

FY 2022 Bridge Investment Program (BIP) Bridge Projects Application Template

This FY 2022 BIP Application Template is provided to assist project sponsors who intend to apply for a Bridge Project FY 2022 BIP grant. Interested eligible applicants should read the FY 2022 BIP Notice of Funding Opportunity (NOFO) in its entirety and especially where noted in this application template to submit eligible and competitive applications.

Basic Project Information

Provide a narrative for the below items on basic details pertinent to the project, including project name, description, location, involved parties, etc. Items in this section will be used to determine grant program eligibility as detailed in Section C of the NOFO.

Project Name	US-69 Bridge Replacement in Durant
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Eligibility Criteria

Project Description (Replacement, Rehabilitation, Preservation, or Protection projects, including bridge bundling and NBIS culvert replacement and rehabilitation)	The US-69 Bridge Bundle Replacement Project in Durant, Oklahoma will replace four bridges along US-69. The project will also extend the existing deceleration and acceleration lanes to meet current design criteria. Bridges A and C will have a higher vertical clearance to accommodate the railroad that passes underneath. US-69 is a Critical Rural Freight Corridor that sees high volumes of freight traffic on a daily basis and connects rural communities to critical economic and agricultural hubs across the midwestern United States. 17535-NB Bridge A 17507-NB Bridge B 17534-SB Bridge C 17506-SB Bridge D
BIP Request Amount (minimum grant award is \$2.5 million):	Exact amount in year-of-expenditure dollars: \$23,200,000
Total Project Cost (total project cost cannot exceed \$100 million for Bridge Projects):	Estimate in year-of-expenditure dollars: \$46,400,000
Applicant:	State of Oklahoma

Maintenance Commitment	ODOT has estimated full lifecycle costs of the Project, including the maintenance and operating costs for the bridge. Lifecycle cost forecasts use recent maintenance and operating cost analysis of other similar new bridges, in addition to accounting for regular pavement maintenance, rehabilitation/reconstruction projects, annual general maintenance, and contingency in place within ODOT's maintenance budget based on recent extreme weather conditions from climate change. ODOT's current budget added \$40 million to prepare for additional maintenance based on more extreme weather (including flooding, tornados, and cold weather events).
Bike and Pedestrian Accommodation required by 23 U.S.C. 217(e)	N/A

Additional Project Information

List State(s) in which the project is located:	Oklahoma
Does the project serve an urban or rural community?	Rural
List all Project Co-Applicants:	N/A
Identify the Lead Applicant (who will also be the applicant responsible for administration of BIP funds if application is selected, and the point of contact for the application)	Oklahoma Department of Transportation (ODOT)
Was an application for USDOT discretionary grant funding for this project previously submitted?	No
Is the project located (entirely or partially) in Federal or USDOT designated areas?	Opportunity Zones: No Empowerment Zones: No Promise Zones: Yes, Choctaw Nation of Oklahoma Choice Neighborhoods: Yes, the project area is located within 10-20% Poverty & 30-100% Poverty designated areas.

National Bridge Inventory Data

For each bridge on the project, fill out the NBI data in the following form. For projects with multiple bridges, including those utilizing bridge bundling, this table should be duplicated and populated with data for each individual bridge. This data is used to support and verify statements made about the project in other sections in this application template, as noted in Section D.2.d.II of the NOFO. Data, format, and coding information can be downloaded from [Download NBI ASCII files - National Bridge Inventory - Bridge Inspection - Safety Inspection - Bridges & Structures - Federal Highway Administration \(dot.gov\)](#):

Bridge No. 17535: **(NB Bridge A)**

Identification

Item 1 – State Code & Name	40
Item 8 – Structure Number	175350000000000
Item 5A – Record Type	1
Item 3 – County Code & Name	13
Item 6 – Feature Intersected	W ARKANSAS ST & K R.R.
Item 7 – Facility Carried	U.S. 69 NB
Item 16 - Latitude	33594833
Item 17 – Longitude	96241776

Classification

Item 112 – NBIS Bridge Length	Y
Item 104 – Highway System of Inventory	1
Item 26 – Functional Classification	12
Item 110 – Designated National Network	0
Item 21 – Maintenance Responsibility	1

Item 22 – Owner	1
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Age and Service

Item 27 – Year Built	1969
Item 106 – Year Reconstructed	0
Item 42 – Type of Service	1, 4
Item 28A – Lanes on the Structure	2
Item 29 – Average Daily Traffic	11450
Item 109 – Average Daily Truck Traffic	29
Item 19 – Bypass, Detour Length	0

Structure Type and Material

Item 43 – Structure Type, Main	4, 2
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Condition

Item 58 – Deck Condition	5
Item 59 – Superstructure Condition	5
Item 60 – Substructure Condition	5
Item 61 – Channel and Channel Protection	N
Item 62 – Culverts	N

Geometric Data

Item 49 – Structure Length	60
Item 50 – Curb of Sidewalk Widths	0
Item 51 – Bridge Roadway Width, curb-to-curb	11.6

Item 52 – Deck Width, out-to-out	12.1
Item 32 – Approach Roadway Width	16.5
Item 47 – Inventory Route, Total Horizontal Clearance	11.6
Item 53 – Minimum Vertical Clearance over Bridge Roadway	99.99
Item 54 – Minimum Vertical Underclearance	H 6.61
Item 55 – Minimum Lateral Underclearance on Right	H 0.9
Item 56 – Minimum Lateral Underclearance on Left	0

Load Rating and Posting

Item 70 – Bridge Posting	5
Item 41 – Structure Open, Posted, or Closed to Traffic	A

Appraisal

Item 113 – Scour Critical Bridges	N
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Inspections

Item 90 – Inspection Date	920
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Bridge No. 17507: (NB Bridge B)***Identification***

Item 1 – State Code & Name	40
Item 8 – Structure Number	175070000000000
Item 5A – Record Type	1
Item 3 – County Code & Name	13
Item 6 – Feature Intersected	U.S. 70 UNDER
Item 7 – Facility Carried	U.S. 69 NB
Item 16 - Latitude	33595286
Item 17 – Longitude	96241467

Classification

Item 112 – NBIS Bridge Length	Y
Item 104 – Highway System of Inventory	1
Item 26 – Functional Classification	12
Item 110 – Designated National Network	0
Item 21 – Maintenance Responsibility	1
Item 22 – Owner	1

Age and Service

Item 27 – Year Built	1969
Item 106 – Year Reconstructed	0
Item 42 – Type of Service	1, 1
Item 28A – Lanes on the Structure	3
Item 29 – Average Daily Traffic	10100
Item 109 – Average Daily Truck Traffic	29
Item 19 – Bypass, Detour Length	0

Structure Type and Material

Item 43 – Structure Type, Main	4, 2
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Condition

Item 58 – Deck Condition	7
Item 59 – Superstructure Condition	7
Item 60 – Substructure Condition	5
Item 61 – Channel and Channel Protection	N
Item 62 – Culverts	N

Geometric Data

Item 49 – Structure Length	51.2
Item 50 – Curb of Sidewalk Widths	0
Item 51 – Bridge Roadway Width, curb-to-curb	14

Item 52 – Deck Width, out-to-out	14.6
Item 32 – Approach Roadway Width	16.5
Item 47 – Inventory Route, Total Horizontal Clearance	14
Item 53 – Minimum Vertical Clearance over Bridge Roadway	99.99
Item 54 – Minimum Vertical Underclearance	H 5.13
Item 55 – Minimum Lateral Underclearance on Right	H 4
Item 56 – Minimum Lateral Underclearance on Left	5.5

Load Rating and Posting

Item 70 – Bridge Posting	5
Item 41 – Structure Open, Posted, or Closed to Traffic	A

Appraisal

Item 113 – Scour Critical Bridges	N
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Inspections

Item 90 – Inspection Date	420
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Bridge No. 17534: (SB Bridge C)

Identification

Item 1 – State Code & Name	40
Item 8 – Structure Number	175340000000000

Item 5A – Record Type	1
Item 3 – County Code & Name	13
Item 6 – Feature Intersected	W ARKANSAS ST & K R.R.
Item 7 – Facility Carried	U.S. 69 SB
Item 16 - Latitude	33594694
Item 17 – Longitude	96242012

Classification

Item 112 – NBIS Bridge Length	Y
Item 104 – Highway System of Inventory	1
Item 26 – Functional Classification	12
Item 110 – Designated National Network	0
Item 21 – Maintenance Responsibility	1
Item 22 – Owner	1

Age and Service

Item 27 – Year Built	1969
Item 106 – Year Reconstructed	0
Item 42 – Type of Service	1, 4
Item 28A – Lanes on the Structure	2
Item 29 – Average Daily Traffic	11400
Item 109 – Average Daily Truck Traffic	29
Item 19 – Bypass, Detour Length	0

Structure Type and Material

Item 43 – Structure Type, Main	4, 2
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Condition

Item 58 – Deck Condition	5
Item 59 – Superstructure Condition	4
Item 60 – Substructure Condition	5
Item 61 – Channel and Channel Protection	N
Item 62 – Culverts	N

Geometric Data

Item 49 – Structure Length	60
Item 50 – Curb of Sidewalk Widths	0
Item 51 – Bridge Roadway Width, curb-to-curb	11.6

Item 52 – Deck Width, out-to-out	12.2
Item 32 – Approach Roadway Width	16.5
Item 47 – Inventory Route, Total Horizontal Clearance	11.6
Item 53 – Minimum Vertical Clearance over Bridge Roadway	99.99
Item 54 – Minimum Vertical Underclearance	H 6.3
Item 55 – Minimum Lateral Underclearance on Right	H 0.9
Item 56 – Minimum Lateral Underclearance on Left	0

Load Rating and Posting

Item 70 – Bridge Posting	5
Item 41 – Structure Open, Posted, or Closed to Traffic	A

Appraisal

Item 113 – Scour Critical Bridges	N
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Inspections

Item 90 – Inspection Date	920
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Bridge No. 17506: (SB Bridge D)

Identification

Item 1 – State Code & Name	40
Item 8 – Structure Number	175060000000000

Item 5A – Record Type	1
Item 3 – County Code & Name	13
Item 6 – Feature Intersected	U.S. 70 UNDER
Item 7 – Facility Carried	U.S. 69 SB
Item 16 - Latitude	33595177
Item 17 – Longitude	96241705

Classification

Item 112 – NBIS Bridge Length	Y
Item 104 – Highway System of Inventory	1
Item 26 – Functional Classification	12
Item 110 – Designated National Network	0
Item 21 – Maintenance Responsibility	1
Item 22 – Owner	1

Age and Service

Item 27 – Year Built	1969
Item 106 – Year Reconstructed	0
Item 42 – Type of Service	1, 1
Item 28A – Lanes on the Structure	3
Item 29 – Average Daily Traffic	10050
Item 109 – Average Daily Truck Traffic	29
Item 19 – Bypass, Detour Length	0

Structure Type and Material

Item 43 – Structure Type, Main	4, 2
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Condition

Item 58 – Deck Condition	7
Item 59 – Superstructure Condition	7
Item 60 – Substructure Condition	5
Item 61 – Channel and Channel Protection	N
Item 62 – Culverts	N

Geometric Data

Item 49 – Structure Length	51.2
Item 50 – Curb of Sidewalk Widths	0
Item 51 – Bridge Roadway Width, curb-to-curb	14

Item 52 – Deck Width, out-to-out	14.6
Item 32 – Approach Roadway Width	16.5
Item 47 – Inventory Route, Total Horizontal Clearance	14
Item 53 – Minimum Vertical Clearance over Bridge Roadway	99.99
Item 54 – Minimum Vertical Underclearance	H 4.08
Item 55 – Minimum Lateral Underclearance on Right	H 4
Item 56 – Minimum Lateral Underclearance on Left	5.5

Load Rating and Posting

Item 70 – Bridge Posting	5
Item 41 – Structure Open, Posted, or Closed to Traffic	A

Appraisal

Item 113 – Scour Critical Bridges	N
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Inspections

Item 90 – Inspection Date	420
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Project Selection Criteria

Provide narrative response how the project responds to the project selection criteria in Section E.1.b of the NOFO. In responding to project selection criteria, refer to statutory selection criteria included in Section E of the NOFO and address them in the appropriate project selection criteria.

<p>Criteria #1: State of Good Repair</p>	<p>This project contributes to the State of Good Repair criteria by reconstructing four bridges along a Critical Rural Freight Corridor. Three of the bridges are at risk of becoming structurally deficient in the immediate future and one bridge is already considered to be structurally deficient. This corridor sees high volumes of freight traffic on a daily basis and connects many economic and agricultural hubs across the Midwest. Newly constructed bridges will have an estimated life span of 75-100 years.</p> <p>17535-NB Bridge A – At risk of becoming Structurally Deficient</p> <p>17507-NB Bridge B – At risk of becoming Structurally Deficient</p> <p>17534-SB Bridge C – Structurally Deficient</p> <p>17506-SB Bridge D – At risk of becoming Structurally Deficient</p>
<p>Criteria #2: Safety</p>	<p>This project contributes to the Safety criteria in several ways. Safe Work Zone technology will be utilized during the construction to minimize traffic accidents around the project area. The construction of new bridges will remove the dangerous features associated with dilapidated bridges, such as potholes, cracks, crumbling concrete. Stretches of US-69 are among the top ten percent in the state in terms of crasher per mile and crash rate per million vehicle miles traveled. Removing roadway obstacles and repairing the physical condition will create safer conditions for motorists.</p>
<p>Criteria #3: Mobility and Economic Competitiveness</p>	<p>This project contributes to the Mobility and Economic Competitiveness criteria by promoting safe and efficient freight movement along US-69 and ensuring the long-term vitality of the corridor. As a Critical Rural Freight Corridor, US-69 sees large amounts of daily freight traffic. This corridor is important for connecting rural economic and agricultural hubs and diverting much of this freight traffic away from major metropolitan areas where there is greater risk of accidents or delays.</p>

<p>Criteria #4: Climate Change, Resiliency, and the Environment</p>	<p>This project contributes to the Climate Change, Resilience, and the Environment criteria by maintaining air quality standards and reducing air pollutants through the investment in infrastructure which reduces the risk of loss of goods and improves congestion related emissions on roadways. Additionally, the corridor will benefit the surrounding communities by equipping them with a safe route in a region prone to catastrophic weather events.</p>
<p>Criteria #5: Equity, Partnership, and Quality of Life</p>	<p>This project contributes to the Equity, Partnership, and Quality of Life criteria by improving regional mobility for a historically underserved area by creating better access to job centers, medical centers, churches, food banks, and other resources and opportunities.</p>
<p>Criteria #6: Innovation</p>	<p>This project contributes to the Innovation criteria by utilizing Smart Workzone technology which will minimize traffic accidents during construction, permanent traffic counters which will guide design and construction sequence decisions to make the process less impactful on the public and workers, incentives will be utilized to ensure the project reaches milestones on time, and innovative testing techniques will be implemented such as the use of concrete maturity meters and soil settlement plates which will help to expedite the construction process.</p>

Project Costs

Provide information detailing the costs associated with the project. These costs will be used to determine eligible award amount, how the project supports financial goals of the program, and other factors. More information on this section can be found in Section D.2.d.III of the NOFO.

BIP Request Amount	Exact Amount in year-of-expenditure dollars: \$23,200,000
Estimated Total of Other Federal funding (excluding BIP Request)	Estimate in year-of-expenditure dollars: \$0
Estimated Other Federal funding (excluding BIP) further detail	N/A
Estimated non- Federal funding	(Identify each source of non-Federal funding and estimated amount, e.g. Source: State funding Amount: \$23,200,000
Future Eligible Project Cost (Sum of BIP request, Other Federal Funds, and non-Federal Funds, above.	Estimate in year-of-expenditure dollars: \$46,400,000
Previously incurred project costs (if applicable)	Estimate in year-of-expenditure dollars: \$1,196,995
Total Project Cost (Sum of 'previous incurred' and 'future eligible')	Estimate in year-of-expenditure dollars: \$47,596,995

<p>If more than one bridge, will bridge bundling be used to deliver the Project?</p>	<p>Yes</p> <p>Bundling these four bridges will provide several benefits including faster construction, total cost savings, fewer traffic and freight delays, better coordination of workers and deployment of materials, and minimizes waste of excess materials.</p>
<p>If proposed project utilizes bundling, Cost of Unbundled Projects</p>	<p>Estimate in year of expenditure dollars: \$55,680,000</p>
<p>Amount of Future Eligible Costs by Project Type</p>	<p>Indicate Improvement Type by Structure Number (Bridge Replacement, Bridge Rehabilitation, Bridge Preservation, Bridge Protection, or Culvert Replacement or Rehabilitation) and amount per bridge (if bundling, include the unbundled cost in brackets[\$__]¹)</p> <ol style="list-style-type: none"> 1. Bridge Replacement, Str. 17537: \$13,456,000 [\$16,147,200] 2. Bridge Replacement, Str. 17507: \$10,208,000 [\$12,249,600] 3. Bridge Replacement, Str. 17534: \$14,384,000 [\$17,260,800] 4. Bridge Replacement, Str. 17506: \$8,352,000 [\$10,022,400]

¹ Costs of unbundled project will be compared with bundled costs to determine potential amount of cost savings and as a factor in the ability to unbundle bridges for an award

Benefit-Cost Analysis

<p>Benefit Cost Analysis– Submit the requested information in Section D.2.d.V for the DOT to conduct a review of the benefit-cost analysis for the project and provide a summary of the analysis.</p>
<p>The benefit cost analysis demonstrates a benefit cost ratio of 1.96 with a total net benefit of \$195,854,122 over a 20-year analysis period.</p>

Project Readiness and Environmental Risk

Project Readiness and Environmental Risk – Submit the requested information in Section E.2.b.iii for the DOT to conduct a review of the project readiness and environmental risk criteria for the project and provide a summary. If project includes multiple bridges, indicate the information for each bridge included in the application and what impact would occur on the timeframes if the project were unbundled.

Other Federal Funding and Non-Federal Funding Secured	No
NEPA Status – Indicate if the determination will likely be the result of a Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS)	Planned or Actual Start of NEPA Date: 03-17-2021 Planned or Actual Completion of NEPA Date: 08-04-2022 Final NEPA Determination or current status of NEPA process: Programmatic Categorical Exclusion
Is the project currently programmed in the: <ul style="list-style-type: none"> • TIP • STIP • MPO Long Range Transportation Plan • State Long Range Transportation Plan 	No <ul style="list-style-type: none"> • It is in line with the policies of the State Long Range Transportation Plan • This project will be in a future year STIP

Is right-of-way acquisition necessary?	No
Right-of way acquisition considerations.	N/A
Design Status	Planned or Actual Start of Preliminary Design Date: 02-01-2021 Planned or Actual Completion of Preliminary Design Date: 11-08-2021 Planned or Actual Start of Final Design Date: 06-30-2022 Planned or Actual Completion of Final Design Date: 09-30-2023
Anticipated Construction Start Date:	Date:12-31-2022
Anticipated Project Completion Date:	Date: Early 2025
<p>The summary on project readiness and environmental risk demonstrates that the project is currently at 65% design plans, with 100% plans to be complete in early 2023. Upon the receipt of the Bridge Infrastructure Program Grant dollars, construction will be complete by 2025. ODOT is focused on accountability in Project delivery and performance and is committed to transparency and quality performance in all projects and operations. ODOT is aware of the Project risks associated with material costs, weather delays, and technical feasibility. ODOT has an extensive history of delivering projects of this type on time and on budget.</p>	

Project Priority Considerations

Project Priority Considerations: Does the application support any of the DOT Priority Considerations – Bridge Projects listed in Section E.2.b of the NOFO? If the applications supports one or more of the considerations for the FY22 submissions, describe which consideration(s) is supports and how. In the discussion below, reference to previous sections in which additional information was detailed to support the consideration(s).

This application supports the following priority considerations:

Final Design

Final design and right-of-way acquisition commenced when the programmatic categorical exclusion was granted in August 2022. The final design phase is already funded and projected to start in Quarter 4 of 2022. Therefore, final design will start within 12 months of Categorical Exclusion Determination.

Funding Obligations

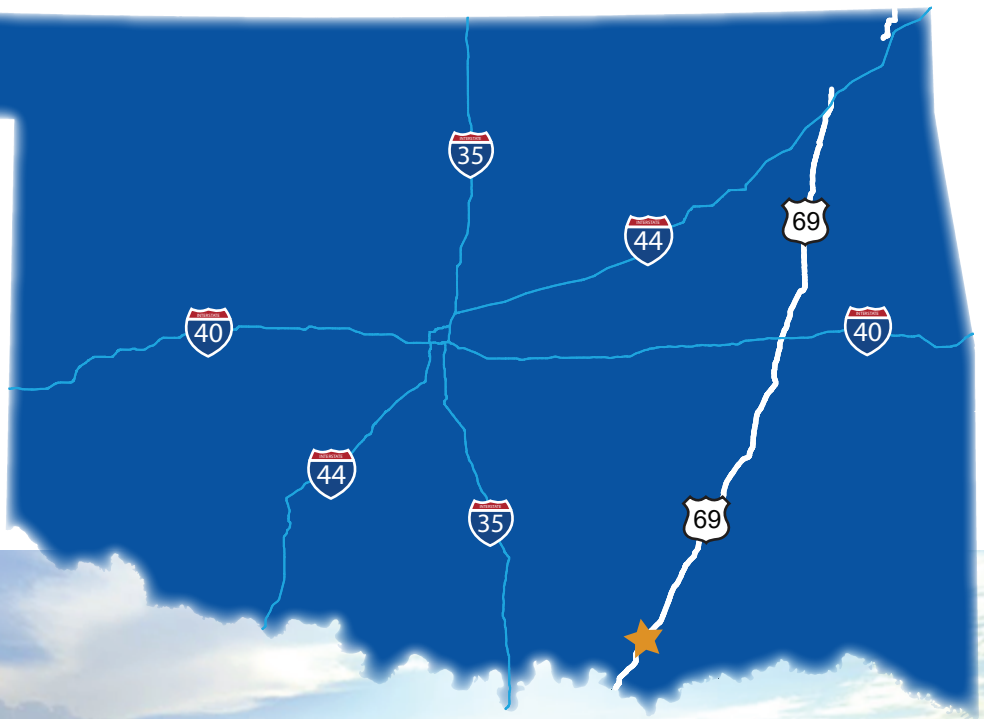
The project's final design phase is fully funded and the applicant will obligate construction funds within 18 months of completion of final design.

Need Justification

ODOT is not able to complete the construction for this Project without the support from BIP funding. BIP funds will allow full construction to be complete by 2025. Currently, all four bridges are programmed for 2027 and are subject to availability of funding. Additionally, BIP funding allows the four bridges to be bundled, saving time and costs related to mobilization, traffic control, and impact to local commerce.



OKLAHOMA
Transportation



US-69 Bridge Replacement

Durant, OK

Applicant: Oklahoma Department of Transportation

UEI Number: P14MNTH7JM37

BIP Request Amount: \$23,200,000

Local Match: \$23,200,000

ODOT Contact: Daniel Nguyen (dnguyen@odot.org)

Supporting information can be found at:

US-69 Bridge Replacement Website

TABLE OF CONTENTS

I. Basic Project Information.....	1
Project Description.....	1
Existing conditions.....	2
Proposed Project.....	3
Project Location.....	3
Project History.....	4
Project Partners.....	5
Challenges and Opportunities.....	5
Challenges.....	5
Opportunities.....	6
Minimizing impacts to the surrounding community.....	6
Bundling.....	6
II. National Bridge Inventory Data.....	7
III. Project Costs – Grant Funds, Sources and Uses.....	7
IV. Project Outcome Criteria.....	8
State of Good Repair.....	8
Safety.....	9
Seismic Activity.....	9
Construction Techniques.....	10
Mobility and Economic Competitiveness.....	10
Economic Competitiveness.....	10
Mobility.....	11
Climate Change, Resiliency, and Environment.....	11
Energy Corridor.....	12
Resiliency.....	12
Recycled and Sustainable Materials.....	13
Project Benefits.....	13
Hiring from Local Communities.....	13
Innovation.....	14
Innovation Area #1: Smart Work Zone.....	14

Innovation Area #2: Permanent Traffic Counter	14
Innovation Area #3: Project Delivery	14
V. Benefit Cost Analysis	15
VI. Project Readiness and Environmental Risk.....	16
Technical Feasibility	16
Project Schedule.....	17
Required Approvals.....	17
Environmental Permits and Reviews.....	17
State and Local Approvals.....	17
Federal Transportation Requirements Affecting State and Local Planning	18
Assessment of Project Risks and Mitigation Strategies	18
VII. Project Priority Considerations.....	19
VIII. Appendices	20

LIST OF FIGURES

Figure 1: Project Location within the State	14
Figure 2: Bridge Locations and Coordinates	3
Figure 3: Tribal Land and Special Zones.....	4
Figure 4: Project Partners.....	5
Figure 5: Four Bridge Replacements	7
Figure 6: Seismic Activity near the Project Location.....	9
Figure 7: Project Schedule	17

LIST OF TABLES

Table 1: Sources and Uses of Funds.....	7
Table 2: Benefit Cost Analysis	15
Table 3: Project Risk and Mitigation Strategies	18

I. BASIC PROJECT INFORMATION

PROJECT DESCRIPTION

The Oklahoma Department of Transportation (ODOT) is seeking funding to replace four bridges that are critical to the state and local rural economy. The need is triggered by structural deficiency and pending future improvements to the vital U.S. Route 69 (US-69). This bridge bundling project (the Project) is in line with ODOT’s priority to proactively prevent and significantly reduce the number of functionally obsolete and structurally deficient bridges in the state.

US-69 is on the Critical Rural Freight Corridors (CRFCs) and is considered a Rural High Truck Volume Route and Rural High Percent Truck Route (Oklahoma Freight Plan 2018-2022).

US-69 through Oklahoma is a nationally important freight corridor that will see continued operational efficiency, along with improvements to associated rural economic vitality, from the US-69 Bridge Replacement Project proposed by ODOT.

According to 2015 data, approximately 50 to 89 million tons of highway freight travel through Oklahoma on US-69 annually. Today, US-69 is heavily relied upon

for the movement of goods through the state and freight traffic is expected to increase in the future. As a result, US-69 requires continuous maintenance and rehabilitation to support increasing traffic volumes along the corridor. The bridges will have a minimum vertical clearance of 23’-10” over railroads and a minimum vertical clearance of 16’-9” over roadways to accommodate future freight and rail traffic.

In addition to the replacement of four bridges, the Project will extend the existing deceleration and acceleration lanes on US-69 as required to improve safety and meet current design criteria. This investment will ensure an uninterrupted flow of freight between significant trade and economic centers. In 2021, this segment of US-69 carried over 27,000 vehicles including over 6,600 trucks (24% of total AADT) daily. This proportion of truck traffic highlights the corridor's current and future importance as a key north-south freight corridor running from Minnesota to Texas, intersecting numerous east-west truck routes including I-44, I-40 and the McClellan-Kerr Arkansas River Navigation System (MKARNS) in northeastern Oklahoma.¹

The US-69 Bridge Replacement Project would replace four bridges on US-69, crossing over West Arkansas Street and the Kiamichi Railroad and Main Street (northbound and southbound). The proposed Project would cost \$46,400,000 and be funded through a combination of state investment of \$23,200,000 in non-federal match (50%) coupled with the grant request of \$23,200,000 (50%).

FIGURE 1: PROJECT LOCATION WITHIN THE STATE



¹ US-69 NEPA Document – Page 10

EXISTING CONDITIONS

The proposed Project consists of four bridge replacements. The US-69 bridge Project will include replacing four existing continuous rolled beam design bridges with new steel plate girder bridges. The bridge replacements will improve the structural condition of the bridges.

Bridge A (Bridge No. 17535) is a continuous steel I-beam, stringer/girder bridge comprised of four spans that are 45 ft - 52 ft - 52 ft - 45 ft. The total bridge length is 196.9 feet. The concrete-cast-in-place deck has a horizontal clearance of 38 feet. Bridge A has a sufficiency rating of 76.5 and is considered functionally obsolete and is at-risk of becoming structurally deficient.

Bridge B (Bridge No. 17507) is a steel continuous stringer/girder span bridge comprised of two 83-foot-long spans, totaling 168 feet in length. The concrete-cast-in-place deck has a horizontal clearance of 46 feet. This structure was constructed in 1969, has a sufficiency rating of 77.3, and is at-risk of becoming structurally deficient.

Bridge C (Bridge No. 17534) is a continuous steel I-beam, stringer/girder bridge comprised of four spans that are 45 ft - 52 ft - 52 ft - 45 ft. The total bridge length is 196.9 feet. The concrete-cast-in-place deck has a horizontal clearance of 38 feet. This structure was constructed in 1969, has a sufficiency rating of 60.5, and is considered structurally deficient or in poor condition.

Bridge D (Bridge No. 17506) is a steel continuous stringer/girder span bridge comprised of two 83-foot-long spans, totaling 168 feet in length. The concrete-cast-in-place deck has a horizontal clearance of 46 feet. This structure was constructed in 1969, has a sufficiency rating of 77.2, and is at-risk of becoming structurally deficient. Overall, the Project would replace 1 bridge that is currently rated as structurally deficient and 3 bridges that are currently rated to be in fair condition but are at risk of becoming structurally deficient in the next few years.



Existing deck conditions - 2022



Existing pier conditions - 2022

PROPOSED PROJECT

The proposed Project consists of replacing all four bridges. Bridge A will be replaced with a 38-foot-wide span bridge, while Bridges B, C, and D will be replaced with 50-foot-wide span bridges. Bridge B will be widened to allow for a safe transition and deceleration to the off-ramp. Bridges C and D will be widened to add a properly sized on-ramp acceleration lane.

The approaches will consist of four (two northbound and two southbound lanes) 12-foot-wide paved driving lanes with 4-foot wide paved inside and 10-foot-wide paved outside shoulders. All improvements will be completed on the existing alignment. The acquisition of new rights-of-way or the relocation of utilities will be avoided. No alterations will be made to West Arkansas Street, Kiamichi Railroad or West Main Street below the bridges. The purpose of this Project is to improve safety and structural integrity of four bridges in Durant, Oklahoma. Three of the existing bridges are currently rated to be in fair condition and one is rated as structurally deficient. The three fair condition bridges are at risk of becoming structurally deficient in the next few years. Investing in this Project will reduce and nearly eliminate maintenance costs for these structures and contribute to the resiliency of US-69 long-term.

PROJECT LOCATION

The US-69 Bridge Replacement is located in Durant, Oklahoma within Census Tract 7961 in Bryan County. The project includes the replacement of four bridges located on US-69, north and southbound, going over West Arkansas Street and Main Street in Durant, Oklahoma. The four bridges will be identified in this narrative as follows:

- Bridge No. 17535: US-69 NB over West Arkansas Street and Kiamichi Railroad (**Bridge A**)
- Bridge No. 17507: US-69 NB over Main Street (**Bridge B**)
- Bridge No. 17534: US-69 SB over West Arkansas Street and Kiamichi Railroad (**Bridge C**)
- Bridge No. 17506: US-69 SB over Main Street (**Bridge D**)

US-69 is a key component of the national freight network and the local and regional economy. The project segment of US-69 is an open section divided principal arterial highway with four 12-foot-wide paved driving lanes (two northbound and two southbound lanes) with 4-foot wide inside and 8 to 10-foot wide outside paved shoulders. US-69 is duplexed with US-75 throughout the entirety of the project segment. The pavement is deteriorating and the ramp geometry onto Main Street is substandard. This highway traverses the urban area of Durant and has an average daily traffic (ADT) of 27,700 vehicles per day. The bridge locations and geospatial coordinates are shown in **Figure 2**.

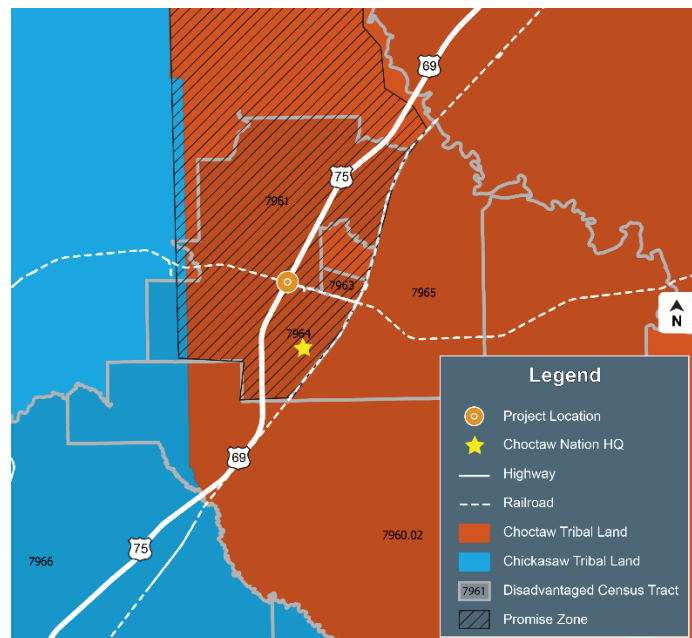
FIGURE 2: BRIDGE LOCATIONS AND COORDINATES



The Project is located in an Urban Cluster, according to 2010 census data², and is also located within a Promise Zone, one of four Federally designated community development zones.

The Project is within the Choctaw Indian Nation and is located approximately 2.5-miles east of the Chickasaw Indian Nation. Census Tract 7691 is considered a Historically Disadvantaged Community (HDC), Transportation Disadvantaged, Resilience Disadvantaged, Environmentally Disadvantaged, Health Disadvantaged and Economically Disadvantaged. The project area is directly adjacent to Census Tract 7964, which have similar Disadvantaged Communities (DACs) indicators shown in **Figure 3**.

FIGURE 3: TRIBAL LAND AND SPECIAL ZONES



PROJECT HISTORY

The US-69 Bridge Replacement will be an integral part of ODOT’s commitment to updating the US-69 corridor. Since their construction in 1969 the four bridges have undergone regular inspection, including reoccurring routine maintenance and deck patching. This maintenance was necessary in order to keep the bridges from falling into poor condition.

Other investments along the US-69 include:

Fostering Advancements in Shipping and Transportation for the Long-term Achievement of Nation Efficiencies (FASTLANE) Grant

- The USDOT announced a \$62 million grant which helped fund an ODOT project to improve and upgrade US-69/75 from Calera, OK to Durant, OK in Bryan County. This project will improve accessibility on and off the highway, protect key interchanges, create one-way frontage roads and add a much-needed rail crossing to the four lanes of traffic, all to alleviate traffic congestion and improve safety. This modernization of US-69/75 means the highway will continue to grow as a major freight and travel corridor.

As detailed in ODOT’s [8-Year Construction Work Plan](#), the following improvements have been identified:

Atoka County US-69 Improvements:

- JP# 3041004, 3041005 & 3041006 (FY 2023, Let 11/22): Pavement rehabilitations, grade, drain and surface upgrades, right-of way and utilities on a 2.5-mile section of US-69 located north of the Project (approximately \$16.6 Million)

² <https://www.census.gov/geographies/reference-maps/2010/geo/2010-census-urban-areas.html>

- JP# 3573204 (FY 2026): Grade, drain and surface upgrades on a 1.6-mile section of US-69 north of the Project (approximately \$5 million).

Bryan County US-69 Improvements:

- JP# 3436304 (FY 2022, Let 03/22): Resurfacing on an 8-mile section of US-69 located north of the Project (approximately \$4.3 Million).

ODOT’s investment in highways and bridges is a statewide effort, which will continue to improve Oklahoma’s transportation infrastructure. The US-69 Bridge Replacement in Durant will ensure US-69 remains a viable and active freight and travel corridor.

PROJECT PARTNERS

ODOT is the Project sponsor and has decades of experience with receipt and expenditure of federal transportation funds. ODOT is committed to improving conditions and safety on Oklahoma bridges and roads. Multiple ODOT Divisions are responsible for coordinating the State’s transportation planning efforts with those of Oklahoma’s MPOs and for consulting tribal governments and other officials with local responsibilities for transportation.

Numerous entities in the region support the Project through formal letters of commitment, all of which are uploaded to grants.gov and can also be found on the [ODOT US-69 Bridge Replacement in Durant](#) website. Partners include:

FIGURE 4: PROJECT PARTNERS



CHALLENGES AND OPPORTUNITIES

The four bridges to be replaced by this Project on US-69 crossing over West Arkansas Street and Main Street (northbound and southbound) have associated challenges and opportunities that ODOT will navigate if funding is awarded.

CHALLENGES

Coordination with the Kiamichi Railroad that crosses under two of the northbound and southbound bridges will be necessary to ensure that the improvements meet vertical clearance standards (23’-9”) for the railroad and minimize impacts to both truck and rail movement during construction.

Additionally, with the high truck traffic volumes that travel across these bridges daily, the Project aims to maintain one travel lane in the northbound and southbound direction to limit the impact to traffic.

OPPORTUNITIES

The improvements that would be provided by this Project aim to avoid utility relocations and right-of-way acquisition which minimizes impact to the local community of Durant, Oklahoma. Constructing four new bridges would correct existing deficiencies, which would nearly eliminate future maintenance costs for ODOT.

MINIMIZING IMPACTS TO THE SURROUNDING COMMUNITY

US-69 is a key north-south corridor that is vital to the Durant community and surrounding area. A top priority is to minimize impacts to the surrounding community throughout the construction phase and lifecycle of the bridges. Impact minimization and mitigation include making every effort to stay within existing right-of-way and avoid relocation of existing utilities; minimizing disturbance to the approach pavement and the grade change to US-69; and no alterations will be done to Arkansas Street or Main Street which will allow access to be maintained during bridge construction. Routine maintenance of the existing structures would only prolong the life of the bridges an additional five to ten years before they would require complete reconstruction. Replacing all four bridges at the same time will aid in minimizing impacts to the surrounding community by decreasing overall project time and minimizing need to detour through Durant.



Durant, Oklahoma

BUNDLING

Bundling provides several benefits including time and cost savings, and an overall more efficient construction process. The bridges will be constructed faster and during a compressed period. This will lead to less cost escalation and maintenance dollars expended. The coordinated bundling will mean fewer interruptions and slow-downs, and it will eliminate the need for detours that would degrade the operation of US-69, avoiding negative impacts to this nationally important freight corridor.

Standardization of equipment, processes, and materials for all four bridge replacements will be significantly more efficient than completing one bridge at a time. Standardization for the replacements will be used so that fabricators can minimize wasted excess materials.

Bundling projects allows contractors to plan for a larger workload and to ensure a fully deployed work force during construction. Providing confidence for contractors that their crew will be used continuously is beneficial to overall program implementation by increasing competition for constructing the bundle, thus potentially lowering costs further.

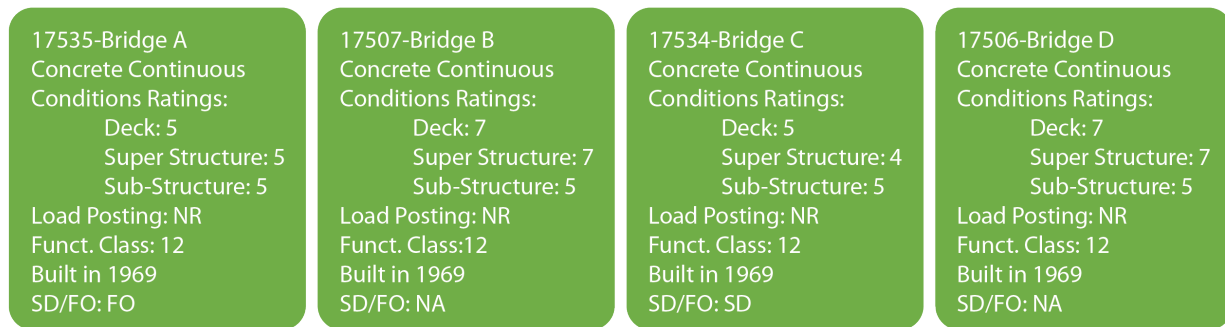
Bundling projects is also an efficient way to minimize duplicative administrative work, oversight, and contract management tasks. A single contract (rather than four) is easier for ODOT to manage and reduces burden on ODOT staff. Bundling also allows the team on the ground to coordinate

deployment of resources better. Additionally, bundling minimized the impact to the traveling public while increasing safety.

II. NATIONAL BRIDGE INVENTORY DATA

A summary of the National Bridge Inventory data for each of the bridges associated with this Project are shown below in **Figure 5**. The full list of data items for each bridge can be found in the **Bridge Application Template** uploaded to the [Project website](#).

FIGURE 5: FOUR BRIDGE REPLACEMENTS



III. PROJECT COSTS – GRANT FUNDS, SOURCES AND USES

ODOT is requesting \$23.2 million in BIP funds, 50 percent of the future eligible total Project cost. ODOT will contribute \$23.2 million in non-federal funds for a Total Project cost of \$46.4 million. ODOT is not able to complete the construction for this Project without the support from BIP funding. BIP funds will allow full construction to be complete by 2025. The detailed cost estimate for each bridge and associated improvements are shown below in **Table 1**.

ODOT is seeking funding assistance for project construction of the US-69 Bridge Replacement Project. All obligated BIP funding would be used for construction costs as shown in **Table 1**. This table provides a summary of sources and uses of funds for the total Project. General project contingency is based off twenty-percent of total construction costs for each bridge.

Table 1: Sources and Uses of Funds

Funding Source	\$ Amount (%)
ODOT (Local Match)	\$23,200,000 (50%)
BIP Request Amount	\$23,200,000 (50%)
Total Project Cost	\$46,400,000 (100%)

IV. PROJECT OUTCOME CRITERIA

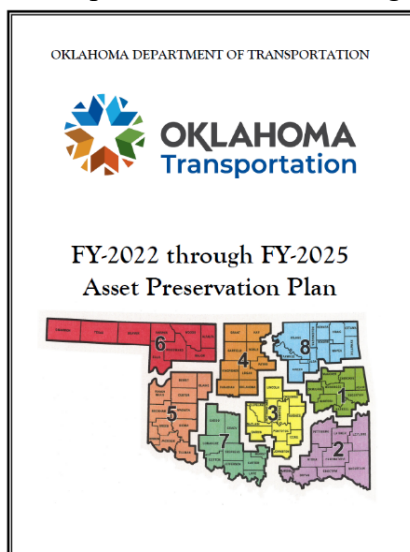
STATE OF GOOD REPAIR

As stated in the Existing Conditions section, bridges A, B and D are at risk of becoming structurally deficient and Bridge C is considered structurally deficient. As of 2022, the Federal Highway Administration ranked Oklahoma as number five in the nation for overall condition of bridges. Less than 1% (47) of state-maintained interstate and highway bridges are considered structurally deficient. ODOT is working toward its goal of ranking number 1 nationally by including each of the 47 remaining structurally deficient bridges in the [Eight-Year Construction Work Plan](#) to be completed by 2029.³ In a state with extreme and rapidly fluctuating weather, the dependability of bridges along these crucial corridors is important to the surrounding community, state, and region.

ODOT has estimated full lifecycle costs of the Project, including the maintenance and operating costs for the bridge. Lifecycle cost forecasts use recent maintenance and operating cost analysis of other similar new bridges, in addition to accounting for regular pavement maintenance, rehabilitation/reconstruction projects, annual general maintenance, and contingency in place within ODOT’s maintenance budget based on recent extreme weather conditions from climate change. ODOT’s current budget added \$40 million to prepare for additional maintenance based on more extreme weather (including flooding, tornados, and cold weather events).

ODOT is confident in the ability to pay for operations and maintenance needs based on the state’s recent increases in **dedicated transportation funding**.

ODOT is funded by both state and federal dollars. In 2005, **House Bill 1078 passed creating the Rebuilding Oklahoma Access and Driver Safety (ROADS) fund that permanently dedicated state income tax dollars to help supplement the minimal state dollars invested over the previous decades.** Oklahoma, like many states, faced budget shortfalls from 2010-2017, resulting in nearly \$800 million in cumulative budget cuts to the transportation system during that period. The Oklahoma Legislature has recognized that cutting transportation funding was not an option and implemented the following countermeasures to partially offset this temporary budget impact:



- In 2016 and 2020, ODOT was authorized to sell \$200 million in bonds to partially offset the budget shortfalls that impacted the transportation budget that year.

- In 2018, for the first time in over 30 years, state lawmakers united to pass a required super- majority (75 percent house and senate) tax increase to boost state revenue that included state motor fuel tax (6 cents on diesel and 3 cents on gasoline). While this revenue was not additive to the ROADS fund allocation, this transportation industry generated revenue was committed 100 percent to ODOT to help ensure that future budget shortfalls would not impact ODOT funding as it did in 2016 and 2017. By 2021, the ROADS cap increased to \$590 million.

The existing bridges were designed for a 50-year lifespan. The new bridges will have a lifespan of approximately 75 to 100

³ <https://journalrecord.com/2022/08/02/oklahoma-attains-no-5-ranking-for-bridge-conditions/>

years. New technologies and materials allow for bridges to be built better and faster while also improving maintenance for a longer bridge life.⁴ Typically, one year after construction, ODOT applies a penetrating water repellent surface treatment (Silane) to the bridge structure for preventative maintenance. Bridge rehabilitations traditionally occur 20 years after the structure is built unless repairs are needed earlier.

The corridor will be maintained in accordance with ODOT’s maintenance schedule. ODOT maintains a detailed [Asset Preservation Plan](#) for existing infrastructure and future transportation improvements within each county. These plans begin with ODOT’s Field District Engineer building on a condition assessment of the highway network based upon their knowledge of the transportation needs and priorities in each district.

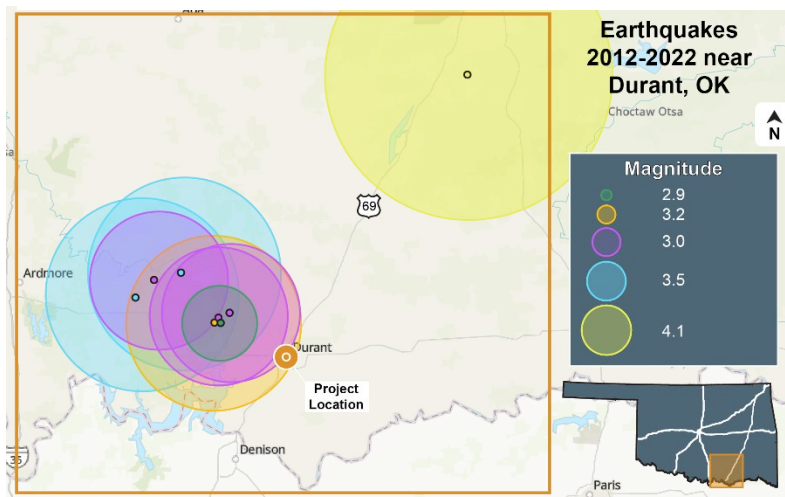
SAFETY

ODOT’s Freight Transportation Plan⁵ identified stretches of US-69 among the top 10 percent in the state in terms of crashes per mile and crash rate per million vehicle miles traveled (VMT). Crashes per mile are a good indication of the potential for delays that could occur on a particular stretch of roadway. Crashes per mile tend to cluster in metropolitan areas and near the interchanges where freeways and highways intersect. For safety analysis, crashes are typically normalized by VMT. Crashes per million VMT points to locations where safety conditions exist that might result from roadway configuration or other physical conditions. The average crash rate per vehicle for this Project was estimated to occur every 2 out of 123 vehicles over the last 5 years. From this estimate of crashes, there have been 0 fatality crashes and 47 total injury crashes during the last five years.⁶

SEISMIC ACTIVITY

The Project area location has seen several seismic events since the bridges were constructed in 1969 which have influenced the structural integrity of the bridge. The new bridges will be designed to withstand seismic events that are becoming more frequent in the state, therefore improving the safety and resiliency of the bridges. **Figure 6** shows several earthquakes that have occurred near Durant, Oklahoma from 2012 to 2022.⁷

FIGURE 6: SEISMIC ACTIVITY NEAR THE PROJECT LOCATION



⁴ <https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/Bridges-Final.pdf>

⁵ Oklahoma Freight Plan 2018 - 2022

⁶ ODOT provided all crash data for this Project

⁷ <https://earthquaketrack.com/us-ok-durant/biggest>

CONSTRUCTION TECHNIQUES

During the bridge replacement, the primary concern is to maintain the safety of the traveling public and construction workers during construction activities. For all four bridge replacements, traffic will be maintained throughout construction with the use of crossover lanes and single lanes with appropriate dividers for head-to-head traffic.

Additionally, during construction a Smart Work zone system will be utilized for further safety precautions. The goal of this system is to provide advance traffic information to motorists when there is a slowing of traffic due to congestion resulting from lane closures or other conditions. These situations have the potential to produce abnormally large traffic backups that create opportunities for crashes inside and outside of the work zone. The use of the Smart Work zone system will help to minimize traffic backups and accidents by acquiring traffic flow data and accurate speed calculation techniques to relay the speed information on changeable message signs at upstream locations.



[ODOT Presentation on Work Zone Safety, 2022](#)

MOBILITY AND ECONOMIC COMPETITIVENESS

The primary goal of the Project is to ensure safe and efficient freight movement and to provide long-term vitality of US-69. The new bridges would allow US-69 to continue to support current and future traffic demands. Mobility will be improved throughout the corridor as a result of the Project by directly improving infrastructure used by thousands of people every day. Safety will improve for not only freight but motorists traversing the corridor. The Project will also boost mobility by reducing accidents and limiting the need for detours through unequipped roads.



Kiamichi Railroad – Arkansas Street in Durant, Oklahoma

ECONOMIC COMPETITIVENESS

ODOT is committed to ensuring compliance with domestic preference laws, promoting the hiring of local contractors, and facilitating participation by socially and economically disadvantaged businesses. ODOT will not be pursuing a waiver for relevant domestic preference laws. Programs like ODOT's [On-Boarding Program](#) provide resources to DBE's, Small Businesses, and Women Owned Businesses, for the purpose of development into viable, self-sufficient businesses capable of competing for and performing on, federally assisted highway projects. Area contractors are well experienced in construction techniques required for the Project.

Bridges A and C in this bundle serve as an overpass for the Kiamichi railroad (KRR), a Class III railroad, that runs through the city of Durant. Class III railroads—also called short lines—are the smallest railroads. The importance of short lines has grown, as these railroads often serve as the initial or final link between Class I railroads and rail customers. Short lines often work together

with the Class I railroads to offer shippers a complete transportation solution. The Kiamichi Railroad (KRR) traffic generally consists of coal, lumber, paper, glass, cement, pulpwood, stone, and food products. Repairing of these bridges and the planned height increase over the KRR will aid in future efficient rail freight transportation throughout the region.

MOBILITY

As mentioned in the Project Description, US-69 is designated as a Critical Rural Freight Corridor (CRFC). CRFC designation in Oklahoma is limited to 160 rural miles and is reserved for those corridors that receive high volumes of freight traffic, connect interstates and ports, or have access to energy and agricultural production areas. US-69 meets these criteria as it carries high volumes of truck freight, connects rail hubs, diverts freight traffic outside of the major metropolitan areas, and connects to several important industrial/agricultural hubs. As discussed, the Project will enhance mobility throughout the corridor for freight and motorists by updating deteriorating infrastructure, making travel in the corridor safer, and improving efficiency in the region.



US-69 Bridge over Main Street in Durant, Oklahoma

The Project helps to mitigate barriers to mobility by diverting heavy truck traffic volumes from local Durant streets to US-69. By shifting truck traffic away from local streets, the quality of life for residents and visitors near the existing route is improved. High volumes of freight and truck traffic are not conducive to local Durant streets and are much better suited for US-69. Shifting freight and oversized/overweight (OS/OW) loads from local streets to US-69 will significantly improve the local Durant pedestrian and bicycle environment.

The Project helps to mitigate barriers to mobility by diverting heavy truck traffic volumes from local Durant streets to US-69. By shifting truck traffic away from local streets, the quality of life for residents and visitors near the existing route is improved. High volumes of freight and truck traffic are not conducive to local Durant streets and are much better suited for US-69. Shifting freight and oversized/overweight (OS/OW) loads from local streets to US-69 will significantly improve the local Durant pedestrian and bicycle environment.

CLIMATE CHANGE, RESILIENCY, AND ENVIRONMENT

Environmental sustainability is a priority and key asset of goods movement by highway. Maintaining air quality standards, investing in infrastructure to reduce the risk of loss of goods and improving congestion related emissions on roadways will further improve the quality of life for local communities and regional economies. The Project provides improvements to ensure the long-term vitality of US-69. New bridge infrastructure will better support current and future demands of freight movement.

While total pollution may not significantly be reduced because of the Project, the community of Durant, which is considered an area of persistent poverty (APP) and HDC, will benefit from reduced air pollutants and noise pollutants in the immediate vicinity as a result of less through traffic, which ultimately reduces climate change impacts.

An Environmental Justice (EJ) Screening⁸ shows the Project encompasses areas of medium percentiles (between 60 and 80) for several EJ indexes including ozone, lead paint, NATA diesel PM, NATA respiratory HI, traffic proximity, superfund proximity, Risk Management Plan (RMP) proximity, hazardous waste proximity, and wastewater discharge indicator, shown in the EJ Maps

⁸ <https://ejscreen.epa.gov/mapper/>

using the EPA EJ Screening and Mapping Tool. The Project will provide several benefits to surrounding EJ populations, such as:

- Safer conditions for multi-modal connectivity by removing freight traffic including OS/OW loads traveling through Durant;
- Separation of through traffic (e.g., freight) and local vehicles;
- Improved access to and from the Durant area and improved circulation for residents;
- A more efficient supply chain corridor, thereby supporting the state’s economy, thereby creating more jobs for the region; and
- Better disaster preparedness for a region prone to catastrophic weather events.

ENERGY CORRIDOR

The US-69 corridor has been nominated by the USDOT and ODOT as an Alternative Fuel Corridor⁹ (AFC). As an AFC, it will aid in the transportation of freight and goods through clean energy sources and provide electric vehicle (EV) infrastructure to rural and underserved areas. ODOT’s plan to work with private industries to develop electric vehicle charging station infrastructure will contribute to reducing transportation-related greenhouse gas emissions and help put the U.S on a path to net-zero emissions by 2050. According to the [U.S. Department of Energy](#), all-electric vehicles, plug-in hybrid electric vehicles, and hybrid electric vehicles typically produce lower tailpipe emissions compared to conventional vehicles. Using lower carbon fuels is one of three actions people can take to reduce greenhouse gases from transportation, according to the [U.S. Environmental Protection Agency](#) (EPA). ODOT has developed a plan for EV charging station rollout which will include Public-Private partnerships along multiple corridors with the private entities being the ultimate owners and operators. This will enhance opportunities for drivers to select cleaner vehicles with reliable access to alternate fueling stations. By enhancing this corridor’s connectivity, this Project will aid in the opportunity to support the state’s environmental goals for use of alternatively fueled vehicles

RESILIENCY

The Project assists the state in disaster preparedness and designing for resiliency. This area of Oklahoma is prone to tornadoes and flooding. The US-69 corridor is an alternate route to I-35 in the region and utilized for emergency routing when necessary.

Oklahoma saw a significant increase in the amount of seismic activity in the past ten years due to saltwater disposal associated with oil and gas production in the state. Due to the seismic activity increase, in 2017 ODOT began using the U.S. Geological Survey’s (USGS) ShakeCast Program to prioritize bridge inspections following earthquakes. The Project area location has seen several seismic events since their construction in 1969 which has influenced the structural integrity of the bridge. The new bridges will be designed to withstand seismic events that are becoming more frequent in the state, therefore improving the safety and resiliency of the bridges.

⁹ https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/maps/

RECYCLED AND SUSTAINABLE MATERIALS

Structural steel, which will be utilized for this Project, is a premier green construction material. Its high recycled content and recycling rate exceed those of any other construction material. While numerous legislative and regulatory efforts in recent years have targeted emissions, energy efficiency, and related environmental concerns, the structural steel industry has been proactive in pursuing measures that typically exceed regulatory requirements.¹⁰

Over the past three decades, the steel industry has reduced greenhouse gas and overall emissions by 36 percent and increased the water recycling rate of steel production to 95 percent.¹¹

QUALITY OF LIFE

US-69 connects Durant to several rural communities across the region which have major industries including health and education, oil and gas, trucking and warehousing, farming, wind energy, and entertainment. In addition to improving freight mobility across the region, the Project also aims to improve regional mobility for a historically underserved area by creating better access to job centers, medical centers, churches, food banks, and other resources and opportunities.

The Project is located on Choctaw Nation land, near the Choctaw/Chickasaw Nation border. In 2014 it became one of the first federally designated Promise Zones. The federal government created the Promise Zone initiative to assist high-poverty communities across the country to increase jobs, economic security, educational opportunities, safety, and quality housing through the acquisition of funding. The Choctaw Nation listed several goals to improve infrastructure through investment in roads, water, sewer facilities, and technical infrastructure¹¹. As the Project is located on tribal land it qualifies as an HDC, as defined by the federal BIP program. This Project will support the goals of the Choctaw Nation by improving infrastructure and providing safe and modernized bridges that will serve this HDC.

PROJECT BENEFITS

Implementation of this Project will provide substantial benefits by eliminating the need to detour traffic from US-69 (due to existing structural deficiencies, reduced load ratings, and eventual closure). The benefits of traffic detour avoidance include reduced vehicle operating costs, reduced travel time, reduced crash costs, and reduced emissions costs. Additionally, implementation of the project will reduce ongoing operations, maintenance, and inspection costs to ODOT.

HIRING FROM LOCAL COMMUNITIES

The Project has and will continue to align with the ODOT [Disadvantaged Business Enterprise \(DBE\) program](#). While there is no requirement necessitating local community hiring, the primary businesses that will be affected positively will be earthwork contractors, aggregate suppliers, ready-mix concrete plants, and sod suppliers. It is anticipated that there will be hiring of local personnel and contractors for a wide range of labor categories. ODOT has historically defined projects within eight-mile segments (or smaller) to encourage participation from local, small, and DBE firms.

¹⁰ <https://www.aisc.org/nsba/design-and-estimation-resources/bridge-innovations/>

¹¹ <https://www.hudexchange.info/programs/promise-zones/first-round-rural-and-tribal-designees/#choctaw-nation>

INNOVATION

INNOVATION AREA #1: SMART WORK ZONE

The Project will utilize Smart Work zone technologies, such as real time camera monitoring systems, to inform motorists and transportation professionals of queue lengths and traffic data. Smart Work zones progress and move as a project does, allowing the technology to be deployed and moved as needed. This will provide the Project team with a clearer picture of construction effects on traffic flows and increases motorist and worker safety, through project work.

FIGURE 7: SMART WORK ZONE EXAMPLE: [I-244 IN TULSA, OKLAHOMA](#)



INNOVATION AREA #2: PERMANENT TRAFFIC COUNTER

The US-69 Bridge Replacement will utilize permanent traffic counters, a new technology being implemented by ODOT across the state. These traffic counters provide real-time, accurate traffic data that can help guide design and construction sequence decisions to make construction less impactful to the public and provide safer conditions for the workers.

INNOVATION AREA #3: PROJECT DELIVERY

The US-69 Bridge Replacement will employ additional innovative strategies to improve Project delivery. ODOT will offer incentives for early completion of each major Project milestone and implement disincentives for Project delay. This will further ensure that the US-69 Bridge Replacement Project is implemented on-time and within Rural schedule requirements. In addition to schedule incentives, ODOT will also offer a cost incentive for enhanced pavement smoothness as a measure of quality construction.

V. BENEFIT COST ANALYSIS

The US-69 Bridge Replacement substantially supports the national and regional economies by making a critically important improvement for freight and goods movements. Following the USDOT’s 2022 revised guidance for a Benefit-Cost Analysis (BCA), the Project generated a **benefit-cost ratio (BCR) of 1.98**. The Benefit Cost Analysis (BCA) identified that the Project will significantly improve safety, reduce operations and maintenance (O&M) costs over time, and demonstrate the costs associated with detoured traffic in the event of bridge closure if the Project were not constructed. A more detailed BCA technical memorandum, as well as the BCA spreadsheet model are uploaded to [grants.gov](https://www.grants.gov) and can also be found on the [US-69 Bridge Replacement](https://www.us69bridge.com) website. The BCA results are summarized below in **Table 2**, expressed in terms of net present value (NPV) and BCR, using a discount rate of seven percent. The BCA included previously incurred maintenance costs of approximately \$1.2 million. The BIP request amount is \$23.2 million and ODOT will contribute the remaining \$23.2 million for a total Project cost of \$46.4 million.

TABLE 2: BENEFIT COST ANALYSIS

Project	US-69 Project
Total Capital Costs (YOE)	\$47,596,995
Total Project Costs (2020\$)	\$30,752,149
Total Net Benefit (2020\$)	\$198,191,750
Benefit Cost Ratio	1.98

The new bridge construction will replace 1 structurally deficient bridge and 3 bridges that are rated as fair condition but are likely to become structurally deficient over the next few years. These improvements will bring improved reliability, safety, and reduce ongoing maintenance costs for each location. Over the life of the Project, these investments will produce the following benefits:

- **Environmental Savings** **\$4.8 million (NPV)**
- **Safety Savings** **\$5.7 million (NPV)**
- **Operational Savings** **\$47.8 million (NPV)**

The Benefit Cost Analysis (BCA) was prepared in accordance with the [U.S. Department of Transportation \(USDOT\) 2022 Benefit-Cost Analysis Guidance \(revised version\)](https://www.transportation.gov/odot/2022-benefit-cost-analysis-guidance-revised-version) using total quantifiable project costs and benefits adjusted for inflation, then discounted to reflect the time value of money.

VI. PROJECT READINESS AND ENVIRONMENTAL RISK

With additional funding from the BIP grant to leverage state funding, ODOT commits that **the Project is currently at 65% design plans, with 100% plans to be complete in early 2023. Upon receipt of Bridge Infrastructure Program Grant dollars, construction will be complete by 2025.** The sections below provide substantial evidence of the Applicants preparedness.

ODOT is focused on accountability in Project delivery and performance and is committed to transparency and quality performance in all projects and operations. ODOT has an extensive history of delivering projects on time and on budget.

ODOT has extensive experience with bridge replacements and has used similar techniques on more than 40 bridges over the past fifteen years. To prevent street closures and traffic detours on these numerous bridge replacement projects, ODOT uses a lane switching technique. In this technique, traffic is compressed down to one lane (2 lanes for urban projects) or shifted to the adjacent ROW. ROW use is dependent upon the available pavement structure. Ramp traffic is also maintained using temporary ramps. Smart work zone technology is used in conjunction with the lane switching technique to track traffic status and alert motorists one to two miles ahead of the work zone and allow them time to find alternate routes. Oklahoma State Highway 51 and I-35 is one of several comparable rural projects where these techniques were implemented. ODOT has successfully utilized this approach on projects along all major highways and interstates, including urban and rural locations across the state. If ODOT is awarded BIP Grant funding, ODOT will provide schedule incentives for early completion and monitor quality throughout construction in order to ensure the Project achieves the optimal public benefits and meets or exceeds Project schedule and accountability measures (See **Innovation Section**).

To support this commitment, ODOT will organize a **US-69 project performance team** comprised of the persons from the design firm, the field district, and local city/county officials who will attend Project status meetings and be able to provide the construction team with accelerated answers to the contractor's requests for information. With this process and the previously mentioned strategies including construction incentives, ODOT feels confident in committing to the schedule accountability milestones for obligation of funds and construction.

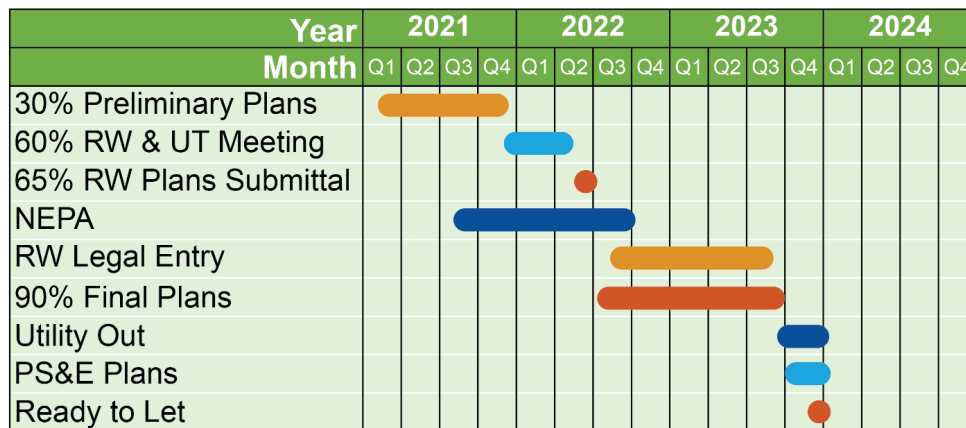
TECHNICAL FEASIBILITY

ODOT has extensive experience designing and constructing projects similar in complexity and scale to the four bridges proposed in this application. The project will be designed in accordance with AASHTO LRFD Bridge Design Specifications, 9th Edition 2020 and ODOT Bridge Division design policies. The cost estimates for this Project were developed based on estimated quantities and similar projects constructed in the State of Oklahoma.

PROJECT SCHEDULE

A detailed Project schedule that includes all major Project milestones has been prepared anticipating BIP Grant funding. The Project schedule is shown on the following page and can also be found in the Application section on the [ODOT US-69 Bridge Replacement](#) website.

FIGURE 8: PROJECT SCHEDULE



REQUIRED APPROVALS

ENVIRONMENTAL PERMITS AND REVIEWS

ODOT has completed the National Environmental Policy Act (NEPA) clearance process. All four bridge replacements completed programmatic categorical exclusions (PCE) in August 2022.

The PCE process is well known for allowing state DOTs to process categorical exclusions (CEs) with time savings. ODOT’s agreement with FHWA clearly states the roles and responsibilities of parties involved, standardizes coordination and compliance procedures, facilitates development of greater trust, and allows staff and resources to be focused and effective.

STATE AND LOCAL APPROVALS

Oklahoma is strategically focused on improving bridge conditions throughout the state as part of its long-range transportation plan. As evidence of that commitment, ODOT has reduced the number of structurally deficient bridges across the state, totaling 47 in 2022¹² down from a high of 1,168 in 2004. Additionally, the state legislature in 2018 passed increased transportation funding with more than 75 percent approval in addition to a 2016 and 2020 transportation bonding program.

This application is consistent with the [Oklahoma Long Range Transportation Plan \(LRTP\) 2020-2045](#), specifically the policy calling to:

“Improve safety and bridge conditions by replacing or rehabilitating structurally deficient bridges on the state highway system and averting growth in the share of structurally deficient bridges.”

¹² <https://journalrecord.com/2022/08/02/oklahoma-attains-no-5-ranking-for-bridge-conditions/>

Additionally, the application supports the economic vitality and infrastructure preservation goals of the Oklahoma Freight Transportation Plan, 2018-2022.

These bridge improvements are part of ODOT’s 2022-2029 8-year Construction Work Plan with construction currently programmed to begin in 2027. While the bridges are a part of the 8-year Work Plan, funding is subject to availability and there is no guarantee for funding for this project in 2027. Subject to grant approval, the State Transportation Improvement Program will be amended to include this project.

Coordination with the KRR will be required to complete permitting prior to construction. Various agreements, including preliminary engineering, construction, and maintenance agreements, will need to be executed prior to construction. Permitting will be required to complete surveys, test borings or any utility relocations on KRR property. ODOT has a history of working with the KRR and anticipates no issues acquiring permits for construction.

The Project has received significant support from both state and local officials. The proposed project bundle is supported by affected local municipalities and adjacent Tribal nations. No additional required state or local approvals are necessary.

FEDERAL TRANSPORTATION REQUIREMENTS AFFECTING STATE AND LOCAL PLANNING

The 2045 LRTP addresses the statewide planning requirements under the federal surface transportation acts – Moving Ahead for Progress in the 21st Century Act (MAP21) and the Fixing America’s Surface Transportation (FAST) Act. MAP-21. These challenges include improving safety, maintaining infrastructure in a state of good repair, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act maintains a focus on safety, largely keeps the existing highway-related program structure, continues efforts to streamline project delivery, and creates a new dedicated source of federal dollars for freight projects.

ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

TABLE 3: PROJECT RISK AND MITIGATION STRATEGIES

Project Risk	Mitigation Strategy	Risk Category
Cost of Materials	Historical construction cost tables demonstrate changes in costs. Completing this Project in a timely fashion will ensure the least amount of impact to costs over time.	Medium
Weather related events could cause construction delays	The project schedule will include clear communications and documentation regarding rain days, careful management of Project schedule, and early and frequent communication with Project contractors.	Low
Technical Feasibility	ODOT is well experienced with successfully delivering these types of projects.	Low

VII. PROJECT PRIORITY CONSIDERATIONS

Intro

The Project would replace 1 bridge (Bridge C) that is currently rated as structurally deficient and 3 bridges (bridges A, B and D) that are currently rated to be in fair condition but are at risk of becoming structurally deficient in the next few years

Final Design

Final design and evaluation of any minor right-of-way acquisition needs commenced when the programmatic categorical exclusion was granted in August 2022. The final design phase is already funded and projected to start in Quarter 4 of 2022.

Funding Obligations

The project's final design phase is fully funded and the applicant will obligate construction funds within 18 months of completion of final design.

Need Justification

ODOT is not able to complete the construction for this Project without the support from BIP funding. BIP funds will allow full construction to be complete by 2025. Currently, all four bridges are programmed for 2027 and are subject to availability of funding. Additionally, BIP funding allows the four bridges to be bundled, saving time and costs related to mobilization, traffic control, and impact to local commerce.

VIII. APPENDICES

Benefit Cost Analysis

Letters of Support

US-69 Durant Fact Sheet

Scope of Work

PS&E Plans

NEPA Document