



Environmental Programs Division

Office 405 - 521-3050

Programmatic/Individual Categorical Exclusion

	PCE	X	ICE
--	-----	---	-----

Date	8/8/2025	Project Number	J3-4334(004)FP
County	Muskogee	State Job Piece No:	34334(04)
NEPA Project Manager	Andrew Ward	Phone Number	(405) 521-2325
ODOT Field District	1	Bridge NBI No. (For County & State Projects) & Location No. (County Projects Only)	17051
Project Description from JPINFO	Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile		
This project is included in: (Check all applicable ones)	X	State 8 Year Construction Program	
		County 5 Year Construction Program	
	X	State Transportation Improvement Program	
This project has federal funds: (Check applicable one.)	X	Currently has Federal Funds	
		Potential for Future Federal Funds	
This project is in the Metropolitan Transportation Improvement Program (If applicable) (Check applicable one)		Yes	
	X	Not Applicable	

The Oklahoma Department of Transportation (ODOT) has completed the environmental analysis and review of the referenced project. ODOT has determined that this project does not individually or cumulatively have a significant impact of the environment as defined by the National Environmental Policy Act (NEPA) or involve unusual circumstances as defined in 23 CFR 771.117(b) and is therefore excluded from the requirements to prepare an Environmental Assessment or Environmental Impact Assessment.

Existing Conditions:
The existing span bridge (NBI# 17051) on I-40 over the Arkansas River is 60 feet wide. The approach roadway is an open section divided highway with four driving lanes and outside/inside shoulders. The bridge has a sufficiency rating of 83 and is not structurally deficient but is fracture critical and at risk of becoming structurally deficient. The 2030 Annual Average Daily Traffic (AADT) is 23,100 vehicles per day (vpd) with a future 20-year AADT of 28,400 vpd.
Purpose & Need
To correct a bridge at risk of becoming structurally deficient.

Alternatives considered & Proposed Improvement					
The proposed improvements include replacing the existing I-40 bridge with a new 75-foot-wide span bridge. The approach roadways will be partially reconstructed to create four driving lanes with outside/inside shoulders. Eastbound and westbound traffic will be divided with a concrete barrier that transitions to a grassed median.					
The bridge will be constructed on the existing alignment and within the current right-of-way (ROW). However, temporary ROW in the northwest corner of the project will be required for a staging area necessary to construct the bridge. The highway will remain open during construction and access to private properties will be maintained. Construction will occur in phases, using crossovers to maintain a single lane of traffic in both directions throughout the duration of construction.					
Did the project have public involvement (Check the applicable items and include public involvement <u>summary</u> and supporting documents in the appendix)					
X	Property Owner Notification		Road Closure Letter		Public/Stakeholder Meeting
	Legal Notice/Website Posting		Small City Letter		None

All documentation, analyses, and agency coordination regarding this Categorical Exclusion are attached to this document and maintained in the project file at the Oklahoma Department of Transportation, Environmental Programs Division.

Criteria Identified in Section IV.A.1.b. of the 2024 FHWA/ODOT Programmatic Agreement for Processing Categorical Exclusions that would require Individual Review and Approval by FHWA:		
Check Yes or No below. If the answer to any of the questions below is Yes, an Individual CE will be required.		
Description/Question	Yes	No
i. Does the project result in capacity expansion of a roadway by addition of through lanes?		X
ii. Does the project involve any permanent changes limits of access control or to the operation of an Interstate highway, associated interchanges or ramps or requires an Access Justification Report (AJR)?		X
iii. Is the project not included in or is inconsistent with the statewide transportation improvement program, and in applicable urbanized areas, the transportation improvement program?		X
iv. Does the project involve any requirement of new right-of-way that is not adjacent to the existing right-of-way?		X
v. Does the project involve residential or non-residential displacements?		X
vi. Does the project include acquisition of land for hardship or protective purposes, or early acquisition pursuant to Federal acquisition project (23 U.S.C. § 108(d))		X
vii. VOID	-	-
viii. Does the project involve property in which another Federal Agency or Federally Recognized Tribe has ownership, oversight, or any other encumbrance?	X	
ix. Does the project involve a determination of adverse effect by Oklahoma State Preservation Office (SHPO) or a designated Tribal Historic Preservation Office (THPO) in accordance with Section 106?		X
x. Does the project involve a Programmatic Section 4(f) or a de minimis finding which has not been previously approved by FHWA?		X
xi. Requires the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act of 1965 (54 U.S.C. § 200305), the Federal Aid in Sport Fish Restoration Act (16 U.S.C. 777-777k, 64 Stat. 430), the Federal Aid in Wildlife Restoration Act (16 U.S.C. 669-669i; 50 Stat. 917), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property		X
xii. Does the project involve any impact on Noise Abatement Criteria (NAC) Category A, B,		X

Criteria Identified in Section IV.A.1.b. of the 2024 FHWA/ODOT Programmatic Agreement for Processing Categorical Exclusions that would require Individual Review and Approval by FHWA: Check Yes or No below. If the answer to any of the questions below is Yes, an Individual CE will be required.		
Description/Question	Yes	No
C or D receptors?		
xiii. Does the project involve a finding of “may effect, likely to adversely affect” determination under Section 7 of the Endangered Species Act or the Bald and Gold Eagle Protection Act and can be processed as under programmatic agreement?		X
a. Does the project involve a Section 7 Formal Consultation Process prior to start of construction?		X
xiv. Does the project require an Individual Section 404 Permit (This is generally for major River Crossings, waters or wetlands impact greater than 3.0 AC, Projects with Formal Consultation, structures on new alignment or others as determined by USACE.)?		X
xv. Does the project involve construction across or adjacent to a river designated as a component in the National System of Wild and Scenic Rivers?		X
xvi. Does the project require a Coast Guard Permit?	X	
xvii. Does the project involve an adverse impact on prime farmland where Natural Resources Conservation Agency (NRCS) has required consideration of alternatives and measures to avoid and minimize impacts?		X
xviii. Does the project involve increase to the base 100 Year floodplain in a regulatory floodway (Zone A-E in a FEMA Map) that will require a flood map revision as determined by the appropriate state or local authority?		X
xix. Does the project not conform to the State Implementation Plan which is approved or promulgated by the U.S. Environmental Protection Agency in air quality non-attainment areas		X
xx. Does the project involve any known Superfund site?		X
xxi. If the project involves road or bridge closure or ramp closure, do any of the following conditions apply? (Check the boxes ONLY if the project involves road closure)		
a. No Access will be provided to local traffic or posted		
b. Through traffic dependent businesses will be affected		
c. The detour or closure will substantially alter the environmental consequences of the action, such as by creating unsafe conditions on the detour route or requiring additional work or expansion to detour routes to carry the additional traffic.		
d. There is a public controversy associated with the detour or closure		
e. The detour closure will interfere with special events or activities		
xxii. Does the project have substantial public or agency controversy on environmental grounds?		X
Explanation for Individual CE (If any of the answers above are YES):		
Item for which the answer is YES	viii.	
Explanation that CE Classification is appropriate		
The proposed project will require a construction staging area and an access point to the river. The northwest corner of the project area was selected since there was county road access and minimal impacts to environmental resources and constraints. However, a portion of the proposed area is owned by the US Army Corps of Engineers (USACE). The environmental studies were done in coordination with the USACE, and no adverse effects were identified.		
Item for which the answer is YES	xvi.	
Explanation that CE Classification is appropriate		
The proposed project will replace a bridge (NBI# 17051) on I-40 over the Arkansas River. The Arkansas River is a navigable waterway and is listed as a Section 10 water; therefore, a Coast Guard Permit is required for the proposed bridge replacement. The bridge design will meet minimum clearances for a navigable waterway and include navigational lighting and must be approved by the US Coast Guard.		

Pre-Construction Commitments: ABB Commitment: Minimize habitat loss by reducing the amount of ground disturbance of suitable ABB habitat within the construction footprint to only what is necessary for project construction and document in the monitoring reports to the Service. Following construction, areas of ground disturbance outside of the safety clear zone will be revegetated with native plant species where applicable and practicable. Areas where revegetation with native plant species is not practicable will be revegetated with more traditional plantings such as solid slab sodding. Tree Removal & Clearing and Grubbing Minimization Commitment: In order to avoid impacts to listed bat species and tree nesting and ground nesting USFWS Birds of Conservation Concern, the removal of trees and shrubs and ground disturbance will be restricted to areas within the actual limits of construction, and all aspects of the project (e.g. temporary work areas, alignments) will be modified to avoid tree removal and ground disturbance, if possible, during the design of the project. Tree removal and ground disturbance will be limited to that specified in the project plans provided to contractors. Monarch Commitment: ODOT, as a Certificate of Inclusion partner in the Nationwide Monarch Butterfly CCAA for Energy and Transportation lands, will adhere to the conservation measures, as well as minimize threats to the monarch butterfly as stipulated in this CCAA. The action may involve work in potentially jurisdictional waters and potentially jurisdictional wetlands. For State Projects, the 404 permit application form needs to be submitted by the Designer through Project Management Division to Environmental Programs Division at the time of Right-of-Way submittal for evaluation and determination of the appropriate Clean Water Act Section 404 permit application for the project.
Right-of-Way and Utility Commitments The following Construction Commitments requiring avoidance, restrictions or minimization of natural and human resources during Right-of-Way clearance and Utility relocation activities will be discussed with the Right-of-Way and Utility Owners at the start of Right-of-Way and Utility Process.
Construction Commitments ODOT Commitment: All operators, employees, and contractors will be made aware of all environmental commitments, including the following Plan Notes. The following plan notes requiring avoidance, restrictions, or minimization of natural and human resources in the project and off-site project areas will be added to the final project plans under “Environmental Mitigation Notes” per policy Directive C-201-2. Cultural Resources Avoidance: Locations outside the project area in the following area must not be utilized for borrow, equipment staging, haul roads, spoil dumps or any off-site project-related activity. T12N R21E: Section 19: SW ¼ SW ¼ Section 19: SW ¼ NE ¼ Section 21: S ½ NW ¼ SE ¼ Section 21: W ½ NW ¼ SW ¼ Section 22: S ½ NE ¼ SE ¼ Section 28: SE ¼ NE ¼ NW ¼ Section 29: SE ¼ SW ¼ NE ¼ Section 29: SW ¼ NE ¼ Section 30: SW ¼ SE ¼ Section 31: NW ¼ NW ¼ NE ¼ T12N R20E:

Section 20: E ½
Section 21: W ½
Section 24: E ½ SE ¼
Section 25: NW ¼ NE ¼
Section 25: SE ¼ NE ¼
Section 36: S ½ NE ¼

Non-Compliance:

Failure to implement the commitments specified in the Plan Notes can result in non-compliance issues on the project. Work activities may be suspended on the project, for an undetermined duration, while working with regulators to bring the project back into compliance. The contractor will not be compensated for time lost.

Water Quality Conservation:

Appropriate Best Management Practices to minimize impacts from storm water discharges and sedimentation in streams, as established by the Oklahoma Department of Environmental Quality, shall be conscientiously implemented throughout the proposed construction periods, in order to minimize any potential impacts to any listed species. The effectiveness of erosion controls shall be maintained for the duration of construction activities. Hazardous materials, chemicals, fuels, lubricating oils, and other such substances shall be stored at least 100 feet outside of the ordinary high water mark (OHWM). Refueling of construction equipment shall also be conducted at least 100 feet from the OHWMs. Sediment and erosion controls shall be installed around staging areas to prohibit discharge of materials from these sites. Construction waste materials and debris shall be stockpiled at least 25 feet outside of the OHWMs, and these materials shall be removed and disposed of properly following completion of the project. Preventative measure must be taken to prohibit the discharge of contaminants into any surface waters.

American Burying Beetle Note:

The American Burying Beetle is a large carrion burying beetle that occurs within the project limits. Artificial lighting may be used during construction for night activities if the equipment specifications outlined in Special Provision 656-5(a-b)19 for ABB are adhered to and measures to minimize use of artificial lighting have been implemented. Carcasses and all food trash shall continuously be removed from the permanent and temporary right-of-way throughout the duration of project activities. Pollution Prevention Requirements as specified by the Oklahoma Department of Environmental Quality General Permit OKRI0 for Storm Water Discharges shall be implemented when appropriate. Additionally, all equipment will be fueled, and all fuel and motor vehicle oil will not be stored within areas of native vegetation (ie. outside of ABB habitat).

Bat Bridge/Culvert Seasonal Restriction Note:

The gray bat, Indiana bat, Ozark big-eared bat and the tricolored bat are listed bat species that occur within the project's action area. In order to avoid and minimize adverse impacts to listed bat species, bridge repair, retrofit, maintenance, rehabilitation or demolition shall be permitted only between November 15 and March 14 (when bats are hibernating in caves). If bridge repair, retrofit, maintenance, rehabilitation or demolition during the active season (between March 15 and November 14) cannot be avoided, the Resident Engineer shall contact the ODOT Biologist to schedule a visual bat bridge inspection, prior to any bridge work. Inspection surveys can only be conducted between May 15 and August 15. If the inspection finds that bats are using the structures, all bridge repair, retrofit, maintenance, rehabilitation or demolition shall only be permitted between November 15 and March 14 (when bats are hibernating in caves).

Bat Tree Removal Seasonal Restriction Note:

The gray bat, Indiana bat, Ozark big-eared bat and the tricolored bat are listed bat species that occur within the project's action area. In order to avoid adverse impacts to the species, all tree removal, including for utilities, is permitted only between November 15 and March 14 (when bats are hibernating

in caves). If the active season cannot be avoided ODOT Environmental Programs Division will conduct an acoustic survey to detect the presence of any listed bats, within five years prior to construction. All presence/absence surveys must be scheduled between May 15 – August 15. The Resident Engineer must schedule the acoustic survey at least one year prior to any tree clearing, including clearing prior to utility relocation. If the survey detects any listed bat species, ODOT Environmental Programs Division will reconconsult with USFWS to mitigate adverse impacts prior to any tree clearing or ground disturbance (including utilities) and determine appropriate seasonal restriction.

Bat Lighting Note:

All temporary lighting, if used, will be directed away from suitable bat habitat during the active season for bats (March 15 to November 14). If any permanent lighting is installed or replaced, downward-facing full cut-off lens lights shall be installed and directed away from wooded areas and streams.

Karst Note:

Although a survey has been completed to identify karst features, such as caves, sinkholes, losing streams and springs, prior to the project, there is a potential to uncover karst features during construction. Karst features are potential habitat for federally threatened and endangered species, including bats.

Undiscovered karst features may occur on or near project sites, even in previously developed areas. If karst features are encountered during construction, the contractor shall establish a buffer area of 300 feet around the newly discovered feature, and the Resident Engineer shall contact the ODOT Biologist. The ODOT Biologist shall contact the US Fish and Wildlife Services (USFWS) to further evaluate the karst feature. No fill material shall be placed into the karst feature opening, and all parking, maintenance, staging, fueling, storm water management activities, ground-disturbing, tree-clearing, or any other construction activity shall be allowed within the 300-foot buffer, until evaluation by USFWS is complete. If karst features are determined to be habitat for federally-listed or sensitive species, a formal consultation with USFWS shall be required before the construction can resume. This consultation may take up to 180 days after the initial evaluation of the karst features and the Contractor shall not be compensated for any delays during that time. In some cases, modification to the project may be necessary and that would result in a change order.

Bald Eagle Note:

Suitable nesting, roosting or foraging habitat for the Bald Eagle occurs within the project's action area. The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. The Resident Engineer shall contact the ODOT Biologist to schedule a nest survey. Nest search surveys can only be conducted when leaves are not on the trees typically between December 1st and February 28th. No work may occur within suitable Bald Eagle habitat, located throughout the project extents during the nesting season (September 16, through May 31) until the completion of the survey by the ODOT Biologist. If nests are observed, a no-work buffer up to a distance of 660 feet shall be placed around the nest. The exact distance of the buffer zone shall be established by the ODOT Biologist in consultation with US Fish and Wildlife Services. If the buffer cannot be maintained, all clearing, external construction and landscaping activities, within the buffer, shall be conducted between June 1 and September 15 (outside the nesting season).

Migratory Bird Note:

Migratory birds are protected by the federal Migratory Bird Treaty Act. Many birds commonly use bridges and culverts for nesting. The nesting season for most migratory bird species extends from March 1 to August 31. Migratory bird nesting use of the NBI: 16849, NBI: 16907, NBI: 17051, NBI: 16944, NBI: 16945, Structure #7 (STA 726+94.17), & Structure #17 (STA 822+35.51) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28, when migratory bird nests are not occupied. If painting, repair, retrofit, rehabilitation or demolition cannot be completed between September 1 and February 28, the bridges and culverts shall be protected from new nest establishment prior to March 1, by means that do not result in bird death or injury. Options include the exclusion of adult birds from suitable nest sites on or within a structure by the

placement of weather-resistant polypropylene netting with 0.25-inch or smaller openings, prior to March 1. Methods other than netting must be pre-approved by the ODOT Biologist.

Although no nests were observed on all other structures, the birds may occupy the structures in the future. The Resident Engineer shall contact the ODOT Biologist if any bird use of these structures is observed. If birds are observed then painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28 (when migratory bird nests are not occupied).

<u>Species</u>	<u>Seasonal Restriction Period</u>	<u>Action to modify seasonal restriction</u>
Bat bridges, culverts 3-ft and greater, and/or structures/buildings	March 15 – November 14	Inspection Survey
Bat tree removal and trimming	March 15 – November 14	Acoustic Survey
Bald Eagle	September 16 – May 31	Survey
Migratory Birds: Swallows and Phoebe	March 1 – August 31	Netting required

The Environmental Programs Division shall provide **the final plan sheet with the mitigation notes** to the Designer for inclusion in Final Plans and keep a copy for the project records. The mitigation measures above should be discussed at all Pre-work conferences per Policy Directive C-201-2.

All documentation, analyses, and agency coordination regarding this Categorical Exclusion are contained in a Supporting Appendix maintained in the project file at the Oklahoma Department of Transportation, Environmental Programs Division.

Development of the project including coordination and assessment of potential social, economic, and environmental impacts has been considered in accordance with DOT ORDER 5610.1C, and CEQ REGULATIONS 40 CFR 1500 - 1508 as amended, 23 CFR 771.117 and the 2024 FHWA/ODOT Programmatic Agreement for processing of categorical exclusions. Implementation of this action as a “Categorical Exclusion” will satisfy the requirements of the National Environmental Policy Act.

Preparer/Reviewer Signatures

Geoffrey A. Canty, CC Environmental, LLC	8/8/2025					
Environmental Consultant Project Manager & Firm Name (If Applicable)	Date					
N/A	-					
County Commissioner or City Manager (Loc. Gov. Projects)	Date					
<i>Andrew Ward</i>	8/8/2025					
ODOT NEPA Project Manager	Date					
<i>David Saulsbury</i>	8/8/2025					
ODOT Environmental Programs Assistant Division Manager	Date					
<i>Joe Butera</i>	8/11/2025					
ODOT Environmental Programs Division Manager	Date					
<table border="1"> <tr> <td rowspan="2"> ODOT has reviewed the conditions identified in Section IV.A.1.b of Federal Highway Administration 2024 (FHWA)/ODOT Programmatic Agreement for Processing Categorical Exclusions (CE) and determined that an Individual CE must be submitted to FHWA for approval. </td> <td>X</td> <td>YES</td> </tr> <tr> <td></td> <td>NO</td> </tr> </table>		ODOT has reviewed the conditions identified in Section IV.A.1.b of Federal Highway Administration 2024 (FHWA)/ODOT Programmatic Agreement for Processing Categorical Exclusions (CE) and determined that an Individual CE must be submitted to FHWA for approval.	X	YES		NO
ODOT has reviewed the conditions identified in Section IV.A.1.b of Federal Highway Administration 2024 (FHWA)/ODOT Programmatic Agreement for Processing Categorical Exclusions (CE) and determined that an Individual CE must be submitted to FHWA for approval.	X		YES			
		NO				

For Individual CEs requiring FHWA Approval:

Concurrence that this project qualifies for a Categorical Exclusion:

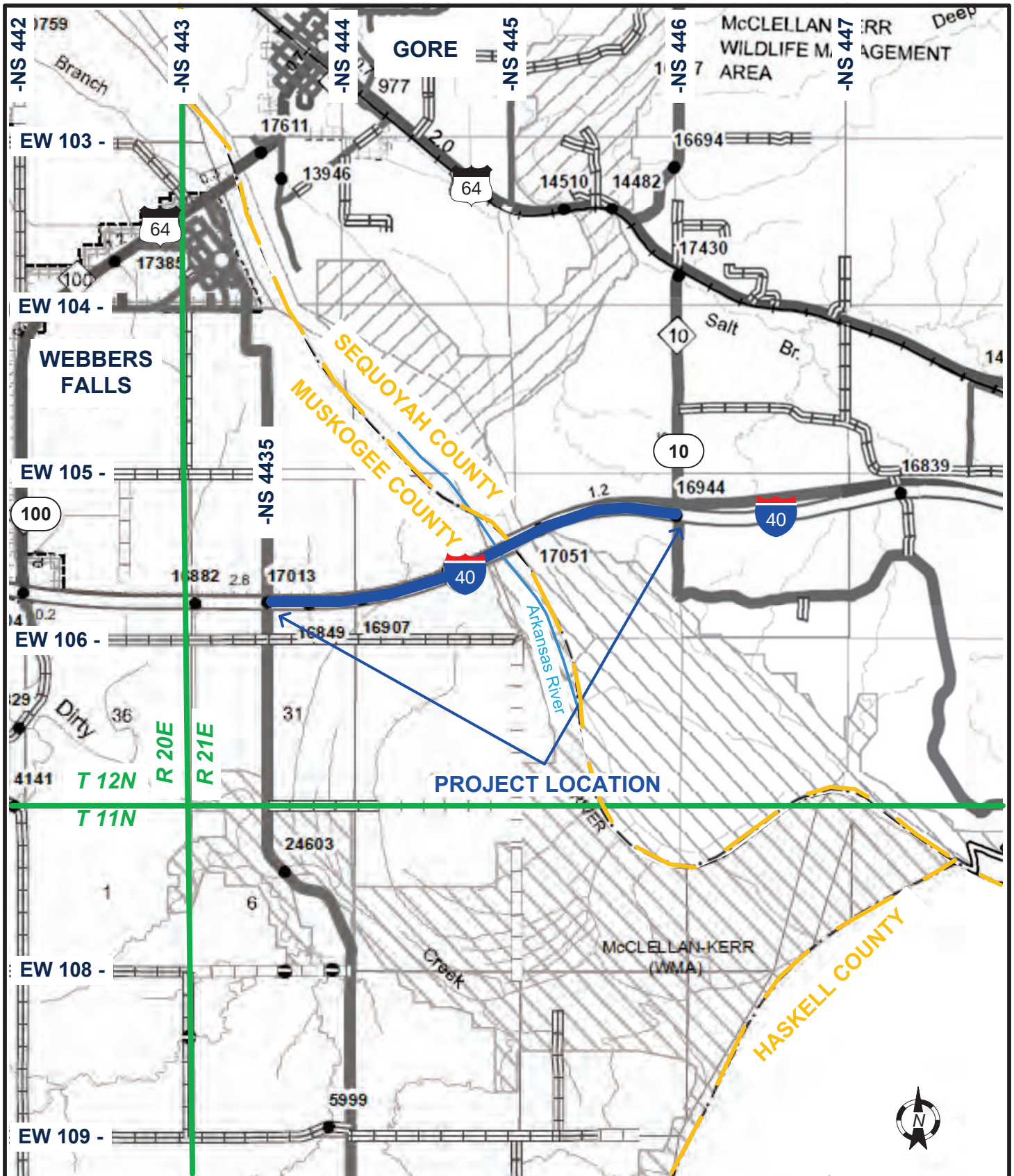
WILLIAM ALEXANDER ROWE	Digitally signed by WILLIAM ALEXANDER ROWE Date: 2025.08.20 13:42:16 -05'00'
Environmental Programs Manager, FHWA	Date

Attachments:

- | | |
|--------------------------------------|--|
| 1. Location Map | 4. Studies and Coordination |
| 2. Current Plans and Study Footprint | 5. Other Section – Initiation and Inspection Reports/NEPA Submittal, QA/QC Checklist |
| 3. Early Coordination | |

Distribution List (Check Applicable Ones)

☒	Project Management Division (All State Projects)
☒	Roadway Design Division (All State projects with the exception of projects from Traffic Division and Special Projects)
☒	Bridge Division (All State Bridge Projects)
	Traffic Division (For projects from Traffic Division)
	Local Government Division (County, City, TAP or Special Projects)
☒	District Engineer (All Projects)
☒	Right-of-Way Division (All Projects)
	Noise Specialist (For projects with noise studies)



LOCATION MAP

J/P 34334(04); Proj. # J3-4334(004)
 Bridge & Approaches I-40: Over Arkansas River
 begin MP 290, east 1.0 mile
 Muskogee County, OK



Figure 1

**RIGHT-OF-WAY PLANS
AND
NEPA STUDY FOOTPRINT**

SURVEY DATA
SEE SURVEY DATA ON SHEETS S001-S019
FOR COMPLETE INFORMATION.

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

PLAN OF PROPOSED
INTERSTATE HIGHWAY

FEDERAL AID PROJECT NO. XXX-XXXX(XXX)

BRIDGE AND APPROACHES

INTERSTATE 40 OVER ARKANSAS RIVER

MUSKOGEE AND SEQUOYAH COUNTIES

CONTROL SECTION NOS. 40-51-15 AND 40-68-22

STATE JOB NO. 34334(04)

BRIDGE 'A' - LOCATION NO. 6822-0000X - NBI NO. XXXXX - (EXISTING NBI NO. 17051)

DESIGN DATA

ADT 2030 + 23,100
ADT 2050 + 28,400
DHV (ONE WAY) + 1,528
K (DHV/ADT) + 9.9%
D (DIRECTIONAL DIST.) + 54.3%
T₃ (% OF AADT) + 40%
T₁ (% OF AADT) + 38%
V + 75 MPH
20 YEAR RIGID ESALS = XXX M

SCALES

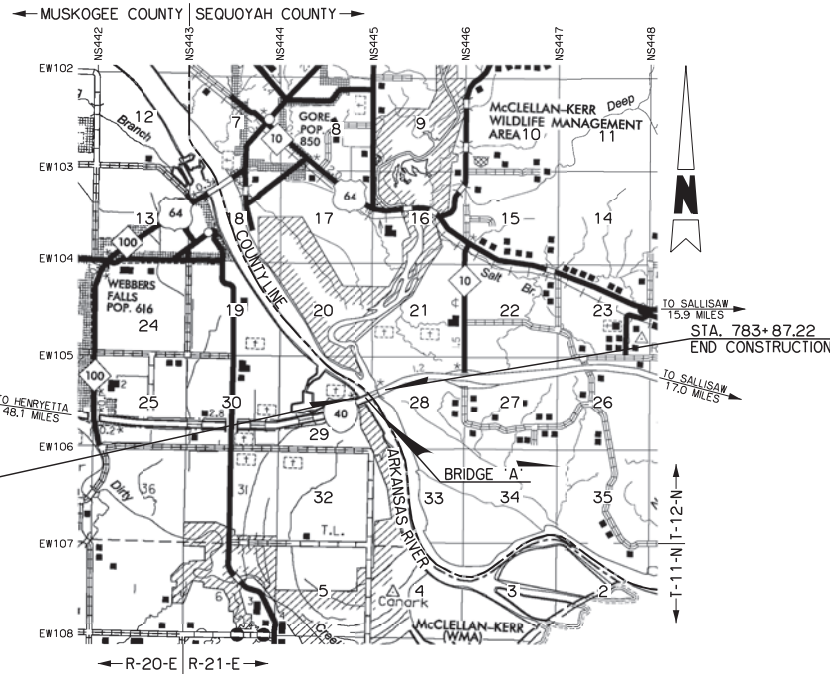
PLAN 1" = 50'
PROFILE HORIZONTAL 1" = 50'
PROFILE VERTICAL 1" = 5'
LAYOUT MAP 1" = 3,520'

CONVENTIONAL SYMBOLS

PROPOSED ROAD
RAILROADS
TOWNSHIP AND RANGE
SECTION LINES
QUARTER SECTION LINES
FENCES
GROUND LINE
EXISTING ROADS
BASE LINE
GRADE LINES
TELEPHONE AND TELEGRAPH
POWER LINES
BUILDINGS
OIL WELL
DRAINAGE STRUCTURES - IN PLACE
DRAINAGE STRUCTURES - NEW
RIGHT-OF-WAY LINES - EXISTING
RIGHT-OF-WAY LINES - NEW
CONTROLLED ACCESS
RIGHT-OF-WAY FENCE



LOCATION MAP
ODOT DISTRICT NO. 1



PROJECT LENGTH BASED ON CRI

ROADWAY LENGTH 1,349.88 FT. 0.256 MILES
BRIDGE LENGTH 2,082.50 FT. 0.394 MILES
PROJECT LENGTH 3,432.38 FT. 0.650 MILES
EQUATIONS: NONE
EXCEPTIONS: NONE

INDEX OF SHEETS

SHEET NO.	SHEET DESCRIPTION
0001	TITLE
0002	TYPICAL SECTIONS
B001-B011	GENERAL PLAN AND ELEVATION - BRIDGE A
B012-B015	BRIDGE CONSTRUCTION SEQUENCING
R001-R007	PLAN AND PROFILE
S001-S019	SURVEY DATA SHEET
X001-X019	CROSS SECTIONS

REQUIRED STANDARD DRAWINGS

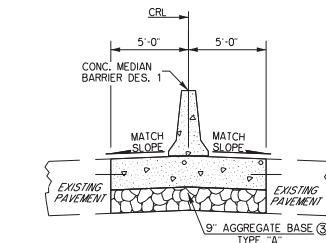
2019 ROADWAY 2009 BRIDGE 2009 TRAFFIC

RECEIVED DEC. 4, 2024

wsb		PREPARED BY: WSB, LLC C.A. NO. 9057	615 N. HUDSON, STE. 300 OKLAHOMA CITY, OK 73102 (405) 815-3600
PAUL G. POYNTER, OKLA. REG. NO. 19103 (SHEET NOS. XX, XX-XX)		DATE	
OKLAHOMA DEPARTMENT OF TRANSPORTATION		OKLAHOMA DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
DATE APPROVED:		DATE APPROVED:	
BY: CHIEF ENGINEER		BY: DIVISION ADMINISTRATOR	
SWO 5486(1) FEDERAL AID PROJECT NO. XXXI-XXX(XX)		SHEET NO. 0001	

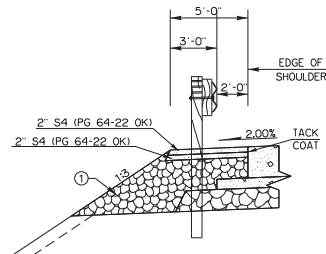
**PROPOSED R/W
2024-12-04**

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



TYPICAL NO. 1
STA. 751+00.00 TO STA. 754+50.00
STA. 778+00.00 TO STA. 781+00.00

PAVEMENT REQUIREMENT	
12" PAVT. STRUCTURE	10'-0" MEDIAN
SURFACE COURSE	12" DOWEL JOINTED CONCRETE PAVEMENT



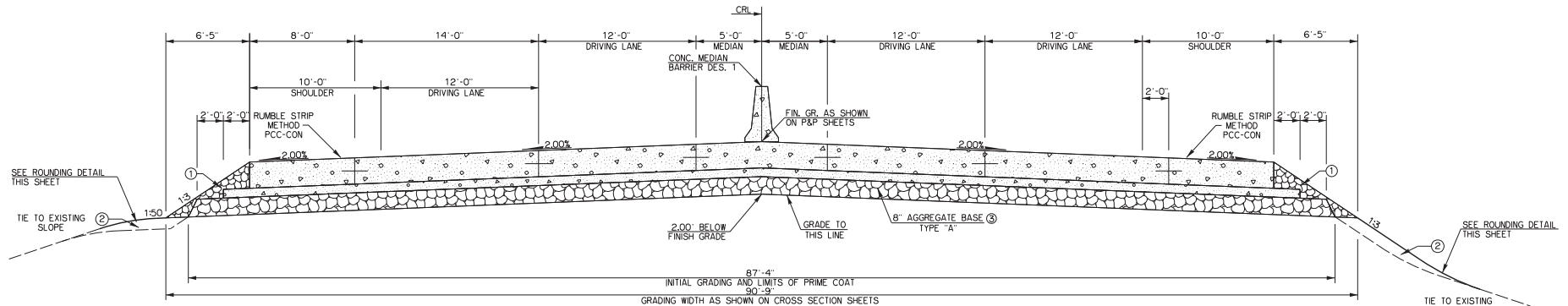
GUARDRAIL DETAIL

2'-2" TO 5'-0"	CRL STA. 749+44.84 TO STA. 750+25.05 LT.
2'-8" TO 5'-0"	CRL STA. 750+42.64 TO STA. 751+12.63 RT.
5'	CRL STA. 750+25.05 TO STA. 756+41.25 LT.
5'	CRL STA. 751+12.63 TO STA. 756+41.25 RT.
5'-0" TO 0'-0"	CRL STA. 777+83.75 TO STA. 783+17.59 LT.
5'-0" TO 0'-0"	CRL STA. 783+17.59 TO STA. 783+67.22 LT.

- ① BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE
FINISHING OPERATIONS. QUANTITY IS MEASURED IN TBSC.
- ② TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE
TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE
SECTION IN ACCORDANCE WITH SECTION 205 OF THE
STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL
BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE
CUT SECTIONS AND THE REMAINDER ON THE COMPLETED
FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY
THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH
OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM
SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND
CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL.
EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR
SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN
THE MASSLINE BALANCE.

- ③ PRIME COAT ON TOP OF AGGREGATE BASE.



TYPICAL SECTION NO. 2
CRL STA. 754+50.00 TO CRL STA. 756+41.25
CRL STA. 777+83.75 TO CRL STA. 778+00.00

PAVEMENT REQUIREMENT			
16" PAVT. STRUCTURE	10'-0" MEDIAN	12'-0" DRIVING LANES	10'-0" SHOULDERS
SURFACE COURSE	12" DOWEL JOINTED CONCRETE PAVEMENT	12" DOWEL JOINTED CONCRETE PAVEMENT	12" TO 10" P.C. CONCRETE PAVEMENT
BASE COURSE	4" CEMENT TREATED BASE	4" CEMENT TREATED BASE	4" CEMENT TREATED BASE

ROUNDING DETAIL

- INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART
OF FINISHING OPERATIONS. ROUNDED SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS
TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER.
COST OF ROUNDED TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.



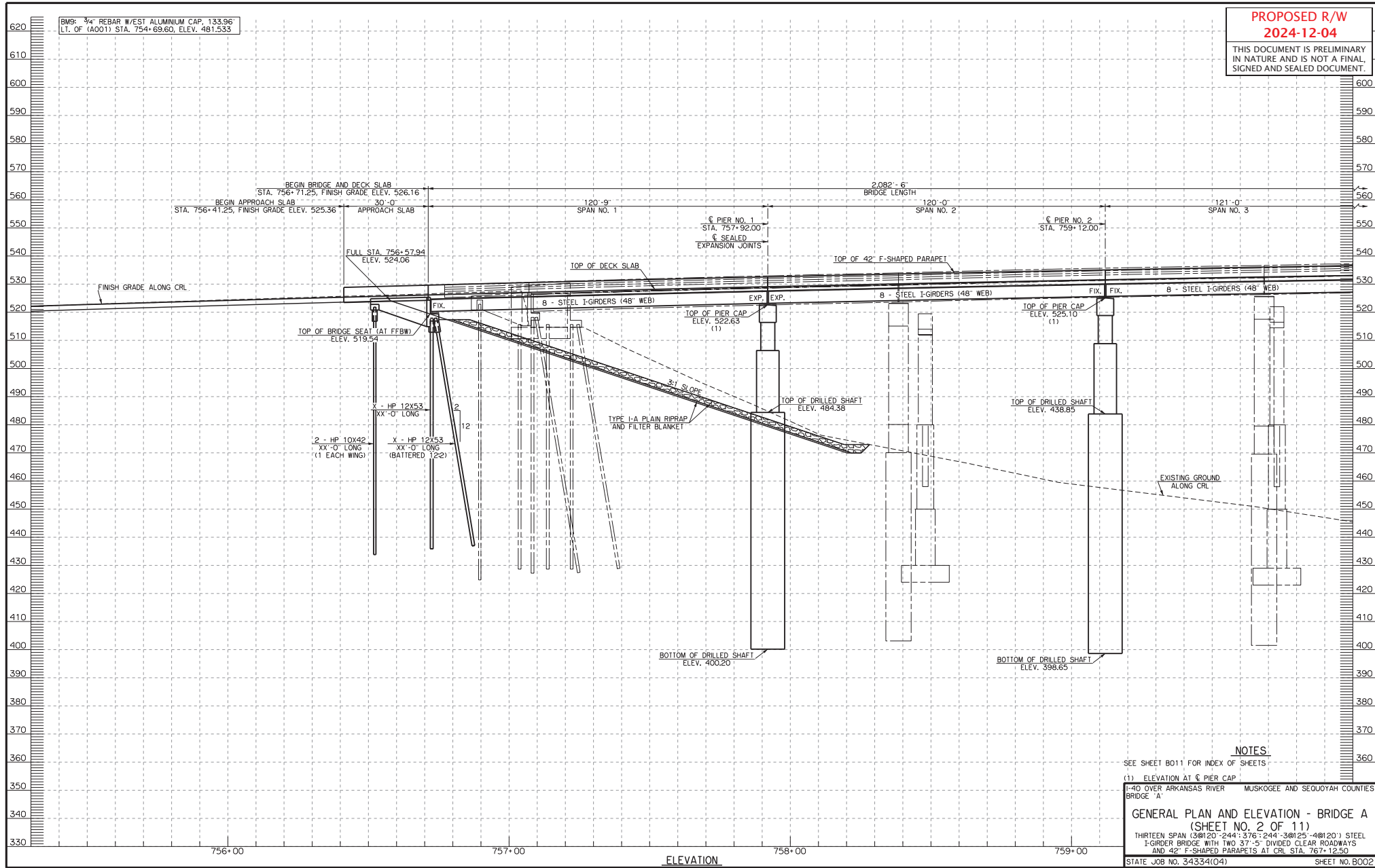
1-40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTIES

TYPICAL SECTIONS

STATE JOB NO. 34334(04)

SHEET NO. 0002

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



SECTION 29
T-12-N R-21-E

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

SECTION 29

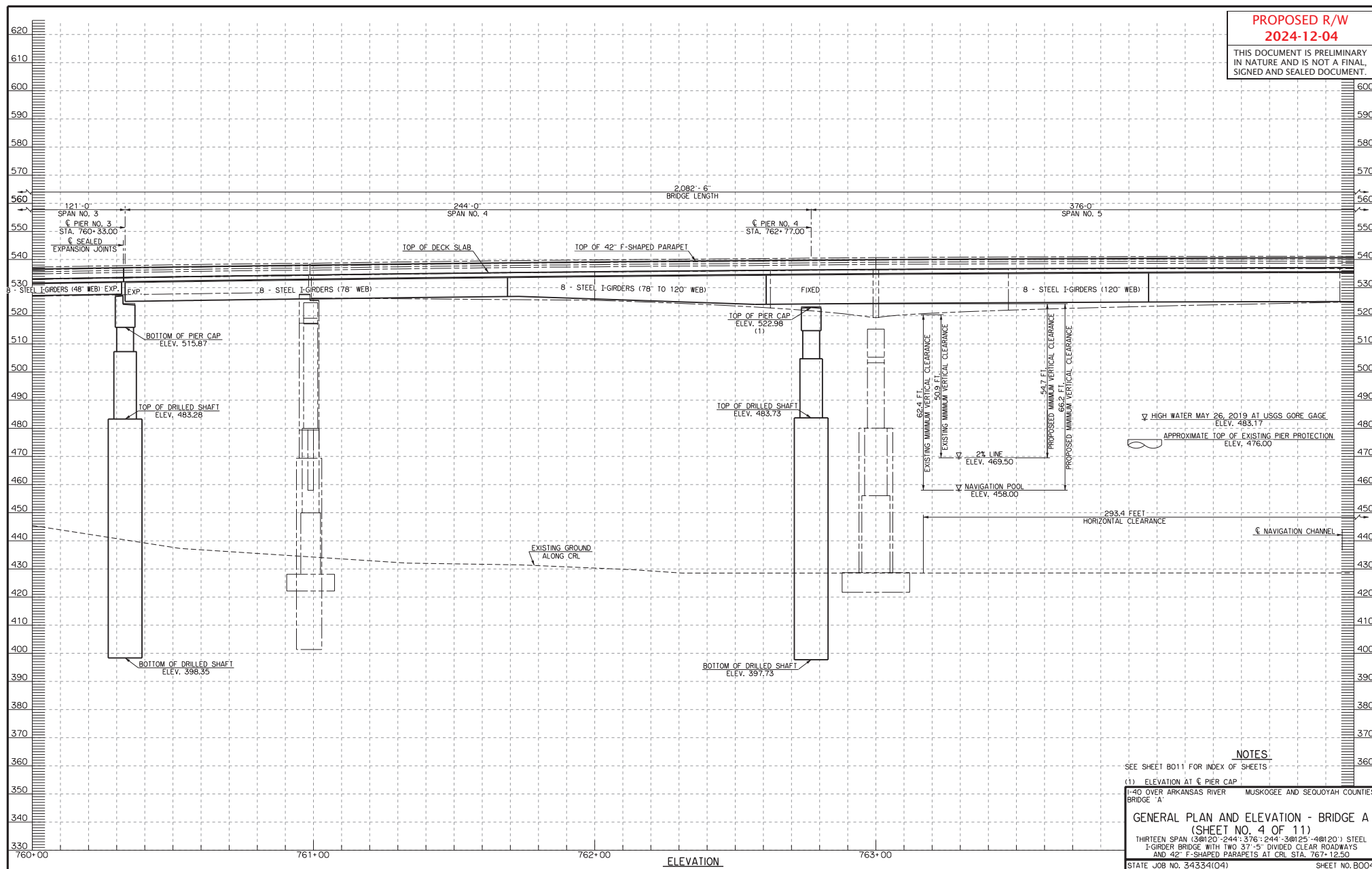
GENERAL PLAN AND ELEVATION - BRIDGE A
(SHEET NO. 3 OF 11)

STATE JOB NO. 34334(04) SHEET NO. B003

PLAN

PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



NOTES

SEE SHEET B011 FOR INDEX OF SHEETS

(1) ELEVATION AT PIER CAP
1:40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTIES
BRIDGE 'A'

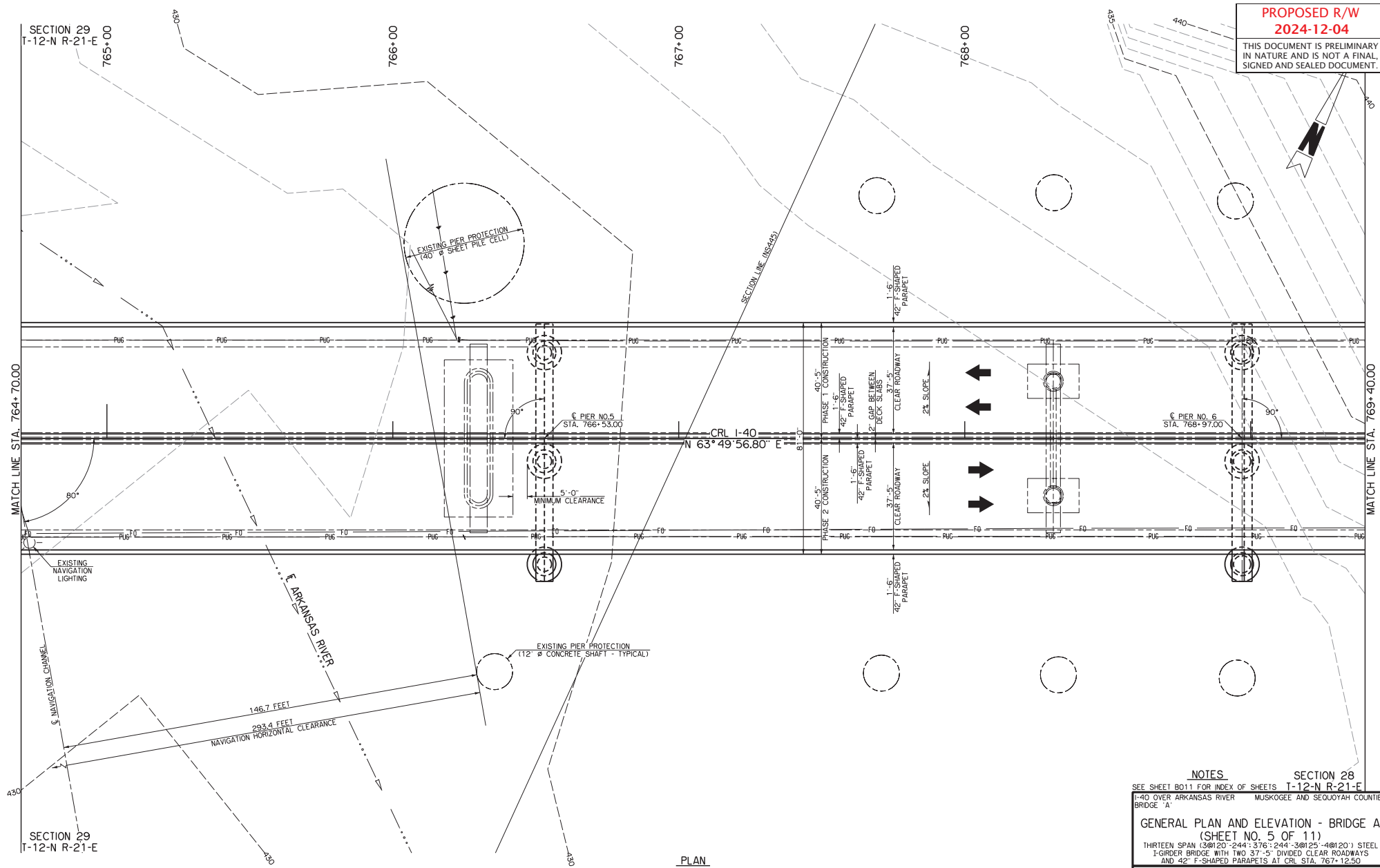
GENERAL PLAN AND ELEVATION - BRIDGE A
(SHEET NO. 4 OF 11)

THIRTEEN SPAN (3@120'-244'-376'-244'-3@125'-4@120') STEEL
I-GIRDER BRIDGE WITH TWO 37'-5" DIVIDED CLEAR ROADWAYS
AND 42" F-SHAPED PARAPETS AT CRL STA. 767+12.50

STATE JOB NO. 34334(04)

SHEET NO. B004

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



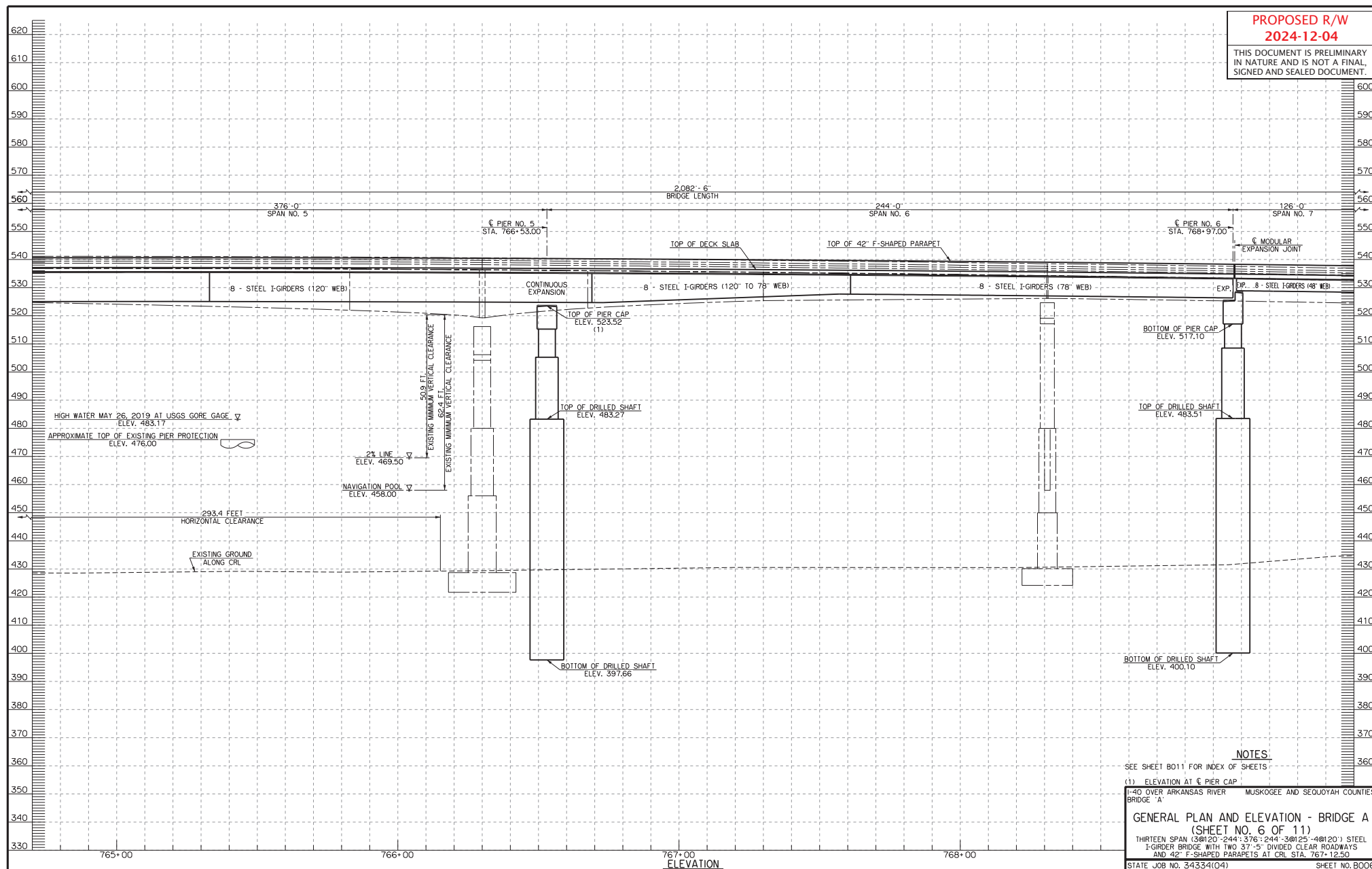
SECTION 28

GENERAL PLAN AND ELEVATION - BRIDGE A
(SHEET NO. 5 OF 11)

THIRTEEN SPAN (3@120'-244'; 376'-244'-3@125'-4@120') STEEL
I-GIRDER BRIDGE WITH TWO 37'-5" DIVIDED CLEAR ROADWAYS
AND 42" F-SHAPED PARAPETS AT CRL STA. 767+12.50

SHEET NO. B005

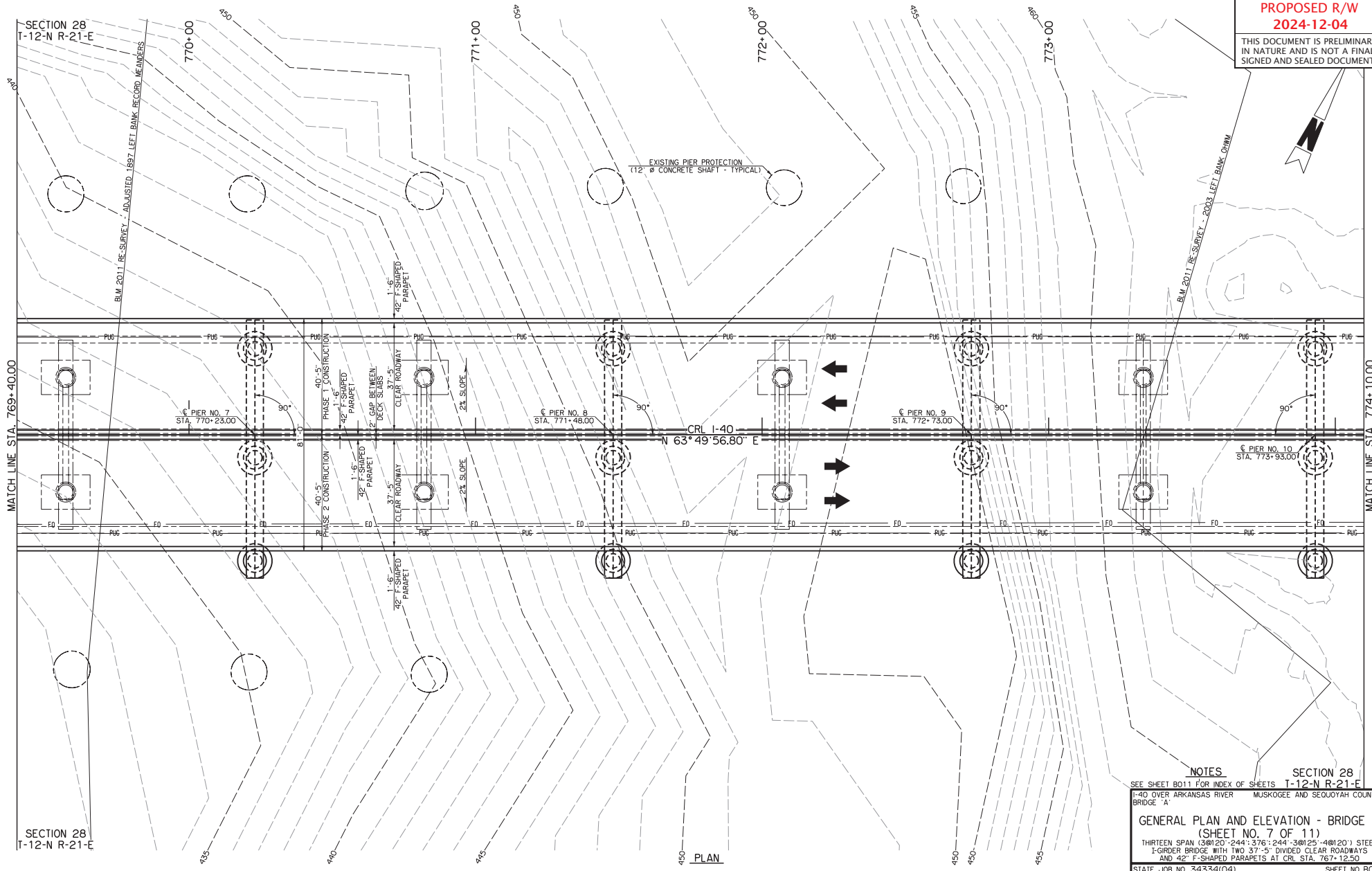
THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



SECTION 28
T-12-N R-21-E

PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



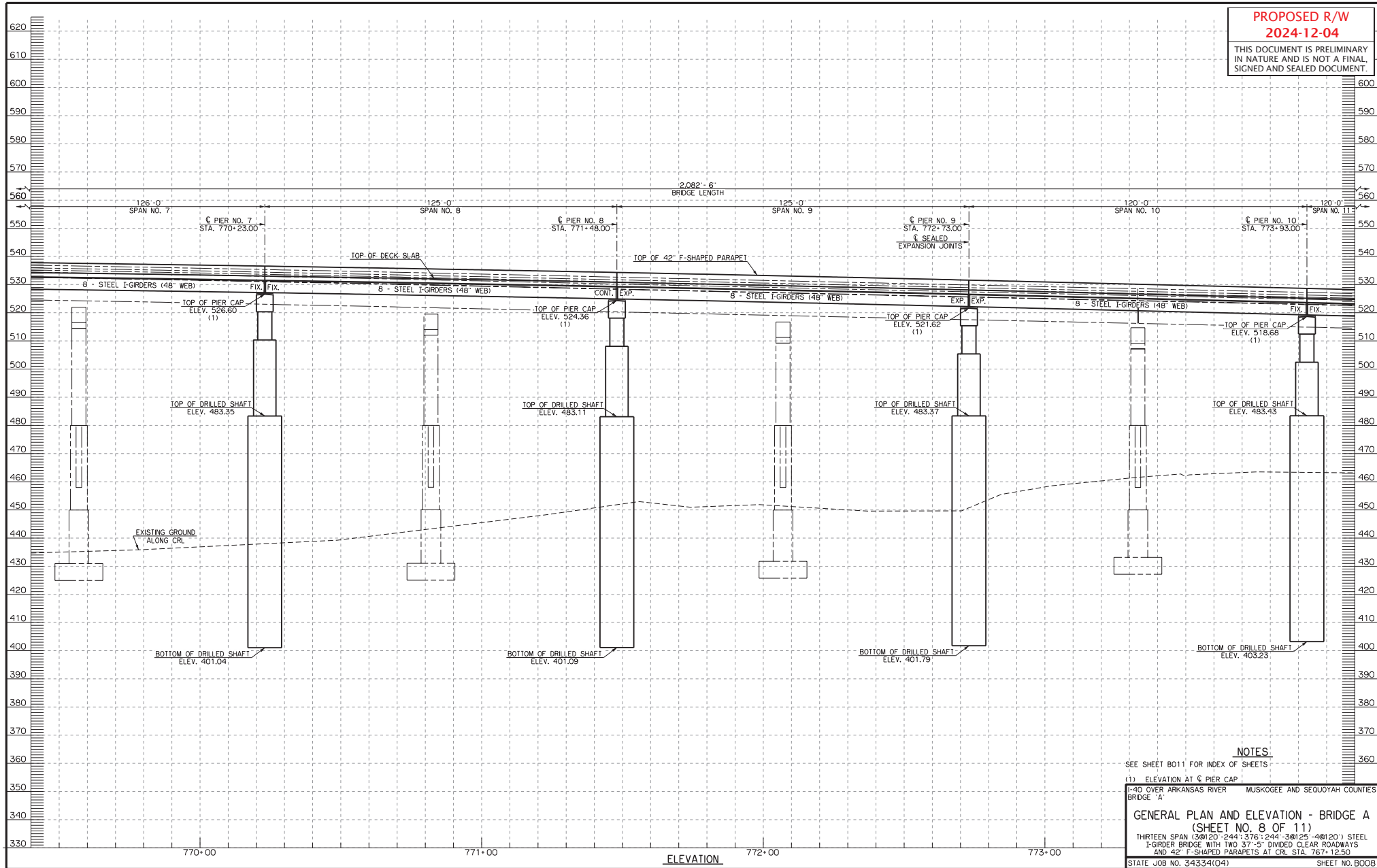
NOTES

SEE SHEET B011 FOR INDEX OF SHEETS
1-40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTIES
BRIDGE 'A'

GENERAL PLAN AND ELEVATION - BRIDGE A
(SHEET NO. 7 OF 11)
THIRTEEN SPAN (3@120'-244'; 376'-244'-3@125'-4@120') STEEL
I-GIRDER BRIDGE WITH TWO 37'-5" DIVIDED CLEAR ROADWAYS
AND 42" F-SHAPED PARAPETS AT CRL STA. 767+12.50
STATE JOB NO. 34334(04) SHEET NO. B007

PROPOSED R/W
2024-12-04

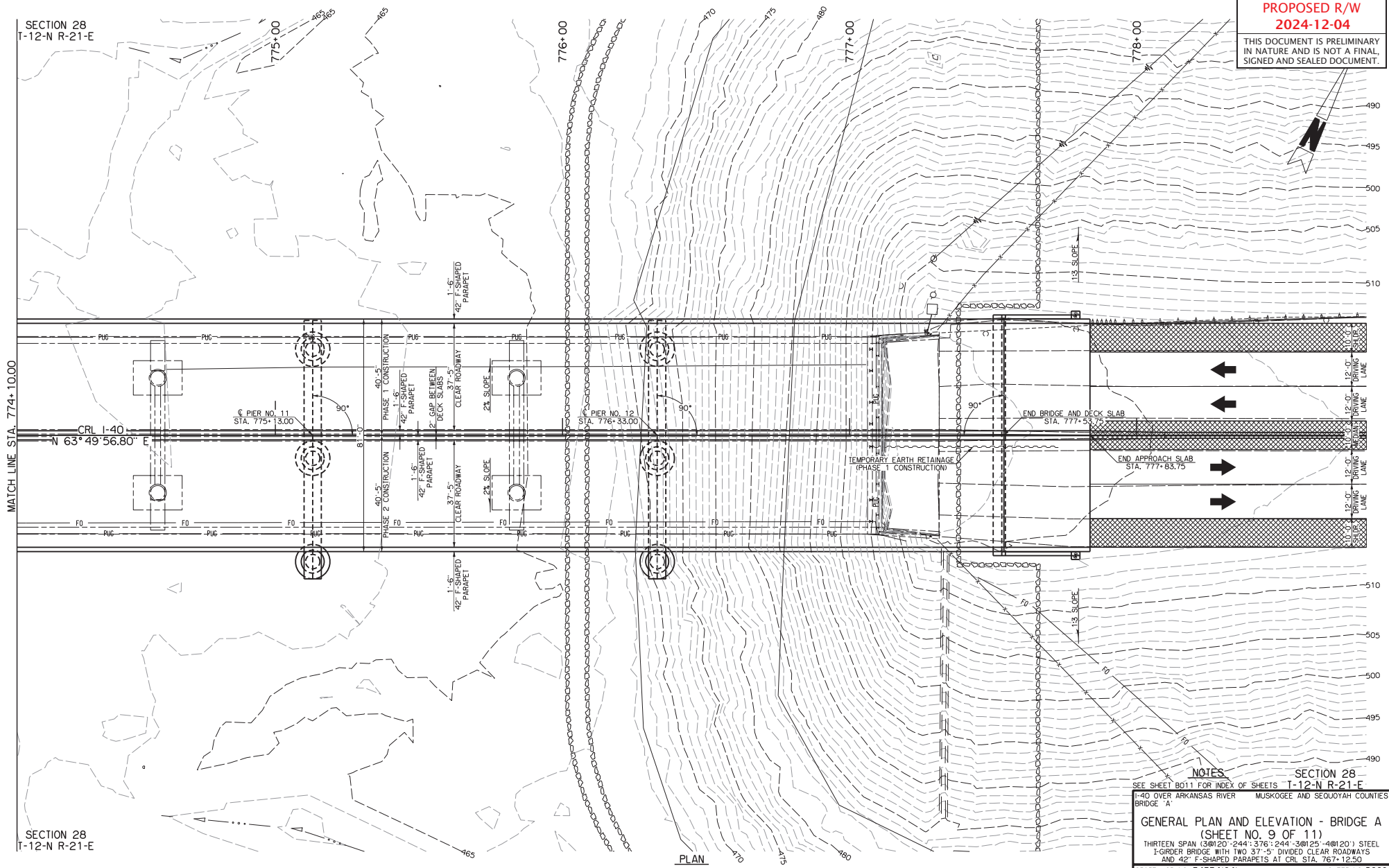
THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



SECTION 28
T-12-N R-21-E

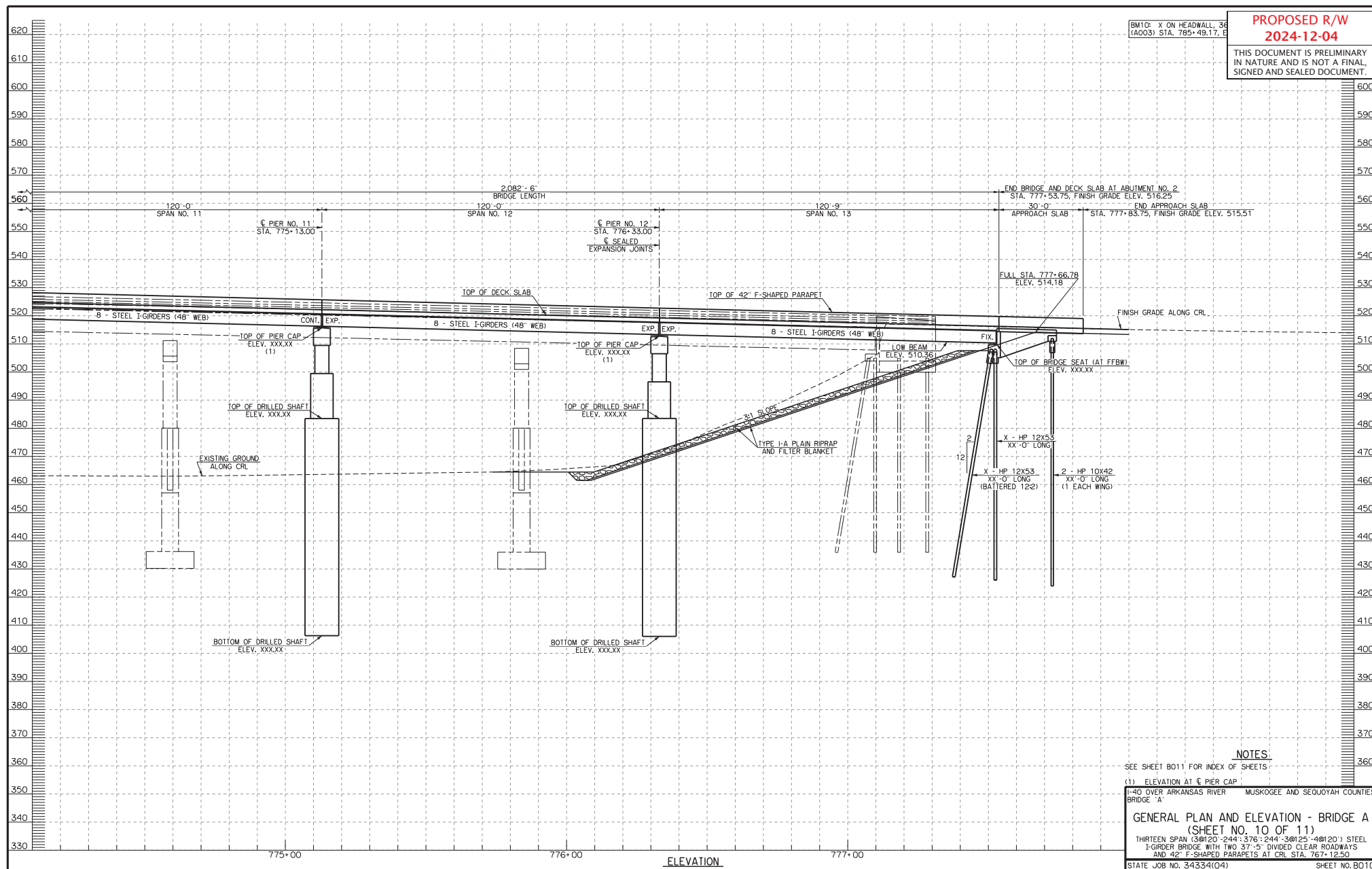
PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



SECTION 28
T-12-N R-21-E

NOTES
SECTION 28
T-12-N R-21-E
SEE SHEET B011 FOR INDEX OF SHEETS
1:40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTIES
BRIDGE 'A'
GENERAL PLAN AND ELEVATION - BRIDGE A
(SHEET NO. 9 OF 11)
THIRTEEN SPAN (3@120'-244'; 3@76'-244'-3@125'-4@120') STEEL
I-GIRDER BRIDGE WITH TWO 37'-5" DIVIDED CLEAR ROADWAYS
AND 42" F-SHAPED PARAPETS AT CRL STA. 767+12.50
STATE JOB NO. 34334(104) SHEET NO. B009



SUMMARY OF QUANTITIES - BRIDGE 'A'						
ITEM	UNIT	ABUTMENTS	PIERS	SUPERSTRUCTURE	APPROACH SLABS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	-	-	-	-	-
CLSM BACKFILL	CY	-	-	-	-	-
APPROACH SLAB	SY	-	-	-	-	-
SAW-CUT GROOVING	SY	-	-	-	-	-
42" F-SHAPED PARAPET	LF	-	-	-	-	-
STRUCTURAL STEEL	LB	-	-	-	-	-
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	-	-	-	-	-
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA	-	-	-	-	-
ELASTOMERIC COATING	SF	-	-	-	-	-
CLASS AA CONCRETE	CY	-	-	-	-	-
CLASS A CONCRETE	CY	-	-	-	-	-
REINFORCING STEEL	LB	-	-	-	-	-
EPOXY COATED REINFORCING STEEL	LB	-	-	-	-	-
PILES, FURNISHED (HP 10X42)	LF	-	-	-	-	-
PILES, FURNISHED (HP 12X53)	LF	-	-	-	-	-
PILES, DRIVEN (HP 10X42)	LF	-	-	-	-	-
PILES, DRIVEN (HP 12X53)	LF	-	-	-	-	-
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	-	-	-	-	-
WATER REPELLENT (VISUALLY INSPECTED)	SY	-	-	-	-	-
DRILLED SHAFTS 144" DIAMETER	LF	-	-	-	-	-
CROSSHOLE SONIC LOGGING	EA	-	-	-	-	-
SEALED EXPANSION JOINTS	LF	-	-	-	-	-
MODULAR EXPANSION JOINT	LF	-	-	-	-	-
SEALER CRACK PREPARATION	LF	-	-	-	-	-
SEALER RESIN	GAL	-	-	-	-	-
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	-	-	-	-	-
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	-	-	-	-	-

PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

STRUCTURAL DESIGN DATA

MATERIAL:
CLASS A CONCRETE, $f'_c = 3,000$ PSI
CLASS AA CONCRETE, $f'_c = 4,000$ PSI
REINFORCING STEEL, $f_y = 60,000$ PSI
STRUCTURAL STEEL M270 (GRADE 50W), $F_y = 50,000$ PSI
STAINLESS STEEL A240 (TYPE 316), $F_y = 30,000$ PSI

LOADINGS:
AASHTO HL-93
OKLAHOMA DOT 9 AXLE OVERLOAD TRUCK (175 KIP)
OKLAHOMA DOT 16 AXLE OVERLOAD TRUCK (315 KIP)
20 PSF FUTURE WEARING SURFACE

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL

HL-93 INVENTORY RATING FACTOR: X.XX
HL-93 OPERATING RATING FACTOR: X.XX

INDEX OF SHEETS

SHEET NO.	SHEET DESCRIPTION
AB01, AB02	NOTES AND SUMMARY OF PAY QUANTITIES - BRIDGE
B001-B011	GENERAL PLAN AND ELEVATION - BRIDGE A
B012-B015	BRIDGE CONSTRUCTION SEQUENCING

REQUIRED STANDARD DRAWINGS

2009 ROADWAY	2009 BRIDGE
LECS-5-2	F5HP-42-2-00E
PEO-4-1	EJ-SO-04E
PUD-4-1	EJ-DL-02E
	HP1-2-01E

UTILITIES

COMMUNICATIONS:
DOBSON FIBER: 855-536-2766
MBO VIDEO/EARLSBORO: 877-777-8941
CROSS TELEPHONE COMPANY: 800-828-6567
CENTURY LINK INTERNET: 833-544-2540

ELECTRIC:
COOKSON HILLS ELECTRIC: 800-328-2368
EAST CENTRAL OKLAHOMA ELEC.: 918-756-0833

PETROLEUM:
ONEOK GAS TRANSPORT: 405-756-2600

FOUNDATION DESIGN DATA - ABUTMENT PILES

ABUTMENT NO.	1	2
MAXIMUM FACTORED PILE LOAD (TONS/PILE)	XX	XX

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL.
PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION
MATERIAL AT THE APPROXIMATE ELEVATION SHOWN IN THE PLANS.
IF THE MAXIMUM FACTORED PILE LOAD IS NOT OBTAINED AT THIS
ELEVATION, DRIVING SHALL CONTINUE UNTIL THE MAXIMUM FACTORED
PILE LOAD IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN IN
THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

FOUNDATION DESIGN DATA - DRILLED SHAFTS

PIER NO.	1	2	3	4	5	6	7	8	9	10	11	12
DRILLED SHAFT DIAMETER (INCHES)	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
FACTORED REACTION (TONS/SHAFT)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
UNIT RESISTANCE (TSF)	XXX	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X	XX,X
RESISTANCE FACTOR	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
FACTORED RESISTANCE (TONS/SHAFT)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
UNIT RESISTANCE (TSF)	XXX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX	X,XX
RESISTANCE FACTOR	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
FACTORED RESISTANCE (TONS/SHAFT)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
DEPTH OF ROCK NEGLECTED (FEET)	X,X	X,X	X,X	X,X	X,X	X,X	X,X	X,X	X,X	X,X	X,X	X,X
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX	X,XXX

HYDRAULIC DATA

DRAINAGE AREA (SQ. MI.)	87,464
CONTROLLED DRAINAGE AREA (SQ. MI.)	615
EFFECTIVE DRAINAGE AREA (SQ. MI.)	86,849

FREQUENCY	Q (CFS)	CHW (FT.)	V (FPS)
2	120,000	451.94	6.73
5	145,000	454.36	7.10
10	205,000	459.09	8.00
25	320,000	466.34	9.41
50	495,000	474.53	11.10
100	625,000	479.01	12.54
OT+500	745,000	480.17	13.84

SCOUR DEPTH (FT.)

FREQUENCY	CONTRACTION	PIER	TOTAL
100	11.19	28.58	39.77
OT+500	13.61	30.71	44.32

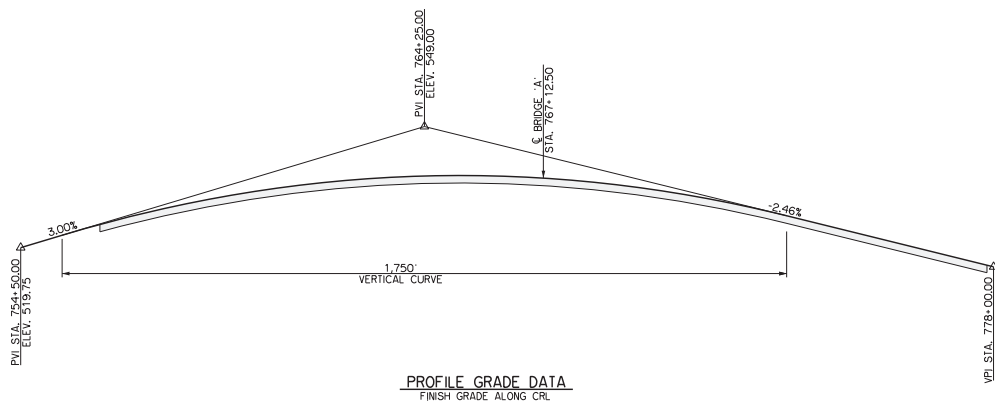
I-40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTIES
BRIDGE 'A'

GENERAL PLAN AND ELEVATION - BRIDGE A (SHEET NO. 11 OF 11)

THIRTEEN SPAN (3@120'-244'; 376'-244'-3@125'-4@120') STEEL
I-GIRDER BRIDGE WITH TWO 37'-5" DIVIDED CLEAR ROADWAYS
AND 42" F-SHAPED PARAPETS AT CRL STA. 767+12.50

STATE JOB NO. 34334(04)

SHEET NO. B011



**PROPOSED R/W
2024-12-04**

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

SECTION 29
T-12-N, R-21-E
W2, SE/4

SEC 29
T-12-N, R-19-W

CURVE DATA - C1
P.L. STA. 723+64.82
X= 2882661.7304
Y= 188221.4543
Δ= 24°46'28.83" LT
D= 0°28'00.00"
L= 2696.50
E= 5308.86'
R= 12277.67'
E= 292.64'

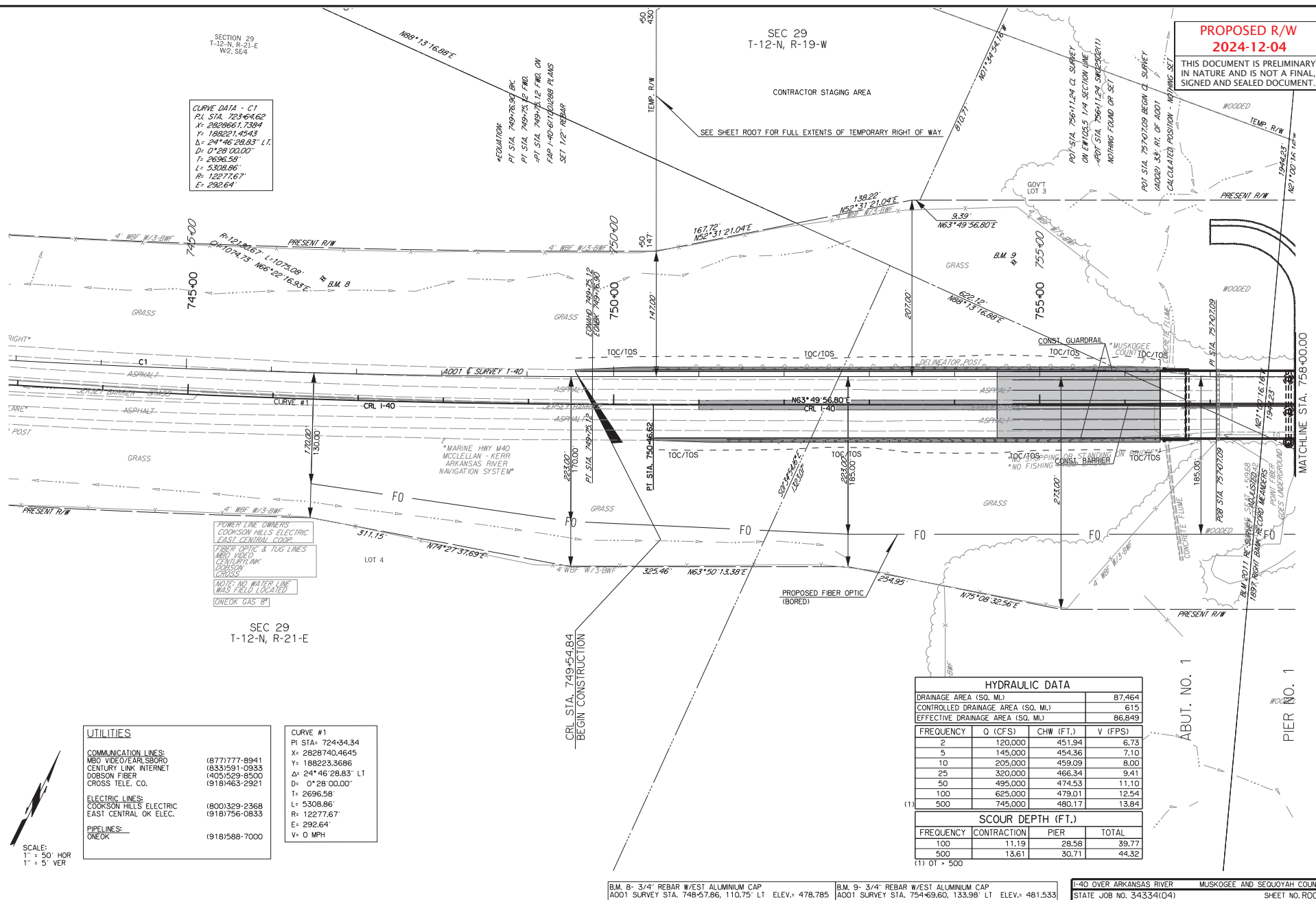
*EQUATION:
PT STA. 749+76.94 B.C.
PT STA. 749+75.12 F.M.D.
PT STA. 749+75.12 F.M.D. ON
FAP 1-40-61 (10/28/89 PLANS
SET 1/2" REBAR

CONTRACTOR STAGING AREA

SEE SHEET R007 FOR FULL EXTENTS OF TEMPORARY RIGHT OF WAY.

POI STA. 756+11.24 CL SURVEY
ON EN 102.5 1/4 SECTION LINE
ADOT STA. 756+11.24 (SME20211)
NOTHING FOUND OR SET

POI STA. 757+07.09 BEGIN CL SURVEY
(ADOT) 3/3, RI. OF ADOT
CALCULATED POSITION - NOTHING SET



SEC 29
T-12-N, R-21-E

UTILITIES

COMMUNICATION LINES:
MBO VIDEO/EARLSBORO (877)777-8941
CENTURY LINK INTERNET (833)591-0933
DOBSON FIBER (405)529-8500
CROSS TELE. CO. (918)463-2921

ELECTRIC LINES:
COOKSON HILLS ELECTRIC (800)329-2368
EAST CENTRAL OK ELEC. (918)756-0833

PIPELINES:
ONEOK (918)588-7000

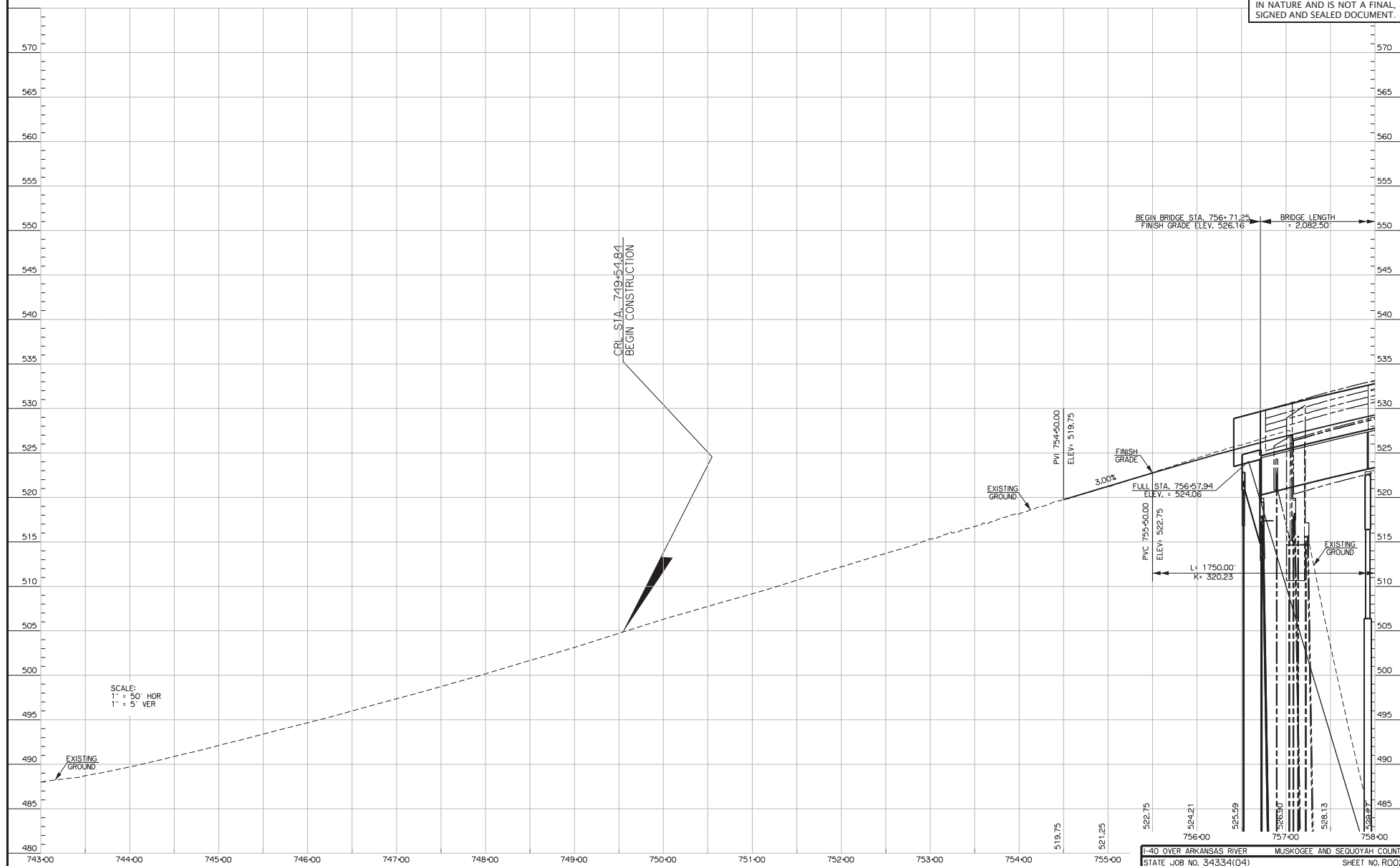
CURVE #1
P.L. STA. 724+34.34
X= 2882740.4645
Y= 188223.3686
Δ= 24°46'28.83" LT
D= 0°28'00.00"
L= 2696.50
E= 5308.86'
R= 12277.67'
E= 292.64'
V= 0 MPH

HYDRAULIC DATA			
DRAINAGE AREA (SQ. MI.)	87.464		
CONTROLLED DRAINAGE AREA (SQ. MI.)	615		
EFFECTIVE DRAINAGE AREA (SQ. MI.)	86.849		
FREQUENCY	Q (CFS)	CHW (FT.)	V (FPS)
2	120,000	451.94	6.73
5	145,000	454.36	7.10
10	205,000	459.09	8.00
25	320,000	466.34	9.41
50	495,000	474.53	11.10
100	625,000	479.01	12.54
500	745,000	480.17	13.84

SCOUR DEPTH (FT.)		
FREQUENCY	CONTRACTION	PIER TOTAL
100	11.19	28.58
500	13.61	30.71

PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



SCALE:
1" = 50' HOR
1" = 5' VER

BLM 2011
4/1/02 11.8

POT STA. 758+77.40 ON ADJUSTED RT. BLM
BLM DEPENDENT RE-SURVEY DATED 09-30-04
CALCULATED POSITION - NOTHING SET

SEC 29
T-12-N, R-19-W

POT STA. 767+74.1 4002
ON 185445 SECTION LINE
-POT STA. 767+74.24 ON
FAP I-40-6-1100/288 PLANS.
N. 2191.32' TO SECTION CORNER
S. 496.77' TO 1/4 SECTION CORNER IN RA
CALCULATED POSITION - NOTHING SET

SEC 28
T-12-N, R-21-E

POT STA. 769+75.14 ON MEMBER LINE
N. 706.69' TO MEMBER COR
S. 1569.15' TO MEMBER COR
BLM DEPENDENT RE-SURVEY DATED 09-30-04
CALCULATED POSITION - NOTHING SET

**PROPOSED R/W
2024-12-04**
THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

MATCHLINE STA. 758+00.00

MATCHLINE STA. 773+00.00

PIER NO. 2

PIER NO. 3

PIER NO. 4

PIER NO. 5

PIER NO. 6

PIER NO. 7

PIER NO. 8

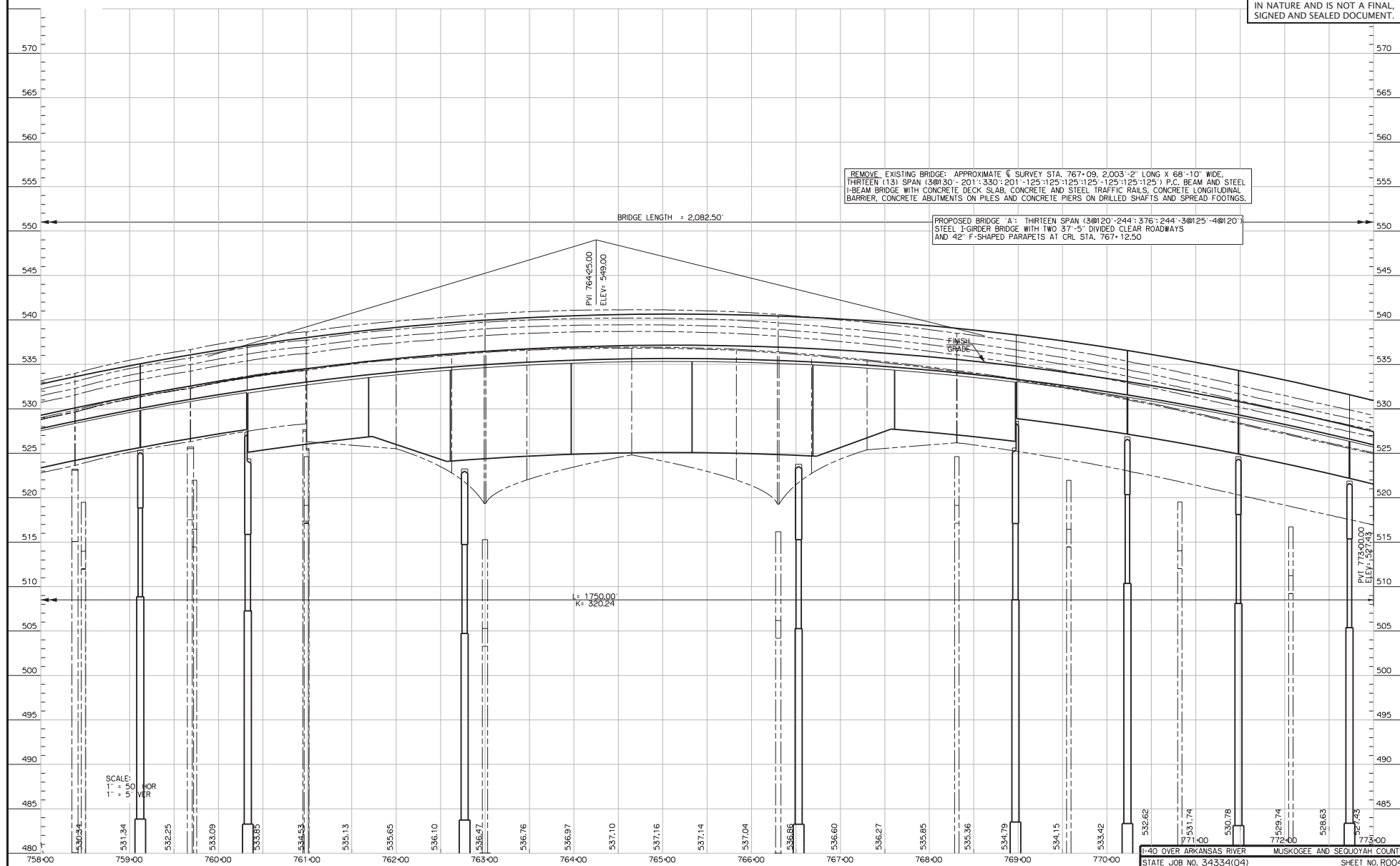
PIER NO. 9

SEC 29
T-12-N, R-21-E

SEC 28
T-12-N, R-21-E

I-40 OVER ARKANSAS RIVER MUSKOGEE AND SEQUOYAH COUNTY
STATE JOB NO. 34334(04) SHEET NO. R003

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

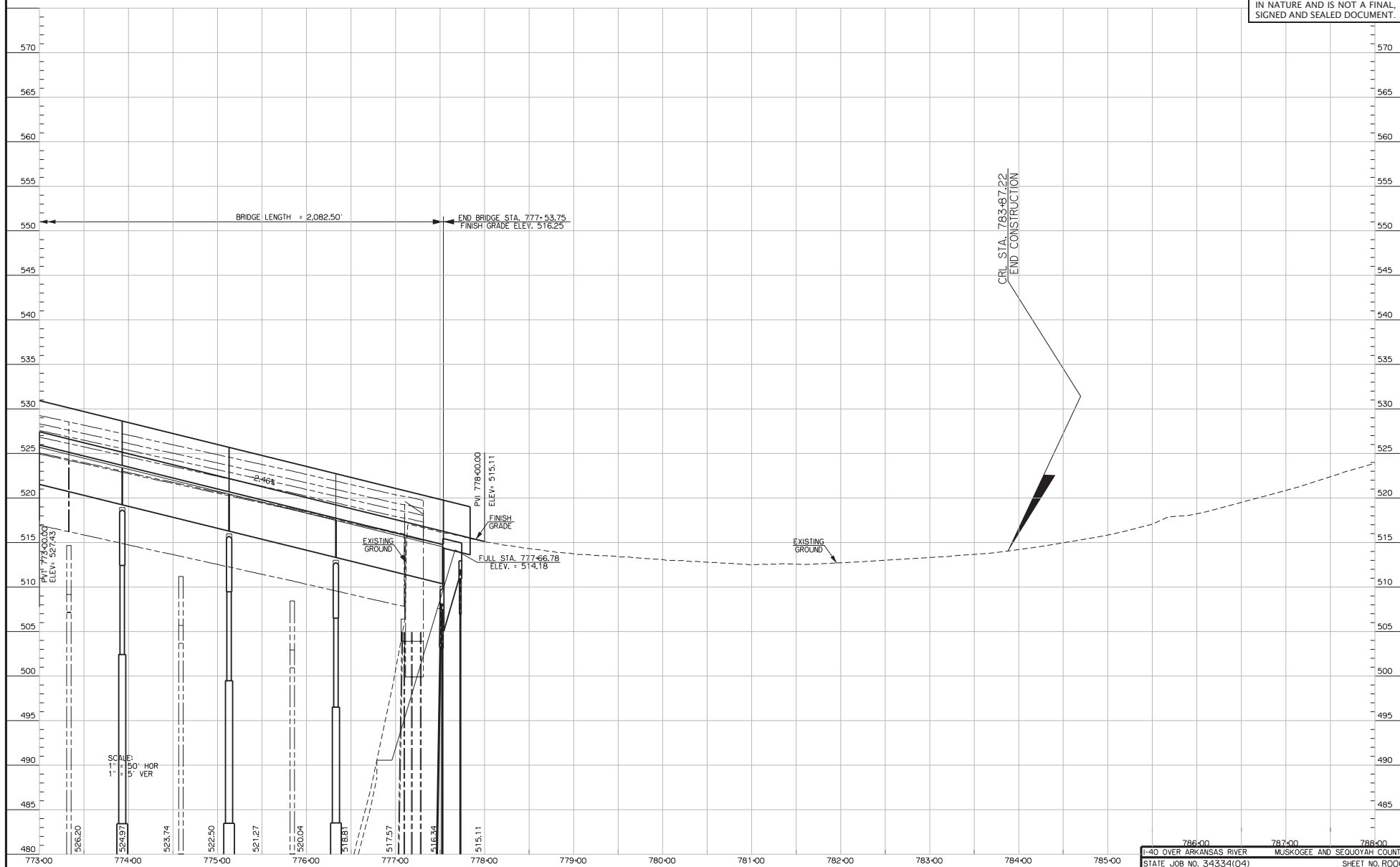


THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.



PROPOSED R/W
2024-12-04

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.





COMMENTS/LEGEND

- Environmental Footprint
- Sections
- Mapped Streams
- Matchlines



0 80 160 320 480 640 Feet

Environmental Footprint

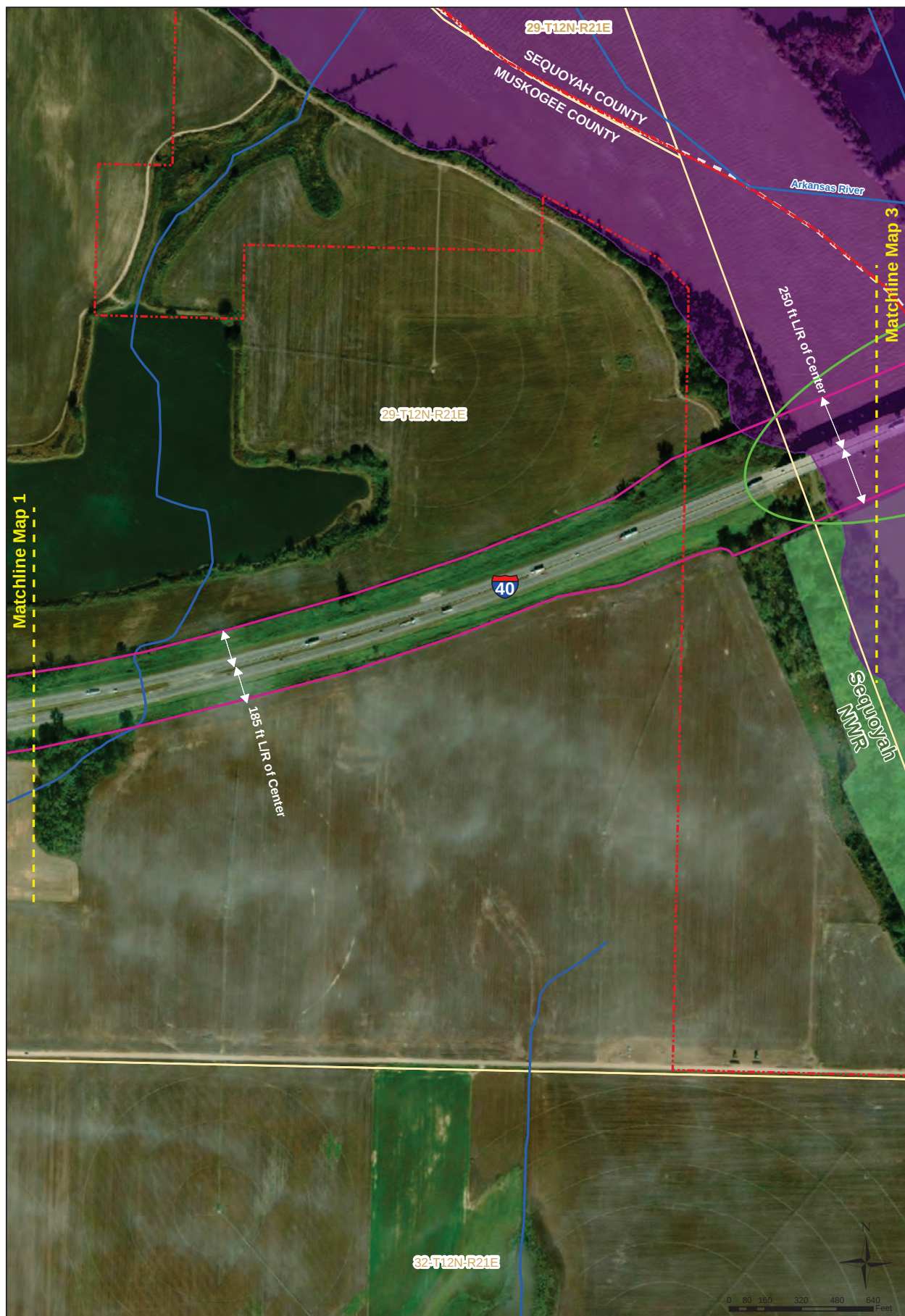
JP 34334(04) / J3-4334(004)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

**Map
1 of 4**

Date: 11/8/2021



COMMENTS/LEGEND

Environmental Footprint	USA Parcels	Sections
Mapped Streams	NBI# 17051	Matchlines
Arkansas Riverbed Authority Jurisdiction	County Line	

Environmental Footprint

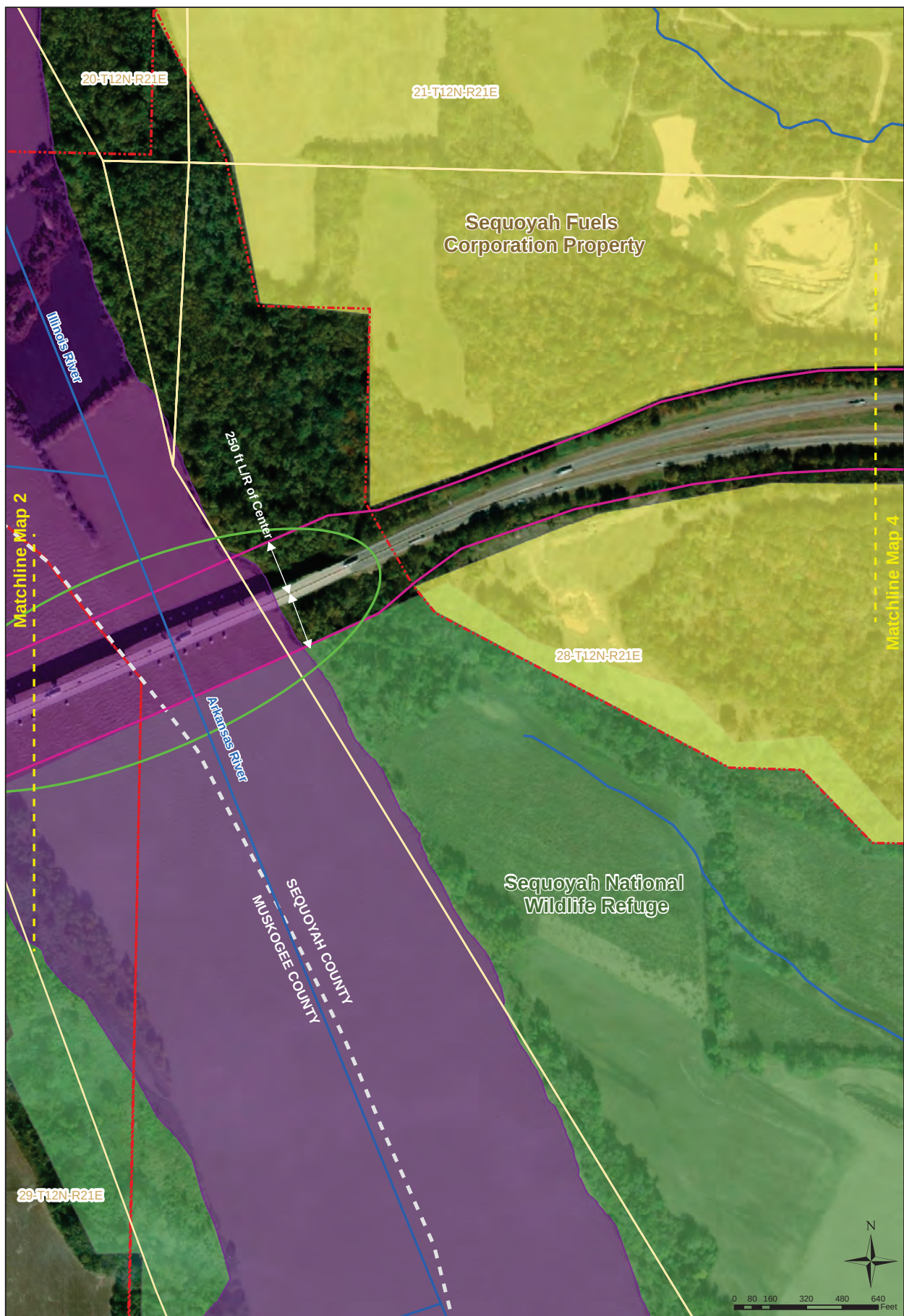
JP 34334(04) / J3-4334(004)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

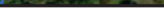
Map 2 of 4

Date: 11/8/2021



COMMENTS/LEGEND			Environmental Footprint	 OKLAHOMA Transportation	Map 3 of 4
 Environmental Footprint	 USA Parcels	 Sections			
 Mapped Streams	 NBI# 17051	 Matchlines	JP 34334(04) / J3-4334(004) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK		
 Arkansas Riverbed Authority Jurisdiction	 County Line				
			DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS		Date: 11/8/2021



COMMENTS/LEGEND		Environmental Footprint JP 34334(04) / J3-4334(004) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 OKLAHOMA Transportation DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS	Map 4 of 4	
 Environmental Footprint	 Mapped Streams			 080160320480640 Feet	Date: 11/8/2021
 USA Parcels	 Sections				
 County Line	 Matchlines				

**EARLY COORDINATION LETTERS
AND RESPONSES**

January 24, 2025

**Subject: Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile
Muskogee & Sequoyah Counties
ODOT Job Piece No. 34334(04), ODOT Project No. J3-4334(004)**

Dear Property Owner:

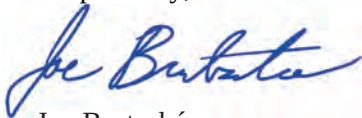
The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), will be preparing an environmental document on a proposal to replace the existing bridge on I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The project is scheduled for construction in 2027 in the current 8 Year Construction Program and ODOT is in the project development process. The exact project scope and requirements will be clarified through the planning, environmental review, and design process. Issues that will be analyzed in the document include the project's effects to noise, water quality, cultural and natural resources, and other effects to the environment. In accordance with the National Environmental Policy Act, the National Historic Preservation Act, and FHWA policy, ODOT requests any information or specific concerns you have regarding this project's potential impact on the resources listed above. If you have reason to believe that there are resources such as underground oil or gas storage tanks, contaminated soil, archaeological or historic sites, human graves, places of religious or cultural importance to Native American tribes, or other sensitive resources, please respond to the contact provided below.

You may recall receiving a similar letter regarding this project in December 2021. Today's letter is an update as we need to study some more areas to collect information to complete the environmental document.

The results of the studies for cultural resources, biological resources, noise, and hazardous materials will be incorporated into the environmental document being prepared for this project. If you are currently leasing this property, please notify your lessee of our planned work.

Should you have any information or specific concerns, or if you have resources listed above that may be located on your property, please contact Geoff Canty with CC Environmental at (405) 761-1225 or geoff@ccenviro.net. If your concerns are related to places of traditional cultural or religious importance to Native American tribes or to burials or cemeteries affiliated with tribes, please contact Dr. Rhonda Fair, ODOT Director of Tribal Coordination, at (405) 517-5670 or rfair@odot.org. As always, your input is greatly appreciated.

Respectfully,



Joe Brutsché
Environmental Programs Division Manager

JB/AW/CC Environmental

Enclosures: Location Map

Copy to: Project Management
Survey Division
Right-of-Way Division

Field District Engineer
Materials Division
Tribal Coordination and Specialists

Muskogee – JP 34334(04) – Property Owners

No.	First Name	Last Name	Address	City	State	Zip
1	ARTHUR W. & PHYLLIS A ✓	SLOAN	1601 N HWY 10 } 207K	GORE	OK	74435
2	ARTHUR W. & PHYLLIS A ✓	SLOAN	PO BOX 475	GORE	OK	74435
3	UNITED STATES	OF AMERICA	10687 GASKINS WAY #101 ✓	MANASSAS	VA	20109
4	ROBERT S. KERR LAKE PROJECT OFFICE	U.S. ARMY CORPS OF ENGINEERS	114302 S 4629 RD.	SALLISAW	OK	74955



United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE

Sequoyah National Wildlife Refuge

107993 S. 4520 Road

Vian, OK 74962

Phone (918) 773-5251 Fax (918) 773-5598



February 10, 2022



Subject: Bridge & Approaches I-40: Over Arkansas River. ODOT Project No. 13-4334(004)

Environmental Programs Interim Division Manager
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105-3204

Dear Environmental Programs Division Manager:

I received your correspondence regarding the above-referenced project. The U.S. Fish and Wildlife Service (Service) appreciates this notification. Sequoyah National Wildlife Refuge (SNWR) has a perpetual easement with the U.S Army Corps. Of Engineers (USACE). The USACE is the fee title owner of the property, and the Service manages SNWR under a management agreement with the USACE. Your agency will need to coordinate with both SNWR and the USACE regarding this project.

The SNWR has very important biological, environmental, cultural, and socioeconomic resources that will need to be considered for this project. It is also important to note that an active Bald Eagle nest occurs near the project area.

We look forward to working with you on this project. If you have any questions, feel free to call the refuge at the number listed above.

Sincerely,

DARRIN UNRUH

Digitally signed by DARRIN
UNRUH
Date: 2022.02.10 11:02:14 -06'00'

Refuge Manager

Enclosure

cc: Dennis Covey, USACE

December 15, 2021

Subject: Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile in Muskogee & Sequoyah Counties, JP No. 34334(04), ODOT Project No. J3-4334(004)

Dear Property Owner:

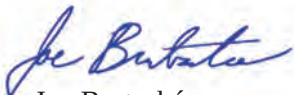
The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), will be preparing an environmental document on a proposal to replace the existing bridge on I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The project is scheduled for construction in 2028 in the current 8 Year Construction Program and ODOT is early in the project development process. The exact project scope and requirements will be clarified through the planning, environmental review, and design process. Issues that will be analyzed in the document include the project's effects to noise, water quality, cultural and natural resources, and other effects to the environment. In accordance with the National Environmental Policy Act, the National Historic Preservation Act, and FHWA policy, ODOT requests any information or specific concerns you have regarding this project's potential impact on the resources listed above. If you have reason to believe that there are resources such as underground oil or gas storage tanks, contaminated soil, archaeological or historic sites, human graves, places of religious or cultural importance to Native American tribes, or other sensitive resources, please respond to the contact provided below.

The proposed project will occur within existing state right-of-way. This letter is being provided to you, as an adjacent property owner, for your information only. All surveying for the environmental considerations listed above will also be done only within existing state rights-of-way.

The results of the studies for cultural resources, biological resources, noise, and hazardous materials will be incorporated into the environmental document being prepared for this project. If you are currently leasing this property, please notify your lessee of our planned work.

Should you have any information or specific concerns, or if you have resources listed above that may be located on your property, please contact Geoff Canty with CC Environmental at (405) 761-1225 or geoff@ccenviro.net. If your concerns are related to places of traditional cultural or religious importance to Native American tribes or to burials or cemeteries affiliated with tribes, please contact Dr. Rhonda Fair, ODOT Director of Tribal Coordination, at (405) 517-5670 or rfair@odot.org. As always, your input is greatly appreciated.

Respectfully,



Joe Brutsché
Environmental Programs Interim Division Manager

JB/AW/CC Environmental

Enclosures: Location Map

Copy to:	Project Management	Field District Engineer
	Survey Division	Materials Division
	Right-of-Way Division	Tribal Coordination and Specialists

Muskogee – JP 34334(04) – Property Owners

No.	First Name	Last Name	Address	City	State	Zip
1	DOC	WATSON LLC ✓	5125 DINANT DR	JOHNS CREEK	GA	30022
2	CONRAD VALLEY	FARM LLC ✓	PO BOX 59	GORE	OK	74435
3	TWO BOYS &	A TRACTOR LLC ✓	PO BOX 455	GORE	OK	74435
4	SANDERS FAMILY	TRUST ETAL ✓	4639 E55TH PL	TULSA	OK	74135
5	KIMBERLY JO SLOAN	PEARSON ✓	1601 N HWY 10	GORE	OK	74435
6	ARTHUR W. & PHYLLIS A	SLOAN ✓	1601 N HWY 10	GORE	OK	74435
7	ARTHUR W. & PHYLLIS A	SLOAN ✓	PO BOX 472	GORE	OK	74435
8	PHILLIP WAYNE	SLOAN ✓	PO BOX 475	GORE	OK	74435
9	ROBERT C. & DIXIE MODEAN ROSS ✓	REVOCABLE LIVING TRUST	12599 E 163RD ST S	WEBBERS FALLS	OK	74470
10	UNITED STATES	OF AMERICA ✓	10687 GASKINS WAY #101	MANASSAS	VA	20109
11	SEQUOYAH FUELS ✓	INTERNATIONAL CORPORATION	PO BOX 610 F1	GORE	OK	74435
12	U.S. FISH & WILDLIFE SERVICE ✓	SEQUOYAH NATIONAL WILDLIFE REFUGE	107993 S 4520 RD.	VIAN	OK	74962
13	ROBERT S. KERR LAKE PROJECT OFFICE ✓	U.S. ARMY CORPS OF ENGINEERS	HC 61 BOX 238	SALLISAW	OK	74955

STATION w/ ODOT R/W

SENT w/ LOCATION MAP & STATION

12/14/21





December 15, 2021

Mr. Eddie Streater
Regional Director
Eastern Oklahoma Regional Office
Bureau of Indian Affairs
P.O. Box 8002
Muskogee, Oklahoma 74401-6201

Subject: Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile in Muskogee & Sequoyah Counties, JP No. 34334(04), ODOT Project No. J3-4334(004)

Dear Mr. Streater:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), will be preparing an environmental document on a proposal to replace the existing bridge on I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The project is scheduled for 2028 in the current 8 Year Construction Program and ODOT is early in the project development process. The exact project scope and requirements will be clarified through the planning, environmental review, and design process; however, the improvements are considered necessary to improve the safety of this segment of I-40. Issues that will be analyzed in the document include the project's effects to noise, water quality, cultural and natural resources, and other effects to the environment. In accordance with the National Environmental Policy Act, the National Historic Preservation Act, and FHWA policy, ODOT requests any information or specific concerns you have regarding this project's potential impact on the resources listed above. We have enclosed a location map and the environmental study area.

This project is in the early developmental stages and any comments relative to the social, economic, or environmental effects of this proposal will be appreciated. To allow adequate time for evaluation of your comments, we would appreciate receiving a response within **fifteen days** from the date of this letter. Your written comments should be directed to the Environmental Program Division Engineer, Oklahoma Department of Transportation, 200 NE 21st Street, Oklahoma City, Oklahoma 73105 or emailed to environment@odot.org.

We sincerely appreciate your input in this matter. For further information or if you have any questions, please contact Andrew Ward, Environmental Project Manager at (405) 521-2325 or ward@odot.org or please contact our authorized agent Geoff Canty with CC Environmental at (405) 761-1225 or geoff@ccenviro.net.

Respectfully,

Joe Brutsché
Environmental Programs Interim Division Manager

JB/AW/CC Environmental

Enclosures: Location Map, Study Area Map
Copy to: Project Management Division
ODOT Cultural Resources

Field District Engineer
Tribal Liaison

Right-of-Way Division

December 15, 2021

Ms. Carolyn Russell
Assistant Field Manager – Resources
Oklahoma Field Office
Bureau of Land Management
201 Stephenson Parkway, Suite 1200
Norman, Oklahoma 73072-2037

Subject: Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile in Muskogee & Sequoyah Counties, JP No. 34334(04), ODOT Project No. J3-4334(004)

Dear Ms. Russell:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), will be preparing an environmental document on a proposal to replace the existing bridge on I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The project is scheduled for 2028 in the current 8 Year Construction Program and ODOT is early in the project development process. The exact project scope and requirements will be clarified through the planning, environmental review, and design process; however, the improvements are considered necessary to improve the safety of this segment of I-40. Issues that will be analyzed in the document include the project's effects to noise, water quality, cultural and natural resources, and other effects to the environment. In accordance with the National Environmental Policy Act, the National Historic Preservation Act, and FHWA policy, ODOT requests any information or specific concerns you have regarding this project's potential impact on the resources listed above. We have enclosed a location map and the environmental study area.

This project is in the early developmental stages and any comments relative to the social, economic, or environmental effects of this proposal will be appreciated. To allow adequate time for evaluation of your comments, we would appreciate receiving a response within **fifteen days** from the date of this letter. Your written comments should be directed to the Environmental Program Division Engineer, Oklahoma Department of Transportation, 200 NE 21st Street, Oklahoma City, Oklahoma 73105 or emailed to environment@odot.org.

We sincerely appreciate your input in this matter. For further information or if you have any questions, please contact Andrew Ward, Environmental Project Manager at (405) 521-2325 or ward@odot.org or please contact our authorized agent Geoff Canty with CC Environmental at (405) 761-1225 or geoff@ccenviro.net.

Respectfully,



Joe Brutsché
Environmental Programs Interim Division Manager

JB/AW/CC Environmental

Enclosures: Location Map, Study Area Map

Copy to: Project Management Division
Field District Engineer

Right-of-Way Division
ODOT Cultural Resources

SECTION 106
CULTURAL RESOURCES STUDIES

DATE: July 15, 2025

TO: Geoff Canty, NEPA Project Manager
Andrew Ward, Environmental Project Manager

FROM: Katie Williams, Cultural Resources Program

SUBJECT: Muskogee and Sequoyah Counties Project JP 34334(04): Proposed Improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties.

The Oklahoma Department of Transportation (ODOT) completed Section 106 Consultation on behalf of the Federal Highway Administration (FHWA) for proposed road and bridge improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The proposed improvements begin where S 150th St E (NS-4435) crosses I-40 and extends northeast for approximately 2.6 miles to the junction of I-40/SH-10; 130 acres were surveyed. ODOT determined the proposed project will have **no effect on historic properties**. Additionally, Section 106 Consultation was completed on a supplementary 3.5 acres for staging and further construction work added to the project after the original consultation in 2022. ODOT determined the work in the additional area will have **no effect on historic properties**.

As a result of the cultural resources study, one archaeological site (34SQ576) and one isolated find (IF-01) was documented and assessed. Site 34SQ576 is an open air, unassigned prehistoric lithic scatter identified within the existing I-40 R/W. No features or temporally diagnostic artifacts were identified. The portion of the site within the existing R/W has been disturbed by the prior construction of I-40. This disturbance, combined with the absence of temporal indicators or features, suggest that the site as currently defined does not have the potential to yield significant information relevant to understanding regional prehistory. As such, Site 34SQ576 was recommended **not eligible** for listing on the National Register of Historic Places (NRHP).

Based on the distribution of positive shovel tests, the site may extend to the north for an unknown distance beyond the project footprint—which is the existing R/W. Any portions of the site outside of the existing R/W are uninvestigated and should be investigated by future undertakings.

Isolated Find 01 (IF-01) consists of a single prehistoric lithic chert flake discovered in a shovel test. Based on the absence of any associated cultural materials and lack of temporal affiliation, IF-01 is recommended **not eligible** for NRHP listing.

Testing in the additional area also recorded one new archaeological site. 34MS607 was documented. Site 34MS607 is a late-nineteenth and early-twentieth century trash dump that is represented by a subsurface deposit of artifacts. A total of 21 shovel/auger tests were excavated and eight were positive, for a total of 45 artifacts. The artifact assemblage included amber,

amethyst, clear, cobalt, and milk glass, whiteware, nail fragments, one chert flake, and plastic. Overall, the site is 25 to 50 percent disturbed by previous road construction and agricultural activities. Modern trash was found mixed with the historic-era artifacts at various depths, suggesting a disturbed context. The site was delineated with negative shovel tests and no features were identified. 34MS607 is recommended ***not eligible*** for the NRHP.

Consultation with the State Historic Preservation Office ([File #0296-23](#)) and the State Archaeologist ([OAS FY23-0320](#)) resulted in concurrence with our assessment and determination, for the original project footprint. Consultation with the State Historic Preservation Office ([File #1548-25](#)) and the State Archaeologist ([OAS FY24-1388](#)) on the additional area also resulted in concurrence with our assessment and determination.

The existing bridge on I-40 over Arkansas River (ODOT Structure No. 6822 0000 X [NBI 17051]) is a steel girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and requires no additional documentation.

ODOT also consulted with the following tribes: Alabama Quassarte Tribal Town, Caddo Nation, Cherokee Nation, Kialegee Tribal Town, Muscogee (Creek) Nation, Osage Nation, Thlopthlocco Tribal Town, United Keetoowah Band of Cherokee Indians, and Wichita and Affiliated Tribes

An avoidance note for off-site facilities is included.

NKW



OKLAHOMA Transportation

Environmental Programs Division
Office 405.521.3050 / Fax 405.522.5193

DATE: July 15, 2025

TO: Project Management Division

FROM: Katie Williams – Cultural Resources Program

SUBJECT: Muskogee and Sequoyah Counties Project JP 34334(04): Proposed Improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties.

There are potentially significant cultural resources within the general vicinity of the referenced project. Please have the following note added to a section of the project plans entitled “Environmental Mitigation Notes” per Policy Directive C-201-2D(2):

Locations outside the project area in the following area must not be utilized for borrow, equipment staging, haul roads, spoil dumps or any off-site project-related activity.

T12N R21E:

Section 19:	SW1/4 SW1/4
Section 19:	SW1/4 NE1/4
Section 21:	S1/2 NW1/4 SE1/4
Section 21:	W1/2 NW1/4 SW1/4
Section 22:	S1/2 NE1/4 SE1/4
Section 28:	SE1/4 NE1/4 NW1/4
Section 29:	SE1/4 SW1/4 NE1/4
Section 29:	SW1/4 NE1/4
Section 30:	SW1/4 SE1/4
Section 31:	NW1/4 NW1/4 NE1/4

T12N R20E:

Section 20:	E1/2
Section 21:	W1/2
Section 24:	E1/2 SE1/4
Section 25:	NW1/4 NE1/4
Section 25:	SE1/4 NE1/4
Section 36:	S1/2 NE1/4



Oklahoma Historical Society
State Historic Preservation Office

May 30, 2025

Mr. Joe Brutsche, Manager
ODOT Environmental Programs Division
c/o ODOT Cultural Resources Program
3200 Marshall Avenue, Room 110
Norman, OK 73072

RE: File #1548-25; [Previously File #0296-23] I-40 over the Arkansas River Redesigned Project
#JP-34334(04)

Dear Mr. Brutsche:

We have received and reviewed the documentation concerning the supplemental study area in Muscogee and Sequoyah Counties. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. We concur with your opinion that there are no historic properties affected by the referenced project.

Regarding Wilkerson (Whidbey) Family Cemetery, mapped adjacent to the project's area of potential effect (APE) and Hanks Cemetery, mapped adjacent to the supplemental study area, we would like to emphasize the importance of adhering to the Oklahoma statutes governing cemeteries that includes Title 21, Chapter 47, Section 1167: *Punishment for Destruction or Removal of Tomb, Gravestone or Other Cemetery Ornament*, Title 21, Chapter 47, Section 1168.4: *Duty to Report Discovered Remains* and Title 21, Chapter 47, Section 1168.7: *Government Agencies' Discovery of Remains-Duties*.

Please note that this project is located within the reservation boundaries of the Cherokee Nation and is therefore on tribal lands as defined in the National Historic Preservation Act (NHPA) and the Section 106 regulations (36 CFR Part 800).

Thank you for the opportunity to comment on this project. We look forward to working with you in the future. If you have any questions, please contact Kristina Wyckoff, Historical Archaeologist, at 405-521-6381.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. Thank you.

Sincerely,

Lynda Ozan
Deputy State Historic
Preservation Officer

LO:pm

cc: Ms. Elizabeth Toombs, Cherokee Nation



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

May 21, 2025

Joe Brutsché
Division Manager
ODOT Cultural Resources Program
3200 Marshall Ave, Room 110
Norman, OK 73019

Re: OAS FY25-1388 FHWA Muskogee County JP 34334(04): Proposed Improvements to I-40 over the Arkansas River. Report by Sarah Luthman (CC Environmental, LLC.).
ODOT J/P 34334(04)
Legal Description: Section 29, T12N, R21E, Muskogee County, Oklahoma

Dear Mr. Brutsché,

This agency received the submitted ODOT cultural resources survey report of investigations regarding the above-referenced undertaking for review and comment. From the information provided, I understand that CC Environmental, LLC (CCE) staff surveyed the 3.5-acre study area, which encompasses the Area of Potential Effect (APE) on February 26-27, 2025. One newly recorded historic site (**34MS607**) was documented. CCE recommends the site as *not eligible* for listing on the National Register of Historic Places (NRHP). CCE also conducted an additional pedestrian survey between the site **34MS607** and previously recorded historic cemetery site **34MS248** (Hanks Cemetery). I understand that no cultural resources were observed between these two sites.

Regardless of the eligibility of this resource for listing on the NRHP, burials—both marked and unmarked—are protected under state regulations. I understand that ODOT intends to avoid impacts to the cemetery, though the specific avoidance measures were not stipulated in the report letter only that an avoidance memo will be added to the project plans. Historic cemeteries typically contain unmarked burials outside the current fenced boundaries. Therefore, as a general practice, we recommend demarcating a 100-foot buffer around known burials as the area to be avoided. If it is not possible to delineate such a buffer area, then we recommend additional consultation with our office and the SHPO to evaluate the proposed avoidance plan and determine if appropriate additional measures are warranted, including (but not limited to) monitoring of ground disturbing activities in the vicinity of the cemetery by a qualified archaeologist who has experience identifying grave shafts and human remains.

I concur with the findings and recommendations as they pertain to prehistoric archaeological resources and defer opinion on the impacts to the historic site 34MS607, and overall project effects to the Historical Archaeologist with the State Historic Preservation Office.

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. You must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act.

Sincerely,



Debra K. Green, Ph.D.
Assistant State Archaeologist

cc: SHPO



From: [Margolis, Michael M CIV USARMY CESWT \(USA\)](#)
To: [Katie Williams](#)
Cc: [John Corpolongo](#)
Subject: [EXTERNAL] RE: Muskogee 34334(04) I40 Bridge over the Arkansas River, Report
Date: Tuesday, July 15, 2025 2:15:34 PM

Hi Katie,

I have not comments, thank you for checking. You can proceed with 106.

Best regards,
Mike Margolis
Acting Team Lead, Natural Resources Management Branch
Archeologist
918.669.7333 (office)
918.284.6721 (cell)
michael.m.margolis@usace.army.mil

Mailing Address:
U.S. Army Corps of Engineers, Tulsa District
Attn: Mike Margolis CESWT-ODR-N
2488 E. 81st Street
Tulsa OK 74137-4290

From: Katie Williams <KWilliams@odot.org>
Sent: Tuesday, July 15, 2025 2:09 PM
To: Margolis, Michael M CIV USARMY CESWT (USA) <Michael.M.Margolis@usace.army.mil>
Cc: John Corpolongo <JCorpolongo@odot.org>
Subject: [Non-DoD Source] RE: Muskogee 34334(04) I40 Bridge over the Arkansas River, Report

Hi Mike,

I wanted to check in with you to see if you had any comment on this ODOT project?

The project overlapped USACE property in part (Permit No. DACW56-4-25-0107). No cultural resources were located in the USACE portion of the project and the project has no potential to effect resources on USACE property.

Please let me know if you need any other information, or if we can move forward with 106.

Thank you,
Katie

Katie Williams
Archaeologist

ODOT Cultural Resources Program
3200 Marshall Ave, Room 110
Norman, OK 73019
c. (405)308-0723
kxwilliams@odot.org
n.katie.willams-1@ou.edu

From: Katie Williams
Sent: Wednesday, June 11, 2025 2:37 PM
To: Margolis, Michael M CIV USARMY CESWT (USA) <michael.m.margolis@usace.army.mil>
Cc: John Corpolongo <JCorpolongo@odot.org>
Subject: Muskogee 34334(04) I40 Bridge over the Arkansas River, Report

Hello Mike,

ODOT previously completed the above listed project in 2022. Since then, an area for staging was added to the project footprint, that overlaps USACE property. An ARPA permit (Permit No. DACW56-4-25-0107) was obtained for the work. Our consultant has finished the work, and no cultural resources were located on Corp land. Attached are the final report and shovel test log for your review and comment. Please let me know if you have any questions about the project or need any other information.

Thank you,
Katie

Katie Williams
Archaeologist
ODOT Cultural Resources Program
3200 Marshall Ave, Room 110
Norman, OK 73019
c. (405)308-0723
kxwilliams@odot.org
n.katie.willams-1@ou.edu

May 13, 2025

Ms. Lynda Ozan
Deputy State Historic Preservation Officer
State Historic Preservation Office
Oklahoma Historical Society
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7917

Dear Ms. Ozan:

Re: [SHPO File #0296-23]: Muskogee County FHWA Project JP 34334(04): Proposed Improvements to I-40 over the Arkansas River; submittal for comment under Section 106 of the National Historic Preservation Act.

Thank you for your concurrence on the cultural resource findings for the above referenced project, dated November 22, 2022. Since our previous consultation, the project footprint was redesigned to accommodate staging and further construction work, and an additional 3.5 acres were added to the project footprint. Attached is a cultural resources survey report of this additional area prepared by CC Environmental.

The proposed undertaking involves replacing the single I-40 bridge (ODOT Structure No. 6822 0000X [NBI 17051]) over the Arkansas River with two new bridges. The existing I-40 facility consists of a four-lane paved highway with 12-foot driving lanes, 4-foot paved inside shoulders and 10-foot paved outside shoulders. The current Annual Average Daily Traffic (AADT) is 23,100 vehicles per day (vpd).

The cultural resources investigation of the original study area was completed by Stantec in 2022 and the additional area was surveyed by CC Environmental in 2025. The additional study area is located immediately north of the right of way and west of the I-40 bridge and directly adjacent to the previously surveyed area. The area of potential effect (APE) as defined by 36 CFR 800.16(d) is the project study area, which is described in the report. In total, the APE for the additional area encompasses approximately 3.5 acres.

A portion of the additional study area is located on lands managed by the United States Army Corps of Engineers (USACE). An ARPA permit was obtained (Permit No. DACW56-4-25-0107) for the cultural resources survey of those lands.

As a result of the cultural resources study of the additional area, one newly recorded site (34MS607) was documented. Site 34MS607 is a late-nineteenth and early-twentieth century trash dump that is represented by a subsurface deposit of artifacts. A total of 21 shovel/auger tests were excavated and eight were positive, for a total of 45 artifacts. The artifact assemblage included amber, amethyst, clear, cobalt, and milk glass, whiteware, nail fragments, one chert flake, and plastic. Overall, the site is 25 to 50 percent disturbed by previous road construction and agricultural activities. Modern trash was found mixed with the historic-era artifacts at various depths, suggesting a disturbed context. The site was delineated with negative shovel tests and no features were identified. 34MS607 is recommended **not eligible** for the NRHP.

The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an

additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery.

There are no bridges or buildings in the additional portion of the study area.

Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have **no effect** on historic properties. We respectfully request your concurrence or comments to this opinion.

If you have any questions regarding this project, please contact the Cultural Resources Program reviewer, Katie Williams, archaeologist at kwilliams@odot.org or (405)308-0723 or Dr. Matt Corpolongo, historian at JCorpolongo@odot.org (405)306-0918.

Sincerely,



Joe Brutsché
ODOT Environmental Programs Division Manager
c/o ODOT Cultural Resources Program
3200 Marshall Ave., Room 110
Norman, Oklahoma 73072

cc: Assistant State Archaeologist

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CULTURAL RESOURCES SURVEY REPORT

Muskogee 34334(04): Proposed Improvements to I-40 over the Arkansas River

Prepared by:

Sarah Luthman, MA, RPA, CC Environmental, LLC

April 11, 2025

Lead Federal Agency: Federal Highway Administration (FHWA)



County:	Muskogee
J/P#:	34334(04)
Surveyed by:	Sarah Luthman and Jeremiah Perkins
Survey Date:	February 26 and 27, 2025

MANAGEMENT SUMMARY:

The Oklahoma Department of Transportation (ODOT) proposes a bridge replacement and approach improvements along I-40 over the Arkansas River, beginning at S 150th East and extending northeast for approximately 2.6 miles (4.18 kilometers) to SH-10 in Muskogee and Sequoyah Counties, Oklahoma.

The proposed improvements include replacing the single I-40 bridge (ODOT Structure No. 6822 0000 X [NBI 17051]) over the Arkansas River with two new bridges. The existing I-40 facility consists of a four-lane paved highway with 12-foot driving lanes, 4-foot paved inside shoulders and 10-foot paved outside shoulders. The current Annual Average Daily Traffic (AADT) is 23,100 vehicles per day (vpd). The cultural resources investigation of the study area was completed by Stantec in 2022, but an additional area of survey is required for staging and construction work. This abbreviated report applies only to the supplemental survey work conducted by CC Environmental, LLC (CCE) in February 2025, and this abbreviated report is intended to be supplementary to that original survey report.

The supplemental study area is located within Section 29, Township 12N, Range 21E.

The supplemental study area is approximately 3.5 acres located immediately north of the right of way and west of the bridge, adjacent to the area previously surveyed in 2022. The study area contains approximately 1 acre of land owned by the USACE (ARPA Permit No. DACW56-4-25-0107 was obtained prior to survey). There were no bridges in the supplemental study area.

Cultural resources fieldwork for this supplemental study area was completed in February 2025, consisting of archaeological pedestrian survey with shovel tests and bucket auger tests, and a built environment survey. Shovel tests and auger tests were excavated at 30-meter intervals along two or three transects within the study area, and additional shovel tests were excavated to delineate recorded cultural resources. The cultural resources fieldwork methods conformed to the methods outlined in the ODOT Cultural Resources Program (CRP) manual (ODOT 2017).

One new archaeological site was recorded in the study area. Site 34MS607 is a late-nineteenth and early-twentieth century artifact scatter and is recommended **not eligible** for listing on the National Register of Historic Places (NRHP). No additional cultural resources were identified in the study area during field investigations.

BACKGROUND:

An OASIS report was generated on January 3, 2025. There were no archaeological sites in the project area. There is one archaeological site in proximity to the study area. Previously recorded site 34MS248, Hanks Cemetery, is located approximately 50 meters (165 feet) north of the study area. Recorded in 1982, it was described as a 20-meter by 20-meter family cemetery with 18 interments dating from 1879 to 1920, based on the 6 extant headstones. In 1982, a modern chain-link fence and a border of trees surrounded the cemetery, and a marker had been erected listing the known interments. The Hanks Cemetery was one of many local cemeteries in the Webbers Falls vicinity that can attest to the density of settlement in the nineteenth and early-twentieth centuries.

There are no built environment resources in the APE. Early-twentieth century topographic maps show one building in proximity to the study area, but the maps are too coarse of scale to identify its exact location. The earliest aerial dates to 1938 and no buildings are present in or adjacent to the study area (SHAREOK 2025). Aerials from 1952, 1958, 1964, and 1973 show no buildings or structures in the APE (NETR 2025).

METHODOLOGY:

All shovel testing was conducted in accordance with ODOT (2017) survey standards, and with a methodology created in collaboration with ODOT-CRP. CCE conducted a pedestrian surface inspection of the entire project area with transects placed roughly east-west for the entire length of the supplemental study area. One to three transects were walked within the study area, depending on the width of the study area. CCE excavated shovel tests at 30-meter intervals along these transects. Shovel tests were a minimum of 30 cm in diameter. Shovel tests were terminated at 20 centimeters beyond culturally sterile subsoil (the C Horizon), or upon reaching 80 centimeters below surface (cmbs) (the practical extent of the shovel). Shovel tests were dug in 10-centimeter levels. Soils were screened through ¼-inch hardware mesh, and descriptions of excavated soil and material were documented on shovel test logs including Munsell color designations, texture classification, description of inclusions, and field notes. All shovel tests were geolocated with cellular phones using Google Earth, updated January 15, 2025. Shovel test pits were backfilled. Half of the shovel tests were extended with a bucket auger to investigate for deep or buried A horizons; these tests were terminated upon reaching 125 or 130 cmbs.

When positive shovel tests were recorded, additional shovel tests were excavated in a cruciform pattern until two negative shovel tests were recorded in each direction. These additional shovel tests were placed at approximately 15-meter intervals to the northwest and southeast, and at 8- to 10-meter intervals to the northeast and southwest. One additional test took place just outside the west border of the study area, but it was negative for cultural material.

If artifacts had been recovered from USACE land, then all diagnostic artifacts would have been curated, as well as 10 percent of the nondiagnostic artifacts. Because all positive shovel tests and observed cultural material were located on private land on the west side of the study area, no artifacts were collected.

Photographs were taken of the study area. Each photograph was recorded in digital format, and a photographic log was kept for all photographs. These logs include sequential identification listing the name of the photographer, date, subject, camera orientation, photographic details, and other notes.

Based on the background research, built environment older than 45 years of age was not anticipated. All built environment resources constructed on or before 1979 would have been viewed by an Architectural Historian and would have been documented on the appropriate inventory form, including photographs, a brief description, and additional background research as needed.

RESULTS OF INVESTIGATION:

_____ No archeological sites or buildings recorded in study area.

XXX Resources recorded in study area assessed as **not eligible** for the NRHP. Forms being submitted for agency review.

XXX Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ **NRHP-eligible properties** recorded in study area.

Forms being submitted for agency review.

_____ Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ Archeological sites requiring further assessment (i.e. evaluative testing)

COMMENTS AND DESCRIPTION OF FINDINGS:

During the survey, one new archaeological site (34MS607) was recorded and recommended **not eligible** for listing on the NRHP. No built environment was recorded. The study area consists of two land parcels: privately-owned land to the west and USACE-owned land to the east. The results section is divided into two descriptions, one for each parcel.

Archaeological Survey Results for the Privately-Owned Land:

The parcel to the west is located in a plowed cornfield north of the I-40 right of way (**Photographs 1 and 2**). No utilities were present. Large rodent holes were visible in at least three locations throughout this parcel (**Photograph 3**). Surface visibility was 25 to 75 percent (**Photographs 8 and 9**).

This portion of the study area was subjected to 24 shovel tests, six of which were extended with a bucket auger. These shovel/auger tests were placed along three transects running roughly east-west. Shovel/auger tests were spaced 30 meters apart, but intervals were decreased to 10 or 15 meters when artifacts were encountered near the western terminus (**Figure 2**). Augers were used to extend every other shovel test except when delineating the archaeological site.

Generally, two different soil profiles were recorded. In many shovel/auger tests, one or two layers of brown (7.5YR 4/3, 4/4, or 5/4) fine sandy loam were underlain by a layer of strong brown (7.5YR 4/6 or 5/6) or light brown (7.5YR 6/4) sandy loam or sand. Some shovel/auger tests also showed a thick layer of dark brown (7.5YR 3/3) or brown (7.5YR 4/3) sandy clay loam or fine sandy clay somewhere between 50 and 110 cmbs. Some of the auger tests revealed a layer of reddish yellow (7.5YR 6/6) or strong brown (7.5YR 5/6) sand below this clay layer. A few shovel tests contained several sub-angular and sub-rounded chert gravels and cobbles, usually in the plow zone, and a few shovel tests contained a thin layer of dark brown fine sandy loam at the surface (**Photograph 10**). The recorded colors and textures in the shovel/auger tests were very similar to descriptions of Keo silt loams, which were mapped in this portion of the study area, except that the A horizons and buried A horizons were recorded with colors on the 7.5YR Munsell page, instead of the 5YR page colors used in the official soil description (USGS 2025).

Shovel tests were terminated at depths ranging from 50 to 80 cmbs, due to reaching culturally sterile C horizon sub soil or a target depth of 80 cmbs. Auger tests in this parcel were all terminated at 125 or 130 cmbs, the practical limit of the bucket auger. Details concerning each shovel test and auger test can be found in the shovel test log.

One new archaeological site was recorded during field investigations.

Site 34MS607:

Site 34MS607 is a late-nineteenth and early-twentieth century trash dump that is represented by a subsurface deposit of artifacts that ranges between 0 and 70 cmbs. The site was identified in the field during a Phase I cultural resources survey that incorporated pedestrian survey and shovel testing. The site is located in the west portion of the study area, ranging from 50 to 85 meters from the edge of the I-40 roadway. The site is an irregular shape, measuring 39 meters southeast-northwest along the west edge and 62 meters southwest-northeast along the north edge. The site was completely within an agricultural field with a visibility of 50 to 75 percent.

The site was investigated following a positive result in shovel test JP09, and additional shovel tests and an auger test were placed to the north and south at 12- to 15-meter intervals. The two shovel tests to the south were both positive for cultural material. Testing in that direction ceased at the boundary of the study area as the right of way was previously tested by Stantec in 2022. To the east and west, additional tests were placed at 10-meter intervals. One of the two shovel tests to the west extended past the edge of the study area but was negative. Seven additional shovel tests and then an auger test were placed to the east of the original positive test at 10-meter intervals. In total, 21 shovel/auger tests were placed within the vicinity of the original find, and eight were positive (**Figure 2**).

Shovel tests were terminated upon reaching culturally sterile soils well within the C horizon, or upon reaching a target depth of 80 cmbs. The four auger tests were all terminated upon reaching a target depth of 130 cmbs. Within the site boundary, the shovel tests generally showed one or two layers of dark brown (7.5YR 3/2, 3/3, or 3/4) or brown (7.5YR 4/3, 4/4, or 5/4) fine sandy loam which were underlain by a layer of strong brown (7.5YR 4/6 or 5/6) fine sandy loam or sand. Some shovel tests also showed a layer of dark brown (7.5YR 3/3) and/or brown (7.5YR 4/4) fine sandy clay loam or fine sandy clay (**Photograph 10**).

The most noticeable manmade disturbance was the plowing of the field, which may have removed the A horizon and certainly scattered surface artifacts. Additionally, at least three large rodent holes were noted adjacent to this portion of the study area.

The eight positive shovel tests contained 45 artifacts (**Table 1**), several of which were tiny colorless glass shards. Colorless glass bottles are ubiquitous after the widespread use of automatic bottling machines in the 1910s (Lindsey 2014). Other colors of glass included amber, dark blue (cobalt), opaline (milk glass), and amethyst. The amethyst-colored glass was “solarized”, which occurs when manganese that was added to glass is exposed to sunlight (Lindsey 2014; Stelle 2014); the addition of manganese was prevalent in bottle glass manufactured between 1870 and about 1920 (Lockhart 2006). Some of the amethyst glass also featured a patina on the surface, indicating some degree of antiquity. The amber glass observed at this site was a common shade that has been widely used in bottle production since the 1920s (Lindsey 2014), especially for alcohol bottles. The dark blue glass (likely cobalt) is of the hue frequently seen in medicine bottles greater than 50 years of age, but it has also been used frequently for a wide variety of products over a long period of time, preventing any temporal diagnostic information. The opaline, or milk glass, was used for cosmetic or toiletry bottles in the late-nineteenth and early-twentieth centuries (Lindsey 2014).

Other artifacts of interest included whiteware sherds, some of which were decorated. One sherd was edge-molded with a common blue design, and another displayed a very small green flower along one broken edge; it was unclear if this flower was hand painted or transfer printed, due to the small size of the sherd and limited view of the design. Both decoration techniques are commonly found on whiteware in the U.S. from the early-nineteenth century to today (Maryland Archaeological Conservation Lab [MACL] 2015).

Two metal artifacts were documented. Both were highly rusted metal nail fragments. Two pieces of white plastic were found in the same context as solarized glass and a rusted nail fragment, in the top 25 cmbs, indicating that repeated plowing in this field could have mixed artifacts from the early-twentieth century farmstead with later artifacts that arrived with cemetery visitors, field hands, flooding, or highway construction/traffic. A few pieces of charcoal and some charcoal smearing were identified in two positive shovel tests in small amounts, but these were not counted.

Table 1: Contact Era Artifacts from Site 34MS607, Summary Table

Artifact Class	Artifact Type	Quantity	Description/Maker’s Mark	Associated Date Range
Glass	Amethyst (“solarized”)	4	Unidentified fragments	1870-1920s
	Colorless	19	Unidentified fragments	1929–present
	Milk Glass/Opaline	1	Unidentified fragment	1890s-present
	Dark blue (cobalt)	1	Unidentified fragment	
	Amber	1	Unidentified fragment	1920s-present
Ceramic	Edge molded whiteware	1	1 edge sherd	1800-present
	Floral-decorated whiteware	1	1 body sherd	1820–present

	Undecorated whiteware	9	1 large body sherd and 8 small body sherds	1820–present
Metal	Nails	2	Nail fragments, heavily rusted	
Plastic	Indeterminate	2	White plastic fragments	Mid1900s–present
Sources: Lindsay 2014; Lockhart 2006; MACL 2015; Stelle 2014				

Additionally, one pre-contact era modified flake was recovered from 55 cmbs in shovel test SL06, beneath contact era artifacts. This flake was made of gray chert, was quite thick, and was broken on more than one edge. The flake's platform was single-faceted, but there were at least two dorsal scars noted. Adjacent to the platform were four or five tiny flake scars indicating some modification to the flake after it had been removed from the core. There may have been more flake scars along that edge, but the rest of that edge had been broken. Uncovered immediately beneath the flake were three small chunks of sandstone: two yellow and one black. As no other sandstone was observed in the study area, these appear to have been deposited with the flake. No other potentially pre-contact era artifacts were noted in other shovel tests or on the surface of the study area.

The 1898 Plat. Survey Map shows cultivated fields with no structures in Section 29 (BLM 2025). Historic topographic maps depict a building in the vicinity of the study area in 1909 and 1911 (USGS 2025b). The building is not present on topographic maps after 1946. Aerials show the building was gone sometime before 1938 (SHAREOK 2025). No evidence of a structure was observed during the survey. The artifact assemblage dates range from the late-nineteenth century to today. Solarized amethyst glass suggests the site possibly dates from the late-nineteenth to the early-twentieth century.

In proximity to site 34MS607 is Hank Cemetery, approximately 50 meters (165 feet) north of the study area. The newly recorded archaeological site is 100 meters (340 feet) south of the cemetery. CCE technicians conducted additional pedestrian survey of the northern boundary of the study area and no other artifacts were observed in the area nearest the cemetery. No additional artifacts were excavated between the site and the study area boundary during subsurface testing. While it is possible the site is related to the building depicted on the 1909 and 1911 topographic maps and/or Hank Cemetery, no archaeological evidence of association was observed.

Overall, the site is 25 to 50 percent disturbed by previous road construction and agricultural activities. Modern trash was found mixed in with the artifact collection at various depths, suggesting a disturbed context. The site had a small assemblage of mostly non-diagnostic material, with the exception of the solarized amethyst glass. Further, the site had no intact surface or subsurface features. No historically significant events or people were associated with the exact location of this site for it to be considered eligible for inclusion in the NRHP under Criteria A or B. There were no standing structures, thus the site is not eligible under Criterion C. The site does not contain significant archaeological features or deposits and has limited potential for further unknown information. The site is not eligible under Criterion D. Therefore, the site is recommended **not eligible** for inclusion in the NRHP.

Archaeological Survey Results for the USACE-Owned Land:

The parcel to the east is located at the edge of the plowed cornfield and extends east to the Arkansas

River (**Photograph 4**). Dense foliage throughout most of the parcel created a ground surface visibility of 0 to 25 percent (**Photographs 5 and 6**). No utilities were present. An access road ran roughly east-west along the southern boundary (**Photograph 7**).

This portion of the study area was subjected to seven shovel tests, three of which were extended with a bucket auger. These shovel/auger tests were placed along two transects running roughly east-west. Shovel/auger tests were spaced 30 meters apart along these transects (**Figure 2**). Augers were used to extend every other shovel test.

Tests showed an A horizon full of leaf litter and brown (7.5YR 4/4 or 5/4), dark brown (7.5YR 3/2), or light brown (7.5YR 6/4) sandy loam or loam extending to 30 to 55 cmbs. This was underlain by several combinations of colors and textures ranging from dark brown (7.5YR 3/2) to pink (7.5YR 8/4) loamy fine sand, sandy clay loam, or sand. All three auger tests showed an increase in clay as the test deepened, underlain by layers of lighter colored sand. One shovel test was terminated due to a large number of sub-angular and sub-rounded gravels and cobbles. Although there was a wide variety of colors and textures, none of the colors or textures were dissimilar to the descriptions of Kiomatia and Roxana soils that are mapped in the forested portion of the study area (USGS 2025).

Shovel tests were terminated at depths ranging from 50 to 80 cmbs, due to reaching culturally sterile C horizon sub soil or a gravel impasse. Auger tests in this parcel were all terminated at 120 or 130 cmbs, the practical limit of the bucket auger. Details concerning each shovel test and auger test can be found below in the shovel test log.

Built Environment Survey:

Based on the background research, built environment older than 45 years of age was not anticipated. All built environment resources constructed on or before 1979 would have been viewed by an Architectural Historian and would have been documented on the appropriate inventory form, including photographs, a brief description, and additional background research as needed. No resources of the built environment were observed within the study area.

RECOMMENDATIONS:

_____ **Plan Notes** requiring avoidance of cultural resources in off-project areas

XXX **Approval Recommended** with the proposed project as planned with no additional research. If subsurface archaeological materials are exposed during construction, the Contractor and Resident Engineer shall notify the Department Archaeologist in accordance with Section 202.04(a), Standard Specifications for Highway Construction.

SUMMARY AND COMMENTS REGARDING RECOMMENDATIONS:

A cultural resources survey that included a desktop review and a field survey with pedestrian survey and shovel testing was conducted over the study area. One new archaeological site (34MS607) was recorded on private land and recommended **not eligible** for listing on the NRHP.

Additionally, the study area was subjected to a built environment historical resources survey. No resources of the built environment were recorded.

CC Environmental, LLC recommends that no further cultural resources work is necessary at this time. It is recommended that the proposed roadway improvement project be allowed to continue as planned.

REFERENCES

Ancestry.com

2025 Ancestry Search. Available at Ancestry.com. Accessed March 3, 2025.

BLM (Bureau of Land Management).

2025 General Land Office Records. US Department of the Interior. Available at <https://www.glorerecords.blm.gov/default.aspx>. Accessed March 3, 2025.

Findagrave.com

2025 Find a Grave – Memorial Search. Available at Findagrave.com. Accessed March 3, 2025.

Foreman, C. T.

1952 Early History of Webbers Falls. In *The Chronicle of Oklahoma* 29(4). Available at <https://gateway.okhistory.org/ark:/67531/metadc2123441/m1/19/>. Accessed March 4, 2025.

Google Earth Pro

2025 Version 7.3.6.10201. Aerial Imagery from April 6, 2024. Eye altitude 1,576 feet.

Lindsey, B.

2014 *Historical Bottle Website—Society for Historical Archaeology*. U.S. Department of the Interior, Bureau of Land Management. Electronic document, <http://www.sha.org/bottle/index/htm>., accessed February 25, 2014.

Lockhart, B.

2006 The Color Purple: Dating Solarized Amethyst Container Glass. *Historical Archaeology* 40(2): 45-56.

Maryland Archaeological Conservation Lab (MACL)

2015 Diagnostic Artifacts in Maryland. Jefferson Patterson Park and Museum. State Museum of Archaeology. Electronic document, <https://apps.jefpat.maryland.gov/diagnostic/HistoricCeramicTypesChart.pdf>, accessed June 29, 2017.

Miller, L. M.

2025 Webbers Falls. In *The Encyclopedia of Oklahoma History and Culture*. Available at <https://www.okhistory.org/publications/enc/entry?entry=WE007>. Accessed March 4, 2025.

NETR (Historic Aerials)

2025 Historic Aerials Database. Nationwide Environmental Title Research. Available at <http://www.historicaerials.com>. Accessed March 4, 2025.

Newspapers.com

2025 Search of The Webbers Falls Record, 1900-1911. Available at Newspapers.com. Accessed March 4, 2025.

Oklahoma Department of Transportation (ODOT)

2017 Cultural Resource Studies: A Manual for Cultural Resources Staff and Department Consultants (updated October 2017). Available at http://www.odotculturalresources.info/uploads/6/6/6/2/6662788/odot_crp_manual_10-23-17.pdf.

2024 Roadway and Bridge Data Master Inventory Viewer. Available at <https://okdot.maps.arcgis.com/apps/webappviewer/index.html?id=6555de44b6314ab2a71bb0620e52ea78>. Accessed December 10, 2024.

OHADP (Oklahoma Historical Aerial Digitization Project)

2025 *Oklahoma Historical Aerial Digitization Project*. Available at OHADP: The Oklahoma Historical Aerial Digitization Project (arcgis.com). Accessed March 3, 2025.

SHAREOK

2025 1938 Aerial Photos of Sequoyah County. Available at <https://shareok.org/collections/70a820b2-978c-4632-b20e-c8f4ff96b6e4>. Accessed April 4, 2025.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture.

2025 Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/> Accessed September March 3, 2025.

Stelle, L. J.

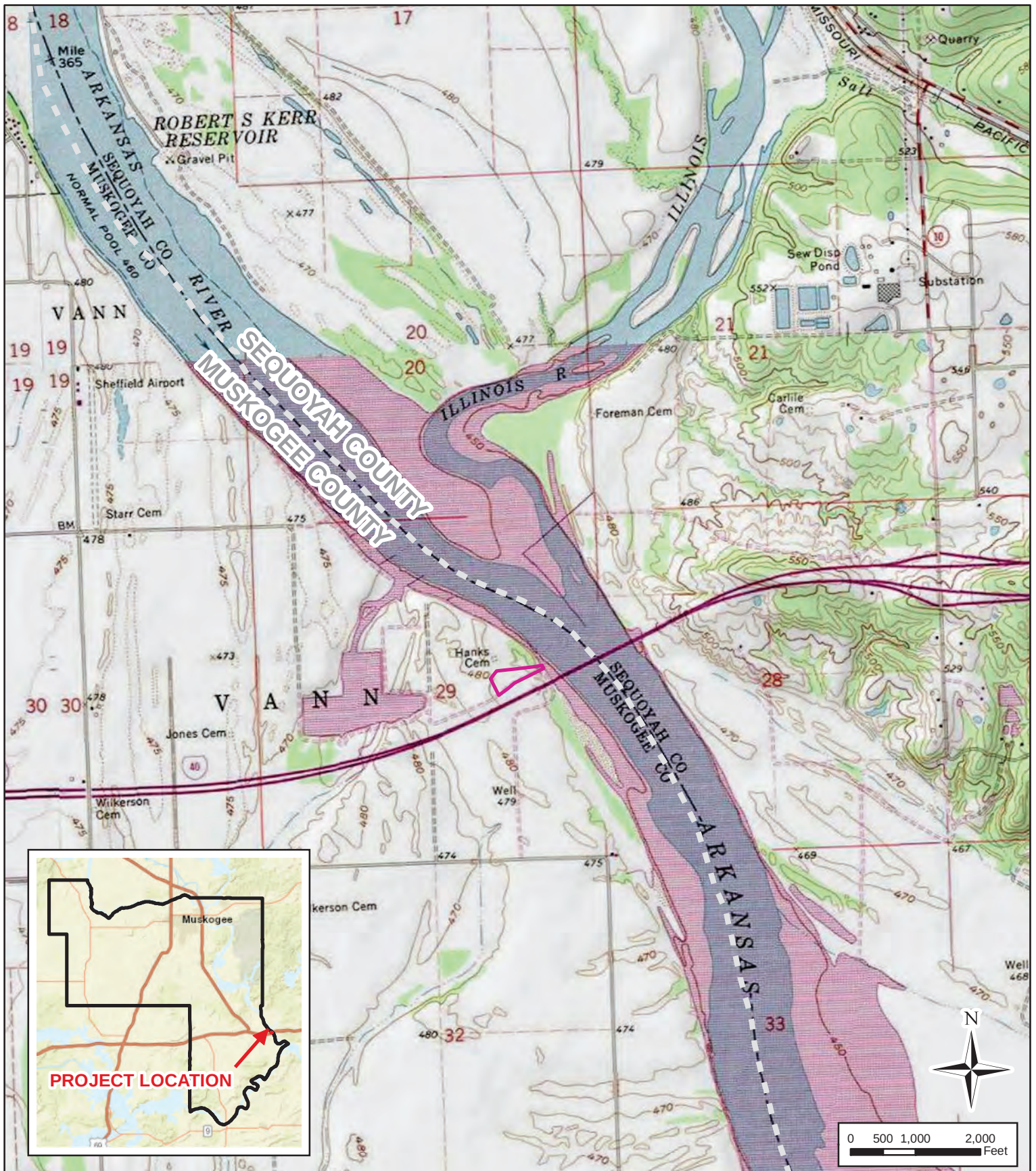
2014 *An Archaeological Guide to Historic Artifacts of the Upper Sangamon Basin*. Center for Social Research, Parkland College. Electronic document, <http://www.virtual.parkland.edu/lstelle1/len/archguide/documents/arcguide.htm>, accessed February 25, 2014.

USGS (United States Geological Survey)

2025 USGS Historical Topographic Map Viewer. United States Geological Survey. Available at <http://historicalmaps.arcgis.com/usgs>. Accessed March 3, 2025.

University of Oklahoma Western History Collections

2025 Indian Pioneer Papers. Available at https://repository.ou.edu/islandora/object/oku%3Aindianpp?_gl=1*1msiqik*_ga*OTM5OTE4NTEuMTcxMzI3NzIxMw..*_ga_5W4N7EK80R*MTcyNzk3OTczNi42LjEuMTcyNzk4Mjg0MC4wLjAuMA.. Accessed March 3, 2025.



COMMENTS/LEGEND

- NEPA Study Footprint
- County Line

Cultural Resources Study Area

Job Piece: 34334(04)
Proposed Improvements to
I-40 over the Arkansas River
Muskogee County, OK



Figure 1

DRAWN BY: LMP
APPRV BY:
SOURCE: DEQ,
Tiger 2000, USGS

Date: 3/5/2025



Oklahoma Historical Society
State Historic Preservation Office

Founded May 27, 1893

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

November 22, 2022

Mr. Scott Sundermeyer
ODOT Cultural Resources Program Manager
3200 Marshall Avenue, Room 110
Norman, OK 73012

RE: File #0296-23; I-40 Over the Arkansas River Improvements Project #JP-34334(04), Muskogee & Sequoyah Counties [Properties Listed on Attachment to this Letter]

Dear Mr. Sundermeyer:

We have received and reviewed the documentation submitted on the referenced project. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. Regarding historic period resources, we find that there are no known historic properties affected within the referenced project's area of potential effect (APE). Regarding the precontact archaeological resources, site 34SQ576 and Isolated Find IF-1, we defer opinion on the National Register of Historic Places (NRHP) eligibility to Dr. Kary Stackelbeck, State Archaeologist, with the Oklahoma Archeological Survey (OAS).

Regarding Wilkerson (Whidbey) Family Cemetery, mapped adjacent to the APE and reportedly relocated, we would like to emphasize the importance of adhering to the Oklahoma statutes governing cemeteries that includes Title 21, Chapter 47, Section 1167: *Punishment for Destruction or Removal of Tomb, Gravestone or Other Cemetery Ornament*, Title 21, Chapter 47, Section 1168.4: *Duty to Report Discovered Remains* and Title 21, Chapter 47, Section 1168.7: *Government Agencies' Discovery of Remains-Duties*.

In addition to our review, you must contact the OAS, 111 E. Chesapeake, #102, Norman OK 73019-5111 (#405-325-7211, FAX #405-325-7604), to obtain a determination about the presence of additional prehistoric resources that may be eligible for the NRHP. Should the OAS conclude that there are no prehistoric archaeological sites or other types of "historic properties," as defined in 36 CFR Part 800.16(l), which are eligible for the NRHP within the project area and that such sites are unlikely to occur, we concur with that opinion.

The OAS may conclude that an additional on-site investigation of all or part of the project impact area is necessary to determine the presence of archaeological resources. In the event that such an investigation reveals the presence of prehistoric archaeological sites, we will defer to the judgment of the OAS concerning whether or not any of the resources should be considered "historic properties" under the Section 106 review process. If sites dating from the historic period are identified during the survey or are encountered during implementation of the project, additional assessments by the SHPO will be necessary.

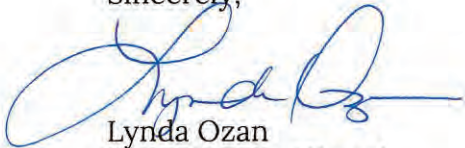
Please note that this project is located within the reservation boundaries of the Cherokee Nation and is therefore on tribal lands as defined in the National Historic Preservation Act (NHPA) and the Section 106 regulations (36 CFR Part 800).

Mr. Sundermeyer
November 22, 2022
Page 2

RE: File #0296-23; I-40 Over the Arkansas River Improvements Project #JP-34334(04), Muskogee & Sequoyah Counties [Properties Listed on Attachment to this Letter]

Should further correspondence pertaining to this project be necessary, please reference the above file number. If you have any questions, please contact Matthew Pearce, National Register Program Coordinator, at 405-522-4479, or Kristina Wyckoff, Historic Archaeologist, at 405-521-6381.
Thank you.

Sincerely,



Lynda Ozan
Deputy State Historic
Preservation Officer

LO:pm

Attachment

cc: Dr. Kary Stackelbeck, OAS
Ms. Elizabeth Toombs, Cherokee Nation

FILE # LIST OF PROPERTIES

0296-23 I-40 OVER THE ARKANSAS RIVER
IMPROVEMENTS PROJECT #JP-34334(04),
MUSKOGEE & SEQUOYAH COUNTIES

1. I-40 OVER THE ARKANSAS RIVER,
FROM POINT WHERE SOUTH 150TH
STREET EAST (NS4435) CROSSES
I-40, EXTENDING NORTHEAST
APPROX 2.6 MILES TO JCT OF
I-40/SH-10, SECS 28,29,30
T12N R21E, MUSKOGEE &
SEQUOYAH COUNTIES

BRIDGES:

2. STRUCTURE #51151275X/NBI-17013,
ON SOUTH 150TH OVER I-40
3. STRUCTURE #51151300X/NBI-16849,
ON I-40 OVER UNNAMED CREEK
4. STRUCTURE #51151332X/NBI-16907,
ON I-40 OVER UNNAMED CREEK
5. STRUCTURE #68220000X/NBI-17051
ON I-40 OVER ARKANSAS RIVER
6. STRUCTURE #68220121SX/NBI-16944,
ON I-40 OVER SH-10
7. STRUCTURE #6822012NX/NBI-16945,
ON I-40 OVER SH-10



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

December 9, 2022

Scott Sundermeyer, Director
ODOT Cultural Resources Program
3200 Marshall Ave, Room 110
Norman, OK 73019

Re: OAS FY23-0320 *Proposed Improvements to I-40 over the Arkansas River*. Report by Sarah Luthman & Savanna Cometa (Stantec).
ODOT J/P: 34334(04)
Legal Description: Sections 28, 29, 30, T12N, R21E, Muskogee & Sequoyah Counties, Oklahoma.

Dear Mr. Sundermeyer,

This agency received the submitted ODOT cultural resources survey report of investigations regarding the above-referenced undertaking for review and comment. From the information provided, we understand that Stantec staff surveyed the 130-acre study area, which encompasses the Area of Potential Effects (APE), on April 11-15, 2022. One new prehistoric site (34SQ576) was identified in the surveyed area. ODOT recommends this site is not eligible for the National Register of Historic Places (NRHP). ODOT recommends the project as proposed will have *No Effect on Historic Properties*.

I concur with the findings and recommendations as they pertain to prehistoric archaeological resources and defer opinion on overall project effects to the State Historic Preservation Office.

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. You must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act.

Sincerely,

Kary L. Stackelbeck, Ph.D.
State Archaeologist

: ksw
cc: SHPO



November 2, 2022

Ms. Lynda Ozan
Deputy State Historic Preservation Officer
State Historic Preservation Office
Oklahoma Historical Society
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105-7917

Dear Ms. Ozan:

Re: Muskogee and Sequoyah Counties FHWA Project JP 34334(04): Proposed Improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties; submittal for comment under Section 106 of the National Historic Preservation Act.

Attached is a cultural resources survey report for the referenced project prepared by Stantec. The proposed undertaking involves improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The proposed improvements begins where S 150th St E (NS-4435) crosses I-40 and extends northeast for approximately 2.6 miles to the junction of I-40/SH-10. The proposed improvements include replacing the single I-40 bridge (ODOT Structure No. 6822 0000 X [NBI 17051]) over the Arkansas River with two new bridges. The existing I-40 facility consists of four 12-foot paved driving lanes with 4-foot paved inside shoulders and 10-foot paved outside shoulders and the existing steel girder bridge crossing the Arkansas River. The new bridges will be 2-lane in each direction and constructed on a slight offset within the existing right-of-way (R/W). All proposed work is confined to the existing R/W.

The area of potential effect (APE) as defined by 36 CFR 800.16(d) is the project study area, which is described in the report. In total, the APE for the currently proposed project encompasses approximately 130 acres.

As a result of the cultural resources study, one archaeological site (34SQ576) and one isolated find (IF-01) was documented and assessed. Site 34SQ576 is an open air, unassigned prehistoric lithic scatter identified and delineated by a series of positive shovel tests within the existing I-40 R/W. A total of 33 lithic artifacts were identified at the site. No features or temporally diagnostic artifacts were identified. The portion of the site within the APE has been disturbed by the construction of I-40. This disturbance, combined with the absence of temporal indicators or features, suggest that the site as currently defined does not have the potential to yield significant information relevant to understanding regional prehistory. As such, Site 34SQ576 is recommended **not eligible** for NRHP listing.

Based on the distribution of positive shovel tests, the site may extend to the north for an unknown distance beyond the APE for the undertaking—which is the existing R/W. Any portions of the site outside of the existing R/W are uninvestigated and should be investigated by future undertakings.

Isolated Find 01 (IF-01) consists of a single prehistoric lithic chert flake discovered in a shovel test. Four additional negative shovel tests were excavated around the isolated find. Based on the absence of any associated cultural materials and lack of temporal affiliation, IF-01 is recommended **not eligible** for NRHP listing.

The existing bridge on I-40 over Arkansas River (ODOT Structure No. 6822 0000 X [NBI 17051]) is a steel girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and requires no additional documentation.

Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, it is our opinion that the project, as proposed, will have **no effect** on historic properties. We respectfully request your concurrence or comments to our opinion.

If you have any questions regarding this project, please contact the Cultural Resources Program Manager, Mr. Scott Sundermeyer at 405-325-7201 (ssundermeyer@odot.org).

Sincerely,



Scott Sundermeyer
ODOT Cultural Resources Program Manager

cc: State Archaeologist

Muskogee and Sequoyah Counties Federal Highway Administration Project: JP 34334(04); Proposed Improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties. Properties documented and submitted for comment.

Resource	Date	NRHP Determination	Description	Address
34SQ576	Unassigned prehistoric	Not eligible	Open air lithic scatter	n/a
IF-01	Unassigned prehistoric	Not eligible	Isolated flake	n/a

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CULTURAL RESOURCES SURVEY REPORT

Muskogee and Sequoyah 34334(04): Proposed Improvements to I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma

Prepared by:
Savanna Cometa, BA, and Sarah Luthman, MA of Stantec

Principal Investigator:
Haley Rush, MA, RPA (Stantec)

July 15, 2022

Lead Federal Agency: Federal Highway Administration



County:	Muskogee and Sequoyah
J/P#:	34334(04)
Surveyed by:	Sarah Luthman, Savanna Cometa, Jeremiah Perkins, Matt Compton, and Alyssa Andrews
Survey Date:	April 11-15, 2022
Prime Consultant:	CC Environmental, LLC

MANAGEMENT SUMMARY:

The Oklahoma Department of Transportation (ODOT) proposes improvements along I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The proposed improvements begins where S 150th St E (NS-4435) crosses I-40 and extends northeast for approximately 2.6 miles (4.18 kilometers) to SH-10. The proposed improvements include replacing the single I-40 bridge (ODOT Structure No. 6822 0000 X [NBI 17051]) over the Arkansas River with two new bridges. The existing I-40 facility consists of four 12-foot paved driving lanes with four-foot paved inside shoulders and 10-foot paved outside shoulders. The new bridges will be constructed on the existing alignment with a slight offset to accommodate two structures. The current Annual Average Daily Traffic (AADT) is between 19,800 and 20,800 vehicles per day (vpd). Stantec was contracted to perform a cultural resources investigation of the study area.

The study area is approximately 2.6 miles (4.18 kilometers) along I-40, roughly centered at the bridge over the Arkansas River. The study area is confined to the existing I-40 right-of-way (R/W). It extends approximately 150 feet (45 meters) on both sides of the existing roadway center line. The study area covers approximately 130 acres.

Cultural resources fieldwork was completed in April 2022. The archeological fieldwork was conducted in accordance with the standards in the ODOT-CRP manual (ODOT 2017) and consisted of two transects, one on either side of I-40, with an additional transect where the study area widened near the Arkansas River. Shovel tests were placed at intervals of 30-meters (98.4 feet) along the transects, accompanied by pedestrian survey. The study area was located within the Arkansas River floodplain. As deep soils with the potential for buried paleosols were possible within the study area, bucket augers were excavated. Eight auger tests revealed a possible buried A horizon, but no cultural resources were identified within or associated with this buried horizon.

One new archeological site, 34SQ576, was recorded during this investigation, and a site form was completed. The site is a prehistoric lithic scatter consisting of subsurface artifacts. Due to access restrictions, site delineation did not extend beyond the study area (i.e., right-of-way) and it is possible the site may extend outside right-of-way. The delineated portion of the site is recommended **not eligible** for inclusion in the National Register of Historic Places (NRHP). As the site may extend outside right-of-way, that area should be investigated in the future if impacts could occur.

One isolated find (IF-01), a single lithic flake, was recorded. IF-01 is recommended not eligible for NRHP listing.

A reconnaissance survey of the built environment was conducted of historic-age (built in or before 1976) buildings, structures, objects, sites, districts, and historic landscapes within the study area. As there were no built environment resources in the study area, no historic-age resources were documented.

1. PROJECT DESCRIPTION:

The Oklahoma Department of Transportation (ODOT) proposes improvements along I-40 over the Arkansas River in Muskogee and Sequoyah Counties, Oklahoma. The proposed improvements begins where S 150th St E (NS-4435) crosses I-40 and extends northeast for approximately 2.6 miles (4.18 kilometers) to SH-10. The proposed improvements include replacing the single I-40 bridge (ODOT Structure No. 6822 0000 X [NBI 17051]) over the Arkansas River with two new bridges. The existing I-40 facility consists of four 12-foot paved driving lanes with four-foot paved inside shoulders and 10-foot paved outside shoulders. The new bridges will be constructed on the existing alignment with a slight offset to accommodate two structures. The current Annual Average Daily Traffic (AADT) is between 19,800 and 20,800 vehicles per day (vpd). Stantec was contracted to perform a cultural resources investigation of the study area.

The study area is approximately 2.6 miles (4.18 kilometers) along I-40, roughly centered at the bridge over the Arkansas River. The study area is confined to the existing I-40 right-of-way (R/W). It extends approximately 150 feet (45 meters) on both sides of the existing roadway center line. The western terminus is approximately 1.56 miles west of the Sequoyah County line; the eastern terminus is located at the I-40/SH-10 Junction. The study area covers approximately 130 acres.

There are six bridges located within the study area.

The bridge carrying S. 150th Street over I-40 (ODOT Structure #5115 1275 X [NBI 17013]) is a Stringer/Multi-beam or Girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1300 X [NBI 16849]) is a reinforced concrete box constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1332 X [NBI 16907]) is a bridge class culvert constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge over Arkansas River (ODOT Structure No. 6822 0000 X [NBI 17051]) is a steel girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121SX [NBI 16944]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121NX [NBI 16945]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

Legal Location:	Sections 28, 29, and 30, Township 12N, Range 21E
U.S.G.S. Quadrangle:	Stigler NE, OK (1979)

2. ENVIRONMENTAL SETTING:

Geomorphic/Physiographic Region:

The study area is in the Arkansas River Floodplain subregion of the Arkansas Valley ecoregion. The Arkansas River Floodplain subregion is characterized by floodplains and low terraces along the Arkansas River, with natural levees, meander scars, oxbow lakes, point bars, swales, and backswamps occurring (Woods et al. 2005). The study area is located within the Arkansas Hill and Valley Belt geomorphic province, which consists of broad, gently rolling plains and valleys with scattered hills 100-300 feet high, capped by Pennsylvanian sandstones (Curtis et al. 2008).

Geology and Soils:

According to United States Geological Survey (USGS) data, the study area is entirely underlain with Holocene-age Alluvium and Middle Pennsylvanian-age Atoka Formation. Alluvium consists of gravel, sand, silt, and clay, including low terraces about 30 feet above channels with a thickness of 50-110 feet. Atoka Formation consists of shale with many sandstones, and “Fanshawe” and “Red Oak Sandstones” in the middle and “Spiro Sandstone” at the base, with a thickness of 3,000 to 10,000 feet (USGS 2022a).

Soil Survey Staff (2022) data lists 11 soil series or complexes, as listed in **Table 1**. Soils within the study area are primarily mapped as Roxana, Hector-Linker-Enders, Linker and Stigler, and Severn soil series. The landforms within the study area are both hillslopes and floodplains. The portion of the study area west of the Arkansas River is floodplains with very deep alluvial soils. The landforms rise into hillslopes to the east of the Arkansas River. Soils associated with alluvial floodplains and river terraces (e.g., Roxana complex) could potentially hold intact and deeply buried or stratified cultural resources. Floodplains are subjected to increased fine-grained sediment loads when the banks of the waterway or river are breached resulting in upward aggregation or vertical accretion of the floodplain. Alluvial environments have been intensively used through time for hunting and gathering, as well as farming, and archeological remains are often incorporated into alluvial deposits. Because these deposits can contain intact and stratified archeological deposits, if observed, such deposits can provide a means to examine diachronic cultural relationships. Hillslopes constitute the flanks of valleys and the margins of eroding uplands. They are the major zones where the rock and soil are loosened by weathering processes and then transported down gradient, often to a river channel, in this case the Arkansas River. Hill and hillslope landforms tend to have thin soils and lack the conditions necessary for deeply buried cultural materials; such landforms are considered to have low potential for deeply buried cultural resources. Hills and hillslopes, however, if present, would have cultural evidence on or just beneath the ground surface.

In summary, although the alluvial floodplains west of the Arkansas River hold a higher potential for buried A horizons, these may be buried beneath 1 meter of soil. The soils east of the river have shallower A horizons, are usually underlain with bedrock nearer the surface, and are much less likely to contain buried A horizons. All mapped soils are detailed in **Table 1**.

Table 1. Mapped Soils in Study Area

Name and Slope	% of Study Area	Landform	Typical Profile	A horizon depth*	Drainage Class
Roxana very fine sandy loam	18.9	Natural Levees on Floodplains	A/C1/C2/C3/Ab/C'	0-10 119-132	Well Drained
Hector-Linker-Enders complex	13.6	Hillslopes	A/Bw/R	0-15	Well Drained
Linker and Stigler complex	11.6	Hillslopes on Hills	Ap/Bt1/Bt2/Bt3/R	0-15	Well drained
Severn very fine sandy loam	10.7	Flood plains	Ap/C1/C2/C3	0-25	Well drained
Linker-Hector complex	9	Hillslopes on Hills	Ap/BE/Bt1/Bt2/R	0-30	Well drained
Keo very fine sandy loam	6.6	Stream Terraces	Ap/Bw1/Bw2/Bw3/2Ab/3C/4Ab	0-25 97-104 132-142	Well Drained

Latanier silty clay loam	5.2	Plains on Paleoterraces	Ap/Bss1/Bss2/2C1/2C2/2C3	0-15	Somewhat Poorly Drained
Coushatta silt loam	4.5	Natural Levees on Flood plains	Ap/Bw1/Bw2/C1/C2/C3	0-20	Well drained
Keomatia loamy fine sand	2.4	Flood plains/Stream Terraces	A/C1/C2/C3	0-25	Well Drained
Shermore loam	2.1	Hills on Hillslopes	A/E/Bt1/Bt2/Bt3/Btx	0-15	Somewhat Poorly Drained
Norwood silt loam	1.9	Flood plains	Ap1/Ap2/Bw/Bk/BC1/BC2/BC3/Ab/Bwb1/Bwb2	0-10 124-135	Well Drained
Web Soil Survey 2022 *centimeters below surface					

Vegetation:

The Arkansas River Floodplain subregion is characterized by floodplains and low terraces along the Arkansas River that are covered southern floodplain forest containing bottomland oaks, sycamore, sweetgum, willow, eastern cottonwood, green ash, pecan, hackberry, elm, and understory grasses (Woods et al. 2005). The study area is situated within the Bottomland Forest vegetational region, which has tremendous variation in the species present. Besides the species mentioned above, this vegetation region also contains sugarberry, black gum, box elder, red maple, river birch, silver maple, water oak, and willow oak (Hoagland 2008).

According to the Multi-Resolution Land Characteristics (MRLC) Consortium Viewer (MRLC 2022), the study area is composed mostly of cultivated crops, deciduous forest, and pasture/hay, with woody wetlands and grasslands in the portion of the study area nearest the Arkansas River.

An overview of the Google Earth Imagery of the study area (detailed below) generally corroborates the information provided above (Google Earth Pro 2022).

Surface Visibility:

<u>XXX</u>	0-25%	Forested areas
<u>XXX</u>	25-50%	Short grasses
	50-75%	
<u>XXX</u>	75-100%	Cleared forested areas, graded ROW with gravel

3. CULTURAL BACKGROUND:**Background Research:**

<u>XXX</u>	State Site Files at Oklahoma Archeological Survey (OAS)
<u>XXX</u>	State Historic Preservation Office (SHPO) National Register of Historic Places (NRHP) listings, Determinations of Eligibility (DOE) in Oklahoma listings, and Oklahoma Landmarks Inventory (OLI) files, accessed online

An OAS file search was conducted by ODOT CRP on behalf of Stantec on July 8, 2021. There are no previously recorded sites or cemeteries within the study area; however, there are ten sites within one mile of the study area (OAS 2021).

Site **34MS12** is located approximately 0.85 miles north of the study area in the SW 1/4 of the SW 1/4 of Section 19, Township 12N, Range 21E, in the center of a large field along a ridge line. This site was recorded by JBS in 1956, and reports only that they found flint, pottery, and shell. This site has not been assessed for inclusion in the National Register of Historic Places (NRHP).

Site **34MS13** is located approximately 0.95 miles northwest of the study area in the E 1/2 of the SE 1/4 of Section 24, Township 12N, Range 20E, on an old bank of the Arkansas River, west of an abandoned farmhouse. This site was recorded by JBS and Harvey King in 1956 and 1968, who reported that they found flint, metates, Gary points, a celt, a boatstone, a side-notched spear, Morris points, hammerstones, drills, manos, and pottery sherds. This site has not been assessed for inclusion in the NRHP.

Site **34MS14** is located approximately 0.42 miles west of the study area in the SW 1/4 of the SE 1/4 of Section 30 and the NW 1/4 of the NE 1/4 of Section 31, Township 12N, Range 21E on an old terrace of the Arkansas River. This site was recorded by JBS in 1956 as containing a metate and flint, but later archeologists noted that pottery sherds, triangular arrow points, refuse pit outlines, and a celt were found at the site after plowing. This site has not been assessed for inclusion in the NRHP.

Site **34MS67** is located approximately 0.42 miles south of the study area in the S 1/2 of the NE 1/4 of Section 36, Township 12N, Range 20E, on an old bank of the Arkansas River. This site was recorded by Harvey King in 1968 after observing lithic dart points, broken celts, hammerstones and manos, and awl sharpeners, and in 1978 Drass observed similar materials at the same location. Sketches of projectile points include smaller types that could have been used as arrow points. This site has not been assessed for inclusion in the NRHP.

Site **34MS71** is located approximately 0.69 miles northwest of the study area in the NW 1/4 of the NE 1/4 of Section 25, Township 12N, Range 20E on an old bank of the Arkansas River. This site was recorded by Harvey King in 1970 as including lithic Gary-type dart points, a sandstone pipe, and a flaked stone axe, and Drass in 1978 recorded mano fragments, utilized flakes, hoes, hammerstones, some bone, and burnt sandstone. This site has not been assessed for inclusion in the NRHP.

Site **34MS77** is located approximately 1 mile north of the study area in the SW 1/4 of the NE 1/4 of Section 19, Township 12N, Range 21E on a terrace of the Arkansas River. The site was recorded by Harvey King in 1970 as a small prehistoric village or hamlet site, materials scattered across 1-2 acres of the terrace. These materials included drills, knives of gray chert, thumb scrapers, manos, hammerstones, and a small ceramic rim sherd. Drass noted in 1978 that there was a hearth area uncovered, in which a mano fragment was found. Sketches from 1974 include smaller arrowheads, round perforated circular disks, gray flint perforators, and a section of a plain clay pipe. This site has not been assessed for inclusion in the NRHP.

Site **34MS248, Hanks Cemetery**, is located approximately 0.8 miles north of the study area in the SE 1/4 of the SW 1/4 of the NE 1/4 of Section 29, Township 12N, Range 21E on the right descending bank of the Arkansas River, 175 meters from its confluence with the Illinois River. This site was recorded by William B. Lees in 1982 as a historic cemetery with a modern chain-link fence surrounding it. Tombstones date 1879-1920. Some historic artifacts were observed nearby as well. This site has not been assessed for inclusion in the NRHP.

Site **34SQ25**, is located approximately 0.58 miles north of the study area in Sections 20, 21, and 28, Township 12N, Range 21E, just south of the confluence of the Illinois River and Arkansas River, at the same location as Foreman Cemetery (see below). 34SQ25 consists of prehistoric lithic debitage, prehistoric groundstone artifacts, and historic glass and ceramics. The historic artifacts date to the late eighteenth and early nineteenth century. This site has not been assessed for inclusion in the NRHP.

Site **34SQ189** is located approximately 0.3 miles north of the study area in Sections 20 and 21, Township 12N, Range 21E, surrounding the Foreman Cemetery. This site was recorded in 1982 by William B. Lees and 1992 by George O'Dell as a historic farmstead, a historic cemetery, and an open prehistoric habitation. Headstones date from 1877 to 1907 and are presumed to be erected for members of the Cherokee Nation. This site has not been assessed for inclusion in the NRHP.

Site **34SQ387** is located approximately 1 mile northeast of the study area in the S 1/2 of the NE 1/4 of the SE 1/4 of Section 22, Township 12N, Range 21E, along a gravel road north of I-40. The site was recorded in 2005 by Lois Albert and Joanne Vervinck as a protohistoric or historic farmstead that included the foundations of a stone building and a well. This site has not been assessed for inclusion in the NRHP.

There are nine cemeteries located within the one-mile buffer of the study area: Carlile Cemetery, Foreman Cemetery, Hanks Cemetery, Wilkerson Cemetery, Jones Cemetery, Hefley Cemetery, Starr Cemetery, Wilkerson (Whidbey) Family Cemetery, and Scales Family Cemetery. Wilkerson (Whidbey) Family Cemetery was located 40 feet south of the western terminus of the study area. This cemetery, with approximately seven interments from 1880 to 1908, was relocated to Vaught Cemetery during the construction of the Arkansas River Navigational System.

The file search identified one previous survey in the study area and one previous study within the one-mile buffer of the study area. At the western terminus of the study area, the Cross Tel Cable Replacement project was surveyed by Vehik on October 21, 1998. One survey occurred within one mile of the study area: the USF+WS Cook Bottom's Habitat Restoration Area Construct was surveyed by Holt on October 21, 2015 (OAS 2021).

Other materials reviewed include the 1898 General Land Office (GLO) Survey Plat (Bureau of Land Management [BLM] 2021); Sans Bois 1:125,000 (1900, 1909, and 1911), Fort Smith 1:125,000 (1946, 1965, 1967, and 1978), Stigler NE 1:24,000 (1963, 1964, 2010, 2016, and 2018), Eufaula 1:100,000 (1978) topographic maps (USGS 2022b); aerial photographs (1958, 1973, 1980, 1995, 2003, 2008, 2010, 2013, 2015, and 2017) (Nationwide Environmental Title Research [NETR] 2022; OKMaps 2022); National Register of Historic Places (NRHP) and Determination of Eligibility (DOE) listings (Oklahoma Historical Society [OHS] 2022a; OHS 2022b); and Oklahoma Landmark Inventory (OLI) (OHS 2022c).

The I-40 roadway corridor is not depicted on the 1898 GLO map. No bridges or buildings are illustrated within the study area; however, one building is depicted north of the study area in the NW ¼ of the SW ¼ of Section 30, Township 12N, Range 21E (BLM 2021). The earliest topographic map (Sans Bois 1900; 1:125,000) depicts three unnamed roadways mapped roughly north-south which intersect with the study area, and a short segment of an east-west roadway within the current I-40 alignment. No buildings are illustrated within the study area. The 1909 and 1911 topographic maps (Sans Bois; 1:125,000) illustrate additional roadways intersecting with and adjacent to the study area, and at least one building within the study area. Many buildings appear along roadways surrounding the study area. The 1963 (Stigler; 1:24,000) topographic map shows the Wilkerson Cemetery at the southwest corner of the study area and three structures at the eastern end of the study area. The I-40 corridor first appears on the 1978 topographic map (Eufaula; 1:100,000); though the map is at too coarse a scale to illustrate small features such as auxiliary roadways and buildings. The I-40 intersection with SH-10 covers the area where the two of the three buildings had been illustrated on the 1963 map. SH-10 is present on this map, though it only appears north of I-40. Subsequent topographic maps show no significant changes in or around the study area (USGS 2022b).

The earliest historic aerial imagery dates to 1958. The I-40/ SH-10 roadway corridor was not yet constructed. This aerial image largely matches the topographic maps with roadways around and intersecting with the study area. Two buildings appear at the eastern end of the study area (NETR 2022). In a 1973 aerial (OKMaps 2022), the land west of the Arkansas River and around the study area appears to be cleared for agricultural use. The eastern portion of the study area is forested. The I-40/ SH-10 roadways first appear on the 1973 aerial image. By 1980, no buildings are present at the eastern end of the study area, near the I-40/SH-10 intersection. No significant changes appear on any subsequent aerial images, and land use around the study area remains agricultural west of the Arkansas River, with forested areas east of the river (NETR 2022).

Given the nature of the soils, underlying geology, topographic setting, OAS file search results, proximity to the Arkansas River, and rural landscape, Stantec anticipated that prehistoric resources had a moderate likelihood to be present, although disturbances from the highway construction have possibly reduced the likelihood such resources would be intact. If present, prehistoric sites would be expected to be expressed as artifact scatters that could contain chipped lithic artifacts (e.g., flakes, cores, projectile points), groundstone, ceramics, faunal remains, and other materials associated with short- and long-term occupations. Larger sites along the Arkansas River, such as the Horton site (34SQ11) in southern Sequoyah County, show evidence of early farm villages associated with Spiro Mounds. The

Horton site excavations in the 1950s and 1960s uncovered both rectangular and circular houses and flakes of siltstone that were likely from agricultural hoes (OAS 2002).

Given the evidence available in the map review, Stantec estimated a moderate potential for historic period archeological sites, as most historic-age structures appearing on topographic maps and aerial photographs are likely now covered by I-40. Any recorded historic archeological sites that have intact features would require deed research at the appropriate County Clerks' offices. Generally, preservation in this region can also be poor due to topographic and geological characteristics (e.g., bedrock being at or near surface) and the effects of modern agricultural practices. Better preservation may occur in alluvial zones along higher-order creeks and rivers, which characterize portions of the current study area.

Stantec historians performed a desktop review for designated and historic-age (45 years or older) resources within the study area. Review of the Oklahoma SHPO NRHP listings and the DOE database indicate there are no NRHP-listed properties or resources determined eligible for inclusion in the NRHP in the study footprint, and there are no resources present within one mile (1.6 kilometers) of the study footprint (OHS 2022a; OHS 2022b). Review of the Oklahoma Landmarks Inventory Database indicates there are no previously surveyed resources within one mile (1.6 kilometers) of the study area (OHS 2022c).

There are six bridges located within the study area.

The bridge carrying S. 150th Street over I-40 (ODOT Structure #5115 1275 X [NBI 17013]) is a Stringer/Multi-beam or Girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1300 X [NBI 16849]) is a reinforced concrete box constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1332 X [NBI 16907]) is a bridge class culvert constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge over Arkansas River (ODOT Structure No. 6822 0000 X [NBI 17051]) is a steel girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121SX [NBI 16944]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121NX [NBI 16945]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

4. METHODOLOGY:

Field Investigation Methodology:

Cultural resources fieldwork was completed by Stantec in April 2022. The cultural resources fieldwork was developed in consultation with ODOT-CRP and conformed to the methods outlined in the ODOT-CRP manual (ODOT 2017). Archeological survey transects were set at a distance not exceeding 30 meters (98.4 feet) apart, with one transect on each side of I-40 and additional transects where the study area widens around the Arkansas River. The study area was confined to the existing right-of-way (R/W).

Shovel tests were excavated at 30-meter (98.4-foot) intervals along each transect. Shovel tests were excavated in arbitrary 10-centimeter (4-inch) levels until culturally sterile subsoil, root impasse, inundated soils, gravelly soils, and/or basal clay was reached. Buried A horizons are possible in the alluvial settings of the study area, especially west of the Arkansas River. For that reason, bucket augers were utilized to extend the excavation depth for shovel tests in the immediate vicinity of the Arkansas River. Due to the proximity of the Wilkerson (Whidbey) Family Cemetery, special consideration was given to the eastern terminus of the study area to ensure there were no evidence of headstones, depressions, ornamental plants or other evidence of burials. Stantec avoided additional shovel testing in this area, and a thorough pedestrian survey of this section was undertaken.

Excavated matrix was screened through 0.25-inch (0.64-centimeter) hardware screen and deposits were described using conventional texture classifications with reference to NRCS soil series and Munsell color designations. All observations were recorded on handheld tablets using the ArcGIS Survey 123 (version 3.12.277) and the ArcGIS Collector (version 20.2.2) applications. All shovel tests and bucket augers were backfilled after recordation. Photographs were taken of the study area. Each photograph was recorded in digital format, and a photographic log was kept for all photographs through the Survey 123 application. These logs include sequential identification listing the name of the photographer, date, subject, camera orientation, photographic details, and other notes. All field photographs were captured with the subject in focus and with a camera capable of photographic resolution of a minimum of 10 megapixels.

One archeological site (34SQ576) was recorded. The site boundary was defined by the extent of positive subsurface tests. Shovel tests were excavated in cardinal directions at 5-meter intervals from the initial positive shovel test until the excavation of two negative shovel tests in each direction as allowed by steep slopes to the south and restricted access to the north. The site was documented with photographs that include general overview and setting of all natural features. No artifacts were collected. The portion of the site located within the APE lacked evidence of features and contained only non-diagnostic lithic debitage. The site is therefore recommended not eligible for NRHP listing. It is likely that the site extends beyond the study area, which was confined to the existing R/W. Those portions of the site that may exist beyond the study area for the current undertaking have not been investigated and should be by any future undertakings.

One isolated find (IF-01) was also recorded. The area around the positive shovel test was investigated with additional shovel tests at 5-meter intervals in cardinal directions to confirm that there were no other associated artifacts or features. Restricted access to areas north of the right of way and inundation to the east prevented shovel testing, but the west and south were tested. The isolated find was documented with photographs that include general overview and setting of all natural features. No artifacts were collected. IF-01 is recommended not eligible for NRHP listing.

A reconnaissance survey of the built environment was conducted of historic-age (built in or before 1976) buildings, structures, objects, sites, districts, and historic landscapes within the study area. As there were no built environment resources in the study area, no historic-age resources were documented on OK/SHPO HPRI, Cemetery HPRI, or Oklahoma Historic Bridge Inventory forms according to the standards laid out in *Cultural Resource Studies: A Manual for Cultural Resources Staff and Department Consultants* (ODOT 2017).

5. RESULTS OF INVESTIGATION:

_____ No archeological sites or buildings recorded in study area.

XXX Resources recorded in study area assessed as **not eligible** for the NRHP. Forms being submitted for agency review.

XXX Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ **NRHP-eligible properties** recorded in study area.

Forms being submitted for agency review.

_____ Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

_____ Historic Preservation Resource Identification Form(s) for SHPO files.

_____ Oklahoma Bridge Survey and Inventory Form.

_____ Archeological sites requiring further assessment (i.e. evaluative testing)

COMMENTS AND DESCRIPTION OF FINDINGS:

One newly recorded archeological site was documented during the current survey (Site 34SQ576). The site is a prehistoric lithic scatter consisting of subsurface artifacts. Due to access restrictions, site delineation did not extend beyond the study area (i.e., existing right-of-way) and it is likely the site may extend beyond the right-of-way to the north. The delineated portion of the site is recommended **not eligible** for inclusion in the National Register of Historic Places (NRHP). As the site may extend outside the right-of-way, that area should be investigated by any future undertakings. Additionally, one isolated find (IF-01) was documented that included a single lithic flake with no associated features. No built environment resources were recorded.

Archeological Survey Results

The study area falls wholly within the existing I-40 right of way. Pastures and agricultural floodplains flank the western half of the study area (**Figure 3, Photo 9**), while most of the land on the eastern half is made up of steep slopes where the landform was cut into for the construction of I-40 (**Figure 3, Photo 14**). The eastern terminus of the study area is highly disturbed with the SH-10/I-40 Junction, containing steep slopes, concrete drainages, and artificial landscapes for the on/off ramps (**Figure 3, Photo 17**).

Ground surface visibility was good to moderate (25 to 50 percent) along most of the survey area, where the right of way is made up of short grasses (**Figure 3, Photos 9 and 15**). Decreased visibility occurred in areas on the eastern side as well as the near the Arkansas River due to riparian vegetation (**Figure 3, Photos 3-5**), deciduous forest, and flooded marshes (**Figure 3, Photos 10-12**) (0 to 25 percent), as well as the I-40 roadway. Areas within the right of way with eroded gravel slopes and areas of cleared vegetation had a much higher visibility of 75 to 100 percent (**Figure 3, Photo 6**).

Disturbances in the study area included power lines, buried utility cables, the existing roadway, and drainage ditches along the I-40 corridor (**Figure 3, Photos 1**). Additionally, erosion was prevalent near the Arkansas River due to steep slopes within the eastern portion of the survey area. Roadway gravels were encountered in some shovel tests located within portions of the eroded right of way.

Shovel test units were terminated at culturally sterile subsoil, root impasse, inundated soils, or basal clay. The soils displayed in subsurface testing contrasted from east to west. Shovel tests placed east of the Arkansas River revealed soil profiles resembling Hector-Linker soils (Soil Survey Staff 2022). Here, shovel test profiles consisted of brown (10YR 5/3) silty clay loam, yellowish red (5YR 4/6) sandy clay loam, and dark brown (10YR 3/3) sandy clay loam extending to 15 to 30 cmbs, underlain by red (2.5YR 4/6) sandy clay loam with sandstone bedrock impasse at 40 to 50 cmbs. Shovel tests on the eastern portion of the study area were generally terminated at an approximate depth of 40 to 50 cmbs. Some riparian vegetation was present along the Arkansas River and the eastern edges of the right of way, creating root impasses in most shovel tests in these forested areas.

Shovel tests placed west of the Arkansas River revealed soil profiles consistent with Roxana, Norwood, and Severn soils (Soil Survey Staff 2022). These shovel test profiles displayed brown (7.5YR 4/4) loamy sand with 1 to 5 percent, well sorted, rounded pebbles; reddish brown (5YR 4/3) sandy loam; and yellowish red (5YR 5/4) sandy loam. Typically, the soil texture was a sandy loam to a sandy clay with well sorted, rounded to subrounded pebbles and

gravels. Soil profiles are consistent with alluvial soils and terminated at 60 to 80 cmbs. Termination occurred at culturally sterile subsoil, intrusive road gravels, redoximorphic soil, water table, or a target depth of 80 cmbs.

Fifty-three bucket auger tests were excavated throughout the study area, extending the depth of every fourth shovel test (**Figure 2**). Bucket auger tests throughout the western half of the study area reached depths from 50 to 135 cmbs into the water table or culturally sterile subsoil. Bucket augers typically showed very dark grayish brown (10YR 3/2) silty loam to 30 cmbs, underlain by brown (7.5YR 4/4) silty clay loam or sandy clay loam, sometimes mottled with yellowish red (5YR 5/6) clay. Bucket auger tests on the north side of I-40, west of the Arkansas River typically revealed thicker layers of dark brown (7.5YR 3/5) clay, yellowish brown (10YR 3/6) clay, reddish brown (5YR 4/4) silty clay, or brown (7.5YR 4/4) sandy loam before reaching the water table. These bucket auger tests revealed soils somewhat consistent with Choska, Norwood, and Latanier series, but many bucket augers south of I-40 and west of the river encountered the water table around 50 cmbs.

Bucket auger tests placed within the eastern portion of the study area were much shallower due to sandstone bedrock around 40 to 50 cmbs. Soils east of the river showed an A horizon of brown (10YR 4/3) sandy loam to about 20 cmbs, underlain by a layer of yellowish red (7.5YR 6/8) sandy clay loam, sometimes mottled with either dark grayish brown (10YR 4/2) or yellowish red (5YR 5/6) clay. The bucket auger tests that did not encounter bedrock by 50 cmbs showed a red (2.5YR 4/8) sandy clay or clay, sometimes with strong brown (7.5YR 5/8) or yellowish red (5YR 5/8) mottling; these were terminated at bedrock or upon reaching the water table between 80 to 120 cmbs. These bucket auger tests revealed soils generally consistent with Roxana, Norwood, Severn, and Hector-Linker soil series. Profiles revealed possible buried A horizons within 8 tests (MC012, MC017, SC022, SC020, SC019, SC014, SC010, SC008), all of which were placed on the west side of the Arkansas River. Cultural material was found in only one bucket auger test, described below.

Site 34SQ576

Site 34SQ576 is a prehistoric open site located on a level wooded upland approximately 0.89 miles (1,400 meters) southeast of the confluence of the Illinois and Arkansas River in Sequoyah County, Oklahoma. The current site boundary measures 176 feet (54 meters) east-west and 95 feet (29 meters) north-south, encompassing a total of 0.31 acres (1,236 square meters). The site was delineated based on the presence of a fence line along the study area/existing R/W boundary, a steep slope, and shovel test excavation results. On-site vegetation consists of deciduous forest and tall grasses with less than 25 percent ground surface visibility. On-site soils are silty loam and silty clay loams derived from residuum, characterized as the Hector-Ender-Linker soil complex. The portion of the investigated site is in good condition. Disturbances to the site include the construction and maintenance of I-40, especially along the southern border of the site.

Stantec's site boundary was delineated from two initial positive shovel tests (SC002 and MC003) that were approximately 30 meters (98 feet) apart. The site's extent was further determined by excavating shovel tests every 5 meters (16.4 feet) in the cardinal directions as allowed by the extent of the project study area. The east and west boundary was determined by two consecutive negative shovel tests, the south boundary was determined by a steep slope (greater than 70 degrees) towards I-40, and the north boundary was determined by the limit of the project study area (and lack of access to the areas north of the existing R/W). In total, 24 shovel tests were completed to delineate the site; 13 of these shovel tests were positive for cultural material. Shovel tests were excavated in arbitrary 10-centimeter levels until culturally sterile subsoil, basal clay, bedrock, or extremely gravelly soils were reached. Soils encountered showed an A horizon of yellowish brown (10YR 3/4) loam or brown (7.5YR 4/4) silty clay loam to approximately 20 cmbs, underlain by strong brown (7.5YR 5/6) silty clay loam or brown (10YR 5/3) silty clay loam, sometimes further underlain by yellowish red (5YR 5/8 or 5YR 5/6) clay or silty clay. Most shovel tests included many pebbles and gravels, with some cobbles. Details of these soils can be found in the attached Appendix. Based on review of early historic aerial photographs (NETR 2022), there is no indication that this area has been plowed or extensively disturbed in the past. However, it is located within the existing right-of-way and may have been disturbed/displaced by highway construction and maintenance activities.

In total, 33 prehistoric lithic artifacts were identified within shovel test units; all were recovered from the top 30 cmbs. Artifacts recorded included 30 lithic flakes and 3 multi-directional blocky lithic cores. Various types of chert material were observed including opaque tan, pink/red, black, and a small amount of semi-translucent brown chert. It is likely

that these materials are locally available as cobbles from the river, although a more definitive determination on material type could not be completed as artifacts were not collected. Most of the debitage is representative of late tertiary stages of lithic reduction, although a small amount retain cortex. At least 9 edge retouch flakes and 2 late biface flakes were observed. Two flakes (from shovel tests AA027 and AA034, approximately 20 meters apart) have potlidded surfaces, indicating they may have been discarded into a high intensity fire or thermal feature, although no subsurface or surficial evidence of intact features, such as hearths (or soil staining) or fire cracked rocks were observed during the excavations. No diagnostic artifacts were identified.

The current interpretation of the site—based on the limited available information—is that it represents a prehistoric open camp where occupants arrived with finished tools, retouched those tools, and likely constructed thermal features.

Site 34SQ576 is a subsurface prehistoric camp site located on a high point east of the confluence of the Arkansas and Illinois Rivers. Based on the current study, the site is recommended **not eligible** for the NRHP and was assessed under Criterion D. Although there is evidence that thermal features could have been present due to potlidded flakes, no burned or fire-cracked rock was recovered, and no intact features were observed. Additionally, the current investigations did not encounter any diagnostic artifacts. As such, the age or temporal affiliation of the site deposits cannot be established, which drastically limits the research questions the assemblage could potentially address.

Stantec was limited to delineating the site boundary within the project study area, which was confined to the existing I-40 R/W. Based on the shovel test data, the site likely extends for an unknown distance to the north of the project area. The portions of the site to the north of the project area are uninvestigated and could potentially contain significant archeological deposits. Those portions of the site are beyond the scope of this undertaking but should be investigated by any future undertakings.

Isolated Find 01

Isolated Find 01 (IF-01) is located at the base of a grassy slope leading down from the I-40, approximately 150 meters west of the Arkansas River (**Figure 2**). IF-01 consists of a single prehistoric lithic chert flake, discovered in shovel test AA023. Four additional negative shovel tests were excavated to investigate the isolated find. The project study area is restricted to the existing R/W and the area east of the positive shovel test was inundated (see photos in isolated find form). Ground cover was mostly short grass, with some areas of bare ground and a few trees along the northern boundary. Visibility was 25 to 50 percent. In the positive shovel test, the A horizon consisted of 7.5YR 4/3 brown silty loam to 20 cmbs and was underlain by a 5YR 5/4 reddish brown silt loam. The lithic flake was found in the A horizon between 10 and 20 cmbs. No features were observed, either on the surface or during excavations. Due to highway construction and nearby utilities, this isolated find is believed to be in a disturbed part of the existing R/W. The isolated find is recommended **not eligible** for the NRHP, and no further work is recommended.

No other prehistoric cultural resources were encountered in the study area during field investigations, either on the surface or subsurface. No historic-era cultural resources were recorded, and no built environment historical resources were encountered.

6. RECOMMENDATIONS:

XXX **Plan Notes** requiring avoidance of cultural resources in off-project areas

XXX **Approval Recommended** with the proposed project as planned with no additional research. If subsurface archaeological materials are exposed during construction, the Contractor and Resident Engineer shall notify the Department Archaeologist in accordance with Section 202.04(a), Standard Specifications for Highway Construction.

_____ **Approval NOT Recommended**, until one or more of the following measures are completed.

_____ **Additional consultation with SHPO** regarding NRHP-eligible Properties

_____ **Revise design** to avoid/protect resources

_____ **NRHP Eligibility Archaeological Test Excavations**

_____ **Implementation of MOA** with SHPO regarding Mitigation of Adverse Effects to Historic Properties

SUMMARY AND COMMENTS REGARDING RECOMMENDATIONS:

The study area was subjected to a cultural resource survey that included the excavation of shovel tests and bucket auger tests, as well as a built environment historical resources survey. The study area was confined to the existing I-40 R/W.

One new archeological site, 34SQ576, was recorded during this investigation, and a site form was completed. The site is a subsurface prehistoric lithic scatter that is recommended **not eligible** for inclusion in the NRHP. The site may extend beyond limit of the project area to the north, and that area should be investigated by any future undertakings.

One isolated find, IF-01, was recorded during the investigation, and an isolated find form was completed. This find is a single lithic flake with no associated features or other artifacts. IF-01 is recommended not eligible for NRHP listing.

The bridge carrying S. 150th Street over I-40 (ODOT Structure #5115 1275 X [NBI 17013] is a Stringer/Multi-beam or Girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1300 X [NBI 16849] is a reinforced concrete box constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over an unnamed creek (ODOT Structure # 5115 1332 X [NBI 16907] is a bridge class culvert constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge over Arkansas River (ODOT Structure No. 6822 0000 X [NBI 17051]) is a steel girder constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121SX [NBI 16944]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

The bridge carrying I-40 over SH-10 (ODOT Structure No. 6822 0121NX [NBI 16945]) is a continuous concrete slab constructed in 1967. This bridge is of the type discussed in the Advisory Council on Historic Preservation's (ACHP) Program Comment for post-1945 concrete and steel bridges and required no additional documentation.

No other built environment historical resources were encountered.

To avoid non-NRHP-assessed cultural resources during off-project activities such as fill borrowing, it is recommended that the following areas within the one-mile (1.6-kilometer) buffer of the study area be avoided:

T12N R21E

Section 19:
SW 1/4 SW 1/4
SW 1/4 NE 1/4
SW 1/4 SW 1/4 SE 1/4

Section 21:
S 1/2 NW 1/4 SE 1/4
W 1/2 NW 1/4 SW 1/4

Section 22:
S 1/2 NE 1/4 SE 1/4

Section 28:
SE 1/4 NE 1/4 NW 1/4

Section 29:
SE 1/4 SW 1/4 NE 1/4
SW 1/4 NE 1/4

Section 30:
SW 1/4 SE 1/4

Section 31:
NW 1/4 NW 1/4 NE 1/4

T12N R20E

Section 20:
E 1/2

Section 21:
W 1/2

Section 24:
E 1/2 SE 1/4

Section 25:
NW 1/4 NE 1/4
SE 1/4 NE 1/4

Section 36:
S 1/2 NE 1/4

REFERENCES

Bureau of Land Management (BLM)

2021 *General Land Office Records*. United States Department of the Interior. Available at <https://www.glorerecords.blm.gov/default.aspx>. Accessed July 15, 2021.

Curtis, N. M. Jr., W. E. Ham, and K. S. Johnson

2008 *Geomorphic Provinces of Oklahoma* (color poster with map and descriptive text): Reston, Virginia, United States Geological Survey (map scale 1:2,000,000). Available at <http://ogs.ou.edu/docs/educationalpublications/EP9.pdf>. Accessed April 5, 2022.

Google Earth Pro

2022 V 7.3.4.8573. Webbers Falls, Oklahoma. 15S 309373.40 E 3928902.47 N. Eye alt 524 ft. Imagery from August 2019. Accessed April 2022.

Hoagland, B. W.

2008 *Vegetation of Oklahoma* (color poster with map and descriptive text): Reston, Virginia, United States Geological Survey (map scale 1:2,000,000). Available at <http://ogs.ou.edu/docs/educationalpublications/EP9.pdf>. Accessed April 5, 2022.

Multi-Resolution Land Characteristics Consortium (MRLC)

2022 National Land Cover Database (NLCD) Land Cover Viewer. Available at <https://www.mrlc.gov/viewer/>. Accessed March 27, 2022.

Nationwide Environmental Title Research (NETR)

2022 *Historic Aerials Database*. Nationwide Environmental Title Research. Available at <http://historicaerials.com>. Accessed March 27, 2022.

Oklahoma Archeological Survey (OAS)

2002 *Oklahoma Archeological Survey Highlighted Sites by County*. Oklahoma Archeological Survey. University of Oklahoma, Norman. Accessed March 28, 2022.

2021 *Oklahoma Archeological Survey Records*. Oklahoma Archeological Survey. University of Oklahoma, Norman. Accessed July 8, 2021.

Oklahoma Department of Transportation (ODOT)

2017 *Cultural Resource Studies: A Manual for Cultural Resources Staff and Department Consultants* (updated October 2017). Available at http://www.odotculturalresources.info/uploads/6/6/6/2/6662788/odot_crp_manual_10-23-17.pdf.

2022 *Roadway and Bridge: Master Inventory Viewer*. Available at <https://okdot.maps.arcgis.com/apps/webappviewer/index.html?id=6555de44b6314ab2a71bb0620e52ea78>. Accessed April 4, 2022.

Oklahoma Historical Society (OHS)

2022a *Determination of Eligibility Search Results*. State Historic Preservation Office at Oklahoma History Center. Available at <http://okhistory.org/shpo/doesearch.php>. Accessed March 27, 2022.

2022b *National Register of Historic Places in Oklahoma*. State Historic Preservation Office at Oklahoma History Center. Available at <http://www.arcgis.com/home/item.html?id=4f22c34d8b9645128014c3969ceb2ecb>. Accessed March 27, 2022.

2022c *Oklahoma Landmarks Inventory Database*. State Historic Preservation Office at Oklahoma History Center. Available at http://oli_shpo.okstate.edu/. Accessed March 27, 2022.

OKMaps

2022 Oklahoma GIS Data Clearinghouse. Electronic document, <https://okmaps.org/ogi/default.aspx>. Accessed 2022.

Soil Survey Staff

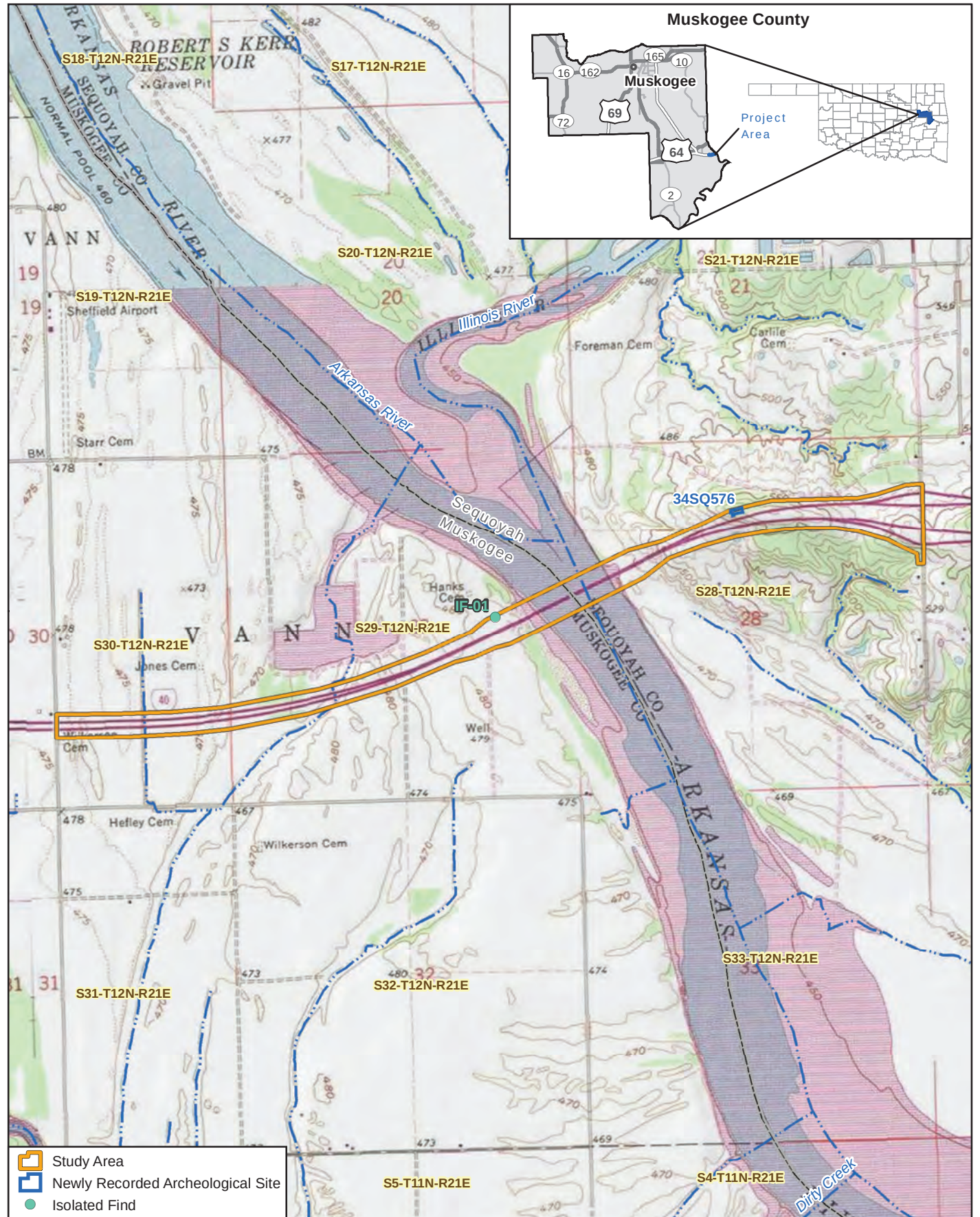
2022 *Soil Survey Geographic (SSURGO) Database for Pottawatomie County, Oklahoma*. United States Department of Agriculture - Natural Resources Conservation Service. Available at <http://casoilresource.lawr.ucdavis.edu/soilweb/>. Accessed April 5, 2022.

U.S. Geological Survey (USGS)

2022a *Oklahoma Geology Map Viewer*. United States Geological Survey. Available at <https://mrdata.usgs.gov/geology/state/state.php?state=OK>. Accessed April 5, 2022.

2022b *USGS Historical Topographic Map Viewer*. United States Geological Survey. Available at <http://historicalmaps.arcgis.com/usgs>. Accessed March 28, 2022.

Woods, A. J., J. M. Omernik, D. R. Butler, J. G. Ford, J. E. Henley, B. W. Hoagland, D. S. Arndt, and B. C. Moran.
2005 *Ecoregions of Oklahoma* (color poster with map, descriptive text, summary tables, and photographs): U.S. Geological Survey (map scale 1:250,000). Available at https://permanent.access.gpo.gov/lps73040/lps73040/www.epa.gov/wed/pages/ecoregions/ok_eco.htm. Accessed April 8, 2022.

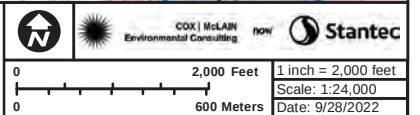


Study Area
Newly Recorded Archeological Site
Isolated Find

Figure 1. Documented Cultural Resources

JP 34334(04)
Improvements to 1-40 Over Arkansas River
Muskogee County, Oklahoma

Data Sources: Stantec (2022),
BLM (2020), ODOT (2020)
Topographic Source: USGS Gore (1974),
Holt Mountain (1979), Stigler NE (1979) 7.5' Quadrangles



To: Cultural Resources Program / Environmental Programs Division
From: Community Engagement and Tribal Relations Program
Re: Summary of tribal consultation for

4/23/2025

- County: Muskogee
- JP# 34334(04)
- Oklahoma Statistical Tribal Area: Cherokee Nation

ODOT consulted with the following Tribal Nations:

Alabama Quassarte Tribal Town, Caddo Nation, Cherokee Nation, Kialegee Tribal Town, Muscogee (Creek) Nation, Osage Nation, Thlopthlocco Tribal Town, United Keetoowah Band of Cherokee Indians, Wichita and Affiliated Tribes

ODOT received the following comments:

Caddo Nation: Project does not affect known cultural, traditional or sacred sites of interest to the Caddo Nation; no objection to the project at this time (11/20/2021).

Muscogee (Creek) Nation: Appreciated invitation to consult, unaware of any historic properties or sites of cultural or religious significance affected by the project, defer to Cherokee Nation and United Keetoowah Band (12/14/2021).

Thlopthlocco Tribal Town: Unaware of any culturally significant sites within the area of potential effect (11/17/2021).

United Keetoowah Band of Cherokee Indians: No current questions or comments (11/16/2021).

Based on the information provided in the Request for Specialists' Studies, the area of potential effect involves:

- ☐ Tribal trust property
- ☐ Individual Indian trust property or restricted Indian land
- ☐ Tribally owned fee land or tribal facilities such as offices, housing, businesses, or health care facilities
- ☒ None of the above

The following areas are listed for avoidance by contractor-selected off-project facilities:

None

December 13, 2022

To: Environmental Programs Division

From: Rhonda S. Fair, Director – Tribal Coordination

Re: Summary of tribal consultation for Muskogee and Sequoyah Counties JP# 34334(04) - Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile

A file search conducted on 1/9/2020 found no known potentially sensitive areas in the project area or its vicinity.

ODOT consulted the following Tribal Nations on 11/15/2021 and 11/4/2022:

- Alabama Quassarte Tribal Town
- Caddo Nation
- Cherokee Nation
- Kialegee Tribal Town
- Muscogee (Creek) Nation
- Osage Nation
- Thlopthlocco Tribal Town
- United Keetoowah Band of Cherokee Indians
- Wichita and Affiliated Tribes

ODOT received the following comments:

- Caddo Nation: Project does not affect known cultural, traditional or sacred sites of interest to the Caddo Nation; no objection to the project at this time (11/20/2021).
- Muscogee (Creek) Nation: Appreciated invitation to consult, unaware of any historic properties or sites of cultural or religious significance affected by the project, defer to Cherokee Nation and United Keetoowah Band (12/14/2021).
- Thlopthlocco Tribal Town: Unaware of any culturally significant sites within the area of potential effect (11/17/2021).
- United Keetoowah Band of Cherokee Indians: No current questions or comments (11/16/2021).

Statement of possible tribal impacts:

- This project lies within the Oklahoma Statistical Tribal Area of the Cherokee Nation.
- Based on the information provided in the Request for Specialists Studies, the area of potential effect DOES NOT involve tribal trust land, individual Indian trust land, restricted land, or tribally owned fee land.
- No known tribal facilities, such as housing authority properties, tribal offices, or tribal businesses, are located within or adjacent to the project area.

5/27/2025

Alabama Quassarte Tribal Town
Attn: Chief
2122 Highway 27
Wetumka, OK 74883

Dear Chief,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Alabama Quassarte Tribal Town
Attn: Chief Wilson Yargee
P.O. Box 187
Wetumka, OK 74883

Dear Chief Yargee:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

November 15, 2021

Alabama Quassarte Tribal Town
Attn: Chief Wilson Yargee
P.O. Box 187
Wetumka, OK 74883

Dear Chief Yargee:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Ben Yahola

5/27/2025

Caddo Nation
Attn: Chairman Bobby Gonzalez
P.O. Box 487
Binger, OK 73009

Dear Chairman Bobby Gonzalez,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Caddo Nation
Attn: Chairman Bobby Gonzalez
P.O. Box 487
Binger, OK 73009

Dear Chairman Gonzalez:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Jonathan Rohrer, THPO

Rhonda Fair

From: Jonathan Rohrer <noreply@jotform.com>
Sent: Saturday, November 20, 2021 6:14 PM
To: Rhonda Fair
Subject: [EXTERNAL] Bridge Replacement and approach improvements on I-40 over the Arkansas River at Mile Marker 290, Muskogee & Sequoyah Counties, Oklahoma - 34334(04)

Rhonda

Thank you for your request for consultation, received on 11-17-2021. The Caddo Nation appreciates your willingness to conduct proper consultation, pursuant to Section 106 of the National Historic Preservation Act.

Upon review of the project and location I have determined that it does not affect known cultural, traditional or sacred sites of interest to the Caddo Nation. As such, the Caddo Nation has no objection to the project at this time. However, in the event that an inadvertent discovery of potentially relevant cultural sites, funerary objects, or human remains occurs, we request that the project be immediately halted and the proper authorities be contacted. Additionally, The Caddo Nation would need to be notified of an inadvertent discovery with 24 hours.

Should you have any question or concerns regarding this response please feel free to contact our office.

Best regards,

Jonathan

Jonathan M. Rohrer
Tribal Historic Preservation Officer



Caddo Nation
Caddo Nation

Caddo Nation
P.O. Box 487
Binger, OK 73009
t: (405)656-0970 Ext. 2070
e: jrohrer@mycaddonation.com

www.mycaddonation.com



November 15, 2021

Caddo Nation
Attn: Chairman Bobby Gonzalez
P.O. Box 487
Binger, OK 73009

Dear Chairman Gonzalez:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

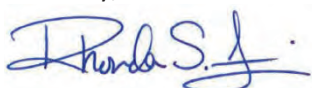
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Jonathan Rohrer, THPO

5/27/2025

Cherokee Nation

Attn: Principal Chief Chuck Hoskin, Jr.

P.O. Box 948

Tahlequah, OK 74465

Dear Principal Chief Chuck Hoskin, Jr. ,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,

Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Cherokee Nation
Attn: Principal Chief Chuck Hoskin, Jr.
P.O. Box 948
Tahlequah, OK 74465

Dear Principal Chief Hoskin:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Elizabeth Toombs, THPO

November 15, 2021

Cherokee Nation
Attn: Principal Chief Chuck Hoskin, Jr.
P.O. Box 948
Tahlequah, OK 74465

Dear Principal Chief Hoskin:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

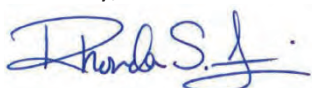
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Elizabeth Toombs, THPO

5/27/2025

Kialegee Tribal Town
Attn: Mekko Stephanie Yahola
P.O. Box 332
Wetumka, OK, 74883

Dear Mekko Stephanie Yahola,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Kialegee Tribal Town
Attn: Mekko Brian Givens
P.O. Box 332
Wetumka, OK 74883

Dear Mekko Givens:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

November 15, 2021

Kialegee Tribal Town
Attn: Mekko Brian Givens
P.O. Box 332
Wetumka, OK 74883

Dear Mekko Givens:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

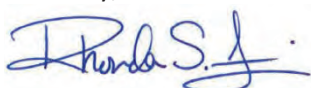
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Historic Preservation Office

5/27/2025

Muscogee Nation
Attn: Principal Chief David Hill
P.O. Box 580
Okmulgee, OK 74447

Dear Principal Chief David Hill,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

Rhonda Fair

From: thunt@muscogeenation.com
Sent: Tuesday, December 14, 2021 10:38 AM
To: Rhonda Fair; Karen Orton (Karen.Orton@dot.gov)
Cc: Elizabeth Toombs; wwarrrior@ukb-nsn.gov
Subject: [EXTERNAL] Re: Muskogee & Sequoyah County OK / ODOT JP# 34334(04) initial consultation

Ms. Fair,

Thank you for your recent correspondence regarding ODOT JP# 34334(04). The Muskogee Nation Historic and Cultural Preservation Department (HCPD) appreciates the invitation to consult with the Oklahoma Department of Transportation and the Federal Highway Administration.

After reviewing the location and scope of the project, HCPD is currently unaware of any historic properties or sites of cultural or religious significance that may be impacted by this project. The project is occurring on the Cherokee Reservation and the Muskogee Nation will defer future consultation to the Cherokee Nation of Oklahoma and the United Keetoowah Band of Cherokee Indians.

Please let me know if you have any question. I appreciate your time, mvto.

Turner W. Hunt

Historic and Cultural Preservation Department
The Muskogee Nation
P.O.Box 580 | Okmulgee, OK 74447
T 918.732.7759 | F 918.758.0649
thunt@MuscogeeNation.com
MuscogeeNation.com
Meyuksvseko Mvskokvlke...



From: Rhonda Fair <RFair@odot.org>
Sent: Monday, November 15, 2021 10:03 AM
To: Section106 <Section106@muscogeenation.com>
Subject: Muskogee & Sequoyah County OK / ODOT JP# 34334(04) initial consultation

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Hunt,

November 15, 2021

Muscogee Nation
Attn: Principal Chief David Hill
P.O. Box 580
Okmulgee, OK 74447

Dear Principal Chief Hill:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

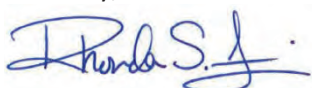
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Tribal Historic Preservation Office

5/27/2025

Osage Nation
Attn: Principal Chief Geoffrey Standing Bear
627 Grandview
Pawhuska, OK 74056

Dear Principal Chief Geoffrey Standing Bear,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Osage Nation
Attn: Principal Chief Geoffrey Standing Bear
627 Grandview
Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Andrea Hunter, THPO

November 15, 2021

Osage Nation
Attn: Principal Chief Geoffrey Standing Bear
627 Grandview
Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

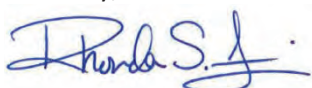
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Dr. Andrea Hunter, THPO

5/27/2025

Thlopthlocco Tribal Town
Attn: Mekko Ryan Morrow
P.O. Box 188
Okemah, OK 74859

Dear Mekko Ryan Morrow,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Thlopthlocco Tribal Town
Attn: Mekko Ryan Morrow
P.O. Box 188
Okemah, OK 74859

Dear Mekko Morrow:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: David Frank



THLOPTHLOCCO TRIBAL TOWN

Federal Charter 1938 — Creek Tribe

P.O. Box 188 • Okemah, Oklahoma 74859-0188

TRIBAL HISTORIC PRESERVATION OFFICE

Galen Cloud, Tribal Historic Preservation Officer

November 17, 2021

Rhonda S. Fair, Ph.D.

Director – Tribal Coordination

Oklahoma Department of Transportation

200 N.E. 21st Street

Oklahoma City, Oklahoma 73105

Office: (405) 521-3632

Cell: (405) 517-5670

RE: Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile

Dear Rhonda S. Fair,

Thank you for contacting the Thlopthlocco Tribal Town Historic Preservation office requesting comments regarding the proposed undertaking. Our office has reviewed the documents provided and offer the following.

In keeping with the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA), 36 CFR Part 800, this letter is to acknowledge that the Thlopthlocco Tribal Town has received notice of the proposed project at the above mentioned location.

The state of Oklahoma contains numerous sites of significance to Thlopthlocco Tribal Town including numerous Tribal Towns sites. Some of these sites are some of the most important sites pertaining to our history and therefore concerns is always raised for undertakings in this general area. **Upon review of the documents and consulting our records, we are unaware of any culturally significant sites within the area of potential effects (APE).** Should any human remains or cultural resources be inadvertently discovered, please cease all work and contact our THPO at thpo@tttown.org immediately.

Sincerely,

Galen Cloud

Thlopthlocco Tribal town

Historic Preservation Officer

November 15, 2021

Thlopthlocco Tribal Town
Attn: Mekko Ryan Morrow
P.O. Box 188
Okemah, OK 74859

Dear Mekko Morrow:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

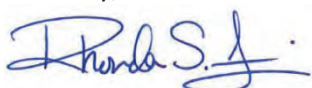
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Galen Cloud, THPO

5/27/2025

United Keetoowah Band of Cherokee Indians
Attn: Chief Jeff Wacoche
P.O. Box 746
Tahlequah, OK 74465

Dear Chief Jeff Wacoche,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

United Keetoowah Band of Cherokee Indians
Attn: Chief Joe Bunch
P.O. Box 746
Tahlequah, OK 74465

Dear Chief Bunch:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Acee Watt

Rhonda Fair

From: Acee Watt <awatt@ukb-nsn.gov>
Sent: Tuesday, November 16, 2021 10:49 AM
To: Rhonda Fair
Cc: Whitney Warrior
Subject: [EXTERNAL] RE: Muskogee & Sequoyah County OK / ODOT JP# 34334(04) initial consultation

Good morning,

Received. I have no current questions or comments please keep us updated as the project progresses.

Thank you,

Acee Watt, B.S.B.A.
Section 106 Coordinator
Office of Historic Preservation
Main Line: 918.871.2852
Cell: 918.930.0458
awatt@ukb-nsn.gov
ukbthpo@ukb-nsn.gov



This communication is confidential | Destroy if received in error and please let me know | Unauthorized use, copying or distribution is prohibited.

From: Rhonda Fair <RFair@odot.org>
Sent: Monday, November 15, 2021 10:04 AM
To: Acee Watt <awatt@ukb-nsn.gov>; Office of Historic Preservation <ukbthpo@ukb-nsn.gov>
Subject: Muskogee & Sequoyah County OK / ODOT JP# 34334(04) initial consultation

Dear Acee,

Please see the attached project notification. Just let me know if you have any questions.

Thanks!

Rhonda

Rhonda S. Fair, Ph.D.
Director – Tribal Coordination
Oklahoma Department of Transportation

Cell: (405) 517-5670



November 15, 2021

United Keetoowah Band of Cherokee
Attn: Chief Joe Bunch
P.O. Box 746
Tahlequah, OK 74464

Dear Chief Bunch:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

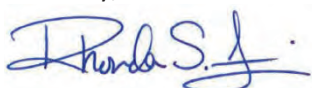
County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Acee Watt

5/27/2025

Wichita & Affiliated Tribes
Attn: President Amber Silverhorn-Wolfe
P.O. Box 729
Anadarko, OK 73005

Dear President Amber Silverhorn-Wolfe,

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, this supplemental report contains updated information on an expanded area of potential effect (APE) that was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

The cultural resources survey of the additional study area, immediately north of the right of way and west of the I-40 bridge, documented one newly recorded archaeological site, 34MS607, a late-nineteenth and early-twentieth century trash dump, which is recommended not eligible for inclusion in the National Register of Historic Places. The additional area added to the project APE is also adjacent to Hank Cemetery (34MS248). The cemetery is approximately 50 meters (165 feet) north of the APE. CC Environmental technicians conducted an additional pedestrian survey of the northern boundary of the study area and no additional cultural materials were observed between the APE and Hank Cemetery. An avoidance memo will be added to the project plans for the cemetery. Ongoing tribal consultation has not identified any areas of concern. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this additional study, it remains our opinion that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by email at ella.crenshaw@odot.ok.gov or phone at (405) 967-3639.

Sincerely,



Ella Crenshaw
Tribal Liaison

cc:

November 4, 2022

Wichita and Affiliated Tribes
Attn: President Terri Parton
P.O. Box 729
Anadarko, OK 73005

Dear President Parton:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is conducting Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking.

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2029
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				

In accordance with 36 CFR Part 800.4, the area of potential effect (APE) was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

This investigation documented and assessed one archaeological site and one isolated find, neither of which are eligible for the National Register of Historic Places. Ongoing tribal consultation has not identified any areas of concern within the APE. Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517.5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Gary McAdams, THPO

November 15, 2021

Wichita & Affiliated Tribes
Attn: President Terri Parton
P.O. Box 729
Anadarko, OK 73005

Dear President Parton:

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating Section 106 consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following Federal-Aid undertaking:

County	Muskogee & Sequoyah	Job Piece #	34334(04)	Anticipated Let Date	2028
Project description	Bridge replacement and approach improvements on Interstate 40 over the Arkansas River beginning at Mile Marker 290 and extending east 1.0 mile				
Location	Sec 28, 29, & 30 T12N R21E. See enclosed map.				
Additional information	This project is on a new alignment: ☐ yes ☒ no This project will require new or temporary right of way: ☐ yes ☒ no This project involves ground disturbance: ☒ yes ☐ no				

If this undertaking may affect burials, cemeteries, or properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.517-5670 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.
Director - Tribal Coordination

cc: Gary McAdams, THPO

BIOLOGICAL STUDIES

BIOLOGICAL STUDIES TRACKING FORM

NEPA Project Manager	Geoff Canty / Andrew Ward
State or Local Government Project	State
USFWS Project Code #	2022-0015122
Original IPaC List	3/3/2022
Email used to request IpaC official species list	Dale@ccenviro.net
Last Updated Species List Date	4/23/2025
ROW	Click here to enter a date.
Let Date	2027
90 Day Prior to Let IpaC List	Click here to enter a date.
Duration expected	Click here to enter text.
Original Biological Assessment and Waters and Wetlands Report Prepared By:	CC Environmental, LLC
Most Recent Field Date:	3/14/2022
Original Report Date:	3/19/2022
Original USFWS Consultation Submittal:	4/8/2022
Original USFWS Concurrence:	4/13/2022
Original Tracking Form Prepared by:	Elizabeth Nichols
Original Tracking Form date:	4/13/2024
Project Update Reason	Updated BAEA No Work Buffer
Tracking Form Updated By Whom:	Elizabeth Nichols
Tracking Form Updated Date:	2/14/2024
Project Update Reason	Scope Change
Amended USFWS Consultation Submittal:	4/23/2025
Amended USFWS Concurrence:	4/24/2025
Tracking Form Updated By Whom:	Kait Taylor
Tracking Form Updated Date:	4/25/2025

Form Date: March 2025

Surveys required to avoid seasonal restrictions

<u>Surveys Needed</u>	<u>Most Recent Survey</u>	<u>Expires **</u>	<u>Plan Note updated / Sent to EPM:</u>	<u>By Whom:</u>
*Bat Inspections:	Date of current survey.	Enter date.	Plan note updated/ sent to EPM	Initial here.
*Acoustic Survey:	Date of current survey.	Enter date.	Plan note updated/ sent to EPM	Initial here.
Karst Survey:	Date of current survey	Enter date.	Plan note updated/ sent to EPM	Initial here.
Bald Eagle Survey:	Date of current survey	Enter date.	Plan note updated/ sent to EPM	Initial here.
Enter any others here	Date of current survey	Enter date.	Plan note updated/ sent to EPM	Initial here.
* Project is within a Gray bat buffer and PUP season or ACTIVE season restrictions will still apply for riparian habitat at perennial and intermittent streams ID'd in the plan note.				
** N/A means the listed species, that originally triggered the survey, is no longer applicable to this project and no future surveys are needed at this time.				

Project Name from Oracle

Bridge and Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile

Project Description

Bridge and Approaches or bridge widening/structure extension

Check if any of the following is expected as part of the proposed action

- Work within the OHWM is expected ☒
- Project is OFF-SET alignment ☐
- Project is NEW alignment ☐
- Project involves **NO OFF EXISTING PAVEMENT** work ☐
- Project requires new ROW (permanent &/or temporary) ☒

2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Species	Listing Status	IPaC	Effect Determination for IPaC listed species
		Check if Yes	
Whooping Crane	Endangered	☐	Choose an item.
Gray Bat	Endangered	☒	May Affect, Not likely to adversely affect
Indiana Bat	Endangered	☒	May Affect, Not likely to adversely affect
Northern Long-eared Bat	Endangered	☒	May Affect, Not likely to adversely affect
Ozark Big-eared Bat	Endangered	☐	Choose an item.
Peppered Chub	Endangered	☐	Choose an item.
Neosho Mucket	Endangered	☐	Choose an item.
Ouachita Rock Pocketbook	Endangered	☐	Choose an item.
Scaleshell Mussel	Endangered	☐	Choose an item.
Winged Mapleleaf	Endangered	☐	Choose an item.
Benton County Cave Crayfish	Endangered	☐	Choose an item.
Harperella	Endangered	☐	Choose an item.
American Burying Beetle	Threatened	☒	Final Effect Analysis and Determination covered in the BO for the final 4(d) rule
Eastern Black Rail	Threatened	☐	Choose an item.
Lesser Prairie Chicken	Threatened	☐	Choose an item.
Piping Plover	Threatened	☒	May Affect, Not likely to adversely affect
Red Knot	Threatened	☒	No Effect
Red-cockaded Woodpecker	Threatened	☐	Choose an item.
Arkansas River Shiner	Threatened	☐	Choose an item.
Leopard Darter	Threatened	☐	Choose an item.
Neosho Madtom	Threatened	☐	Choose an item.
Ozark Cavefish	Threatened	☐	Choose an item.
Rabbitsfoot Mussel	Threatened	☐	Choose an item.
Western Fanshell	Threatened	☐	Choose an item.
Mead's Milkweed	Threatened	☐	Choose an item.
Missouri Bladderpod	Threatened	☐	Choose an item.
American Alligator	Similarity of Appearance Threatened	☐	Choose an item.

Muskogee JP 34334(04)

Species	Listing Status	IPaC	Effect Determination for IPaC listed species
		Check if Yes	
Texas Kangaroo Rat	Proposed Endangered	☐	Choose an item.
Tricolored Bat	Proposed Endangered	☒	Not likely to jeopardize the continued existence of the species
Alligator Snapping Turtle	Proposed Threatened	☒	Not likely to jeopardize the continued existence of the species
Monarch Butterfly	Proposed Threatened	☒	Not likely to jeopardize the continued existence of the species
Western Regal Fritillary	Proposed Threatened	☐	Choose an item.

Designated Critical Habitat	Listing Status	IPaC	Effect Determination for IPaC listed species
		Check if Yes	
Whooping Crane Critical Habitat	Final	☐	Choose an item.
Peppered Chub Critical Habitat	Final	☐	Choose an item.
Arkansas River Shiner Critical Habitat	Final	☐	Choose an item.
Leopard Darter Critical Habitat	Final	☐	Choose an item.
Neosho Mucket Critical Habitat	Final	☐	Choose an item.
Rabbitsfoot Critical Habitat	Final	☐	Choose an item.
Louisiana Pigtoe Critical Habitat	Proposed	☐	Choose an item.

Number of acres within the NEPA Study Footprint	135.1
Number of acres of perennial plant vegetation (ABB habitat) within the NEPA Study Footprint that will be impacted	23.13
Number of acres of forested/wooded area (bat habitat) within the NEPA Study Footprints that will be impacted	25.08
Acres of tree removal within 100 feet of pavement	18.49
Acres of tree removal 100-300 feet from pavement	6.49
Acres of tree removal beyond 300 feet from pavement	0.1

Gray Bat Cave Buffer	Outside any known cave buffer
FHWA IB/NLEB Programmatic used	NO
ABB Conservation Lands adjacent	NO
Presence of milkweed and/or nectar plants	YES

Bald Eagle Assessment	May impact
Migratory Bird Assessment of Transportation Structures	Migratory birds found nesting on transportation structures
Migratory Bird Impacts	nesting habitat for migratory birds will be impacted
Birds of Conservation Concern	Listed BCC may be impacted
Interior Least Tern (MBTA)	No nesting habitat impacted

<u>Species</u>	<u>Seasonal Restriction Period</u>	<u>Action to modify seasonal restriction</u>
Bat bridges, culverts 3-ft and greater, and/or structures/buildings	March 15 – November 14	Inspection Survey
Bat tree removal and trimming	March 15 – November 14	Acoustic Survey
Bald Eagle	September 16 – May 31	Survey
Migratory Birds: Swallows and Phoebe	March 1 – August 31	Netting required

Conservation Commitments

ODOT Commitment: All operators, employees, contractors and utilities personnel will be made aware of all environmental commitments, including the following Plan Notes.

ABB Commitment: Minimize habitat loss by reducing the amount of ground disturbance of suitable ABB habitat within the construction footprint to only what is necessary for project construction and document in the monitoring reports to the Service. Following construction, areas of ground disturbance outside of the safety clear zone will be revegetated with native plant species where applicable and practicable. Areas where revegetation with native plant species is not practicable will be revegetated with more traditional plantings such as solid slab sodding.

Tree Removal & Clearing and Grubbing Minimization Commitment: In order to avoid impacts to listed bat species and tree nesting and ground nesting USFWS Birds of Conservation Concern, the removal of trees and shrubs and ground disturbance will be restricted to areas within the actual limits of construction, and all aspects of the project (e.g. temporary work areas, alignments) will be modified to avoid tree removal and ground disturbance, if possible, during the design of the project. Tree removal and ground disturbance will be limited to that specified in the project plans provided to contractors.

Monarch Commitment: ODOT, as a Certificate of Inclusion partner in the Nationwide Monarch Butterfly CCAA for Energy and Transportation lands, will adhere to the conservation measures, as well as minimize threats to the monarch butterfly as stipulated in this CCAA.

Species Plan Notes

Non-Compliance: Failure to implement the commitments specified in the Plan Notes can result in non-compliance issues on the project. Work activities may be suspended on the project, for an undetermined duration, while working with regulators to bring the project back into compliance. The contractor will not be compensated for time lost.

Water Quality Conservation: Appropriate Best Management Practices to minimize impacts from storm water discharges and sedimentation in streams, as established by the Oklahoma Department of Environmental Quality, shall be conscientiously implemented throughout the proposed construction periods, in order to minimize any potential impacts to any listed species. The effectiveness of erosion controls shall be maintained for the duration of construction activities. Hazardous materials, chemicals, fuels, lubricating oils, and other such substances shall be stored at least 100 feet outside of the ordinary high water mark (OHWM). Refueling of construction equipment shall also be conducted at least 100 feet from the OHWMs. Sediment and erosion controls shall be installed around staging areas to prohibit discharge of materials from these sites. Construction waste materials and debris shall be stockpiled at least 25 feet outside of the OHWMs, and these materials shall be removed and disposed of properly following completion of the project. Preventative measure must be taken to prohibit the discharge of contaminants into any surface waters.

American Burying Beetle Note: The American Burying Beetle is a large carrion burying beetle that occurs within the project limits. Artificial lighting may be used during construction for night activities if the equipment specifications outlined in Special Provision 656-5(a-b)19 for ABB are adhered to and measures to minimize use of artificial lighting have been implemented. Carcasses and all food trash shall continuously be removed from the permanent and temporary right-of-way throughout the duration of project activities. Pollution Prevention Requirements as specified by the Oklahoma Department of Environmental Quality General Permit OKR10 for Storm Water Discharges shall be implemented when appropriate. Additionally, all equipment will be fueled, and all fuel and motor vehicle oil will not be stored within areas of native vegetation (ie. outside of ABB habitat).

Bat Bridge/Culvert Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and the tricolored bat are listed bat species that occur within the project's action area. In order to avoid and minimize adverse impacts to listed bat species, bridge repair, retrofit, maintenance, rehabilitation or demolition shall be permitted only between November 15 and March 14 (when bats are hibernating in caves). If bridge repair, retrofit, maintenance, rehabilitation or demolition during the active season (between March 15 and November 14) cannot be avoided, the Resident Engineer shall contact the ODOT Biologist to schedule a visual bat bridge inspection, prior to any bridge work. Inspection surveys can only be conducted between May 15 and August 15. If the inspection finds that bats are using the structures, all bridge repair, retrofit, maintenance, rehabilitation or demolition shall only be permitted between November 15 and March 14 (when bats are hibernating in caves).

Bat Tree Removal Seasonal Restriction Note: The gray bat, Indiana bat, Ozark big-eared bat and the tricolored bat are listed bat species that occur within the project's action area. In order to avoid adverse impacts to the species, all tree removal, including for utilities, is permitted only between November 15 and March 14 (when bats are hibernating in caves). If the active season cannot be avoided ODOT Environmental Programs Division will conduct an acoustic survey to detect the presence of any listed bats, within five years prior to construction. All presence/absence surveys must be scheduled between May 15 – August 15. The Resident Engineer must schedule the acoustic survey at least one year prior to any tree clearing, including clearing prior to utility relocation. If the survey detects any listed bat species, ODOT Environmental Programs Division will reconsult with USFWS to mitigate adverse impacts prior to any tree clearing or ground disturbance (including utilities) and determine appropriate seasonal restriction.

Bat Lighting Note: All temporary lighting, if used, will be directed away from suitable bat habitat during the active season for bats (March 15 to November 14). If any permanent lighting is installed or replaced, downward-facing full cut-off lens lights shall be installed and directed away from wooded areas and streams.

Karst Note: Although a survey has been completed to identify karst features, such as caves, sinkholes, losing streams and springs, prior to the project, there is a potential to uncover karst features during construction. Karst features are potential habitat for federally threatened and endangered species, including bats. Undiscovered karst features may occur on or near project sites, even in previously developed areas. If karst features are encountered during construction, the contractor shall establish a buffer area of 300 feet around the newly discovered feature, and the Resident Engineer shall contact the ODOT Biologist. The ODOT Biologist shall contact the US Fish and Wildlife Services (USFWS) to further evaluate the karst feature. No fill material shall be placed into the karst feature opening, and all parking, maintenance, staging, fueling, storm water management activities, ground-disturbing, tree-clearing, or any other construction activity shall be allowed within the 300-foot buffer, until evaluation by USFWS is complete. If karst features are determined to be habitat for federally-listed or sensitive species, a formal consultation with USFWS shall be required before the construction can resume. This consultation may take up to 180 days after the initial evaluation of the karst features and the Contractor shall not be compensated for any delays during that time. In some cases, modification to the project may be necessary and that would result in a change order.

Bald Eagle Note: Suitable nesting, roosting or foraging habitat for the Bald Eagle occurs within the project's action area. The Bald Eagle nesting season in Oklahoma extends from September 16, through May 31. The Resident Engineer shall contact the ODOT Biologist to schedule a nest survey. Nest search surveys can only be conducted when leaves are not on the trees typically between December 1st and February 28th. No work may occur within suitable Bald Eagle habitat, located throughout the project extents during the nesting season (September 16, through May 31) until the completion of the survey by the ODOT Biologist. If nests are observed, a no-work buffer up to a distance of 660 feet shall be placed around the nest. The exact distance of the buffer zone shall be established by the ODOT Biologist in consultation with US Fish and Wildlife Services. If the buffer cannot be maintained, all clearing, external construction and landscaping activities, within the buffer, shall be conducted between June 1 and September 15 (outside the nesting season).

Migratory Bird Note: Migratory birds are protected by the federal Migratory Bird Treaty Act. Many birds commonly use bridges and culverts for nesting. The nesting season for most migratory bird species extends from March 1 to August 31. Migratory bird nesting use of the NBI: 16849, NBI: 16907, NBI: 17051, NBI: 16944, NBI: 16945, Structure #7 (STA 726+94.17), & Structure #17 (STA 822+35.51) was observed. Painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28, when migratory bird nests are not occupied. If painting, repair, retrofit, rehabilitation or demolition cannot be completed between September 1 and February 28, the bridges and culverts shall be protected from new nest establishment prior to March 1, by means that do not result in bird death or injury. Options include the exclusion of adult birds from suitable nest sites on or within a structure by the placement of weather-resistant polypropylene netting with 0.25-inch or smaller openings, prior to March 1. Methods other than netting must be pre-approved by the ODOT Biologist.

Although no nests were observed on all other structures, the birds may occupy the structures in the future. The Resident Engineer shall contact the ODOT Biologist if any bird use of these structures is observed. If birds are observed then painting, repair, retrofit, rehabilitation or demolition of the existing bridges and culverts shall be conducted between September 1, and February 28 (when migratory bird nests are not occupied).

Waters and Wetlands Delineation Status

Original delineation

Wetlands and Open Waters

Total Number of Sites	Wetlands and Open Waters	Potential Jurisdictional Status	Total Acres within the NEPA Footprint
1	Wetlands	Likely Jurisdictional	2.50
N/A	Open Waters	Likely Jurisdictional	N/A

Streams and Drainages

Total Number of sites	Streams and Drainage Features	Potential Jurisdictional Status	Total Acres within the NEPA Footprint
2	Streams	Likely Jurisdictional	17.844
N/A	Drainage Features	Likely Jurisdictional	N/A

Log of all past surveys:

Bat Inspections	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top

Muskogee JP 34334(04)

Acoustic Surveys	Dates is descending order, so most current on top
	Dates is descending order, so most current on top

Karst Surveys	Dates is descending order, so most current on top
	Dates is descending order, so most current on top

Mussel Surveys	Dates is descending order, so most current on top
	Dates is descending order, so most current on top

Bald Eagle Surveys	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top
	Dates is descending order, so most current on top

Interior Least Tern Surveys	Dates is descending order, so most current on top
	Dates is descending order, so most current on top



[EXTERNAL] 2022-0015122 - ODOT - Muskogee JP 34334(04)

From Echo-Hawk, Patricia <Patricia_Echo-Hawk@fws.gov>
Date Thu 4/24/2025 9:37 AM
To Kaitlyn M. Taylor <KTaylor@ODOT.ORG>
Cc Amber McIntyre <AMCINTYRE@ODOT.ORG>; Elizabeth Nichols <ENichols@odot.org>

Hello Kait,

The Service has reviewed consultation package 2022-0015122 - ODOT - Muskogee JP 34334(04)

This project lies within the boundary of Sequoyah National Wildlife Refuge. Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. It is ODOT's responsibility to contact the refuge for any potential issues or concerns with the project.

Based on the information provided, the project will occur within the range of the American burying beetle (*Nicrophorus americanus*) and you have concluded the project may affect the species. The Service agrees with this determination. Any take that may occur as a result of the project is not prohibited under the Endangered Species Act of 1973 (Act; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), Section 4(d) rule adopted for this species at 50 CFR 17.47(d) (85 FR 65241). The Service asks that the conservation measures as articulated in the assessment, and in conjunction with the guidelines set forth by the Federal Highway Administration, be implemented and maintained.

Also, you have determined the project may affect but is not likely to adversely affect the endangered Indiana bat (*Myotis sodalis*: IB). The Service concurs with this determination based on no tree clearing/tree trimming occurring during the bat active season (March 15 – November 14). ODOT shall ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all environmental commitments on this project.

Additionally, you have concluded that the project may affect, but is not likely to adversely affect the endangered gray bat (*Myotis grisescens*), and Ozark big-eared bat (*Corynorhinus townsendii ingens*) and the threatened piping plover (*Charadrius melodus*). The Service concurs with these determinations, based on extension, removal or modification of the bridges/culverts will occur during the inactive season only unless a visual inspection performed within 2 years of construction results in negative presence. Hazardous materials, chemicals, fuels, lubricating oils, and other such substances shall be stored at least 100 feet outside of the ordinary high-water mark (OHWM). Refueling of construction equipment shall also be conducted outside of the OHWM. Sediment and erosion controls shall be installed around these staging areas to prohibit discharge of materials from these sites. Construction waste materials and debris shall be stockpiled at least 25 feet outside of the OHWM, and these materials shall be removed and disposed of properly following completion of the project. ODOT shall ensure all operators, employees, and contractors working in any area of the project are aware of all environmental commitments on this project, the assessment, and in conjunction with the guidelines set forth by the Federal Highway Administration. You have concluded the project will have no effect on the threatened red knot (*Calidris canutus rufa*).

You have further determined the project will not jeopardize the continued existence of the proposed endangered Tri-color bat (*Perimyotis subflavus*) and the proposed threatened monarch butterfly (*Danaus plexippus*), and alligator snapping turtle (*Macrochelys temminckii*). The Service agrees with these determinations.

Regarding the reported presence of migratory birds/nests involved in this project, the Services asks that ODOT proceed in conjunction with guidance set forth by the Federal Highway Administration to avoid and minimize

potential impacts to migratory birds, nests, and/or eggs.

This project is also within the range of at least eleven migratory species of Birds of Conservation Concern, eight of which are known to breed in Oklahoma. The Service asks that all avoidance of impacts to these species be implemented in accordance with the direction set forth by the Federal Highway Administration.

In order to avoid impacts to Bald Eagles, if Bald Eagles or their habitat are observed during the biological assessment, a survey for eagles and their nests will be conducted within 660 feet of the work zone, during the winter prior to, and within one year of, the start of construction. If a nest is found, appropriate conservation measures based on the National Bald Eagle Management Guidelines will be implemented.

The Service also recommends ODOT/FHWA replace box culverts with structures that are fish passage friendly, as suggested in the Service email to ODOT dated 8/16/2021. This applies to project culverts (being demolished, repaired, retrofitted, maintained or rehabilitated) along perineal or intermittent streams still providing habitat to native fish species.

The online project review concurrence letter signed by the Field Supervisor is now valid, and the project may proceed accordingly. The Service asks that, within 90 days prior to construction, a new species list be obtained to see if any changes have occurred. If changes have occurred, please verify with the Oklahoma Ecological Services Field Office to determine if further consultation is needed. If you have any questions, please contact the Field Office.

Thanks!

Patricia D. Echo-Hawk
Senior Fish and Wildlife Biologist
ODOT Liaison
Region 2 Dive Officer

U.S. Fish and Wildlife
Oklahoma Ecological Services Field Office
9014 E. 21st Street
Tulsa, OK, 74129
work phone # 918-888-0581

Only when the last tree has died, the last river poisoned and the last fish caught, will we realize we can't eat money. - Cree Proverb

Coincidence is God's way of remaining anonymous - Albert Einstein



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Ecological Services Program



Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, Oklahoma 74129
(918) 581-7458 (Office) / (918) 581-7467 (Fax)

Date:

4/23/2025

To:

Elizabeth Nichols
ODOT Natural Resources Program at OU
3200 Marshall Ave., Suite 270
Norman, OK 73072
405-325-6802, enichols@odot.org

Project Name:

Muskogee JP 34334(04) Bridge and Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile

Consultation Code:

2022-0015122

Dear Project Proponent:

Thank you for using the U.S. Fish and Wildlife Service (Service) Oklahoma Ecological Services Field Office (ESFO) online project review process. By providing this letter in conjunction with your complete project review package, you are certifying that you have accurately completed the USFWS Online Project Review Process for the referenced project in accordance with all instructions provided, using the best available information to reach your conclusions. Concurrence with “not likely to adversely affect” determinations does not provide any exemption for violations of section 9 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA) or “take” of federally-listed species. The Federal action agency is ultimately responsible for ensuring compliance with the ESA and any take that occurs due to your proposed action would be considered a violation under section 9 of the ESA.

This letter and the enclosed project review package complete the review of your project in accordance with the ESA. This letter also provides information for your project review under the National Environmental Policy Act (National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended.

A copy of this letter, with all forms completed, and the project review package must be emailed to **okprojectreview@fws.gov** for this certification to be valid. This letter and the project review package will be maintained in Service records. **Please allow the Oklahoma ESFO 45 days to review your information. If the Oklahoma ESFO determines that the package is not complete, or that additional coordination is necessary, we will contact you. If, after 45 days from the date of your email submittal of your project review package, the Oklahoma ESFO has not contacted you, consider your section 7 consultation complete.**

The proposed action consists of:

The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new 75-foot-wide span bridge with a median divider barrier. No other drainage structures will be addressed during this project. The I-40 approach roadway will be partially reconstructed to create four 12-foot-wide driving lanes with 10-foot-wide outside and 5-foot-wide inside shoulders. Eastbound and westbound traffic will be divided with a concrete barrier that transitions to a grassed median.

The bridge will be constructed on the existing alignment and within the current right-of-way (ROW). However, temporary ROW in the northwest corner of the project will be required for a staging area necessary to construct the bridge. The highway will remain open during construction and access to private properties will be maintained. Ground disturbance outside of existing pavement, clearing and grubbing, tree removal, and disturbance within the OHWM will be required. Construction will occur in phases, using crossovers to maintain a single lane of traffic in both directions throughout the duration of construction.

Project start and completion dates:

Construction Let Date: 2027

Federal agency or federal program providing a permit, grant, authorization, loan, etc. associated with the proposed project and how that agency is associated with your project:

FHWA

Federal Agency/Program Point of Contact (name, phone, and email address):

The ODOT, acting as the duly authorized agent for the Federal Highway Administration, is initiating Section 7 consultation for the above mentioned project as a component of the agency's implementation of the procedural provisions of the National Environmental Policy Act. The information contained in this submission constitutes ODOT's biological assessment on the proposed project site, and the following effect determinations are based upon this information.

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in “not likely to adversely affect/modify” determinations for listed species and critical habitat in relation to potential effects of your proposed project. We certify that the use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with determinations of “not likely to adversely affect” for listed species and critical habitat reached by proper use of this process. For projects where this particular determination is reached, additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages efforts to avoid or minimize adverse impacts to them from project effects. Some federal agencies have standing policies that grant limited protections to candidate species. Conservation of candidate species now may preclude future needs to federally list them as endangered or threatened, at which point their legal protection would become required. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of listed species or critical habitat becomes available, this determination may be reconsidered. You should re-visit the Service's Information, Planning, and Conservation (IPaC) website at <http://ecos/fws.gov/ipac/> within 90 days of project initiation to ensure species information is correct. If new species or critical habitat is identified, this letter is no longer valid and a new project package should be submitted to the Oklahoma ESFO.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Oklahoma is available at our website: <http://www.fws.gov/southwest/es/oklahoma/> . If you have any questions, please call 918-581-7458 or send an email message to OKProjectReview@fws.gov.

Sincerely,
/s/ Kenneth Collins
Field Supervisor

Enclosures:

1) ENTIRE PROJECT REVIEW PACKAGE (check those you are including):

- ☒ Species Conclusion Table (required)
- ☒ IPaC Species List and Action Area map (required)
- ☒ This letter (Online Concurrence Letter) (required)
- ☒ Additional maps (recommended for adequate review)

2) Other relevant project data/documents

Muskogee JP 34334(04) MA Verification ABB 4(d)
--



United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE

Sequoyah National Wildlife Refuge

107993 S. 4520 Road

Vian, OK 74962

Phone (918) 773-5251 Fax (918) 773-5598



February 10, 2022



Subject: Bridge & Approaches I-40: Over Arkansas River. ODOT Project No. 13-4334(004)

Environmental Programs Interim Division Manager
Environmental Programs Division
200 N.E. 21st Street
Oklahoma City, OK 73105-3204

Dear Environmental Programs Division Manager:

I received your correspondence regarding the above-referenced project. The U.S. Fish and Wildlife Service (Service) appreciates this notification. Sequoyah National Wildlife Refuge (SNWR) has a perpetual easement with the U.S Army Corps. Of Engineers (USACE). The USACE is the fee title owner of the property, and the Service manages SNWR under a management agreement with the USACE. Your agency will need to coordinate with both SNWR and the USACE regarding this project.

The SNWR has very important biological, environmental, cultural, and socioeconomic resources that will need to be considered for this project. It is also important to note that an active Bald Eagle nest occurs near the project area.

We look forward to working with you on this project. If you have any questions, feel free to call the refuge at the number listed above.

Sincerely,

DARRIN UNRUH

Digitally signed by DARRIN
UNRUH
Date: 2022.02.10 11:02:14 -06'00'

Refuge Manager

Enclosure

cc: Dennis Covey, USACE

**ENDANGERED, THREATENED AND CANDIDATE SPECIES, DESIGNATED
CRITICAL HABITAT, BALD EAGLE AND MIGRATORY BIRD ASSESSMENTS**

For

USFWS Project Code	2022-0015122				
Email used to request IPaC	official species list	Dale@ccenviro.net			
County	Muskogee	JP Number	34334(04)	Project Number	J3-4334(004)PM
Road Number	Interstate 40 (I-40)	Water Body Name	Arkansas River		
ROW Date	2025	Let Date	2027	Project Length	1 Mile Project Length (2.6 Miles Study Length)
Project General Location	South of Webbers Falls, OK				
Project Description & Statement From Oracle	Bridge and Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile				

Prepared for:
Oklahoma Department of Transportation
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105

Prepared by:

Biologist Name	Leah M. Peterson
Company/Agency Name	CC Environmental, LLC
Address	PO Box 1292
City, State Zip	Norman, OK 73070

Report Date:	March 19, 2022; and March 12, 2025
Field Survey Date	March 14, 2022
Field Survey Biologist(s)	Dale Daniel and Leah Peterson

Form Date: September 2024

1. PROJECT OVERVIEW

1.1 Federal Nexus

This biological assessment, prepared by the above named Company/Agency for the Oklahoma Department of Transportation (ODOT), addresses the above named project in compliance with Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended. Section 7 of the ESA requires that, through consultation with the U.S. Fish and Wildlife Service (Service), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. This assessment evaluates the potential effects of the proposed transportation project on species that are federally listed under the ESA. Specific project design elements are identified that avoid or minimize adverse effects of the proposed project on listed species and designated critical habitat.

1.2 Project Description

Bridge and Approaches or bridge widening/structure extension

Description of the **existing** bridge/roadway facility and reason for proposed project

The existing study segment of I-40, starting at CR NS-4435 and extending approximately 2.6 miles east to the SH-10 interchange, is an open section interstate facility. It is located in rural and flat terrain between Webbers Falls and Carlisle, Oklahoma. It is a divided highway with four 12-foot-wide paved driving lanes with 4-foot-wide inside shoulders and 10-foot-wide outside shoulders. The dividing median is 10 feet wide and consists of regularly maintained herbaceous vegetation. The 2030 average daily traffic (ADT) is 23,100 vehicles per day (vpd).

There are six bridge-class structures or National Bridge Inventory (NBI) bridges within the study area: NBI# 16849 and 16907 over unnamed tributaries of Dirty Creek, NBI# 17013, 16944, and 16945 over I-40 and SH-10, and NBI# 17051 over the Arkansas River. However, only the Arkansas River bridge will be addressed during this project.

NBI# 16849 and NBI #16907 are 2- cell reinforced concrete box (RCBs) structures measuring 4 feet in height and 220 feet long.

NBI# 17013 is a concrete and steel I-beam over pass span bridge measuring 17 feet in height and 220 feet long. This bridge conveys traffic over I-40 and SH-10.

NBI# 16944 and NBI# 16945 is a concrete cast- in-place overpass span bridge measuring 16 feet in height and 150 feet long. This bridge conveys traffic over I-40 and SH-10.

NBI# 17051 is a 13-span concrete and steel I-beam structure measuring 1,989 feet long with a clear roadway width of 60 feet. The bridge was constructed in 1967, has a sufficiency rating of 83, and is considered not deficient. However, this bridge is at risk of becoming damaged by barge traffic particularly during high flow events.

The purpose of the proposed project is to improve safety, and the need for the project is to correct a bridge at risk of becoming damaged by barge traffic.

Description of **proposed** improvements

The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new 75-foot-wide span bridge with a median divider barrier. No other drainage structures will be addressed during this project. The I-40 approach roadway will be partially reconstructed to create four 12-foot-wide driving lanes with 10-foot-wide outside and 5-foot-wide inside shoulders. Eastbound and westbound traffic will be divided with a concrete barrier that transitions to a grassed median.

The bridge will be constructed on the existing alignment and within the current right-of-way (ROW). However, temporary ROW in the northwest corner of the project will be required for a staging area necessary to construct the bridge. The highway will remain open during construction and access to private properties will be maintained. Ground disturbance outside of existing pavement, clearing and grubbing, tree removal, and disturbance within the OHWM will be required. Construction will occur in phases, using crossovers to maintain a single lane of traffic in both directions throughout the duration of construction.

Check if any of the following is expected as part of the proposed action

- Work within OHWM is expected ☒
- Project is OFF-SET alignment ☐ or **NEW alignment** ☐
- Project involves **NO OFF EXISTING PAVEMENT** work ☐
- Project requires new ROW (permanent &/or temporary) ☒

1.3. Project Area and Setting

Project Location		Environmental Study Footprint		Ecoregion & Game Type	
<u>Section Range & Township</u>	<u>Lat/Long NAD 83)</u>	<u>Dimensions</u>	<u>Acreage</u>	<u>Level IV Ecoregion (Woods et al. 2005)</u>	<u>Game Type (Duck and Fletcher 1943)</u>
Sections 28, 29, and 30-T12N-R21E	Bridge Center: (35.486855°, -95.097019°)	~2.6 miles along I-40, extending from 185 to 250 feet L/R of center.	135.1 acres	Arkansas River Floodplain (37b)	Oak-Hickory Forest

Action Area:

The action area includes the NEPA Environmental Study Footprint, plus a 1.0-mile buffer around the footprint to account for potential impacts to listed bat species.

2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Species	Status	IPaC¹	Watershed²	Water Body³	Records⁴
		Check if Yes	Check if YES	Check if Yes	Check if Yes
Red-cockaded Woodpecker	E	☐			☐
Whooping Crane	E	☐	☐		☐
Gray Bat	E	☒	☒		☒
Indiana Bat	E	☒			☐
Northern Long-eared Bat	E	☐			☐
Ozark Big-eared Bat	E	☒			☐

Species	Status	IPaC ¹	Watershed ²	Water Body ³	Records ⁴
		Check if Yes	Check if YES	Check if Yes	Check if Yes
Peppered Chub	E	☐	☐		☐
Neosho Mucket	E	☐	☐	☐	☐
Ouachita Rock Pocketbook	E	☐	☐	☐	☐
Scaleshell Mussel	E	☐	☐	☐	☐
Winged Mapleleaf	E	☐	☐	☐	☐
Benton County Cave Crayfish	E	☐	☐	☐	☐
Harperella	E	☐			☐
American Burying Beetle	T	☒			☒
Eastern Black Rail	T	☐			☐
Lesser Prairie Chicken	T	☐			☐
Piping Plover	T	☒			☐
Red Knot	T	☒			☐
Arkansas River Shiner	T	☐	☐	☐	☐
Leopard Darter	T	☐	☐	☐	☐
Neosho Madtom	T	☐	☐	☐	☒
Ozark Cavefish	T	☐	☐		☐
Rabbitsfoot Mussel	T	☐	☐	☐	☐
Western Fanshell	T	☐	☐	☐	☐
Mead's Milkweed	T	☐			☐
Missouri Bladderpod	T	☐			☐
American Alligator	SAT	☐			☐
Texas Kangaroo Rat	PE	☐			☐
Tri-colored Bat	PE	☒			☒
Alligator Snapping Turtle	PT	☒			☒
Western Regal Fritillary	PT	☐			☐
Monarch Butterfly	C	☒			☐

²Action Area is within a watershed associated with occupied water bodies

³Action Area includes an occupied water body

⁴Project site within 5 miles of known records

Final or Proposed Designated Critical Habitat	Status	Action Area includes Designated Critical Habitat (Check ☒ if Yes)
Whooping Crane	F	☐
Peppered Chub	F	☐
Arkansas River Shiner	F	☐
Leopard Darter	F	☐
Neosho Mucket	F	☐
Rabbitsfoot	F	☐
Louisiana Pigtoe	P	☐

3. ENVIRONMENTAL BASELINE

3.1. Ecological Processes and Conditions

Soils (Use Soil Map of Oklahoma by Carter and Gregory 2008)

Soil Class	Arkansas Ridge and Valley
Soil Name	Hector-Endsaw
Soil Type	Inceptisols; Ultisols
Soil Characteristics	Loamy, rocky, well drained, and moderately acid soils on steep slopes (up to 26%)

Climate (Use Woods et al. 2005)

Precipitation	Mean annual inches	46-47 inches
Growing Season	Number of days	210-215 days
Mean Temperatures	Summer min/max	70/94 degrees F
	Winter min/max	25/48 degrees F

River System

The study area occurs in the Dog Branch of the Arkansas River, Dirty Creek Outlet, and Illinois River Outlet Subwatersheds. Review of the U.S. Geological Survey (USGS) 7.5-Minute Topographic Map and National Wetlands Inventory (NWI) Maps identified two mapped streams (unnamed tributaries to Dirty Creek) and the Arkansas River within the study area. Some non-mapped upland drainage features were also noted. In addition, a bottomland hardwood forested riverine wetland was identified along the east bank of the Arkansas River.

Land Use and Land Ownership

From Woods et al. 2005	Mostly cleared, drained, and used as cropland or pastureland. Remnant deciduous forest occurs in frequently flooded or poorly drained areas. Cropland is common in flood protected sites with adequate drainage.
From Field investigation	Study area consisted of a primarily maintained right-of-way corridor with some upland woodlands and bottomland hardwood forest along the Arkansas River.

Terrestrial and Aquatic Community Descriptions (based on field site visit)

The study area is located in the Arkansas River Floodplain ecoregion of Oklahoma. This ecoregion is underlain by alluvium and includes a landscape etched with natural levees, meander scars, oxbow lakes, point bars, swales, and backswamps. Reservoir, channel, and levee construction have reduced the frequency, magnitude, and duration of natural flood cycles. Much of the floodplains have been cleared for agricultural use; however, some native bottomland forest remains in frequently flooded and poorly drained areas. The Arkansas River Floodplain ecoregion is lithologically, physiographically, and floristically different from nearby uplands.

The study area occurs in the Dog Branch of the Arkansas River, Dirty Creek Outlet, and Illinois River Outlet Subwatersheds. Review of the U.S. Geological Survey (USGS) 7.5-Minute Topographic Map and National Wetlands Inventory (NWI) Maps identified two mapped streams (unnamed tributaries) and the Arkansas River within the study area. Some non-mapped upland drainage features were also noted within the study area. In addition, a primarily bottomland hardwood forested riverine wetland was identified along the east bank of the Arkansas River.

The following community types were identified within the NEPA study footprint:

Maintained Right-of-Way (ROW) Vegetation- Dominant vegetation in this community type included: cheatgrass (*Bromus tectorum*), henbit (*Lamium amplexicaule*), bermudagrass (*Cynodon dactylon*), switchgrass (*Panicum virgatum*), little bluestem (*Schizachyrium scoparium*), and johnsongrass (*Sorghum halepense*).

Upland Oak-Hickory Woodland- Dominant vegetation in this community type included: cedar (*Juniperus virginiana*), elm (*Ulmus* spp.), oak (*Quercus* spp.), shortleaf pine (*Pinus echinata*), redbud (*Cercis canadensis*), and dogwood (*Cornus florida*).

Bottomland Hardwood Forest/Floodplain Forest- Dominant vegetation in this community type included: sycamore (*Platanus occidentalis*), cottonwood (*Populus deltoides*), redbud (*Cercis canadensis*), elm (*Ulmus* spp.), willow (*Salix nigra*), and buttonbush (*Cephalanthus occidentalis*). Understory herbaceous vegetation included cattail (*Typha* spp.), creek oats (*Chasmanthium latifolium*), greenbrier (*Smilax bona-nox*), and Canada wild rye (*Elymus canadensis*).

3.2 Species Habitat Analysis

Pedestrian survey of entire NEPA study footprint (including 300-foot work zone buffer in karst areas) ☒
Bridge/Structure inspected for bat use (Complete the Bridge Inspection Form) ☒

SPECIES	HABITAT	
Gray Bat	Limestone karst features occur within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Riparian forest near streams, rivers and associated wetlands occurs within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	The Ozark Plateau National Wildlife Refuge is within 1 mile of the NEPA Environmental Study Footprint.	☐
	All or part of the study area is within 1 mile of a 10 mile cave buffer.	☐
	All or part of the study area is within 1 mile of a 2 mile cave buffer.	☐
	If within a cave buffer, total linear feet along ALL riparian zones within the NEPA Environmental Study Footprint.	enter ft
Indiana Bat	Limestone karsts features occur within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Live or dead trees/and or snags with a DBH of ≥ 5 inches occur within the NEPA Environmental Study Footprint.	☒
	10 trees or less with DBH of ≥ 5 inches	☐
	Riparian forest occurs within 1 mile of the NEPA Environmental Study Footprint.	☒
	Linear treed features such as fencerows, riparian forests, and other wooded corridors occur within the 1 mile of the NEPA Environmental Study Footprint. Wooded corridors may be dense or loose aggregates of trees with variable amounts of canopy closure.	☒
	Number of acres of forested/wooded area within the NEPA Environmental Study Footprint (<u>include shapefiles</u>). Include forests and woodlots, as well as linear features such as fencerows, riparian forests, and other wooded corridors. Wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1000 feet of other forested/wooded habitat.	25.08-acres

Northern Long-eared Bat (Not included in IPaC)	Limestone karsts features occur within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Live or dead trees/and or snags with a DBH of ≥ 3 inches occur within the NEPA Environmental Study Footprint.	☒
	10 trees or less with DBH of ≥ 3 inches	☐
	Barns or sheds occur within the NEPA Environmental Study Footprint.	☐
	Linear treed features such as fencerows, riparian forests, and other wooded corridors occur within 1 mile of the NEPA Environmental Study Footprint. Wooded corridors may be dense or loose aggregates of trees with variable amounts of canopy closure.	☒
	Number of acres of forested/wooded area within the NEPA Environmental Study Footprint (include shapefiles). Include forests and woodlots, as well as linear features such as fencerows, riparian forests, and other wooded corridors. Wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1000 feet of other forested/wooded habitat.	25.08-acres
	Acres of trees within 100 feet from pavement	18.49
	Acres of trees between 100- 300 feet from pavement	6.49
Ozark Big-eared Bat	Acres of trees greater than 300 feet from pavement	0.1
	Limestone karst features occur within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Mature oak-hickory forest occurs within 0.5 mile of the NEPA Environmental Study Footprint.	☒
American Burying Beetle	Riparian forest near intermittent streams occurs within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Number of acres of native perennial plant vegetation (where native perennial vegetation is the dominant vegetation) within the NEPA Environmental Study Footprint (include shapefiles).	23.13 acres
	Suitable habitat is present adjacent to the NEPA Environmental Study Footprint.	☒
	The study area is within or adjacent to conservation lands at McAlester Army Ammunition Plant or Camp Gruber/Cherokee WMA	☐

Piping Plover	Sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems occur within the 0.25 miles of the NEPA Environmental Study Footprint.	☒
	Salt flats or mudflats associated with reservoirs occur within the 0.25 miles of the NEPA Environmental Study Footprint.	☐
Red Knot	Mudflats associated with reservoirs occur within 0.25 miles of the NEPA Environmental Study Footprint.	☐
Tricolored Bat	Limestone karsts features occur within 0.5 mile of the NEPA Environmental Study Footprint.	☒
	Live or dead trees/and or snags with a DBH of ≥ 4 inches occur within the NEPA Environmental Study Footprint.	☒
	Barns or sheds occur within the NEPA Environmental Study Footprint.	☐
	Linear treed features such as fencerows, riparian forests, and other wooded corridors occur within 1 mile of the NEPA Environmental Study Footprint. Wooded corridors may be dense or loose aggregates of trees with variable amounts of canopy closure.	☒
	Number of acres of forested/wooded area within the NEPA Environmental Study Footprint (include shapefiles). Include forests and woodlots, as well as linear features such as fencerows, riparian forests, and other wooded corridors. Wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure.	25.08-acres
	Acres of trees within 100 feet from pavement	18.49
	Acres of trees between 100- 300 feet from pavement	6.49
	Acres of trees greater than 300 feet from pavement	0.1
Alligator Snapping Turtle	Canopy covered, stagnant or slow flowing, deep, freshwater to brackish rivers, tributaries, bayous, canals, swamps, reservoirs, and ponds are present within the NEPA Environmental Study Footprint.	☒
	Submerged vegetation, snags, logs, boulders, beaver dams or dens, and/or undercut banks present within the NEPA Environmental Study Footprint.	☒
	Forested riparian areas with sandy soils or dry substrate present outside of the floodplain and within 656 ft of the suitable waterbodies are present within the NEPA Environmental Study Footprint.	☒
	The Little River or Little River National Wildlife Refuge is within 0.25 miles of the NEPA Environmental Study Footprint.	☐

Monarch Butterfly	Presence of milkweed (<i>Asclepias sp.</i>) species within the NEPA Environmental Study Footprint.	☐
	Presence of flowering or potentially flowering nectar plants (<i>defined as forbs that can provide nectar for monarchs at some point in the growing season</i>) within the NEPA Environmental Study Footprint.	☒
	Presence of additional native habitat within the NEPA Environmental Study Footprint.	☒

3.4 Bridge, Culvert & Structure Bat Assessment Form

Yes, bridges, culverts or building structures are present within the study area that may be altered/impacted by this project

If all bridge, culverts and structures are 1,000 feet or more from suitable bat habitat (e.g. an urban or agricultural area without suitable foraging habitat or corridors linking the bridge, culvert or structure to suitable foraging habitat), check this box and STOP HERE. **Fill out p.1 of Appendix K Assessment.** ☐

BRIDGE INSPECTION: Identify ALL Bridges by NBI # (include RCB bridges)

CULVERT INSPECTION: Identify ALL Culverts ≥ 3 feet in diameter within the Study Area

BARN/SHED INSPECTION: Identify ALL structures within the Study Area that potentially could be removed

1. Label: Structure #1

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
NS-4435		NBI# 17013		I-40	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Steel Beam Span	☒	Steel & Concrete	30'W x 210'L	
Culvert Type:	Choose an item.	☐	Choose an item		
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☒ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A 4-span steel I-beam bridge carrying county road NS-4435 over I-40. The bridge's height and interstate traffic were such that the joints between spans could not be inspected. Joints between spans and end walls offered sufficient crevices for roosting, although the steel substructure and interstate traffic are likely a deterrent. No evidence of bat use on the structure was observed.					

2. **Label:** Structure #3

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40		NBI# 16849		S1 (Unnamed Trib to Dirty Creek)	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Choose an item.	☐	Choose an item		
Culvert Type:	RCB	☒	Concrete	218'L; 2-cell RCB 10' x 5'	
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☐ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A 2-cell RCB carrying intermittent drainage (S1) from crop fields on either side of I-40. The structure was large and open with shallow, slow-flowing water during field site reconnaissance. The concrete cells and wing walls were in good condition with no cracks, crevices, or compactions to offer potential bat habitat. No evidence of bat use on the structure was observed.					

3. **Label:** Structure #5

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40		NBI# 16907		DF2	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Choose an item.	☐	Choose an item		
Culvert Type:	RCB	☒	Concrete	200' L; 3-cell RCB 12'-14'-12'W x 5' H	
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☐ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A large 3-cell RCB with pooling near the structure's mouth. The concrete cells and wing walls were in good condition. No evidence of bat use was noted, nor were cracks or crevices observed in the concrete; therefore, no potential bat habitat was identified.					

4. **Label:** Structure #10

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40		NBI# 17051		Arkansas River	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Steel Beam Span	☒	Steel & Concrete	60'W x 1,989'L (multiple spans)	
Culvert Type:	Choose an item.	☐	Choose an item		
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☐ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A large, 13-span concrete and steel I-beam bridge over the Arkansas River. Due to the length of the structure and height over the river, several of the inner span joints could not be inspected. Bridge abutments and joints between end-spans and end walls were observed and did not exhibit any evidence of bat use. Crevices between joints did offer potential roost habitat, and the river below and riparian woodlands along the bank offer favorable foraging habitat for listed bat species.					

5. **Label:** Structure #13

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40 (Eastbound)		NBI# 16944		SH-10	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	PCB Span	☒	Concrete	37'W x 115'L	
Culvert Type:	Choose an item.	☐	Choose an item		
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☒ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A 3-span concrete beam bridge carrying I-40 over SH-10. Due to the height of the structure and highway traffic below, the inner joints between spans could not be fully inspected. Joints between spans and end walls did not exhibit any evidence of bat use; however, some cracks and crevices on the structure offer potential roosting habitat.					

6. **Label:** Structure #15

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40 (Westbound)		NBI# 16945		SH-10	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	PCB Span	☒	Concrete	37'W x 115'L	
Culvert Type:	Choose an item.	☐	Choose an item		
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☒ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A 3-span concrete beam bridge carrying I-40 over SH-10. Due to the height of the structure and highway traffic below, the inner joints between spans could not be fully inspected. Joints between spans and end walls did not exhibit any evidence of bat use; however, some cracks and crevices on the structure offer potential roosting habitat.					

7. **Label:** Structures #2, 7, & 9

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
I-40		St #2: (35.482003°, -95.122227°); #7: (35.482874°, -95.109568°); #9: (35.483693°, -95.106055°)		#2: DF1 #7: Pond drainage #9: S2 (Ephemeral Trib to Dirty Creek)	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Choose an item.	☐	Choose an item		
Culvert Type:	RCB	☒	Concrete	#2 and #7: 6'W x 3'H; #9: 8'Wx4'H	
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☐ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☐ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: These three structures were all 2-celled RCBs that were wide and short and carried ephemeral drainage beneath I-40. All were in good condition with no cracks or compactions and did not offer suitable bat habitat, nor was there evidence of bat use observed.					

8. **Label:** Structure #17

Road Number /Name		NBI # or STA # or lat/long		Water Body (or road if over road)	
SH-10		N/A (35.491030°, -95.079285°)		N/A roadside drainage	
		Multi-span/cell	Material (Beam, Substructure, Deck)	As Built Dimensions (LxWxH or LxDia):	
Bridge Type:	Choose an item.	☐	Choose an item		
Culvert Type:	RCB	☐	Concrete	54'L x12'W x 4'H	
Structure Type:	Choose an item.		Choose an item		
Method of Inspection (check all that apply) ☒ Visual ☐ Ladder ☐ Snooper ☐ Thermal ☐ Acoustic Survey ☐ Emergence Survey (30 minutes at dusk and 1 hour after dark)					
Bats Observed ☐			Signs of Bat Use ☐		
BRIDGE/CULVERT/STRUCTURE COULD NOT BE FULLY INSPECTED ☐ due to height, traffic, or other conditions limiting access to thoroughly inspect all parts of bridge due to inundation or other conditions limiting access. Explain reasons in the Notes.					
Assessment Notes: A large wide 1-cell RCB conveying roadside drainage from I-40 WB off- and on-ramps. The structure was in good condition, with concrete intact and lacking cracks or compactions; therefore, did not offer any potential bat roosting habitat. No evidence of bat use was observed.					

4. **ANALYSIS OF EFFECTS**

4.1 **Direct Effects**

Species/ Resource	Habitat impacts expected from project activities	<u>Describe specific ACTIONS of the project and the results of those actions on species habitats, including indirect impacts to prey or drinking water, as well as improvements to habitat as a result of specific actions.</u> <u>DO NOT DISCUSS AMMs HERE (ex. stormwater BMPs are an AMM, something done to minimize impacts).</u> If habitat is checked yes within the action area identified above will not be impacted, describe why. If no habitat is present within the action area, do not enter here.
Gray Bat	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing bridge will be rendered unsuitable for roosting during construction, but may be more suitable after construction is complete, depending on design. Construction activities include tree removal, as well as clearing and grubbing within the existing ROW and for a temporary staging area. Any conversion of suitable riparian or wooded habitat to maintained ROW or pavement will result in a permanent loss of habitat for the species. The project partially occurs within a federally-listed aquatic-dependent species watershed for the gray bat. In-water work may increase turbidity in the river and negatively impact the water quality and the aquatic invertebrates that bats forage

		on. Any water quality impacts will be temporary and will cease once construction is complete. Vibrations from construction equipment and lights to work at night may deter bats from foraging in nearby habitat during construction activities. There is one recorded occurrence of the species within 5 miles of the project location.
Ozark Big-Eared Bat	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing bridge will be rendered unsuitable for roosting during construction, but may be more suitable after construction is complete, depending on design. Construction activities include tree removal, as well as clearing and grubbing within the existing ROW and for a temporary staging area. Any conversion of mature oak-hickory woodland areas or wooded fence lines to maintained ROW or pavement could result in a permanent loss of habitat for the species. In-water work may increase turbidity in the river and negatively impact the water quality and the aquatic invertebrates that bats forage on. Any water quality impacts will be temporary and will cease once construction is complete. Vibrations from construction equipment and lights to work at night may deter bats from foraging in nearby habitat during construction activities.
Indiana Bat	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing bridge will be rendered unsuitable for roosting during construction, but may be more suitable after construction is complete, depending on design. Potential foraging, roosting, and reproductive habitat were observed within the study area in the form of live and dead trees with greater than 5-inch diameter at breast height (DBH) and tree-lined corridors totaling approximately 25.08 acres of potential habitat. Construction activities include tree removal, as well as clearing and grubbing within the existing ROW and for a temporary staging area. Any conversion of mature oak-hickory woodland areas or wooded fence lines to maintained ROW or pavement could result in a permanent loss of habitat for the species.

		Vibrations from construction equipment and lights to work at night may deter bats from foraging in nearby habitat during construction activities.
Northern Long-Eared Bat (Not included in IPaC)	☒	Although the northern long-eared bat was not listed on the IPaC list for the study area, there are records of the species occurring within the vicinity of the project (see ONHI). The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing bridge will be rendered unsuitable for roosting during construction, but may be more suitable after construction is complete, depending on design. Potential foraging, roosting, and reproductive habitat were observed within the study area in the form of live and dead trees with greater than 3-inch diameter at breast height (DBH) and tree-lined corridors totaling approximately 25.08 acres of potential habitat. Construction activities include tree removal, as well as clearing and grubbing within the existing ROW and for a temporary staging area. Any conversion of mature oak-hickory woodland areas or wooded fence lines to maintained ROW or pavement could result in a permanent loss of habitat for the species. Vibrations from construction equipment and lights to work at night may deter bats from foraging in nearby habitat during construction activities.
American Burying Beetle	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing highway, routinely maintained ROW, and identified lotic waterbodies were all characterized as non-suitable reproductive habitat. Approximately 23.13 acres of potential habitat was observed within the study footprint in the form of upland deciduous woodland and bottomland/floodplain forest. The proposed construction activities may result in the clearing and removal of potential foraging and reproductive habitat areas. The placement of fill material (e.g., gravel and/or soil) or construction equipment on suitable habitat could result in temporary impacts. Trash accumulation and lights to work at night could attract the beetle to the project area during construction activities.

Piping Plover	☒	Construction activities include clearing and grubbing within the existing ROW as well as disturbance within the OWHM of the Arkansas River. Some gravelly shorelines along the major river system were identified and could be utilized as potential stopover habitat for the species. Although some of these shorelines may be disturbed during in-water construction activities, direct impacts to potential habitat will be minimal and mostly temporary in nature. Any long-term impacts will be associated with in-stream construction activities, new pier placement, and old pier removal. The primary impact will be temporary deterrence of habitat use due to noise associated with construction.
Tri-colored Bat	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The existing bridge will be rendered unsuitable for roosting during construction, but may be more suitable after construction is complete, depending on design. Potential foraging, roosting, and reproductive habitat were observed within the study area in the form of live and dead trees with greater than 4-inch diameter at breast height (DBH) and tree-lined corridors totaling approximately 25.08 acres of potential habitat. Construction activities include tree removal, as well as clearing and grubbing within the existing ROW and for a temporary staging area. Any conversion of mature oak-hickory woodland areas or wooded fence lines to maintained ROW or pavement could result in a permanent loss of habitat for the species. Vibrations from construction equipment and lights to work at night may deter bats from foraging in nearby habitat during construction activities. There is one recorded occurrence of the species within 5 miles of the project location.
Alligator Snapping Turtle	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. The Arkansas River offers some potential habitat for the species in the form of canopy-covered, slow-flowing, deep freshwater riverbed with submerged vegetation, snags, and logs, and lined with mature riparian forest. Furthermore, there are recorded occurrences of the species within the vicinity of the project. Any in-water work or disturbance to the channel could directly impact the species' habitat. Due to the expansiveness of the Arkansas River habitat, the primary impact will be deterrence of habitat use in the area during in-water construction activities.

Monarch Butterfly	☒	The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new span bridge on the existing alignment and within the current ROW. Construction activities include clearing and grubbing within the existing ROW and for a temporary staging area. Some potential habitat was identified, specifically some flowering and nectar plants and native woodland areas. Proposed construction may include clearing or removal of potential foraging and reproductive habitat areas and the storage of construction equipment on suitable habitat—all of which could result in habitat loss for the species.
-------------------	-------------------------------------	---

4.2 Indirect Effects

Long-term habitat alterations

Species/ Resource	<u>Identify long-term, permanent changes in habitat</u>
Gray Bat	Long-term habitat alterations may include the permanent conversion of riparian woodland to maintained ROW or pavement. Water quality impacts associated with bridge construction over the Arkansas River will likely be temporary in nature.
Ozark Big-Eared Bat	Long-term habitat alterations may include the permanent conversion of riparian woodland to maintained ROW or pavement. Water quality impacts associated with bridge construction over the Arkansas River will likely be temporary in nature.
Indiana Bat	Long-term habitat alterations may include the permanent conversion of riparian woodland to maintained ROW or pavement.
Northern Long-Eared Bat (NLEB) (Not included in IPaC)	Long-term habitat alterations may include the permanent conversion of riparian woodland to maintained ROW or pavement.
American Burying Beetle	Long-term habitat alterations to potential habitat for ABB is possible from the conversion of potential habitat to roadway or other regularly maintained vegetation.
Piping Plover	Temporary disturbances associated with the demolition of the existing bridge removal and construction of the proposed bridge are expected along the shoreline and within the OHWM of Arkansas River. Any long-term impacts will be associated with in-stream construction activities, new pier placement, and old pier removal.
Tri-Colored Bat	Long-term habitat alterations may include the permanent conversion of riparian woodland to maintained ROW or pavement.
Alligator Snapping Turtle	Indirect, long-term alterations to the channel habitat within Arkansas River are possible. Any long-term impacts will be associated with in-stream construction activities, new pier placement, and old pier removal. Some increased turbidity and sediment load downstream is expected, but these impacts will be temporary in nature.
Monarch Butterfly	Most habitat disturbances will likely be temporary. Any storage of equipment and/or pavement materials would be considered a temporary disturbance. Any conversion of native woodlands to maintained ROW or pavement will result in permanent cover change.

Indirect land use impacts

The proposed project will occur on existing alignment and within existing ROW, but approximately 3.6 acres of temporary ROW will be acquired for a construction staging area. With the minimal ROW needed to accommodate the construction effort, the land use in the surrounding area is not expected to change.

4.3 Interrelated and Interdependent Actions and Activities

Some relocation of utilities may be required, but this will occur within the existing ROW. Public safety is expected to improve with the construction of a new bridge.

USFWS TAILS Number:	2022-0015122
ODOT Project JP Number:	JP 34334(04)

SPECIES / DESIGNATED CRITICAL HABIT	CONCLUSION		ESA SECTION 7						NOTES AND DOCUMENTATION Check ☒ all that apply to the project			
	Species Habitat present within the action area	Project Activities expected to impact habitat	No Effect	May affect, determination based on 4(d) rule	May affect, not likely to adversely affect	May affect, Likely to adversely affect	Not likely to jeopardize the continued existence of the species	Likely to jeopardize the continued existence of the species	Field Studies	ONHI data present	USFWS occupied waterbodies & watersheds	Crucial Habitat in Action Area*
American Burying Beetle	☒	☒	☐	☒					☒	☒	☐	☐
Gray Bat	☒	☒	☐		☒	☐			☒	☒	☒	☐
Indiana Bat	☒	☒	☐		☒	☐			☒	☐	☐	☐
Ozark Big-eared Bat	☒	☒	☐		☒	☐			☒	☐	☐	☐
Piping Plover	☒	☒	☐		☒	☐			☒	☐	☐	☐
Red Knot	☐	☐	☒		☐	☐			☒	☐	☐	☐
Tricolored bat	☒	☒	☐				☒	☐	☒	☒	☐	☐
Alligator snapping turtle	☒	☒	☐				☒	☐	☒	☒	☐	☐
Monarch butterfly	☒	☒	☐				☒	☐	☒	☐	☐	☐

* This is any critical habitat, but also any gray bat buffers; Ozark Plateau WMA; ABB conservation lands like Camp Gruber, etc.; Little River NWA; Salt Plains NWR, Hackberry Flats, or Foss SP; Push WMA or McCurtain WA; leks

CONCLUSIONS

No Effect	Red Knot
May Affect	American burying beetle
May affect, not likely to adversely affect	Gray bat, Indiana bat, Ozark big-eared bat, Piping Plover,
May affect, likely to adversely affect	
Not likely to jeopardize the continued existence of the species – Proposed & Candidate species only (<u>no conference required</u>)	Tricolored bat, Alligator snapping turtle, Monarch butterfly
Likely to jeopardize the continued existence of the species – Proposed & Candidate species only	
Appropriate Effect Determination for ABB has been made under the BO for the final 4(d) rule (D-key attached)	☒
Appropriate Effect Determination has been made under the FHWA Bat Programmatic BA & BO (D-key attached)	☐

RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES

Suitable habitat for the **American Burying Beetle** occurs within the immediate vicinity of the proposed project. In order to minimize adverse impacts to the ABB, the following conservation measures will be implemented:

- The areas of suitable habitat will be field mapped.
- The amount of ground disturbance to suitable ABB habitat within the construction footprint will be minimized to only what is necessary for project construction.
- Following construction, areas of ground disturbance outside of the safety clear zone will be revegetated with native plant species where applicable and practicable. Areas where revegetation with native plant species is not practicable will be revegetated with more traditional planting such as solid slab sodding.
- Pollution Prevention Requirements as specified by the Oklahoma Department of Environmental Quality General Permit OKRI0 for Storm Water Discharges shall be implemented. Additionally, all equipment will be fueled, and all fuel and motor vehicle oil will be stored outside ABB habitat.
- The use of artificial lighting will be minimized. If night construction is necessary, direct light will be shielded to the work area and prevent light from projecting upwards. A special provision will be included in the project contract which outlines approved lighting for use during night work.
- Carcasses and trash will continuously be removed from any permanent and temporary construction rights-of-way, throughout the duration of the project.

All operators, employees, contractors and utility personnel working in areas of known or presumed bat habitat will be made aware of all environmental commitments, including the following Avoidance and Minimization Measures:

If **bridge demolition, repair, retrofit, maintenance or rehabilitation** is to occur during listed bat species' active season (between March 15 and November 14), ODOT Environmental Programs Division will thoroughly inspect the structures or conduct an acoustic survey of the existing structures to ensure any listed bats are not using the structures, within two years prior to construction. The inspection of the bridge and the survey to determine the presence of listed bats potentially using the bridge will be scheduled between

May 15 and August 15. If evidence of use by listed bat species is observed, then the bridge demolition, repair, retrofit, maintenance, and/or rehabilitation will be performed between November 15 and March 14. If bridge demolition, repair, retrofit, maintenance, and/or rehabilitation must occur between March 15 and November 14, the ODOT will re-initiate consultation with the USFWS. If bridge inspection and/or survey is positive, all bridge demolition, repair, retrofit, maintenance, and/or rehabilitation will be limited to the bat's inactive season.

Suitable summer roosting habitat for Indiana bats was observed during field studies within the immediate vicinity of the proposed project. Tree removal and trimming may occur only during the bats inactive season, from November 15 through March 14. If the active season cannot be avoided, an acoustic survey to detect the presence of any listed bats must be conducted within five years prior to tree removal, including utility relocation. All presence/absence surveys must be scheduled between May 15 – August 15. If the tricolored bat is listed as threatened or endangered then additional coordination with the ODOT Environmental Programs Division and re-consultation with USFWS will be required.

Potential impacts to water quality affecting the **alligator snapping turtles** and prey species of foraging **gray bats**, has been identified in the project's action area. Hazardous materials, chemicals, fuels, lubricating oils, and other such substances shall be stored at least 100 feet outside of the ordinary high water mark (OHWM). Refueling of construction equipment shall also be conducted outside of the OHWM. Sediment and erosion controls shall be installed around these staging areas to prohibit discharge of materials from these sites. Construction waste materials and debris shall be stockpiled at least 25 feet outside of the OHWM, and these materials shall be removed and disposed of properly following completion of the project. Appropriate Best Management Practices to minimize impacts from storm water discharges, as established by the Oklahoma Department of Environmental Quality, shall be conscientiously implemented throughout the proposed construction periods. The effectiveness of erosion controls shall be maintained for the duration of construction activities.

Suitable **riparian foraging habitat** for threatened and endangered bat species occurs within the proposed project's action area. The removal and trimming of trees and shrubs will be restricted to areas within the actual limits of construction, and all aspects of the project (e.g. temporary work areas, alignments) will be modified to avoid tree removal, if possible. Tree removal and trimming will be limited to that specified in the project plans provided to contractors.

All **temporary lighting**, if used, will be directed away from suitable habitat during the active season for bats (March 15 – November 14). If any **permanent lighting** is installed or replaced, downward-facing full cut-off lens lights shall be installed and directed away from suitable bat habitat.

Karst ecosystems, that provide habitat for several endangered species, occur within the action area. If caves, sinkholes, losing stream or springs are encountered within the project limits at any point during project construction, a no-work zone extending 300 feet in all directions will be established around the newly discovered feature, and ODOT will immediately re-consult with USFWS. All parking, maintenance, staging, fueling, stormwater management activities, ground disturbing, tree-clearing, or any other construction activity is not allowed within the 300' buffer. Best management practices, secondary containment measures, and other standard spill prevention and countermeasures will be enacted, in conjunction with USFWS consultation, to avoid impacts to karst features and potential hibernaculum.

ODOT, as a Certificate of Inclusion partner in the Nationwide **Monarch Butterfly** CCAA for Energy and Transportation lands, will adhere to the conservation measures, as well as minimize threats to the monarch butterfly as stipulated in this CCAA.

5. BALD AND GOLDEN EAGLE PROTECTION ACT ASSESSMENT

5.1. Bald Eagle Assessment

The Bald Eagle (*Haliaeetus leucocephalus*) is a large predatory bird protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Activities that would disturb eagles are prohibited under the Bald and Golden Eagle Protection Act. “Disturb” means to agitate an eagle to the degree that causes or is likely to (1) cause injury, (2) interfere with breeding, feeding or sheltering behavior, or (3) nest abandonment.

Potential Bald Eagle Habitat Present	w/in NEPA Footprint	w/in 660 ft Buffer of NEPA Footprint	DO NOT LEAVE BLANK
Presence of Cottonwood, Sycamore, Pecan or Pine	☒	☒	Bottomland hardwood forest consisting of mature sycamore and cottonwood was noted along the Arkansas River corridor within and in the vicinity of the study area.
Open foraging areas with large trees	☒	☒	The Arkansas River corridor within and in proximity to the study area is lined with mature riparian forest species along the historic floodplains.
Distance to closest <u>perennial</u> water bodies	River or Lake	within	The Arkansas River as well as some small intermittent lotic features intersect the study area
	Stream or Pond	within	
Potential Bald Eagle Nests Observed	☐	☒	Known nest within 400-ft of the bridge, (see Figure 7c for a location approximately along eastern shoreline of Arkansas River, south of the footprint)
Bald Eagles Observed in the general vicinity	☐	☐	None observed
General Description of Bald Eagle Nesting Habitat and Impact Determination, within the NEPA Footprint and within 660-ft of the NEPA Footprint	The Arkansas River corridor within and in close proximity to the study area provides suitable habitat for nesting and foraging eagles. Large mature sycamores and cottonwoods occur along the river banks. Furthermore, six recent occurrences have been documented for bald eagles in the vicinity of the project. A known Bald Eagle nest is located within 400-ft of the bridge, but no eagles were observed at the nest.		
Station #s for Buffered Bald Eagle Habitat	The entire extents of the project		
In order to avoid impacts to Bald Eagles, if Bald Eagles or their habitat are observed during the biological assessment, a survey for eagles and their nests will be conducted within 660 feet of the work zone, during the winter prior to, and within one year of, the start of construction. If a nest is found, appropriate conservation measures based on the National Bald Eagle Management Guidelines will be implemented.			

6. MIGRATORY BIRD TREATY ACT (MBTA) ASSESSMENT

6.1 Structure Assessment

Cliff Swallows (*Petrochelidon pyrrhonota*) and Barn Swallows (*Hirundo rustica*) are small colonial and semi-colonial nesting birds protected by the federal Migratory Bird Treaty Act. Barn Swallows use man-made structures for nesting and live in close association with humans. Both species commonly use bridges and culverts in Oklahoma for nesting. Other migratory birds can also nest on transportation structures.

Identify <u>ALL</u> structures including pipe culverts. LABEL according to instructions within the cells below. Describe structure type. Identify roadway over what feature. Identify named streams where possible. Provide shapefiles and map according to LABEL, identifying pos/neg swallow structures	Approx. Number of Cliff Swallow Nests	Approx. Number of Barn Swallow Nests	Approx. Number of Eastern Phoebe Nests
Structure #1 [NBI: 17013]: 3-span Steel I-beam span bridge carrying NS-4435 over I-40 bridge 30'W x 1,989'L over I-40 at STA 684+78.92	None		
Structure #2: 2 cell RCB 6'W x 3'H carrying DF1 under I-40 at STA 688+91.45	None		
Structure #3 [NBI: 16849]: 2-cell RCB 10' x 5' x 218'L carrying S1 (Unnamed Tributary) under I-40 at STA 688+86.96		1	
Structure #4: 36"-diam RCP under I-40 at STA 705+76.48	None		
Structure #5 [NBI: 16907]: 3-cell RCB 12'-14'-12'W x 5' H x 200'L under I-40 at STA 714+93.44		15	
Structure #6: 24"-diam RCP under I-40 at STA 716+47.19	None		
Structure #7: 2-cell RCB 6'x3'under I-40 at STA 726+94.17		1	
Structure #8: 36"-diam RCP under I-40 at STA 734+94.57	None		
Structure #9: 2-cell RCB 8'x4' draining ephemeral drainage (S2) under I-40 at STA 737+69.64	None		
Structure #10 [NBI: 17051]: 10-span concrete and steel I-beam bridge 30'W x 2,000'L over S3(Arkansas River) under I-40 at STA 767 +12.50 (35.486855°, -95.097019°)	100+		
Structure #11: 36"-diam RCP under I-40 at STA 785+40.27	None		
Structure #12: 36"-diam RCP under I-40EB off-ramp to SH-10 at STA 821+6.64	None		
Structure #13 [NBI: 16944]: 3-span concrete beam bridge 37'W x 115'L carrying I-40EB over SH-10 at STA 822+35.51	100+		
Structure #14: 36"-diam RCP under SH-10 at STA 822+35.51	None		
Structure #15 [NBI: 16945]: 3-span concrete beam bridge 37'W x 115'L carrying I-40WB over SH-10 at STA 822+35.51	100+		
Structure #16: 36"-diam RCP under I-40WB on-ramp from SH-10 at STA 822+35.51	None		

Identify <u>ALL</u> structures including pipe culverts. LABEL according to instructions within the cells below. Describe structure type. Identify roadway over what feature. Identify named streams where possible. Provide shapefiles and map according to LABEL, identifying pos/neg swallow structures	Approx. Number of Cliff Swallow Nests	Approx. Number of Barn Swallow Nests	Approx. Number of Eastern Phoebe Nests
Structure #17: 1-cell RCB 12' x 4' under SH-10 at STA 822+35.51		1	
Other MB and Nests Observed	N/A		
Based on existing plans, no work on suitable drainage structures will occur			☐
In order to avoid impacts to migratory birds, if structures are being used by these birds, any activities that may destroy active nests, eggs or birds shall be completed between September 1, and February 28, when nests are not occupied. If seasonal avoidance cannot be accomplished, structures shall be protected from new nest establishment prior to March 1, by means that do not result in death or injury to these birds.			

6.2 Birds of Conservation Concern

Tree and ground nesting species are listed.

Six species of tree-nesting birds (American Kestrel, Chimney Swift, Kentucky Warbler, Prairie Warbler, Prothonotary Warbler, and Red-headed Woodpecker), as well as a ground/shore-nesting species (Least Tern) were listed as Birds of Conservation Concern for the project vicinity and have potential to breed in the area. Tree clearing and disturbance within the river channel to replace the existing bridge and construct two new bridges could impact nesting habitat for the BCC listed that have suitable nesting habitat within the project area.

In order to avoid impacts to ground nesting and tree nesting USFWS Birds of Conservation Concern, ground disturbance and/or the removal of trees and shrubs will be restricted to areas within the actual limits of construction, and all aspects of the project (e.g. temporary work areas, alignments) will be modified to avoid ground disturbance and/or tree removal, if possible.

6.3 Interior Least Tern

Sparsely vegetated islands or sandbars along large rivers, with nearby areas of shallow water, occur within the 0.25 miles of the NEPA Environmental Study Footprint. ☐

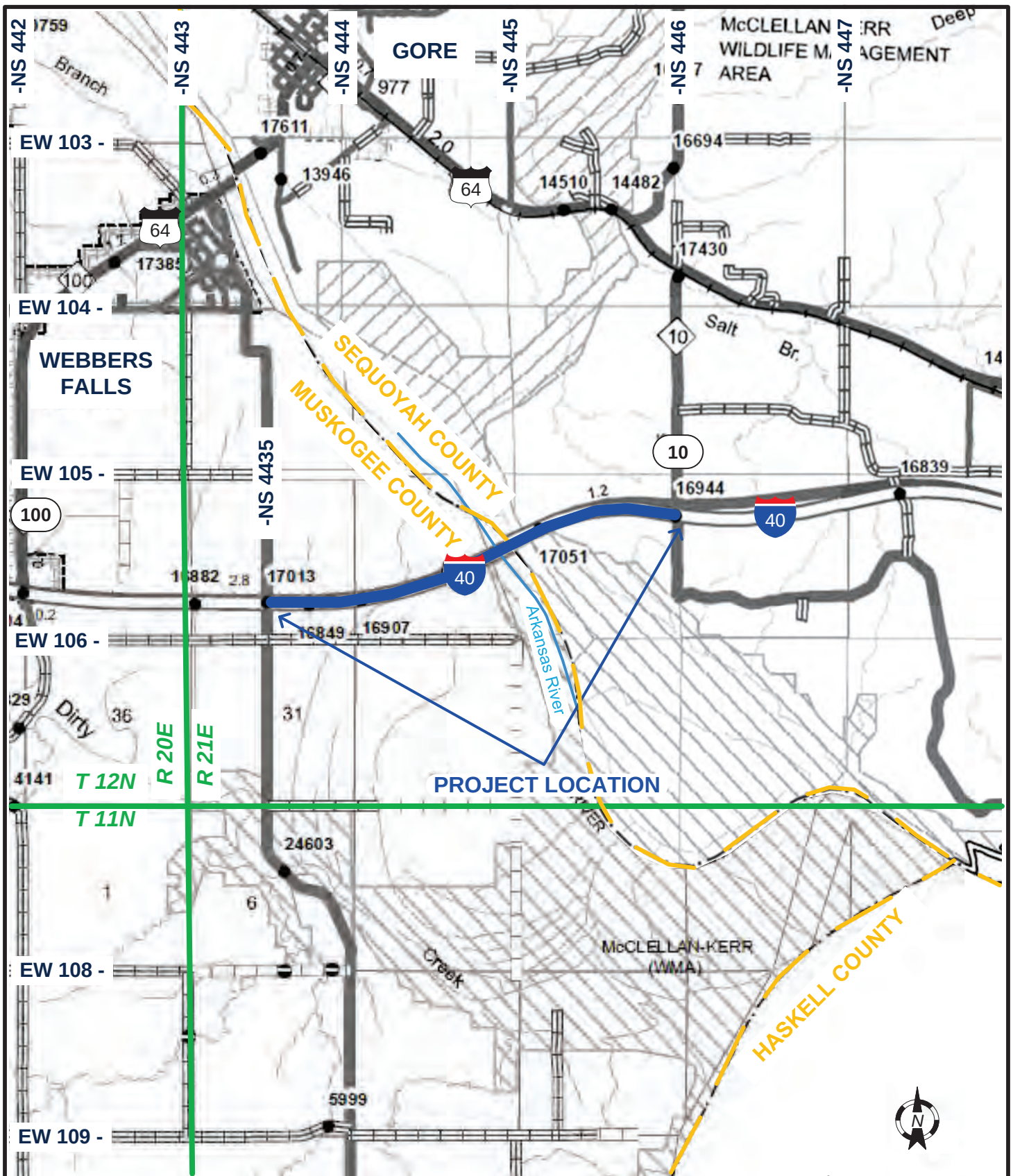
The Arkansas River in the vicinity of the project is largely channelized, with some gravelly shorelines. However, no suitable nesting habitat was present within the review area.

7. REFERENCES:

- Carter, B.J. and M.S. Gregory (2008), *Soil Map of Oklahoma; Earth Sciences and Mineral Resources of Oklahoma*. Educational Publication 9, Oklahoma Geological Survey, University of Oklahoma, Norman OK, p. 16, map scale 1:2,000,000.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe (1979), *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79-31. USDI Fish and Wildlife Service, Washington, DC. 103 pp.
- Crawford, P. (2025), *Oklahoma Federal or State Regulatory Species Data Request*, Response 2025-138-BUS- CCE, Oklahoma Natural Heritage Inventory (ONHI), Norman, OK (email dated March 19, 2025).

- Duck, L.G., and J.B. Fletcher (1945), *A Survey of the Game and Furbearing Animals of Oklahoma*; Chapter 2, The Game Types of Oklahoma. Oklahoma Game and Fish Commission, Division of Wildlife Restoration and Research, Oklahoma City, OK.
- OWRB (2018), *National Wetland Inventory Map, Stigler NE*; 7.5-minute quadrangle, map scale 1: 24,000, Oklahoma Water Resources Board, available on-line, accessed March 2022.
- NRCS (2022), *Web Soil Survey*, Natural Resources Conservation Service online mapper, accessed March 2022: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- USFWS (2022), *National Wetland Inventory Maps*, US Fish & Wildlife Service on-line mapper, accessed March 2022: <https://www.fws.gov/wetlands/>
- USGS (1963), *USGS Topographic Map*, US Geological Survey on-line viewer, accessed February 2022, 7.5-minute quadrangles, *Stigler NE*, map scale 1: 24,000.
- Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. (2005), *Ecoregions of Oklahoma*; U.S. Geological Survey, Reston, VA, map scale 1:1,250,000.

8. FIGURES



LOCATION MAP

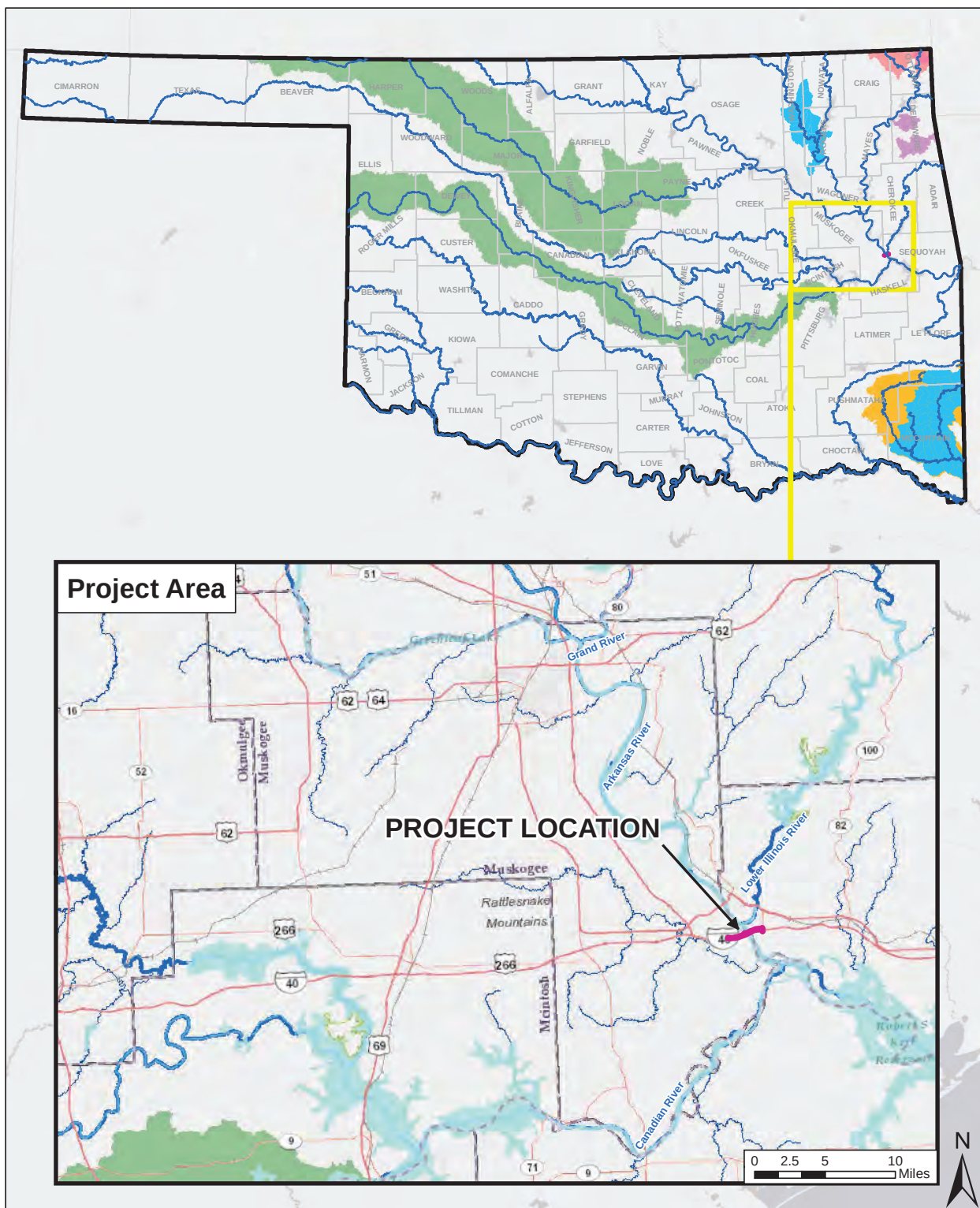
J/P 34334(04); Proj. # J3-4334(004)
 Bridge & Approaches I-40: Over Arkansas River
 begin MP 290, east 1.0 mile
 Muskogee County, OK



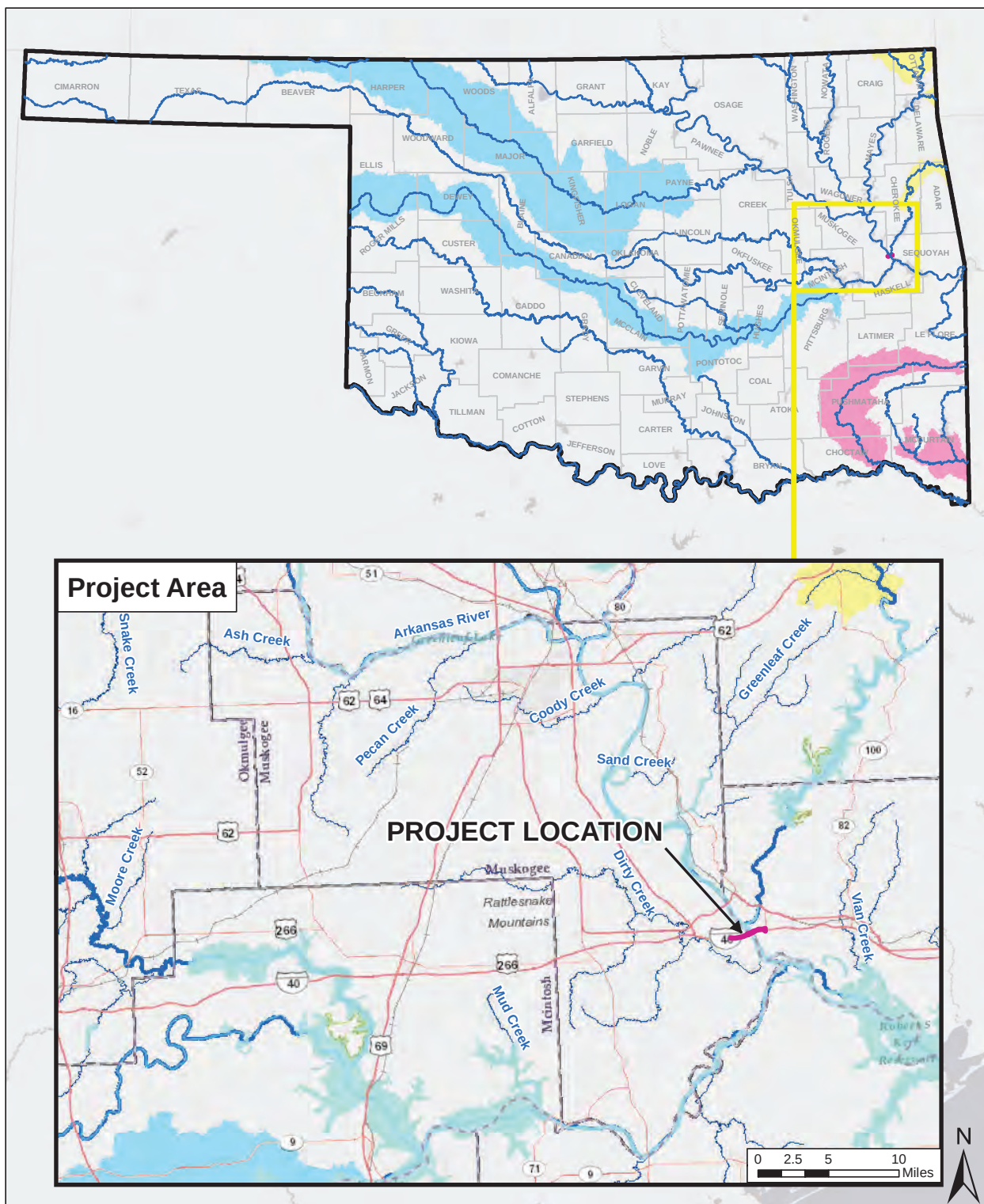
Figure 1



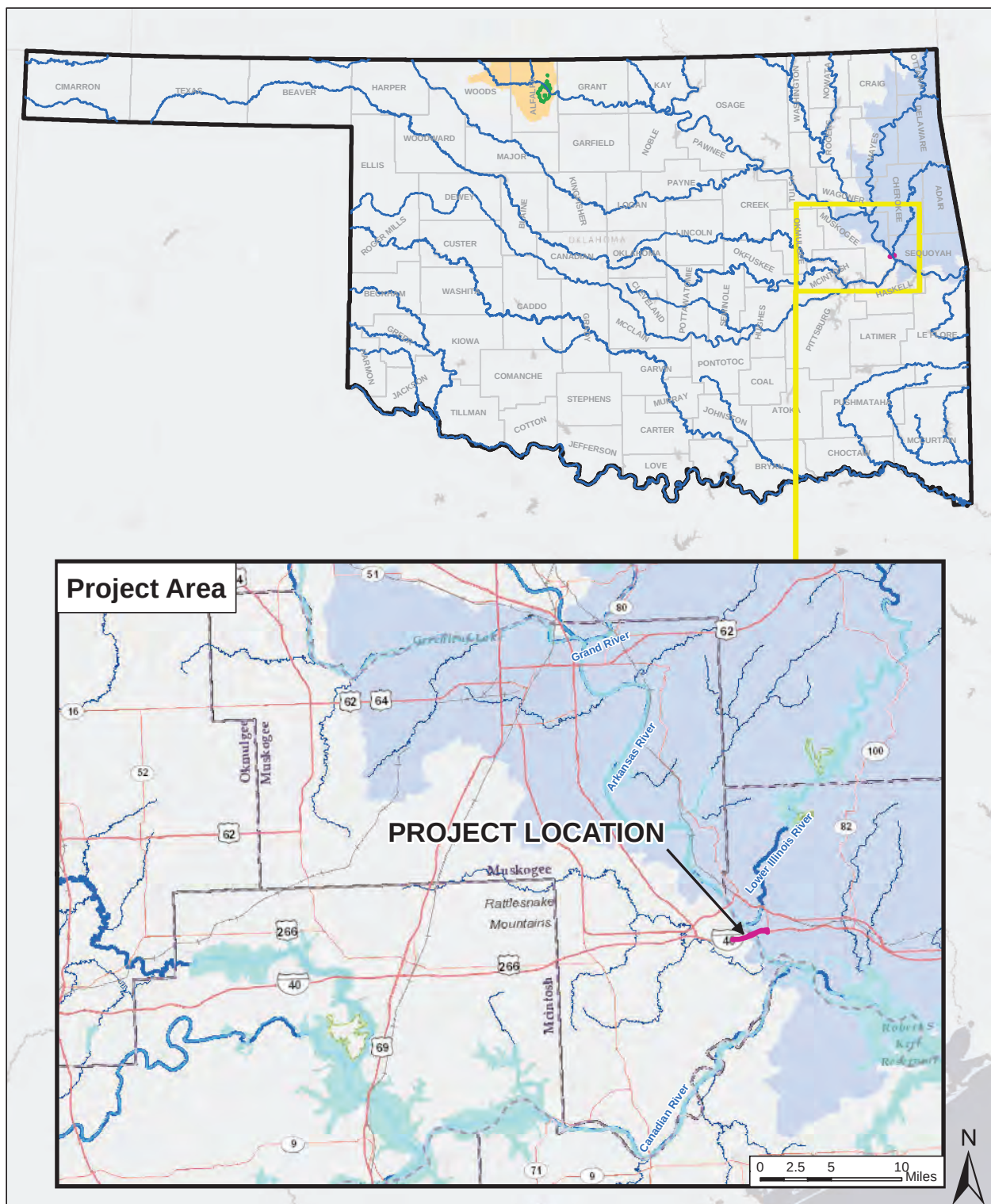
COMMENTS/LEGEND		Action Area Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 2
 NEPA Environmental Footprint  Action Area / 1-mile buffer	 County Line  0 0.125 0.25 0.5 Miles		
		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/17/2025



Legend / Comments						
	NEPA Environmental Footprint		Arkansas River Shiner Cimarron and Canadian Rivers		Neosho Madtom Neosho River	
	Major Rivers		Leopard Darter Glover, Little, and Mountain Fork Rivers and tributaries of each		Rabbitsfoot Mussel Verdegris River (lower), Illinois River, Little River, Glover River, and Mountain Fork River	
	Major Tributaries		Ozark Cavefish Aquifers within 11-Digit HUC Watersheds			
SOURCE		FEDERALLY-LISTED AQUATIC SPECIES WATERSHEDS (THREATENED)				
These watersheds were delineated using 11-digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to waterbodies occupied by federally-listed species are included in the delineation, as well as those 11-digit HUC watersheds within 10 miles of the occupied waterbody. SOURCE: USFWS, DOI		Job Piece: 34334(04) / J3-4334(004)PM Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK				
					DRAWN BY: LMP APPRV BY: GAC 	FIGURE 3a Date: 3/19/2025



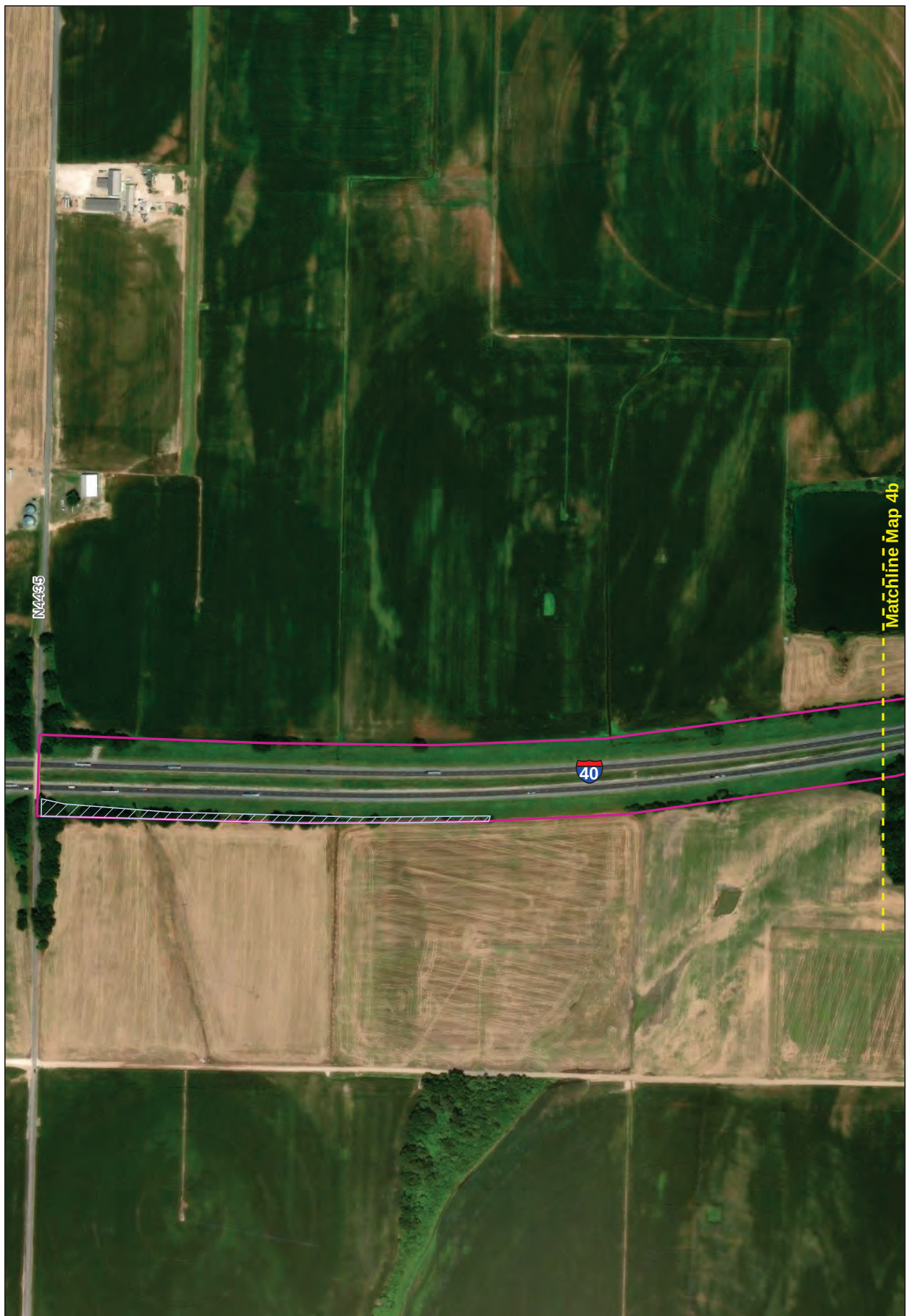
Legend / Comments			
	NEPA Environmental Footprint		Peppered Chub Cimarron and Canadian Rivers
	Major Rivers		Neosho Mucket Mussel Verdigris River, Illinois River, Neosho River, and Spring River
	Major Tributaries		Ouachita Rock Pocketbook, Scaleshell, and Winged Mapleleaf Kiamichi and Little Rivers
SOURCE These watersheds were delineated using 11-digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to waterbodies occupied by federally-listed species are included in the delineation, as well as those 11-digit HUC watersheds within 10 miles of the occupied waterbody. SOURCE: USFWS, DOI		FEDERALLY-LISTED AQUATIC SPECIES WATERSHEDS (ENDANGERED) Job Piece: 34334(04) / J3-4334(004)PM Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	
 DRAWN BY: LMP APPRV BY: GAC 		FIGURE 3b Date: 3/19/2025	



Legend / Comments

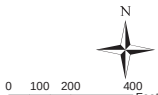
	NEPA Environmental Footprint		Salt Plains NWR
	Major Rivers		Gray Bat (Endangered) Watersheds were delineated by including all HUC 11 watersheds located within the known 20km foraging radius for Gray bats
	Major Tributaries		Whooping Crane (Endangered) Watersheds include the Salt Plains NWR and all HUC 11 watersheds that feed into it

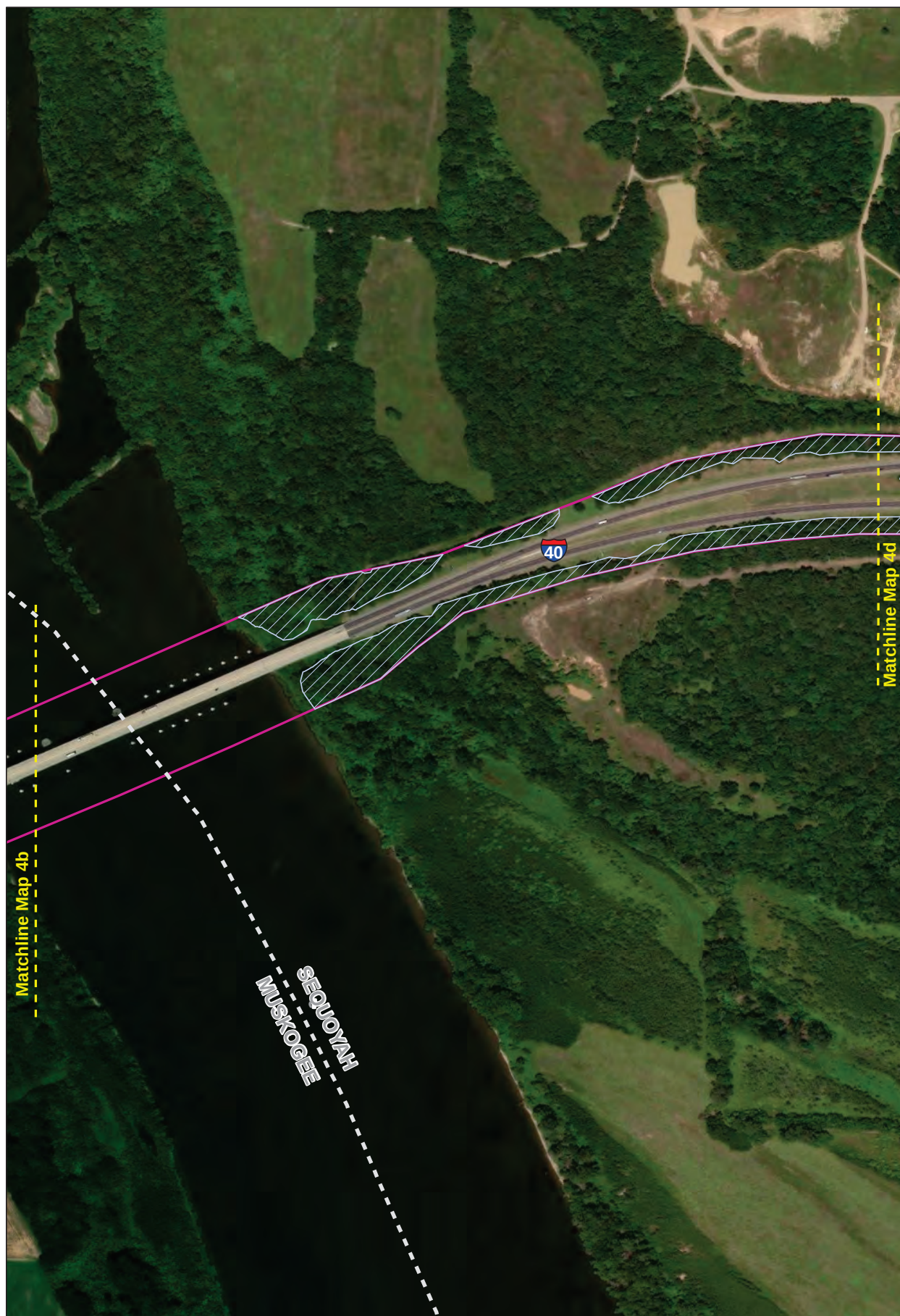
SOURCE These watersheds were delineated using 11-digit Hydrologic Unit Code (HUC) watersheds. All watersheds adjacent to waterbodies occupied by federally-listed species are included in the delineation, as well as those 11-digit HUC watersheds within 10 miles of the occupied waterbody. SOURCE: USFWS, DOI	FEDERALLY-LISTED AQUATIC-DEPENDENT SPECIES WATERSHEDS Job Piece: 34334(04) / J3-4334(004)PM Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 DRAWN BY: LMP APPRV BY: GAC 	FIGURE 3c Date: 3/19/2025
--	--	--	--

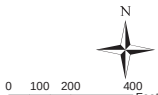


COMMENTS/LEGEND		Potential Bat Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 4a
 NEPA Environmental Footprint	 Matchlines		
 Potential Bat Habitat		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025
 County Line	 		



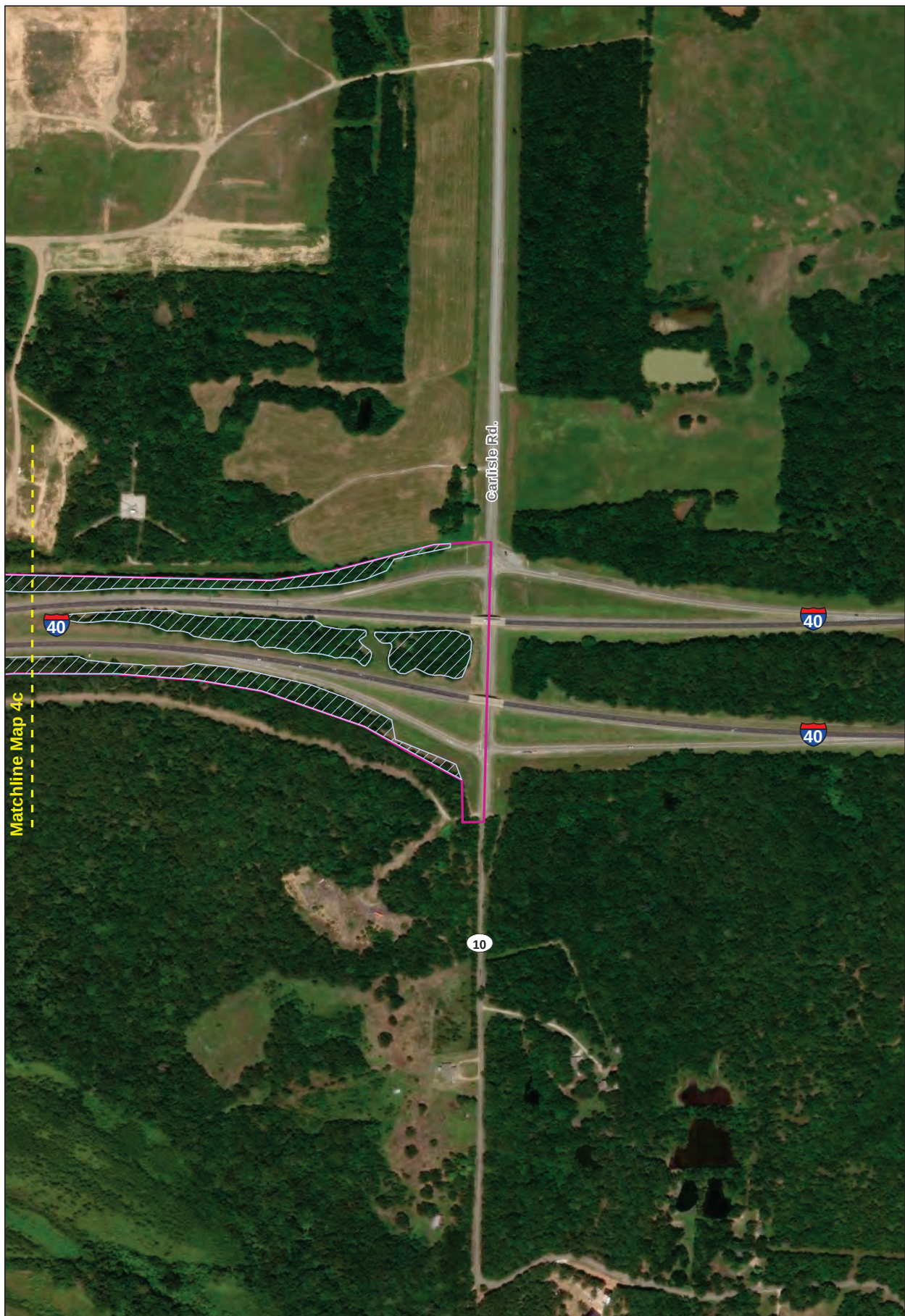
COMMENTS/LEGEND		Potential Bat Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 4b
 NEPA Environmental Footprint	 Matchlines		
 Potential Bat Habitat		DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025
 County Line			



COMMENTS/LEGEND		 OKLAHOMA Transportation	Figure 4c
 NEPA Environmental Footprint	 Matchlines		
 Potential Bat Habitat		DRAWN BY: LMP APPRV. BY:	Date: 3/18/2025
 County Line		SOURCE: DEQ, Tiger 2000, USGS	

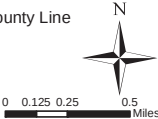
Potential Bat Habitat

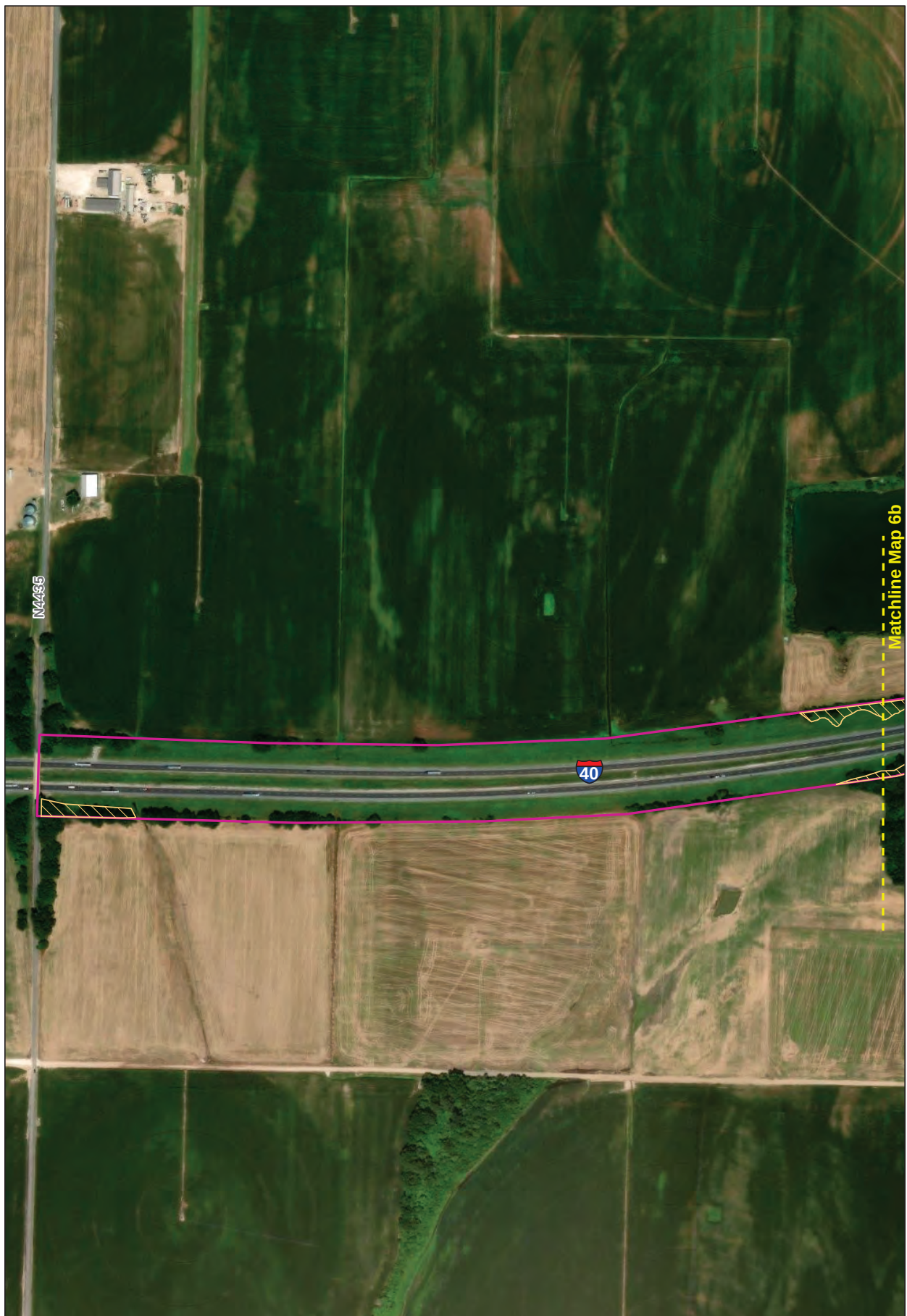
Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



COMMENTS/LEGEND		Potential Bat Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 4d
NEPA Environmental Footprint Matchlines Potential Bat Habitat County Line	 0 100 200 400 Feet		
		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025

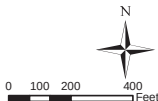


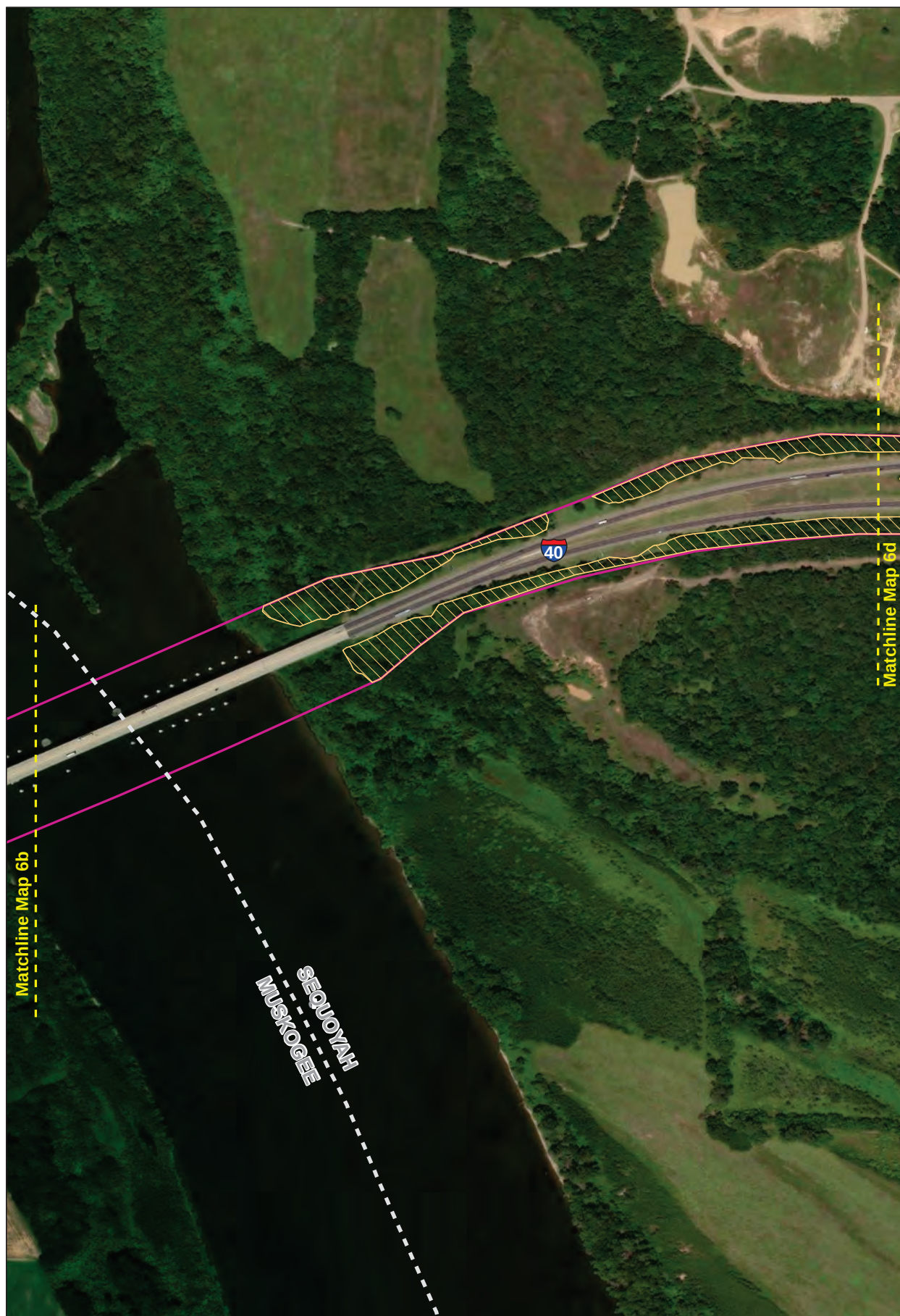
COMMENTS/LEGEND		Bat Travel Corridor	 OKLAHOMA Transportation	Figure 5
 NEPA Environmental Footprint	 County Line			
 1-mile Footprint Buffer	 0 0.125 0.25 0.5 Miles	Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025

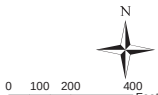


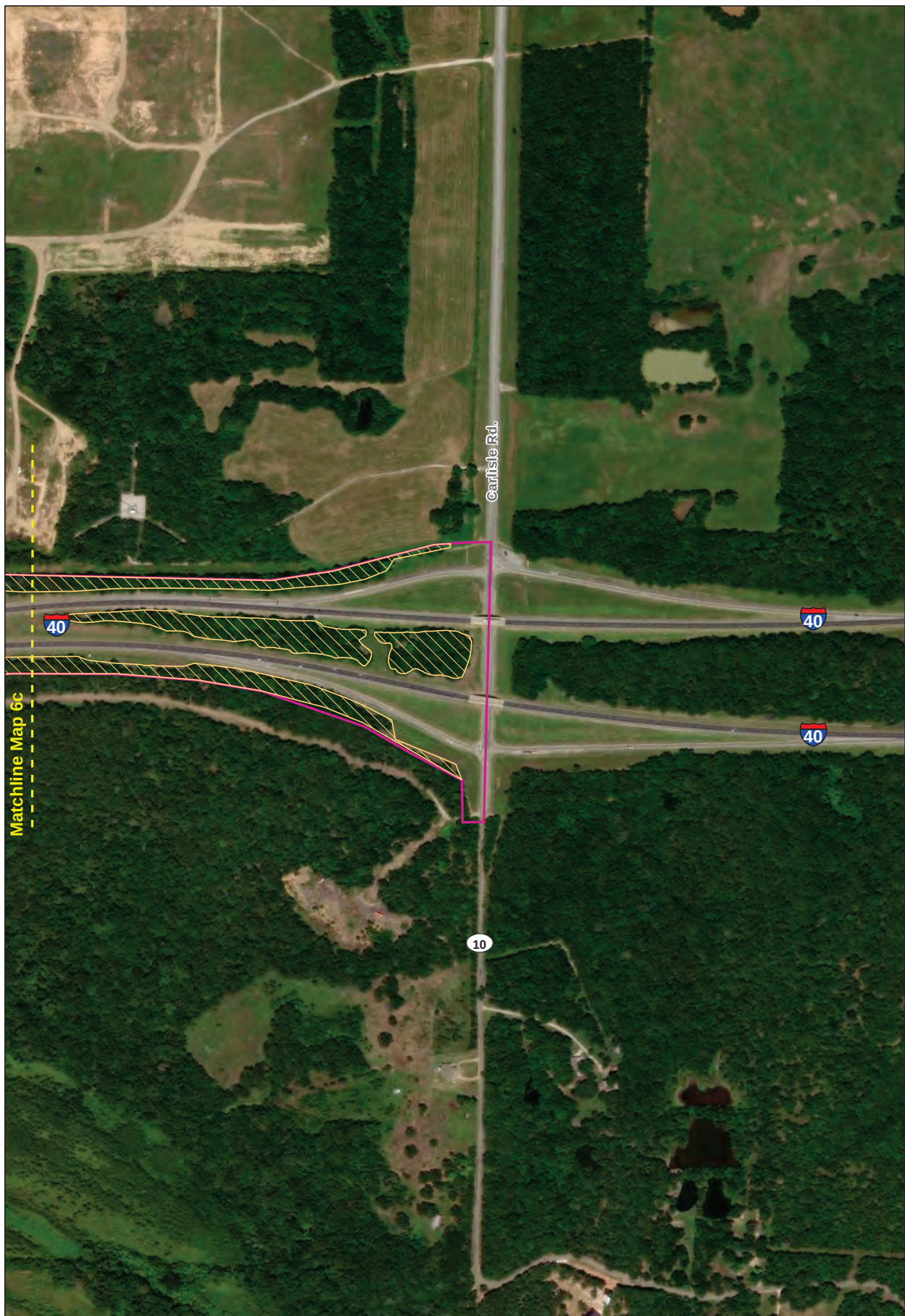
COMMENTS/LEGEND		ABB Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 6a
 NEPA Environmental Footprint	 Matchlines		
 ABB Habitat		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025
 County Line	 		

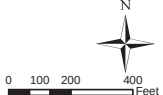


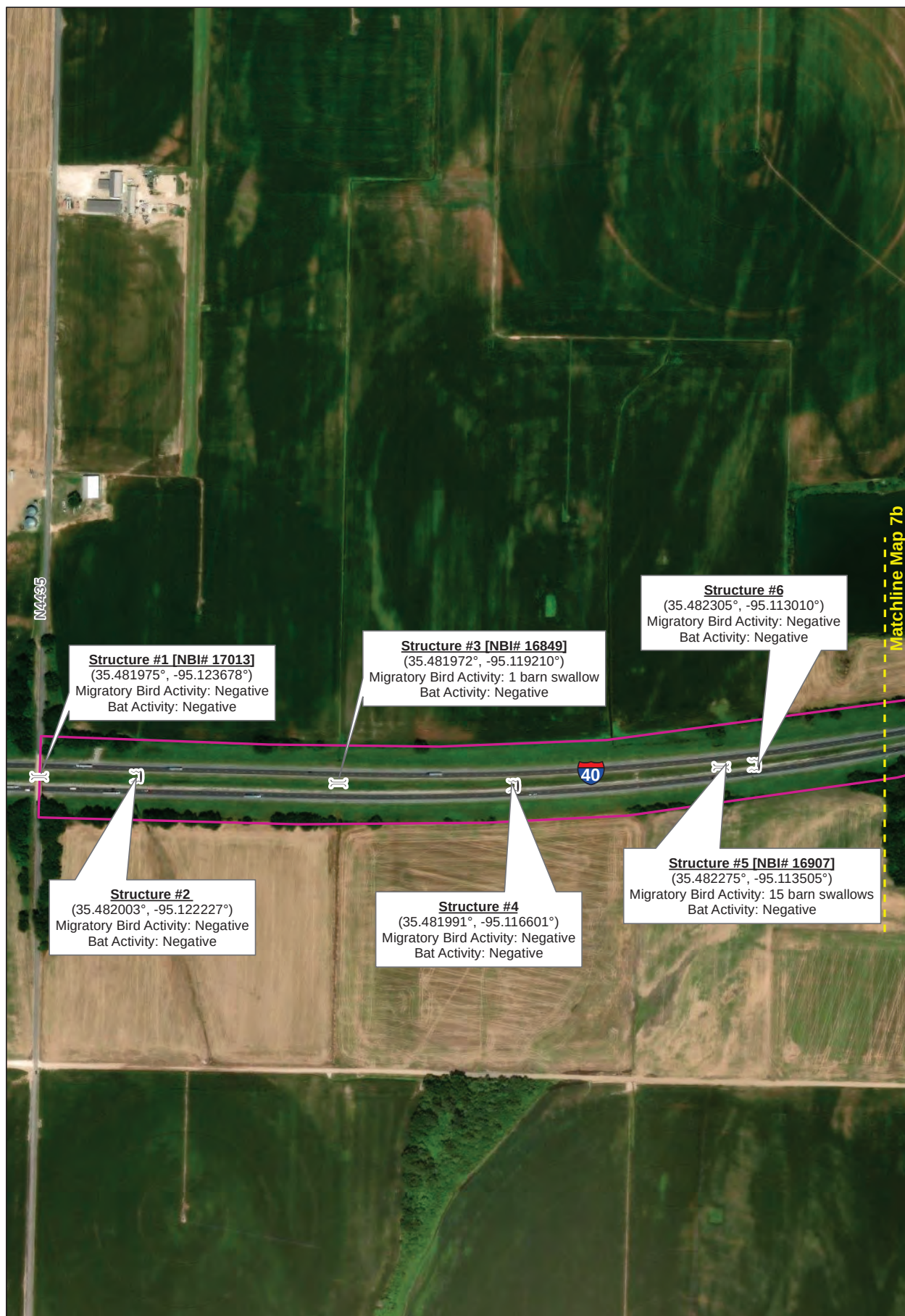
COMMENTS/LEGEND		 DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Figure 6b Date: 3/18/2025
 NEPA Environmental Footprint	 Matchlines		
 ABB Habitat			
 County Line			
		ABB Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	



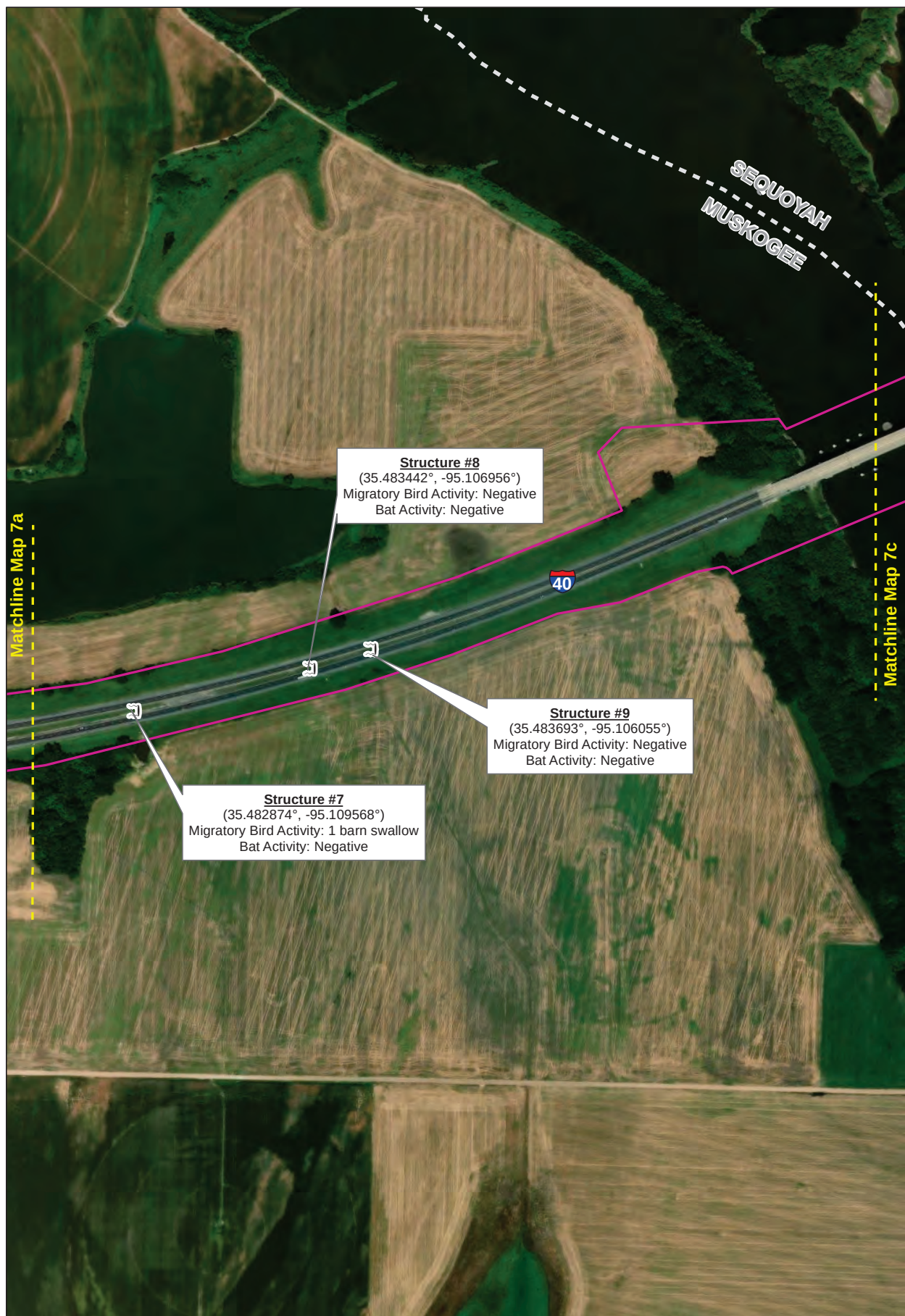
COMMENTS/LEGEND		ABB Habitat		 Figure 6c
 NEPA Environmental Footprint	 Matchlines	Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	
 ABB Habitat	 County Line		Date: 3/18/2025	



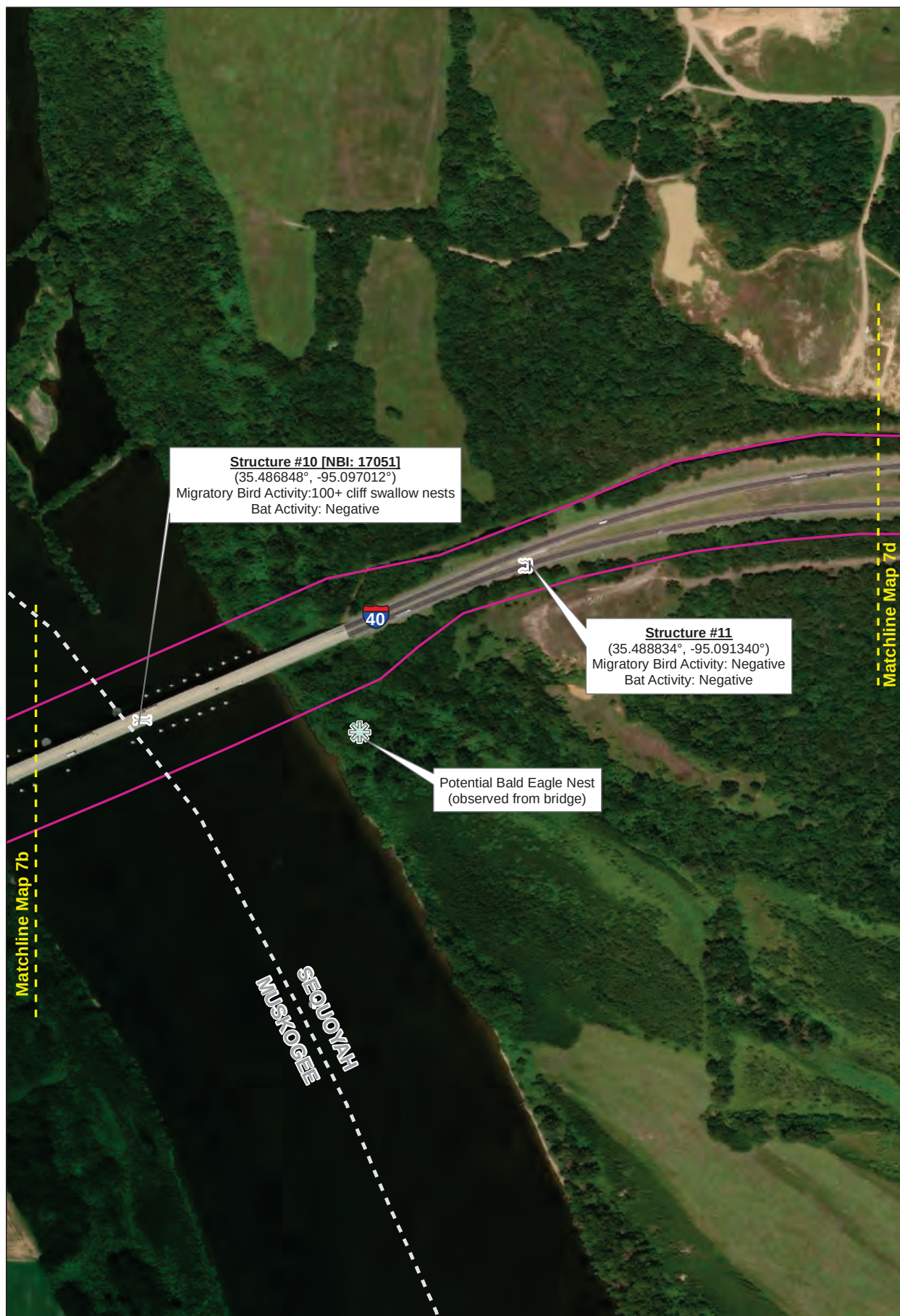
COMMENTS/LEGEND		ABB Habitat Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 6d
 NEPA Environmental Footprint	 Matchlines		
 ABB Habitat			DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS Date: 3/18/2025
 County Line			



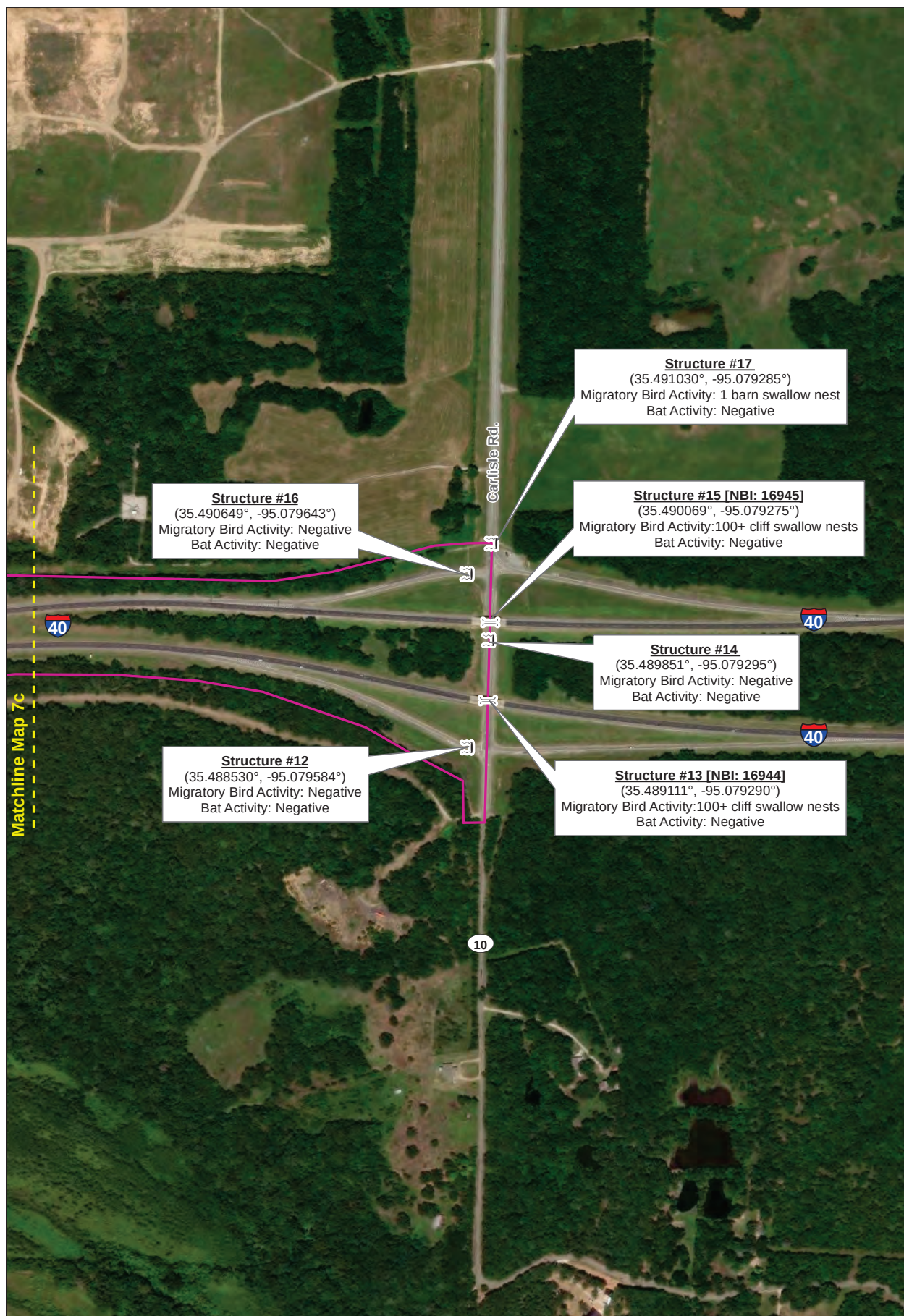
COMMENTS/LEGEND		Structures	OKLAHOMA Transportation	Figure 7a
NEPA Environmental Footprint	County Line			
Culverts	Matchlines	Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/19/2025
NBI Bridges	N 0 100 200 400 Feet			



COMMENTS/LEGEND		Structures	 OKLAHOMA Transportation	Figure 7b
 NEPA Environmental Footprint	 County Line			
 Culverts	 Matchlines	Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025
 NBI Bridges				

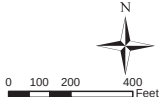


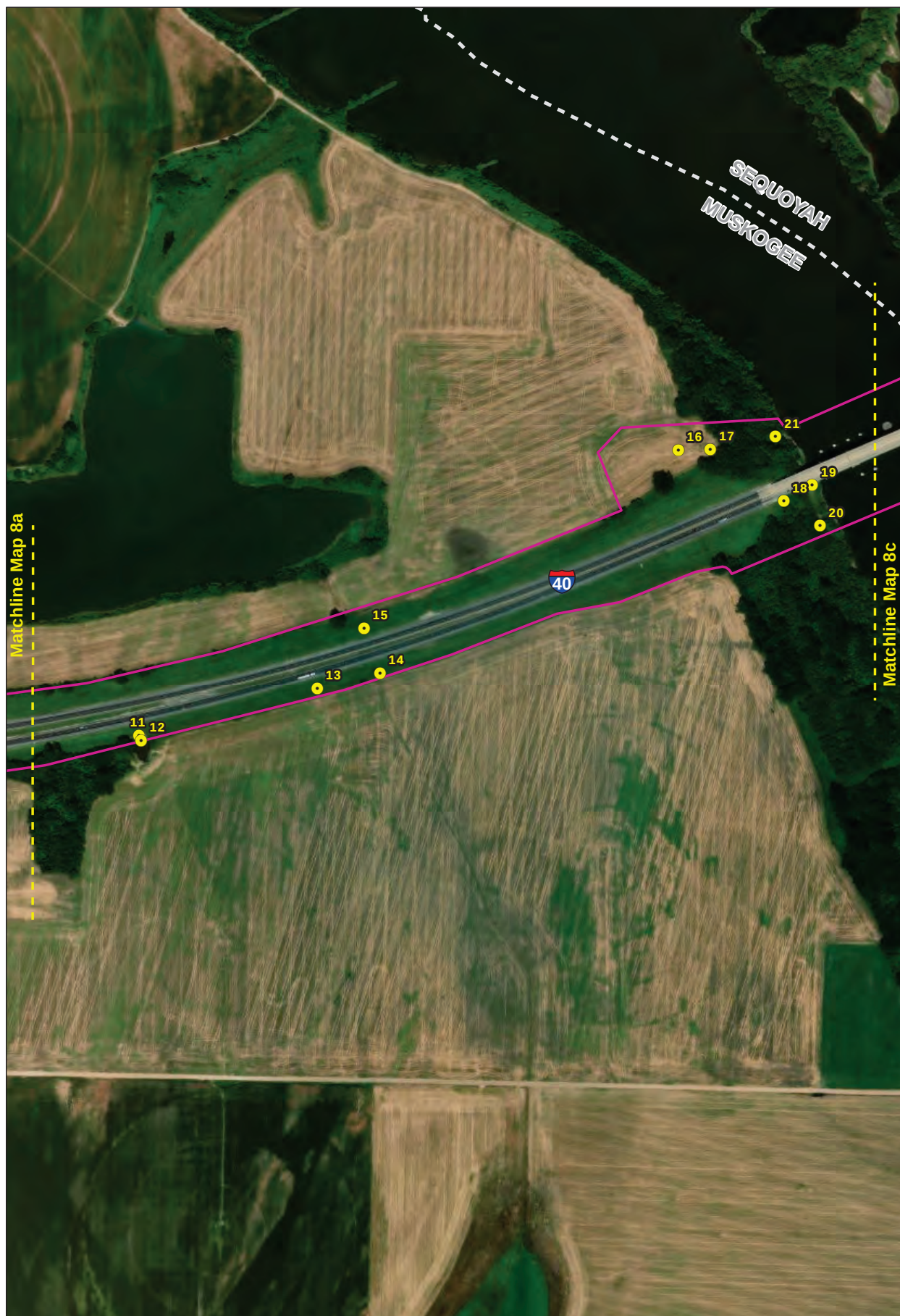
COMMENTS/LEGEND		Structures	 OKLAHOMA Transportation	Figure 7c
 NEPA Environmental Footprint  Culverts  NBI Bridges	 Potential BE Nest  County Line  Matchlines			
0 100 200 400 Feet 		Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 4/14/2025

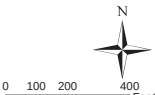


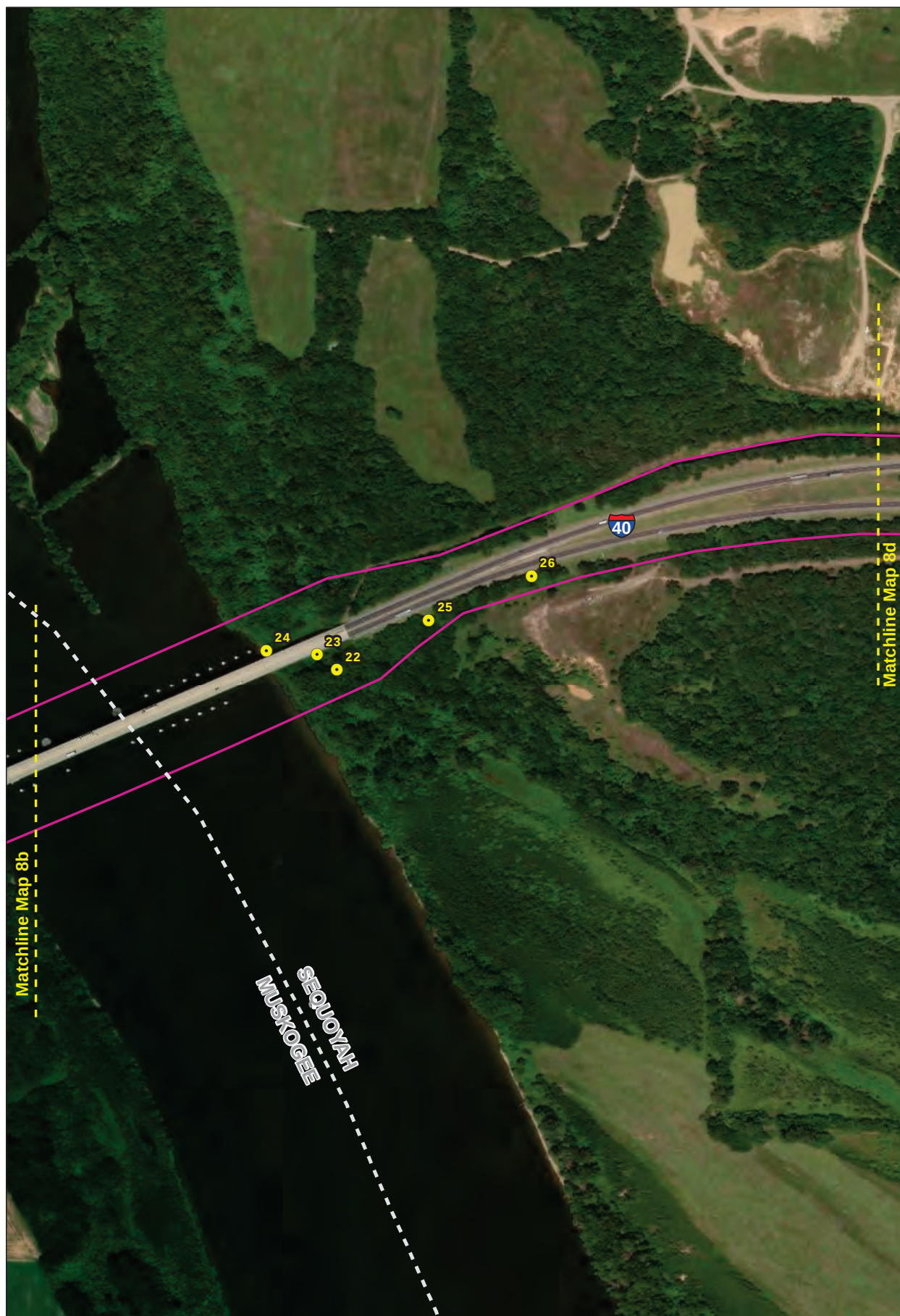
COMMENTS/LEGEND		Structures	OKLAHOMA Transportation	Figure 7d
NEPA Environmental Footprint Culverts NBI Bridges	County Line Matchlines			
		Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/18/2025



COMMENTS/LEGEND		Photo Locations	 OKLAHOMA Transportation	Figure 8a
 NEPA Environmental Footprint	 Matchlines			
 Photo Locations		Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 4/14/2025
 County Line				



COMMENTS/LEGEND		Photo Locations	 OKLAHOMA Transportation	Figure 8b
	NEPA Environmental Footprint			
	Photo Locations	Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 4/14/2025
	County Line			



COMMENTS/LEGEND		Photo Locations		Figure 8c	
	NEPA Environmental Footprint				
	Matchlines			DRAWN BY: LMP	
	Photo Locations			APPRV. BY:	
	County Line			SOURCE: DEQ, Tiger 2000, USGS	Date: 4/14/2025
0 100 200 400 Feet		Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK			



COMMENTS/LEGEND		Photo Locations	 DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Figure 8d Date: 4/14/2025
 NEPA Environmental Footprint	 Matchlines			
 Photo Locations		Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK		
 County Line				



Photograph 1-A: Western edge of study area along I-40, south side facing west.



Photograph 1-B: Western edge of study area along I-40, south side facing east.



Photograph 2: NBI: 17013 (Structure 1) over I-40, no migratory bird nests present.



Photograph 3: Structure 2 at DF1, no migratory bird nests present.



Photograph 4: DF1 south of ROW.



Photograph 5: NBI: 16849 (Structure 3) at S1 (Unnamed Tributary), 1 barn swallow nest present.



Photograph 6: S1 (Unnamed Tributary) north of the study area.



Photograph 7: Structure 4, no migratory bird nests or water feature present.



Photograph 8: NBI: 16907 (Structure 5), and site of DF2. 15 barn swallow nests present.



Photograph 9: Facing south from NBI: 16907 (Structure 5), poorly defined drainage (DF2) towards pond in the field south of study area.



Photograph 10: Structure 6, no migratory bird nests or water features present.



Photograph 11: Structure 7, 1 barn swallow nest present.



Photograph 12: Excavated hole south Structure 7. Exposed utilities and discarded debris.



Photograph 13: Structure 8, no migratory bird nests or water feature present.



Photograph 14: Structure 9 at S2 (no OHWM), no migratory bird nests present.



Photograph 15: S2, facing north from Structure 9.



Photograph 16: Temporary construction staging area, north of I-40, west of Arkansas River, facing west.



Photograph 17: Temporary construction staging area, north of I-40, west of Arkansas River, facing southeast through riparian woodland towards bridge.



Photograph 18: NBI: 17051 (Structure 10) over Arkansas River.



Photograph 19: Cliff swallow nests on bridge piers.



Photograph 20: Sandy soils and tree sapling growth along west bank of Arkansas River.



Photograph 21: Steeper sandy slopes along west bank Arkansas River.



Photograph 22: Riparian flooded woodland along east bank of Arkansas River.



Photograph 23: Recently disturbed typha and willow sapling dominated riparian wetland (W1) along east bank Arkansas River.



Photograph 24: Redoximorphic features present in potential wetland (W1) along east bank of Arkansas River.



Photograph 25: DF3 on south side of I-40, east of Arkansas River bridge.



Photograph 26: Structure 11, no migratory bird nests or water feature present.



Photograph 27: Upland wooded corridor in median.



Photograph 28: Disturbed area in wooded median.



Photograph 29: Structure 12, no migratory bird nests or water feature present.



Photograph 30: NBI 16944 (Structure 13) over SH-10.



Photograph 31: Cliff swallow nest beneath NBI: 16944 (Structure 13).



Photograph 32: Structure 14, no migratory bird nests or water feature present.



Photograph 33: NBI: 16945 (Structure 15) over SH-10, cliff swallow nests present.



Photograph 34: Structure 16, no migratory bird nest or water feature present.



Photograph 35: Structure 17, no migratory bird nests or water feature present.



Photograph 36: Eastern edge of study area along I-40, north side facing west.



Photograph 37: Eastern edge of study area along I-40, north side facing east.

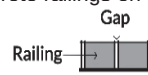


Photograph 38: Eastern edge of study area along I-40, south side facing west.

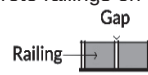


Photograph 39: Eastern edge of study area along I-40, south side facing east.

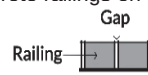
Date & Time of Assessment 3/14/22	DOT Project Number JP#34334(04)	Route/Facility Carried NS-433	County Muskogee
Federal Structure ID NBI# 17013	Structure Coordinates 35.481982 (latitude and longitude) -95.123685	Structure Height (approximate) 17	Structure Length 220
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material End/Back Wall Material
☐ Cast-in-place 	☐ Pre-stressed Girder 	☐ Metal	☐ None ☒ Concrete
☐ Flat Slab/Box 	☒ Steel I-beam 	☒ Concrete	☐ Concrete
☐ Truss 	☐ Covered 	☐ Timber	☒ Steel
☐ Parallel Box Beam 	☐ Other: RCB bridge?	☐ Open grid	☐ Timber
		☐ Other:	☐ Other:
Culvert Type		Culvert Material	Creosote Evidence
☐ Box	☐ Other Structure	☐ Metal	☐ Yes ☒ No
☐ Pipe/Round	☐ Identify barn/shed/structure and material type	☐ Concrete	☐ Unknown
☐ Other:		☐ Plastic	Notes:
		☐ Stone/Masonry	
		☐ Other:	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
☐ Bare ground	☐ Open vegetation	☒ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/trail - Type:	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other:	☐ Woodland/forested	☐ Other:
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
☐ All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☒ Bridges/culverts: rough surfaces or imperfections in concrete		☐ Guano	☐ Odor
☐ Other structures: soffits, rafters, attic areas		☐ Staining	☐ Photos
☒ Concrete surfaces (open roosting on concrete)	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Concrete surfaces (open roosting on concrete)		☐ Guano	☐ Odor
☐ Concrete surfaces (open roosting on concrete)		☐ Staining	☐ Photos
☒ Spaces between concrete end walls and the bridge deck	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Spaces between concrete end walls and the bridge deck		☐ Guano	☐ Odor
☐ Spaces between concrete end walls and the bridge deck		☐ Staining	☐ Photos
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Crack between concrete railings on top of the bridge deck		☐ Guano	☐ Odor
☐ Crack between concrete railings on top of the bridge deck		☐ Staining	☐ Photos
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Vertical surfaces on concrete I-beams		☐ Guano	☐ Odor
☐ Vertical surfaces on concrete I-beams		☐ Staining	☐ Photos
☒ Spaces between walls, ceiling joists	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Spaces between walls, ceiling joists		☐ Guano	☐ Odor
☐ Spaces between walls, ceiling joists		☐ Staining	☐ Photos
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes		☐ Guano	☐ Odor
☐ Weep holes, scupper drains, and inlets/pipes		☐ Staining	☐ Photos
☒ All guiderails	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ All guiderails		☐ Guano	☐ Odor
☐ All guiderails		☐ Staining	☐ Photos
☒ All expansion joints	☐ Not present	☐ Visual - live # dead #	☐ Audible ☐ Species
☐ All expansion joints		☐ Guano	☐ Odor
☐ All expansion joints		☐ Staining	☐ Photos
Name: Dale W. Daniel		Signature: 	

Date & Time of Assessment 3/14/22 11:15		DOT Project Number JP#34334(04)		Route/Facility Carried I-40		County Muskogee	
Federal Structure ID NBI# 16849		Structure Coordinates 35.481978 (latitude and longitude) -95.119217		Structure Height (approximate) 4		Structure Length 220	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☐ Cast-in-place 		☐ Pre-stressed Girder 		☐ Metal		☐ None	
☐ Flat Slab/Box 		☐ Steel I-beam 		☐ Concrete		☐ Concrete	
☐ Truss 		☐ Covered 		☐ Timber		☐ Steel	
☐ Parallel Box Beam 		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type				Culvert Material		Creosote Evidence	
☒ Box		☐ Other Structure		☐ Metal		☐ Yes ☒ No	
☐ Pipe/Round		☐ Identify barn/shed/structure and material type		☒ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☒ Standing water		☐ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☐ Other:		☐ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks:		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒ Bridges/culverts: rough surfaces or imperfections in concrete				☐ Guano		☐ Odor	
☐ Other structures: soffits, rafters, attic areas				☐ Staining		☐ Photos	
☒ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between concrete end walls and the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Crack between concrete railings on top of the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Vertical surfaces on concrete I-beams		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between walls, ceiling joists		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Weep holes, scupper drains, and inlets/pipes		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All guiderails		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All expansion joints		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature: 			

Date & Time of Assessment 3/14/22 11:30		DOT Project Number JP#34334(04)		Route/Facility Carried I-40		County Muskogee	
Federal Structure ID NBI#16907		Structure Coordinates 35.482281 (latitude and longitude) -95.113513		Structure Height (approximate) 4		Structure Length 220	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☐ Cast-in-place		☐ Pre-stressed Girder		☐ Metal		☐ None	
☐ Flat Slab/Box		☐ Steel I-beam		☐ Concrete		☐ Concrete	
☐ Truss		☐ Covered		☐ Timber		☐ Steel	
☐ Parallel Box Beam		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type				Culvert Material		Creosote Evidence	
☐ Box		☐ Other Structure		☐ Metal		☐ Yes ☐ No	
☐ Pipe/Round		☐ Identify barn/shed/structure and material type		☒ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☒ Standing water		☐ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☐ Other:		☐ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks:		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒ Bridges/culverts: rough surfaces or imperfections in concrete				☐ Guano		☐ Odor	
☐ Other structures: soffits, rafters, attic areas				☐ Staining		☐ Photos	
☒ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between concrete end walls and the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Crack between concrete railings on top of the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Vertical surfaces on concrete I-beams		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between walls, ceiling joists		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Weep holes, scupper drains, and inlets/pipes		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All guiderails		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All expansion joints		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature:			

Date & Time of Assessment 3/14/22	DOT Project Number JP#34334(04)	Route/Facility Carried I-40	County Muskogee
Federal Structure ID NBI#17051	Structure Coordinates 35.486855 (latitude and longitude) -95.097019	Structure Height (approximate) 100	Structure Length 2,000
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
☐ Cast-in-place 	☐ Pre-stressed Girder 	☐ Metal	☐ None
☐ Flat Slab/Box 	☒ Steel I-beam 	☒ Concrete	☐ Concrete
☐ Truss 	☐ Covered 	☐ Timber	☒ Steel
☐ Parallel Box Beam 	☐ Other: RCB bridge?	☐ Open grid	☐ Timber
		☐ Other:	☐ Other:
Culvert Type		Culvert Material	End/Back Wall Material
☐ Box	☐ Other Structure	☐ Metal	☒ Concrete
☐ Pipe/Round	☐ Identify barn/shed/structure and material type	☐ Concrete	☐ Timber
☐ Other:		☐ Plastic	☐ Stone/Masonry
		☐ Stone/Masonry	☐ Other:
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
☐ Bare ground	☐ Open vegetation	☒ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☒ Riparian/wetland
☐ Standing water	☐ Road/trail - Type:	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other:	☐ Woodland/forested	☐ Other:
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
☐ All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
☒ Concrete surfaces (open roosting on concrete)		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ Spaces between concrete end walls and the bridge deck	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ Crack between concrete railings on top of the bridge deck 	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ Spaces between walls, ceiling joists	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ All guiderails	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
☒ All expansion joints	☐ Not present	☐ Visual - live # dead #	☐ Audible Species
		☐ Guano	☐ Odor
		☐ Staining	☐ Photos
Name: Dale W. Daniel		Signature: 	

Date & Time of Assessment 3/14/22 13:00		DOT Project Number JP#34334(04)		Route/Facility Carried I40		County Sequoyah	
Federal Structure ID NBI# 16944		Structure Coordinates 35.489118 (latitude and longitude) -95.079297		Structure Height (approximate) 16		Structure Length 150	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☒ Cast-in-place 		☐ Pre-stressed Girder 		☐ Metal		☐ None	
☐ Flat Slab/Box 		☐ Steel I-beam 		☒ Concrete		☒ Concrete	
☐ Truss 		☐ Covered 		☐ Timber		☐ Steel	
☐ Parallel Box Beam 		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type		Other Structure		Culvert Material		Creosote Evidence	
☐ Box		☐ Identify barn/shed/structure and material type		☐ Metal		☐ Yes ☒ No	
☐ Pipe/Round				☐ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☐ Standing water		☒ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☐ Other:		☒ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between concrete end walls and the bridge deck		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Crack between concrete railings on top of the bridge deck		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒ 				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Vertical surfaces on concrete I-beams		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between walls, ceiling joists		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Weep holes, scupper drains, and inlets/pipes		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All guiderails		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All expansion joints		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature: 			

Date & Time of Assessment 3/14/22 13:30		DOT Project Number JP#34334(04)		Route/Facility Carried I-40		County Sequoyah	
Federal Structure ID NBI#16945		Structure Coordinates 35.490076 (latitude and longitude) -95.079282		Structure Height (approximate) 16		Structure Length 150	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☒ Cast-in-place 		☐ Pre-stressed Girder 		☐ Metal		☐ None	
☐ Flat Slab/Box 		☐ Steel I-beam 		☒ Concrete		☒ Concrete	
☐ Truss 		☐ Covered 		☐ Timber		☐ Steel	
☐ Parallel Box Beam 		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type				Culvert Material		Creosote Evidence	
☐ Box		☐ Other Structure		☐ Metal		☐ Yes ☒ No	
☐ Pipe/Round		☐ Identify barn/shed/structure and material type		☐ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☐ Standing water		☒ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☐ Other:		☒ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks:		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒ Bridges/culverts: rough surfaces or imperfections in concrete				☐ Guano		☐ Odor	
☐ Other structures: soffits, rafters, attic areas				☐ Staining		☐ Photos	
☒ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ Spaces between concrete end walls and the bridge deck		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ Crack between concrete railings on top of the bridge deck		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ Vertical surfaces on concrete I-beams		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ Spaces between walls, ceiling joists		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ Weep holes, scupper drains, and inlets/pipes		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ All guiderails		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☒ All expansion joints		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature: 			

Date & Time of Assessment 3/14/22		DOT Project Number JP#34334(04)		Route/Facility Carried I-40		County Muskogee	
Federal Structure ID Structures #2, 7, 9		Structure Coordinates (latitude and longitude) 35.482009, -95.122235 35.482880, -95.109575 35.483699, -95.106062		Structure Height (approximate) 4		Structure Length 220	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☐ Cast-in-place		☐ Pre-stressed Girder		☐ Metal		☐ None	
☐ Flat Slab/Box		☐ Steel I-beam		☐ Concrete		☐ Concrete	
☐ Truss		☐ Covered		☐ Timber		☐ Steel	
☐ Parallel Box Beam		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type				Culvert Material		Creosote Evidence	
☒ Box		☐ Other Structure		☐ Metal		☐ Yes ☒ No	
☐ Pipe/Round		☐ Identify barn/shed/structure and material type		☒ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☒ Standing water		☐ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☐ Other:		☐ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks:		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
☒ Bridges/culverts: rough surfaces or imperfections in concrete				☐ Guano		☐ Odor	
☐ Other structures: soffits, rafters, attic areas				☐ Staining		☐ Photos	
☒ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between concrete end walls and the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Crack between concrete railings on top of the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Vertical surfaces on concrete I-beams		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between walls, ceiling joists		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Weep holes, scupper drains, and inlets/pipes		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All guiderails		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All expansion joints		☒ Not present		☐ Visual - live # dead #		☐ Audible Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature:			

Date & Time of Assessment 3/14/22 14:00		DOT Project Number JP#34334(04)		Route/Facility Carried SH-10		County Sequoyah	
Federal Structure ID Structure 17		Structure Coordinates 35.491036 (latitude and longitude) -95.079293		Structure Height (approximate) 4		Structure Length 50	
Structure Type (check one)				Structure Material (check all that apply)			
Bridge Construction Style				Deck Material		Beam Material	
☐ Cast-in-place		☐ Pre-stressed Girder		☐ Metal		☐ None	
☐ Flat Slab/Box		☐ Steel I-beam		☐ Concrete		☐ Concrete	
☐ Truss		☐ Covered		☐ Timber		☐ Steel	
☐ Parallel Box Beam		☐ Other: RCB bridge?		☐ Open grid		☐ Timber	
				☐ Other:		☐ Other:	
Culvert Type				Culvert Material		Creosote Evidence	
☒ Box		☐ Other Structure		☐ Metal		☐ Yes ☒ No	
☐ Pipe/Round		☐ Identify barn/shed/structure and material type		☒ Concrete		☐ Unknown	
☐ Other:				☐ Plastic		Notes:	
				☐ Stone/Masonry			
				☐ Other:			
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)			
☐ Bare ground		☐ Open vegetation		☒ Agricultural		☐ Grassland	
☐ Rip-rap		☐ Closed vegetation		☐ Commercial		☐ Ranching	
☐ Flowing water		☐ Railroad		☐ Residential-urban		☐ Riparian/wetland	
☐ Standing water		☐ Road/trail - Type:		☐ Residential-rural		☐ Mixed use	
☐ Seasonal water		☒ Other: Concrete Drainways		☒ Woodland/forested		☐ Other:	
Areas Assessed (check all that apply)							
Check all areas that apply. If an area is not present in the structure, check the "not present" box.							
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.							
Area (check if assessed)		Assessment Notes		Evidence of Bats (include photos if present)			
☐ All crevices and cracks:		☐ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
☒ Bridges/culverts: rough surfaces or imperfections in concrete				☐ Guano		☐ Odor	
☐ Other structures: soffits, rafters, attic areas				☐ Staining		☐ Photos	
☒ Concrete surfaces (open roosting on concrete)		☐ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between concrete end walls and the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Crack between concrete railings on top of the bridge deck		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Vertical surfaces on concrete I-beams		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Spaces between walls, ceiling joists		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ Weep holes, scupper drains, and inlets/pipes		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All guiderails		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
☐ All expansion joints		☒ Not present		☐ Visual - live # dead #		☐ Audible ☐ Species	
				☐ Guano		☐ Odor	
				☐ Staining		☐ Photos	
Name: Dale W. Daniel				Signature:			



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
Phone: (918) 581-7458 Fax: (918) 581-7467



In Reply Refer To:

04/23/2025 16:11:44 UTC

Project Code: 2022-0015122

Project Name: Muskogee County JP 34334(04)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Oklahoma Ecological Services Field Office

9014 East 21st Street

Tulsa, OK 74129-1428

(918) 581-7458

PROJECT SUMMARY

Project Code: 2022-0015122

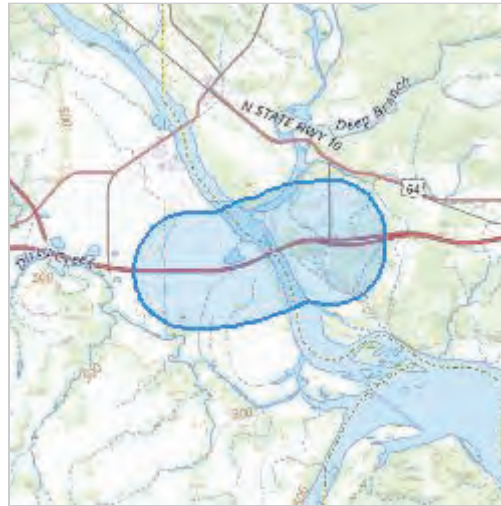
Project Name: Muskogee County JP 34334(04)

Project Type: Bridge - Replacement

Project Description: Bridge and Approaches on I-40 over Arkansas River

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@35.486474400000006,-95.10117058286409,14z>



Counties: Muskogee and Sequoyah counties, Oklahoma

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Ozark Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME	STATUS
American Burying Beetle <i>Nicrophorus americanus</i> Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/66	Threatened
Monarch Butterfly <i>Danaus plexippus</i>	Proposed Threatened

NAME	STATUS
There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
SEQUOYAH NATIONAL WILDLIFE REFUGE <a %5c%22sequoyah+national+wildlife+refuge%5c%22\""="" href="https://www.fws.gov/our-facilities?keywords=\">https://www.fws.gov/our-facilities? <a %5c%22sequoyah+national+wildlife+refuge%5c%22\""="" href="https://www.fws.gov/our-facilities?keywords=\">\$keywords=\"%5C%22SEQUOYAH+NATIONAL+WILDLIFE+REFUGE%5C%22\"	20,917.446

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

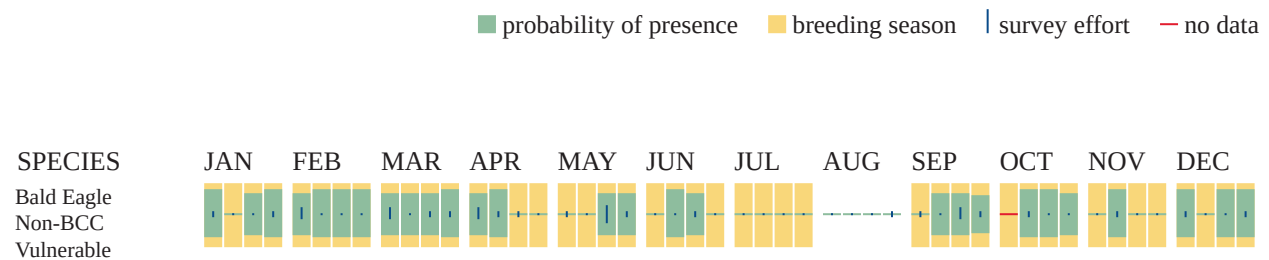
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Least Tern <i>Sternula antillarum antillarum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11919	Breeds Apr 25 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31

NAME	BREEDING SEASON
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

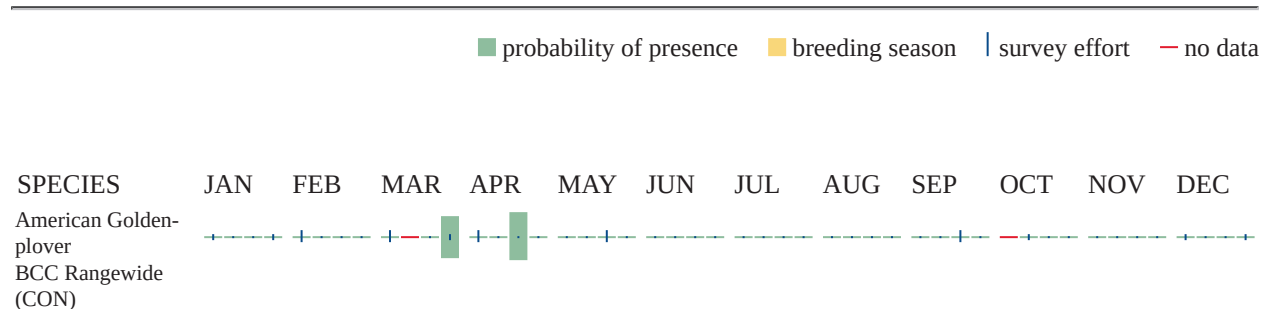
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

LAKE

- L1UBHh
- L1UBHx

FRESHWATER EMERGENT WETLAND

- PEM1Ch
- PEM1Fh
- PEM1A
- PEM1F
- PEM1Ah
- PEM1C

RIVERINE

- R5UBF
- R5UBFx
- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PSS/EM1A
- PSS1Ch
- PSS/EM1F
- PFO1Ch
- PFO1/SS1C
- PFO1Ah
- PSS1C
- PFO1C

FRESHWATER POND

- PUBHh
- PUSC
- PUBF
- PUBHx

IPAC USER CONTACT INFORMATION

Agency: Oklahoma Department of Transportation
Name: Kait Taylor
Address: 111 E. Chesapeake St.
Address Line 2: ODOT Highway Program at Oklahoma Biological Survey
City: Norman
State: OK
Zip: 73019
Email: ktaylor@odot.org
Phone: 4053255070

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



DATE: 19 March 2025

ONHI REF: 2025-138-BUS-CCE

TO: Leah Peterson
CC Environmental, LLC.
Leah@ccenviro.net

RE: Project Name: Muskogee JP 34334(04)
County: Muskogee
Specific Location:

Regarding your request for information on the presence of endangered species or other elements of biological significance at the project referenced above, we have reviewed information currently in the Oklahoma Natural Heritage Inventory database.

We found occurrences of the following relevant species within the project boundary or within one mile of the project border.

Documented Species ⓘ	Informal Taxonomy	Rounded NatureServe Global Status	Legal Status
<i>Macrochelys temminckii</i> Alligator Snapping Turtle	Turtles	G3: Vulnerable	USESA: 'PT'
<i>Myotis septentrionalis</i> Northern Myotis	Mammals	G2: Imperiled	COSEWIC: 'E' SARA: 'Endangered/En voie de disparition' USESA: 'E'
<i>Noturus placidus</i> Neosho Madtom	Fishes - Freshwater and Anadromous Bony, Cartilaginous; Lampreys	G2: Imperiled	USESA: 'T'

Because the ONHI database is only as complete as the information that has been collected, we cannot say with certainty whether or not a given site harbors rare species or ecological communities.

If you have further questions regarding biological information within your project area, please contact us.

Priscilla Crawford, PhD
Oklahoma Natural Heritage Inventory, Coordinator
prill@ou.edu
405-889-7188

WATERS AND WETLANDS EVALUATION REPORT

For

County	Muskogee	JP Number	34334(04)	Project Number	J3-4334(004)PM
Road Number	Interstate 40 (I-40)	Water Body Name		Arkansas River	
ROW Date	2025	Let Date	2027	Project Length	1 Mile Project Length (2.6 Miles Study Length)
Project General Location		South of Webbers Falls, OK			
Project Statement		Bridge and Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile			

Prepared for:
Oklahoma Department of Transportation
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105

Prepared by:

Biologist Name	Leah Peterson
Company/Agency Name	CC Environmental, LLC
Address	PO Box 1292
City, State Zip	Norman, OK 73070

Report Date:	March 19, 2022; and March 12, 2025
Field Date:	March 14, 2022

PROJECT OVERVIEW

Project Type (Choose one)	Check ☒
Bridge and Approaches or bridge widening/structure extension	☒
Grade, Drain, Surface and Bridge	☐
Grade, Drain and Surface	☐
Asphalt Overlay Resurfacing	☐
Widen and Resurface existing lanes	☐
Pavement Reconstruction or rehabilitation	☐
Bridge Rehabilitation	☐
Safety Improvements (Cable Barrier, Guardrail, signage)	☐
Intersection Modifications	☐
Safe Routes to School (Describe)	☐
Enhancements (Describe)	☐
Other (Describe)	☐

Description of the existing bridge/roadway

The existing study segment of I-40, starting at CR NS-4435 and extending approximately 2.6 miles east to the SH-10 interchange, is an open section interstate facility. It is located in rural and flat terrain between Webbers Falls and Carlisle, Oklahoma. It is a divided highway with four 12-foot-wide paved driving lanes with 4-foot-wide inside shoulders and 10-foot-wide outside shoulders. The dividing median is 10 feet wide and consists of regularly maintained herbaceous vegetation. The 2030 average daily traffic (ADT) is 23,100 vehicles per day (vpd).

There are six bridge-class structures or National Bridge Inventory (NBI) bridges within the study area: NBI# 16849 and 16907 over unnamed tributaries of Dirty Creek, NBI# 17013, 16944, and 16945 over I-40 and SH-10, and NBI# 17051 over the Arkansas River. However, only the Arkansas River bridge will be addressed during this project.

NBI# 16849 and NBI #16907 are 2- cell reinforced concrete box (RCBs) structures measuring 4 feet in height and 220 feet long.

NBI# 17013 is a concrete and steel I-beam over pass span bridge measuring 17 feet in height and 220 feet long. This bridge conveys traffic over I-40 and SH-10.

NBI# 16944 and NBI# 16945 is a concrete cast- in-place overpass span bridge measuring 16 feet in height and 150 feet long. This bridge conveys traffic over I-40 and SH-10.

NBI# 17051 is a 13-span concrete and steel I-beam structure measuring 1,989 feet long with a clear roadway width of 60 feet. The bridge was constructed in 1967, has a sufficiency rating of 83, and is considered not deficient. However, this bridge is at risk of becoming damaged by barge traffic particularly during high flow events.

The purpose of the proposed project is to improve safety, and the need for the project is to correct a

bridge at risk of becoming damaged by barge traffic.

The purpose of the proposed project is to improve safety, and the need for the project is to correct a bridge at risk of becoming damaged by barge traffic.

Description of proposed improvements SPECIFIC TO THIS PROJECT

The proposed improvements include replacing the existing I-40 bridge over the Arkansas River with a new 75-foot-wide span bridge with a median divider barrier. No other drainage structures will be addressed during this project. The I-40 approach roadway will be partially reconstructed to create four 12-foot-wide driving lanes with 10-foot-wide outside and 5-foot-wide inside shoulders. Eastbound and westbound traffic will be divided with a concrete barrier that transitions to a grassed median.

The bridge will be constructed on the existing alignment and within the current right-of-way (ROW). However, temporary ROW in the northwest corner of the project will be required for a staging area necessary to construct the bridge. The highway will remain open during construction and access to private properties will be maintained. Ground disturbance outside of existing pavement, clearing and grubbing, tree removal, and disturbance within the OHWM will be required. Construction will occur in phases, using crossovers to maintain a single lane of traffic in both directions throughout the duration of construction.

Project Environmental Study Footprint

Project Location		Environmental Study Footprint	
<u>Section Range & Township</u>	<u>Lat/Long (NAD 83)</u>	<u>Dimensions</u>	<u>Acreage</u>
Sections 28, 29, and 30-T12N-R21E	Bridge Center: (35.486855°, -95.097019°)	~2.6 miles along I-40, extending from 185 to 250 feet L/R of center.	135.1 acres

Environmental Study Footprint Soils (NRCS Soil Survey Map)

Map Unit Name	Percent Slope	Drainage Class	Hydric Rating		Description
			YES	NO	
Muskogee County					
28 – Keo	0 to 1	Well drained		X	Very fine sandy loam, rarely flooded
29 – Kiomata	0 to 1	Well drained		X	Loamy fine sand, frequently flooded
30 – Kiomata	0 to 2	Well drained		X	Fine sandy loam, rarely flooded
35 – Latanier	0 to 1	Somewhat poorly drained		X	Silty clay loam, rarely flooded
42 – Norwood	0 to 1	Well drained		X	Silt loam, rarely flooded
60 – Roxana	0 to 1	Well drained		X	Very fine sandy loam, rarely flooded
61 – Roxana	1 to 3	Well drained		X	Very fine sandy loam, rarely flooded
62 – Severn	0 to 1	Well drained		X	Very fine sandy loam, rarely flooded

63 – Severn	2 to 6	Well drained		X	Very fine sandy loam, rarely flooded
Sequoyah County					
HeF – Hector-Linker-Enders complex	5 to 40	Well drained		X	Stony fine sandy loam, extremely stony
LnD – Linker-Hector complex	5 to 8	Well drained		X	Loam
LoD3 – Linker and Stigler soils	3 to 8	Well drained		X	Loam, severely eroded
LrA – Coushatta	0 to 1	Well drained		X	Silt loam, rarely flooded
PcC2 – Shermore	3 to 5	Somewhat poorly drained		X	Loam, eroded

Environmental Study Footprint General Description and Vegetation Present

The study area is located in the Arkansas River Floodplain ecoregion of Oklahoma. This ecoregion is underlain by alluvium and includes a landscape etched with natural levees, meander scars, oxbow lakes, point bars, swales, and backswamps. Reservoir, channel, and levee construction have reduced the frequency, magnitude, and duration of natural flood cycles. Much of the floodplains have been cleared for agricultural use; however, some native bottomland forest remains in frequently flooded and poorly drained areas. The Arkansas River Floodplain ecoregion is lithologically, physiographically, and floristically different from nearby uplands.

The study area occurs in the Dog Branch of the Arkansas River, Dirty Creek Outlet, and Illinois River Outlet Subwatersheds. Review of the U.S. Geological Survey (USGS) 7.5-Minute Topographic Map and National Wetlands Inventory (NWI) Maps identified two mapped streams (unnamed tributaries) and the Arkansas River within the study area. Some non-mapped upland drainage features were also noted within the study area. In addition, a primarily bottomland hardwood forested riverine wetland was identified along the east bank of the Arkansas River.

The following community types were identified within the NEPA study footprint:

Maintained Right-of-Way (ROW) Vegetation- Dominant vegetation in this community type included: cheatgrass (*Bromus tectorum*), henbit (*Lamium amplexicaule*), bermudagrass (*Cynodon dactylon*), switchgrass (*Panicum virgatum*), little bluestem (*Schizachyrium scoparium*), and johnsongrass (*Sorghum halepense*).

Upland Oak-Hickory Woodland- Dominant vegetation in this community type included: cedar (*Juniperus virginiana*), elm (*Ulmus* spp.), oak (*Quercus* spp.), shortleaf pine (*Pinus echinata*), redbud (*Cercis canadensis*), and dogwood (*Cornus florida*).

Bottomland Hardwood Forest/Floodplain Forest- Dominant vegetation in this community type included: sycamore (*Platanus occidentalis*), cottonwood (*Populus deltoides*), redbud (*Cercis canadensis*), elm (*Ulmus* spp.), willow (*Salix nigra*), and buttonbush (*Cephalanthus occidentalis*). Understory herbaceous vegetation included cattail (*Typha* spp.), creek oats (*Chasmanthium latifolium*), greenbrier (*Smilax bona-nox*), and Canada wild rye (*Elymus canadensis*).

WATERS AND WETLANDS EVALUATION

Data Sources Reviewed (list)

USGS 7.5-minute Quad	NWI Map	USACE Wetland Regional Supplement	Additional Resources Reviewed
Stigler NE (1963)	Stigler NE (1982)	Eastern Mountains and Piedmont	

Streams and Drainage Features Summary Table

Individual Feature #	Stream Name	Mapped on 7.5 Minute USGS	Feature Type Based on Field Data	Potential Jurisdictional Status	Acres within Environmental Study Footprint
S1	Unnamed Tributary	Mapped-R5UBF	Intermittent	Likely	0.044-acre
S2	Unnamed Tributary to Dirty Creek	Mapped-R4SBC	Ephemeral	Not Likely	0.016-acre
S3	Arkansas River	Mapped-L1UBHh	Perennial	Likely	17.8 acres
DF1	Non-Mapped Drainage Feature	Not Mapped	Ditch	Not Likely	0.017-acre
DF2	Non-Mapped Drainage Feature	Not Mapped	Ephemeral	Not Likely	0.019-acre
DF3	Non-Mapped Drainage Feature	Not Mapped	Ditch	Not Likely	0.015-acre

Wetlands and Open Waters Summary Table

Individual Feature #	Type of Wetland or Pond	Cowardin Classification	Potential Jurisdictional Status	Acres within Environmental Study Footprint
W1	Forested Riverine Wetland	PEM1Ch	Likely Jurisdictional	2.50 acres

Streams and Drainage Features Descriptions

S1 (Unnamed Tributary) was classified as a semi-permanently flooded, excavated, unknown perennial riverine system with an unconsolidated bottom. This feature is a first-order stream that flows from north to south within the study area before ultimately emptying into another unnamed tributary to Dirty Creek south of the study area. Approximately 0.044-acre of S1 occurs within the study area. The ordinary high-water mark was approximately 4 feet in width. The feature appears to be a small trenched agricultural canal for draining the surrounding cultivated cropland area. At the time of reconnaissance, the feature had turbid, standing water approximately 12 inches deep, overlying loamy soils. Riparian vegetation was consistent with the maintained ROW ecotype described above, including bermudagrass, cheatgrass, johnsongrass, and some smartweed. Beyond the ROW, the stream was bounded by cultivated cropland. Because of its mapped status and field-verified bed and bank characteristics, S1 is considered ***likely*** jurisdictional.

S2 (Unnamed Tributary to Dirty Creek) was classified as a seasonally flooded, intermittent riverine streambed. This feature is a first-order stream that appears to originate from a large constructed impoundment north adjacent to the study area. It is a mapped stream that flows to the south under I-40 at Structure 7 and then empties into Dirty Creek south of the study area. However, no identifiable stream characteristics were observed at Structure 7, just some pooling at an excavated depression. Based on surface topography, the lowest point along the impoundment appears to drain toward Structure 9 on the southeast side of the dam, so it was assumed that S2 was actually located in this area. Approximately 0.016-acre of S2 was present within the study area. There was no definitive bed and bank characteristics for this feature identified in the field, but there did appear to be some evidence of an ephemeral drainage swale. The observed vegetation was consistent with the maintained ROW ecotype described above and included species such as bermudagrass, cheatgrass, johnsongrass, and henbit. Beyond the ROW, the drainage pathway was obscured by cultivated cropland. Since this feature did not exhibit clear bed and bank characteristics and appeared to resemble an ephemeral drainage, it is considered not-likely jurisdictional.

S3 (Arkansas River) was classified as a permanently flooded, limnetic lacustrine impoundment. However, this feature is a flowing river and part of the McClellan-Kerr Arkansas River Navigational System (i.e., navigable waterway), and is listed as a Section 10 water. Approximately 17.8 acres of S3 occur within the study area. At the time of reconnaissance, the feature appeared to be a large, open, deep-water river feature with slow-moving and slightly turbid water. Riparian vegetation was consistent with the bottomland hardwood/floodplain forest ecotype described above, and included species such as sycamore, cottonwood, elm, redbud, and buttonbush. Because of its mapped status and field-verified bed and bank characteristics, S3 is considered likely jurisdictional.

DFs-1, -2 and -3 (Non-Mapped Drainage Features) were noted as significant surface water drainage paths but did not present any hydrological connections to USGS-mapped stream segments. Generally, they had poorly defined bed and bank characteristics and appeared to primarily convey water only in direct response to precipitation events. None of these features appear to have any significant nexus to downstream jurisdictional features, and thus, DFs -1, -2, and -3 would not likely be considered jurisdictional by the USACE.

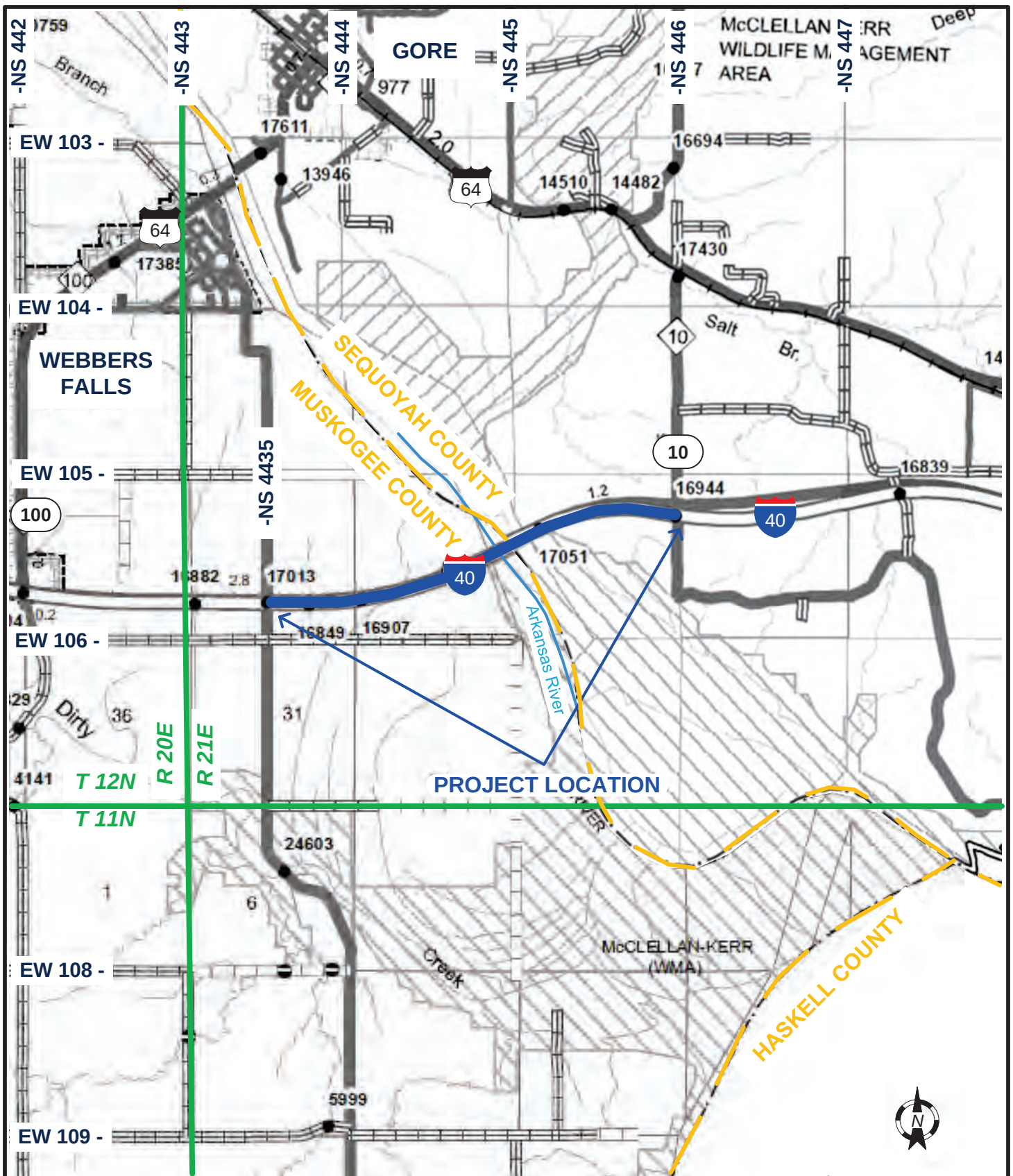
Wetlands and Open Water Descriptions

W1 (Forested Riverine Wetland) is a non-mapped forested wetland feature directly adjacent to the Arkansas River channel along its east bank. W1 was delineated to cover approximately 2.5 acres within the study area. It appears that the primary surface water inputs into the wetland are from overbank river flow and surface runoff from the adjacent upland woodland area to the east. Outflow is likely from drainage to the river during periods of low flow, downward infiltration, and evaporation. At the time of reconnaissance, much of the wetland area was dominated by woody vegetation including mature sycamore, elm, and cottonwood trees. Near the bridge, the canopy was cleared, and the wetland fringe was dominated by cattail, willow saplings, and buttonbush. Soils were a dark brown clay loam with clear redoximorphic features. W1 meets the characteristics to be considered a wetland, and because it shares a significant nexus to a jurisdictional waterway, W1 is likely to be considered jurisdictional by the USACE.

REFERENCES

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe (1979), Classification of Wetlands and Deepwater Habitats of the United States. FWS/OBS-79-31. USDI Fish and Wildlife Service, Washington, DC. 103 pp.
- Duck, L.G., and J.B. Fletcher (1945), *A Survey of the Game and Furbearing Animals of Oklahoma*; Chapter 2, The Game Types of Oklahoma. Oklahoma Game and Fish Commission, Division of Wildlife Restoration and Research, Oklahoma City, OK.
- NRCS (2022), *Web Soil Survey*, Natural Resources Conservation Service on line mapper, accessed February 2025: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- NRCS (2022), *Soil Series Name Search Query Facility*, Natural Resources Conservation Service, Official Soil Series Descriptions, available on-line, accessed February 2025.
- NRCS (2022), *National Hydric Soils List by State*, Natural Resources Conservation Service, Official Soil Series Descriptions, available on-line, accessed February 2025.
- OWRB (1982), *National Wetland Inventory Map, Stigler NE*; 7.5-minute quadrangle, map scale 1: 24,000, Oklahoma Water Resources Board, available on-line, accessed February 2025.
- USACE (1987), Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS. 100 pp.
- USACE (2012), *Eastern Mountains and Piedmont - Regional Supplement, Wetland Delineation Manual* (version 2.0), ed. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-12-9. U.S. Army Corps of Engineers, Engineer Research and Development Center, Vicksburg, MS.
- USGS (1963), *USGS Topographic Map*, US Geological Survey on-line viewer, accessed December 2021, 7.5-minute quadrangles, *Stigler NE*, maps scale 1: 24,000.
- Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. (2005), *Ecoregions of Oklahoma*; U.S. Geological Survey, Reston, VA, map scale 1:1,250,000.

FIGURES



LOCATION MAP

J/P 34334(04); Proj. # J3-4334(004)
 Bridge & Approaches I-40: Over Arkansas River
 begin MP 290, east 1.0 mile
 Muskogee County, OK



Figure 1



COMMENTS/LEGEND

- NEPA Environmental Footprint
- County Line



0 0.125 0.25 0.5 Miles

Topographic Map

Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



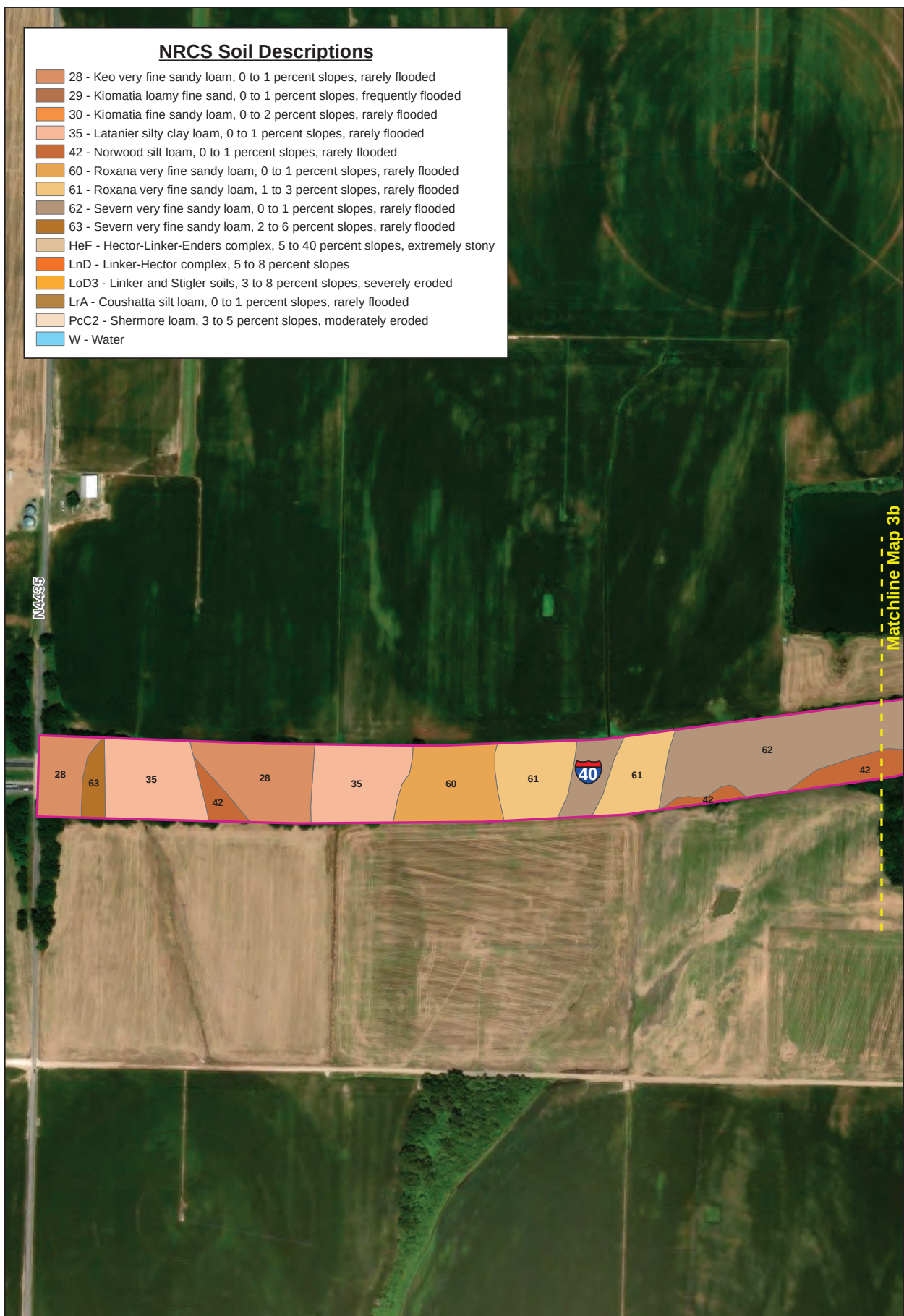
DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

Figure 2

Date: 3/17/2025

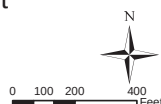
NRCS Soil Descriptions

- 28 - Keo very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 29 - Kiomatia loamy fine sand, 0 to 1 percent slopes, frequently flooded
- 30 - Kiomatia fine sandy loam, 0 to 2 percent slopes, rarely flooded
- 35 - Latanier silty clay loam, 0 to 1 percent slopes, rarely flooded
- 42 - Norwood silt loam, 0 to 1 percent slopes, rarely flooded
- 60 - Roxana very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 61 - Roxana very fine sandy loam, 1 to 3 percent slopes, rarely flooded
- 62 - Severn very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 63 - Severn very fine sandy loam, 2 to 6 percent slopes, rarely flooded
- HeF - Hector-Linker-Enders complex, 5 to 40 percent slopes, extremely stony
- LnD - Linker-Hector complex, 5 to 8 percent slopes
- LoD3 - Linker and Stigler soils, 3 to 8 percent slopes, severely eroded
- LrA - Couchatta silt loam, 0 to 1 percent slopes, rarely flooded
- PcC2 - Shermore loam, 3 to 5 percent slopes, moderately eroded
- W - Water



COMMENTS/LEGEND

- NEPA Environmental Footprint
- Matchlines



NRCS Soils

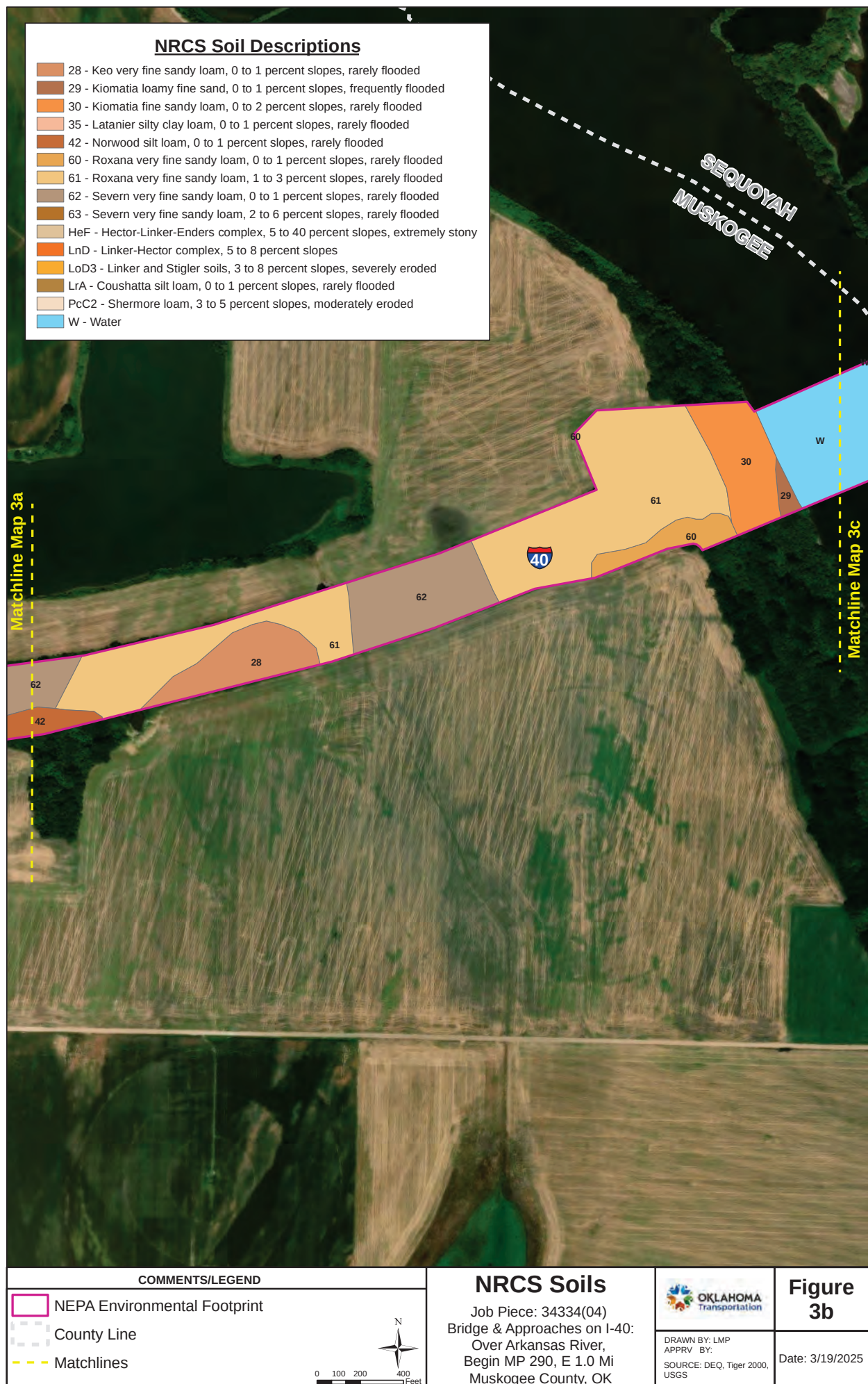
Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

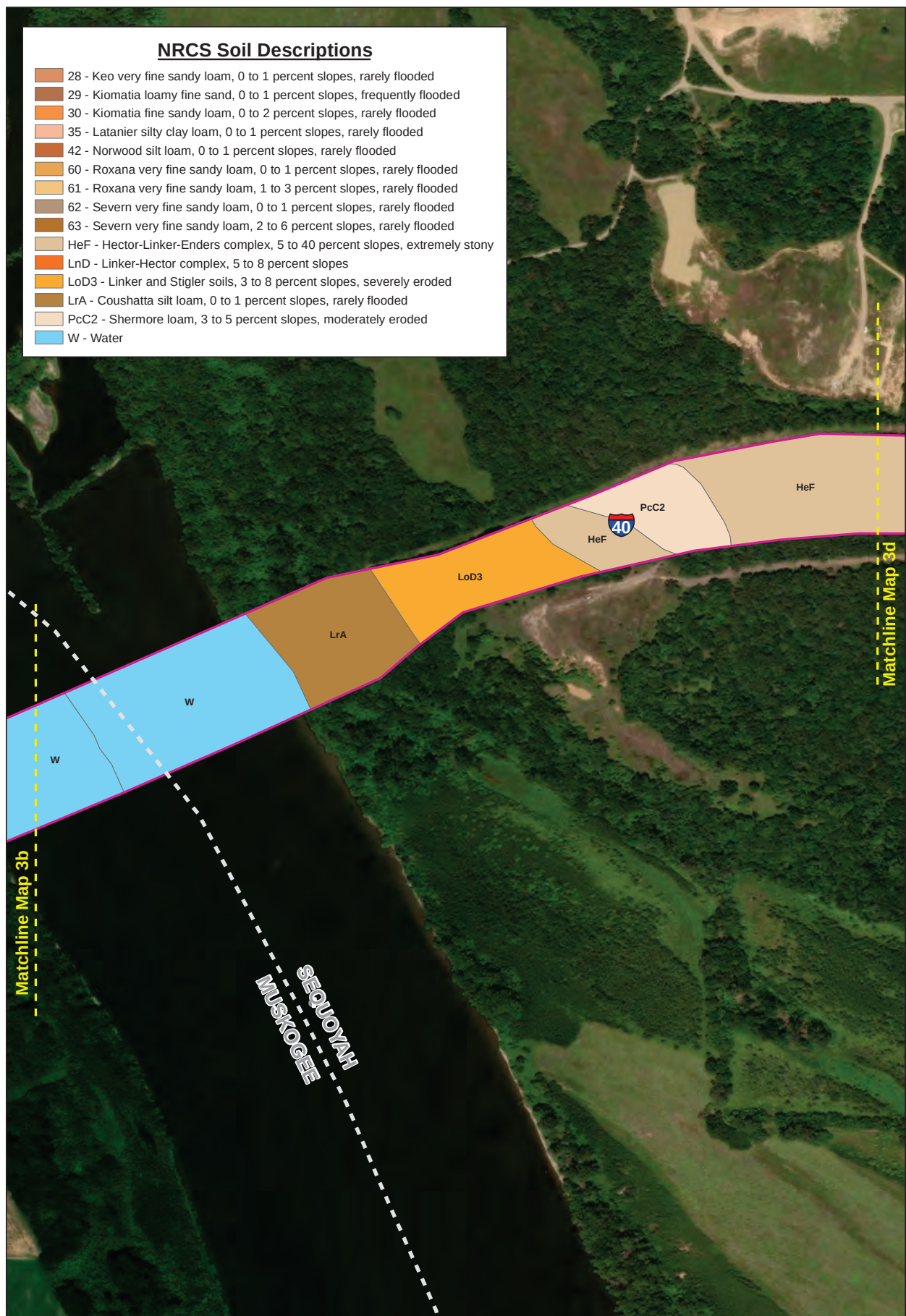
Figure 3a

Date: 3/19/2025



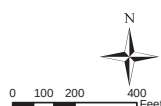
NRCS Soil Descriptions

- 28 - Keo very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 29 - Kiomatia loamy fine sand, 0 to 1 percent slopes, frequently flooded
- 30 - Kiomatia fine sandy loam, 0 to 2 percent slopes, rarely flooded
- 35 - Latanier silty clay loam, 0 to 1 percent slopes, rarely flooded
- 42 - Norwood silt loam, 0 to 1 percent slopes, rarely flooded
- 60 - Roxana very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 61 - Roxana very fine sandy loam, 1 to 3 percent slopes, rarely flooded
- 62 - Severn very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 63 - Severn very fine sandy loam, 2 to 6 percent slopes, rarely flooded
- HeF - Hector-Linker-Enders complex, 5 to 40 percent slopes, extremely stony
- LnD - Linker-Hector complex, 5 to 8 percent slopes
- LoD3 - Linker and Stigler soils, 3 to 8 percent slopes, severely eroded
- LrA - Coushatta silt loam, 0 to 1 percent slopes, rarely flooded
- PcC2 - Shermore loam, 3 to 5 percent slopes, moderately eroded
- W - Water



COMMENTS/LEGEND

- NEPA Environmental Footprint
- County Line
- Matchlines



NRCS Soils

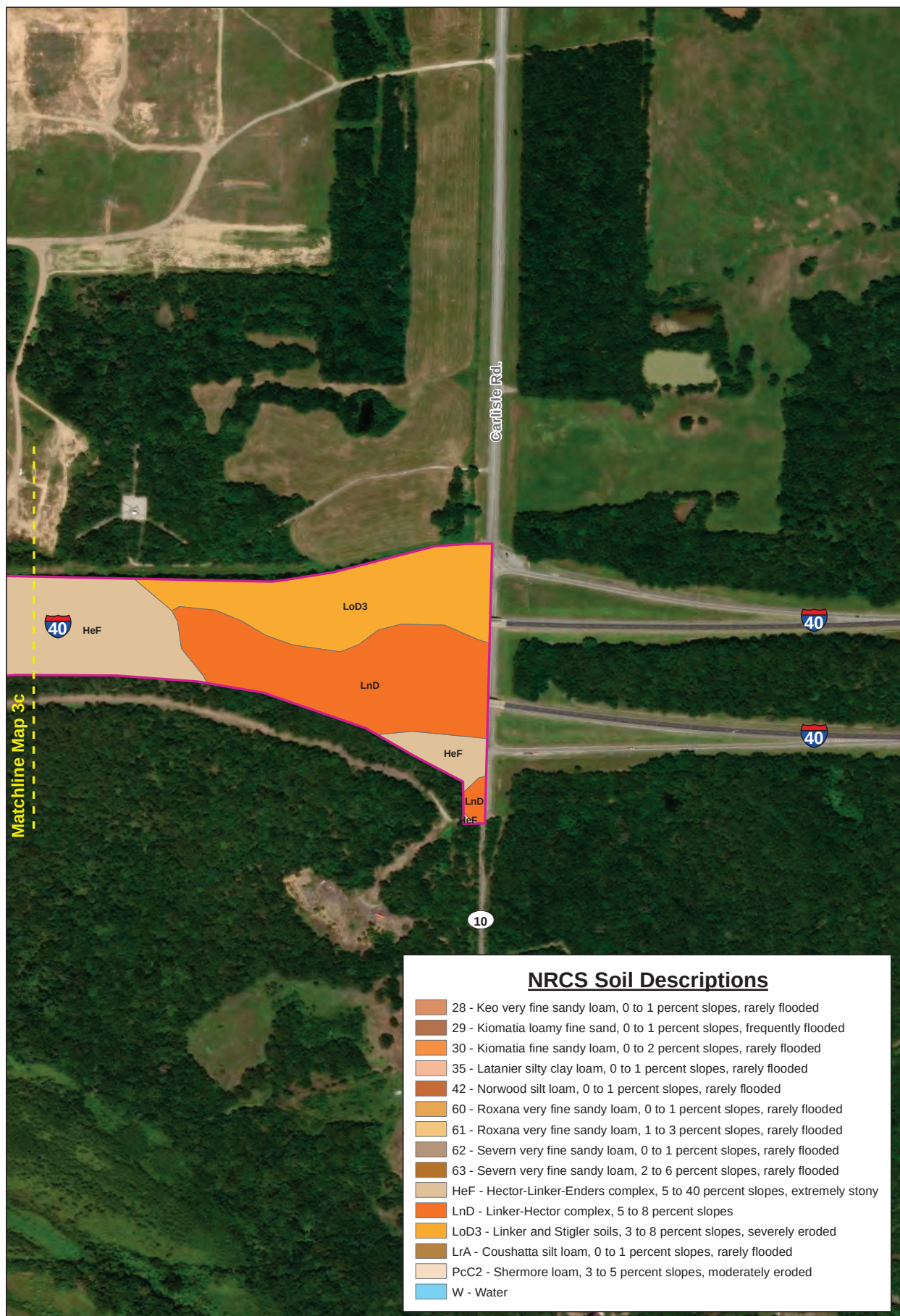
Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

Figure 3c

Date: 3/19/2025

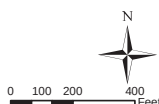


NRCS Soil Descriptions

- 28 - Keo very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 29 - Kiomatia loamy fine sand, 0 to 1 percent slopes, frequently flooded
- 30 - Kiomatia fine sandy loam, 0 to 2 percent slopes, rarely flooded
- 35 - Latanier silty clay loam, 0 to 1 percent slopes, rarely flooded
- 42 - Norwood silt loam, 0 to 1 percent slopes, rarely flooded
- 60 - Roxana very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 61 - Roxana very fine sandy loam, 1 to 3 percent slopes, rarely flooded
- 62 - Severn very fine sandy loam, 0 to 1 percent slopes, rarely flooded
- 63 - Severn very fine sandy loam, 2 to 6 percent slopes, rarely flooded
- HeF - Hector-Linker-Enders complex, 5 to 40 percent slopes, extremely stony
- LnD - Linker-Hector complex, 5 to 8 percent slopes
- LoD3 - Linker and Stigler soils, 3 to 8 percent slopes, severely eroded
- LrA - Coushatta silt loam, 0 to 1 percent slopes, rarely flooded
- PcC2 - Sherman loam, 3 to 5 percent slopes, moderately eroded
- W - Water

COMMENTS/LEGEND

- NEPA Environmental Footprint
- Matchlines



NRCS Soils

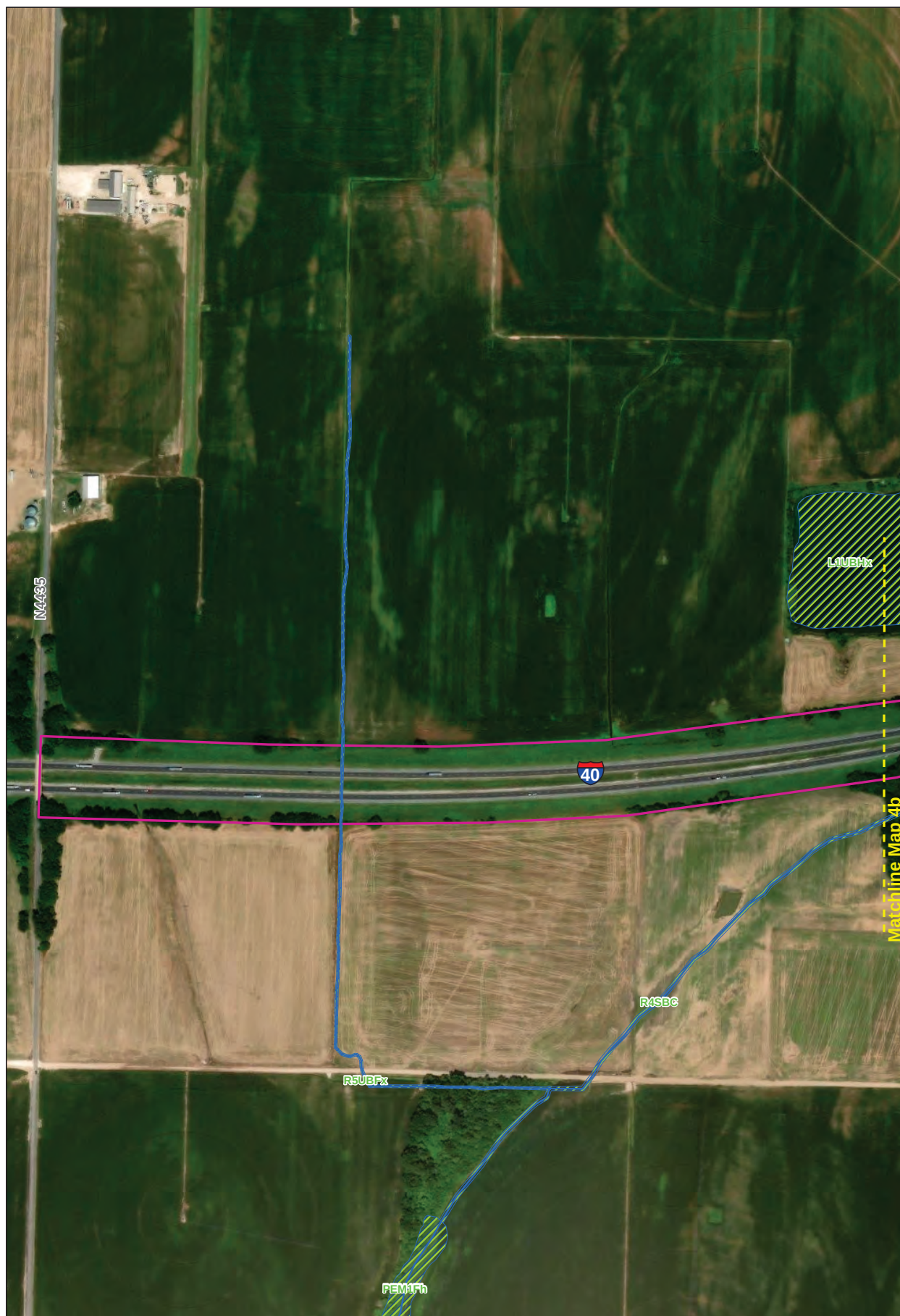
Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK



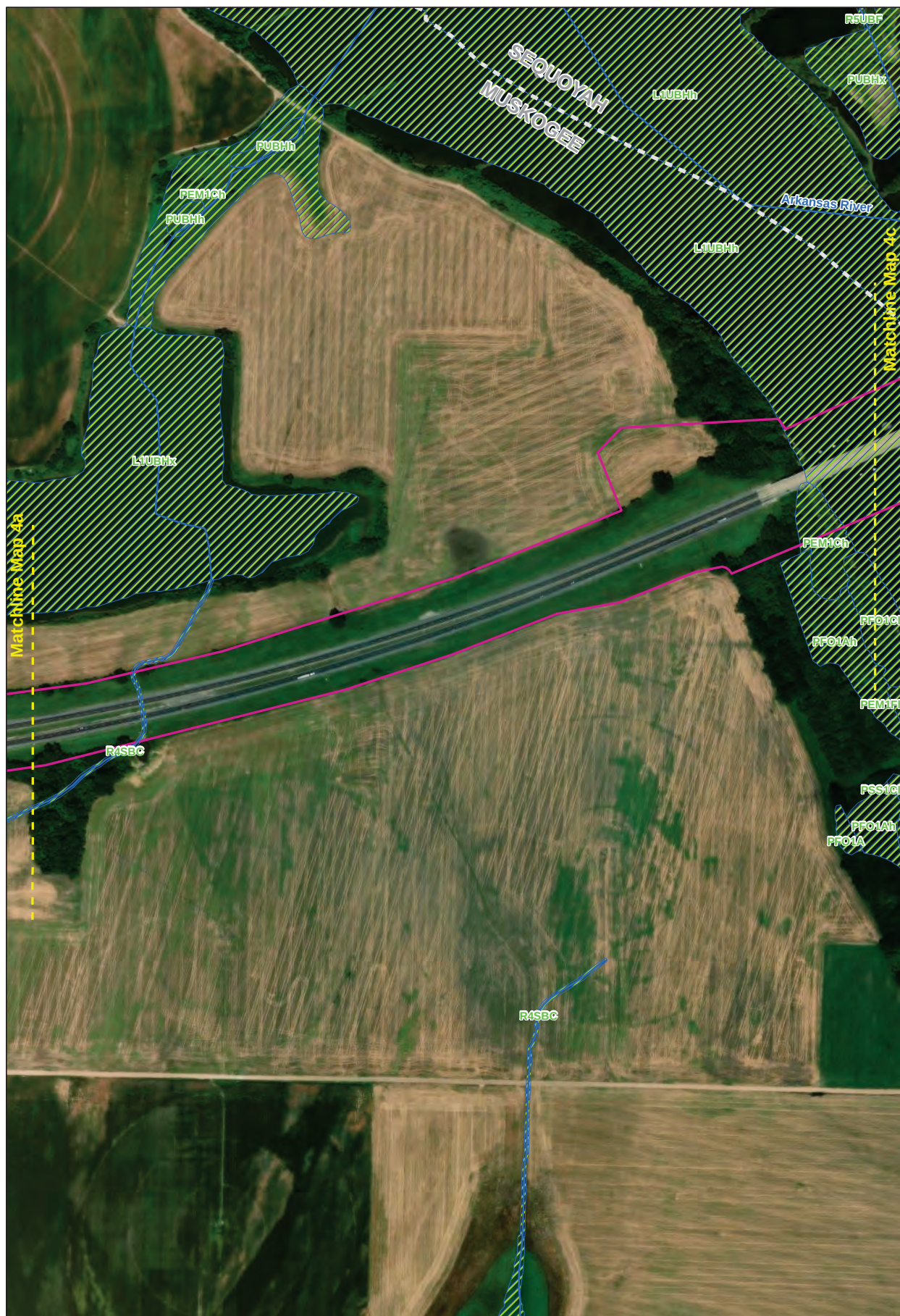
DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS

Figure 3d

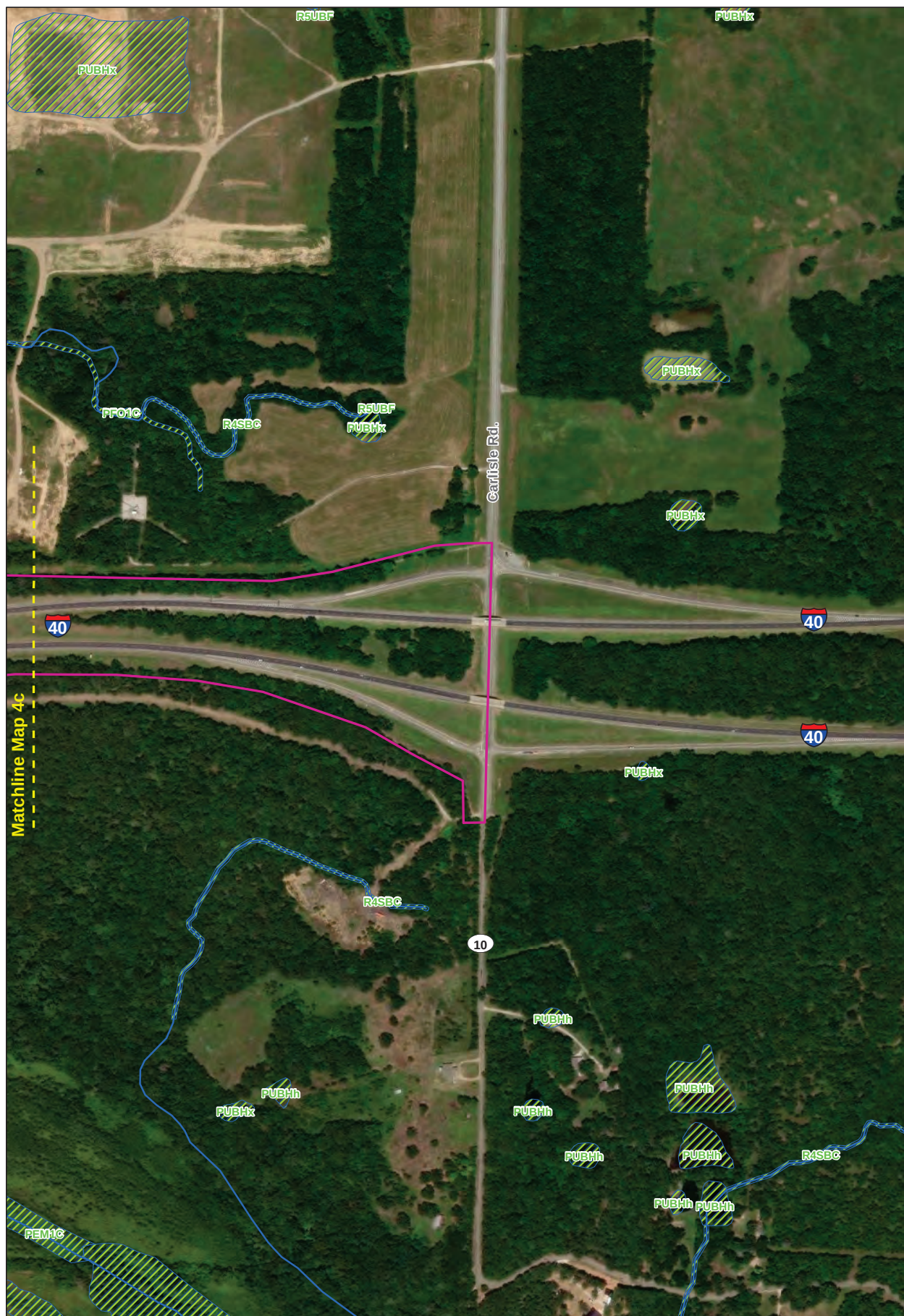
Date: 3/19/2025



COMMENTS/LEGEND		NWI Wetlands Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Figure 4a Date: 3/19/2025
 NEPA Environmental Footprint  Mapped Streams  NWI Wetlands	 County Line  Matchlines			

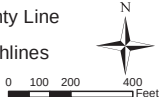


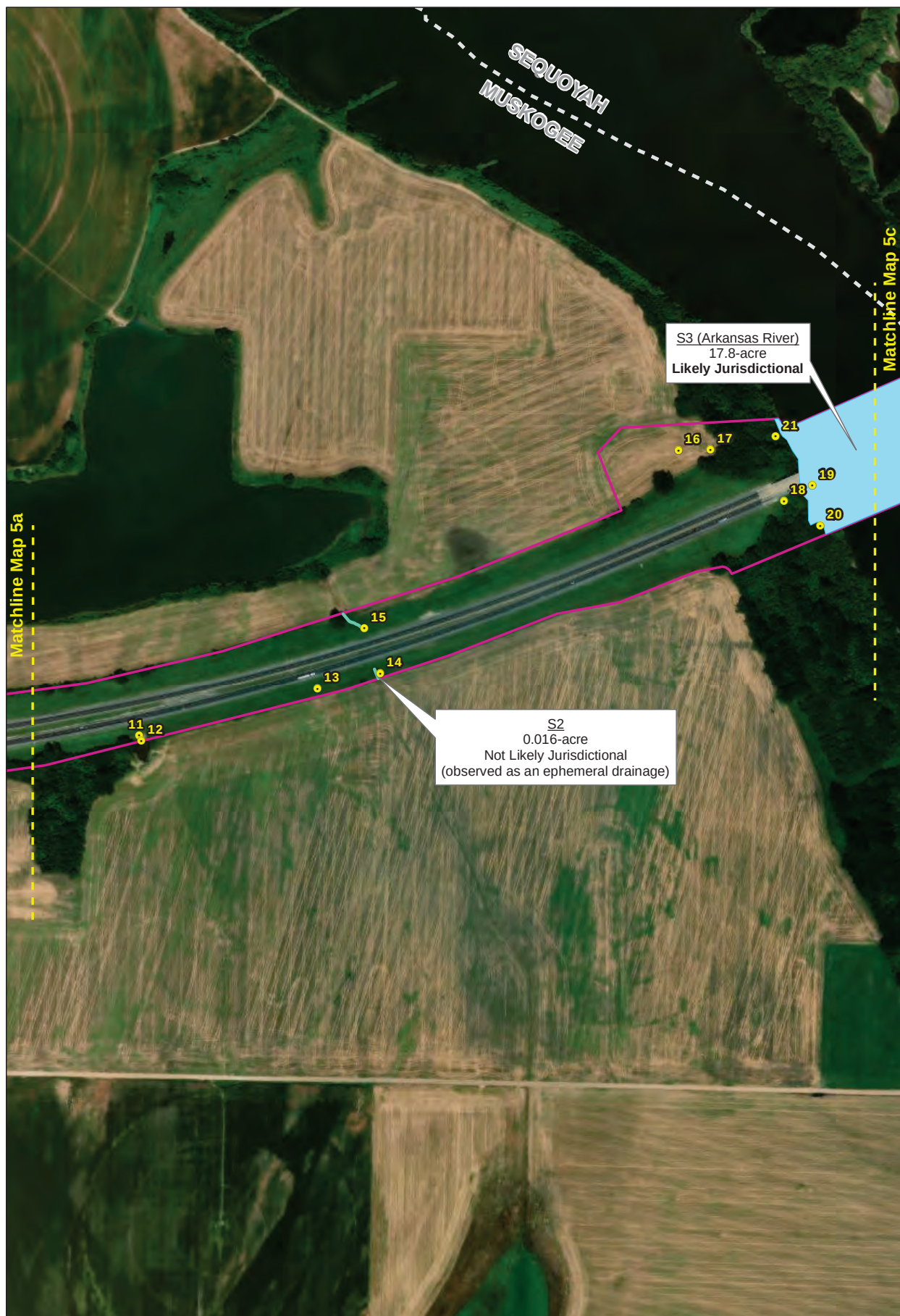
COMMENTS/LEGEND		NWI Wetlands Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Figure 4b Date: 3/19/2025
 NEPA Environmental Footprint  Mapped Streams  NWI Wetlands	 County Line  Matchlines			



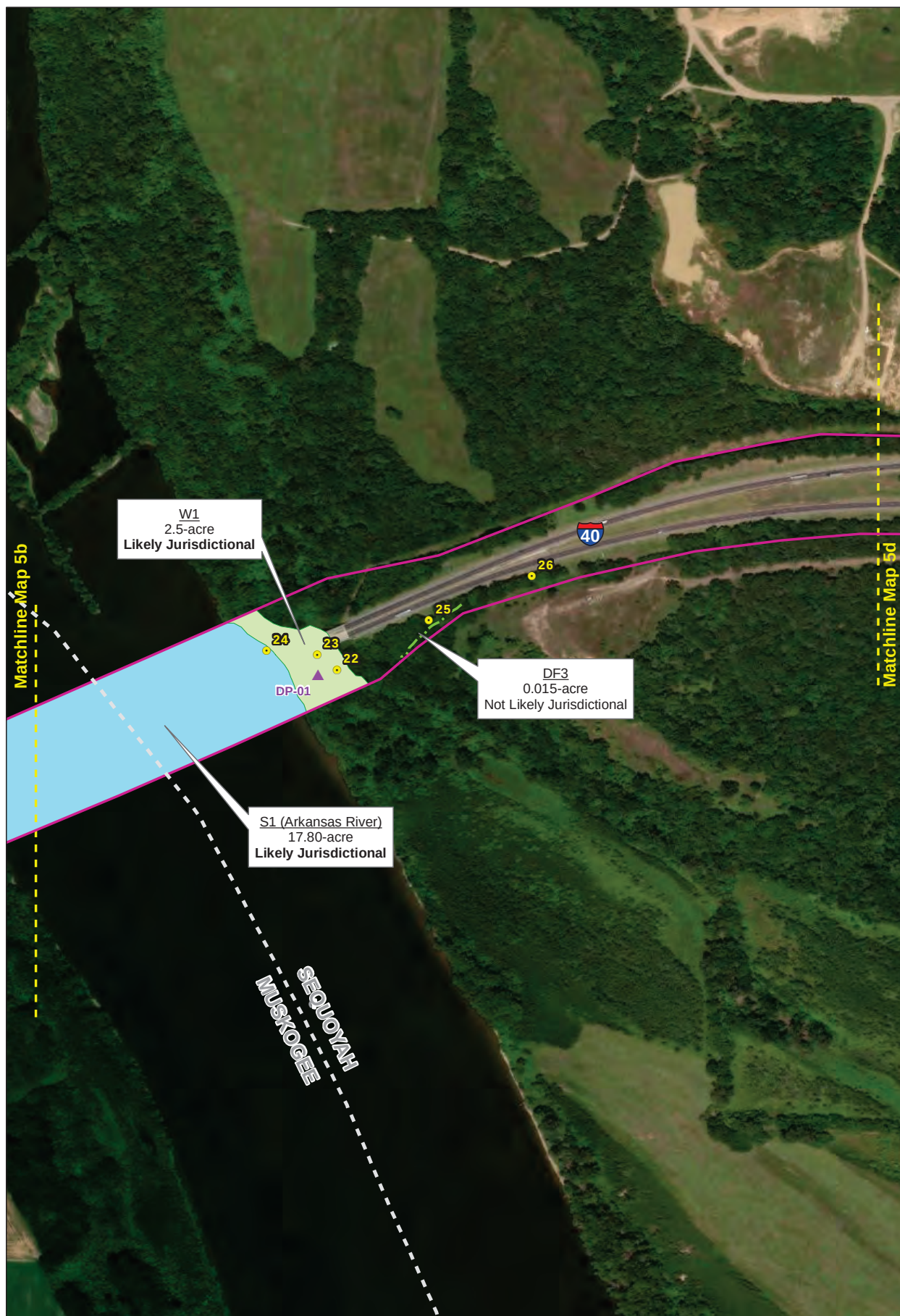
COMMENTS/LEGEND		NWI Wetlands Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 4d
 NEPA Environmental Footprint  Mapped Streams  NWI Wetlands	 Matchlines  County Line		
		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 3/19/2025



COMMENTS/LEGEND		Delineation Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	 Figure 5a
 NEPA Environmental Footprint  Field Confirmed USGS Streams  Field Identified Wetlands  Non-mapped Drainage Features	 Photo Locations  County Line  Matchlines		
		DRAWN BY: LMP APPRV. BY: SOURCE: DEQ, Tiger 2000, USGS	Date: 4/14/2025



COMMENTS/LEGEND		0100200400 Feet	N	Delineation Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	OKLAHOMA Transportation	Figure 5b		
NEPA Environmental Footprint	Non-mapped Drainage Features				Field Confirmed USGS Streams	Photo Locations	Field Identified Wetlands	County Line



COMMENTS/LEGEND		OKLAHOMA Transportation	Figure 5c
NEPA Environmental Footprint Field Confirmed USGS Streams Field Identified Wetlands Non-mapped Drainage Features	Photo Locations Wetland Data Point County Line Matchlines		Date: 4/14/2025

Delineation
 Job Piece: 34334(04)
 Bridge & Approaches on I-40:
 Over Arkansas River,
 Begin MP 290, E 1.0 Mi
 Muskogee County, OK

DRAWN BY: LMP
 APPRV BY:
 SOURCE: DEQ, Tiger 2000,
 USGS



COMMENTS/LEGEND		Delineation Job Piece: 34334(04) Bridge & Approaches on I-40: Over Arkansas River, Begin MP 290, E 1.0 Mi Muskogee County, OK	Figure 5d
NEPA Environmental Footprint Field Confirmed USGS Streams Field Identified Wetlands Non-mapped Drainage Features Photo Locations County Line Matchlines	N 0 100 200 400 Feet		DRAWN BY: LMP APPRV BY: SOURCE: DEQ, Tiger 2000, USGS Date: 4/14/2025



Photograph 1-A: Western edge of study area along I-40, south side facing west.



Photograph 1-B: Western edge of study area along I-40, south side facing east.



Photograph 2: NBI: 17013 (Structure 1) over I-40, no migratory bird nests present.



Photograph 3: Structure 2 at DF1, no migratory bird nests present.



Photograph 4: DF1 south of ROW.



Photograph 5: NBI: 16849 (Structure 3) at S1 (Unnamed Tributary), 1 barn swallow nest present.



Photograph 6: S1 (Unnamed Tributary) north of the study area.



Photograph 7: Structure 4, no migratory bird nests or water feature present.



Photograph 8: NBI: 16907 (Structure 5), and site of DF2. 15 barn swallow nests present.



Photograph 9: Facing south from NBI: 16907 (Structure 5), poorly defined drainage (DF2) towards pond in the field south of study area.



Photograph 10: Structure 6, no migratory bird nests or water features present.



Photograph 11: Structure 7, 1 barn swallow nest present.



Photograph 12: Excavated hole south Structure 7. Exposed utilities and discarded debris.



Photograph 13: Structure 8, no migratory bird nests or water feature present.



Photograph 14: Structure 9 at S2 (no OHWM), no migratory bird nests present.



Photograph 15: S2, facing north from Structure 9.



Photograph 16: Temporary construction staging area, north of I-40, west of Arkansas River, facing west.



Photograph 17: Temporary construction staging area, north of I-40, west of Arkansas River, facing southeast through riparian woodland towards bridge.



Photograph 18: NBI: 17051 (Structure 10) over Arkansas River.



Photograph 19: Cliff swallow nests on bridge piers.



Photograph 20: Sandy soils and tree sapling growth along west bank of Arkansas River.



Photograph 21: Steeper sandy slopes along west bank Arkansas River.



Photograph 22: Riparian flooded woodland along east bank of Arkansas River.



Photograph 23: Recently disturbed typha and willow sapling dominated riparian wetland (W1) along east bank Arkansas River.



Photograph 24: Redoximorphic features present in potential wetland (W1) along east bank of Arkansas River.



Photograph 25: DF3 on south side of I-40, east of Arkansas River bridge.



Photograph 26: Structure 11, no migratory bird nests or water feature present.



Photograph 27: Upland wooded corridor in median.



Photograph 28: Disturbed area in wooded median.



Photograph 29: Structure 12, no migratory bird nests or water feature present.



Photograph 30: NBI 16944 (Structure 13) over SH-10.



Photograph 31: Cliff swallow nest beneath NBI: 16944 (Structure 13).



Photograph 32: Structure 14, no migratory bird nests or water feature present.



Photograph 33: NBI: 16945 (Structure 15) over SH-10, cliff swallow nests present.



Photograph 34: Structure 16, no migratory bird nest or water feature present.



Photograph 35: Structure 17, no migratory bird nests or water feature present.



Photograph 36: Eastern edge of study area along I-40, north side facing west.



Photograph 37: Eastern edge of study area along I-40, north side facing east.



Photograph 38: Eastern edge of study area along I-40, south side facing west.



Photograph 39: Eastern edge of study area along I-40, south side facing east.

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Muskogee 34334(04) I-40 Bridges over Arkansas River City/County: Sequoyah County Sampling Date: 3/14/22
 Applicant/Owner: Oklahoma Department of Transportation State: OK Sampling Point: DP-01
 Investigator(s): D.Daniel Section, Township, Range: 28-T12N-R21E
 Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): <2%
 Subregion (LRR or MLRA): LRR N, MLRA 118B Lat: 35.487443 Long: -95.094408 Datum: WGS84
 Soil Map Unit Name: Coushatta silt loam, rarely flooded NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) <u>X</u> Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)		<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ? ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Seasonally flooded forested floodplain area		
Remarks:		

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: DP-01

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Ulmus americana</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)																
2. <u>Platanus occidentalis</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Populus deltoides</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>20</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>100</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.82</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>100</u> (B)	Prevalence Index = B/A = <u>1.82</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>55</u> (A)	<u>100</u> (B)																			
Prevalence Index = B/A = <u>1.82</u>																				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Cephalanthus occidentalis</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Salix nigra</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>20</u> =Total Cover																				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>																				
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Typha latifolia</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Chasmanthium latifolium</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>15</u> =Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/3	100					Loamy/Clayey	
4-15	10YR 3/3	75	2.5YR 6/8	25	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☒ Redox Depressions (F8)
☐ Sandy Mucky Mineral (S1)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Gleyed Matrix (S4)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Stripped Matrix (S6)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16) (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
☐ Red Parent Material (F21) (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
Type: Clay soils
Depth (inches): 4
Hydric Soil Present? Yes X No **Remarks:**

This data sheet is revised from Eastern Mountains and Piedmont Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 8.0, 2016.

**PRELIMINARY 404 REVIEW,
SCENIC RIVER COORDINATION
AND COAST GUARD**



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
2488 EAST 81ST STREET
TULSA, OKLAHOMA 74137-4290

May 26, 2021

Regulatory Office

Mr. Eric Washburn
Bridge Administrator
Eighth Coast Guard District
1222 Spruce Street
St. Louis, MO 63103-2832

Dear Mr. Washburn:

This is in reference to Public Notice (D8 DW8-897) of March 1, 2021, concerning proposed construction of fixed dual highway bridges (US-62) over a navigable waterway of the United States. The proposed project is located on the Arkansas River, Mile 392.5, near Muskogee, Muskogee County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA) of 1899.

The Corps will consider activities not associated with the Section 9 of the RHA authorization within the Arkansas River, under Section 10 of the RHA. Based on the provided information, the regulated activities include the placement/removal of structures not associated with the bridge replacement project, bridge abutments, work involving dredging, disposal of dredged material, filling, excavation, any other disturbance of soils/sediments or modifications to the navigable waterway. The proposed project may result in the placement of dredged or fill material, permanently or temporarily, into waters of the United States. Therefore, this proposal is subject to regulation pursuant to Section 404 of the CWA, and a Department of the Army (DA) permit will be required. An ENG Form 4345 is enclosed for your convenience.

The proposed project may also need approvals from other U.S. Army Corps of Engineers, Tulsa District offices concerning Section 408 program (Section 14 of the RHA), Hydrology and Hydraulic Branch, Real Estate (for Easement), Navigation Section, and the Webber Falls Project Office. Please contact Mr. Marcus Ware at (918) 669-7403 of my staff for additional information. To ensure timely delivery of correspondence, please send all correspondence to the following address:

U.S. Army Corps of Engineers
Regulatory Office (CESWT-RO)
Mr. Andrew R. Commer
2488 E. 81st Street
Tulsa, OK 74137-4290

Your project has been assigned Identification Number SWT-2021-00272. Please include this number with all future correspondence with the Regulatory Office.

Sincerely,

Andrew R. Commer
Chief, Regulatory Office

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: dwb
Phone: (314)269-3792
Email: Giselle.T.MacDonald@uscg.mil

16591.1/392.5 ARW
May 12, 2021

Mr. Brian Linam, PMP
Preconstruction Manager, District 1
Oklahoma Department of Transportation
200 NE 21st Street, 1-C6
Oklahoma City, OK 73105

Subj: U.S. 62 Highway Bridge, Mile 392.5, Arkansas Waterway

Dear Mr. Linam:

Your application requesting approval of the location and plans for a proposed bridge at mile 392.5 over the Arkansas Waterway has been approved. Bridge Permit (4-21-8) dated April 14, 2021, is enclosed.

It is essential that we be kept informed of any events that could affect navigation during construction of the bridge. A representative from your office should be specifically instructed to keep our office informed of the progress of construction with particular reference to any and all events that may have an effect on navigation. The information received regarding the work will be disseminated to mariners by radio and written notices.

Your attention is directed to Condition 2 of the permit that requires plans for cofferdams, temporary causeways, work bridges, falsework bents, or any other temporary structures that will be placed in the water to facilitate construction of this bridge to be approved by this office. Construction of this bridge must be accomplished with minimal interference with navigation. To this end, construction schedules, plans and erection schemes should be submitted to us at the earliest possible time so that approval can be assured prior to commencing work.

Navigation lights and reflectors for the bridge are prescribed in enclosure (2). The lights, prescribed in accordance with Title 33, Code of Federal Regulations, Part 118, shall be installed at the locations and in the manner shown on the enclosed marked-up copies of the Permit drawings.

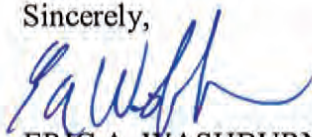
You are required by Condition 5 of the Permit to install vertical clearance gauges. The gauges shall be installed as prescribed in enclosure (2). Enclosure (3) is a copy of Coast Guard instructions for installing vertical clearance gauges on bridges.

Subj: U.S. 62 Bridge, Mile 392.5, Arkansas Waterway

16591.1/392.5, ARW
May 12, 2021

Please acknowledge receipt of the Permit. If you have any questions concerning our jurisdiction or requirements, please contact us at the above referenced extension.

Sincerely,



ERIC A. WASHBURN
Bridge Administrator
By direction of the District Commander

Enclosures: (1) USCG Bridge Permit No. (4-21-8) dtd April 14, 2021
(2) Navigation lights req'd w/marked-up permit dwgs Sheet (2) of 4
(3) Vertical clearance gauge instruction sheet

Copy: CDRUSAED Tulsa District w/encl (1)
USCGC MUSKINGUM
CG SECTOR Lower Mississippi River



BRIDGE PERMIT

(4-21-8)

APR 14 2021

WHEREAS by Title V of an act of Congress approved August 2, 1946, entitled "General Bridge Act of 1946," as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance and operation of bridges and approaches thereto over the navigable waters of the United States;

AND WHEREAS the Secretary of Homeland Security has delegated the authority of Section 502(b) of that act to the Commandant, U.S. Coast Guard by Department of Homeland Security Delegation Number: 0170.1;

AND WHEREAS before construction is commenced, the Commandant must approve the location and plans of any such bridge and may impose any specific conditions relating to the construction, maintenance and operation of the structure deemed necessary in the interest of public navigation, such conditions to have the force of law;

AND WHEREAS the Commandant of the Coast Guard has further delegated to the District Commanders, by Section 1.01-60(b) of Title 33, Code of Federal Regulations, authority to issue permits of the construction, reconstruction, or alteration of bridges across navigable waters of the United States.

AND WHEREAS the - STATE OF OKLAHOMA - has submitted for approval the location and plans of a bridge to be constructed across the Arkansas Waterway near Muskogee, Muskogee County, Oklahoma;

NOW THEREFORE, This is to certify that the location and plan sheets 1, 2, 3, and 4 (of 4), dated 24 February 2021 are hereby approved by the Commander, Eighth Coast Guard District, subject to the following conditions:

1. No deviation from the approved plans may be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the District Commander.

2. The construction of falsework, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the District Commander, prior to construction of the bridge. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridge. The channel or channels through the structure shall be promptly cleared of all obstructions placed therein or caused by the construction of the bridge to the

APR 14 2021

P(4-21-8)

satisfaction of the District Commander, when in the judgment of the District Commander the construction work has reached a point where such action should be taken, but in no case later than 90 days after the bridge has been opened to traffic.

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of any federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridge.

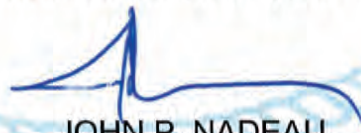
4. The pier protection fender system shall be maintained as shown on the approved plan sheets 2, 3, and 4 (of 4), dated 24 February 2021 for the safety of navigation.

5. Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridge when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander for approval.

6. All parts of the existing, to-be-replaced U.S. 62 Bridge across the Arkansas River, Mile 392.5, not utilized in the new bridge shall be removed down to or below a minimum of two feet below the natural ground line. The waterway shall be cleared to the satisfaction of the District Commander. A period of 90 days subsequent to the opening to traffic of the new bridge, mile 392.5, will be allowed for such removal and clearance. The proposed method and schedule for demolishing the existing bridge shall be submitted to the District Commander, for approval prior to commencing such removal.

7. When the proposed bridge is no longer used for transportation purposes, it shall be removed in its entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridge upon due notice from the District Commander.

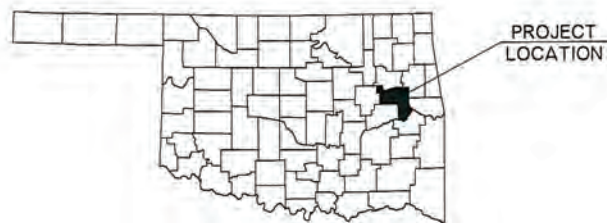
8. The approval hereby granted shall cease and be null and void unless construction of the bridge is commenced within three years and completed within five years after the date of this permit.



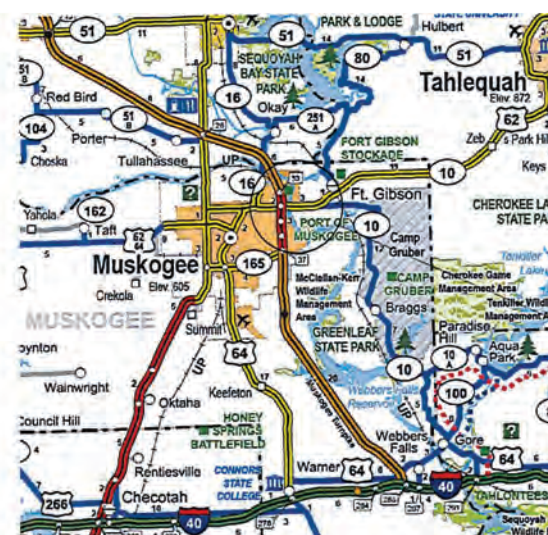
JOHN P. NADEAU
Rear Admiral, U.S. Coast Guard
Commander, Eighth Coast Guard District



PROJECT LOCATION MAP



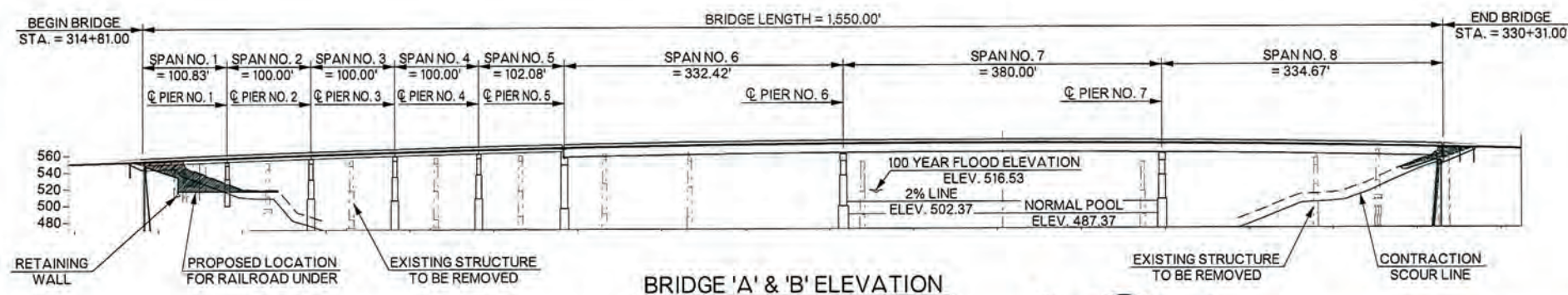
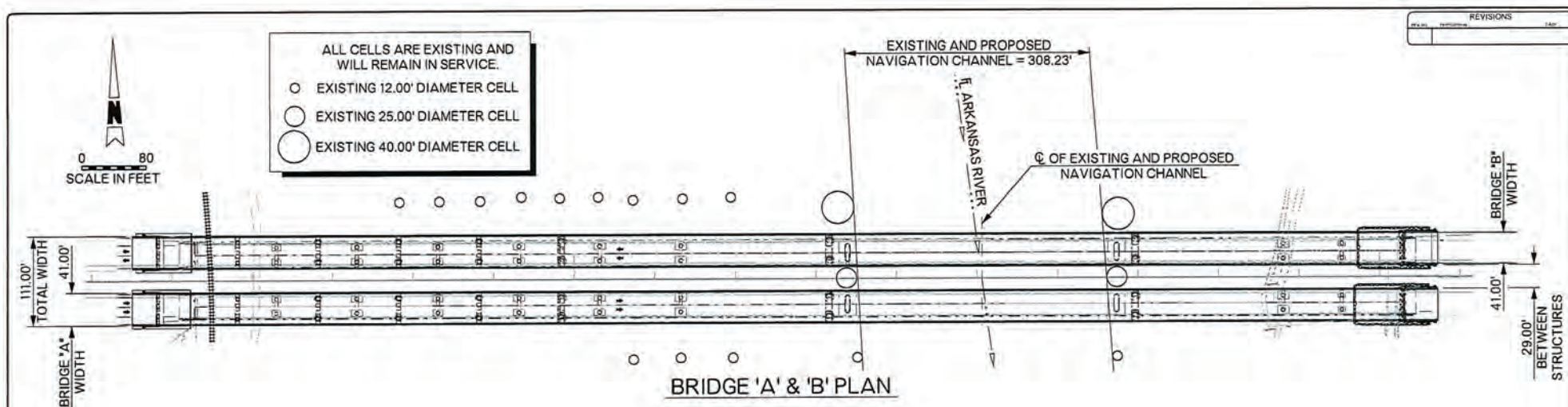
STATE MAP



VICINITY MAP

PROJECT LOCATION

	PREPARED BY OKLAHOMA DEPARTMENT OF TRANSPORTATION BRIDGE DIVISION  COLIN J. OSBORNE, P.E. CIVIL ENGINEER DATE: <u>April 7th, 2021</u>	
	PROJECT: <u>BRIDGE 'A' & 'B'</u> US-62 OVER ARKANSAS RIVER ARKANSAS RIVER, MILE 392.5 MUSKOGEE COUNTY, MUSKOGEE STATE OF OKLAHOMA CONSULTANT/AGENT: GARVER, LLC APPLICANT/OWNER: OKLAHOMA DEPARTMENT OF TRANSPORTATION DATE: <u>02/24/2021</u>	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION PROJECT: <u>30414 (64)</u>	SHEET: <u>104</u>



THERE ARE NO STRUCTURES, WILDLIFE/WATERFOWL REFUGES, OR HISTORICAL/ARCHAEOLOGICAL SITES IN THE PROJECT VICINITY IDENTIFIED BY THE ENVIRONMENTAL STUDIES.

CLEARANCES OBTAINED FROM CORPS OF ENGINEERS. HORIZONTAL CLEARANCE EM 1110-2-1611



PREPARED BY: COLIN J. OSBORNE, P.E.

DATE: April 7th, 2021

BRIDGE 'A' & 'B': US-62 OVER ARKANSAS RIVER, ARKANSAS RIVER, MILE 392.5, MUSKOGEE COUNTY, MUSKOGEE STATE OF OKLAHOMA

CONSULTANT/AGENT: GARVER, LLC

APPLICANT/OWNER: OKLAHOMA DEPARTMENT OF TRANSPORTATION

DATE: 02/24/2021

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB # 30476 (04)

DATE: 8/18

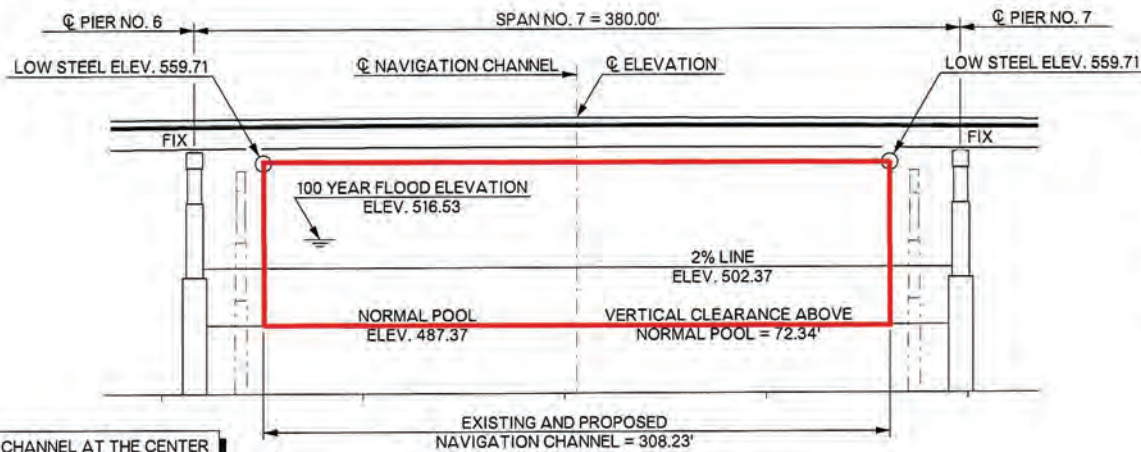
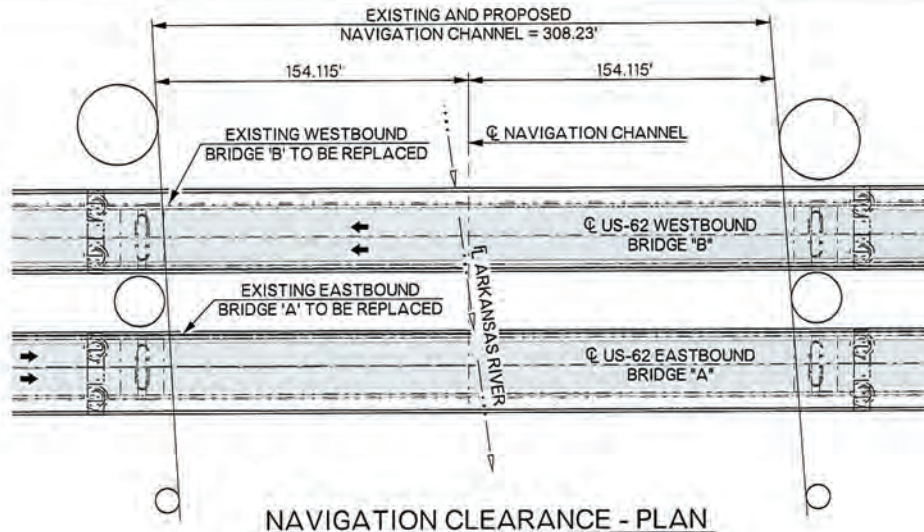
DATE: 3/20

DATE: 3/20

DATE: HENSLEY DEFRANCO

DATE: 5/27/20 2 OF 4

REVISIONS		
NO.	DESCRIPTION	DATE



THE ESTIMATED DEPTH OF THE CHANNEL AT THE CENTER OF THE CHANNEL IS 12.37 FEET. ALL CHANNEL DEPTHS NOTED ABOVE ARE BASED ON THE NORMAL POOL ELEVATION UTILIZING NAVD 88 LEVEL DATUM.

NOTE: LEVEL DATUM IS NAVD88. ELEVATIONS SHOWN FOR NORMAL POOL AND THE 2% FLOWLINE ARE ESTABLISHED BY CONVERTING NFVD TO NAVD88. A CONVERSION FACTOR OF 0.371 HAS BEEN APPLIED TO ELEVATIONS TAKEN FROM USACE McCLELLAN-KERR ARKANSAS RIVER SYSTEM NAVIGATION CHARTS.

CLEARANCES OBTAINED FROM CORPS OF ENGINEERS.
HORIZONTAL CLEARANCE EM 1110-2-1611

CHANNEL BOTTOM ELEVATION 475.00' AT CENTER OF CHANNEL ESTIMATED FROM AS-BUILT PLANS.

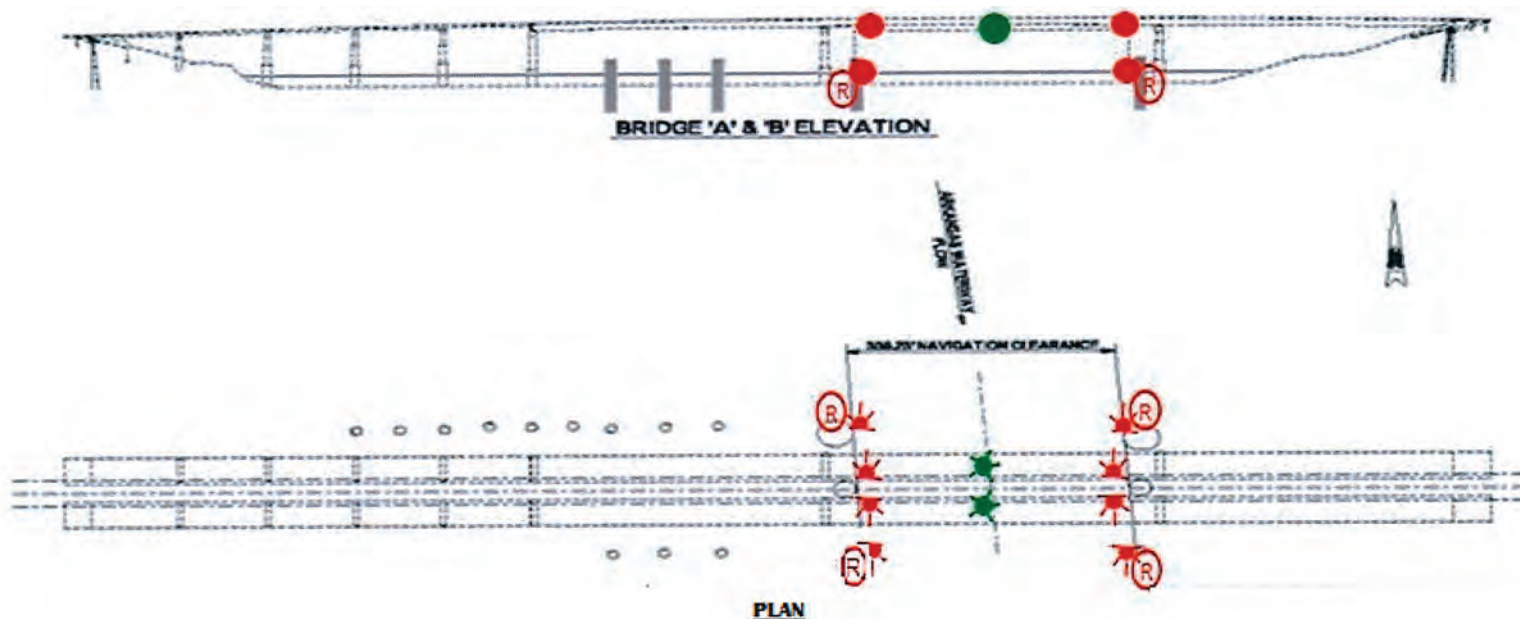
		PREPARED BY COLIN J. OSBORNE, P.E. 28477 OKLAHOMA DATE: April 7th, 2021		
BRIDGE 'A' & 'B' US-62 OVER ARKANSAS RIVER ARKANSAS RIVER, MILE 392.5 MUSKOGEE COUNTY, MUSKOGEE STATE OF OKLAHOMA		DESIGNED BY CJO 8/18	CHECKED BY TEE 3/20	DATE RAH 3/20
CONSULTANT/AGENT: GARVER, LLC APPLICANT/OWNER: OKLAHOMA DEPARTMENT OF TRANSPORTATION		DATE: 02/24/2021 DESIGNED BY HENSLEY DEFRANCO		
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		SHEET 3 OF 4



NAVIGATION LIGHTING PLAN

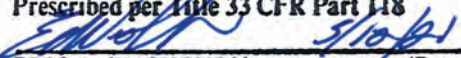
U.S. 62 HIGHWAY BRIDGE
MILE 392.5
ARKANSAS WATERWAY

-  = 360 DEGREE GREEN CHANNEL CENTER LIGHT
-  = 180 DEGREE RED MARGIN OF CHANNEL LIGHT AND PIER PROTECTION CELL LIGHTS
-  = RED RETRO-REFLECTIVE PANEL



Commander
Eighth Coast Guard District
1222 Spruce Street
St. Louis, MO 63103

Navigational lights and/or other signals
Prescribed per Title 33 CFR Part 118


ERIC A. WASHBURN
Bridge Administrator

(Date)

NAVIGATION LIGHTS
FOR
U.S. 62 HIGHWAY BRIDGE
MILE 392.5
ACROSS THE ARKANSAS WATERWAY

The center of the channel shall be marked by a range of two green lights. Each green light shall show through a horizontal arc of 360 degrees and shall be securely mounted just below the outermost edge of the bridge span structure in line with the axis of the channel so as to be visible from an approaching vessel.

The upstream and downstream sides of the channel margins shall be marked with red lights. Each red light shall show through a horizontal arc of 180 degrees and shall be securely mounted no higher than the green navigation lights to show 90 degrees on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

Each pier protection cell shall be marked with a red light. Each red light shall show through a horizontal arc of 180 degrees and shall be securely mounted to the top of the cell on the channelward quadrant of the cell to show 90 degrees on either side of a line parallel to the axis of the channel so as to be visible from an approaching vessel.

The upstream and downstream sides of the channel pier protection cells shall be marked with red, high-intensity grade, retro-reflective square panels which measure 2 feet per side. This retro-reflective material should be placed near the top of the piers on the columns or pier caps so as to effectively reflect the searchlight of an approaching vessel.

The lights prescribed above shall be displayed from sunset to sunrise each night of the year and at other times when the visibility is less than one mile. They shall be of sufficient candlepower as to be visible against the background lighting at a distance of at least 2,000 yards 90% of the nights of the year.

Responsibility of the owner does not cease upon installation of the prescribed lights and reflectors. Provision for maintaining all lights and reflectors prescribed herein should be included in the planning for initial installation. A continuing program of inspection and maintenance is necessary to insure that the lights or retro-reflective material are properly displayed.

This is enclosure (2b) to CCGD8 (dwb) ltr dtd May 12, 2021

VERTICAL CLEARANCE GAUGES
FOR
U.S. 62 HIGHWAY BRIDGE,
MILE 392.5,
ARKANSAS WATERWAY

Vertical clearance gauges shall be installed on the upstream and downstream sides of the right descending channel pier. The E Series, 30-inch standard numerals shall be used unless the width of the piers will not accommodate this size gauge, in which case the largest numeral compatible with the width of the pier shall be used. The line indicating the topmost numeral of the gauge shall be at least 40 feet below low steel of the bridge. The line indicating the bottom numeral shall be at least 60 feet below low steel of the bridge.

The gauges prescribed herein shall read from top to bottom and measure the distance from low steel to the bottom of the foot marks.

Responsibility of the owner does not cease upon installation of the prescribed clearance gauges. Provision for maintaining the clearance gauges prescribed herein should be included in the planning for initial installation. A continuing program of inspection and maintenance is necessary to insure that the clearance gauges are properly displayed.

This is enclosure (3) to CGD8 (dwb) ltr dated May 12, 2021

N R C S COORDINATION

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 11/2/21				
Name of Project Bridge & Approaches I-40 over Arkansa		Federal Agency Involved Bridge & Approaches I-40 over Ark				
Proposed Land Use Transportation		County and State Muskogee County, Oklahoma				
PART II (To be completed by NRCS)		Date Request Received By NRCS 11/2/2021		Person Completing Form: Jake Bovett		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		YES ☒	NO ☐	Acres Irrigated 8,837	Average Farm Size 197	
Major Crop(s) Corn, Small Grains	Farmable Land In Govt. Jurisdiction Acres: 311,720 % 58		Amount of Farmland As Defined in FPPA Acres: 320,963 % 60			
Name of Land Evaluation System Used NCCPI	Name of State or Local Site Assessment System NONE		Date Land Evaluation Returned by NRCS 11/9/21			
PART III (To be completed by Federal Agency)		Alternative Site Rating				
		Site A	Site B	Site C	Site D	
A. Total Acres To Be Converted Directly		130.00				
B. Total Acres To Be Converted Indirectly		0				
C. Total Acres In Site		130.00				
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland		49.47				
B. Total Acres Statewide Important or Local Important Farmland		0				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.042				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		16				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		84				
PART VI (To be completed by Federal Agency) Site Assessment Criteria (Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)		Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15				
2. Perimeter In Non-urban Use	(10)	10				
3. Percent Of Site Being Farmed	(20)	10				
4. Protection Provided By State and Local Government	(20)	0				
5. Distance From Urban Built-up Area	(15)	15				
6. Distance To Urban Support Services	(15)	0				
7. Size Of Present Farm Unit Compared To Average	(10)	10				
8. Creation Of Non-farmable Farmland	(10)	0				
9. Availability Of Farm Support Services	(5)	5				
10. On-Farm Investments	(20)	0				
11. Effects Of Conversion On Farm Support Services	(10)	0				
12. Compatibility With Existing Agricultural Use	(10)	0				
TOTAL SITE ASSESSMENT POINTS		160	65	0	0	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)		100	84	0	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	65	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	149	0	0	0
Site Selected: Site A		Date Of Selection 11/9/2021		Was A Local Site Assessment Used? YES ☐ NO ☒		
Reason For Selection: Score less than 160. No alternative assessment required.						
Name of Federal agency representative completing this form:					Date:	

(See Instructions on reverse side)

Form AD-1006 (03-02)

From: [Geoff Canty](#)
To: [Melissa Feuerborn](#)
Subject: FW: [External Email]AD-1006 Request for Muskogee County, JP #34334(04)
Date: Tuesday, November 9, 2021 1:42:43 PM
Attachments: [Bridge & Approaches I-40 over Arkansas River_OK101.pdf](#)

File & binder

Geoff Canty
CC Environmental
3533 National Drive
PO Box 1292
Norman, OK 73069

(405) 761-1225 (cell)
(405) 307-9290 (fax)

NOTICE OF CONFIDENTIALITY: The information contained in this transmission including any attached documentation is privileged and confidential. It is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copy of this communication is strictly prohibited. If you have received this communication in error, please notify CC Environmental immediately by replying to this email, and delete all copies of this message and any attachments immediately.

From: Boyett, Jake - NRCS, Claremore, OK <jake.boyett@usda.gov>
Sent: Tuesday, November 9, 2021 9:10 AM
To: Geoff Canty <Geoff@ccenviro.net>
Cc: Alspach, Steven - NRCS, Stillwater, OK <steven.alspach@usda.gov>; Bishop, Brandon - NRCS, Stillwater, OK <brandon.bishop@usda.gov>
Subject: RE: [External Email]AD-1006 Request for Muskogee County, JP #34334(04)

Dear Geoff Canty,

Please find the requested AD-1006 attached with the NRCS portions completed, the proposed site does not appear to effect any NRCS structures.

Thanks,

Jake Boyett
Resource Soil Scientist
Claremore Technical Office
918-283-7089



From: Best, Christopher - NRCS, Tulsa, OK <christopher.best@usda.gov>
Sent: Wednesday, November 3, 2021 6:42 AM
To: Boyett, Jake - NRCS, Claremore, OK <jake.boyett@usda.gov>
Subject: FW: [External Email]AD-1006 Request for Muskogee County, JP #34334(04)

Jake

Could you take a look at this one please.

Thanks

Chris Best
District Conservationist
USDA-NRCS
(405) 385-3032
(855) 421-7632 fax
Christopher.best@usda.gov
Rogers, Mayes, Tulsa, Wagoner
Muskogee, Okmulgee

From: Melissa Feuerborn <melissa@ccenviro.net>
Sent: Tuesday, November 2, 2021 11:15 AM
To: Best, Christopher - NRCS, Tulsa, OK <christopher.best@usda.gov>
Subject: [External Email]AD-1006 Request for Muskogee County, JP #34334(04)

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Mr. Best,

Please see the attached AD-1006 request for a project in Muskogee County. Please note that the project all occurs within existing ODOT right-of-way.

The letter says to mail the response to us, but you can just respond to this email.

Thanks,

Melissa Feuerborn

CC Environmental
3533 National Drive
PO Box 1292
Norman, OK 73069

(405) 321-8181 (office)
(405) 307-9290 (fax)



CC Environmental, LLC

November 2, 2021

Christopher Best
District Conservationist
Muskogee Field Service Center
3001 Azalea Park Dr.
Muskogee, OK 74401

RE: Site Assessment for Farmland Protection Policy Act (FPPA): Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile, J/P 34334(04) and Identification of any NRCS Structures or Properties within the Study Area

Mr. Best,

The Oklahoma Department of Transportation is in the early developmental stages of Bridge & Approaches Improvements Plans on I-40 in Muskogee County.

Please find attached USDA Form AD-1006 and plans/footprint for the following federal actions in Muskogee County, Oklahoma.

In accordance with the current 7 CFR Part 658 – Farmland Protection Policy Act, Parts 1 and III of Form AD-1006 have been completed. Please complete the NRCS portions of this form within the next 45 days and return one copy to:

Geoff Canty
CC Environmental
P.O. Box 1292
Norman, OK 73069
Geoff@ccenviro.net

In addition, please let us know if the proposed project would impact any NRCS structures or properties such as flood control dams, wetlands, etc.

Your assistance is greatly appreciated. If you have any questions, please contact Geoff Canty at 405-761-1225 or Geoff@ccenviro.net.

Sincerely,

A handwritten signature in black ink, appearing to read 'Geoff Canty', written over a faint circular stamp.

Geoff Canty
CC Environmental

Enclosures: Plans and Form AD-1066
Copy to: Oklahoma Department of Transportation – Environmental Division

FLOOD PLAIN INFORMATION

From: [Melissa Feuerborn](#)
To: [Melissa Feuerborn](#)
Subject: FW: No Rise Statement for Muskogee Co. JP 34334(04) I-40 over Arkansas River
Date: Monday, June 16, 2025 10:28:07 AM

From: Kacie Braddy <KBraddy@odot.org>
Sent: Monday, June 16, 2025 9:36 AM
To: Geoff Canty <geoff@ccenviro.net>
Cc: Sara Downard <SDownard@ODOT.ORG>
Subject: No Rise Statement for Muskogee Co. JP 34334(04) I-40 over Arkansas River

Geoff,

The project will not require a revision to the floodplain map.

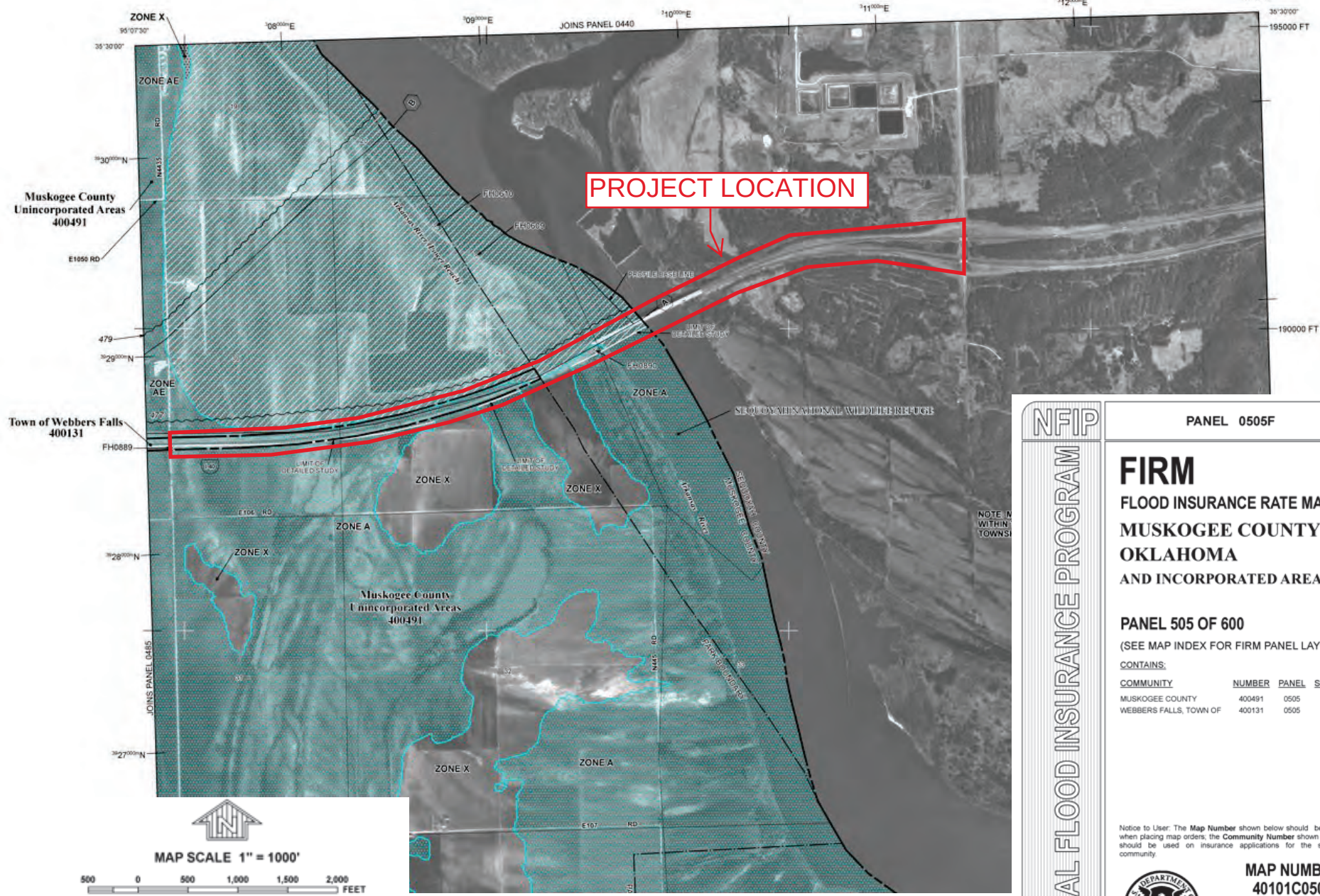
Hydraulics indicate we have a zero rise in the 100 yr water surface elevation over existing with the proposed bridge. There will be no need for a FEMA flood map revision.

Please contact me if you need anything additional.

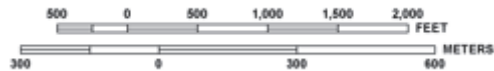
Thank you,

Kacie Braddy, P.E., CFM
State Hydraulic Engineer
Oklahoma Department of Transportation
Cell: 405-967-3727

PROJECT LOCATION



MAP SCALE 1" = 1000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0505F

FIRM

**FLOOD INSURANCE RATE MAP
MUSKOGEE COUNTY
OKLAHOMA
AND INCORPORATED AREAS**

PANEL 505 OF 600

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MUSKOGEE COUNTY	400491	0505	F
WEBBERS FALLS, TOWN OF	400131	0505	F

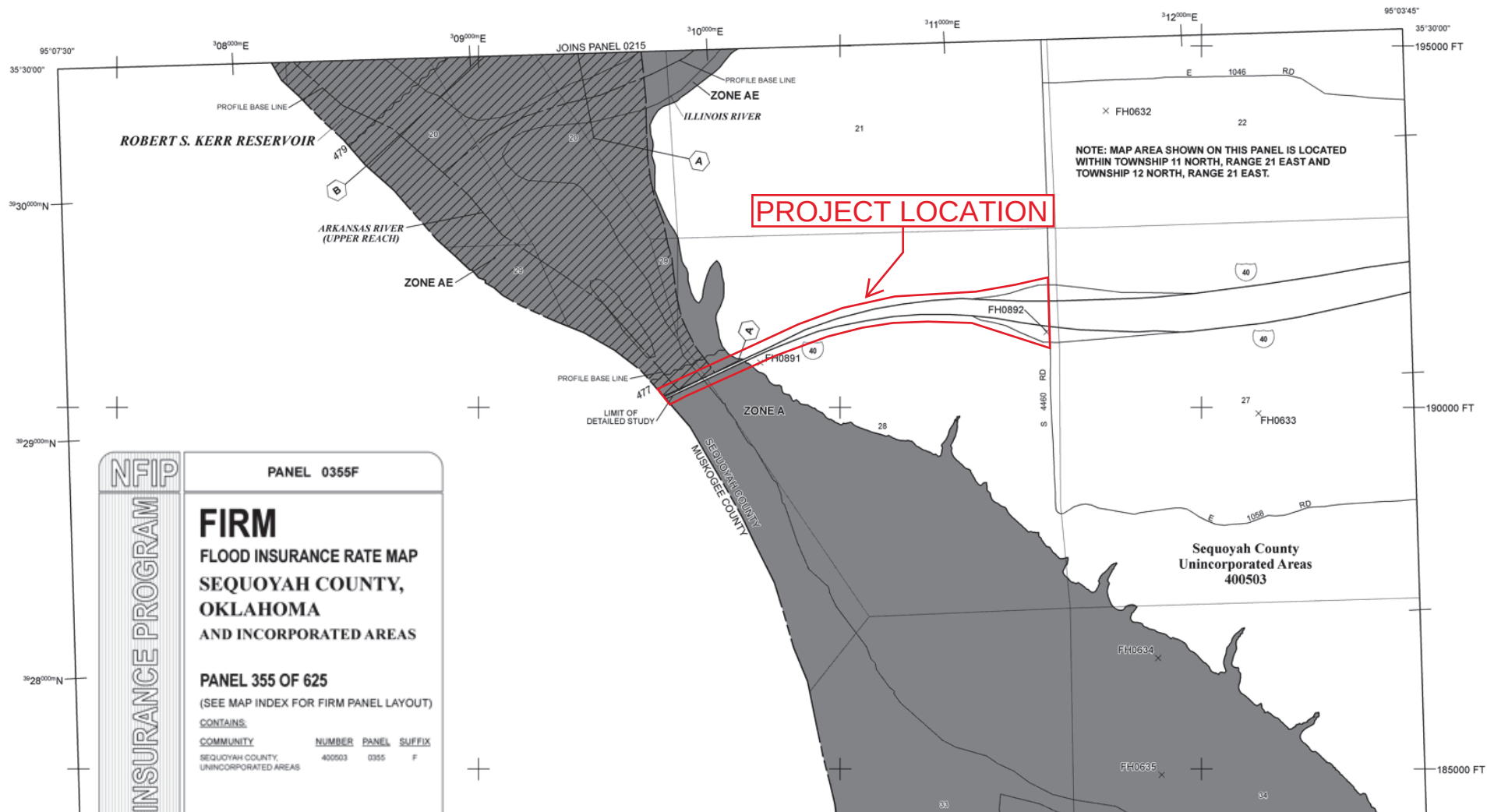
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER
40101C0505F**

**MAP REVISED
FEBRUARY 4, 2011**

Federal Emergency Management Agency



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0355F

FIRM

FLOOD INSURANCE RATE MAP

SEQUOYAH COUNTY, OKLAHOMA

AND INCORPORATED AREAS

PANEL 355 OF 625

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SEQUOYAH COUNTY, UNINCORPORATED AREAS	400503	0355	F

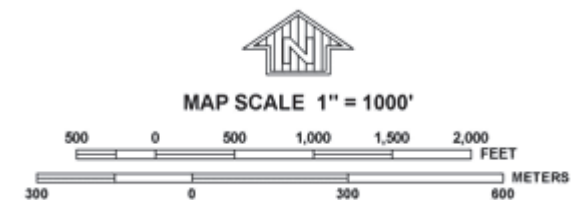
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
40135C0355F

REVISED DATE
SEPTEMBER 29, 2010



Federal Emergency Management Agency



HAZARDOUS MATERIALS

OKLAHOMA DEPARTMENT OF TRANSPORTATION CONSULTANT REPORT REVIEW – HAZARDOUS MATERIALS

Reviewed By: David Edwards
Review Date: 10/9/24
Consultant: Enercon

County: Muskogee/Sequoyah
Project No.: J3-4334(004)
J/P Number: 34334 (04)

1. PROJECT DESCRIPTION: Interstate 40 (I-40) Bridge and Approaches over the Arkansas River, Begin MP 290, East 1.0 miles

2. LEVEL OF INVESTIGATION: ☐ Recon ☒ Assessment ☐ Sampling

3. SUMMARY OF INVESTIGATION

- A. Relative risk of contamination in study footprint: ☒ Low ☐ Moderate ☐ High
B. Potential for contamination, if present, to affect project: ☐ Low ☒ Moderate ☐ High
C. Did Consultant recommend additional work? ☐ No ☒ Yes (describe below):

Consultant recommended additional investigations may be needed if impacts expected to affect the project.

4. RECOMMENDATIONS*:

- ☒ Approval to Proceed (No Further Action)
☐ Approval to Proceed, Pending:
 ☐ Avoidance of described site(s)
 ☐ Plan Notes regarding described site(s) (See Section 5)
 ☐ Additional investigation by ODOT
☐ Approval NOT Recommended

* - If different from Consultant, explain in Section 6 General Comments

5. PLAN NOTES: No plan notes required for this project.

6. GENERAL COMMENTS: An ISA was performed by Enercon in March 2022 which identified multiple RECs within the project area. The project scope is for pier and bridge deck replacement, with no construction work planned outside of the bridge footprint. A review of the technical information centered around the Sequoyah Fuels facility and retention ponds indicates groundwater flow approximately to the west towards the Arkansas River. The Oklahoma Department of Environmental Quality (John Mitsdarfer) provided monitoring data from early 2023. The report concluded that no sampling results indicated migration of contamination from the Sequoyah Fuels Site near the river or the river sediments.

All surface water samples were at background levels.” Monitoring data, sampling results, project scope and

*The full document is on file with ODOT’s Environmental Programs Division. Please contact David Edwards (405) 923-5171; daedwards@odot.org.

Revised 10/17/2023

30% plans indicate that there is no expected impact from the groundwater plume flowing from the Sequoyah Fuels facility and associated retention ponds.

As there is no monitoring well ground water data or soil sampling data indicating migration of contamination from the Sequoyah Fuels Site near the river or in the river sediments, there is no apparent risk based need to sample collected sediment encountered during intrusive work conducted for this project.

The results indicate that that contamination is not expected to affect the installation of geotech borings or pier installations at the project and, as such, no further action is recommended.

30% plans were available for this study.

ODOT Standard Specification 107.15 is in effect in the event that suspected impacted soil and/or water are encountered during the construction of the project.

ATTACH EXCERPTS FROM REPORT, AS APPROPRIATE. *

INITIAL SITE ASSESSMENT

**BRIDGE & APPROACHES: INTERSTATE 40 (I-40) OVER ARKANSAS RIVER,
BEGIN MP 290, EAST 1.0 MILES**

SECTIONS 28 AND 29, TOWNSHIP 12 NORTH, RANGE 21 EAST OF INDIAN MERIDIAN

MUSKOGEE COUNTY/SEQUOYAH COUNTY, OKLAHOMA

CONTRACT PROJECT NO. SSP-299S (272)EC; CONTRACT J/P NO. 35230(04)

CONSTRUCTION PROJECT NO. J3-4334(004)PM; CONSTRUCTION JOB PIECE NO. 34334(04)

Prepared For:



Oklahoma Department of Transportation
Environmental Programs Division
Oklahoma City, OK

Prepared By:



1601 NW Expressway, Suite 1000
Oklahoma City, OK 73118
(405) 722-7693
Fax: (405) 722-7694

A handwritten signature in blue ink, reading "Seth A. Scherm", written over a horizontal line.

Seth Scherm
Environmental Specialist

Reviewed by:

A handwritten signature in blue ink, reading "Rusty Lynch", written over a horizontal line.

Rusty Lynch
Senior Project Manager

Oklahoma Corporation Commission (OCC) Environmental Consultant License #1800

INITIAL SITE ASSESSMENT

**BRIDGE & APPROACHES: INTERSTATE 40 (I40) OVER ARKANSAS RIVER,
BEGIN MP 290, EAST 1.0 MILES**

SECTIONS 28 AND 29, TOWNSHIP 12 NORTH, RANGE 21 EAST OF INDIAN MERIDIAN

MUSKOGEE COUNTY/SEQUOYAH COUNTY, OKLAHOMA

CONTRACT PROJECT NO. SSP-299S (272)EC; CONTRACT J/P NO. 35230(04)

CONSTRUCTION PROJECT NO. J3-4334(004)PM; CONSTRUCTION JOB PIECE NO. 34334(04)

1.0 EXECUTIVE SUMMARY

Oklahoma Department of Transportation (ODOT) requested an Initial Site Assessment (ISA) of a segment of the I-40 roadway (two lanes eastbound, two lanes westbound), bridge approaches, bridge structure itself, and right-of-way (ROW) along a crossing of the Arkansas River. The specific project corridor segment is located just west of the junction of I-40 and intersecting State Highway 10 (SH-10) on the dividing line of Muskogee and Sequoyah Counties, Oklahoma. The border of these two counties is the Arkansas River, which approximately divides the project corridor in half. The western segment of the project corridor is located in Muskogee County and the eastern segment of the project roadway corridor is located in Sequoyah County. The project corridor is proposed for a bridge and approach replacement beginning at mile post (MP) 290, running east approximately one (1) mile.

The project corridor segment [or Area of Investigation (AOI)] originates at the eastbound approach slab of the I-40 bridge on the west side of the Arkansas River, the bridge spanning the river, and terminates at the eastbound approach slab of the bridge on the east side of the Arkansas River just west of the intersection of I-40 and north-south running SH-10, as shown on the site map in Exhibit B. The AOI was generally characterized by I-40 (two lanes eastbound and two lanes westbound), the approaches and bridge of I-40 crossing the Arkansas River, highway shoulders, natural gas transmission pipelines undeveloped land, agricultural land, undeveloped wooded land, residential properties, and the Arkansas River. ODOT requested the ISA realizing the potential for presence of hazardous waste or soil / groundwater pollution within or adjoining to the proposed project area could lead to project delays and escalated construction costs.

The purpose of this assessment was to identify potential environmental concerns by reviewing historical data, regulatory information, and by performing interviews and a visual inspection of the site and surrounding area.

The potential environmental concerns were developed from the available historical information and site work. A list of contacts (Table 1) and a summary of potential environmental hazards (Table 2) are provided in Exhibit A. Topographic, geologic, and site maps are provided in Exhibit B. Site photographs are available in Exhibit C.

Sites with Recognized Environmental Conditions (RECs) determined by this supplemental ISA to present a low, moderate, or high environmental risk to the AOI are listed below.

- Superfund Enterprise Management System (SEMS)-ARCHIVE site (Gore Riverbed) adjoining the AOI to the north. Environmental Protection Agency (EPA) is performing an in-house cleanup of this location. This identification presents a high environmental risk to the AOI.
- A facility (Former Sequoyah Fuels Corporation) adjoining to the north of the AOI was identified on the Corrective Action (CORRACTS), Resource Conservation and Recovery Act Non-Generator / No Longer Reporting (RCRA-Non-Gen/NLR), RCRA Administrative Action Tracking (RAATS), and Protected Areas Database (PADS) database. Based on records received from the Oklahoma Department of Environmental Quality (ODEQ) and records researched via the EPA, there is significant groundwater contamination at this site which the groundwater monitoring and corrective action plan are intended to address. This site is currently in corrective action with several regulatory agencies has an estimated date of site closure for 2025. This identification presents a high environmental risk to the AOI.
- Natural gas pipeline and utility lines located within the AOI and/or just adjoining to the south of the AOI. A marked pipeline map gathered from the National Pipeline Mapping System database map is presented within Exhibit B. The pipeline runs under project corridor AOI on the east segment and continues to run parallel to AOI adjoining to the south. This identification presents a moderate environmental risk to the AOI in the event the pipeline ruptures during any construction activities.

2.0 INVESTIGATIVE METHODS AND EVALUATION CRITERIA

2.1 Purpose

ODOT requested an ISA of a segment of the I-40 roadway (two lanes eastbound, two lanes westbound), bridge approaches, bridge structure itself, and right-of-way (ROW) along a crossing of the Arkansas River. The specific project corridor segment is located just west of the junction of I-40 and intersecting State Highway 10 (SH-10) on the dividing line of Muskogee and Sequoyah Counties, Oklahoma and continues to run west 1/3rd of a mile on the west side of the Arkansas River

bridge/approach.. The border of these two counties is the Arkansas River, which roughly divides the project corridor in half. The project corridor is proposed for a bridge and approach replacement beginning at mile post (MP) 290, running east approximately one (1) mile.

This ISA report was completed because experience has shown that the presence of hazardous waste, soil contamination, or groundwater pollution within or adjoining the proposed ODOT project could lead to project delays and escalated costs.

2.2 Authorization

ENERCON was contracted by ODOT to complete this ISA according to the Task Order work plan approval dated January 26, 2022.

2.3 Standard of Investigation

This report was prepared according to guidelines for Initial Site Assessments as part of EC-2245 – Task Order No. TO-05. Resumes and qualifications of ENERCON personnel were included in Exhibit I of this report.

2.4 Existing Information Review

Existing information was collected and reviewed regarding the corridor and potential off-site sources of contamination. Such information included the site history of activities; reports of investigations previously conducted along the corridor; reports and maps published by State and Federal agencies such as the Oklahoma Corporation Commission (OCC) (provided in Exhibit G), Oklahoma Department of Environmental Quality (ODEQ) (Exhibit G), Oklahoma Water Resources Board (OWRB) (provided in Exhibit E), the Soil Conservation Service, the Oklahoma Geological Survey, the United States Geological Survey (USGS) (provided in Exhibit E), and other resources identified as being relevant.

The general geology and hydrogeology along the proposed corridor were evaluated. An inventory of registered wells and wells identified from site reconnaissance or from other records was completed. No monitoring wells, groundwater supply wells, or geotechnical borings within the AOI were identified on the OWRB “Groundwater Wells, Standards, and Protection in Oklahoma” Database Map. Multiple monitoring well listings reports were identified on the former Sequoyah Fuels Corporation facility adjoining the AOI to the northeast. The groundwater monitoring wells are associated with the property’s corrective action plan/site remediation that has been ongoing since the early 1990s. Past storage, handling, or use of regulated substances and hazardous materials in the AOI were also evaluated. Determination of the storage of oil products and/or solvents was completed to properly evaluate potential releases at properties along the alignment. Other operations within the

proposed corridor or adjoining properties that could have caused possible contamination were identified and noted in the ISA report.

2.5 Past Uses of the Properties

ENERCON used the information gathered above to determine the current and past uses of the site. The review was directed toward any type of commercial or private operation which would have used or created hazardous materials. The fate of the materials and any current level of contamination indicated from public documents were noted and discussed in this ISA Report. In this review, the content and level of detail was dependent on the property type, and the available information regarding the property. Sources such as historical city directories, historical topographic maps, Sanborn Fire Insurance Maps (if available), and aerial photographs were reviewed. Research methods used include:

2.5.1 Historical

City directories were reviewed for this ISA, although the AOI does not have a physical address, the city directories can be helpful in identifying relevant adjoining/surrounding properties. A review of the city directories from 1991 - 2017 identified the following adjoining/surrounding properties:

- Personal residences
- Our Place Café
- Sequoyah Fuels Corporation (former uranium conversion facility from 1970 – 1992)
- B&J Service (auto wrecker service)

The city directory coverage provided by Environmental Data Resources (EDR) are provided in Exhibit C for reference.

2.5.2 Aerial Photographs

Aerial photographs were available from ENERCON's vendor EDR, the USGS, and the Oklahoma Department of Libraries. Aerial photographs showing the AOI and adjoining/surrounding areas over time are provided in Exhibit C for reference.

2.5.3 Interviews with Cognizant Personnel

ENERCON conducted an interview with the security guard at the entrance to the former Sequoyah Fuels Corporation facility which adjoins the project corridor AOI to the northeast. The security guard provided a general background of the property such as the nature of it being a former spill site in the process of corrective action/remediation. The project corridor AOI does not have any developed residences, agricultural operations, or businesses which would have

near the base. Deposits of alluvium underlying the floodplain consist of clay, silt, sand, and gravel in proportions that vary locally.

Mean annual precipitation of the AOI area is approximately 42 - 48 inches per year with the wet seasons recognized as March - June and September - October.

5.0 FINDINGS AND RECOMMENDATIONS

Summarized below are the major findings from this Initial Site Assessment and appropriate recommendations.

Sequoyah Fuels Corporation (State Highway 10 & Interstate Highway 40)

At the nearest location to the subject property corridor boundary, this site is located approximately 600' to the north-northeast of the AOI. At its farthest point (northeast corner of the facility boundary, this facility is approximately 5,900' from the corridor AOI. This listing has extensive records and documents associated with it. In addition to the CORRACTS listing, the facility was also identified as a RCRA-NonGen (Non-Generator)/NLR (No longer reporting), RAATS, and PADS facility. In addition to the EDR regulatory database report, ENERCON submitted a Freedom of Information Act (FOIA)/Open Records Request to the ODEQ to inquire about any additional documents their department maintains. ODEQ provided a link with over 200 documents pertaining to the Sequoyah Fuels Corporation (SFC) facility history in relation to corrective action and remediation measures taken over the years.

Copies of documents pertaining to the regulatory review and actions concerning the SFC facility are included in Exhibit H of this report.

The closest potentially contaminated portion of the site are waste burial cells on the southern areas of the SFC property, which could exhibit arsenic, nitrate, and uranium impact. The position of the SFC site relative to the project corridor is approximately 300 feet to the north-northeast, and up-gradient. If construction activities include drilling of piers near this area and encountering groundwater, this site would be considered a high risk for potential exposure in areas.

Recommendation – ENERCON considers this site to be a moderate to high environmental concern to the AOI based on the site history of documented contamination, lengthy history of environmental investigations, and immediate north adjoining (topographically up-gradient) proximity to the project corridor AOI (within 200 ft.). ENERCON recommends a subsurface investigation to investigate proposed construction areas for contamination where substantial intrusive subsurface activities are anticipated.

- **Utility Lines in Corridor**

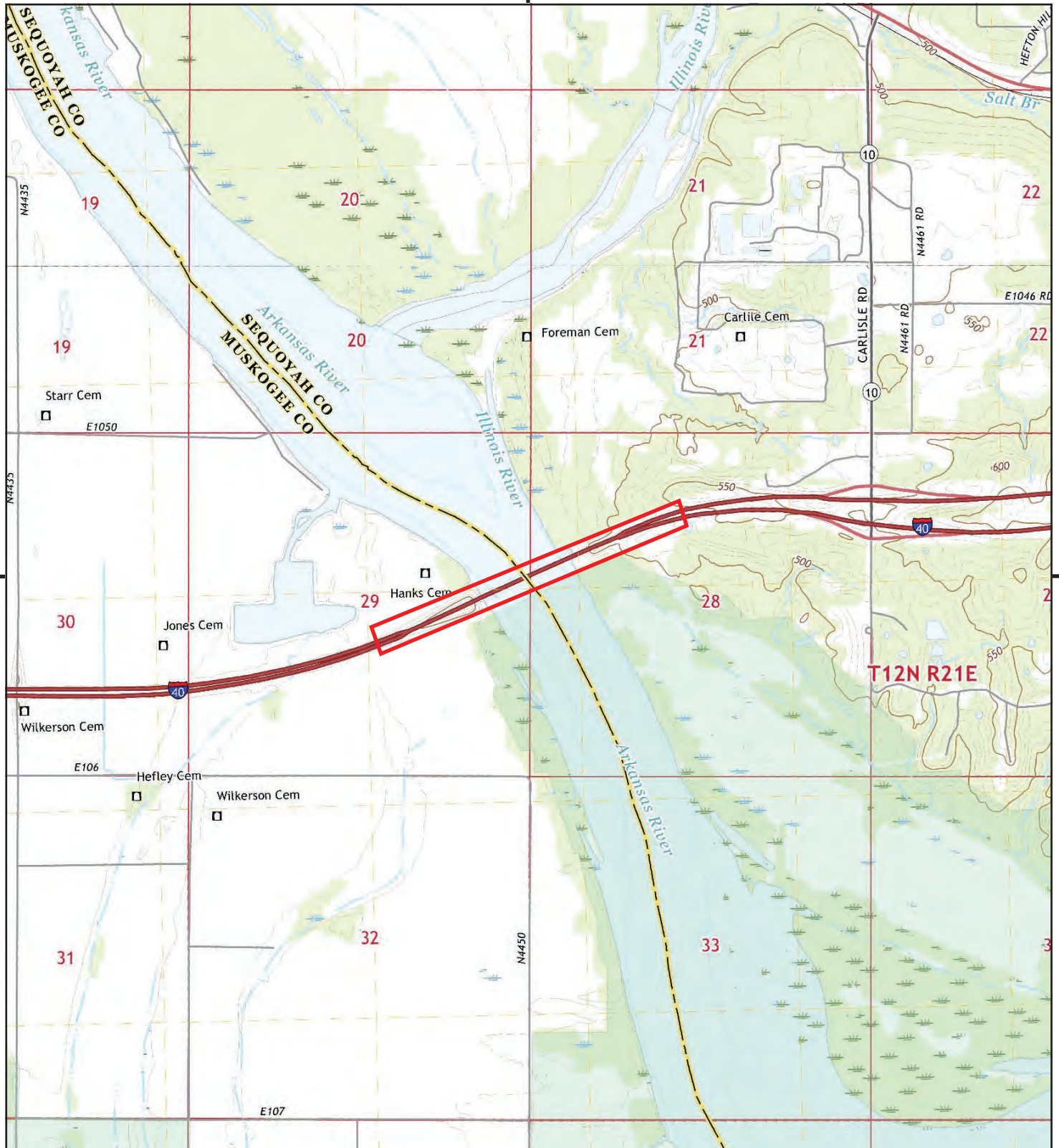
Overhead electrical transmission lines and associated utility pole-mounted transformers were observed within the AOI.

Recommendation – ENERCON considers the utilities in the corridor to be a low environmental concern to the AOI. No further investigation is recommended at this time.

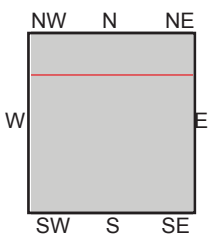
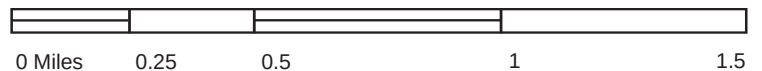
- **Gas Transmission Pipeline in or adjoining Corridor**

While not identified in the field, a gas transmission line was identified on the NPMS Pipeline Map. The pipeline appears to run under project corridor AOI on the east segment and continues to run parallel to AOI adjoining to the south. This identification presents a moderate environmental risk to the AOI in the event the pipeline ruptures during any construction activities. A marked NPMS Map showing the pipeline location in relation to the AOI is provided within Exhibit B – Maps and Figures.

Recommendation – ENERCON considers the pipeline within and immediately adjoining the corridor to the south to be a moderate environmental concern to the AOI. The pipeline location presents more a physical concern due to potential interference with construction activities. Consultation with the pipeline owner prior to work on the project corridor is advised.



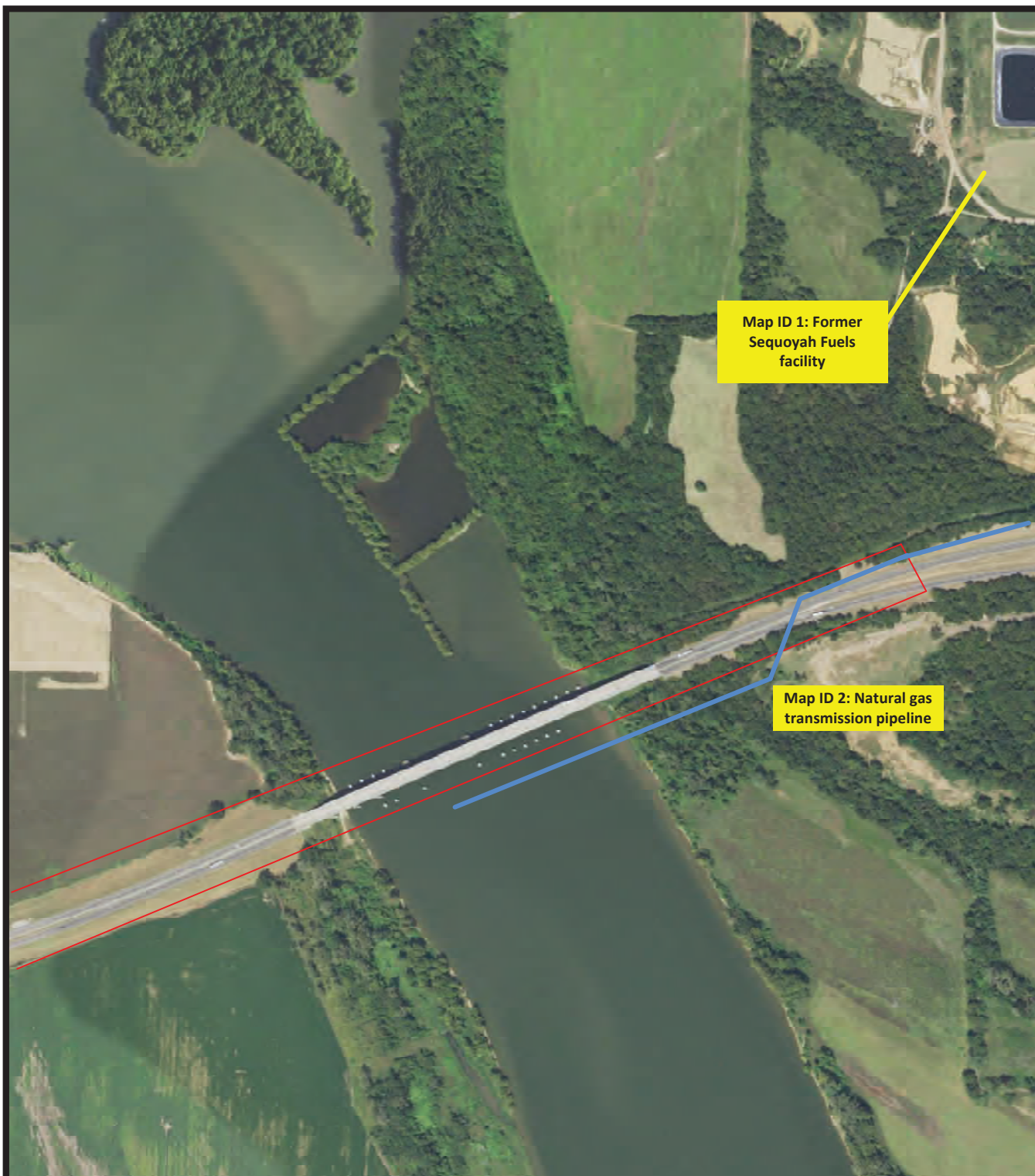
This report includes information from the following map sheet(s).



TP, Stigler NE, 2018, 7.5-minute
N, Gore, 2019, 7.5-minute

SITE NAME: I-40 Over Arkansas River JP 34334 04
ADDRESS: Interstate 40, Gore, Oklahoma
Gore, OK 74435
CLIENT: Enercon Services, Inc.





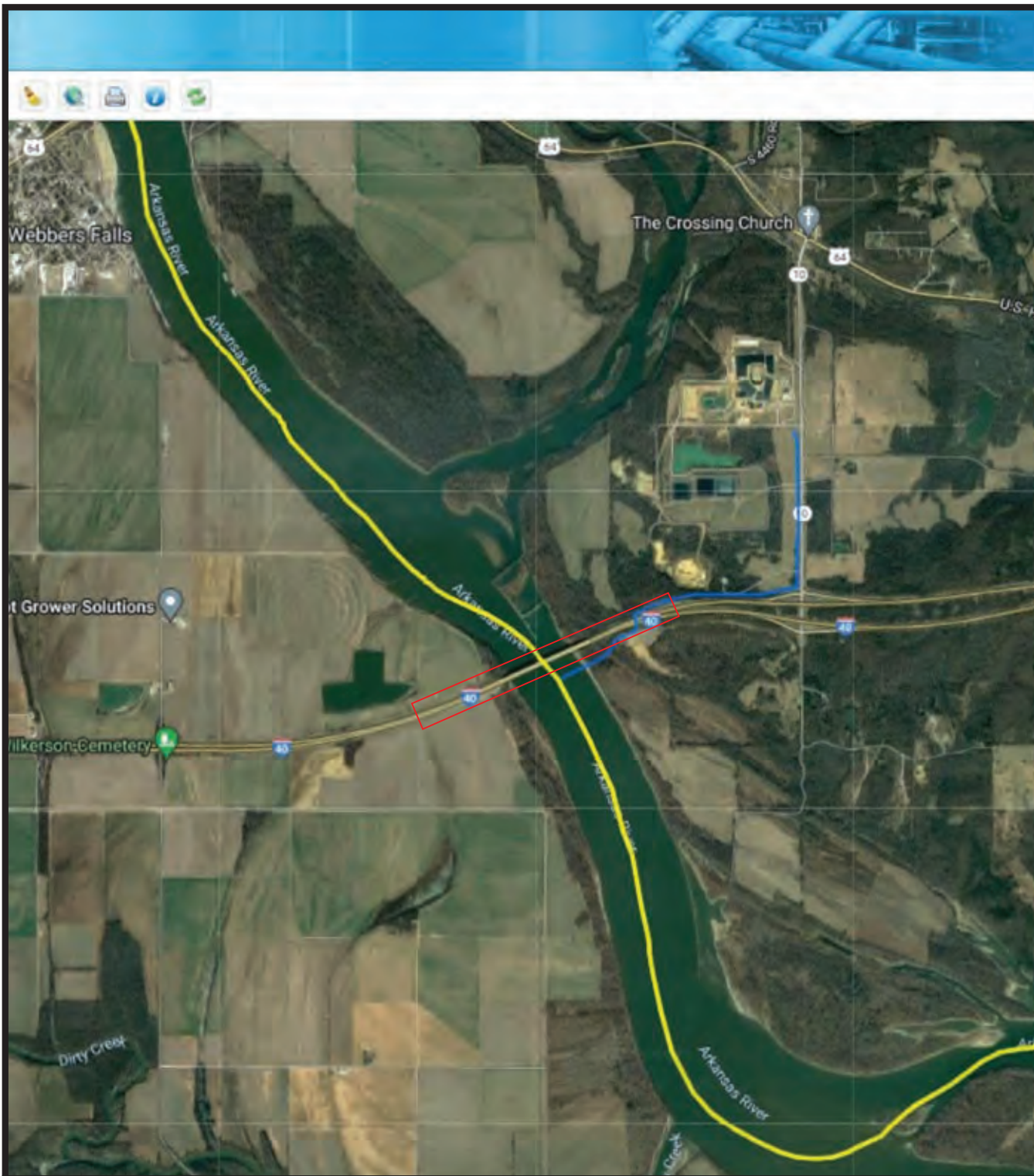
Enercon Services, Inc.
 1601 NW Expressway, Ste. 1000
 Oklahoma City, OK 73118
www.enercon.com
 405.722.7693 405.722.7694 (fax)

Source: EDR
 Project: OKDOT-00527

Facility ID Map

Bridge & Approaches: I-40: Over Arkansas River, Begin MP
 290, E 1.0 MI
 Muskogee and Sequoyah Counties, Oklahoma

Engineering Contract No. EC-2245B | Task Order No. TO-05
 Construction Project No.: J3-4334(004)
 Construction Job Piece No. 343234(04)



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Source: National Pipeline Mapping System (NPMS)
Project: OKDOT-00527

NPMS Pipeline Map

Bridge & Approaches: I-40: Over Arkansas River, Begin MP
290, E 1.0 MI
Muskogee and Sequoyah Counties, Oklahoma

Engineering Contract No. EC-2245B | Task Order No. TO-05
Construction Project No.: J3-4334(004)
Construction Job Piece No. 343234(04)



Enercon Services, Inc.
1601 NW Expressway, Ste. 1000
Oklahoma City, OK 73118
www.enercon.com
405.722.7693 405.722.7694 (fax)

Source: Oklahoma Water Resources Board (OWRB)
Project: OKDOT-00527

OWRB Well Database Map

Bridge & Approaches: I-40: Over Arkansas River, Begin MP
290, E 1.0 MI
Muskogee and Sequoyah Counties, Oklahoma

Engineering Contract No. EC-2245B | Task Order No. TO-05
Construction Project No.: J3-4334(004)
Construction Job Piece No. 343234(04)

SEQUOYAH FUELS TECHNICAL INFORMATION

RECEIVED

MAR 20 2023

LAND PROTECTION DIVISION
DEPT. OF ENVIRON. QLTY

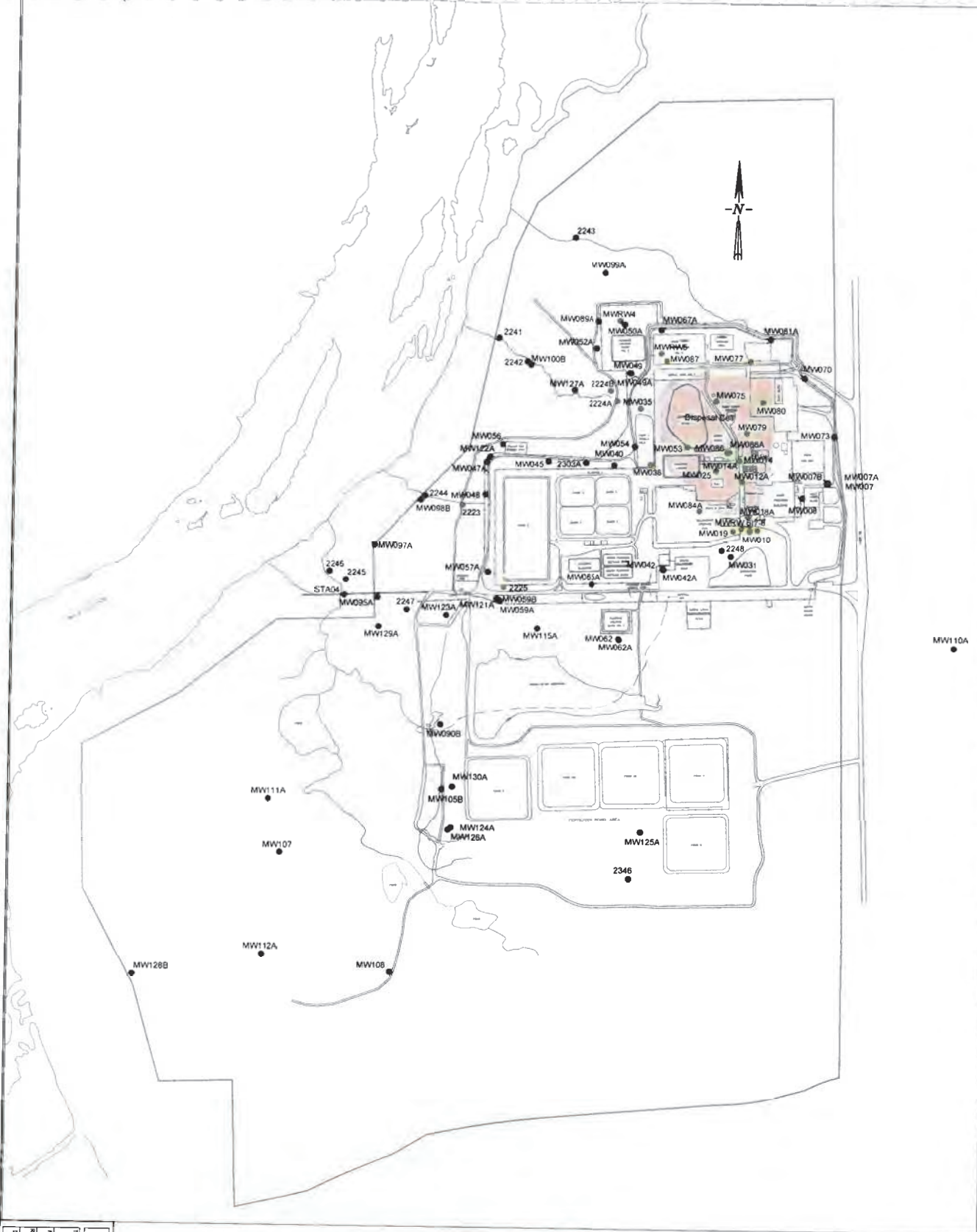
2022 ANNUAL GROUNDWATER REPORT

Sequoyah Fuels Corporation
Gore, Oklahoma

Submitted to:

Fuel Cycle Facilities Branch
U.S. Nuclear Regulatory Commission
Headquarters Office, Rockville, MD

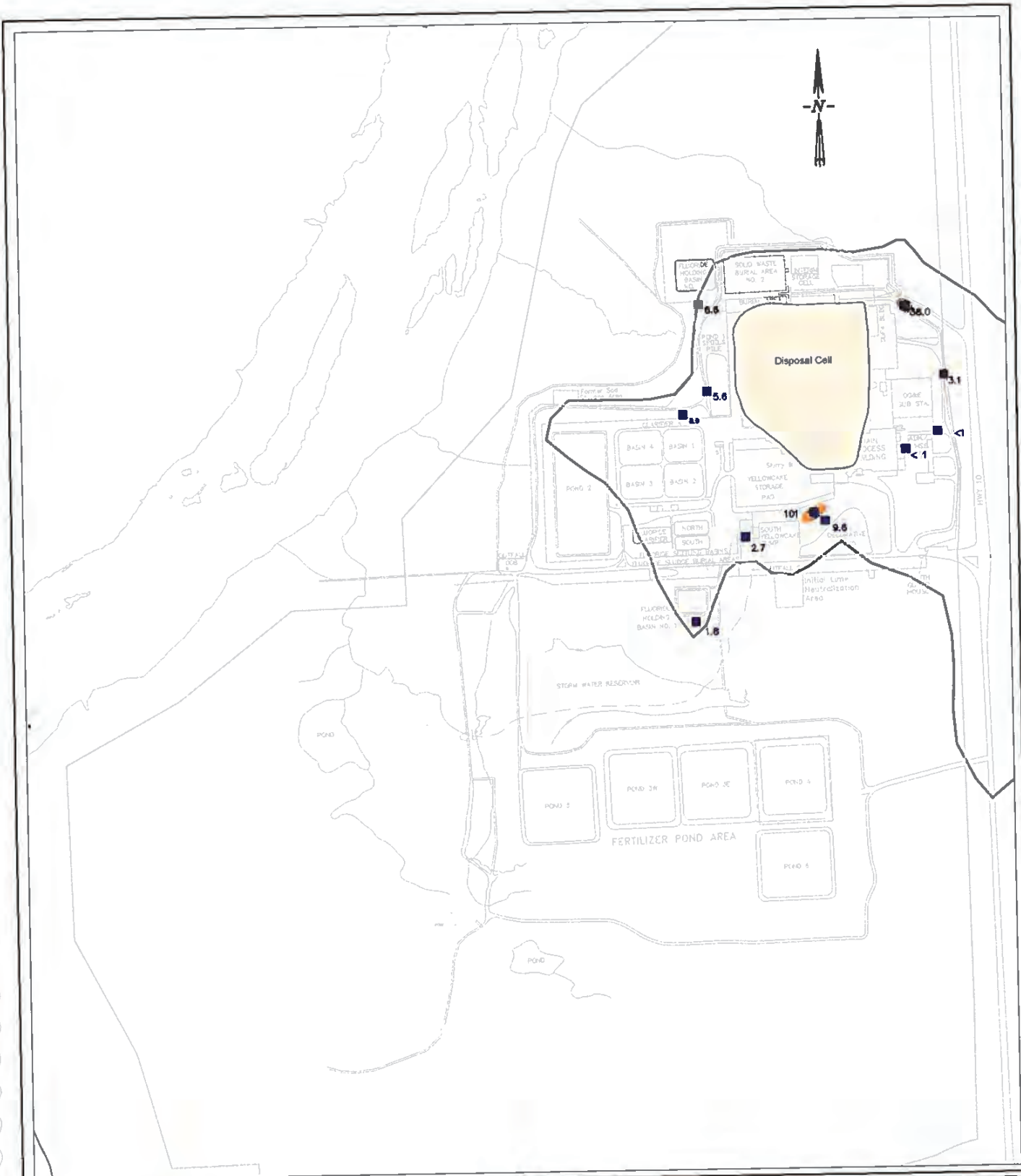
01 March 2023



Legend

- Active Groundwater Monitoring Location
- Monitor Well Plugged and Abandoned

SEQUOIA FUELS CORPORATION
Annual Groundwater Report
Corrective Action, Sep. Drainage and
Groundwater Monitor Well Locations
Revised by: RHM
Revised by: KHS
Date: 20 February 2023
FIGURE NO. 1



Uranium, $\mu\text{g/l}$



Extent of Terrace / Shale 1

Concentration

SEQUOYAH FUELS CORPORATION Annual Groundwater Report

TITLE: **Uranium Isoconcentration Diagram
Terrace / Shale 1 Groundwater Unit**

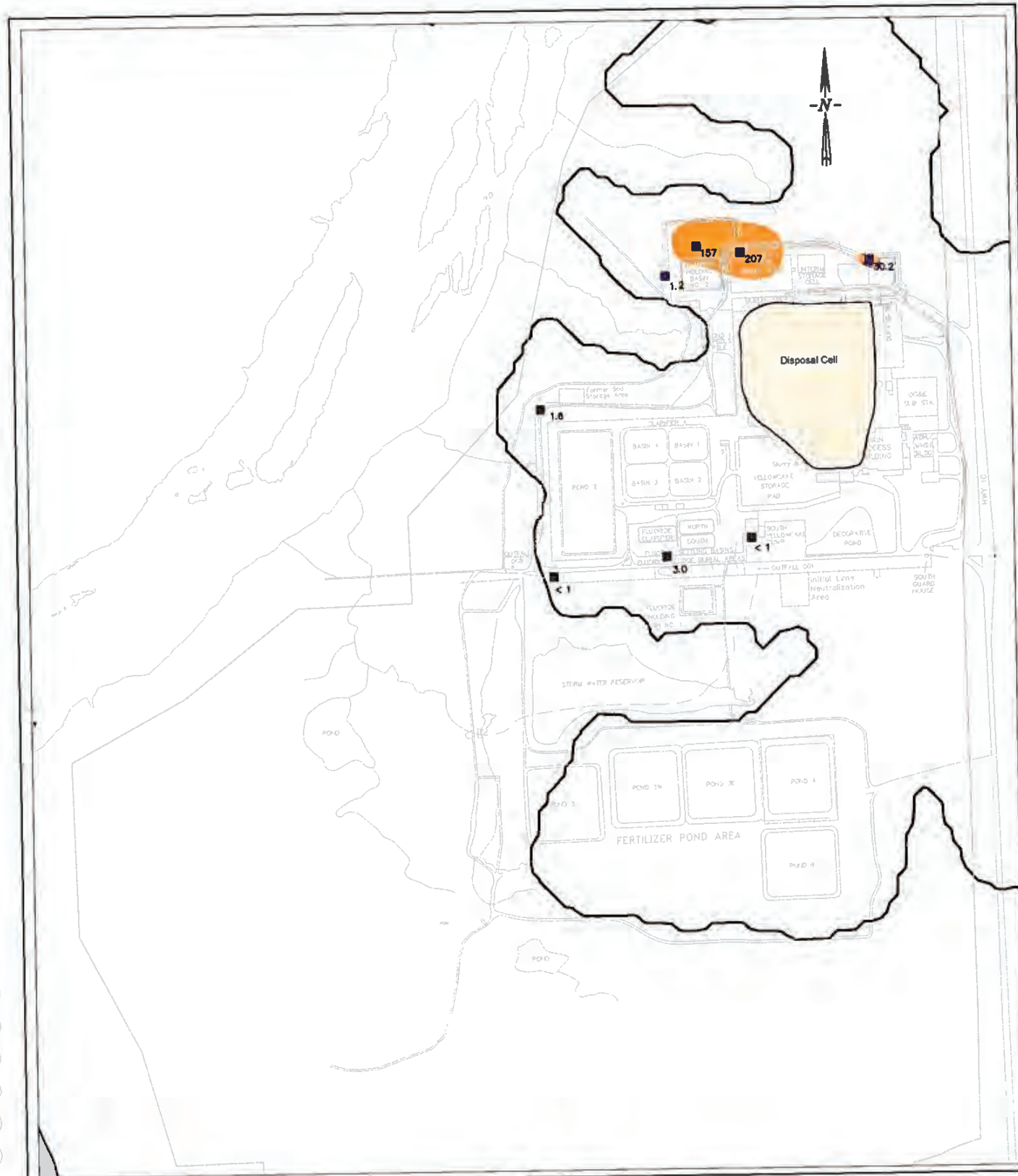
PREPARED BY: **RHM**

FILENAME: **Figure23_U_SH1_2023.dwg**

REVIEWED BY: **KHS**

DATE: **24 February 2023**

FIGURE NO. 23



Uranium, $\mu\text{g/l}$



Extent of Shale 2

Concentration

SEQUOYAH FUELS CORPORATION
Annual Groundwater Report

TITLE: *Uranium Isoconcentration Diagram*
Shale 2 Groundwater Unit

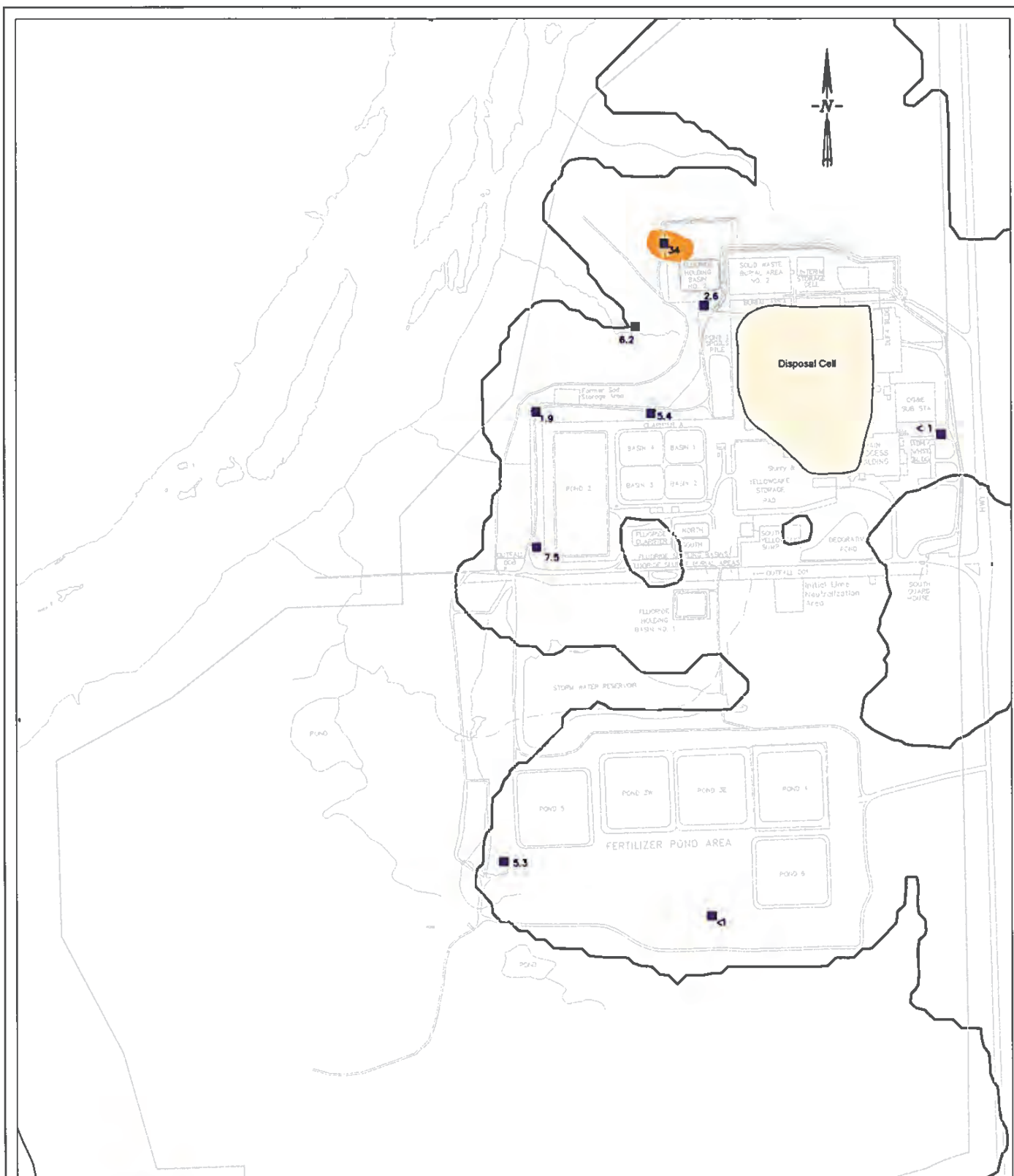
PREPARED BY: *RHM*

FILENAME: *Figure24_U_SH2_2022.dwg*

REVIEWED BY: *KHS*

DATE: *24 February 2023*

FIGURE NO. 24



Uranium, $\mu\text{g/l}$



Extent of Shale 3

Concentration

SEQUOYAH FUELS CORPORATION **Annual Groundwater Report**

TITLE: **Uranium Isoconcentration Diagram**
Shale 3 Groundwater Unit

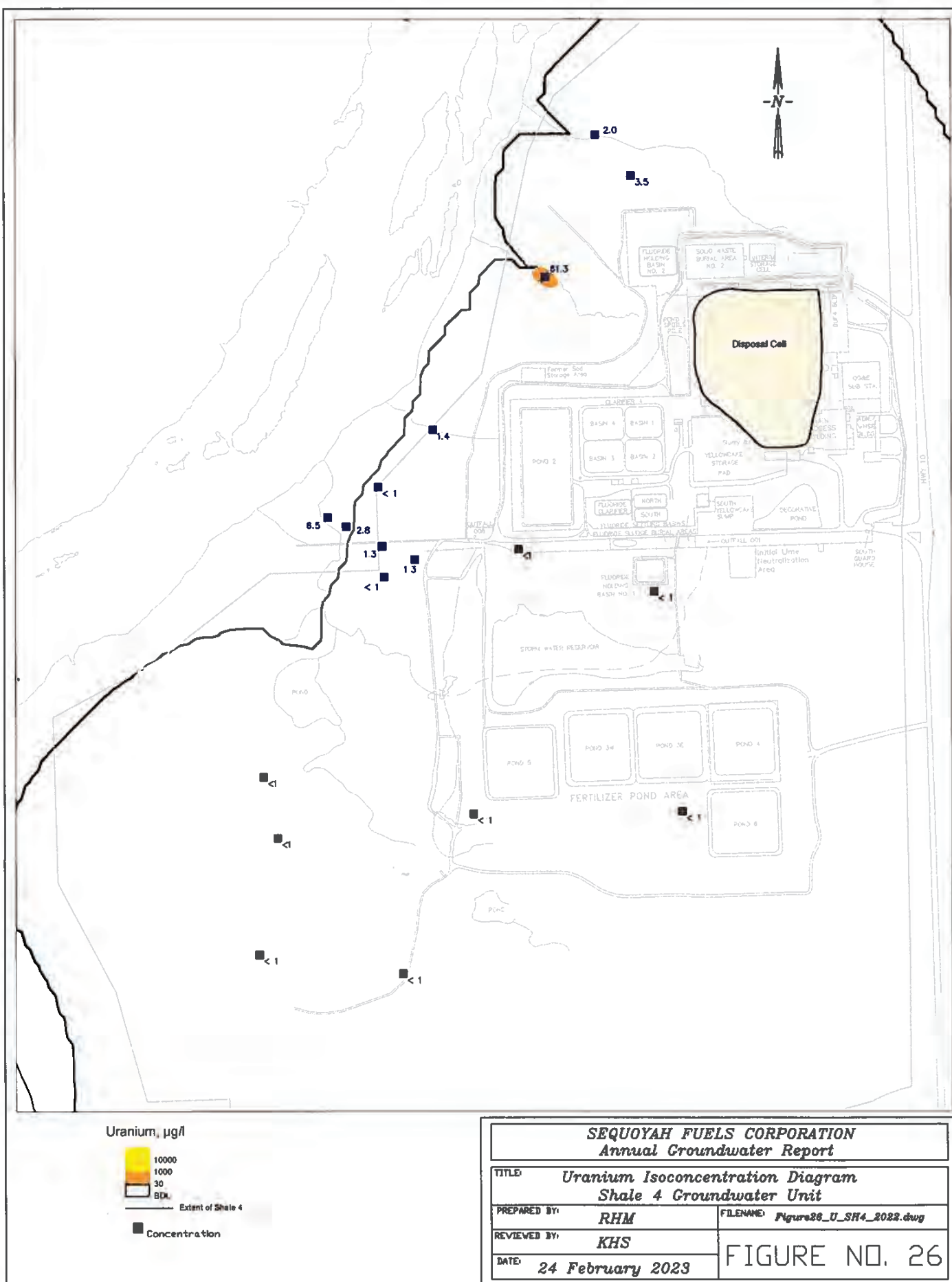
PREPARED BY: **RHM**

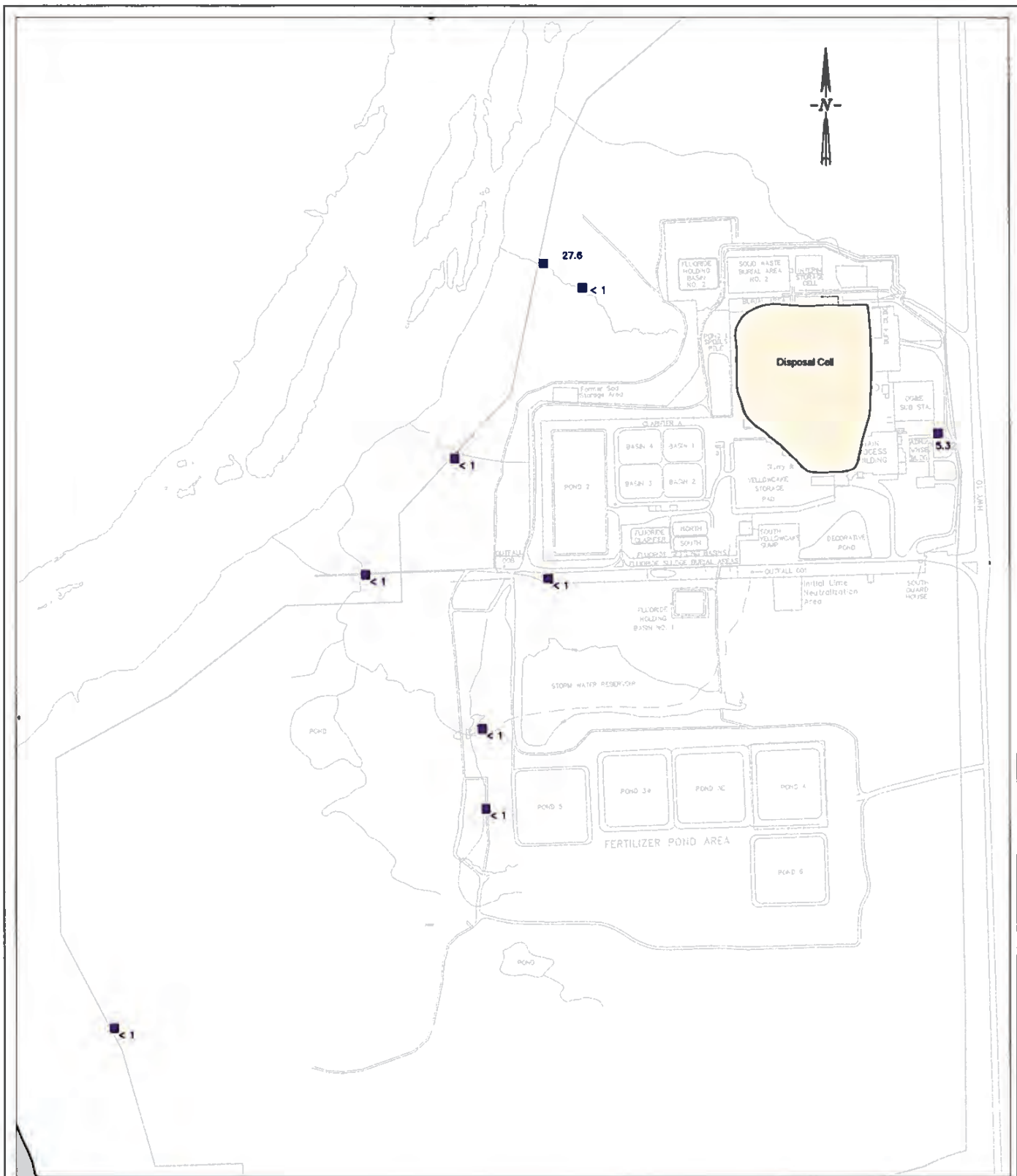
FILENAME: **Figure26_U_SH3_2022.dwg**

REVIEWED BY: **KHS**

DATE: **24 February 2023**

FIGURE NO. 25





Uranium, µg/l



Extent of Shale 5

■ Concentration

SEQUOYAH FUELS CORPORATION **Annual Groundwater Report**

TITLE: **Uranium Isoconcentration Diagram**
Shale 5 Groundwater Unit

PREPARED BY: **RHM**

FILENAME: **Figure27_U_SH5_2022.dwg**

REVIEWED BY: **KHS**

DATE: **24 February 2023**

FIGURE NO. 27

From: [John Mitsdarfer](#)
To: [Michael Hixon](#)
Cc: [J. Paul Davis](#); [James Grim](#)
Subject: RE: Sequoyah Fuels Question
Date: Wednesday, February 7, 2024 8:17:49 AM
Attachments: [sequoyah fuels 2022 GW.pdf](#)

Michael,

I am not aware of any sampling indicating migration of contamination from the Sequoyah Fuels Site near the river or the river sediments. The latest groundwater monitoring report we received dated March 1, 2023, showed no evidence of contaminants of concern (COCs) in any of the monitored groundwater seeps above EPA MCLs except for two samples of Arsenic just above the MCL. All surface water samples were at background levels. I've attached the report for your records. Let me know if I can be of any other help.

Regards,

John Mitsdarfer

Environmental Programs Specialist IV
Voluntary Cleanup Program
Land Protection Division
Oklahoma Department of Environmental Quality
405-702-5145
John.Mitsdarfer@deq.ok.gov

From: Michael Hixon <Michael.Hixon@odot.ok.gov>
Sent: Tuesday, February 6, 2024 4:17 PM
To: John Mitsdarfer <John.Mitsdarfer@deq.ok.gov>
Cc: J. Paul Davis <J.Paul.Davis@deq.ok.gov>; James Grim <James.Grim@deq.ok.gov>
Subject: Sequoyah Fuels Question

Good afternoon gentlemen. Thank you for your time earlier John and Paul. I'm doing some research for a bridge replacement project ODOT is planning just to the south of the Sequoyah Fuels facility near Gore, Oklahoma. We will be replacing the bridge and piers, which will require drilling into the sediment. We are investigating to see if there is any information/monitoring data regarding groundwater contamination from Sequoyah Fuels that may have impacted the river sediment.

We have an Initial Site Assessment that was completed in 2022 with a description of the site, site history and some monitoring data (most recent sampling data was from 2002). I have not personally found any monitoring data or models that indicate contamination left the site or was found in the Arkansas River.

Are you aware of any recent sampling data near the river, or even of river sediment that would indicate that any contamination migrated from the site?

Please pass my question along to anyone in the agency you think may have knowledge of the site

history or monitoring data that would be helpful. Thank you very much and have a great afternoon!

Michael Hixon
ODOT Hazardous Materials Group
Cell # 405-595-8593

OTHER



Oklahoma Department of Transportation Project Initiation Report

Report Date: 02/17/2021

Job Piece: 3433404

Div / County: 01 / 51 - MUSKOGEE

Project ID: J3-4334(004)PM

Highway: IS040

Project Description: I-40: OVER ARKANSAS RIVER, BEGIN MP 290, E 1.0 MI

PS&E: FY 2027

R/W: FY 2025

Drive-out Date: March 30th, 2020

Programmed Estimate:

\$30,000,000

EXISTING INFORMATION

Reconnaissance Data Available Yes

Location: <http://plansrv1.agency.ok.local/osd/JP3433404/PSEDevelopment/DataReconnaissance>

Functional Classification

Area Type:	☐ Urban	☐ Suburban	☒ Rural
Terrain Type:	☒ Flat	☐ Rolling	☐ Mountainous
Access Control:	☒ Full	☐ Partial	☐ None
Highway Type:	☒ Freeway	☐ Principal Arterial	☐ Minor Arterial
	☒ NHS	☐ Non-NHS	☐ STRAHNET
			☐ Collector
			☐ Scenic Hwy

Existing Condition

Current ADT: 21,800	% Trucks: 4%	Number of lanes: 4	Lane Width: 12'
Outside Shoulder Width: 10'		Inside Shoulder Width: 4'	
☒ Open Section	☐ Curb & Gutter	☒ Divided	Median Width: 10'
☐ Other (describe)			

Pavement Type: Asphalt Conc.	Pavement Condition: Poor
Shoulder Type: Asphalt Conc.	Shoulder Condition: Poor
Storm Sewer ☒ No ☐ Yes	Storm Sewer Condition:
Sidewalks ☒ No ☐ Yes	Left Width: Right Width:

Bridges within the Project extents: SEE ATTACHED INSPECTION REPORTS

Bridge 1 NBI#: 17051 over ARKANSAS RIVER

CONSIDERATIONS

Environmental

- ☒ **Threatened & Endangered Species, list with seasonal restrictions**
Piping Plover, Red Knot, Whooping Crane, Northern Long-Eared Bat, Indiana Bat, Gray Bat, Ozark Big-Eared Bat, ABB
- ☒ **Wetlands, list**

Alternative Impacts

- ☒ Other agencies / entities
- ☐ Turnpike Involvement
- ☐ Metropolitan Planning Organization
- US Coast Guard

Report Date: 02/17/2021

Job Piece: 3433404

Div / County: 01 / 51 - MUSKOGEE

Project ID: J3-4334(004)PM

Highway: IS040

Project Description: I-40: OVER ARKANSAS RIVER, BEGIN MP 290, E 1.0 MI

Right of Way / Utilities

☒ **Additional Right of Way anticipated, list**

As Needed for Design

☒ **Utility Conflicts, list**

As Needed for Design

Permit Information

Design Exception Anticipated: No

☐ **Maintenance Agreements (Lighting, Signals,...), list**

Permits Required:

☐ FAA

☒ USACE

☐ OWRB

☐ Railroad

☒ Other

US Coast Guard

Additional Permit Comments:

Special Considerations:

The Arkansas River is a Navigable waterway and is listed as Section 10 water. Bridge design will need to be approved by the US Coastguard prior to 30% plans. Navigation lights will need replacement in consultation with the US Coastguard.

PROPOSED IMPROVEMENTS

Project Intent:

Replacement of existing Bridge

Description of Proposed Improvements:

The Project Initiation Team's scope is to replace the single I-40 bridge over the Arkansas River with two new bridges. The new bridges substructure should be evaluated for separate or a single shared substructure. The new structures must be evaluated to meet minimum clearances for a navigable waterway, and include navigational lighting. All coordination for and obtaining the USCG permit will be the responsibility of the designer. The new bridges will evaluate the efficiency of a 4 beam system vs a 5 beam system in this location and be positioned to utilize existing pier protection. Existing pier protection will be evaluated for vessel collisions. Traffic during new bridge construction will be managed via crossovers into a single lane in each direction. Crossovers will be removed after project is complete. Provide new guardrail as required and minimize Roadway work needed to accommodate vertical changes.

New Bridge Info:

Design Speed:

Desired: 70

Minimum:

Report Date: 02/17/2021

Job Piece: 3433404

Div / County: 01 / 51 - MUSKOGEE

Project ID: J3-4334(004)PM

Highway: IS040

Project Description: I-40: OVER ARKANSAS RIVER, BEGIN MP 290, E 1.0 MI

Potential to transfer Steel Beams to County:

☐ Yes

☒ No

☐ N/A

Project Termini

Beginning of Project: Approx. 1800' West of existing Arkansas River bridge

End of Project: Approx. 1800' East of existing Arkansas River bridge

Limits of Survey: 150' LT. & RT. of Centerline. From 4435 Rd. to SH-10

Limits of NEPA: Same Width and Length as Survey extents, include crossovers

Typical Section

☒ Open Section ☐ Curb & Gutter ☒ Divided Median Width: 10' & variable
☐ Other

Number of lanes: 4

Lane Width: 12'

Outside Shoulder Width: 10'

Inside Shoulder Width: 4'

Storm Sewer: ☒ No (only if needed in C&G section) ☐ Yes

Sidewalks: ☒ No ☐ Yes

Overlay: ☐ No ☐ Yes Thickness:

Coldmill: ☐ No ☐ Yes Thickness:

Add Shoulders ☐ No ☐ Yes Width:

Bridge Width: 38' Clear Roadway

Alignment

☒ Existing symmetrical offset from centerline for bridges
☐ New, located ☐ North ☐ South ☐ East ☐ West of existing
☐ Parallel lanes, located ☐ North ☐ South ☐ East ☐ West of existing

Decision comments:

☐ Spot Improvements

☐ Horizontal, Description:

☒ Vertical, Description: As needed for Navigational clearance

Detour

☐ Shoo-fly, located ☐ North ☐ South ☐ East ☐ West of existing
☐ Widening, located ☐ North ☐ South ☐ East ☐ West of existing

☒ Crossovers

☐ Close Road

☐ Signed Detour, Route Desc:

Anticipated Duration of Detour:

☐ Agreement Required for Detour

☒ Phased Construction, Desc: One lane of Traffic in each direction must be maintained at all times.

Aesthetics

☐ Yes ☒ No

Report Date: 02/17/2021
Job Piece: 3433404 Div / County: 01 / 51 - MUSKOGEE Project ID: J3-4334(004)PM
Highway: IS040
Project Description: I-40: OVER ARKANSAS RIVER, BEGIN MP 290, E 1.0 MI

Traffic Items

Traffic Management Plan	☐ No	☒ Yes		
Median Barrier	☒ No	☐ Yes		
New Guardrail	☐ No	☒ Yes		
End Treatment	☐ No	☒ Yes, Type: GET		
Highway Lighting	☒ No	☐ Yes	☐ Outside	☐ Median
Traffic Signals	☒ No	☐ Yes		

Miscellaneous

Channel Work	☒ No	☐ Relocation	☐ Re-alignment	☐ Cleanup
Public Involvement	☒ No	☐ Road Closure Letters		
		☐ Public Meeting		
		☐ Stakeholder Meeting		

PROGRAMMING INFORMATION

RW Project Needed	☐ No	☒ Yes
Utility Project Needed	☐ No	☒ Yes

Initiation Estimate

Roadway:	\$806,000	Total Construction:	\$33,795,403
Bridge:	\$28,800,000		
Traffic Control:	\$365,000	Right of Way:	\$103,000
Signing and Striping:	\$55,000	Utilities:	\$300,000
Highway Lighting:			
Traffic Signals:			
Mobilization:	\$1,266,040		
Staking:	\$625,841		
E & C:	\$1,877,522	Total Estimate:	\$34,198,403

Comments:

Program Revisions

Estimate:	Letting Date:	/	Project Length:
Work Type:			
Description:			

Attendees

Report Date: 02/17/2021

Job Piece: 3433404 Div / County: 01 / 51 - MUSKOGEE

Project ID: J3-4334(004)PM

Highway: IS040

Project Description: I-40: OVER ARKANSAS RIVER, BEGIN MP 290, E 1.0 MI

Brian Linam, Project Management Division
Chris Wallace, Field District One
Jamie Malmstrom, Field District One
Jon Arps, Field District One
Eduardo Elder, Roadway Design Division
Mohamed Elyazgi, Roadway Design Division
Steven Bowen, Roadway Design Division, Geometrics
Patty Defranco, Bridge Design Division
Siv Sundaram, Environmental Programs Division
Leslie Novotny, Environmental Programs Division
Kathy Koon, Environmental Programs Division
Darin Stratton, Survey Division

Report Author: Brian Linam

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.: 17051	Structure No.: 6822 0000 X	Local ID: -1	Suff. Rating: 82.90	ND
--------------------------	--------------------------------------	------------------------	-------------------------------	-----------

Bridge Description: 3-125ft. P/S CONCRETE GIRDERS, 3-CONT. PLATE GIRDER SPANS (200ft.-330ft.-200), 4-125ft., 3-125ft. CONT. PLATE GIRDER SPANS 1. State: Oklahoma 2. Division: Division 1 3. County: SEQUOYAH 4. City: Unknown Admin Area: Unknown 5a. On/Under: Route On Structure 5b. Kind of Hwy: Interstate Hwy 5c. Lvl of Srvc: Mainline 5d. Route No.: 00040 5e. Dir. Suffix: N/A (NBI) 7. Facility Carried: I-40 6. Feat.: ARKANSAS RIVER 9. SEQUOYAH-MUSKOGEE CC 11. Mile Post: NA 13. LRS / Sub Rte: 6800022HX / 00 16. Latitude: 35° 29' 16.49" 17. Longitude: 095° 05' 38.05" 98. Border: Unknown (P) % Responsible: 0.00 99. Border Brdg #: Unknown	INSPECTION <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Insp. Req.</th> <th>Insp. Done</th> <th>Freq.</th> <th>Insp. Date</th> <th>Next Insp.</th> </tr> </thead> <tbody> <tr> <td>NBI:</td> <td></td> <td>0</td> <td>24 months</td> <td>7/17/2023</td> <td>07/17/2025</td> </tr> <tr> <td>FC:</td> <td>Y</td> <td>0</td> <td>24 months</td> <td>7/17/2023</td> <td>7/17/2025</td> </tr> <tr> <td>UW:</td> <td>Y</td> <td>0</td> <td>60 months</td> <td>7/19/2020</td> <td>7/19/2025</td> </tr> <tr> <td>OS:</td> <td>Y</td> <td>1</td> <td>24 months</td> <td>7/19/2024</td> <td>7/17/2026</td> </tr> </tbody> </table>	Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.	NBI:		0	24 months	7/17/2023	07/17/2025	FC:	Y	0	24 months	7/17/2023	7/17/2025	UW:	Y	0	60 months	7/19/2020	7/19/2025	OS:	Y	1	24 months	7/19/2024	7/17/2026
Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.																										
NBI:		0	24 months	7/17/2023	07/17/2025																										
FC:	Y	0	24 months	7/17/2023	7/17/2025																										
UW:	Y	0	60 months	7/19/2020	7/19/2025																										
OS:	Y	1	24 months	7/19/2024	7/17/2026																										
STRUCTURE TYPE AND MATERIALS 43a/b. Main Span: Steel Cont. / Girder-Floorbeam 44a/b. Appr. Span: P/S Conc. / Stringer/Girder 45. # of Main Spans: 10 46. # of Appr. Spans: 3 107. Deck Type: Concrete-Cast-in-Place 108a. Wearing Surface: Low Slump Concrete 108b. Membrane: Unknown 108c. Deck protection: Unknown	CLASSIFICATION 12. Base Hwy Net.: On Base Network 20. Toll Facility: On free road 21. Custodian: State 22. Owner: State 26. Function Class: 01 Rural Interstate 37. Historical Sig.: Not eligible for NRHP 100. Def. Hwy: On Interstate STRAHNE 101. Parallel Str.: No bridge exists 102. Traffic Dir.: 2-way traffic 103. Temp. Str.: Not Applicable (P) 104. Hwy System: On the NHS 105. Fed Land Hwy: IRR-Indian Res Rd 110. Defense Hwy: On Interstate STRAHNE 112. NBIS Length: Long Enough																														
AGE AND SERVICE 19. Detour Length: 5.0 mi 27. Year Built: 1967 28a/b. Lanes on/und: 4 / 0 29. ADT: 15,900 30. Year of ADT: 2022 42a/b. Type of Svc on/und: Highway / Waterway	CONDITION 58. Deck: 6 Satisfactory 62. Culvert: N/A (NBI) 59. Sup.: 6 Satisfactory 61. Chan./Chan. Prot.: 6 Bank Slumping 60. Sub: 6 Satisfactory Flowline Notes: The Pier 5 footing is exposed up to 4"H x 5'L along the west face. 2020 Underwater Channel Notes: The channel in the vicinity of the bridge																														
GEOMETRIC DATA 10. Vert. Clearance: 99.99 ft 32. Appr Rwy Width: 69.91 ft 33. Median: Closed Med w/o Barri 34. Skew: 0.00° 35. Struct. Flared: No flare 47. Horizontal Clr: 30.00 ft 48. Length Max Span: 330.00 ft 49. Struct. Length: 2,003.16 ft 50a. Curb/Sdwk Width L: 3.00 ft 50b. Curb/Sdwk Width R: 3.00 ft 51. Width Curb to Curb: 60.00 ft 52. Width Out to Out: 68.50 ft Deck Area: 136,247.76 sq. ft 53. Min. Vert. Cl. Ovr Brg: 99.99 ft 54a. Min. Vt. Undclr. Ref: N Feature not hwy c 54b. Min. Vert. Undclr.: 0.00 ft 55a. Min. Lat. Undclr. Ref: N Feature not hwy 55. Min. Lat. Underclr. R: 99.90 ft 56. Min. Lat. Underclr. L: 99.90 ft	LOAD RATING AND POSTING 31. Design Load: MS 18 (HS 20) 41. Post. Status: A Open, no restriction 70. Posting: 5 At/Above Legal Loads 63. Op / 65. Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>H</th> <th>HS</th> <th>3-3</th> <th>EV3</th> <th>SHV</th> </tr> </thead> <tbody> <tr> <td>64. Operating Rating (tons):</td> <td>30.40</td> <td>54.70</td> <td>92.80</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>66. Inventory Rating (tons):</td> <td>18.20</td> <td>32.80</td> <td>55.70</td> <td></td> <td></td> </tr> </tbody> </table>		H	HS	3-3	EV3	SHV	64. Operating Rating (tons):	30.40	54.70	92.80	0.00	0.00	66. Inventory Rating (tons):	18.20	32.80	55.70														
	H	HS	3-3	EV3	SHV																										
64. Operating Rating (tons):	30.40	54.70	92.80	0.00	0.00																										
66. Inventory Rating (tons):	18.20	32.80	55.70																												
OKLAHOMA ITEMS 200c. Temperature: 91 200d. Weather: Clear 201. Struc. Stl. ASTM Desig.: A-36 / -1 202. Waterprf. Membrane: -1 Date Installed: 01/01/1901 203. Type Exp. Device: Modular Elastomeric Strip Seal: Sealed Expansion Joint 204. Type of Railing: PTR-1 (round hand rail) 205. Material Quantity: -3.00 208a. Type of Abutment: Skeleton b. Type of Found.: Steel Piling 209. Type of Pier/Found.: 2 / Yes Spread Footing 210. Foundation Elev.: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>4,300.00</td> <td>4,240.00</td> </tr> <tr> <td>-1.00</td> <td>4,290.00</td> </tr> <tr> <td></td> <td>-1.00</td> </tr> </table> 211. Wear. Surf. Prot. Sys: Silane Date Installed: 01/01/1901 211c. Silane Reapplied 211d. Date: 213. Utilities Attached: Communication 	4,300.00	4,240.00	-1.00	4,290.00		-1.00	APPRAISAL 36a. Brdg Rail: 1 Meets Standards 36b. Transition: 1 Meets Standards 36c. Appr. Rail: 1 Meets Standards 36d. Appr. Rail Ends: 1 Meets Standard 67. Str Evaluation: 6 Equal Min Criteria 68. Deck Geom.: 4 Tolerable 69. Vert./Horiz. Undclr: Not applicable (NB) 71. Waterway Adeq: 8 Equal Desirable 72. Appr. Alignment: 7 Above Min Criteria 113. Scour Critical: 8 Stable Above Footin PROPOSED IMPROVEMENT 94. Bridge Cost: \$20,219,922 95. Roadway Cost: \$4,500,000 96. Total Cost: \$26,119,163 97. Yr. of Cost Est.: 2015 75. Type of Work: 31 Repl-Load Capacity 76. Lngth of Improvement: 1,989.0 ft 114. Future ADT: 25,440 115. Yr. of Future ADT: 2042 NAVIGATION DATA 38. Nav. Control: Permit Required 39. Vert. Clearance: 52.0 ft 40. Horiz. Clearance: 300.0 ft 111. Pier Protect.: 2 In-Place, Function 116. Lift Bridge Vert. Clr.: 0.0 ft 244. Span Lengths: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>131</td> <td>130</td> <td>130</td> </tr> <tr> <td>201</td> <td>330</td> <td>201</td> </tr> <tr> <td></td> <td>125</td> <td>125</td> </tr> </table> 245. Girder Depth: 246a. Type of Overlay: NA b. Overlay Thickness: 0.00 c. Overlay Date: 01/01/1901 d. Ovl Depth Changed >1": 247. Protective Systems: 248. # Field Splices w/ Corrosion: 249. Scour Crit. POA Exists?: 250. Headwall: 258. Plans w/Found. in ODOT File: 259. Scour Eval. in ODOT File: 263. Interchange at Intersection: No 264. Interstate Milepoint: 290.66	131	130	130	201	330	201		125	125															
4,300.00	4,240.00																														
-1.00	4,290.00																														
	-1.00																														
131	130	130																													
201	330	201																													
	125	125																													

Oklahoma Dept. of Transportation - Bridge Inspection Report

<u>NBI No.:</u> 17051	<u>Structure No.:</u> 6822 0000 X	<u>Local ID:</u> -1	<u>Suff. Rating:</u> 82.90	ND
Inspection Date: 7/19/24			Ed Cinadr	
Invoice No.: 1160667		Inspected With:		

BRIDGE NOTES:

Spans 1-3:	Simple prestressed concrete girder approach spans (131.4 feet, 130 feet, 130 feet)
Spans 4-6:	Continuous variable-depth steel girder main spans (201 feet, 330 feet, 201 feet)
Spans 7-10:	Continuous steel girder approach spans (125 feet, 125 feet, 125 feet, 126 feet)
Spans 11-13:	Continuous steel girder approach spans (126 feet, 125 feet, 126.3 feet)
w/ 18 inch safety curbs & 4ft median	

Other/Special inspection items include:

- Modular joints support boxes and support beams at piers 3, 6 and 10.
- Cracks in floor beam 4, span 4:
 - o Stringer 1 (1 5/8 and 1 1/2 inches).
 - o Stringer 2 (3/4 and 1 1/8 inches).
- Cracks in lateral bracing gusset plates:
 - o Span 8, girder 3 at floor beam 4 (8 1/2-inch-long crack in gusset plate).
 - o Span 10, girder 2 at floor beam 2 (18-inch-long crack in gusset plate weld).
 - o Span 11, girder 2 at floor beam 1 (8-inch-long and 6-inch-long cracks in gusset plate weld).
- Horizontal web splice terminations in spans 4 near floor beam 5, span 5 near floor beams 3 and 11, and span 6 near floor beam 3. Cracks or cored hole noted at:
 - o Span 4, girder 2, near floor beam 5 (1-inch-long crack arrested by cored hole, 1 1/2-inch-long crack arrested by cored hole).
 - o Span 4, girder 4, near floor beam 5 (7/16-inch-long crack arrested by a cored hole).
 - o Span 5, girder 1, near floor beam 11 (3/4-inch-long crack stopping short of cored hole, 1 1/4-inch-long crack arrested by two cored holes).
 - o Span 5, girder 2, near floor beam 11 (2-inch-long crack arrested by a cored hole).
 - o Span 5, girder 3, near floor beam 11 (7/8-inch-long crack stopping short of cored hole).
 - o Span 5, girder 4, near floor beam 3 (1 1/8-inch-long crack arrested by a cored hole, 1-inch-long crack arrested by a cored hole).
 - o Span 5, girder 4, near floor beam 11 (1-inch-long crack arrested by a cored hole).
 - o Span 6, girder 1, near floor beam 3 (both cracks arrested by a cored hole).
 - o Span 6, girder 2, near floor beam 3 (1-inch-long crack arrested by a cored hole).
 - o Span 6, girder 3, near floor beam 3 (Paint crack originally noted, no cracks found during 2024 OS ins).
 - o Span 6, girder 4, near floor beam 3 (1 1/4-inch-long crack arrested by a cored hole).

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:
17051

Structure No.:
6822 0000 X

Local ID:
-1

Suff. Rating:
82.90

ND

INSPECTION NOTES: 7/19/24

2024/07/19 Other/Special inspection notes (no significant changes to OS items as noted in the Structure Notes)

PX – Recommendations:

- Replace missing north railing posts in span 8 and near pier 12.
- Splice gaps in metal rail of north railing in spans 5 and 9, and south railing in spans 1, 6 and 7.
- Patch spalls in driving surface.
- Repair cracks in bearing boxes at modular joint supports at pier 3. Also, install shim plates or additional support below bearing blocks to prevent future cracking.
- Replace modular joints at pier 3, 6 and 10.
- Replace pourable joint seals at west abutments and fixed joints and deck control joints.
- Replace strip seal expansion joint at east abutment.
- Replace missing or loose bolts at stringer connections.
- Arrest ends of cracks at:
 - o Floor beam 4, span 4 under stringer 1.
 - o Floor beam 4, span 4 under stringer 3.
 - o Stringer diaphragm over floor beam 5, span 6, between stringers 3 and 4.
- Repair cracks in lateral bracing gusset plates:
 - o Span 8, girder 3 at floor beam 4 – 8 1/2-inch-long crack in gusset plate.
 - o Span 10, girder 2 at floor beam 2 – 18-inch-long crack in gusset plate weld.
 - o Span 11, girder 2 at floor beam 1 – 8-inch-long and 6-inch-long cracks in gusset plate weld.
- Reattach lateral bracing vibration dampeners at:
 - o Span 4, between girders 1 and 2, between floor beams 5 and.
 - o Span 4, between girders 1 and 2 and between floor beams 8 and pier.
 - o Span 4, between girders 3 and 4 and between floor beam 7 and pier.
 - o Span 6, between girders 1 and 2 and between floor beams 2 and 3.
 - o Span 6, between girders 3 and 4 and between floor beam 0 and 1 – fractured spring not functioning as intended.
 - o Span 6, between girders 3 and 4 and between floor beam 6 and pier 6.
- Patch corrosion hole through lateral bracing gusset plate at girder 4, span 6 at pier 6
- Install crushed aggregate slope protection on east approach embankment.
- Remove debris from east abutment seat.
- Patching spall in pier 6, column 2 at top of web wall.
- Repair broken seismic cables at piers 6 and 10.
- Reset elastomeric bearings for girder 1 for span 4 at pier 3.
- Remove paint from stainless-steel sliding surfaces of elastomeric bearings at pier.

FX – Monitor:

- Terminations of horizontal web splices for crack propagation or initiation in spans 4 through 6.
- Lateral bracing gusset plate connections to web of girders at:
 - o Span 10, girder 1 at floor beam 4
 - o Span 11, girder 1 at floor beam 1
 - o Span 11, girder 2 at floor beam 3
 - o Span 12, girder 2 at floor beam 1
 - o Span 12, girder 2 at floor beam 2
- Ends of prestressed concrete beams for deterioration associated with exposed strands.

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Re Concrete Deck	sq.ft	119,340.00	70%	83,518.00	30%	35,802.00	0%	20.00	0%	0.00
PX – Small spalls and patches are typical along control joints. Deck offset 1in relative to east approach railing. Deck in new portion (spans 1 through 3 and 70ft in span 4) has transverse cracks of 0.020in spaced at 3ft to 5ft, span 3 has 0.030in diagonal cracking. Deck in original portion has transverse cracks of 0.050in spaced at 5ft to 10ft. Raised pavement markers is missing.											
107 / 4	Steel Opn Girder/Beam	ft	5,540.00	91%	5,036.00	9%	500.00	0%	4.00	0%	0.00
FX – Cracks at horizontal web splice terminations in spans 4 near floor beam 5, and span 6 near floor beam 3 (Item 872 has splice terminations for span 5 near floor beams 3 and 11). Cracks or cored hole noted at: • Span 4, girder 2, near floor beam 5 (1-inch-long crack arrested by cored hole, 1 1/2-inch-long crack arrested by cored hole). • Span 4, girder 4, near floor beam 5 (7/16-inch-long crack arrested by a cored hole). • Span 6, girder 1, near floor beam 3 (both cracks arrested by a cored hole). • Span 6, girder 2, near floor beam 3 (1-inch-long crack arrested by a cored hole). • Span 6, girder 3, near floor beam 3 (Paint crack originally noted). • Span 6, girder 4, near floor beam 3 (1 1/4-inch-long crack arrested by a cored hole). FX – Lateral bracing gusset plates welded to girders web using backing bars. Cored holes through web with no visible crack at: • Span 10 (girder 1, FB 4). • Span 11 (girder 1, FB 1 and girder 2, FB 3). • Span 12 (girder 2, FB 1 and girder 2, FB 2). Lateral bracing gusset plates at FBs 3, 4, 5 in spans 4 and 6, and FBs 3 and 11 in span 5 have been flame-cut and reattached to the girder webs. Pack rust exists at isolated locations in the main girders between horizontal splices, FB connections, bolted bottom splice plates. Paint cracks at stiffener to girder bottom flange at span 6 (girder 3 at FB4 and girder 4 at FB7) and span 8 (girder 3 at FB 2 and girder 4 at FB 2). Welded nut or open hole on inboard web splice plate at span 5 (girder 1 near FB 9, and girder 3 near FBs 3, 5, and 9). Loose bolts in web splice plate at span 7 (girder 3 near FB 4) and span 11 (girder 4 near FB 4).											
515 / 4	Steel Protective Coating	sq.ft	330,000.00	0%	0.00	100%	330,000.00	0%	0.00	0%	0.00

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:		Structure No.:		Local ID:		Suff. Rating:		ND	
17051		6822 0000 X		-1		82.90			
Paint is sound with corrosion reactivating under joints.									
109 / 4	Pre Opn Conc Girder/Beam	ft	4,140.00	100%	4,140.00	0%	0.00	0%	0.00
No significant deficiencies were observed to the prestressed concrete girders in spans 1-3.									
113 / 4	Steel Stringer	ft	5,540.00	98%	5,437.00	2%	100.00	0%	3.00
PX – Bolts and/or nuts are missing in the stringer to floor beam connections at the following locations: - Span 6, west side of floor beam 1, stringer 1 exhibits two missing bolts. - Span 6, east side of floor beam 1, north face of stringer 3 exhibits a missing nut. - Span 7, floor beam 2, stringer 4 exhibits four not fully seated bolts. - Span 8, west face of floor beam 0, stringer 3 exhibits one missing bolt. - Span 10, floor beam 0, stringer 3 exhibits four missing bolts. PX – Stringer diaphragm between stringers 3 and 4, span 6 over FB 5 has an 8 1/2in crack. Deck is lifting off stringers at several locations. Stringer 2 diaphragm connection to FB 1, span 8 has 5 of 7 connection bolts not fully seated. Stringer 3 connection to FB 1, span 6 has 1 broken bolt. Stringer 3 connection to FB at pier 9 is missing all 4 anchor bolts. Stringer 4 connection to FB 2, span 8 has all 4 bolts not fully seated. Stringers in span 7 near pier 6 and span 13 near the east abutment have a partial length welded cover plates.									
152 / 4	Steel Floor Beam	ft	3,536.00	0%	0.00	95%	3,346.00	5%	190.00
PX – Span 4 FB 4 has cracks in web at top of vertical stiffener below stringer 1 (1 5/8in and 1 1/2in) and below stringer 3 (2 3/8in) Member Alignment – Span 6 FB 4 has 1/4in sweep between girders 1 and 2. Span 6 FB 2 between G3 and G4 has 11/16in local kink in lower strut. Span 9 FB 0 at G4 has slight bow in lower gusset plate. Painted over pack rust between FB components below deck control and expansion joints. Loose bolts or oversized bolt holes at FB to girder connections at span 5 FB 8 G3, span 7 FB 3 G2, span 9 FB4 G2, span 11 FB 3 at G2 and Span 12 FB 2 at G2.									
205 / 4	Re Conc Column	each	23.00	87%	20.00	9%	2.00	4%	1.00
PX – Pier 6, column 2 exhibits a 5-square-foot spall with exposed and corroding reinforcing steel at the top of the web wall and a vertical crack extending the full height of the column.									
210 / 4	Re Conc Pier Wall	ft	94.00	68%	64.00	32%	30.00	0%	0.00
Minor hairline cracking exists in the concrete pier walls. Pier 4 exhibits some water staining and vertical cracks to the stem wall.									
215 / 4	Re Conc Abutment	ft	152.00	97%	147.00	3%	4.00	1%	1.00
PX – E abutment breastwall has undermining with 20in of penetration beneath flowable fill (2013 repair) and no exposure of piles. Erosion is from leaking joint. PX – Debris and ponding on E abutment seat (9in deep under median). Erosion exists under remnants of the original W abutment with no affect to the replaced abutment . Both abutments exhibit random hairline cracking with E abutment cracks up to 0.020in wide.									
234 / 4	Re Conc Pier Cap	ft	837.00	33%	280.00	66%	550.00	1%	7.00
PX – Seismic restraints, consisting of cable anchorages attached between the girder bottom flanges and the pier caps, exist at piers 6 and 10. The cable anchorages for girders 1 through 4 at piers 6 and 10 are broken and are no longer functioning. Pier 6 cap exhibits rust staining throughout and a spall to the bottom east edge of the south cantilever. Pier 1 cap on the west and east faces at the south end exhibits 1/16-inch-wide x 20-foot-long crack 2-feet from the top. Pier 10 cap exhibits a wide crack and delamination to the bottom west edge between girders 3 and 4.									
300 / 4	Strip Seal Exp Joint	ft	69.00	0%	0.00	0%	0.00	0%	0.00
Joint at east abutment. PX – The pourable expansion joint seal at the west abutment is missing the joint seal for 10 feet in the westbound lanes and throughout the southern lane of the eastbound lanes. Seal is missing in EB lane.									
303 / 4	Assem Jnt With Seal	ft	207.00	0%	0.00	0%	0.00	0%	0.00
PX – Modular joints have fractured or missing components, joint seals bulging/torn, joints closed: Joint 3 Box 2 – W box unsupported. Box 3 – Both box bottom plates fractured and missing under W end of support bar 1. Bearing blocks dislodged. Support bar 2 partially unsupported. Box 4 – Both box bottom plates fractured. Boxes 5 and 6 – E bearing block for support bar 1 missing. Box 7 – W box bottom plate fractured under support bar 1. Box 8 – W box supported by 6 3/4in over 22 1/4in length. Box 15 – W box bottom plate fractured under support bar 1. Composite reinforcing above beam 10 exposed and box unsupported. Box 16 – W box bottom plate fractured away, support bar 1 unsupported. E box bottom plate fractured. Box 17 – W box not fully supported. Joint 6 – equidistant bars broken/dislodged/missing, transverse separation beam sagging. Box 2 – Transverse separation beam and repair plate fractured , sagging 1in. Longitudinal support bar broken free from transverse beam, dislodged. Box 3 – Longitudinal support bar broken free from transverse beam, dislodged. Joint 10 – equidistant bars broken/dislodged/missing. Box 3 – Longitudinal support bar broken free from transverse beam, dislodged.									
310 / 4	Elastomeric Bearing	each	76.00	97%	74.00	0%	0.00	3%	2.00
PX – Span 4 bearings at pier 3, sliding surface painted: G 1 – Sheared 2in east, bearing split at N end of E face, debonded from sole plate at S end of E face, rotated with S end 3 1/2in E and N end 1 5/8in E, PTFE pad distorted, near limits of expansion at 91F. G 2 – Bulging along E edge, bottom edge lifting from pier seat. G 3 – Bearing assembly not parallel with girder (offset 5/16in over 16 5/8in length).									
311 / 4	Moveable Bearing	each	24.00	0%	0.00	63%	15.00	38%	9.00

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:		Structure No.:		Local ID:		Suff. Rating:		ND			
17051		6822 0000 X		-1		82.90					
Bearings at piers 4, 6, 10 and E abutment have pack rust between rocker and masonry plate. Several bearing bolts broken/missing, pier 6 and E abutment worst. E abutment bearings have corrosion with 1/16in painted over pitting, anchor bolts bent/broken from over expansion. E abutment G1 and G2 bearings shifted 1in N, G3 and G4 bearings shifted 1in S. Span 6, pier 6 bearings rocked up to 14 degree in expansion at 91F, bearings at pier 10 rocked up to 9 degrees expansion. Pier 4 G3 rocked more than other girders.											
313 / 4	Fixed Bearing	each	24.00	0%	0.00	100%	24.00	0%	0.00	0%	0.00
No significant deficiencies.											
321 / 4	Re Conc Approach Slab	sq.ft	4.00	0%	0.00	75%	3.00	25%	1.00	0%	0.00
E approach slab recently overlaid with asphalt. 1/16in longitudinal and map cracks in W approach slab.											
330 / 4	Metal Bridge Railing	ft	3,978.00	100%	3,973.00	0%	0.00	0%	5.00	0%	0.00
PX – Rail for N bridge railing missing adjacent posts in span 8 and near pier 12, spalls with exposed reinforcing at post location at pier 12. PX – Gaps in rail at N railing in spans 5 and 9, S railing in spans 5, 6 and 7.											
919 / 4	St.(Rail) Prot. Coat	sq.ft	7,500.00	0%	0.00	100%	7,500.00	0%	0.00	0%	0.00
aluminum railing.											
331 / 4	Re Conc Bridge Railing	ft	5,967.00	0%	0.00	100%	5,939.00	0%	28.00	0%	0.00
Concrete bridge railing and curb typically exhibits 0.020-inch to 0.030-inch-wide cracking spaced at 3 to 5 feet with leaching and minor rust staining and isolated locations of spalling with exposed reinforcing steel. The worst spalling exists to the south curb in span 6 with a 20-foot-long x up to 6-inch-deep spall. The following locations exhibit minor impact damage with heavy cracking and/or spalling with exposed reinforcement: -North railing in spans 3 and 4. -North face of the median railing over piers 10 and 12.											
819 / 4	PS Conc.Gird.End(5Ft	ft	360.00	99%	356.00	1%	4.00	0%	0.00	0%	0.00
FX – End of beams spalling with exposed strands: • Span 1, B1 at pier 1 - crack extending 30in up web and spall in bottom flange exposing 9 strands. • Span 2, B12 at pier 2 - spall in bottom flange exposing 23 strands. • Span 3, B1 at pier 2 – crack extending 31 inches down the web and spall exposing 3 strands. • Span 3, B12 at pier 2 – 12in x 4in spall exposing 3 strands. • Span 3, B1 at pier 3 - spall in bottom flange exposing 4 strands. • Span 3, B12 at pier 3 - spall in bottom flange exposing 26 strands and in web exposing 4 strands. Span 3, B6 at pier 3 bottom flange has the ends of the mild steel anchors for sole plate exposed.											
859 / 4	Soffit	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Original spans exhibits full depth x full width transverse cracking up to 0.030-inch-wide spaced at 2 to 6 feet with minor efflorescence. Cracking is heavier over piers. Shallow spalls exist sporadically adjacent to girder top flanges throughout the main spans. Isolated areas of the soffit overhangs exhibit spalling with exposed reinforcement adjacent to the joints . Soffit between girders 2 and 3 exhibits rust staining and small pop-outs due to shallow cover of reinforcing steel chairs. Soffit below median in span 4 over pier 3 exhibits a 2SF spall with exposed and corroded reinforcing steel.											
865 / 4	St.Open Gird End(5Ft	ft	120.00	50%	60.00	50%	60.00	0%	0.00	0%	0.00
Pack rust up to 1/2in between connection stiffeners and FB lower strut gusset plates.											
870 / 4	Concrete Wingwall	each	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
No significant deficiencies.											
872 / 4	St.Gird Und Const.Jt	ft	760.00	74%	560.00	26%	200.00	0%	0.00	0%	0.00
FX – Cracks at horizontal web splice terminations in spans 4 near floor beam 5, and span 6 near floor beam 3 (Item 107 has splice terminations for spans 4 and 6). Cracks or cored hole noted at: • Span 5, girder 1, near floor beam 11 (3/4-inch-long crack stopping short of the cored hole, 1 1/4-inch-long crack arrested by two cored holes). • Span 5, girder 2, near floor beam 11 (2-inch-long crack arrested by a cored hole). • Span 5, girder 3, near floor beam 11 (7/8-inch-long crack stopping short of the cored hole). • Span 5, girder 4, near floor beam 3 (1 1/8-inch-long crack arrested by a cored hole, 1-inch-long crack arrested by a cored hole). • Span 5, girder 4, near floor beam 11 (1-inch-long crack arrested by a cored hole).											
877 / 4	St. Stringer End(5Ft)	ft	120.00	50%	60.00	33%	40.00	17%	20.00	0%	0.00
Deck is lifting off the stringers at several locations . This separation can eventually cause an uneven riding surface increasing impact on the superstructure and further accelerating deck deterioration. The stringers are generally in good condition with negligible surface corrosion in isolated locations.											
879 / 4	St.Strng.Un Const.Jt	ft	760.00	100%	760.00	0%	0.00	0%	0.00	0%	0.00
Deck is lifting off the stringers at several locations . This separation can eventually cause an uneven riding surface increasing impact on the superstructure and further accelerating deck deterioration. The stringers are generally in good condition with negligible surface corrosion in isolated locations.											
890 / 4	Steel SIP Form	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Stay-in-place forms typically exhibit areas of surface and laminating corrosion near the interface with the original deck surface.											
906 / 4	Sealed Exp.Jt.(SEJ-3	ft	69.00	100%	69.00	0%	0.00	0%	0.00	0%	0.00
Joint at pier 1. No significant deficiencies.											
909 / 4	Pourable Fix Jt.Seal	ft	1,311.00	0%	0.00	0%	0.00	0%	0.00	100%	1,311.00

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.:		Structure No.:		Local ID:		Suff. Rating:		ND			
17051		6822 0000 X		-1		82.90					
Fixed poured seal joints at west abutment, pier 2, and deck control joints. PX – The compression joint seal at the east abutment has pushed through the full length and the joint is closed . The seal in the westbound lanes is impacted with soil and gravel in the inside shoulders and partially covered in a light amount of worn asphalt. The joint header in the westbound lanes exhibits a 24-inch-wide x 9-inch-long x 2-inch-deep spall in the northern lane. The seal in the eastbound lanes is missing causing the joint to leak and allowing drainage to pass onto the bearing seat at the east abutment. The joint armor in the eastbound lanes exhibits a 1/2-inch vertical offset with the bridge side joint armor lower than the approach joint armor . Several of the deck control joints exhibit minor spalling adjacent to the joints and missing joint seals.											
916 / 4	St.Bearing Assembly	each	76.00	97%	74.00	0%	0.00	3%	2.00	0%	0.00
Bearings showed some surface corrosion and some pack rust between assemblies.											
956 / 4	St. Cracking/Fatigue	each	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
FX – Cracks at horizontal web splice terminations in spans 4 near floor beam 5, span 5 near floor beams 3 and 11, and span 6 near floor beam 3. Cracks or cored hole noted at: - Span 4, girder 2, near floor beam 5 (1-inch-long crack arrested by cored hole, 1 1/2-inch-long crack arrested by cored hole). - Span 4, girder 4, near floor beam 5 (7/16-inch-long crack arrested by a cored hole). - Span 5, girder 1, near floor beam 11 (3/4-inch-long crack stopping short of the cored hole, 1 1/4-inch-long crack arrested by two cored holes). - Span 5, girder 2, near floor beam 11 (2-inch-long crack arrested by a cored hole). - Span 5, girder 3, near floor beam 11 (7/8-inch-long crack stopping short of the cored hole). - Span 5, girder 4, near floor beam 3 (1 1/8-inch-long crack arrested by a cored hole, 1-inch-long crack arrested by a cored hole). - Span 5, girder 4, near floor beam 11 (1-inch-long crack arrested by a cored hole). - Span 6, girder 1, near floor beam 3 (both cracks arrested by a cored hole). - Span 6, girder 2, near floor beam 3 (1-inch-long crack arrested by a cored hole). - Span 6, girder 3, near floor beam 3 (Paint crack originally noted). - Span 6, girder 4, near floor beam 3 (1 1/4-inch-long crack arrested by a cored hole).											
957 / 4	Pack Rust Smart Flag	each	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
Pack rust up to 1/2-in thick exists between some girder vertical web stiffeners and floor beam truss lower chord gusset plates and between horizontal splice flanges. Minor pack rust up to 1/4-in thick is developing at girder bottom flange splice plates where girder ends butt up against each other. Pack rust is active in many locations and worse at expansion joints. At floor beam 6 in span 4 between girders 3 and 4; 1/2-thick painted over pack rust exists between the floor beam web and the connection plate at girder 4. Similar condition at floor beam 8 at girder 4 over pier 6; in span 6. Similar conditions occur sporadically but with less severity. Floor beam 8 between girders 3 and 4 over pier 6; span 6; the floor beam truss lower chord exhibits pack rust up to 1/2 inch between the center gusset plate and the lower chord angle with 1/16-inch deep section loss to the gusset plate. Similar condition in span 7 over pier 6. FX – Pack rust is typically developing between the diaphragm top flange and the deck soffits ; up to 1/16-inch at random locations.											
958 / 4	Concrete Cracking SF	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Deck in new portion (spans 1 through 3 and 70ft in span 4) has transverse cracks of 0.020in spaced at 3ft to 5ft, span 3 has 0.030in diagonal cracking. Deck in original portion has transverse cracks of 0.050in spaced at 5ft to 10ft.											
963 / 4	Steel Section Loss SF	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Areas of painted over pitting are present throughout the bridge primary members. Minor section loss is active at areas of pack rust, generally at deck joints.											
968 / 4	Erosion SF	each	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
PX – E abutment breastwall has undermining with 20in of penetration beneath flowable fill (2013 repair) and no exposure of piles. Erosion is from leaking joint. Erosion exists under remnants of the original W abutment with no affect to the replaced abutment .											
969 / 4	OutOfPlane Dist./Load	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Member Alignment – Span 6 FB 4 has 1/4in sweep between girders 1 and 2.											
974 / 4	Straight Gird.Diaphr	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
PX – Stringer diaphragm between stringers 3 and 4, span 6 over FB 5 has an 8 1/2in crack. Pack rust exists between diaphragm top flange and deck soffit .											

Monthly Status Report

NEPA Consultant: EST/CCE Eng Contract/Task Order: EC 2324
Bridge and Approaches - State Job No. 34334(04), Muskogee and Sequoyah Counties, I-40 over Arkansas River

7/15/2025

Project:

UPDATED 4/14/2023

Step ID		Duration in Calendar days	Target Start from Task Order	Target Completion Date from Task Order	Actual Start Date	Actual Completion	Responsible Party	Comments	
1	Notice to Proceed Date	0	10/20/2021	10/20/2021	-	10/20/2021	Contract Administrator	Complete	actual NTP Date; gac update
2.1	Provide NEPA Study Footprint	15	10/20/2021	11/4/2021	10/20/2021	10/21/2021	Designer	Complete	
2.2	Approved Study Footprint and Location Map/Kickoff Clarification meeting	15	11/4/2021	11/19/2021	10/21/2021	10/29/2021	EPD	Complete	
3.1	Send out Property Owner Notification	0	11/19/2021	11/19/2021	11/15/2021	12/16/2021	Consultant	Complete	
3.2	Tribal Property Notification	0	11/19/2021	11/19/2021	11/9/2021		Consultant	Complete	
4.1	Cultural Resources & Tribal Coordination Initiation	15	11/19/2021	12/4/2021	-	11/9/2021	Consultant	complete	
4.2	Tribal Coordination 30 Day Waiting Period prior to Start of Specialist Studies	45	12/4/2021	1/18/2022	11/15/2021	12/15/2021	Consultant	Complete	
5.1	T&E & Wetland Studies	60	1/18/2022	3/19/2022	12/15/2022	3/19/2022	Consultant	complete	
5.2.1	Cultural Resources Studies - Task Order	30	11/19/2021	12/19/2021	-	3/20/2022	Consultant	Complete	
5.2.2	Cultural Resources Studies - ODOT	60	1/18/2022	3/19/2022	3/20/2022	5/12/2022	Consultant	Complete	
5.2.1	Request Haz Waste Resources Studies -from ODOT	15	12/19/2021	1/3/2022	-	5/12/2024	Consultant	Complete	
5.2.2	Haz Waste Studies - ODOT	90	12/19/2021	3/19/2022	4/18/2022	10/9/2024	Consultant	Complete Done by ODOT-HW	
5.3	NRCS coordination	60	11/19/2021	1/18/2022	11/2/2021	11/9/2021	Consultant	Complete	
6.1	Receive Preliminary Plans	0	1/15/2024	1/15/2024		1/15/2024	PMD	Complete	updated 1/15/24; gac
6.2	Review Plans with Footprint	15	1/15/2024	1/30/2024	1/15/2024	1/15/2024	Consultant	complete	
6.2	Attend Meeting	15	1/30/2024	2/14/2024		2/1/2024	Consultant	Complete	
8.1	Request Relocation Studies	0	1/30/2024	1/30/2024	-	-	EPD	No Relos	
8.2	Relocation Studies	0	1/30/2024	1/30/2024	-	-	ODOT R/W	N/A	
8.3	Identify EJ Issues	0	1/30/2024	1/30/2024	-	-	Consultant	N/A	
8.4	Socio Economic Studies/CIA - Task Order	0	1/30/2024	1/30/2024	-	-	Consultant	N/A	
8.5	Socio Economic Studies/CIA	0	1/30/2024	1/30/2024	-	-	Consultant	N/A	
9.1	ODOT Review of Cultural Resources Studies	60	3/19/2022	5/18/2022	5/12/2022	9/29/2022	ODOT Specialists	Complete	
9.2	ODOT Review of Biological Studies	60	3/19/2022	5/18/2022	3/20/2022	4/15/2022	ODOT Specialists	Complete	
10.1	USFWS	60	1/30/2024	3/30/2024	-	4/8/2022	ODOT Specialists	Complete	
10.2	SHPO Coordination	60	5/18/2022	7/17/2022	-	12/16/2022	ODOT Specialists	Complete	
11.1	Receive R/W & Utility Meeting Plans	0	10/30/2023	10/30/2023		6/14/2024	PMD	Complete	updated 7/15/22; gac
11.2	Review Revised Plans with Footprint	15	10/30/2023	11/14/2023	6/14/2024	6/20/2024	Consultant	Complete - Within R/W	
11.3	Attend Plan In Hand	15	11/14/2023	11/29/2023		9/23/2024	Consultant	Complete	
11.4	Request Relocation Plan	0	10/30/2023	10/30/2023	-	-	EPD	N/A no rels	
11.5	Relocation Plan	0	10/30/2023	10/30/2023	-	-	ODOT R/W	N/A no rels	
11.6	Socio Economic Studies Update	0	10/30/2023	10/30/2023	-	-	Consultant	N/A no rels	
12.1	Receive R/W Submittal Plans	0	2/28/2024	2/28/2024		10/9/2024	PMD	Complete	updated 7/15/22; gac
12.2	Review R/W Submittal Plans with Footprint	15	2/28/2024	3/14/2024	10/9/2024	12/6/2024	Consultant	updated set received	
	Supplemental Studies								
	Cultural Resources							Final CR report submitted to ODOT-CRP (4/16/2025) tribal mailed 5/27/2025	
	Natural Resource							Complete	
13.4	Draft CE Preparation	32	3/30/2024	5/1/2024	12/6/2024		Consultant	Need Section 106	updated 7/15/22; gac
13.5	ODOT Review	15	5/1/2024	5/16/2024			ODOT Environmental Contract Manager	pending Section 106	
13.6	Final CE Preparation	5	5/16/2024	5/21/2024			Consultant		
13.7	FHWA Review of CE Document	10	5/21/2024	5/31/2024			FHWA		
14	Completion of CE Document	0	5/31/2024	5/31/2024			ODOT Environmental Contract Manager		updated 7/15/22; gac
Duration			954		31.8 months				

CE Document Checklist (Updated 06/20/2022)

Should be included in the Other Section of all projects

JP No:	34334(04)	Prepared by		
County:	Muskogee	Checked by		
Date Checked:	7/17/2025	Description	Bridge & Approaches I-40: Over Arkansas River, begin MP 290, east 1.0 mile	
No		Checked?	MRF	GAC
1	Project Information			
1.1	Correct Project No? (Check against Oracle info)		√	√
1.2	Correct NBI No.? - Check against initiation report, Oracle, and plans		√	√
1.3	Location No. for County projects only?		NA	NA
1.4	Correct Field District and County?		√	√
1.5	Correct Project Description? (Check against Oracle info and make sure it matches project extent on the plans. If it doesn't match, get the PM to fix the Oracle)		√	√
1.6	Construction Program/STIP/TIP Checked?		√	√
2	Existing Conditions			
2.1	If it is a roadway project, is the roadway described first, then mention any bridges mentioned within the project extent		NA	N/A
2.2	Are the existing bridge type (span or box), width for span bridges (or length for box) and structural conditions for each bridge correct ? Check against Bridge Report.		√	√
2.3	Correct approach roadway width?		√	√
2.4	Any roadway geometric deficiencies?		NA	NA
2.5	Traffic data from plans - existing and projected?		√	√
3	Purpose & Need			
3.1	Why is the project needed (NEVER what is proposed – REPLACE BRIDGE or WIDEN ROADWAY or ADD SHOUDERS is NOT the Purpose & Need)		√	√
4	Alternatives & Proposed improvement			
4.1	Proposed roadway and bridge width		√	√
4.2	Existing or offset alignment – reason for offset		√	√
4.3	Replacement, Rehab, Removal or new bridge where there was none. Removal of bridge or widening of bridge.		√	√

4.4	Road open to traffic during construction (If there is a shoofly, it is considered open to traffic. Closed to traffic is only if there is a posted detour on a different route)	√	√
4.5	Mention if everything is within existing R/W	√	√
4	Public Involvement		
4.1	Check appropriate public involvement box. Include Road Closure letter, Early Coordination letters, Public Notices and Public/Stakeholder Meeting material in the appropriate Appendixes	√	√
5	CE Questions & Studies		
5.1	Is the NEPA on Hold Memo included?	Not Needed.	NA
5.2	Are the R/W submittal or Final Plans with DATE STAMP included in the Plans & Footprint Section?	√	√
5.3	Did the preparer verify that the plans were within study limits?	√	√
5.4	Is the offset alignment far enough away so that R/W not immediately adjacent to existing R/W is needed?	√	√
5.5	Are the following early coordination letters and responses included in Early Coordination section ? (1) Property owner letter with list of property owners or letter from County Commissioner with list of property owners, (2) BLM Letter and for state projects, (3) BIA Letters, (4) Small City Letter, (5) Department of Mines	√	√
5.6	Were there Tribal or Federal properties identified (from plans and recon data)? If there are tribal, include all the tribal consent letters, signed permission letters and any other related permission information. If there are federal properties identified, include complete coordination information. If there are federal properties identified as a 4(f) property, this information will be included in the 4(f) appendix instead. If there are BIA properties, the project is in Osage Nation or there are federal properties, it will be an ICE.	NA	NA
5.7	Are the studies arranged in the same order as the CE Questions?	√	√
5.8	CR Report complete & arranged in the chronological order from latest to oldest- includes letter to and from SHPO & OAS, CR report, Initial letters to and responses from Tribes, Final letters to and responses from Tribes? Do the CR Notes match the report? Are the notes checked in commitment	√	√
5.9	Have the 4(f) properties been identified (from Recon, county map, and plans)? If there are 4(f) properties, is the complete Section 4(f) coordination included in the Section 4(f) section?	NA	NA
5.10	Was Section 6(f) properties verified with Dept. of Tourism for any parks?	NA	NA
5.11	Is a noise study needed (offset alignments, capacity increase, or major vertical grade change)? If yes, is it included in the Noise Section and any commitments listed in the CE	NA	NA
5.12	Is the biological studies included and any notes for species included in the commitments.	√	√

5.13	Was there a Preliminary 404 Review done by the 404 permit coordinator for any projects which had > 0.1 streams or > 0.5 AC of wetlands in the initial study? Is the 404 permit box checked	NA	NA
5.14	Does the project involve navigable waters (check USACE Section 10 waters and then verify with Coastguard) and requires Coastguard coordination? If so, it listed in the Commitment?	√	√
5.15	Does the project involve one of the scenic rivers or streams (Check Oklahoma Scenic Rivers website)? If so, include coordination with Scenic Rivers in the "Other Section"	NA	NA
5.16	Was there coordination done with NRCS for projects involving new R/W and not in an urban area? Letter to NRCS, AD-1066 Form completed partially (if no response from NRCS) or completely (if NRCS completed their portion), and statement of nor response from NRCS if applicable	√	√
5.17	Is the project location circled on the FEMA map or printout from FEMA site saying no map is available included? If the project is in zone A-E, is the coordination with the Designer to determine the need for map revision included?	√	√
5.18	Is the haz materials note mentioned and included at the end of the CE if applicable? If the hazardous material specialist required plans to complete studies, were the plans provided and a revised memo obtained?	√	√
5.19	Were the plans checked for road closure? Include sheets (Round Robin) which say road will not be closed for bridge joint, paint, etc. projects, letters sent and any responses. If there is road closure, were letters sent out	NA	NA
5.20	Does the "Other Section" include (1) initiation report for state projects or NEPA Checklist for Local Govt. projects, (2) Any additional project coordination, (3) bridge reports, (4) Project Oracle information sheet with NEPA document information, (4) Completed CE Review Checklist	√	√