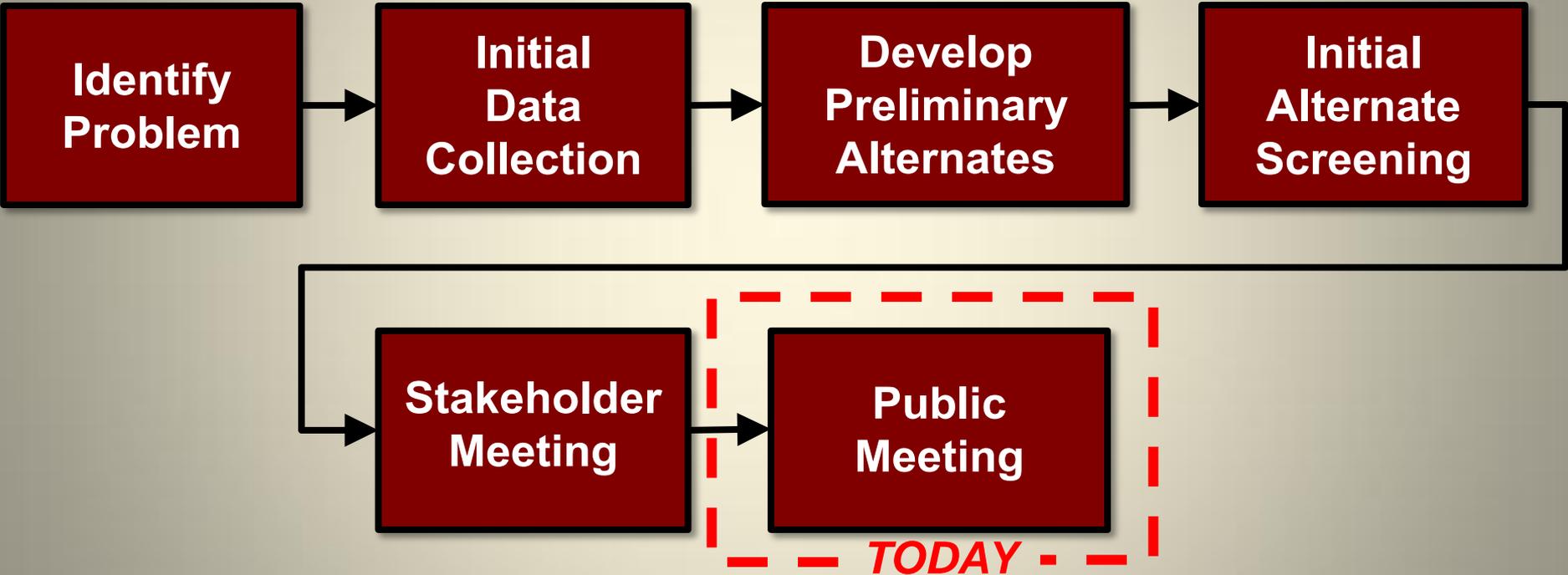


# PROJECT PURPOSE

- Correct the Structurally Deficient Bridge on SH-51 Over Baron Fork Creek
- Improve the Safety of the SH-51 Roadway and the Intersection at the SH-51/US-62 Junction



# PROJECT DEVELOPMENT PROCESS



# PROJECT AREA INFORMATION

## General Data

- 2 Lane Roadway Without Shoulders
- 2 Bridge Structures (Baron Fork Creek and Eldon Creek)
- Current Traffic: **3,800** Vehicles/Day (**5%** Trucks)
- Projected Traffic (2032): **5,320** Vehicles/Day

## Collision Data

- Total 18 Documented Accidents (2008-2012)
  - 12 Personal Property Damage
  - 6 Injury (7 Persons)
- THREE Times the State Average for Collisions
- More Than TWICE the State Average for Injury Collisions
- Designated Safety Corridor by Oklahoma Highway Patrol

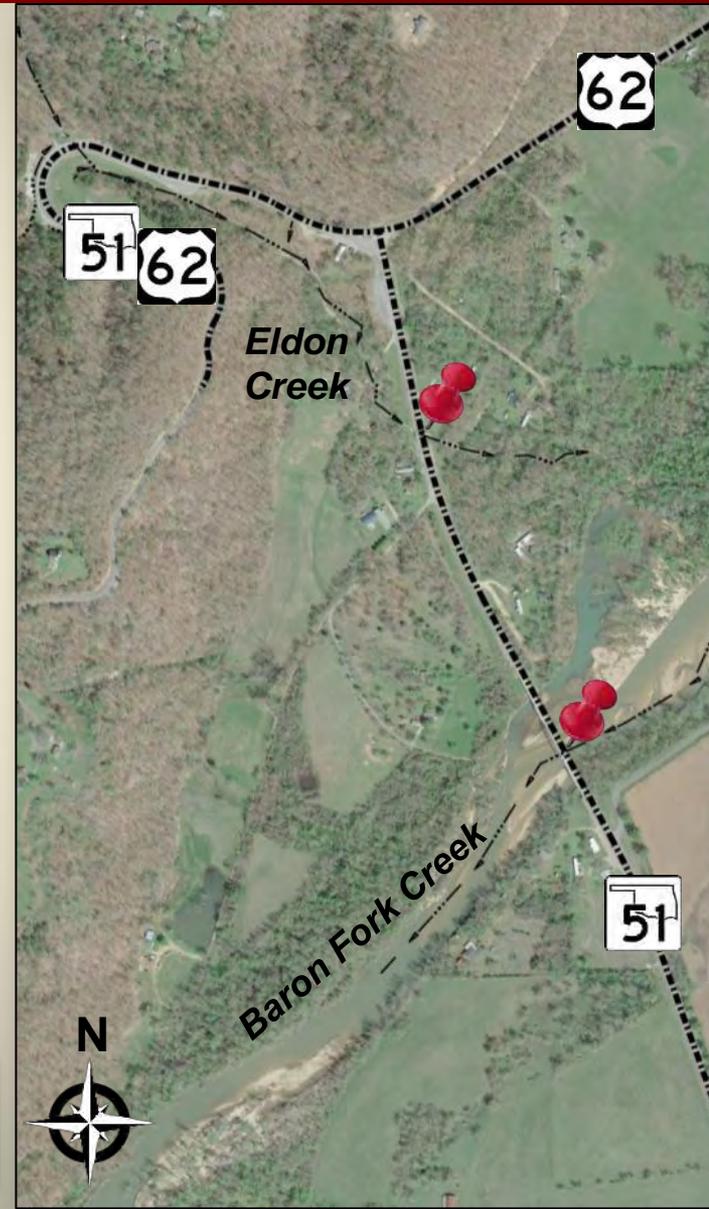


Identify  
Problem

Initial Data  
Collection

Preliminary  
Alternates

Alternate  
Screening



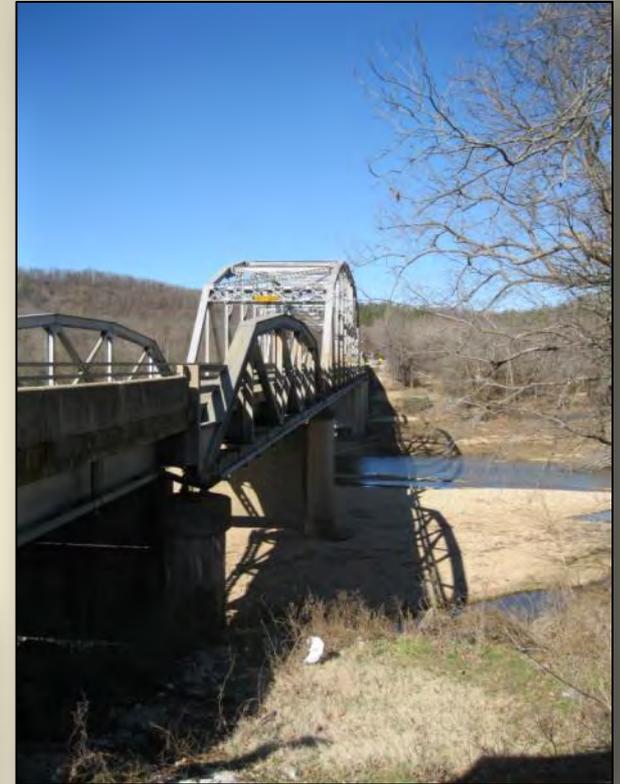
# EXISTING CONDITIONS WARRANT IMPROVEMENT

## ■ Bridge Deficiencies

- Existing Baron Fork Bridge is Structurally Deficient

## ■ Roadway Deficiencies

- Horizontal Curves (Superelevation)
- Junction Layout
- No Shoulders
- Limited Sight Distance
- Minimal Clear Zone



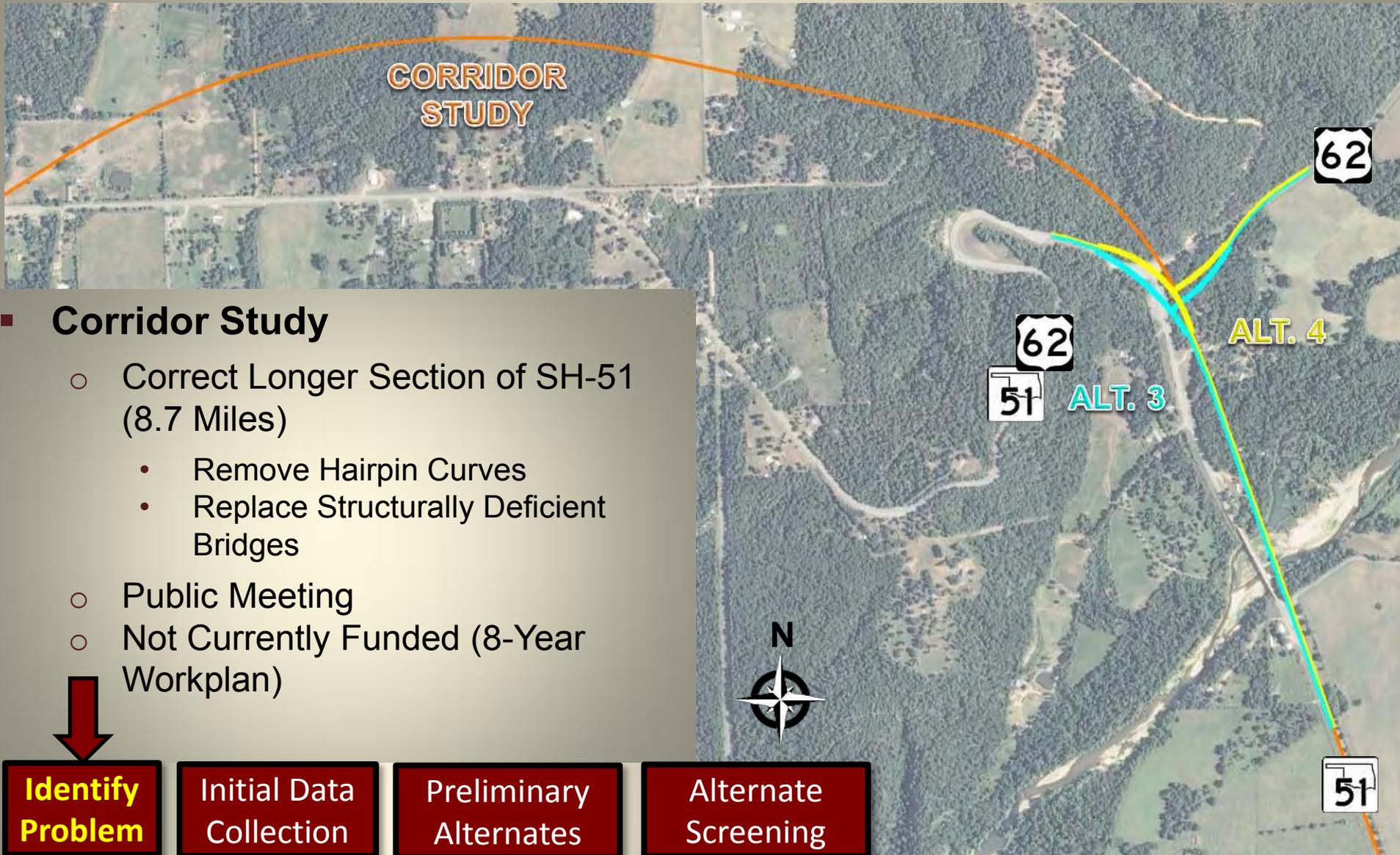
**Identify  
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Alternates**

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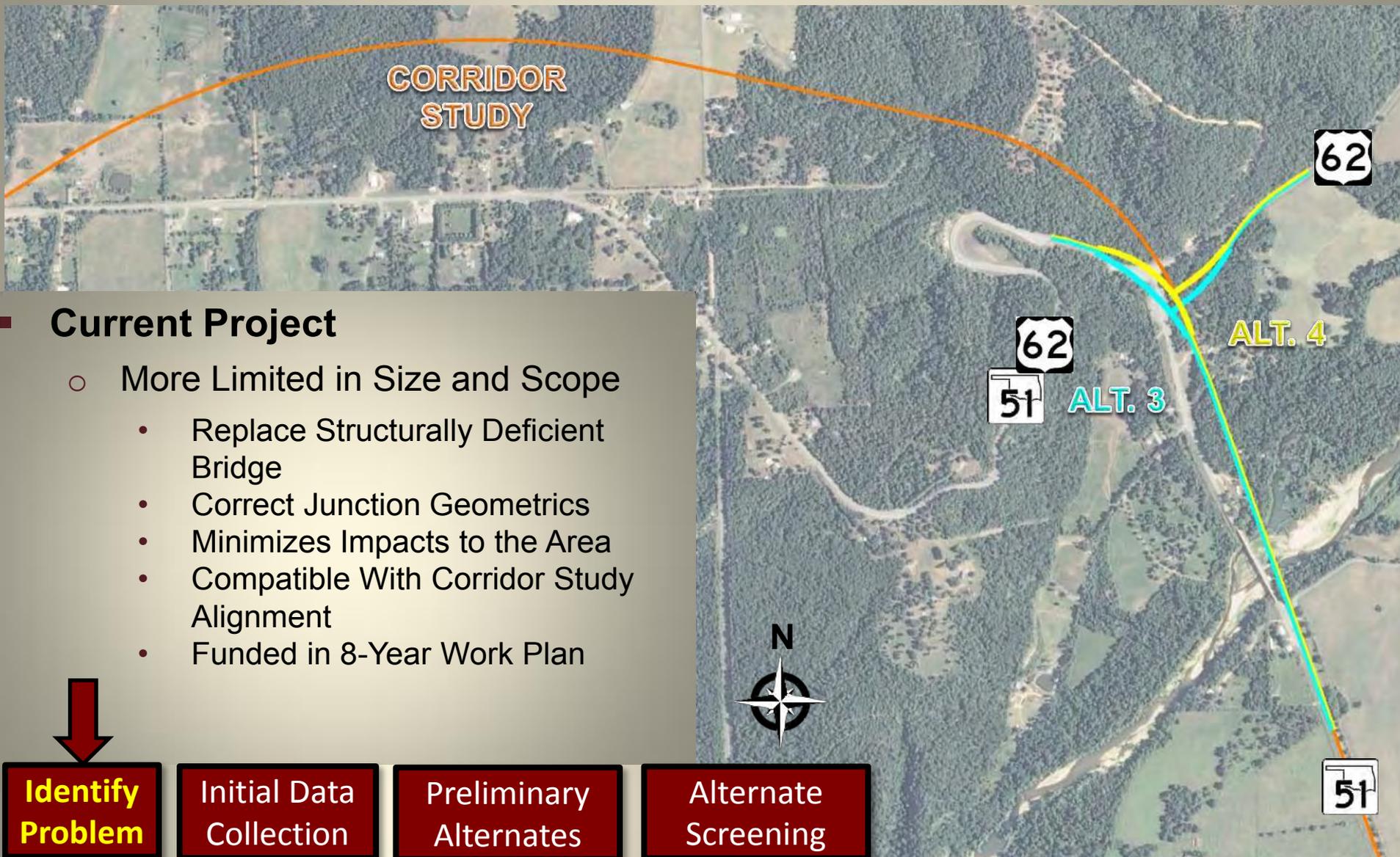
# PROJECT HISTORY



## Corridor Study

- Correct Longer Section of SH-51 (8.7 Miles)
  - Remove Hairpin Curves
  - Replace Structurally Deficient Bridges
- Public Meeting
- Not Currently Funded (8-Year Workplan)

# PROJECT HISTORY *cont'd....*



## Current Project

- More Limited in Size and Scope
  - Replace Structurally Deficient Bridge
  - Correct Junction Geometrics
  - Minimizes Impacts to the Area
  - Compatible With Corridor Study Alignment
  - Funded in 8-Year Work Plan



**Identify Problem**

Initial Data Collection

Preliminary Alternates

Alternate Screening



**DEVELOPMENT  
OF  
ALTERNATES**

# DEVELOPMENT OF ALTERNATES

## Project Area Constraints

- Mountainous Terrain
  - Eldon Hill
  - 240' Elevation Change
- Tie-In at Existing Grade
- Eldon Store - Landmark Building
- Maintenance of Traffic
- Baron Fork Creek and Eldon Creek - Part of Designated Scenic River
  - Potential Future Public Access



Identify  
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Screening

# DEVELOPMENT OF ALTERNATES *cont'd...*

## Proposed Design Criteria for all Alternates

- Existing Roadway Section - Substandard
- Roadway Typical Sections
  - Two 12' Lanes
  - 8' Shoulders
- Change Through Movement to SH-51
- Design Speed
  - Desired – 65 mph
  - Minimum – 50 mph
- Maximum Superelevation of 6%
- Left Turn Lane at SH-51/US-62



Identify  
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# DEVELOPMENT OF ALTERNATES *cont'd...*

## Developed Alternates

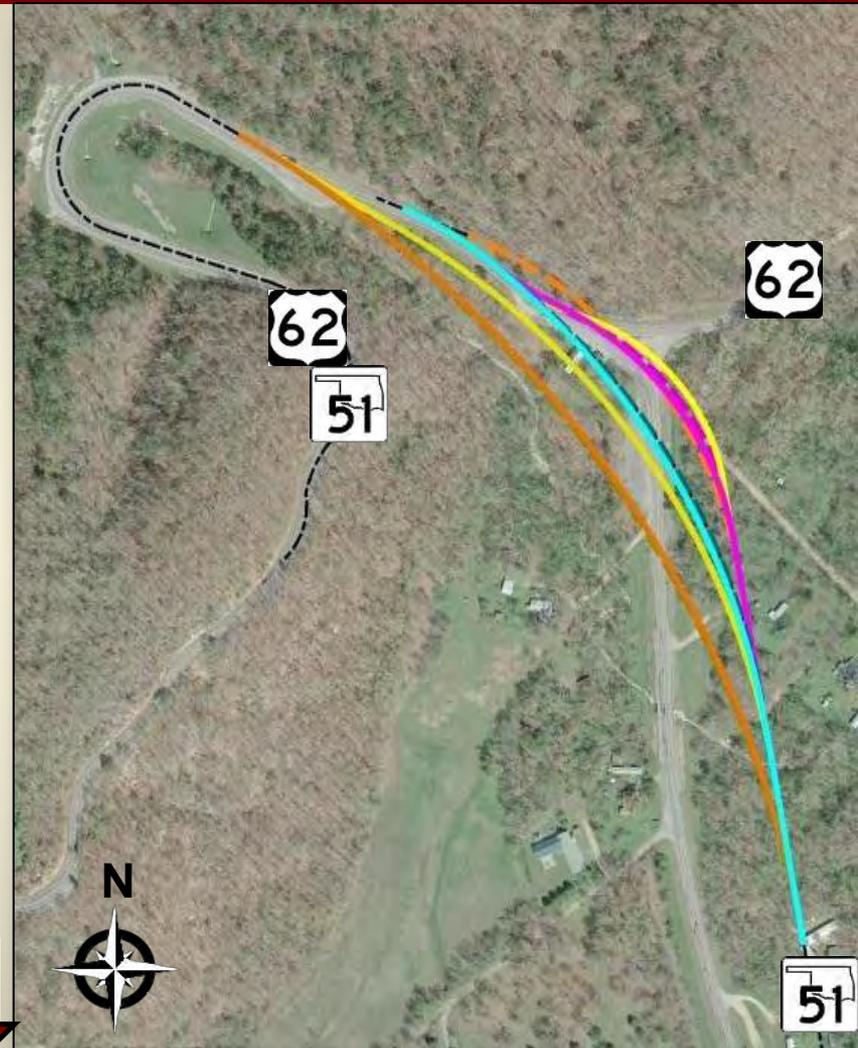
- Initially Considered **Nine** Alternates
  - Various Design Speeds (30-65 mph)
  - Various Curve Configurations (s=4%-6%)
- ODOT Meeting to Refine Design Criteria

## Evaluation Criteria

- Desired Speed
- Impacts to Eldon Hill
- Impacts to Landmark Building
- Impacts to Eldon Creek
- Constructability

## Reduced Number of Alternates

- **Alt. 3 & 4**



Identify  
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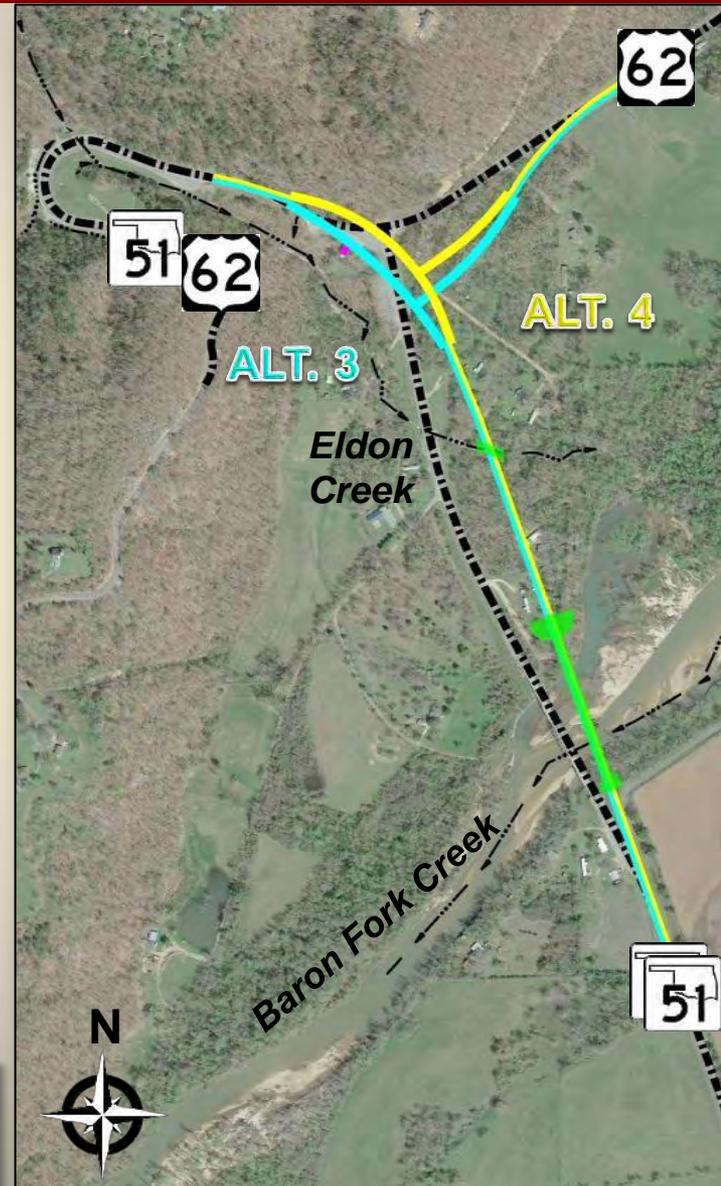
- **Alt. 3 & 4**

Identify  
Problem

Initial Data  
Collection

Preliminary  
Alternates

**Alternate  
Screening**



A gravel parking lot with a road sign on the left and a building in the background. The sign has '62' and '51' on it. The text 'ALTERNATE OVERVIEWS' is overlaid in the center.

# ALTERNATE OVERVIEWS

# PROJECT ALTERNATES

## *Alternate 3*

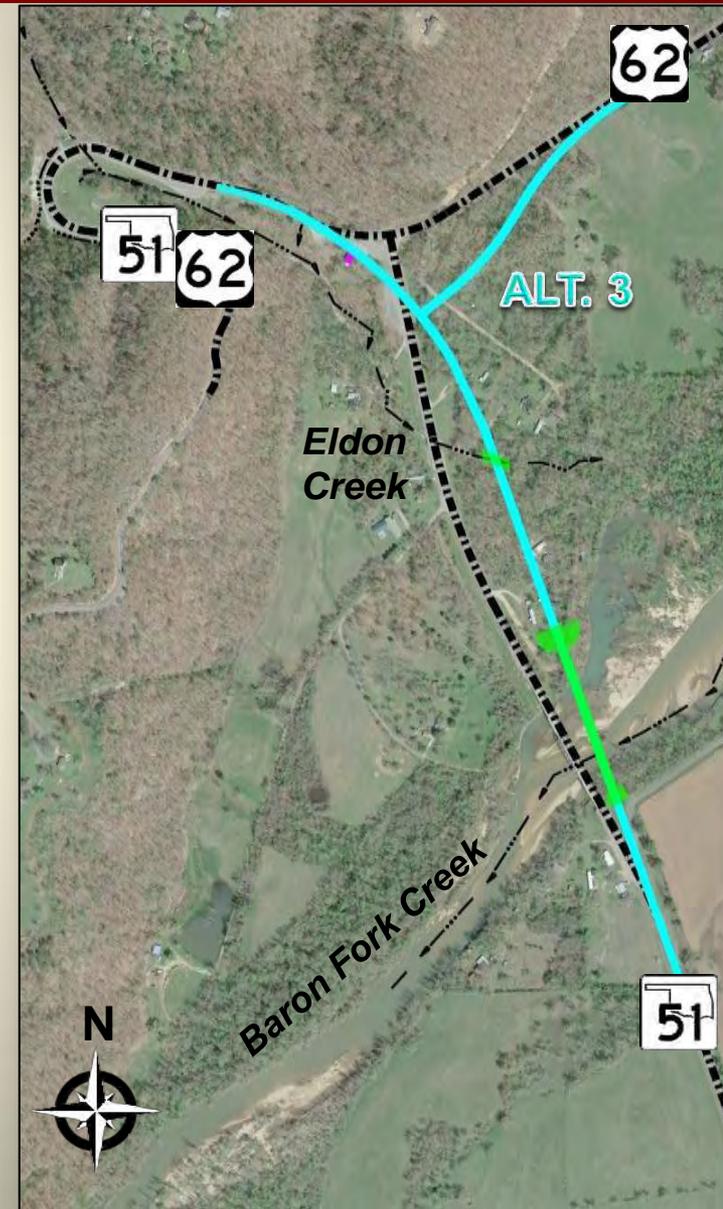
### ■ Overview

- 65 mph Design Speed
- Max. 6% Superelevation
- SH-51/US-62 Junction Offset to Southeast
  - US-62 Stop Controlled at SH-51
  - Left Turn Bay for SH-51 (SB)
- 3 Major Phases of Construction
- Maintains 2 Lanes of Traffic

### ■ Key Features

- Avoids Cuts Into Eldon Hill
- Removes the Landmark Building
- Local Access Maintained on Existing SH-51
- Requires Approximately 18 Acres of New Permanent Right-of-Way
- Potential for Relocations

ALT. 3



# PROJECT ALTERNATES

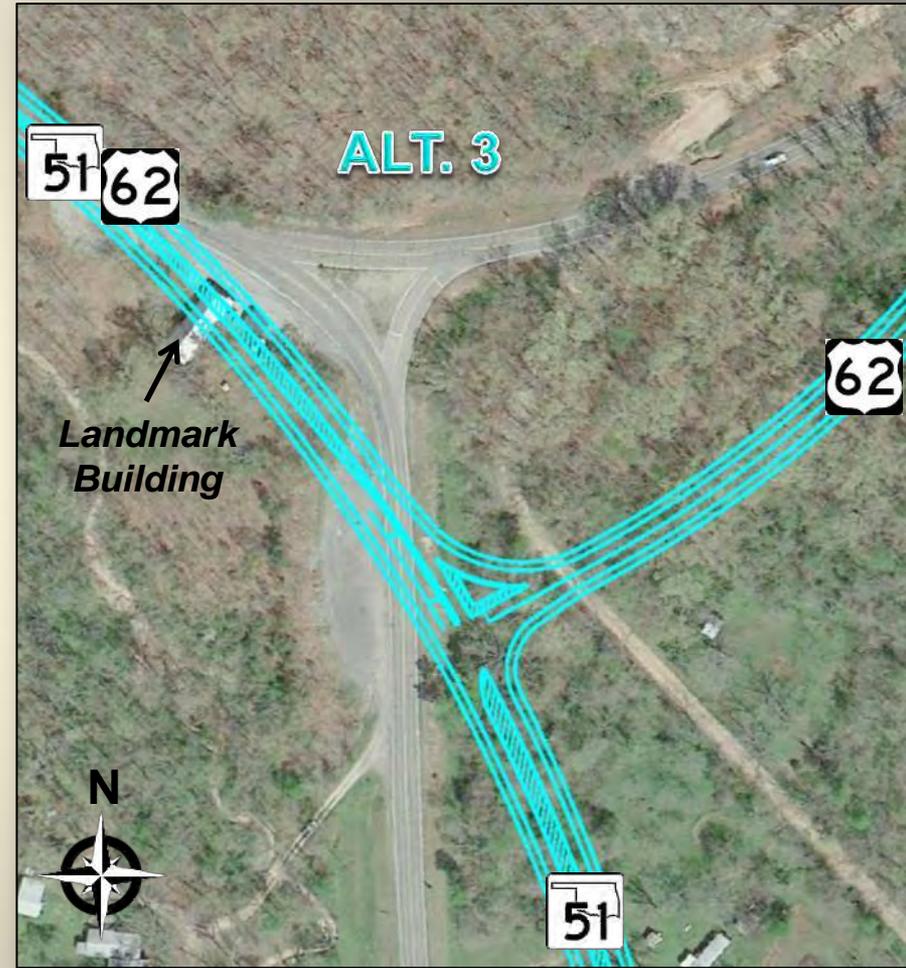
## *Alternate 3* cont'd....

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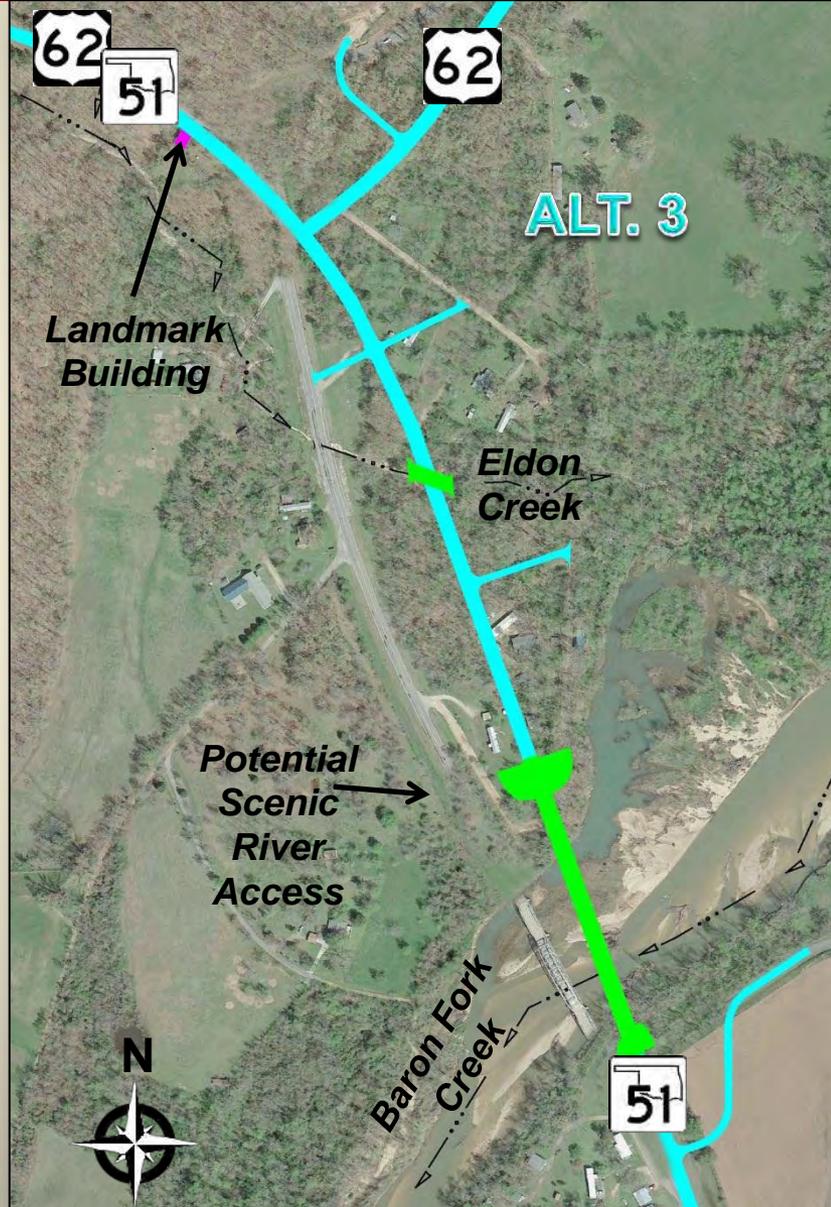
# PROJECT ALTERNATES

## *Alternate 3* cont'd....

### Local Road & Drive Access

- Local Road Connections to Proposed Highways
- Portion of Existing Highway to Remain
- Potential for Future Scenic River Access

ALT. 3



# PROJECT ALTERNATES

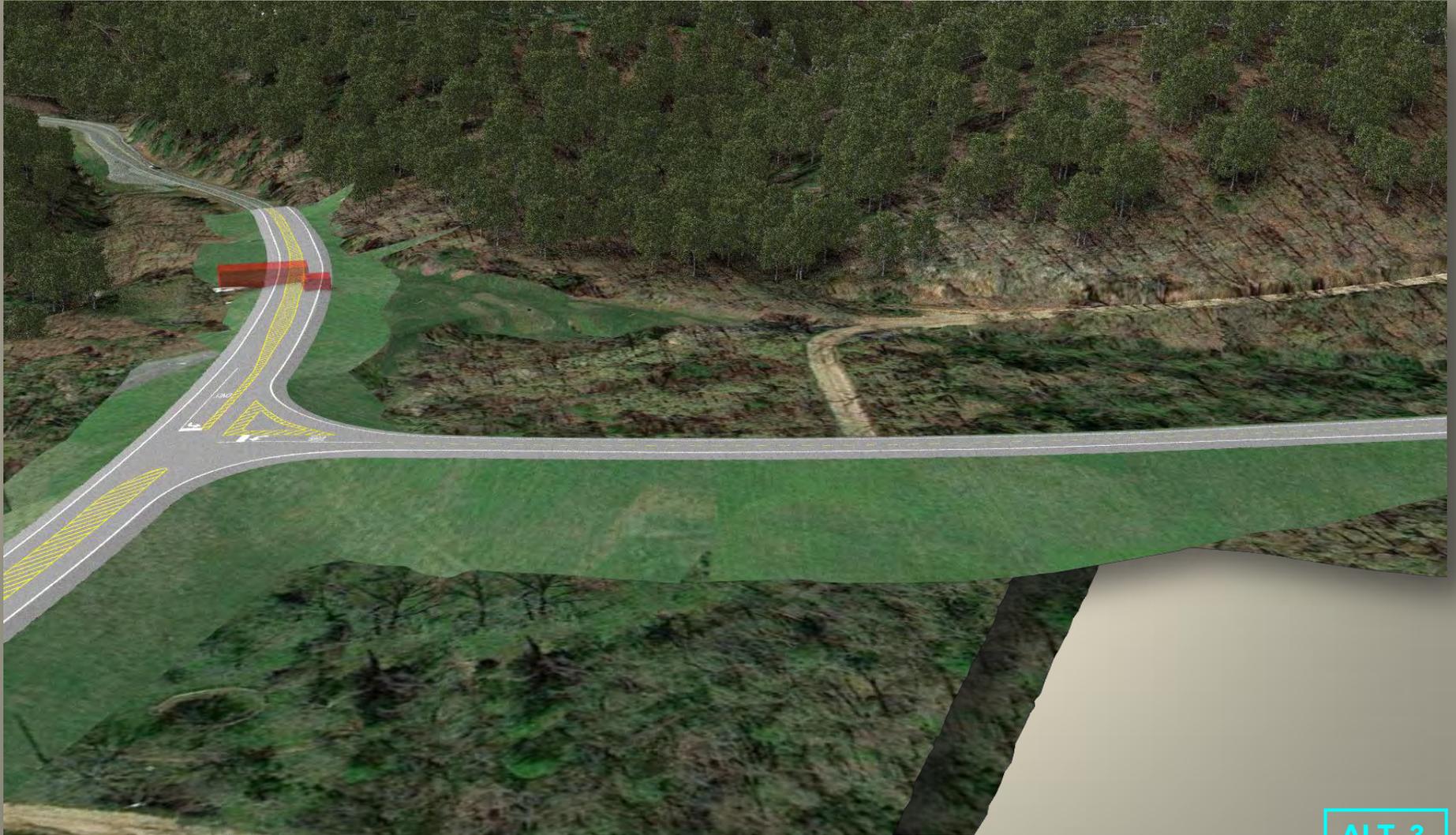
## *Alternate 3* cont'd....



ALT. 3

# PROJECT ALTERNATES

## *Alternate 3* cont'd....



ALT. 3

# PROJECT ALTERNATES

## *Alternate 4*

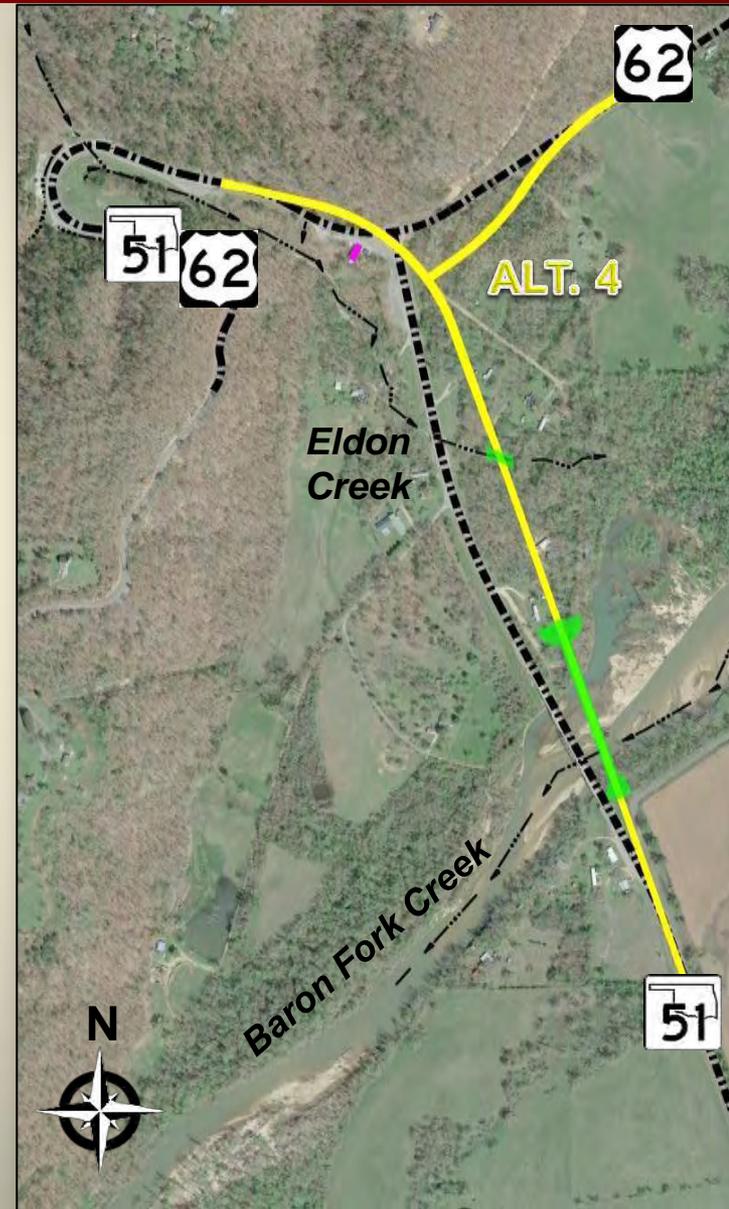
### Overview

- 50 mph Design Speed
- Max. 6% Superelevation
- SH-51/US-62 Junction Offset to Southeast
  - US-62 Stop Controlled at SH-51
  - Left Turn Bay for SH-51 (SB)
- 4 Major Phases of Construction
- Maintains 2 Lanes of Traffic

### Key Features

- Large Cut Into Eldon Hill – May Require Blasting and Tree Removal
- Avoids the Landmark Building
- Local Access Maintained on Existing SH-51
- Requires Approximately 20 Acres of New Permanent Right-of-Way
- Potential for Relocations

ALT. 4



# PROJECT ALTERNATES

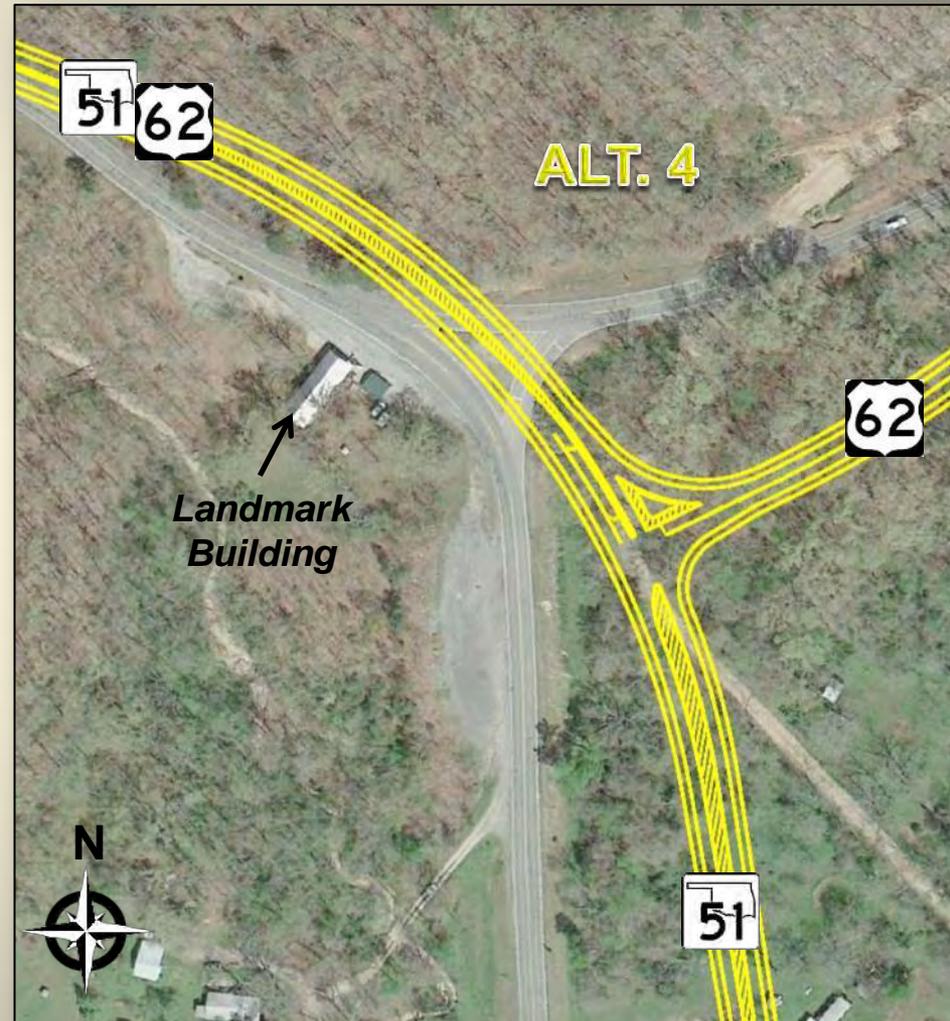
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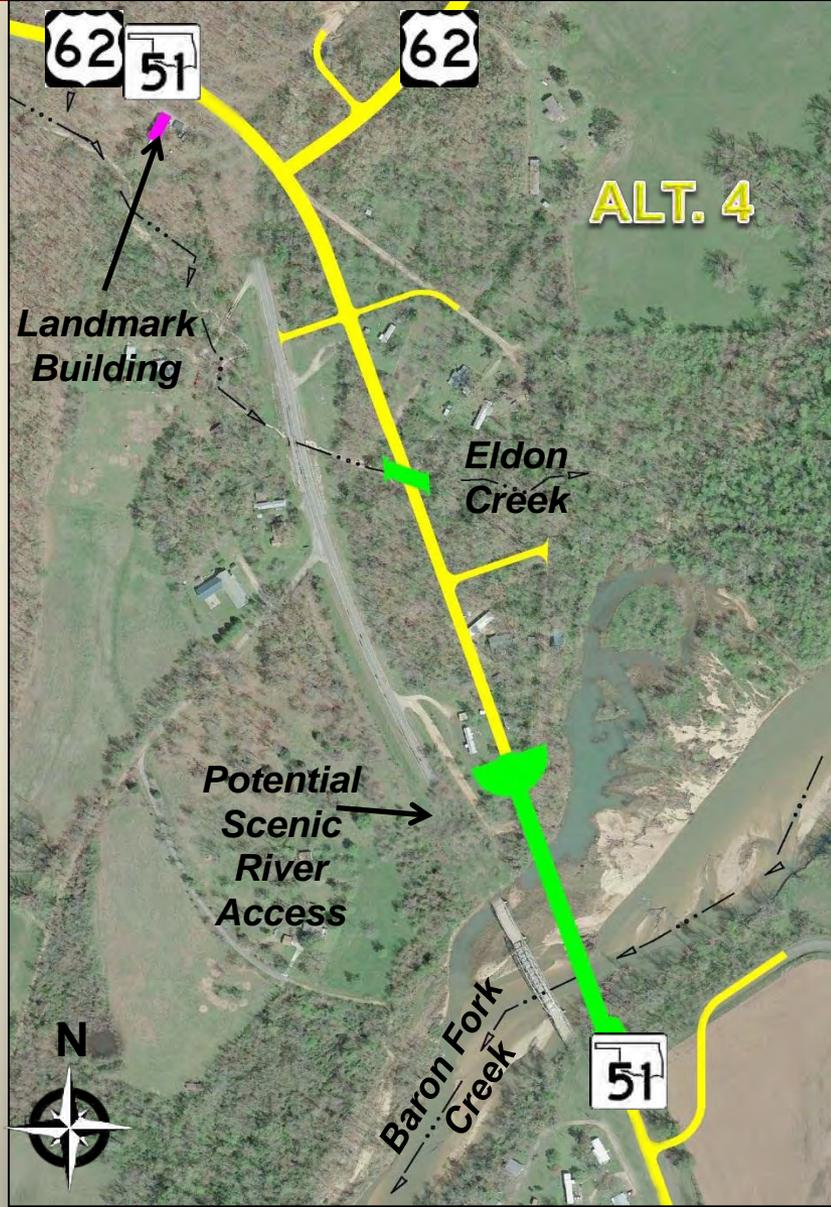
# PROJECT ALTERNATES

## *Alternate 4 cont'd....*

### Local Road & Drive Access

- Local Road Connections to Proposed Highways
- Drive Connections to Existing Highway
- Potential for Future Scenic River Access

ALT. 4



# PROJECT ALTERNATES

## *Alternate 4 cont'd....*



ALT. 4

# PROJECT ALTERNATES

## *Alternate 4* cont'd....



ALT. 4

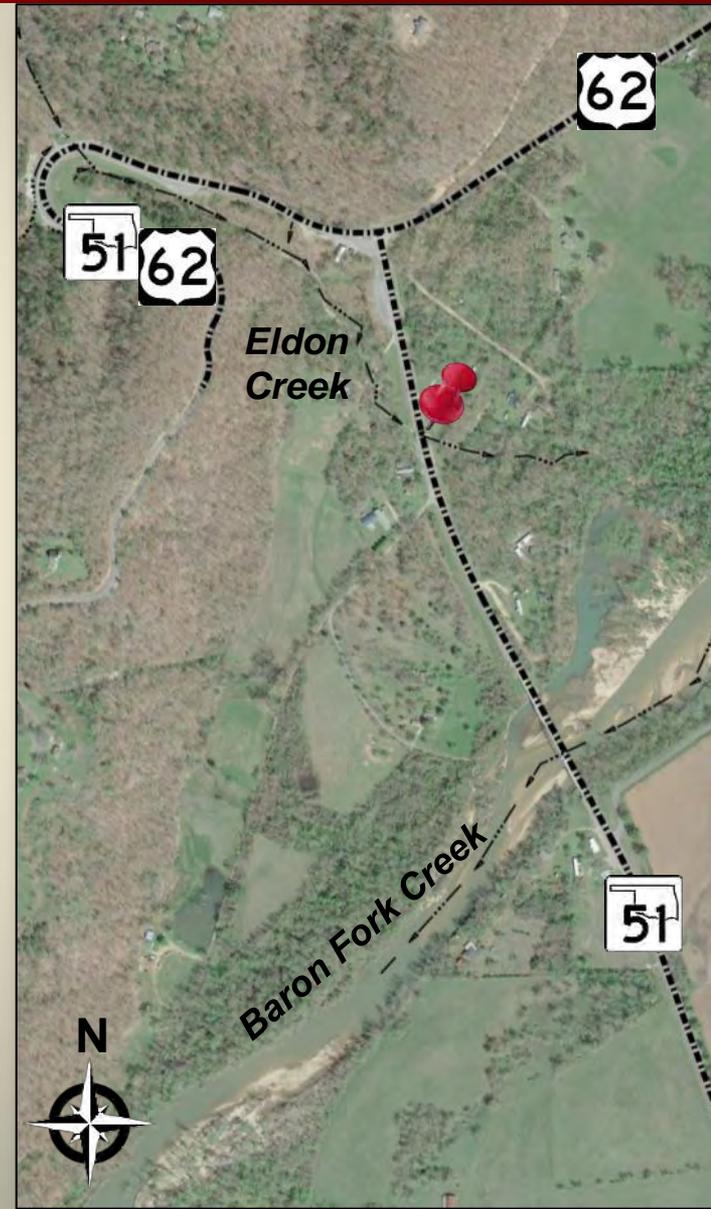
A photograph of a steel truss bridge spanning a river. The bridge has a prominent arch structure. The foreground is a rocky, gravelly bank with sparse green grass. The river flows under the bridge, and the background is filled with lush green trees under a clear blue sky. The word "BRIDGE" is written in large, white, bold, sans-serif capital letters with a black outline, centered over the middle of the image.

**BRIDGE**

# EXISTING ELDON CREEK BRIDGE

## Existing Structure

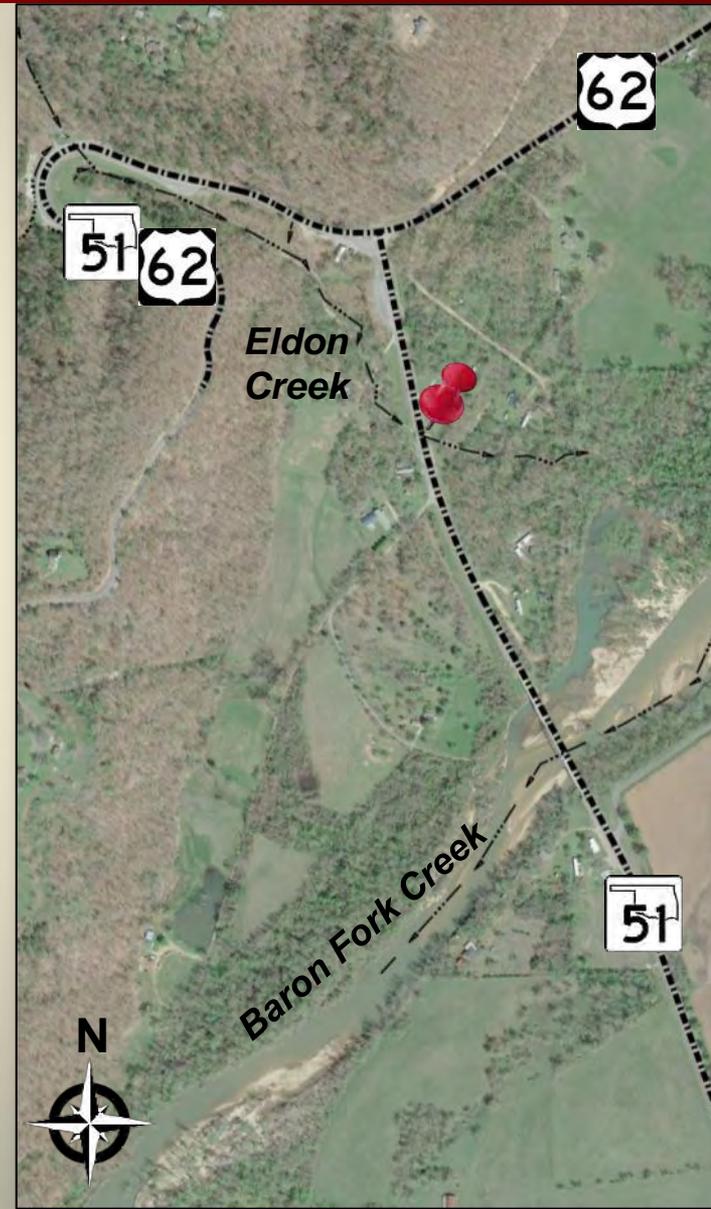
- Double 10' x 7' Reinforced Concrete Box
- Constructed in 1946
- 30° Skew
- Will Remain in Place



# EXISTING ELDON CREEK BRIDGE *cont'd....*

## Existing Structure

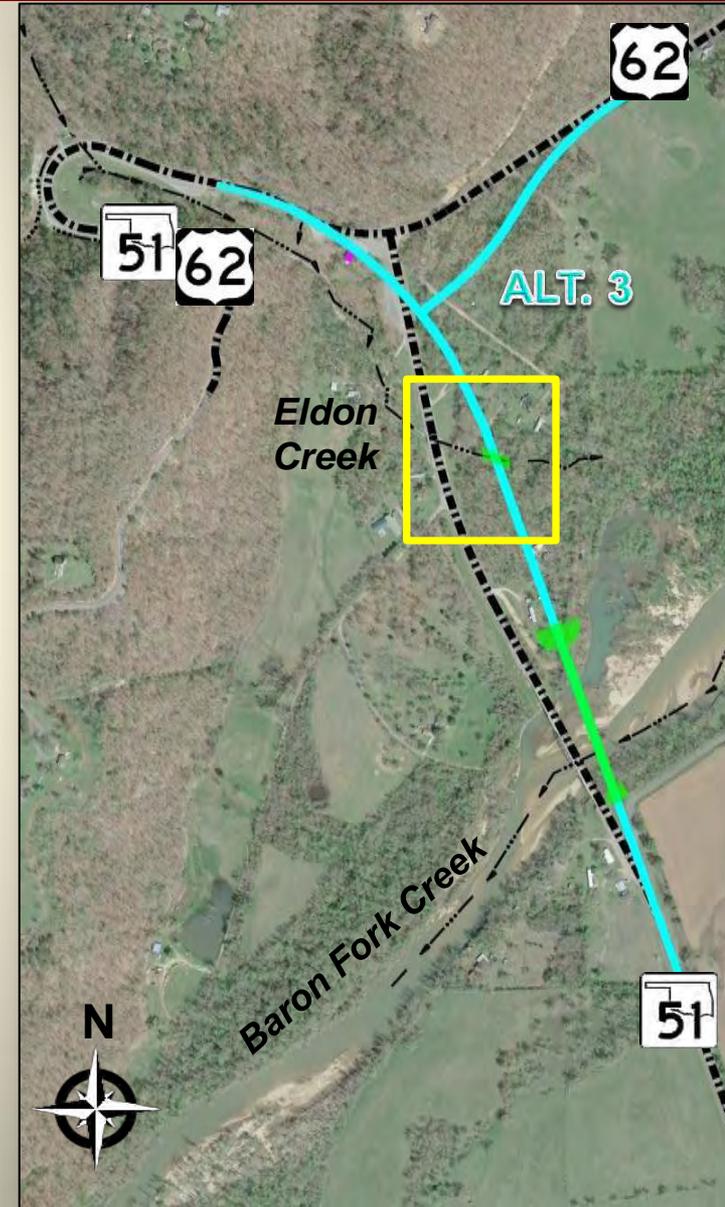
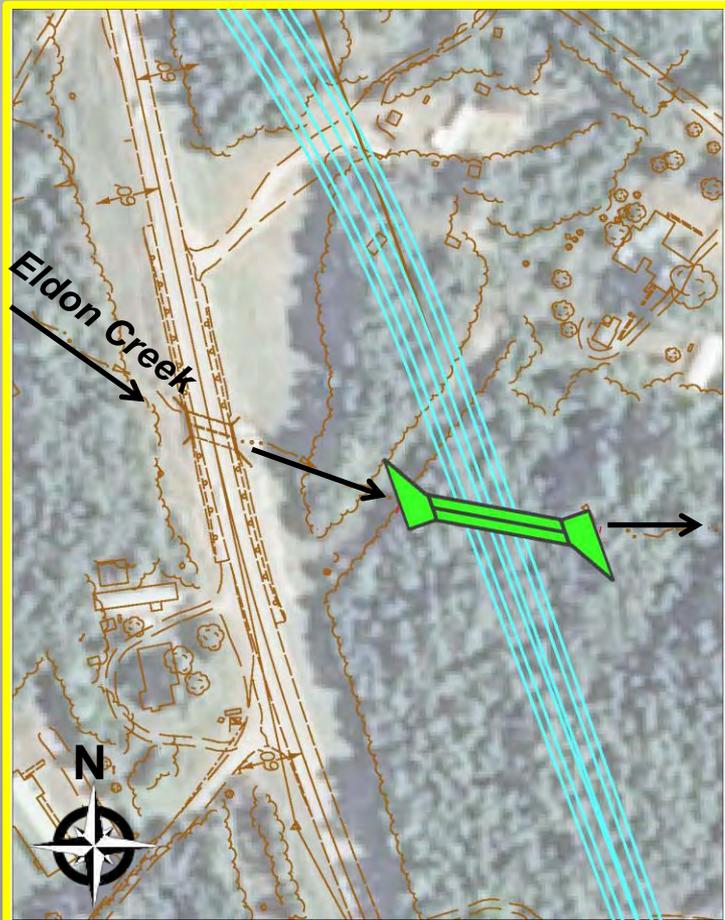
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# PROPOSED ELDON CREEK BRIDGE

## Proposed Structure

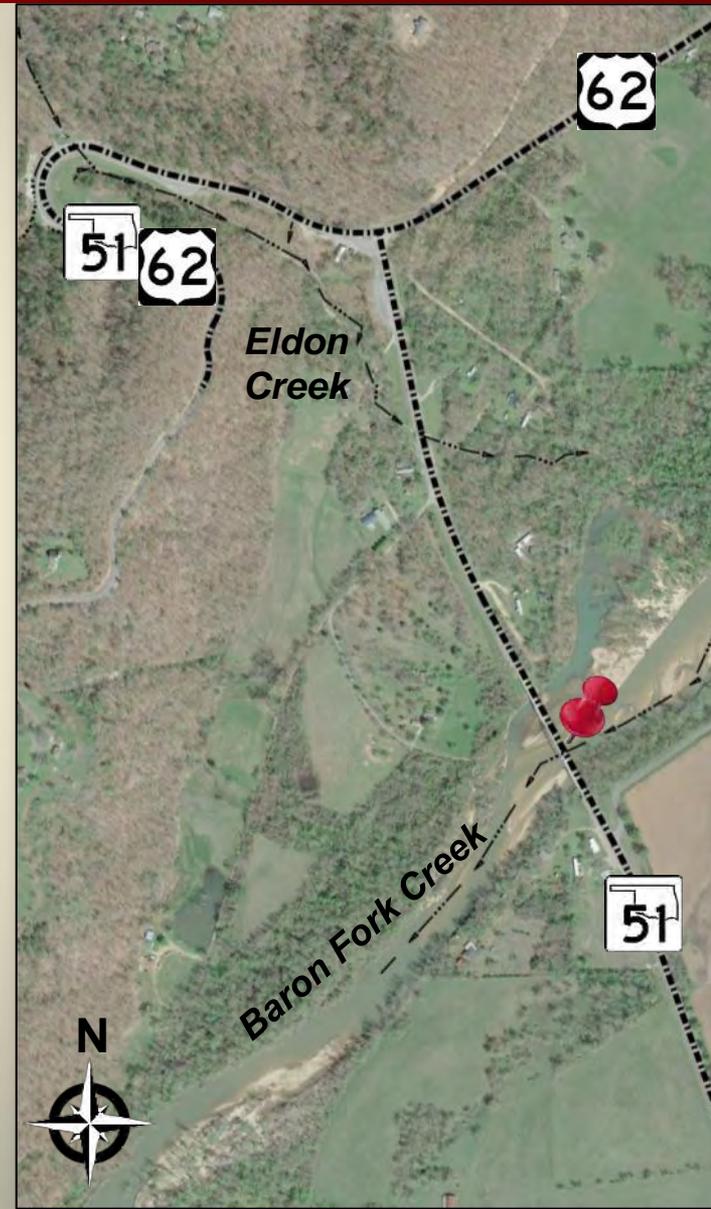
- Double 10' x 7' Reinforced Concrete Box
- 30° Skew
- Current Loading Standards



# EXISTING BARON FORK CREEK BRIDGE

## Existing Structure

- Total Length of 618'
- Composed of I-Beam and Truss Spans
- 210' Main Truss Span Over Creek
- Constructed in 1946
- Structurally Deficient
- Functionally Obsolete
- Removal Anticipated

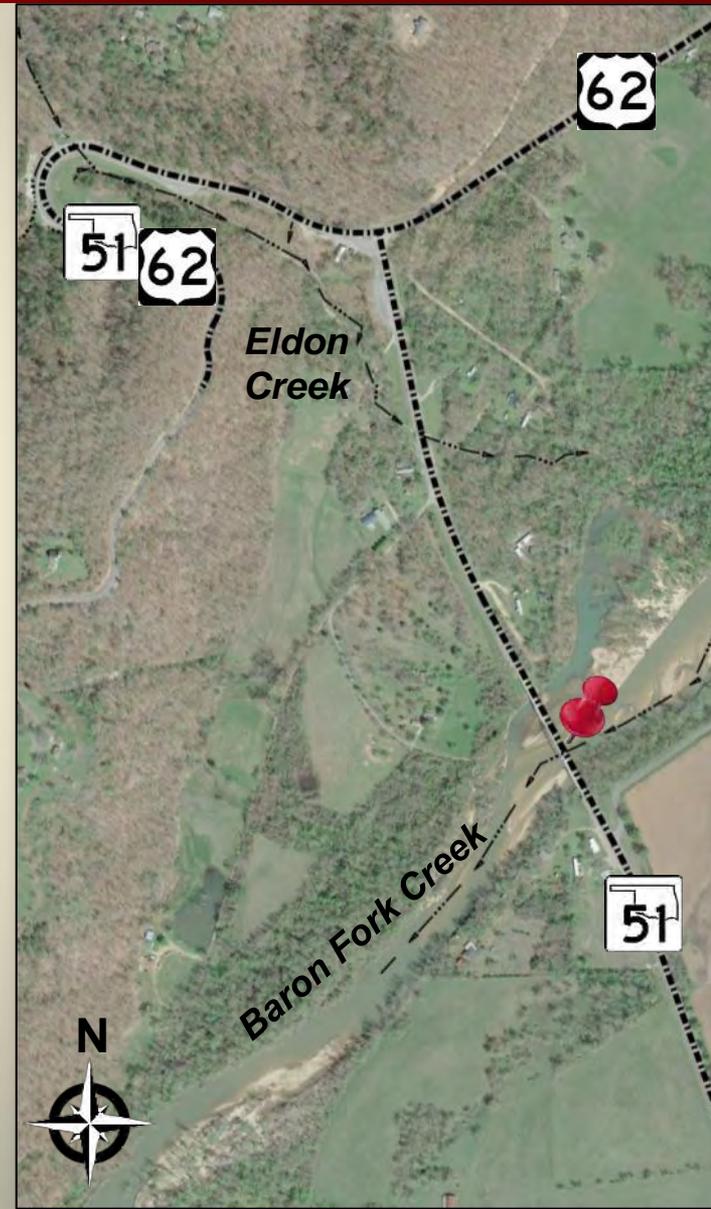


# EXISTING

## BARON FORK CREEK BRIDGE *cont'd....*

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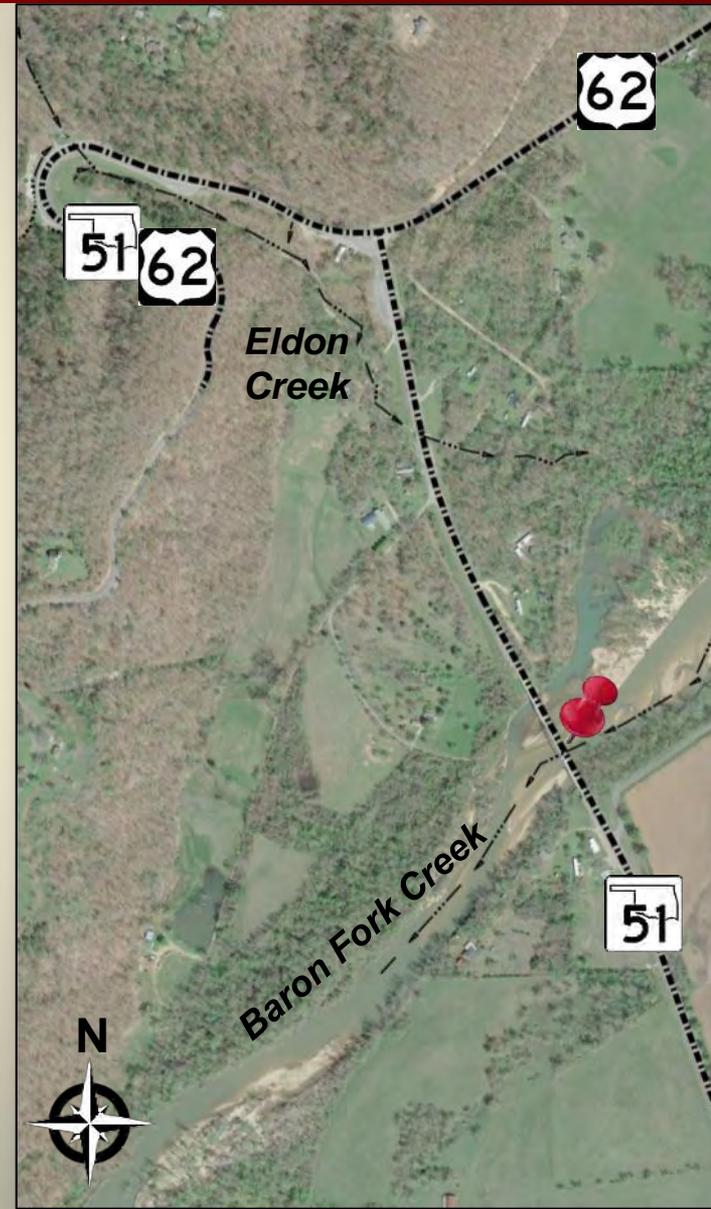


# EXISTING

## BARON FORK CREEK BRIDGE *cont'd....*

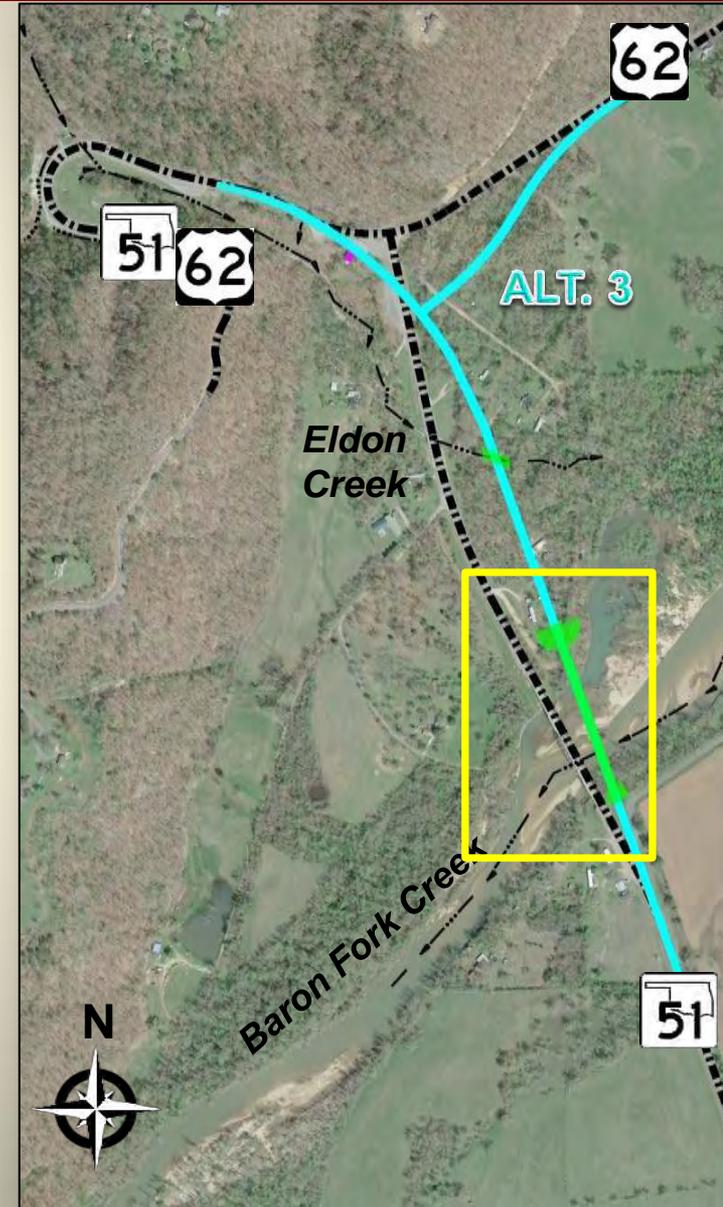
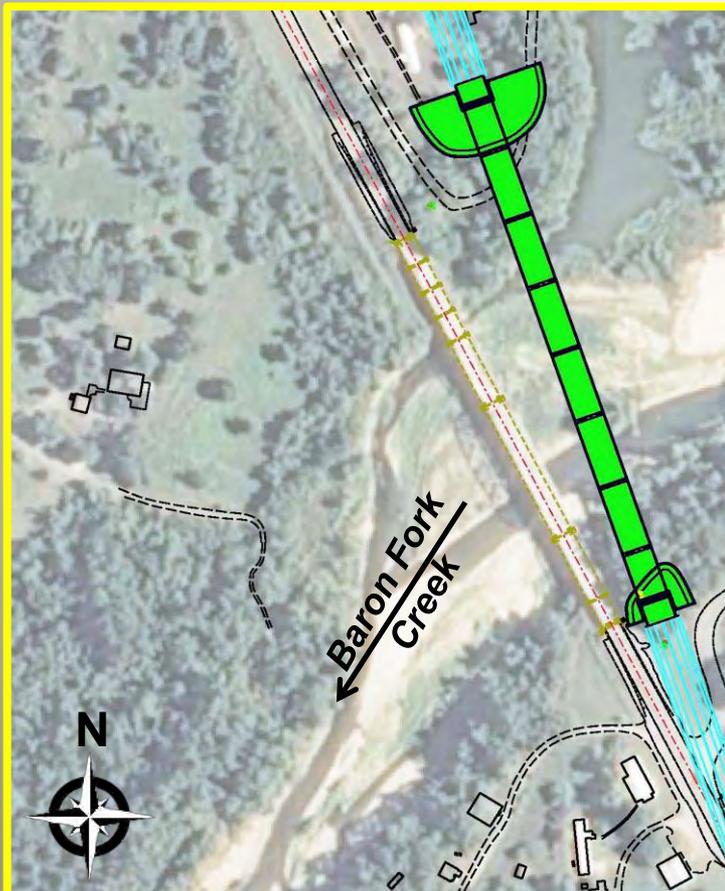
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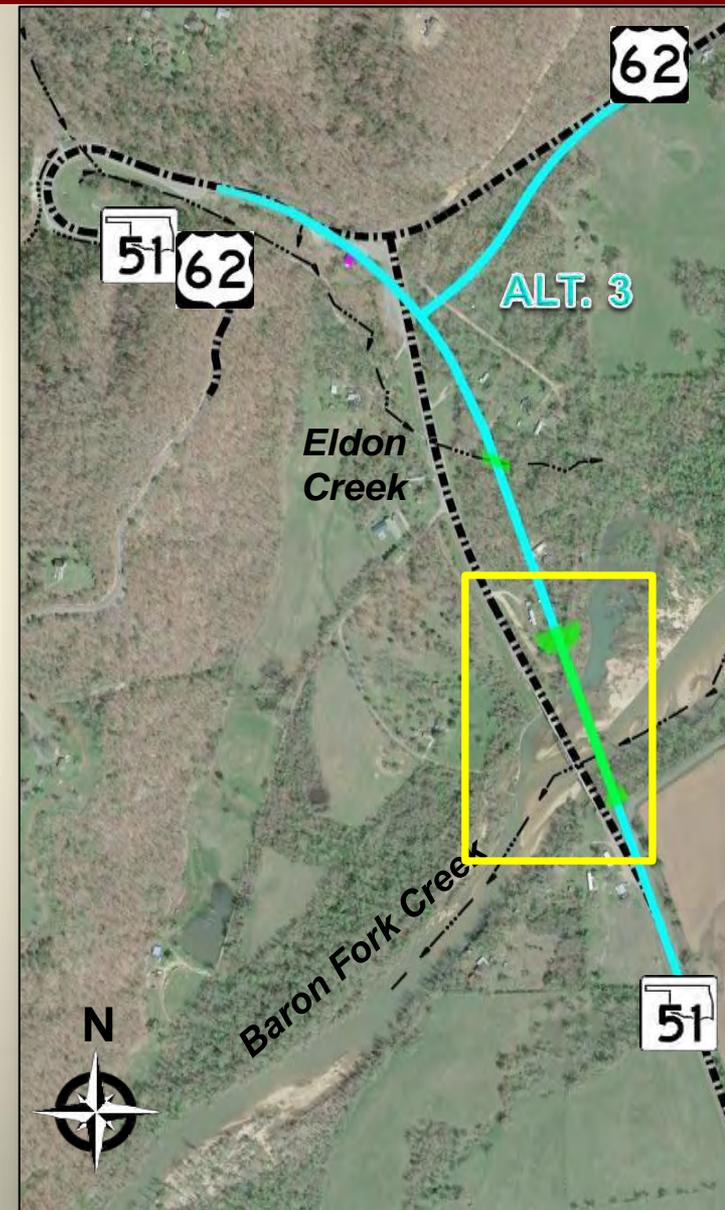
# PROPOSED BARON FORK CREEK BRIDGE

- Offset Location
- 750' in Length
- 8 - Pre-Stressed Concrete Beam Spans
- 40' Clear Roadway



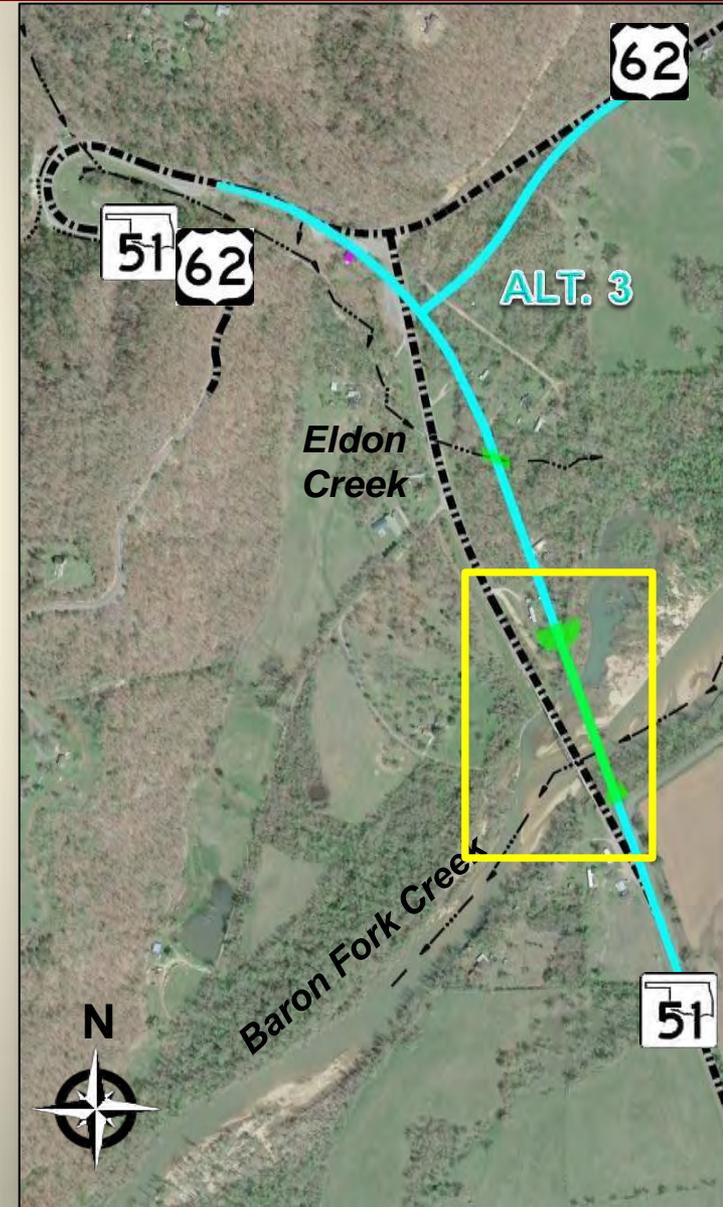
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**ENVIRONMENTAL**

# ENVIRONMENTAL CONDITIONS

- Detailed Environmental Studies Have not Been Completed
- Resources We Are Aware of Include:
  - Homes and Private Properties
  - Eldon Baptist Church
  - Eldon Store
  - Baron Fork and Eldon Creeks
    - Part of Scenic Illinois River Watershed
    - Outstanding Resource Water
  - Visual Resources
    - Baron Fork Creek
    - Eldon Hill
  - Threatened and Endangered Species
  - Wetlands
  - Others? Please Give Us Your Input!



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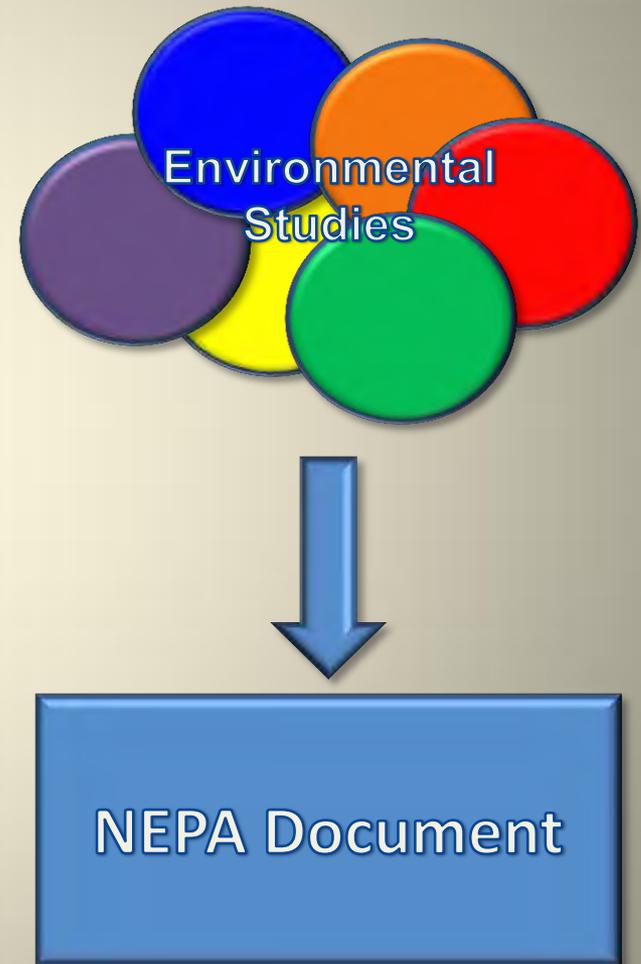


# NEXT ENVIRONMENTAL STEPS

- **After a Preferred Alternate is Selected, Detailed Environmental Studies Will Be Completed**

- Archaeological and Historic Survey
- Wetland Delineations
- Biological Assessment
- Hazardous Waste Investigation
- Relocation Plan, if Required
- Clean Water Act Permits and Water Quality Certification

- **Studies Will be Summarized in an Environmental Document to Satisfy State and Federal Regulations**



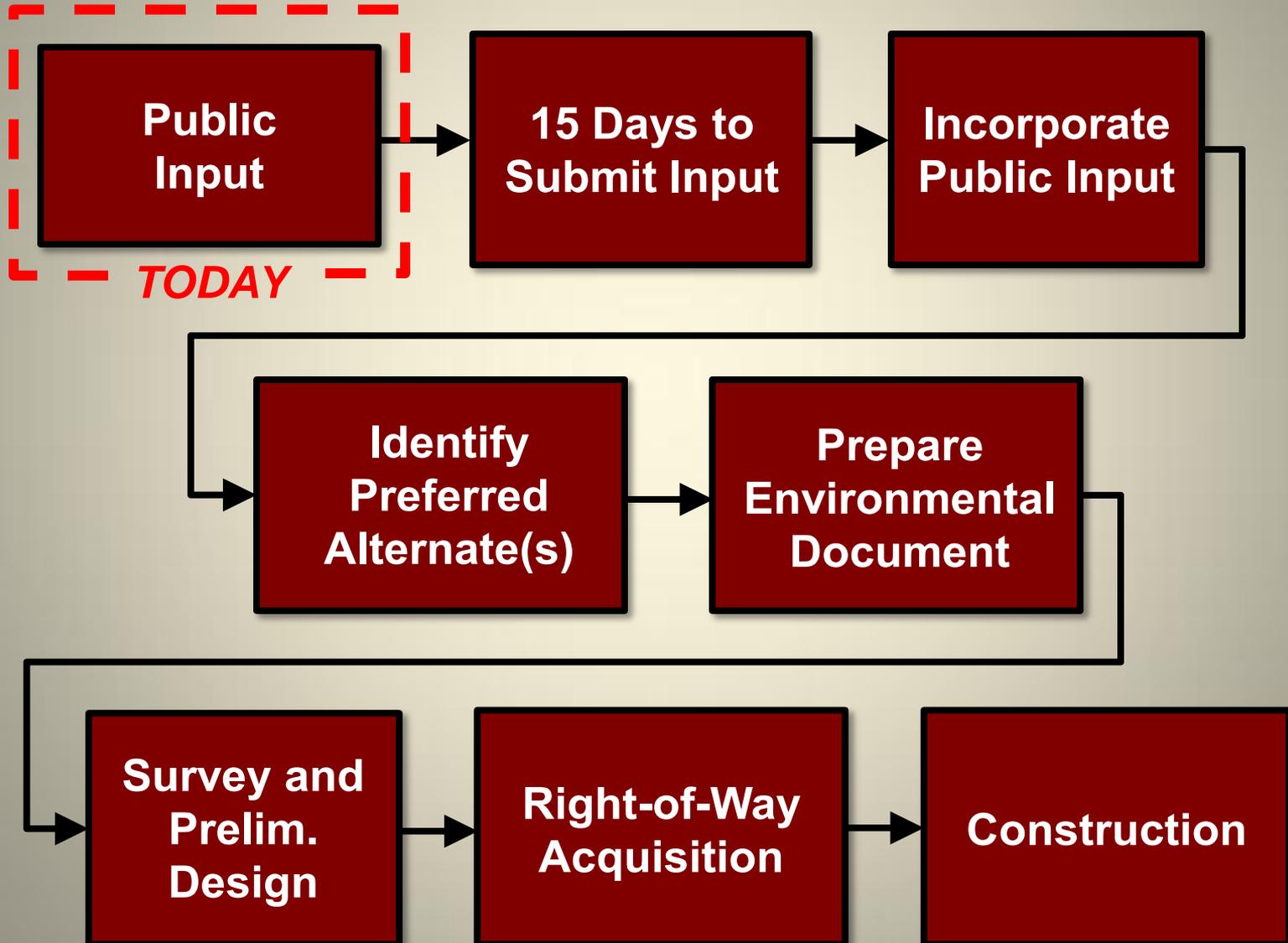
A photograph of a bridge structure, possibly a truss bridge, partially obscured by trees and dense vegetation. The bridge is supported by concrete pillars. The foreground is filled with tall grasses and other green plants. The word "SUMMARY" is overlaid in large, bold, white text with a black outline, centered in the middle of the image.

# SUMMARY

# SUMMARY COMPARISON

PROJECT ALTERNATES						
ALT.	REPLACE BARON FORK BRIDGE	IMPROVE SH-51/US-62 JCT.	DESIGN SPEED	REMOVE LANDMARK BUILDING	CUT ELDON HILL	CONSTRUCTION COST (MILLION)
ALT. 3	<b>X</b>	<b>X</b>	65 mph	<b>X</b>		\$9.1
ALT. 4	<b>X</b>	<b>X</b>	50 mph		<b>X</b>	\$10.0

# NEXT STEPS





**RIGHT-OF-WAY AND  
RELOCATION  
ASSISTANCE**

# THANK YOU!

Please Submit Your Comments by:

**October 9, 2013**

- ✓ Leave Your Comment Form Here Tonight
- ✓ Mail the Comment Form Back to ODOT:  
Environmental Programs Division  
200 NE 21<sup>st</sup> Street  
Oklahoma City, OK 73105
- ✓ Email Your Comments to: [ENVIRONMENT@ODOT.ORG](mailto:ENVIRONMENT@ODOT.ORG)
- ✓ Information is Available at:  
<http://www.okladot.state.ok.us/meetings/other.php>

# QUESTIONS?