

SH-66: Over Bird Creek (Northbound) & Road Under, 3.68 Miles North of I-44 in Rogers County, Oklahoma, JP 20899(09)

Virtual Public Open House

Welcome to the Virtual Public Open House for improvements to SH-66 Over Bird Creek (Northbound) & Road Under, 3.68 Miles North of I-44 in Rogers County, Oklahoma. This open house will present the proposed improvements and provide an opportunity for the public to comment.

Virtual Open House: June 13- June 27, 2022

This open house will be a web-based format (no in-person meeting). The information will be available beginning June 13, 2022 and comments are requested by June 27, 2022.

This website also includes a description of the project and comment forms.

Project Overview

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA) is proposing improvements to SH-66 Northbound, 3.68 miles north of I-44 in Rogers County, Oklahoma. The project length is approximately 0.5 miles.

The bridge carrying two lanes of SH-66 northbound over Bird Creek is an 824'-8" long, six span mixed truss bridge. The approach roadway width is 37'-1" and consists of two, 11' travel lanes and 3' inside and outside shoulders. The existing bridge roadway is 30' from curb to curb, which is below the 38' standard. The existing bridge was constructed in 1956 and is structurally deficient. In 2011 the 1936 southbound adjacent bridge was removed and replaced along the same alignment. Several alternatives were considered for this existing northbound bridge and the design analysis and corresponding documentation was completed in May 2022. This documentation was prepared to evaluate alternatives and in support of Section 4(f) analysis for the bridge, a property that is eligible for listing on the National Register of Historic Places (NRHP), which some of the alternatives would remove/replace or otherwise adversely affect.

Project Information

Project Description

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA) is proposing improvements to SH-66 Northbound, 3.68 miles north of I-44 in Rogers County, Oklahoma. The project length is approximately 0.5 miles.

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What is the purpose of the project?

The purpose of the project is to provide a bridge crossing that is structurally and functionally sufficient for the intended use of the structure.

Existing bridge conditions

The bridge is in poor condition and is fracture critical. A fracture critical member is a non-redundant steel tension member, the failure of which could cause complete failure of the structure. Trusses are fracture critical because there are only two steel tension elements, the bottom chords, supporting the span. In addition, the roadway is too narrow to meet American Association of State Highway Transportation Officials (AASHTO) guidelines. The clearance of the bridge is also too low at 15 feet 6 inches as opposed to the standard clearance of 16 feet.



Alternatives Under Consideration

Alternative 1: Do Nothing

This alternative would include only continued maintenance of the bridge and nothing more. It does not meet the purpose and need for the project.

Alternative 2: Rehabilitation of the existing bridge

2(a): Rehabilitate and widen the bridge to 38 feet width.

Bridge would remain fracture critical (would not meet purpose and need)

2(b): Rehabilitate without widening bridge.

The bridge would remain fracture critical (would not meet purpose and need)

Alternative 3: Options to construct a new bridge on a new alignment, leaving the existing bridge in place, either as a non-functional "monument" or as a non-vehicular pedestrian or bicycle facility

Due to the level of service of SH-66 in the area, as well as the proximity to bridges that would prohibit use by pedestrians or cyclists, converting the existing bridge to a pedestrian and/or bicycle facility was not evaluated as an alternative.

Six different offset alignments were evaluated in Spring 2011, with two of the offset alignment options being removed almost immediately from further consideration for the current project (see 3(b) and 3(d) below). All of the alternatives meet the purpose and need. However, removing vehicle traffic from the historic bridge may result in an adverse effect to the bridge, nearby Rogers Point Park, or both.

3(a): Construct a new bridge on an offset 70 feet east of the existing northbound bridge

3(b): Construct a new bridge on an offset 120 feet east of the existing northbound bridge

It was determined that such a significant offset is below standard and would result in an unsafe alignment; therefore, this alternative was removed from further consideration.

3(c): Construct a new bridge on an offset of 70 feet west of the existing southbound bridge.

Northbound traffic would be re-routed to the current southbound bridge and the southbound traffic would be re-routed to the newly constructed bridge.

3(d): This alternative involved construction of a new 4-lane structure and is no longer applicable.

This alternative was therefore removed from further consideration.

3(e): Construct a new bridge on an offset of 120 feet west of the existing southbound bridge.

Northbound traffic would be re-routed to the current southbound bridge and the southbound traffic would be re-routed to the newly constructed bridge.

3(f): Construct a new bridge on an offset 50 feet west of the current southbound bridge.

Northbound traffic would be re-routed to the current southbound bridge and the southbound traffic would be re-routed to the newly constructed bridge.

Alternative 4: Replace the existing bridge on the existing alignment

Replacement of the bridge on existing alignment would include construction of a new 38-foot wide bridge with approach roadway with two 12-foot driving lanes, 10-foot-wide paved outside shoulder, and four-foot inside shoulder similar to the structure constructed on the SB lanes in 2012. The new structure would be constructed within existing right-of-way, which would eliminate impacts to another protected resource - Rogers Point Park. This alternative meets the purpose and need of the project by providing a long-term solution to the transportation challenge and fracture-critical bridge at this crossing. It will address a bridge that is in poor condition and provide a crossing that provides all drivers a greater comfort level on the facility. While this alternative would meet the purpose and need of the project, it would also result in an adverse effect to the historic bridge and a Section 4(f) use of the structure. Because the remaining alternatives presented in the Design Analysis report do not effectively address the purpose and need of the project or do not address purpose and need at all, ODOT’s preferred alternative is Alternative 4. This alternative must be approved by FHWA as part of the Section 4(f) process.

Design Analysis Summary of Findings

Summary of Findings

Category	Avoidance Alternatives				
	#1: Do Nothing	#2: Rehabilitation		#3: Build on New Location, Leave in Place as Monument	#4: New Bridge on Existing Location
		#2(a): Widen	#2(b): No Widening		
Maintenance and Inspection	<ul style="list-style-type: none"> Increased inspection frequency Increased frequency of repairs to address section loss in steel, particularly stringers and floor beams Increased frequency of maintenance required, including spot painting 	<ul style="list-style-type: none"> Minimal maintenance required for first 20-25 years, after which spot painting will be required Structural repairs should not be required if regular program of cleaning the trusses and spot painting areas of corrosion is initiated 	<ul style="list-style-type: none"> Minimal maintenance required for first 20-25 years, after which spot painting will be required Structural repairs should not be required if regular program of cleaning the trusses and spot painting areas of corrosion is initiated 	<ul style="list-style-type: none"> Minimal maintenance required for first 20-25 years, after which spot painting will be required Significantly reduced inspection frequency and effort 	<ul style="list-style-type: none"> Minimal maintenance required for first 20-30 years Inspection effort significantly reduced; new bridge and no longer fracture critical
Geometric Adequacy	<ul style="list-style-type: none"> Bridge remains geometrically substandard 	<ul style="list-style-type: none"> Bridge geometry improved to comply with AASHTO Green Book Provides 38 feet clear roadway width 	<ul style="list-style-type: none"> Bridge remains geometrically substandard 	<ul style="list-style-type: none"> Not applicable as the bridge is no longer open to vehicular traffic 	<ul style="list-style-type: none"> Bridge meets current AASHTO and ODOT geometric standards
Structural Adequacy	<ul style="list-style-type: none"> Remains in poor condition Remains Fracture Critical Load posting is likely in near future 	<ul style="list-style-type: none"> No load posting required No longer in poor condition Remains Fracture Critical 	<ul style="list-style-type: none"> No load posting required No longer in poor condition Remains Fracture Critical 	<ul style="list-style-type: none"> Monument use requires fencing or other means to keep public off bridge, while allowing access for maintenance vehicles Not applicable as the bridge is no longer carrying vehicles 	<ul style="list-style-type: none"> Bridge that is in poor condition and Fracture Critical is removed from service

Category	Avoidance Alternatives				#4: New Bridge on Existing Location
	#1: Do Nothing	#2: Rehabilitation		#3: Build on New Location	
		#2(a): Widen	#2(b): No Widening		
Environmental	<ul style="list-style-type: none"> Marginal habitat for Northern Long-eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, American Burying Beetle, Neosho Mucket, and Rabbitsfoot Mussel 	<ul style="list-style-type: none"> Marginal habitat for Northern Long-eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, American Burying Beetle, Neosho Mucket, and Rabbitsfoot Mussel Jurisdictional Waters and Wetlands 	<ul style="list-style-type: none"> Marginal habitat for Northern Long-eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, American Burying Beetle, Neosho Mucket, and Rabbitsfoot Mussel Jurisdictional Waters and Wetlands 	<ul style="list-style-type: none"> Marginal habitat for Northern Long-eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, American Burying Beetle, Neosho Mucket, and Rabbitsfoot Mussel Jurisdictional Waters and Wetlands 	<ul style="list-style-type: none"> Marginal habitat for Northern Long-eared Bat, Least Tern, Piping Plover, Red Knot, Whooping Crane, American Burying Beetle, Neosho Mucket, and Rabbitsfoot Mussel Jurisdictional Waters and Wetlands
Permits	<ul style="list-style-type: none"> None Anticipated 	<ul style="list-style-type: none"> US Army Corps of Engineers – Nationwide 14 Flood Plain Permit (County) DEQ OK R10 (Construction Stormwater Permit) 	<ul style="list-style-type: none"> US Army Corps of Engineers – Nationwide 14 Flood Plain Permit (County) DEQ OK R10 (Construction Stormwater Permit) 	<ul style="list-style-type: none"> US Army Corps of Engineers – Nationwide 14 Flood Plain Permit (County) DEQ OK R10 (Construction Stormwater Permit) 	<ul style="list-style-type: none"> US Army Corps of Engineers – Nationwide 14 Flood Plain Permit (County) DEQ OK R10 (Construction Stormwater Permit)
Adverse Effects on Historic Bridge	<ul style="list-style-type: none"> None Anticipated 	<ul style="list-style-type: none"> Rebuilt bracing system Potentially adverse effect due to change in clear width and substructure modification Modifications to floor system and truss members not anticipated to have adverse effect 	<ul style="list-style-type: none"> Modifications to floor system and truss members not anticipated to have adverse effect Bridge retains appearance and function 	<ul style="list-style-type: none"> Effect determination will require consultation with SHPO – expected that work will not cause an adverse effect to the character defining features of the bridge, but change of use will likely be an adverse effect due to bridge being on historic route 	<ul style="list-style-type: none"> Truss spans could be placed on display near the surrounding area like the previous westbound bridge
Construction Cost (Bridge Only)	\$ 891 thousand	\$ 10.05 million	\$ 7.60 million	\$ 10 thousand for existing bridge; \$6.9 million for new bridge	\$ 7.25 million
20-Year Maintenance & Inspection Cost (2022 Dollars)	\$ 5.88 million	\$ 1.67 million	\$ 1.18 million	\$ 338 thousand	\$ 196 thousand

Will new right-of-way be required?

No acquisition of new permanent right-of-way or easements is currently anticipated for the project.

How will highway access change?

There will be no change to the current highway access. The existing roadway has unrestricted access and will continue to have unrestricted access.

Environmental Impacts

What is the environmental impact of the project?

The project is funded in part with funds through the Federal Highway Administration (FHWA); therefore, the project is required to comply with the National Environmental Policy Act (NEPA) and several other federal environmental laws and executive orders. The Oklahoma Department of Transportation (ODOT) has completed several environmental studies and agency coordination as part of the project development process. These studies include:

- Tribal Consultation
- Archeological resources, historic resources, and cemeteries (Cultural Resources)
- Delineation of Waters of the U.S. (streams and wetlands)
- Endangered and threatened species

- Hazardous Materials Initial Site Assessment
- Floodplain
- Environmental Justice

A summary of the findings associated with each of the resource areas is presented below. These studies will be incorporated into the environmental clearance (NEPA) document for the project.

Tribal Consultation

The following tribes were consulted for input: Caddo Nation, Cherokee Nation, Delaware Tribe of Indians, Kialegee Tribal Town, Muscogee (Creek) Nation, Osage Nation, Thlopthlocco Tribal Town, United Keetoowah Band of Cherokees, Wichita & Affiliated Tribes.

Cultural Resources

A Cultural Resources Study was completed and concluded that the existing (eastern) bridge carrying the northbound SH-66 roadway over Bird Creek has been determined eligible for listing in the National Register of Historic Places. Because of the historical significance of the bridge, additional consultation with the State Historic Preservation Office (SHPO) will be required as the project proceeds. Because of the potential for the project to impact or “use” the historically significant bridge, Section 4(f) of the USDOT Act applies and studies must be completed to determine whether there is a “feasible and prudent” alternative that would not “use” or adversely affect the bridge. A design analysis report was prepared to evaluate the alternatives and support the Section 4(f) documentation for the project.

Streams and Wetlands

Two waterbodies are present in the environmental study area: Verdigris River and Spunky Creek (Bird Creek).

Construction activities will be evaluated to ensure appropriate U.S. Army Corps of Engineers Clean Water Act 404 application is made.

Threatened and Endangered Species

A Biological Assessment was performed. Potential habitat is present for the Northern Long-eared bat, Neosho Mucket, Rabbitsfoot Mussel, and American Burying Beetle. Consultation with the United States Fish and Wildlife Service will occur once 30% plans for a preferred alternative are available.

Hazardous Waste

A Hazardous Materials Initial Site Assessment was performed. The assessment recommended soil sampling at one facility. ODOT Specialists will review plans and determine whether plan notes or subsurface investigations may be needed.

Floodplain

Federal Emergency Management Agency (FEMA) maps depict regulatory floodway along the

Verdigris River and 100-year floodplain with Base Flood Elevations identified within the corridor. The preferred alternative will be reviewed to determine whether there may be an impact to base flood elevations.

Environmental Justice

Environmental Justice (EJ) communities are identified as areas containing predominantly minority populations and/or low-income populations. The percent minority in the two census block groups that comprise the project area is less than the state average of 39.2 percent. Areas containing predominantly low-income populations are defined as census block groups with median household incomes at or below the current Department of Health and Human Services (HHS) poverty guideline for a family of four. In 2022, the HHS poverty guideline for a family of four is \$27,750. According to 2015-2019 American Community Survey (ACS) Five-Year Estimates, both of the populated census block groups in the project area reflect median household incomes greater than the 2022 HHS poverty guideline. LEP populations are defined as persons that speak English less than “very well.” LEP populations are identified using block group level data from the 2015-2019 ACS 5-Year Estimates. Only 0.5% of the population within the two block groups speak English less than “very well.”

As reflected in current ACS data, the LEP percentage for the project area is low. However, LEP persons are given the opportunity for meaningful involvement in the NEPA process and may request translation services or accommodations by contacting the ADA Coordinator at 405-521-4140 or the ODOT Relay Service at 1-800-722-0353 no later than 72 hours before any scheduled event. If you have any ADA or Title VI questions email ODOT-ada-titlevi@odot.org.

Right of Way Information

What if my property is affected?

ODOT will obtain an independent appraisal and present a fair market value offer for your property.

Frequently Asked Questions

What analysis and coordination has occurred so far on the project?

Due to the historic significance of the northbound SH-66 bridge over Bird Creek, additional coordination was required. In Fall of 2019, the consultation was initiated with the Oklahoma State Historic Preservation Office (SHPO) and designated Consulting Parties (agencies, preservation organizations, and interested parties). In May of 2020, ODOT provided drafts of the Cultural Resources reports and the alternatives being considered to SHPO, the State Archeologist, and Consulting Parties for their review. A virtual Consulting Parties meeting took place on September 20, 2021 to provide an update on the project including existing conditions, purpose and need, a history of recent maintenance, and alternatives being analyzed, and to solicit their comments. The Consulting Parties were provided with the completed design analysis report in Spring 2022, and comments were requested.

Why does this project only include improvements to SH-66 northbound?

The southbound SH-66 bridge over Bird Creek, which was constructed in 1936 and also determined eligible for the NRHP, was previously closed to traffic in 2010 and replaced in 2012. Mitigation for the replacement (or Section 4(f)“use”) of the historic bridge included moving the trusses from the 1936 bridge to a nearby park for display.

What is the next step in the process?

A preferred alternative will be recommended for further design and environmental study.

How does ODOT determine existing and future traffic numbers?

Traffic counts are taken every two years on state highways. The existing traffic numbers reflect the current condition. The future traffic numbers are projected based on a multiplier developed for the area.

Annual average daily traffic (AADT) is a measure used primarily in transportation engineering. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. Therefore, there are days when there is more traffic, but this is an average. AADT is a simple, but useful, measurement of how busy the road is.

What if ODOT needs temporary access for construction or a maintenance easement from my property?

Sometimes, ODOT will need temporary access or an easement to maintain the highway and drainage structures. Owners will be compensated for temporary right-of-way and for maintenance easements. In these cases, you will maintain ownership of the property. If your property will be affected, an ODOT-authorized agent will contact you.

When is construction scheduled to begin?

Construction is scheduled to start in FFY 2023.

Will I keep access to my home and property during construction?

Yes, access to home, businesses, and property adjacent to the project will be maintained during all phases of construction.

Will there be a detour during construction of this project?

Existing median crossovers would be used to maintain traffic during construction.